AGENDA
BOARD OF CITY COMMISSIONERS
July 18, 2022 AT 6:00 P.M.
COMMISSION CHAMBERS AT CITY HALL
16 WEST 9TH STREET
SHAWNEE, OKLAHOMA

Official action can only be taken on items which appear on the agenda. The public body may adopt, approve, ratify, deny, defer, recommend, amend, strike, or continue any agenda item. When more information is needed to act on an item, the public body may refer the matter to Staff or back to Committee or the recommending body. Under certain circumstances, items are deferred to a future date or stricken from the agenda entirely.

CALL TO ORDER

DECLARATION OF A QUORUM

INVOCATION

FLAG SALUTE

1. Citizens Participation

   (A three minute limit per person)
   (A twelve minute limit per topic)

2. Consider approval of Consent Agenda:

   a. Acknowledge staff will proceed in the instant meeting with the opening and consideration of bids as set forth in Agenda Item No. 12(b).

   b. Consider approval of minutes from the July 5, 2022 regular meeting.

   c. Acknowledge the following minutes and reports:
      - Planning Commission Minutes from the June 1, 2022 regular meeting
      - License Payment Report for June 2022
      - Project Payment Report for June 2022

   d. Acceptance of the public improvements for Wildwood Addition and place maintenance bonds into effect.

   e. Approve renewal of the following agreements for Fiscal Year 2022-2023:

      1. Agreement with South Central Industries, Inc. for Right-of-way Maintenance Services.

      2. Agreement with Shawnee Shotgun Club for use of City Property known as Shawnee Twin Lakes Trap Range.

3. Presentation by Animal Control to present the Pet of the Week.

4. Presentation by the United States Small Business Administration to present information on federal disaster loans.

5. Consideration of a Funding Agreement between the Oklahoma Development Finance Authority and the City of Shawnee for the City of Shawnee P3 Infrastructure Project.

6. Consideration of a Professional Services Agreement with Halff Associates Inc. for the development of the Shawnee Twin Lakes Master Plan.

7. Public hearing and consideration of an ordinance to rezone property located at 502 North Beard Avenue from C-2 (Limited Office District) to R-2 (Medium Density Residential District). Case No. RZ08-22, Applicants: Rucker and Lugo.

8. Public hearing and consideration of an ordinance to rezone property located at 1303 West Farrall Street from A-1 (Rural Agriculture District) to C-3 (Highway Commercial District). Case No. RZ09-22, Applicant: Kaye Steele.

9. Public hearing and consideration of an ordinance to rezone property located at 506 North Beard Avenue from C-3 (Highway Commercial District) to R-2 (Medium Density Residential District). Case No. RZ10-22, Applicant: Abraham Santana.

10. Public hearing and consideration of an ordinance to rezone property located at 506 North Beard Avenue from R-2 (Medium Density Residential District) to R-2 (Medium Density Residential District) with a Conditional Use Permit (CUP) for an Accessory Dwelling Unit (ADU). Case No. CUP04-22, Applicant: Abraham Santana.

11. Consideration of the following budget amendments for Fiscal Year 2022 – 2023:

    a. Fund 001 General Fund to appropriate fund balance for General Fund for encumbrances in Fiscal Year 2021-2022 which goods and services were not received in Fiscal Year 2021-2022 but will be received in Fiscal Year 2022-2023. Also, additional transfers from Shawnee Municipal Authority due to Fiscal Year 2021-2022 reduced transfers due to timing issues.

    b. Fund 301 Capital Improvement Fund to appropriate fund balance for Capital Improvement Fund for encumbrances in Fiscal Year 2021-2022 which goods and services were not received in Fiscal Year 2021-2022 but will be received in Fiscal Year 2022-2023.

    c. Fund 301 Capital Improvement Fund to appropriate grant revenue for capital expenditures in Fiscal Year 2022-2023.

    d. Fund 303 2018 Capital Improvement Fund to appropriate fund balance for 2018 Capital Improvement Fund for encumbrances in Fiscal Year 2021-2022 which goods and services were not received in Fiscal Year 2021-2022 but will be received in Fiscal Year 2022-2023.

12. Consider Bids:

    a. Woodland Veterans Park Improvements Project (Award)

b. Cammack Street Gravity Relief Line (Open)

13. Acknowledge monthly Sales Tax and Budget Reports.

14. Administrative Reports:

a. Quarterly One-Half Cent Sales Tax Overview – Jacob Foos, Assistant City Manager

b. Lions Club Park Ball Fields – Andrea Weckmueller-Behringer, City Manager

c. Santa Fe Depot Update – Rian Harkins, Community Development Director

15. New Business

(Any matter not known or which could not have been reasonably foreseen prior to the posting of the agenda)

16. Commissioners Comments

17. Adjournment

Respectfully submitted,

Lisa Lasyone, CMC, City Clerk

The City of Shawnee encourages participation from its citizens in public meetings. If participation is not possible due to a disability, notify the City Clerk, in writing, at least forty-eight hours prior to the scheduled meeting and necessary accommodations will be made. (ADA 28 CFR/36)

Regular Board of Commissioners 2. b.

Meeting Date: 07/18/2022

Minutes

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Consider approval of minutes from the July 5, 2022 regular meeting.

Attachments

Minutes

BOARD OF CITY COMMISSIONERS PROCEEDINGS
JULY 5, 2022 AT 6:00 P.M.

The Board of City Commissioners of the City of Shawnee, County of Pottawatomie, State of Oklahoma, met in Regular Session in the Commission Chambers at City Hall, 16 West 9th Street, Shawnee, Oklahoma on, Tuesday, July 5, 2022 at 6:00 p.m., pursuant to notice duly posted as prescribed by law at 3:53 p.m. on June 30, 2022. Mayor Bolt presided and Miss Grace Hobbs Mr. Gabe Hobbs called the meeting to order. Upon roll call, the following members were in attendance.

Ed Bolt
Mayor

Daniel Matthews
Commissioner Ward 1

Cami Engles
Commissioner Ward 2

Travis Flood
Commissioner Ward 3

Darren Rutherford
Commissioner Ward 4-Vice Mayor

Mark Sehorn
Commissioner Ward 5

Ben Salter
Commissioner Ward 6

ABSENT: None

INVOCATION — Pastor Ken Kerbo, C3 Cross Connection Church

FLAG SALUTE

AGENDA ITEM NO. 1: Recognition of members of the Shawnee Police Department.

Mayor Bolt presented Certificates of Recognition to Detective Austin Bizzell and Cpl. Richard Ruiz. Certificates of Recognition were also provided for Officer Shawn Grasso and Sgt. Jason Crouch who were not present at the meeting.

AGENDA ITEM NO. 2: Recognition of the Shawnee Tourism Department.

Mayor Bolt recognized the Shawnee Tourism Department for receiving top honors at the Oklahoma Travel Industry Association's RedBud Awards. The Shawnee Tourism Department received first place for the *Tourism Organization of the Year Small Budget* and *Best Website Small Budget Organization*. They also received second place for *Best Brochure or Publication ($10,000 or Less)*. Mr. Stacy Moore and Ms. Erica Bass were present for the recognition.

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AGENDA ITEM NO. 3: Swearing in of Ward I Commissioner Daniel Matthews, Ward II Commissioner Cami Engles, and Ward V Commissioner Mark Sehorn.

Municipal Judge Nick Atwood swore in Ward I Commissioner Daniel Matthews, Ward II Commissioner Cami Engles, and Ward V Commissioner Mark Sehorn.

AGENDA ITEM NO. 4: Presentation of Certificates of Election to Ward I Commissioner Daniel Matthews, Ward II Commissioner Cami Engles, and Ward V Commissioner Mark Sehorn.

Mayor Bolt presented Certificates of Election to Ward I Commissioner Daniel Matthews, Ward II Commissioner Cami Engles, and Ward V Commissioner Mark Sehorn.

AGENDA ITEM NO. 5: Citizens Participation
(A three-minute limit per person)
(A twelve-minute limit per topic)

Mr. Rob Morris and Mr. Cliff Harden spoke during Citizens Participation.

AGENDA ITEM NO. 6: Consider approval of Consent Agenda:

a. Acknowledge staff will proceed in the instant meeting with the opening and consideration of bids as set forth in Agenda Item No. 14.

b. Consider approval of minutes from the June 20, 2022 regular meeting.

c. Acceptance of a Right-of-way Easement Agreement with Hillside Properties.

d. Approve renewal of the following agreements for Fiscal Year 2022-2023:

1) Interlocal Cooperation Agreement with Gordon Cooper Technology Center (GCTC) for District No. 5 to provide repaving and repair of public roadways and parking lots used by students, faculty, employees, and patrons of GCTC.

2) Agreement with Independent School District No. 93 also known as Shawnee Public Schools for supplemental police services.

3) Agreement with Shawnee Twin Lakes Trap Club for use of City Property known as Shawnee Twin Lakes Trap Range.

4) Agreement with Project H.E.A.R.T., Inc. to provide meals to elderly persons.

A motion was made by Commissioner Matthews, seconded by Vice Mayor Rutherford, to approve Consent Agenda Item Nos. 6(a-d). Motion carried 7-0.

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AYE: Matthews, Rutherford, Sehorn, Salter, Engles, Flood, Bolt
NAY: None

AGENDA ITEM NO. 7: Presentation by Animal Control to present the Pet of the Week.

Animal Control Officers Wendy Cole and Shelby Bowen introduced Whiskey, a five (5) month old male feline. The Animal Shelter currently has thirty-six (36) dogs, seven (7) cats, and one (1) rooster.

AGENDA ITEM NO. 8: Grant acceptance from the Avedis Foundation for Woodland Veterans Park Project.

Ms. Andrea Weckmueller-Behringer, City Manager, advised that the grant funds awarded by the Avedis Foundation will provide for the construction of a stage and amphitheater at Woodland Veterans Park. The grant is in the amount of Seven Hundred Sixty-Six Thousand Eight Hundred Thirty-Three Dollars and Twenty-Five Cents ($766,833.25).

A motion was made by Vice Mayor Rutherford, seconded by Commissioner Flood, to accept the grant from the Avedis Foundation for Woodland Veterans Park Project. Motion carried 7-0.

AYE: Rutherford, Flood, Bolt, Sehorn, Salter, Matthews, Engles
NAY: None

AGENDA ITEM NO. 9: Consideration of the following budget amendments for Fiscal Year 2021-2022:

a. Fund 001 General Fund to appropriate general fund revenue for transfers to library fund and street and alley fund.

b. Fund 101 Street and Alley Fund to appropriate street and alley fund motor vehicle revenue and general fund transfer revenue for electricity expense.

c. Fund 106 Hotel/Motel Surcharge Fund to appropriate hotel/motel surcharge revenue for tourism department personnel expense.

d. Fund 107 Police Sales Tax Fund to appropriate police sales tax revenue for transfer to general fund.

e. Fund 108 Fire Sales Tax Fund to appropriate fire sales tax revenue for transfer to general fund.

f. Fund 350 Aquatic Fund to appropriate aquatic fund revenue for workers compensation expense.

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g. Fund 701 Library Fund to appropriate library fund revenue for repair, pest control, and janitorial expense.

Mr. Jacob Foos, Assistant City Manager, advised that the proposed budget amendments are to close out accounts for Fiscal Year 2021-2022.

A motion was made by Commissioner Matthews, seconded by Commissioner Engles, to approve the budget amendments listed in Agenda Item Nos. 9(a-g). Motion carried 7-0.

AYE: Matthews, Engles, Flood, Bolt, Rutherford, Sehorn, Salter
NAY: None

AGENDA ITEM NO. 10: Consideration of an agreement to partner with Community Market for the Nutrition Assistance portion of the CDBG-CV2 Grant awarded by the Oklahoma Department of Commerce.

COMMISSIONER MATTHEWS LEFT THE MEETING AT 6:26 P.M.

Mr. Rian Harkins, Community Development Director, stated that the proposed Agreement would allow the City to partner with Community Market to provide nutrition assistance for low- to moderate-income citizens of Shawnee. The funding is provided through the Nutrition Assistance portion of the City's CDBG-CV2 grant award from the Oklahoma Department of Commerce.

A motion was made by Commissioner Flood, seconded by Mayor Bolt, to approve the agreement to partner with Community Market for the Nutrition Assistance portion of the CDBG-CV2 Grant awarded by the Oklahoma Department of Commerce. Motion carried 6-0.

AYE: Flood, Bolt, Rutherford, Sehorn, Salter, Engles
NAY: None

COMMISSIONER MATTHEWS RETURNED AT 6:30 P.M.

AGENDA ITEM NO. 11: Consideration of an appeal of an Administrative Order regarding property located at 806 West 9th Street.

Mr. Kevin Moore, Building Official, provided a Staff report regarding the item. He stated that Staff recommends denial of the appeal. City Attorney Joe Vorndran advised that there are no defects in the Administrative Order.

Mr. Ronnie McCullar and Mr. Wallace Williams spoke in support of the appeal.

A motion was made by Vice Mayor Rutherford, seconded by Mayor Bolt, to deny the appeal of the Administrative Order regarding property located at 806 West 9th Street. Motion carried 7-0.

AYE: Rutherford, Bolt, Sehorn, Salter, Matthews, Engles, Flood
NAY: None

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AGENDA ITEM NO. 12: Consideration of an ordinance amending portions of Chapter 25 related to the City of Shawnee occupancy surcharge and providing for severability, codification, and repealer; and providing for emergency.

Mr. Jacob Foos, Assistant City Manager, stated that the proposed ordinance removes reference to "recreational vehicle spaces" and returns the $1.00 minimum fee, per room, per night language that was on the August 23, 1994 election ballot language approved by a vote of the people.

A motion was made by Commissioner Engles, seconded by Commissioner Sehorn, to approve an ordinance amending portions of Chapter 25 related to the City of Shawnee occupancy surcharge and providing for severability, codification, and repealer; and providing for emergency.

Ordinance No. 2764NS was introduced.

AN ORDINANCE AMENDING PORTIONS OF CHAPTER 25 RELATED TO THE CITY OF SHAWNEE OCCUPANCY SURCHARGE AND PROVIDING FOR SEVERABILITY, CODIFICATION, AND REPEALER; AND PROVIDING FOR EMERGENCY.

Motion carried 7-0.

AYE: Engles, Sehorn, Salter, Matthews, Flood, Rutherford, Bolt
NAY: None

Ordinance No. 2764NS was adopted by the City Commission.

A motion was made by Vice Mayor Rutherford, seconded by Commissioner Matthews, to approve the emergency clause relating to Ordinance No. 2764NS. Motion carried 7-0.

AYE: Rutherford, Matthews, Engles, Flood, Bolt, Sehorn, Salter
NAY: None

AGENDA ITEM NO. 13: Reconsideration of an ordinance to rezone property located on approximately 8.79 acres north of West MacArthur Street and east of Acme Road from R-3 (Multifamily Residential District) and C-2 (Suburban Office Commercial District) to a PUD (Planned Unit Development). Case No. PUD01-22, Applicant: J. Bentley Investments, LLC represented by Grubbs Consulting, LLC. (Deferred from the June 20, 2022 City Commission meeting.)

Mr. Rian Harkins, Community Development Director, advised that this item came before the Commission on June 20, 2022 with a request to defer the item to the August 18, 2022 City Commission meeting. Mr. Harkins stated that the date is incorrect and should have been August

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15, 2022. Staff is requesting that the item be reconsidered, and the item deferred to the August 15, 2022 City Commission meeting.

A motion was made by Commissioner Matthews, seconded by Vice Mayor Rutherford, to reconsider an ordinance to rezone property located on approximately 8.79 acres north of West MacArthur Street and east of Acme Road from R-3 (Multifamily Residential District) and C-2 (Suburban Office Commercial District) to a PUD (Planned Unit Development). Motion carried 7-0.

AYE: Matthews, Rutherford, Sehorn, Salter, Engles, Flood, Bolt
NAY: None

A motion was made by Commissioner Matthews, seconded by Vice Mayor Rutherford, to defer this item to the City Commission meeting on August 15, 2022. Motion carried 7-0.

AYE: Matthews, Rutherford, Sehorn, Salter, Engles, Flood, Bolt
NAY: None

AGENDA ITEM NO. 14: Consider Bids:

a. Woodland Veterans Park Improvements Project (Open)

BIDDER	**AMOUNT**
Jenco Construction of Oklahoma City, Oklahoma	$ 4,891,712.25
Additional Alternate No. 1 – Pickleball Lighting	$ 33,000.00
Additional Alternate No. 2a – Demo & Removal of Existing Chain Link Fence	$ 5,000.00
Additional Alternate No. 2b – Tennis 10’ Black Vinyl Chain Link Fence	$ 60,320.00
Additional Alternate No. 2c – 1’ W. Concrete Curb for Tennis Fence	$ 12,792.00
Additional Alternate No. 3 – Resurfacing	$ 27,600.00
Additional Alternate No. 4 – Tennis Court Equipment	$ 7,200.00
MacHill Construction of Ada, Oklahoma	$ 4,941,772.00
Additional Alternate No. 1 – Pickleball Lighting	$ 13,400.00
Additional Alternate No. 2a – Demo & Removal of Existing Chain Link Fence	$ 3,200.00
Additional Alternate No. 2b – Tennis 10’ Black Vinyl Chain Link Fence	$ 52,000.00
Additional Alternate No. 2c – 1’ W. Concrete Curb for Tennis Fence	$ 19,680.00
Additional Alternate No. 3 – Resurfacing	$ 36,000.00
Additional Alternate No. 4 – Tennis Court Equipment	$ 6,000.00
W.L. McNatt & Co. of Oklahoma City, Oklahoma	$ 5,017,459.53
Additional Alternate No. 1 – Pickleball Lighting	$ 43,733.00
Additional Alternate No. 2a – Demo & Removal of Existing Chain Link Fence	$ 11,000.00
Additional Alternate No. 2b – Tennis 10’ Black Vinyl Chain Link Fence	$ 57,200.00
Additional Alternate No. 2c – 1’ W. Concrete Curb for Tennis Fence	$ 15,252.00
Additional Alternate No. 3 – Resurfacing	$ 32,400.00
Additional Alternate No. 4 – Tennis Court Equipment	$ 12,000.00

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Wynn Construction Co., Inc. of Oklahoma City, Oklahoma	$ 4,974,647.00
Additional Alternate No. 1 – Pickleball Lighting	$ 20,000.00
Additional Alternate No. 2a – Demo & Removal of Existing Chain Link Fence	$ 11,000.00
Additional Alternate No. 2b – Tennis 10' Black Vinyl Chain Link Fence	$ 57,200.00
Additional Alternate No. 2c – 1' W. Concrete Curb for Tennis Fence	$ 16,236.00
Additional Alternate No. 3 – Resurfacing	$ 18,000.00
Additional Alternate No. 4 – Tennis Court Equipment	$ 11,000.00
Lambert Construction of Stillwater, Oklahoma	$ 4,644,515.00
Additional Alternate No. 1 – Pickleball Lighting	$ 32,270.00
Additional Alternate No. 2a – Demo & Removal of Existing Chain Link Fence	$ 3,706.00
Additional Alternate No. 2b – Tennis 10' Black Vinyl Chain Link Fence	$ 55,068.00
Additional Alternate No. 2c – 1' W. Concrete Curb for Tennis Fence	$ 3,936.00
Additional Alternate No. 3 – Resurfacing	$ 26,640.00
Additional Alternate No. 4 – Tennis Court Equipment	$ 6,778.00
Downey Contracting, LLC of Oklahoma City, Oklahoma	$ 4,648,233.00
Additional Alternate No. 1 – Pickleball Lighting	$ 13,000.00
Additional Alternate No. 2a – Demo & Removal of Existing Chain Link Fence	$ 6,900.00
Additional Alternate No. 2b – Tennis 10' Black Vinyl Chain Link Fence	$ 58,760.00
Additional Alternate No. 2c – 1' W. Concrete Curb for Tennis Fence	$ 14,760.00
Additional Alternate No. 3 – Resurfacing	$ 18,000.00
Additional Alternate No. 4 – Tennis Court Equipment	$ 8,500.00

Mr. Seth Barkhimer, City Engineer, read six (6) bids into the record. Mr. Barkhimer requested the bid award be deferred to a future meeting.

A motion was made by Vice Mayor Rutherford, seconded by Commissioner Sehorn, to defer the bid award to a future City Commission meeting. Motion carried 7-0.

AYE: Rutherford, Sehorn, Salter, Matthews, Engles, Flood, Bolt
NAY: None

AGENDA ITEM NO. 15: New Business (Any matter not known, or which could not have been reasonably foreseen prior to the posting of the agenda.)

There was no New Business.

AGENDA ITEM NO. 16: Commissioners Comments

Commissioner Matthews thanked the voters for electing him to continue to serve as Commissioner. He stated he is excited about the Woodland Veterans Park project and continuing to serve the City of Shawnee.

Commissioner Engles thanked everyone who voted in the recent primary election.

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Commissioner Flood stated he was disheartened to hear about the incident at the hospital but was amazed at the response by the Shawnee Police Department officers. He also gave his condolences to the family of David Hammer.

Vice Mayor Rutherford stated he is excited about the Woodland Veterans Park project moving forward and the Kids Space Park and Water Treatment Plant projects that are already underway.

Commissioner Sehorn stated that his top four (4) key factors as a Commissioner is water, sewer, police, and fire. He stated that the City is in a much better financial position than a few years back.

Commissioner Salter congratulated the Shawnee Tourism Department and Shawnee Police Department for the recognition and awards each received.

Mayor Bolt congratulated the Shawnee Tourism Department and Shawnee Police Department for the recognition and awards each received. He also expressed is condolences for the passing of District Attorney Elect David Hammer and Shawnee Arts and Culture Commission Member Robbie Kienzle. He also spoke regarding the homeless initiative.

AGENDA ITEM NO. 17: Adjournment

There being no further business to be considered, the meeting was adjourned by power of the Chair. (7:17 p.m.)

_____
ED BOLT, MAYOR

ATTEST:

_____
LISA LASYONE, CMC, CITY CLERK

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Regular Board of Commissioners 2. c.

Meeting Date: 07/18/2022

Minutes and Reports

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Acknowledge the following minutes and reports:

- Planning Commission Minutes from the June 1, 2022 regular meeting
- License Payment Report for June 2022
- Project Payment Report for June 2022

Attachments

Minutes

License Payment Report

Project Payment Report

REGULAR PLANNING COMMISSION MINUTES
DATE: June 1, 2022

The Planning Commission of the City of Shawnee, County of Pottawatomie, State of Oklahoma, met in person for a regular meeting on June 1, 2022, at 1:30 p.m., according to notice duly posted as prescribed by law.

Item 1. Roll Call

Chair Deem called the meeting to order at 1:30 p.m. City Planner, Rachel Clyne, called roll and stated a quorum was present.

The following Commissioners were present:
Present: Loftis-Walton, Johnson, Deem, Mew-Palmer
Absent: Walker, Reese, Rowell

Item 2. Approval of Minutes – Regular meeting

Consideration of approval of the minutes from the regular meeting of May 4, 2022. Chair Deem asked the Planning Commissioners for questions or corrections to the minutes.

Commissioner Johnson made a motion to **Approve** the minutes as presented, which Commissioner Mew-Palmer seconded.
Motion **passed 4-0-0**.

Aye: Loftis-Walton, Johnson, Deem, Mew-Palmer
Nay: None
Abstain: None

Item 3.
Case No. RZ07-22 – Public hearing and consideration of a request for rezoning property from I-2 (Light Industrial District) to C-3 (Highway Commercial District) at 1414 N. Kennedy Avenue.
Applicant: Valir PACE represented by: Emily Tremblay

Chair Deem read the agenda item and asked for a staff report. Planner Clyne provided background information on the application request. The subject property is located at 1414 N. Kennedy Avenue. The property is approximately 2 acres and contains several buildings formerly known as 'Doctors Building.' The request is to rezone from I-2 (Light Industrial District) to C-3 (Highway Commercial District).

The Comprehensive Plan Future Land Use Map (FLUM) indicates the subject property has High Intensity Commercial land use designation. C-3 is an appropriate zoning district for this land use designation. The request is in conformance with the 2040 Comprehensive Plan.

The property is slated for use as services, including medical, for elderly and disabled citizens. More specifically, Valir PACE is a Program of All-inclusive Care for the Elderly entity. The Valir PACE facility provides this system of care around the Adult Day Health Center, which is open on weekdays from 8 a.m. to 5 p.m. The center provides two daily meals, planned social activities, and scheduled fitness sessions. This use is permitted in the C-3 zoning district.

Staff recommended the Planning Commission recommend to the City Commission **APPROVAL** of **RZ07-22** a request to rezone property located at 1414 N. Kennedy Ave. from I-2 (Light Industrial

District) to C-3 (Highway Commercial District).

Chair Deem asked if there were questions for staff and then opened the public hearing. The applicant's representative, Emily Tremblay, was present and available for questions. With no additional speakers, the public hearing was closed.

Commissioner Loftis-Walton made a motion to recommend the **APPROVAL** of Case No. **RZ07-22** to the City Commission, which Commissioner Mew-Palmer seconded.
Following any discussion, the motion **passed 4-0-0**.

Aye: Loftis-Walton, Johnson, Deem, Mew-Palmer
Nay: None
Abstain: None

It was announced the item would be heard at the June 20, 2022, City Commission meeting at 6 p.m.

Item 4.
Case No. PUD01-22 – Public hearing and consideration of a request for a Planned Unit Development (PUD) on ±8.79 acres north of West MacArthur Street and east of Acme Road.
Applicant: J. Bentley Investments, LLC represented by Grubbs Consulting, LLC

Chair Deem read the agenda item and asked for a staff report. Planner Clyne explained that to allow the applicant additional time to revise the PUD design statement, staff recommended to **DEFER** the public hearing for PUD01-22 until the Planning Commission meeting on August 3, 2022 and that the Planning Commission recommend that the City Commission **DEFER** the public hearing for PUD01-22 to the regular City Commission meeting on August 18, 2022.

Chair Deem asked if there were questions for staff. With no questions, she asked for a motion.

Commissioner Loftis-Walton made a motion to **DEFER** Case No. **PUD01-22** to the August 3, 2022, Planning Commission meeting and recommend that the City Commission **DEFER** the public hearing for **PUD01-22** to the regular City Commission meeting on August 18, 2022, which Commissioner Johnson seconded.
Following any discussion, the motion **passed 4-0-0**.

Aye: Loftis-Walton, Johnson, Deem, Mew-Palmer
Nay: None
Abstain: None

It was announced the item would be heard at the June 20, 2022, City Commission meeting at 6 p.m.

Item 5.
Community Development Department Update

Community Development Director Rian Harkins addressed the Planning Commission and advised the RFP for the Twin Lakes Master Plan had produced several proposals which were under review. The next step would be scheduling consultant interviews. Director Harkins gave an update on the progress of the Unified Development Code. He advised that stakeholder and small group interviews with the consultants were scheduled for the coming weeks. A public meeting would be on June 16, 2022, in the Commission Chambers at 5:30 pm. He spoke about the continued release of CDBG funds for relief for COVID-related rent and utilities. Director Harkins advised the board members that the visioning process for the future use of the Santa Fe Depot was underway and the first two (2) meetings were

well attended. He stated there were meetings scheduled for June 2nd, 8th, and 9th, and he advised a listening session for the public to make comments or ask questions would be held on June 7th. Director Harkins reported that the Love Your Block (LYB) window for the mini-grants applications had just closed. He concluded by stating the LYB mini-grants were funded by the John Hopkins Foundation, not by the City. In response to Chair Deem's question, Harkins confirmed the last meeting date for the Santa Fe Depot visioning process would be June 9, 2022.

Item 7. Planning Commissioners' Comments

Commissioner Loftis-Walton spoke about the economic development at the state level. She shared that Shawnee would have the opportunity for industrial investments in infrastructure. Commissioner Johnson expressed her excitement for the progress happening in the City and gave her thanks to the staff. Commissioner Mew-Palmer was also excited by the ongoing progress. She had attended a Santa Fe Depot meeting and was pleased with the public participation. Chair Deem announced that this would be her last Planning Commission meeting. She shared that it had been a privilege to serve on the Commission. She shared her excitement about the progress of the City and stated she had confidence in the Community Development Director. All attending expressed gratitude to Chair Deem and wished her well.

Item 8. Adjournment

The meeting adjourned at 1:46 p.m.

Chair/Vice-Chair

/s/ Rachel Clyne
City Planner

Entity Payment Report

06/01/2022 - 06/30/2022

Payment Date	Name	Payment Type	Receipt #	Payment Amount
6/2/2022	2020 COMMUNICATIONS INC	Cash	1274	50.00
6/27/2022	ALARM SERVICES	Check	1335	15.00
6/28/2022	ANDERSON ELECTRIC	Check	1345	100.00
6/6/2022	ANDREWS PLUMBING & HEATING CO INC	IBX CC	1278	100.00
6/22/2022	A-OK SERVICES	IBX CC	1323	175.00
6/6/2022	BARNETT ELECTRICAL	Check	1277	75.00
6/16/2022	BILL'S ELECTRIC, INC	Check	1304	75.00
6/6/2022	BRANDY & JASON HELM	Check	1282	1,836.00
6/29/2022	CAPITAL DANK	Check	1349	1,500.00
6/17/2022	CAROLYN DIXSON	Cash	1307	25.00
6/20/2022	CHAMPION PLUMBING	IBX CC	1314	75.00
6/24/2022	CHRIS JUSTICE	Check	1329	25.00
6/27/2022	CNR ELECTRIC	Check	1337	75.00
6/30/2022	COMPLETE PLUMBING	Check	1351	75.00
6/10/2022	COWBOYS PLUMBING	Check	1294	75.00
6/27/2022	CURTIS P MOBLY	IBX CC	1341	15.00
6/1/2022	CYPRESS POINTE	Check	1272	15.00
6/28/2022	DELTA ELECTRICAL CONTRACTORS, INC	Check	1344	75.00
6/17/2022	DOMINO #23 / ELMER SMITH OIL CO	Check	1309	450.00

6/17/2022	DOMINO #27 / ELMER SMITH OIL CO	Check	1308	450.00
6/14/2022	DONALD LOVELACE & SHAWN SMOTHERS	Check	1298	761.00
6/10/2022	EDWARD MOORE	Check	1292	761.00
6/8/2022	ERIN HOLLOMAN	Check	1286	761.00
6/7/2022	EXPERT REPAIR LLC	IBX CC	1285	100.00
6/6/2022	GARAGE - SHAWNEE, LLC	Check	1276	905.00
6/22/2022	GREENER GROW IRRIGATION & PLUMBING	Check	1324	100.00
6/20/2022	HAC, INC dba HOMELAND STORE #196	Check	1312	450.00
6/20/2022	HAC, INC dba HOMELAND STORE #198	Check	1313	450.00
6/21/2022	HYDROGEN FOR HEALTH	Check	1317	15.00
6/21/2022	IMMANUEL BAPTIST CHURCH	Check	1319	15.00
6/9/2022	JIMMY BE QUICK PLUMBING	IBX CC	1291	75.00
6/21/2022	JON MCDANIEL	Check	1318	15.00
6/28/2022	KING ELECTRIC LLC	Check	1343	75.00
6/7/2022	KS HEAT & AIR CONDITIONING LLC	Cash	1283	75.00
6/16/2022	LOVE'S TRAVEL STOPS & COUNTRY STORES, INC dba LOVE'S COUNTRY STORE #49	Check	1306	450.00
6/6/2022	LUCKINBILL INC	Check	1281	100.00
6/6/2022	LUCKINBILL INC	Check	1280	100.00
6/24/2022	LUCKY DAY HVAC	Check	1332	75.00
6/24/2022	MARY KELLEY	Check	1330	15.00
6/23/2022	MD AUTO REPAIR	Cash	1327	50.00
6/27/2022	MICHAEL & MEG	Check	1338	15.00

	VORNDRAN			
6/24/2022	MORGAN ELECTRIC ENT, INC.	Check	1331	75.00
6/8/2022	ON DEMAND RESTAURANT SERVICE LLC	Check	1288	100.00
6/29/2022	PERSONAL PLUMBING	Check	1348	75.00
6/24/2022	PRIME ELECTRIC CO	Check	1333	75.00
6/23/2022	R & O SIGN CO	Cash	1325	75.00
6/23/2022	RECEPTIVE ELECTRIC INC	IBX CC	1326	100.00
6/15/2022	RED PLAINS PLUMBING	Check	1300	75.00
6/13/2022	RENEE BYKERK	Cash	1295	761.00
6/27/2022	RIB CRIB BBQ INC	Check	1339	450.00
6/27/2022	RICHARD & MELISSA FAIR	Check	1340	761.00
6/10/2022	RICHARD ROMINE	Check	1293	15.00
6/27/2022	RITA ORAVETS	Check	1336	15.00
6/27/2022	ROBB-N-SONS ELECTRIC INC	IBX CC	1342	75.00
6/15/2022	ROWAN C RENNIE	IBX CC	1299	15.00
6/21/2022	SAM EVANS	Cash	1321	25.00
6/21/2022	SANTA FE CATTLE COMPANY	Check	1320	905.00
6/30/2022	SCOT & NANAY SHADID	Check	1350	761.00
6/6/2022	SCOTT & SONJA MALASKE	Check	1279	761.00
6/24/2022	SHAWNEE ELECTRIC	Check	1334	75.00
6/2/2022	SKYSLATE, LLC	IBX CC	1273	75.00
6/15/2022	SNO-BALL STAND	IBX CC	1302	50.00
6/16/2022	SOWDER HEATING & AIR	Check	1305	75.00
6/9/2022	SPAETH, INC	IBX CC	1290	75.00
6/16/2022	SPARKS HEATING & AIR	Check	1303	75.00
6/7/2022	STANFIELD PLUMBING	IBX CC	1284	75.00
6/28/2022	STEVEN &	Check	1346	761.00

	CYNTHIA PARSONS			
6/21/2022	STREET'S ELECTRIC	IBX CC	1315	100.00
6/21/2022	T & A PLUMBING INC	IBX CC	1316	100.00
6/21/2022	TERRELL REFRIGERATION	Check	1322	75.00
6/8/2022	THE GREEN DOOR DISPENSARY LLC	Cash	1289	1,500.00
6/8/2022	THE SNOW SHAK	Cash	1287	25.00
6/3/2022	TIM AND ASHLEY PLYUSKO	Cash	1275	25.00
6/13/2022	TIMOTHY O'MARY	Check	1296	15.00
6/29/2022	TYE MOORE ELECTRIC, INC	IBX CC	1347	75.00
6/13/2022	UNITED DYNAMICS, INC	Check	1297	15.00
6/23/2022	VERONICAH BIRMINGHAM	IBX CC	1328	25.00
6/20/2022	WALGREEN CO	Check	1311	450.00
6/20/2022	WALGREEN CO	Check	1310	450.00
6/15/2022	WALMART #103	IBX CC	1301	450.00
				20,329.00

Total Records: 80

7/11/2022

Monthly - City Clerk

06/01/2022 - 06/30/2022

Permit #	Permit Date	Permit Type	Parcel Address	Applicant Name	Description	Project Cost	Square Feet	Total Fees
20220608	6/22/2022	B - Accessory Structure	32305 LAKE RD	MARK SHIPMAN	NEW CONSTRUCTION	48,000	1,200	$259.50
20220621	6/28/2022	B - Commercial - New	4401 N KICKAPOO	MICHAEL A REYNOLDSON	NEW CONSTRUCTION	650,000	668	$1,121.50
20220528	6/1/2022	B - Commercial - New	929 N CENTER	LAMBERT CONSTRUCTION CO	NEW CONSTRUCTION	0	0	$0.00
20220574	6/15/2022	B - Commercial - Remodel	4837 N KICKAPOO AVE	TMG CONSTRUCTION	REMODEL	0	6,500	$1,629.50
20220529	6/2/2022	B - Commercial - Remodel	901 E 35TH ST	RAYCE HAWKINS CONTRUCTION	REMODEL	20,800	0	
20220527	6/1/2022	B - Commercial - Remodel	1307 N KICKAPOO	JAMES C MCLEOD	FIRE RESTORATION	1,500	195	$53.25
20220631	6/30/2022	B - Residential - Add On	1017 MUIRFIELD DR	Leonel Hernandez	RETAINING WALL	0	0	$29.50
20220610	6/24/2022	B - Residential - Add On	1017 MUIRFIELD DR	leonel hernandez	REMODEL	25,000	0	$29.50
20220603	6/21/2022	B - Residential - New	1910 W BENEDICT	RICHARDSON HOMES	NEW CONSTRUCTION	180,000	2,032	$436.30
20220576	6/15/2022	B - Residential - New	2682 LEGACY PL	GREG BROWN HOMES, LLC	NEW CONSTRUCTION	318,450	2,670	$1,296.88
20220625	6/29/2022	B - Residential - Remodel	4409 N BRYAN AVE	THUNDER PROPERTY & INVESTMENT GROUP LLC	REMODEL / ADD ON	86,640	4,369	$932.91
20220612	6/27/2022	B - Residential - Remodel	519 N BEARD	RICHARD LEWIS	REMODEL	1,000	234	$54.23

20220611	6/24/2022	B - Residential - Remodel	616 S BROADWAY	DARLENE HURD	REMODEL	22,500	726	$127.92
20220591	6/17/2022	B - Residential - Remodel	808 N UNION	TRACY COLE	REMODEL	1,000	50	$29.50
20220588	6/16/2022	B - Residential - Remodel	616 S BROADWAY	DARLENE HURD	REMODEL	0	0	
20220585	6/16/2022	B - Residential - Remodel	628 S PHILADELPHIA	INDEPENDENCE INVESTING LLC	REMODEL	37,300	1,582	$340.68
20220582	6/15/2022	B - Residential - Remodel	539 N DOUGLAS	ACTS 29 ROOFING	REDECK	11,500	1,932	$54.50
20220560	6/13/2022	B - Residential - Remodel	1608 N BROADWAY	ALLEN HUBBARD	REMODEL	60,000	1,550	$333.88
20220542	6/7/2022	B - Residential - Remodel	528 N CLEVELAND	BETTY SCOTT	REMODEL	0	1,262	$272.68
20220539	6/7/2022	B - Residential - Remodel	424 S LOUISA	CAL MCKIDDY	REMODEL	50,000	1,160	$251.00
20220627	6/29/2022	B - Storm Shelter	2319 BENT TREE	GUILLERMO RAMIREZ	NEW INSTALLATION	3,800	35	$29.50
20220599	6/20/2022	B - Storm Shelter	344 S DRAPER AVE	JOE MOODY	NEW INSTALLATION	5,100	35	$29.50
20220555	6/10/2022	B - Storm Shelter	215 W PULASKI	MATTHEW SIMON	NEW INSTALLATION	48	3,300	$29.50
20220547	6/9/2022	B - Storm Shelter	1211 N PESOTUM	GROUND ZERO SHELTERS	INGROUND	32	2,550	$29.50
20220534	6/6/2022	B - Storm Shelter	5 KAROSS	OLAN ALLEN	NEW INSTALLATION	3,200	48	
20220626	6/29/2022	E - Electrical	3910 N POTTENGER	GENERATOR SUPERCENTER	NEW INSTALLATION	0	0	$54.50
20220620	6/28/2022	E - Electrical	1031 N POTTENGER	RED RIVER ELECTRIC	RE-WIRE	0	0	$54.50
20220619	6/28/2022	E - Electrical	404 N BRYAN AVE	ANERSON ELECTRIC	METER BASE REPAIR	0	0	$54.50
20220618	6/28/2022	E - Electrical	912 JEFFERSON PL	RECEPTIVE ELECTRIC	remodel	0	0	$54.50
20220598	6/20/2022	E - Electrical	540 LAKESIDE CT	KEVIN LARRISON	NEW INSTALL	0	0	$54.50
20220586	6/16/2022	E - Electrical	506 N BEARD AVE	STREET'S ELECTRIC	REMODEL	0	0	$104.50
20220578	6/15/2022	E - Electrical	47 CHEROKEE	BARNETT	RELOCATE	0	0	$54.50

				ELECTRICAL, LLC	PANEL			
20220559	6/13/2022	E - Electrical	1218 E 9TH ST	MARSH ELECTRIC LLC	NEW INSTALLATION	0	0	$104.50
20220532	6/3/2022	E - Electrical	929 N CENTER	Third generation electrical, INC	Electrical	0	0	$0.00
20220531	6/2/2022	E - Electrical	1004 N UNION AVE	CASEY ELECTRIC	REPAIR	0	0	$54.50
20220526	6/1/2022	E - Electrical	1017 MUIRFIELD DR	HOLLAND ELECTRIC	NEW INSTALLATION	0	0	$54.50
20220533	6/3/2022	L - Alarm Registration	4312 ERIC DR	TIM AND ASHLEY PLYSHKO	alarm	0	0	
20220616	6/27/2022	M - Mechanical	2025 N BEARD	AIRCO SERVICE	CHANGE OUT	0	0	$114.50
20220605	6/21/2022	M - Mechanical	1314 WINDSOR PL	WATKINS HEATING & AIR CONDITIONING	CHANGE OUT	0	0	$104.50
20220604	6/21/2022	M - Mechanical	1308 CASTLE CREEK	WATKINS HEATING & AIR CONDITIONING	CHANGE OUT	0	0	$64.50
20220602	6/21/2022	M - Mechanical	196 SHAWNEE MALL DR	HOWELL COMMERCIAL REFRIGERATION	REMODEL	0	0	$54.50
20220584	6/16/2022	M - Mechanical	745 E INDEPENDENCE	ACOCK CLIMATE CONTROL	CHANGE OUT	0	0	$204.50
20220575	6/15/2022	M - Mechanical	2403 E HIGHLAND	AIRCO SERVICE	CHANGE OUT	0	0	$44.50
20220563	6/14/2022	M - Mechanical	1602 N LOUISA	AIM HEAT & AIR	NEW INSTALLATION	0	0	$104.50
20220562	6/14/2022	M - Mechanical	4793 N HARRISON AVE	DIRECT AIR LLC	NEW INSTALL	0	0	$54.50
20220561	6/14/2022	M - Mechanical	4797 N HARRISON AVE	DIRECT AIR LLC	NEW INSTALL	0	0	$54.50
20220558	6/13/2022	M - Mechanical	1002 N BROADWAY	METRO HVAC	CHANGE OUT	0	0	$104.50
20220554	6/9/2022	M - Mechanical	1601 N KICKAPOO STE 500	SUNBELT HEATING AND AIR CONDITIONING, INC	REMODEL	0	0	$54.50
20220552	6/9/2022	M - Mechanical	2111 N MINNESOTA	SPARKS HEAT & AIR	CHANGE OUT - CONDENSER	0	0	$44.50
20220551	6/9/2022	M - Mechanical	307 S KENNEDY	A-TEAM HTG & COOLING	CHANGE OUT - OFFICE	0	0	$84.50
20220550	6/9/2022	M - Mechanical	506 N BEARD AVE	JRS SERVICE CO	REMODEL	0	0	$44.50

20220545	6/8/2022	M - Mechanical	500 W UNIVERSITY	SPAETH INC	MISCELLANEOUS	0	0	$54.50
20220544	6/8/2022	M - Mechanical	1927 E WALNUT	SPARKS HEAT AND AIR	CHANGE OUT	0	0	$1,124.50
20220543	6/7/2022	M - Mechanical	194 E SHAWNEE MALL DR	EXPERT REPAIR LLC	CHANGE OUT	0	0	$204.50
20220540	6/7/2022	M - Mechanical	41101WOLVERINE RD	KS HEAT & AIR CONDITIONING	NEW INSTALLATION	0	0	$654.50
20220623	6/28/2022	O - Curb Cut, Driveway and Sidewalk	3700 N KICKAPOO AVE	SCA CONCRETE & CONSTRUCTION LLC	REPLACE EXISTING	0	0	$50.00
20220614	6/27/2022	O - Curb Cut, Driveway and Sidewalk	327 S AYDELOTTE AVE	B & H CONSTRUCTION	STREET CUT	0	0	
20220601	6/21/2022	O - Demolition and Moving	519 E HIGHLAND	MEIR AND SON DEMOLITION	DEMOLITION	0	0	
20220596	6/17/2022	O - Demolition and Moving	1304 W DEWEY ST	WADES SERVICES LLC	DEMOLITION	0	0	
20220595	6/17/2022	O - Demolition and Moving	1121 W RIDGEWOOD	WADES SERVICES LLC	DEMOLITION	0	0	
20220594	6/17/2022	O - Demolition and Moving	814 N HOBSON	WADES SERVICES LLC	DEMOLITION	0	0	
20220593	6/17/2022	O - Demolition and Moving	200 S UNION	CITIZEN POTAWATOMI NATION	DEMOLITION	0	0	$50.00
20220579	6/15/2022	O - Demolition and Moving	409 E HIGHLAND ST	M&M WRECKING, INC	DEMOLITION	0	0	
20220525	6/1/2022	O - Land Disturbance	929 N CENTER	LAMBERT CONSTRUCTION CO	LAND DISTURBANCE	0	0	
20220606	6/21/2022	O - Paving Cut and Boring	1451 E 45TH ST	B & H CONSTRUCTION	ROAD BORE	0	0	$60.00
20220589	6/16/2022	O - Paving Cut and Boring		BLUEPEAK	MULTIPLE ROAD BORE	0	0	
20220587	6/16/2022	O - Paving Cut and Boring		BLUEPEAK	MULTIPLE ROAD BORE	0	0	

20220581	6/15/2022	O - Paving Cut and Boring		BLUEPEAK	MULTIPLE ROAD BORE	0	0	
20220565	6/14/2022	O - Paving Cut and Boring	4830 N HARRISON	CODE RED UNDERGROUND	ROAD BORE	0	0	
20220557	6/13/2022	O - Paving Cut and Boring		BLUEPEAK	MULTIPLE ROAD BORE	0	0	
20220538	6/7/2022	O - Paving Cut and Boring	1414 N KENNEDY AVE	TIMBERLAKE CONSTRUCTION	ROAD BORE	0	0	
20220609	6/23/2022	O - Sign	2301 E HIGHLAND ST	Sign Factory LLC	monument sign	0	0	$50.00
20220572	6/15/2022	O - Sign	188 SHAWNEE MALL DR	DALMARC SIGNS	NEW INSTALLATION	13,000	138	$50.00
20220571	6/15/2022	O - Sign	188 SHAWNEE MALL DR	DALMARC SIGNS	WALL SIGN	300	3	$50.00
20220570	6/15/2022	O - Sign	188 SHAWNEE MALL DR	DALMARC SIGNS	WALL SIGN X2	600	6	$100.00
20220569	6/15/2022	O - Sign	188 SHAWNEE MALL DR	DALMARC SIGNS	WALL SIGN X2	600	6	$100.00
20220568	6/15/2022	O - Sign	188 SHAWNEE MALL DR	DALMARC SIGNS	WALL SIGN X6	9,000	66	$300.00
20220567	6/15/2022	O - Sign	188 SHAWNEE MALL DR	DALMARC SIGNS	WALL SIGN X3	4,500	54	$150.00
20220566	6/15/2022	O - Sign	188 SHAWNEE MALL DR	DALMARC SIGNS	WALL SIGN X3	7,200	84	$150.00
20220548	6/9/2022	O - Sign	1509 N KICKAPOO	SIGNS & WONDERS, LLC	NEW SIGN	8,000	18	$50.00
20220630	6/30/2022	P - Plumbing	15 N GILPIN	COMPLETE PLUMBING	GAS PRESSURE TEST	0	0	$54.50
20220629	6/30/2022	P - Plumbing	616 S AYDELOTTE AVE	JIMMY B QUICK	PRESSURE TEST	0	0	$54.50
20220628	6/30/2022	P - Plumbing	930 N PATCHIN	DALE'S PLUMBING	REPLACE	0	0	$54.50
20220624	6/29/2022	P - Plumbing	518 E GRANT ST	DALE'S PLUMBING	REPLACE	0	0	$54.50
20220622	6/28/2022	P - Plumbing	610 E JEFFERSON	HASLETT PLUMBING	REPAIR	0	0	$54.50
20220617	6/28/2022	P - Plumbing	623 W WALLACE ST	VETERAN PLUMBING	REPLACE	0	0	$54.50
20220615	6/27/2022	P - Plumbing	2312 E 10TH ST	JASON STANFIELD	REPLACEMENT	0	0	$54.50
20220613	6/27/2022	P - Plumbing	105 N KIMBERLY AVE	STANLEY PLUMBING	GAS METER	0	0	$54.50

				SERVICES				
20220607	6/22/2022	P - Plumbing	1414 N KENNEDY AVE	GREENER GROW IRRIGATION AND PLUMBING	REMODEL	0	0	$54.50
20220600	6/20/2022	P - Plumbing	8702 N HARRISON	CHAMPION PLUMBING	GAS LINE NEW INSTALL	0	0	$54.50
20220597	6/20/2022	P - Plumbing	1208 N MARKET AVE	T & A PLUMBING INC	RE-PIPE	0	0	$54.50
20220592	6/17/2022	P - Plumbing	540 LAKESIDE CT	LIBERTY PLUMBING & GAS	NEW INSTALLATION	0	0	$54.50
20220590	6/16/2022	P - Plumbing	1415 N LOUISA	VETERAN PLUMBING SERVICES	REPAIR	0	0	$54.50
20220580	6/15/2022	P - Plumbing	1304 THOMPSON DR	CND PLUMBING	REPLACE	0	0	$54.50
20220577	6/15/2022	P - Plumbing	206 N PESOTUM	DALES PLUMBING	REPLC/REPAIR	0	0	$54.50
20220573	6/15/2022	P - Plumbing	912 JEFFERSON PL	AQUA PLUMBING SERVICES	CHANGE OUT/PRESSUR TEST	0	0	$54.50
20220564	6/14/2022	P - Plumbing	1411 RICKEY RD	STANFIELD PLUMBING LLC	REPAIR	0	0	$54.50
20220556	6/10/2022	P - Plumbing	500 W UNIVERSITY	HARRISON ORR AIR CONDITIONING, LLC	REMODEL	0	0	$54.50
20220553	6/9/2022	P - Plumbing	730 N TUCKER AVE	JIMMY B QUICK PLUMBING	REMODEL	0	0	$54.50
20220549	6/9/2022	P - Plumbing	229 W 34TH	NEW AGE PLUMBING INC	NEW TAP / LINE RPLC	0	0	$429.50
20220541	6/7/2022	P - Plumbing	418 N MARKET	DALE'S PLUMBING	GAS METER RESET	0	0	$54.50
20220537	6/7/2022	P - Plumbing	426 W MIDLAND ST	STANLEY PLUMBING SERVICES LLC	GAS METER RESET	0	0	
20220536	6/6/2022	P - Plumbing	1217 ROSE DR	STANFIELD PLUMBING	REPLACE	0	0	$429.50
20220535	6/6/2022	P - Plumbing	4837 N KICKAPOO AVE	ANDREWS PLUMBING & HEATING CO INC	REMODEL	0	0	$54.50
20220530	6/2/2022	P - Plumbing	426 W MIDLAND ST	STANLEY PLUMBING SERVICES	METER RESET	0	0	$54.50
20220546	6/9/2022	PC - Zoning Variance	3 AMERICAN WAY	INDACO METALS LLC /	VARIANCE	0	0	$140.00

				HILLSIDE PROP				
								$14,545.23

Total Records: 106 **7/11/2022**

Regular Board of Commissioners 2. d.
Meeting Date: 07/18/2022
Maintenance Bonds
Submitted By: Kacie Eck, City Clerk
Department: City Clerk

Information
Title of Item for Agenda
Acceptance of the public improvements for Wildwood Addition and place maintenance bonds into effect.

Attachments
Bonds

Office of Engineering

222 N. Broadway Ave.
Shawnee, OK 74801
ShawneeOK.org

Date: July 14, 2022

To: City Commission

From: Seth Barkhimer, Director of Engineering

Subject: Wildwood Addition – Acceptance of Public Improvements

Background: The public improvements associated with the Wildwood Addition have been completed and are ready to be accepted by the City. The development is located north of 45th Street directly west of Woodsong addition. The developer paid 100% of the construction costs. The improvements have all been installed satisfactorily and inspected to the City of Shawnee specifications. The utilities passed all required testing and are now ready for acceptance and to place the maintenance bonds into effect.

Financial Impact: N/A

Attachment: Maintenance Bonds

Staff Recommendation: Acceptance of the improvements

RLI Insurance Company
9025 N. Lindbergh Dr. Peoria, IL 61615
P.O. Box 3967 Peoria, IL 61612-3967
Phone: 309-692-1000 Fax: 309-683-1610

MAINTENANCE BOND

Bond No. RCB0034176

KNOW ALL MEN BY THESE PRESENTS;

That We, 4M Trenching, LLC
of Oklahoma City, Oklahoma

(hereinafter called the "Principal"), as Principal, and **RLI Insurance Company**, of Peoria, Illinois, as Surety, an Illinois corporation duly licensed to transact business in the State of Oklahoma, (hereinafter called the "Surety"), as Surety, are held and firmly bound unto The City of Shawnee (hereinafter called the Obligee), in the sum of Thirty Seven Thousand Three Hundred Thirty Six & 68/100---------- Dollars (37,363.68), for the payment of which sum well and truly to be made, we, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated this 15th day of March, 2021.

WHEREAS, the said Principal has heretofore entered into a contract with said Obligee dated March 5, 2021, for Water Line Improvements to Wildwood Addition and;

WHEREAS, the said Principal is required to guarantee the item/work installed under said contract, against defects in materials or workmanship which may develop during the period of Two (2) year(s) from the date of acceptance of the contract.

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH, that if said Principal shall faithfully carry out and perform the said guarantee, and shall, on due notice, repair and make good at its own expense any and all defects in materials or workmanship in the said work which may develop during the period specified above or shall pay over, make good and reimburse to the said Obligee all direct loss and damage which said Obligee may sustain by reason of failure or default of said Principal so to do, then this obligation shall be null and void; otherwise shall remain in full force and effect.

4M Trenching, LLC
Principal

By: _____

RLI Insurance Company

By: Vicki Wilson
Vicki Wilson — Attorney in Fact

POWER OF ATTORNEY

RLI Insurance Company
Contractors Bonding and Insurance Company

9025 N. Lindbergh Dr. Peoria, IL 61615
Phone: 800-645-2402

Know All Men by These Presents:

That this Power of Attorney is not valid or in effect unless attached to the bond which it authorizes executed, but may be detached by the approving officer if desired.

That **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company**, each an Illinois corporation, (separately and together, the "Company") do hereby make, constitute and appoint:

Travis E. Brown, Mark D. Nowell, Christopher W. Webb, Ryan N. Teubner, Deborah L. Raper, Kent Jay Bradford, Kyle Pat Bradford, Shelli R. Samsel, Dwight A. Pilgrim, Vicki Wilson, Clayton Howell, Austin Greenhaw, Robert Jensen, Gary Liles, Randy D. Webb, Bobby Joe Young, Aaron Woolsey, Carey L. Kennemer, jointly or severally

in the City of Oklahoma City, State of Oklahoma its true and lawful Agent(s) and Attorney(s) in Fact, with full power and authority hereby conferred, to sign, execute, acknowledge and deliver for and on its behalf as Surety, in general, any and all bonds and undertakings in an amount not to exceed Twenty Five Million Dollars ($25,000,000.00) for any single obligation.

The acknowledgment and execution of such bond by the said Attorney in Fact shall be as binding upon the Company as if such bond had been executed and acknowledged by the regularly elected officers of the Company.

RLI Insurance Company and/or **Contractors Bonding and Insurance Company**, as applicable, have each further certified that the following is a true and exact copy of a Resolution adopted by the Board of Directors of each such corporation, and is now in force, to-wit:

> "All bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, any Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or Agents who shall have authority to issue bonds, policies or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile."

IN WITNESS WHEREOF, the **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company**, as applicable, have caused these presents to be executed by its respective Vice President with its corporate seal affixed this 2nd day of January, 2019.

CONTRACTORS BONDING AND INSURANCE COMPANY CORPORATE SEAL ILLINOIS

RLI INSURANCE COMPANY CORPORATE SEAL ILLINOIS

RLI Insurance Company
Contractors Bonding and Insurance Company

By: B. W. D.
Barton W. Davis — Vice President

State of Illinois }
County of Peoria } SS

On this 2nd day of January, 2019, before me, a Notary Public, personally appeared Barton W. Davis, who being by me duly sworn, acknowledged that he signed the above Power of Attorney as the aforesaid officer of the **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company** and acknowledged said instrument to be the voluntary act and deed of said corporation.

By: Gretchen L Johnigk
Gretchen L. Johnigk — Notary Public

GRETCHEN L JOHNIGK
NOTARY PUBLIC STATE OF ILLINOIS
"OFFICIAL SEAL"
My Commission Expires May 26, 2020

CERTIFICATE

I, the undersigned officer of **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company**, do hereby certify that the attached Power of Attorney is in full force and effect and is irrevocable; and furthermore, that the Resolution of the Company as set forth in the Power of Attorney, is now in force. In testimony whereof, I have hereunto set my hand and the seal of the **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company** this 15th day of March, 2021.

RLI Insurance Company
Contractors Bonding and Insurance Company

By: Jean M. Stephenson
Jean M. Stephenson — Corporate Secretary

3564992020212

A0058817

RLI Insurance Company
9025 N. Lindbergh Dr. Peoria, IL 61615
P.O. Box 3967 Peoria, IL 61612-3967
Phone: 309-692-1000 Fax: 309-683-1610

MAINTENANCE BOND

Bond No. RCB0034175

KNOW ALL MEN BY THESE PRESENTS;

That We, 4M Trenching, LLC
of Oklahoma City, Oklahoma

(hereinafter called the "Principal"), as Principal, and **RLI Insurance Company**, of Peoria, Illinois, as Surety, an Illinois corporation duly licensed to transact business in the State of Oklahoma, (hereinafter called the "Surety"), as Surety, are held and firmly bound unto The City of Shawnee (hereinafter called the Obligee), in the sum of Twenty Six Thousand Nine Hundred Seventy Eight & 83/100---------- Dollars (26,978.83), for the payment of which sum well and truly to be made, we, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated this 15th day of March, 2021.

WHEREAS, the said Principal has heretofore entered into a contract with said Obligee dated March 5, 2021, for Sanitary Sewer Line Improvements to Wildwood Addition and;

WHEREAS, the said Principal is required to guarantee the item/work installed under said contract, against defects in materials or workmanship which may develop during the period of Two (2) year(s) from the date of acceptance of the contract.

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH, that if said Principal shall faithfully carry out and perform the said guarantee, and shall, on due notice, repair and make good at its own expense any and all defects in materials or workmanship in the said work which may develop during the period specified above or shall pay over, make good and reimburse to the said Obligee all direct loss and damage which said Obligee may sustain by reason of failure or default of said Principal so to do, then this obligation shall be null and void; otherwise shall remain in full force and effect.

4M Trenching, LLC
Principal

By: _____

RLI Insurance Company

By: Vicki Wilson
Vicki Wilson — Attorney in Fact

POWER OF ATTORNEY

RLI Insurance Company
Contractors Bonding and Insurance Company

9025 N. Lindbergh Dr. Peoria, IL 61615
Phone: 800-645-2402

Know All Men by These Presents:

That this Power of Attorney is not valid or in effect unless attached to the bond which it authorizes executed, but may be detached by the approving officer if desired.

That **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company**, each an Illinois corporation, (separately and together, the "Company") do hereby make, constitute and appoint:

Travis E. Brown, Mark D. Nowell, Christopher W. Webb, Ryan N. Teubner, Deborah L. Raper, Kent Jay Bradford, Kyle Pat Bradford, Shelli R. Samsel, Dwight A. Pilgrim, Vicki Wilson, Clayton Howell, Austin Greenhaw, Robert Jensen, Gary Liles, Randy D. Webb, Bobby Joe Young, Aaron Woolsey, Carey L. Kennemer, jointly or severally

in the City of Oklahoma City, State of Oklahoma its true and lawful Agent(s) and Attorney(s) in Fact, with full power and authority hereby conferred, to sign, execute, acknowledge and deliver for and on its behalf as Surety, in general, any and all bonds and undertakings in an amount not to exceed Twenty Five Million Dollars ($25,000,000.00) for any single obligation.

The acknowledgment and execution of such bond by the said Attorney in Fact shall be as binding upon the Company as if such bond had been executed and acknowledged by the regularly elected officers of the Company.

RLI Insurance Company and/or **Contractors Bonding and Insurance Company**, as applicable, have each further certified that the following is a true and exact copy of a Resolution adopted by the Board of Directors of each such corporation, and is now in force, to-wit:

> "All bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, any Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or Agents who shall have authority to issue bonds, policies or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile."

IN WITNESS WHEREOF, the **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company**, as applicable, have caused these presents to be executed by its respective Vice President with its corporate seal affixed this 2nd day of January, 2019.

CONTRACTORS BONDING AND INSURANCE COMPANY CORPORATE SEAL ILLINOIS

RLI INSURANCE COMPANY CORPORATE SEAL ILLINOIS

RLI Insurance Company
Contractors Bonding and Insurance Company

By: _____
Barton W. Davis — Vice President

State of Illinois }
County of Peoria } SS

On this 2nd day of January, 2019, before me, a Notary Public, personally appeared Barton W. Davis, who being by me duly sworn, acknowledged that he signed the above Power of Attorney as the aforesaid officer of the **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company** and acknowledged said instrument to be the voluntary act and deed of said corporation.

By: _____
Gretchen L. Johnigk — Notary Public

GRETCHEN L JOHNIGK
NOTARY PUBLIC STATE OF ILLINOIS
"OFFICIAL SEAL"
My Commission Expires May 26, 2020

CERTIFICATE

I, the undersigned officer of **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company**, do hereby certify that the attached Power of Attorney is in full force and effect and is irrevocable; and furthermore, that the Resolution of the Company as set forth in the Power of Attorney, is now in force. In testimony whereof, I have hereunto set my hand and the seal of the **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company** this 15th day of March, 2021.

RLI Insurance Company
Contractors Bonding and Insurance Company

By: _____
Jean M. Stephenson — Corporate Secretary

3564992020212

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CNA

CNA PARAMOUNT

Contractors' General Liability Extension Endorsement

It is understood and agreed that this endorsement amends the **COMMERCIAL GENERAL LIABILITY COVERAGE PART** as follows. If any other endorsement attached to this policy amends any provision also amended by this endorsement, then that other endorsement controls with respect to such provision, and the changes made by this endorsement with respect to such provision do not apply.

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1. ADDITIONAL INSUREDS

a. **WHO IS AN INSURED** is amended to include as an **Insured** any person or organization described in paragraphs **A.** through **H.** below whom a **Named Insured** is required to add as an additional insured on this **Coverage Part** under a written contract or written agreement, provided such contract or agreement:

(1) is currently in effect or becomes effective during the term of this **Coverage Part**; and

(2) was executed prior to:

(a) the **bodily injury** or **property damage**; or

(b) the offense that caused the **personal and advertising injury**,

for which such additional insured seeks coverage.

b. However, subject always to the terms and conditions of this policy, including the limits of insurance, the Insurer will not provide such additional insured with:

(1) a higher limit of insurance than required by such contract or agreement; or

(2) coverage broader than required by such contract or agreement, and in no event broader than that described by the applicable paragraph **A.** through **H.** below.

Any coverage granted by this endorsement shall apply only to the extent permissible by law.

A. Controlling Interest

Any person or organization with a controlling interest in a **Named Insured**, but only with respect to such person or organization's liability for **bodily injury**, **property damage** or **personal and advertising injury** arising out of:

1. such person or organization's financial control of a **Named Insured**; or

2. premises such person or organization owns, maintains or controls while a **Named Insured** leases or occupies such premises;

provided that the coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

B. Co-owner of Insured Premises

A co-owner of a premises co-owned by a **Named Insured** and covered under this insurance but only with respect to such co-owner's liability for **bodily injury**, **property damage** or **personal and advertising injury** as co-owner of such premises.

C. Lessor of Equipment

Any person or organization from whom a **Named Insured** leases equipment, but only with respect to liability for **bodily injury**, **property damage** or **personal and advertising injury** caused, in whole or in part, by the **Named Insured's** maintenance, operation or use of such equipment, provided that the **occurrence** giving rise to such **bodily injury**, **property damage** or the offense giving rise to such **personal and advertising injury** takes place prior to the termination of such lease.

D. Lessor of Land

Any person or organization from whom a **Named Insured** leases land but only with respect to liability for **bodily injury**, **property damage** or **personal and advertising injury** arising out of the ownership, maintenance or use of such land, provided that the **occurrence** giving rise to such **bodily injury**, **property damage** or the offense giving rise to such **personal and advertising injury** takes place prior to the termination of such lease. The

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coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

E. Lessor of Premises

An owner or lessor of premises leased to the **Named Insured**, or such owner or lessor's real estate manager, but only with respect to liability for **bodily injury, property damage** or **personal and advertising injury** arising out of the ownership, maintenance or use of such part of the premises leased to the **Named Insured**, and provided that the **occurrence** giving rise to such **bodily injury** or **property damage**, or the offense giving rise to such **personal and advertising injury**, takes place prior to the termination of such lease. The coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

F. Mortgagee, Assignee or Receiver

A mortgagee, assignee or receiver of premises but only with respect to such mortgagee, assignee or receiver's liability for **bodily injury, property damage** or **personal and advertising injury** arising out of the **Named Insured's** ownership, maintenance, or use of a premises by a **Named Insured.**

The coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

G. State or Governmental Agency or Subdivision or Political Subdivisions – Permits

A state or governmental agency or subdivision or political subdivision that has issued a permit or authorization but only with respect to such state or governmental agency or subdivision or political subdivision's liability for **bodily injury, property damage** or **personal and advertising injury** arising out of:

1. the following hazards in connection with premises a **Named Insured** owns, rents, or controls and to which this insurance applies:

   a. the existence, maintenance, repair, construction, erection, or removal of advertising signs, awnings, canopies, cellar entrances, coal holes, driveways, manholes, marquees, hoistaway openings, sidewalk vaults, street banners, or decorations and similar exposures; or

   b. the construction, erection, or removal of elevators; or

   c. the ownership, maintenance or use of any elevators covered by this insurance; or

2. the permitted or authorized operations performed by a **Named Insured** or on a **Named Insured's** behalf.

   The coverage granted by this paragraph does not apply to:

   a. **Bodily injury, property damage** or **personal and advertising injury** arising out of operations performed for the state or governmental agency or subdivision or political subdivision; or

   b. **Bodily injury** or **property damage** included within the **products-completed operations hazard.**

With respect to this provision's requirement that additional insured status must be requested under a written contract or agreement, the Insurer will treat as a written contract any governmental permit that requires the **Named Insured** to add the governmental entity as an additional insured.

H. Trade Show Event Lessor

1. With respect to a **Named Insured's** participation in a trade show event as an exhibitor, presenter or displayer, any person or organization whom the **Named Insured** is required to include as an additional insured, but only with respect to such person or organization's liability for **bodily injury, property damage** or **personal and advertising injury** caused by:

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a. the **Named Insured's** acts or omissions; or

b. the acts or omissions of those acting on the **Named Insured's** behalf,

in the performance of the **Named Insured's** ongoing operations at the trade show event premises during the trade show event.

2. The coverage granted by this paragraph does not apply to **bodily injury** or **property damage** included within the **products-completed operations hazard**.

2. ADDITIONAL INSURED - PRIMARY AND NON-CONTRIBUTORY TO ADDITIONAL INSURED'S INSURANCE

The **Other Insurance** Condition in the **COMMERCIAL GENERAL LIABILITY CONDITIONS** Section is amended to add the following paragraph:

If the **Named Insured** has agreed in writing in a contract or agreement that this insurance is primary and non-contributory relative to an additional insured's own insurance, then this insurance is primary, and the Insurer will not seek contribution from that other insurance. For the purpose of this Provision **2.**, the additional insured's own insurance means insurance on which the additional insured is a named insured. Otherwise, and notwithstanding anything to the contrary elsewhere in this Condition, the insurance provided to such person or organization is excess of any other insurance available to such person or organization.

3. BODILY INJURY – EXPANDED DEFINITION

Under **DEFINITIONS**, the definition of **bodily injury** is deleted and replaced by the following:

Bodily injury means physical injury, sickness or disease sustained by a person, including death, humiliation, shock, mental anguish or mental injury sustained by that person at any time which results as a consequence of the physical injury, sickness or disease.

4. BROAD KNOWLEDGE OF OCCURRENCE/ NOTICE OF OCCURRENCE

Under **CONDITIONS**, the condition entitled **Duties in The Event of Occurrence, Offense, Claim or Suit** is amended to add the following provisions:

A. BROAD KNOWLEDGE OF OCCURRENCE

The **Named Insured** must give the Insurer or the Insurer's authorized representative notice of an **occurrence**, offense or **claim** only when the **occurrence**, offense or **claim** is known to a natural person **Named Insured**, to a partner, executive officer, manager or member of a **Named Insured**, or an **employee** designated by any of the above to give such notice.

B. NOTICE OF OCCURRENCE

The **Named Insured's** rights under this **Coverage Part** will not be prejudiced if the **Named Insured** fails to give the Insurer notice of an **occurrence**, offense or **claim** and that failure is solely due to the **Named Insured's** reasonable belief that the **bodily injury** or **property damage** is not covered under this **Coverage Part**. However, the **Named Insured** shall give written notice of such **occurrence**, offense or **claim** to the Insurer as soon as the **Named Insured** is aware that this insurance may apply to such **occurrence**, offense or **claim**.

5. BROAD NAMED INSURED

WHO IS AN INSURED is amended to delete its Paragraph **3.** in its entirety and replace it with the following:

3. Pursuant to the limitations described in Paragraph **4.** below, any organization in which a **Named Insured** has management control:

a. on the effective date of this **Coverage Part**; or

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b. by reason of a **Named Insured** creating or acquiring the organization during the **policy period**,

qualifies as a **Named Insured**, provided that there is no other similar liability insurance, whether primary, contributory, excess, contingent or otherwise, which provides coverage to such organization, or which would have provided coverage but for the exhaustion of its limit, and without regard to whether its coverage is broader or narrower than that provided by this insurance.

But this **BROAD NAMED INSURED** provision does not apply to:

(a) any partnership, limited liability company or joint venture; or

(b) any organization for which coverage is excluded by another endorsement attached to this **Coverage Part**.

For the purpose of this provision, management control means:

A. owning interests representing more than 50% of the voting, appointment or designation power for the selection of a majority of the Board of Directors of a corporation; or

B. having the right, pursuant to a written trust agreement, to protect, control the use of, encumber or transfer or sell property held by a trust.

4. With respect to organizations which qualify as **Named Insureds** by virtue of Paragraph **3.** above, this insurance does not apply to:

a. bodily injury or **property damage** that first occurred prior to the date of management control, or that first occurs after management control ceases; nor

b. personal or advertising injury caused by an offense that first occurred prior to the date of management control or that first occurs after management control ceases.

5. The insurance provided by this **Coverage Part** applies to **Named Insureds** when trading under their own names or under such other trading names or doing-business-as names (dba) as any **Named Insured** should choose to employ.

6. BROADENED LIABILITY COVERAGE FOR DAMAGE TO YOUR PRODUCT AND YOUR WORK

A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete exclusions **k.** and **l.** and replace them with the following:

This insurance does not apply to:

k. Damage to Your Product

Property damage to **your product** arising out of it, or any part of it except when caused by or resulting from:

(1) fire;

(2) smoke;

(3) collapse; or

(4) explosion.

l. Damage to Your Work

Property damage to **your work** arising out of it, or any part of it and included in the **products-completed operations hazard**.

This exclusion does not apply:

(1) If the damaged work, or the work out of which the damage arises, was performed on the **Named Insured's** behalf by a subcontractor; or

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(2) If the cause of loss to the damaged work arises as a result of:

(a) fire;

(b) smoke;

(c) collapse; or

(d) explosion.

B. The following paragraph is added to **LIMITS OF INSURANCE**:

Subject to **5.** above, $100,000 is the most the Insurer will pay under **Coverage A** for the sum of **damages** arising out of any one **occurrence** because of **property damage** to **your product** and **your work** that is caused by fire, smoke, collapse or explosion and is included within the **product-completed operations hazard**. This sublimit does not apply to **property damage** to **your work** if the damaged work, or the work out of which the damage arises, was performed on the **Named Insured's** behalf by a subcontractor.

C. This **Broadened Liability Coverage For Damage To Your Product And Your Work** Provision does not apply if an endorsement of the same name is attached to this policy.

7. CONTRACTUAL LIABILITY – RAILROADS

With respect to operations performed within 50 feet of railroad property, the definition of **insured contract** is replaced by the following:

Insured Contract means:

a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for damage by fire to premises while rented to a **Named Insured** or temporarily occupied by a **Named Insured** with permission of the owner is not an **insured contract**;

b. A sidetrack agreement;

c. Any easement or license agreement;

d. An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality;

e. An elevator maintenance agreement;

f. That part of any other contract or agreement pertaining to the **Named Insured's** business (including an indemnification of a municipality in connection with work performed for a municipality) under which the **Named Insured** assumes the tort liability of another party to pay for **bodily injury** or **property damage** to a third person or organization. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

Paragraph **f.** does not include that part of any contract or agreement:

(1) That indemnifies an architect, engineer or surveyor for injury or damage arising out of:

(a) Preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

(b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage;

(2) Under which the **Insured**, if an architect, engineer or surveyor, assumes liability for an injury or damage arising out of the insured's rendering or failure to render professional services, including those listed in **(1)** above and supervisory, inspection, architectural or engineering activities.

8. ELECTRONIC DATA LIABILITY

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A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete exclusion **p. Electronic Data** and replace it with the following:

This insurance does not apply to:

p. Access Or Disclosure Of Confidential Or Personal Information And Data-related Liability

Damages arising out of:

(1) any access to or disclosure of any person's or organization's confidential or personal information, including patents, trade secrets, processing methods, customer lists, financial information, credit card information, health information or any other type of nonpublic information; or

(2) the loss of, loss of use of, damage to, corruption of, inability to access, or inability to manipulate **electronic data** that does not result from physical injury to tangible property.

However, unless Paragraph **(1)** above applies, this exclusion does not apply to **damages** because of **bodily injury**.

This exclusion applies even if damages are claimed for notification costs, credit monitoring expenses, forensic expenses, public relation expenses or any other loss, cost or expense incurred by the **Named Insured** or others arising out of that which is described in Paragraph **(1)** or **(2)** above.

B. The following paragraph is added to **LIMITS OF INSURANCE**:

Subject to **5.** above, $100,000 is the most the Insurer will pay under **Coverage A** for all **damages** arising out of any one **occurrence** because of **property damage** that results from physical injury to tangible property and arises out of **electronic data**.

C. The following definition is added to **DEFINITIONS**:

Electronic data means information, facts or programs stored as or on, created or used on, or transmitted to or from computer software (including systems and applications software), hard or floppy disks, CD-ROMS, tapes, drives, cells, data processing devices or any other media which are used with electronically controlled equipment.

D. For the purpose of the coverage provided by this **ELECTRONIC DATA LIABILITY** Provision, the definition of **property damage** in **DEFINITIONS** is replaced by the following:

Property damage means:

a. Physical injury to tangible property, including all resulting loss of use of that property. All such loss of use shall be deemed to occur at the time of the physical injury that caused it;

b. Loss of use of tangible property that is not physically injured. All such loss of use shall be deemed to occur at the time of the **occurrence** that caused it; or

c. Loss of, loss of use of, damage to, corruption of, inability to access, or inability to properly manipulate **electronic data**, resulting from physical injury to tangible property. All such loss of **electronic data** shall be deemed to occur at the time of the **occurrence** that caused it.

For the purposes of this insurance, **electronic data** is not tangible property.

E. If Electronic Data Liability is provided at a higher limit by another endorsement attached to this policy, then the $100,000 limit provided by this **ELECTRONIC DATA LIABILITY** Provision is part of, and not in addition to, that higher limit.

9. ESTATES, LEGAL REPRESENTATIVES, AND SPOUSES

The estates, heirs, legal representatives and **spouses** of any natural person **Insured** shall also be insured under this policy; provided, however, coverage is afforded to such estates, heirs, legal representatives, and **spouses** only for

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claims arising solely out of their capacity or status as such and, in the case of a **spouse**, where such **claim** seeks **damages** from marital community property, jointly held property or property transferred from such natural person **Insured** to such **spouse**. No coverage is provided for any act, error or omission of an estate, heir, legal representative, or **spouse** outside the scope of such person's capacity or status as such, provided however that the **spouse** of a natural person **Named Insured** and the **spouses** of members or partners of joint venture or partnership **Named Insureds** are **Insureds** with respect to such **spouses'** acts, errors or omissions in the conduct of the **Named Insured's** business.

10. EXPECTED OR INTENDED INJURY – EXCEPTION FOR REASONABLE FORCE

Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete the exclusion entitled **Expected or Intended Injury** and replace it with the following:

This insurance does not apply to:

Expected or Intended Injury

Bodily injury or **property damage** expected or intended from the standpoint of the **Insured**. This exclusion does not apply to **bodily injury** or **property damage** resulting from the use of reasonable force to protect persons or property.

11. GENERAL AGGREGATE LIMITS OF INSURANCE - PER PROJECT

A. For each construction project away from premises the **Named Insured** owns or rents, a separate Construction Project General Aggregate Limit, equal to the amount of the General Aggregate Limit shown in the Declarations, is the most the Insurer will pay for the sum of:

1. All **damages** under **Coverage A**, except **damages** because of **bodily injury** or **property damage** included in the **products-completed operations hazard**; and
2. All medical expenses under **Coverage C**,

that arise from **occurrences** or accidents which can be attributed solely to ongoing operations at that construction project. Such payments shall not reduce the General Aggregate Limit shown in the Declarations, nor the Construction Project General Aggregate Limit of any other construction project.

B. All:

1. **Damages** under **Coverage B**, regardless of the number of locations or construction projects involved;
2. **Damages** under **Coverage A**, caused by **occurrences** which cannot be attributed solely to ongoing operations at a single construction project, except **damages** because of **bodily injury** or **property damage** included in the **products-completed operations hazard**; and
3. Medical expenses under **Coverage C** caused by accidents which cannot be attributed solely to ongoing operations at a single construction project,

will reduce the General Aggregate Limit shown in the Declarations.

C. The limits shown in the Declarations for Each Occurrence, for Damage To Premises Rented To You and for Medical Expense continue to apply, but will be subject to either the Construction Project General Aggregate Limit or the General Aggregate Limit shown in the Declarations, depending on whether the **occurrence** can be attributed solely to ongoing operations at a particular construction project.

D. When coverage for liability arising out of the **products-completed operations hazard** is provided, any payments for **damages** because of **bodily injury** or **property damage** included in the **products-completed operations hazard** will reduce the Products-Completed Operations Aggregate Limit shown in the Declarations, regardless of the number of projects involved.

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E. If a single construction project away from premises owned by or rented to the **Insured** has been abandoned and then restarted, or if the authorized contracting parties deviate from plans, blueprints, designs, specifications or timetables, the project will still be deemed to be the same construction project.

F. The provisions of **LIMITS OF INSURANCE** not otherwise modified by this endorsement shall continue to apply as stipulated.

12. IN REM ACTIONS

A quasi in rem action against any vessel owned or operated by or for the **Named Insured**, or chartered by or for the **Named Insured**, will be treated in the same manner as though the action were in personam against the **Named Insured**.

13. INCIDENTAL HEALTH CARE MALPRACTICE COVERAGE

Solely with respect to **bodily injury** that arises out of a **health care incident**:

A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Insuring Agreement** is amended to replace Paragraphs **1.b.(1)** and **1.b.(2)** with the following:

b. This insurance applies to **bodily injury** provided that the professional health care services are incidental to the **Named Insured's** primary business purpose, and only if:

(1) such **bodily injury** is caused by an **occurrence** that takes place in the **coverage territory**.

(2) the **bodily injury** first occurs during the **policy period**. All **bodily injury** arising from an **occurrence** will be deemed to have occurred at the time of the first act, error, or omission that is part of the **occurrence**; and

B. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to:

i. add the following to the **Employers Liability** exclusion:

This exclusion applies only if the **bodily injury** arising from a **health care incident** is covered by other liability insurance available to the **Insured** (or which would have been available but for exhaustion of its limits).

ii. delete the exclusion entitled **Contractual Liability** and replace it with the following:

This insurance does not apply to:

Contractual Liability

the **Insured's** actual or alleged liability under any oral or written contract or agreement, including but not limited to express warranties or guarantees.

iii. add the following additional exclusions:

This insurance does not apply to:

Discrimination

any actual or alleged discrimination, humiliation or harassment, including but not limited to **claims** based on an individual's race, creed, color, age, gender, national origin, religion, disability, marital status or sexual orientation.

Dishonesty or Crime

Any actual or alleged dishonest, criminal or malicious act, error or omission.

Medicare/Medicaid Fraud

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any actual or alleged violation of law with respect to Medicare, Medicaid, Tricare or any similar federal, state or local governmental program.

Services Excluded by Endorsement

Any **health care incident** for which coverage is excluded by endorsement.

C. **DEFINITIONS** is amended to:

i. add the following definitions:

Health care incident means an act, error or omission by the **Named Insured's employees** or **volunteer workers** in the rendering of:

a. **professional health care services** on behalf of the **Named Insured** or

b. Good Samaritan services rendered in an emergency and for which no payment is demanded or received.

Professional health care services means any health care services or the related furnishing of food, beverages, medical supplies or appliances by the following providers in their capacity as such but solely to the extent they are duly licensed as required:

a. Physician;

b. Nurse;

c. Nurse practitioner;

d. Emergency medical technician;

e. Paramedic;

f. Dentist;

g. Physical therapist;

h. Psychologist;

i. Speech therapist;

j. Other allied health professional; or

Professional health care services does not include any services rendered in connection with human clinical trials or product testing.

ii. delete the definition of **occurrence** and replace it with the following:

Occurrence means a **health care incident**. All acts, errors or omissions that are logically connected by any common fact, circumstance, situation, transaction, event, advice or decision will be considered to constitute a single **occurrence**;

iii. amend the definition of **Insured** to:

a. add the following:

the **Named Insured's employees** are **Insureds** with respect to:

(1) **bodily injury** to a co-**employee** while in the course of the co-**employee's** employment by the **Named Insured** or while performing duties related to the conduct of the **Named Insured's** business; and

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(2) **bodily injury** to a **volunteer worker** while performing duties related to the conduct of the **Named Insured's** business;

when such **bodily injury** arises out of a **health care incident**.

the **Named Insured's volunteer workers** are **Insureds** with respect to:

(1) **bodily injury** to a co-**volunteer worker** while performing duties related to the conduct of the **Named Insured's** business; and

(2) **bodily injury** to an **employee** while in the course of the **employee's** employment by the **Named Insured** or while performing duties related to the conduct of the **Named Insured's** business;

when such **bodily injury** arises out of a **health care incident**.

b. delete Subparagraphs **(a), (b), (c) and (d)** of Paragraph **2.a.(1)** of **WHO IS AN INSURED**.

D. The **Other Insurance** condition is amended to delete Paragraph **b.(1)** in its entirety and replace it with the following:

Other Insurance

b. Excess Insurance

(1) To the extent this insurance applies, it is excess over any other insurance, self insurance or risk transfer instrument, whether primary, excess, contingent or on any other basis, except for insurance purchased specifically by the **Named Insured** to be excess of this coverage.

14. JOINT VENTURES / PARTNERSHIP / LIMITED LIABILITY COMPANIES

WHO IS AN INSURED is amended to delete its last paragraph and replace it with the following:

No person or organization is an **Insured** with respect to the conduct of any current or past partnership, joint venture or limited liability company that is not shown as a **Named Insured** in the Declarations, except that if the **Named Insured** was a joint venturer, partner, or member of a limited liability company and such joint venture, partnership or limited liability company terminated prior to or during the **policy period**, such **Named Insured** is an **Insured** with respect to its interest in such joint venture, partnership or limited liability company but only to the extent that:

a. any offense giving rise to **personal and advertising injury** occurred prior to such termination date, and the **personal and advertising injury** arising out of such offense first occurred after such termination date;

b. the **bodily injury** or **property damage** first occurred after such termination date; and

c. there is no other valid and collectible insurance purchased specifically to insure the partnership, joint venture or limited liability company; and

If the joint venture, partnership or limited liability company is or was insured under a **consolidated (wrap-up) insurance program**, then such insurance will always be considered valid and collectible for the purpose of paragraph **c.** above. But this provision will not serve to exclude **bodily injury**, **property damage** or **personal and advertising injury** that would otherwise be covered under the **Contractors General Liability Extension Endorsement** provision entitled **WRAP-UP EXTENSION: OCIP, CCIP, OR CONSOLIDATED (WRAP-UP) INSURANCE PROGRAMS**. Please see that provision for the definition of **consolidated (wrap-up) insurance program**.

15. LEGAL LIABILITY – DAMAGE TO PREMISES / ALIENATED PREMISES / PROPERTY IN THE NAMED INSURED'S CARE, CUSTODY OR CONTROL

A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete exclusion **j. Damage to Property** in its entirety and replace it with the following:

This insurance does not apply to:

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j. Damage to Property

Property damage to:

(1) Property the **Named Insured** owns, rents, or occupies, including any costs or expenses incurred by you, or any other person, organization or entity, for repair, replacement, enhancement, restoration or maintenance of such property for any reason, including prevention of injury to a person or damage to another's property;

(2) Premises the **Named Insured** sells, gives away or abandons, if the **property damage** arises out of any part of those premises;

(3) Property loaned to the **Named Insured**;

(4) Personal property in the care, custody or control of the **Insured**;

(5) That particular part of real property on which the **Named Insured** or any contractors or subcontractors working directly or indirectly on the **Named Insured's** behalf are performing operations, if the **property damage** arises out of those operations; or

(6) That particular part of any property that must be restored, repaired or replaced because **your work** was incorrectly performed on it.

Paragraphs **(1)**, **(3)** and **(4)** of this exclusion do not apply to **property damage** (other than damage by fire) to premises rented to the **Named Insured** or temporarily occupied by the **Named Insured** with the permission of the owner, nor to the contents of premises rented to the **Named Insured** for a period of 7 or fewer consecutive days. A separate limit of insurance applies to Damage To Premises Rented To You as described in **LIMITS OF INSURANCE**.

Paragraph **(2)** of this exclusion does not apply if the premises are **your work**.

Paragraphs **(3)**, **(4)**, **(5)** and **(6)** of this exclusion do not apply to liability assumed under a sidetrack agreement.

Paragraph **(6)** of this exclusion does not apply to **property damage** included in the **products-completed operations hazard**.

Paragraphs **(3)** and **(4)** of this exclusion do not apply to **property damage** to:

i. tools, or equipment the **Named Insured** borrows from others, nor

ii. other personal property of others in the **Named Insured's** care, custody or control while being used in the **Named Insured's** operations away from any **Named Insured's** premises.

However, the coverage granted by this exception to Paragraphs **(3)** and **(4)** does not apply to:

a. property at a job site awaiting or during such property's installation, fabrication, or erection;

b. property that is **mobile equipment** leased by an **Insured**;

c. property that is an **auto**, aircraft or watercraft;

d. property in transit; or

e. any portion of **property damage** for which the **Insured** has available other valid and collectible insurance, or would have such insurance but for exhaustion of its limits, or but for application of one of its exclusions.

A separate limit of insurance and deductible apply to such property of others. See **LIMITS OF INSURANCE** as amended below.

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B. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete its last paragraph and replace it with the following:

Exclusions **c.** through **n.** do not apply to damage by fire to premises while rented to a **Named Insured** or temporarily occupied by a **Named Insured** with permission of the owner, nor to damage to the contents of premises rented to a **Named Insured** for a period of 7 or fewer consecutive days.

A separate limit of insurance applies to this coverage as described in **LIMITS OF INSURANCE**.

C. The following paragraph is added to **LIMITS OF INSURANCE**:

Subject to **5.** above, $25,000 is the most the Insurer will pay under **Coverage A** for **damages** arising out of any one **occurrence** because of the sum of all **property damage** to borrowed tools or equipment, and to other personal property of others in the **Named Insured's** care, custody or control, while being used in the **Named Insured's** operations away from any **Named Insured's** premises. The Insurer's obligation to pay such **property damage** does not apply until the amount of such **property damage** exceeds $1,000. The Insurer has the right but not the duty to pay any portion of this $1,000 in order to effect settlement. If the Insurer exercises that right, the **Named Insured** will promptly reimburse the Insurer for any such amount.

D. Paragraph **6.**, Damage To Premises Rented To You Limit, of **LIMITS OF INSURANCE** is deleted and replaced by the following:

6. Subject to Paragraph **5.** above, (the Each Occurrence Limit), the Damage To Premises Rented To You Limit is the most the Insurer will pay under **Coverage A** for **damages** because of **property damage** to any one premises while rented to the **Named Insured** or temporarily occupied by the **Named Insured** with the permission of the owner, including contents of such premises rented to the **Named Insured** for a period of 7 or fewer consecutive days. The Damage To Premises Rented To You Limit is the greater of:

a. $500,000; or

b. The Damage To Premises Rented To You Limit shown in the Declarations.

E. Paragraph **4.b.(1)(a)(ii)** of the **Other Insurance** Condition is deleted and replaced by the following:

(ii) That is property insurance for premises rented to the **Named Insured**, for premises temporarily occupied by the **Named Insured** with the permission of the owner; or for personal property of others in the **Named Insured's** care, custody or control;

16. LIQUOR LIABILITY

Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete the exclusion entitled **Liquor Liability**.

This **LIQUOR LIABILITY** provision does not apply to any person or organization who otherwise qualifies as an additional insured on this **Coverage Part**.

17. MEDICAL PAYMENTS

A. **LIMITS OF INSURANCE** is amended to delete Paragraph **7.** (the Medical Expense Limit) and replace it with the following:

7. Subject to Paragraph **5.** above (the Each Occurrence Limit), the Medical Expense Limit is the most the Insurer will pay under **Coverage C – Medical Payments** for all medical expenses because of **bodily injury** sustained by any one person. The Medical Expense Limit is the greater of:

(1) $15,000 unless a different amount is shown here: $N,NNN,NNN,NNN; or

(2) the amount shown in the Declarations for Medical Expense Limit.

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B. Under **COVERAGES**, the **Insuring Agreement** of **Coverage C – Medical Payments** is amended to replace Paragraph **1.a.(3)(b)** with the following:

(b) The expenses are incurred and reported to the Insurer within three years of the date of the accident; and

18. NON-OWNED AIRCRAFT

Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended as follows:

The exclusion entitled **Aircraft, Auto or Watercraft** is amended to add the following:

This exclusion does not apply to an aircraft not owned by any **Named Insured**, provided that:

1. the pilot in command holds a currently effective certificate issued by the duly constituted authority of the United States of America or Canada, designating that person as a commercial or airline transport pilot;
2. the aircraft is rented with a trained, paid crew to the **Named Insured**; and
3. the aircraft is not being used to carry persons or property for a charge.

19. NON-OWNED WATERCRAFT

Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete subparagraph **(2)** of the exclusion entitled **Aircraft, Auto or Watercraft**, and replace it with the following.

This exclusion does not apply to:

(2) a watercraft that is not owned by any **Named Insured**, provided the watercraft is:

(a) less than 75 feet long; and

(b) not being used to carry persons or property for a charge.

20. PERSONAL AND ADVERTISING INJURY –DISCRIMINATION OR HUMILIATION

A. Under **DEFINITIONS**, the definition of **personal and advertising injury** is amended to add the following tort:

Discrimination or humiliation that results in injury to the feelings or reputation of a natural person.

B. Under **COVERAGES, Coverage B – Personal and Advertising Injury Liability**, the paragraph entitled **Exclusions** is amended to:

1. delete the Exclusion entitled **Knowing Violation Of Rights Of Another** and replace it with the following:

This insurance does not apply to:

Knowing Violation of Rights of Another

Personal and advertising injury caused by or at the direction of the **Insured** with the knowledge that the act would violate the rights of another and would inflict **personal and advertising injury**. This exclusion shall not apply to discrimination or humiliation that results in injury to the feelings or reputation of a natural person, but only if such discrimination or humiliation is not done intentionally by or at the direction of:

(a) the **Named Insured**; or

(b) any **executive officer**, director, stockholder, partner, member or manager (if the **Named Insured** is a limited liability company) of the **Named Insured**.

2. add the following exclusions:

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This insurance does not apply to:

Employment Related Discrimination

Discrimination or humiliation directly or indirectly related to the employment, prospective employment, past employment or termination of employment of any person by any **Insured**.

Premises Related Discrimination

discrimination or humiliation arising out of the sale, rental, lease or sub-lease or prospective sale, rental, lease or sub-lease of any room, dwelling or premises by or at the direction of any **Insured**.

Notwithstanding the above, there is no coverage for fines or penalties levied or imposed by a governmental entity because of discrimination.

The coverage provided by this **PERSONAL AND ADVERTISING INJURY –DISCRIMINATION OR HUMILIATION** Provision does not apply to any person or organization whose status as an **Insured** derives solely from

Provision **1. ADDITIONAL INSURED** of this endorsement; or

attachment of an additional insured endorsement to this **Coverage Part**.

This **PERSONAL AND ADVERTISING INJURY –DISCRIMINATION OR HUMILIATION** Provision does not apply to any person or organization who otherwise qualifies as an additional insured on this **Coverage Part**.

21. PERSONAL AND ADVERTISING INJURY - CONTRACTUAL LIABILITY

A. Under **COVERAGES, Coverage B –Personal and Advertising Injury Liability**, the paragraph entitled **Exclusions** is amended to delete the exclusion entitled **Contractual Liability**.

B. Solely for the purpose of the coverage provided by this **PERSONAL AND ADVERTISING INJURY - CONTRACTUAL LIABILITY** provision, the following changes are made to the section entitled **SUPPLEMENTARY PAYMENTS – COVERAGES A AND B:**

1. Paragraph **2.d.** is replaced by the following:

d. The allegations in the **suit** and the information the Insurer knows about the offense alleged in such **suit** are such that no conflict appears to exist between the interests of the **Insured** and the interests of the indemnitee;

2. The first unnumbered paragraph beneath Paragraph **2.f.(2)(b)** is deleted and replaced by the following:

So long as the above conditions are met, attorneys fees incurred by the Insurer in the defense of that indemnitee, necessary litigation expenses incurred by the Insurer, and necessary litigation expenses incurred by the indemnitee at the Insurer's request will be paid as **defense costs**. Such payments will not be deemed to be **damages** for **personal and advertising injury** and will not reduce the limits of insurance.

C. This **PERSONAL AND ADVERTISING INJURY - CONTRACTUAL LIABILITY** Provision does not apply if **Coverage B –Personal and Advertising Injury Liability** is excluded by another endorsement attached to this **Coverage Part**.

This **PERSONAL AND ADVERTISING INJURY - CONTRACTUAL LIABILITY** Provision does not apply to any person or organization who otherwise qualifies as an additional insured on this **Coverage Part**.

22. PROPERTY DAMAGE – ELEVATORS

A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended such that the **Damage to Your Product** Exclusion and subparagraphs **(3)**, **(4)** and **(6)** of the **Damage to Property** Exclusion do not apply to **property damage** that results from the use of elevators.

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B. Solely for the purpose of the coverage provided by this **PROPERTY DAMAGE – ELEVATORS** Provision, the **Other Insurance** conditions is amended to add the following paragraph:

This insurance is excess over any of the other insurance, whether primary, excess, contingent or on any other basis that is Property insurance covering property of others damaged from the use of elevators.

23. SUPPLEMENTARY PAYMENTS

The section entitled **SUPPLEMENTARY PAYMENTS – COVERAGES A AND B** is amended as follows:

A. Paragraph **1.b.** is amended to delete the $250 limit shown for the cost of bail bonds and replace it with a $5,000. limit; and

B. Paragraph **1.d.** is amended to delete the limit of $250 shown for daily loss of earnings and replace it with a $1,000. limit.

24. UNINTENTIONAL FAILURE TO DISCLOSE HAZARDS

If the **Named Insured** unintentionally fails to disclose all existing hazards at the inception date of the **Named Insured's Coverage Part**, the Insurer will not deny coverage under this **Coverage Part** because of such failure.

25. WAIVER OF SUBROGATION - BLANKET

Under **CONDITIONS**, the condition entitled **Transfer Of Rights Of Recovery Against Others To Us** is amended to add the following:

The Insurer waives any right of recovery the Insurer may have against any person or organization because of payments the Insurer makes for injury or damage arising out of:

1. the **Named Insured's** ongoing operations; or
2. **your work** included in the **products-completed operations hazard.**

However, this waiver applies only when the **Named Insured** has agreed in writing to waive such rights of recovery in a written contract or written agreement, and only if such contract or agreement:

1. is in effect or becomes effective during the term of this **Coverage Part**; and
2. was executed prior to the **bodily injury, property damage** or **personal and advertising injury** giving rise to the **claim.**

26. WRAP-UP EXTENSION: OCIP, CCIP, OR CONSOLIDATED (WRAP-UP) INSURANCE PROGRAMS

Note: The following provision does not apply to any public construction project in the state of Oklahoma, nor to any construction project in the state of Alaska, that is not permitted to be insured under a **consolidated (wrap-up) insurance program** by applicable state statute or regulation.

If the endorsement **EXCLUSION – CONSTRUCTION WRAP-UP** is attached to this policy, or another exclusionary endorsement pertaining to Owner Controlled Insurance Programs (O.C.I.P.) or Contractor Controlled Insurance Programs (C.C.I.P.) is attached, then the following changes apply:

A. The following wording is added to the above-referenced endorsement:

With respect to a **consolidated (wrap-up) insurance program** project in which the **Named Insured** is or was involved, this exclusion does not apply to those sums the **Named Insured** become legally obligated to pay as **damages** because of:

1. **Bodily injury, property damage**, or **personal or advertising injury** that occurs during the **Named Insured's** ongoing operations at the project, or during such operations of anyone acting on the **Named Insured's** behalf; nor

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2. **Bodily injury** or **property damage** included within the **products-completed operations hazard** that arises out of those portions of the project that are not **residential structures**.

B. Condition **4. Other Insurance** is amended to add the following subparagraph **4.b.(1)(c)**:

This insurance is excess over:

(c) Any of the other insurance whether primary, excess, contingent or any other basis that is insurance available to the **Named Insured** as a result of the **Named Insured** being a participant in a **consolidated (wrap-up) insurance program**, but only as respects the **Named Insured's** involvement in that **consolidated (wrap-up) insurance program**.

C. **DEFINITIONS** is amended to add the following definitions:

Consolidated (wrap-up) insurance program means a construction, erection or demolition project for which the prime contractor/project manager or owner of the construction project has secured general liability insurance covering some or all of the contractors or subcontractors involved in the project, such as an Owner Controlled Insurance Program (O.C.I.P.) or Contractor Controlled Insurance Program (C.C.I.P.).

Residential structure means any structure where 30% or more of the square foot area is used or is intended to be used for human residency, including but not limited to:

1. single or multifamily housing, apartments, condominiums, townhouses, co-operatives or planned unit developments; and

2. the common areas and structures appurtenant to the structures in paragraph **1.** (including pools, hot tubs, detached garages, guest houses or any similar structures).

However, when there is no individual ownership of units, **residential structure** does not include military housing, college/university housing or dormitories, long term care facilities, hotels or motels. **Residential structure** also does not include hospitals or prisons.

This **WRAP-UP EXTENSION: OCIP, CCIP, OR CONSOLIDATED (WRAP-UP) INSURANCE PROGRAMS** Provision does not apply to any person or organization who otherwise qualifies as an additional insured on this **Coverage Part**.

All other terms and conditions of the Policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the Policy issued by the designated Insurers, takes effect on the effective date of said Policy at the hour stated in said Policy, unless another effective date is shown below, and expires concurrently with said Policy.

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CNA PARAMOUNT

Blanket Additional Insured - Owners, Lessees or Contractors - with Products-Completed Operations Coverage Endorsement

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

It is understood and agreed as follows:

I. **WHO IS AN INSURED** is amended to include as an **Insured** any person or organization whom you are required by **written contract** to add as an additional insured on this **coverage part**, but only with respect to liability for **bodily injury**, **property damage** or **personal and advertising injury** caused in whole or in part by your acts or omissions, or the acts or omissions of those acting on your behalf:

A. in the performance of your ongoing operations subject to such **written contract**; or

B. in the performance of **your work** subject to such **written contract**, but only with respect to **bodily injury** or **property damage** included in the **products-completed operations hazard**, and only if:

1. the **written contract** requires you to provide the additional insured such coverage; and

2. this **coverage part** provides such coverage.

II. But if the **written contract** requires:

A. additional insured coverage under the 11-85 edition, 10-93 edition, or 10-01 edition of CG2010, or under the 10-01 edition of CG2037; or

B. additional insured coverage with "arising out of" language; or

C. additional insured coverage to the greatest extent permissible by law;

then paragraph **I.** above is deleted in its entirety and replaced by the following:

WHO IS AN INSURED is amended to include as an **Insured** any person or organization whom you are required by **written contract** to add as an additional insured on this **coverage part**, but only with respect to liability for **bodily injury**, **property damage** or **personal and advertising injury** arising out of **your work** that is subject to such **written contract**.

III. Subject always to the terms and conditions of this policy, including the limits of insurance, the Insurer will not provide such additional insured with:

A. coverage broader than required by the **written contract**; or

B. a higher limit of insurance than required by the **written contract**.

IV. The insurance granted by this endorsement to the additional insured does not apply to **bodily injury**, **property damage**, or **personal and advertising injury** arising out of:

A. the rendering of, or the failure to render, any professional architectural, engineering, or surveying services, including:

1. the preparing, approving, or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; and

2. supervisory, inspection, architectural or engineering activities; or

B. any premises or work for which the additional insured is specifically listed as an additional insured on another endorsement attached to this **coverage part**.

V. Under **COMMERCIAL GENERAL LIABILITY CONDITIONS**, the Condition entitled **Other Insurance** is amended to add the following, which supersedes any provision to the contrary in this Condition or elsewhere in this **coverage part**:

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Primary and Noncontributory Insurance

With respect to other insurance available to the additional insured under which the additional insured is a named insured, this insurance is primary to and will not seek contribution from such other insurance, provided that a **written contract** requires the insurance provided by this policy to be:

1. primary and non-contributing with other insurance available to the additional insured; or
2. primary and to not seek contribution from any other insurance available to the additional insured.

But except as specified above, this insurance will be excess of all other insurance available to the additional insured.

VI. Solely with respect to the insurance granted by this endorsement, the section entitled **COMMERCIAL GENERAL LIABILITY CONDITIONS** is amended as follows:

The Condition entitled **Duties In The Event of Occurrence, Offense, Claim or Suit** is amended with the addition of the following:

Any additional insured pursuant to this endorsement will as soon as practicable:

1. give the Insurer written notice of any **claim**, or any **occurrence** or offense which may result in a **claim**;
2. send the Insurer copies of all legal papers received, and otherwise cooperate with the Insurer in the investigation, defense, or settlement of the **claim**; and
3. make available any other insurance, and tender the defense and indemnity of any **claim** to any other insurer or self-insurer, whose policy or program applies to a loss that the Insurer covers under this **coverage part**. However, if the **written contract** requires this insurance to be primary and non-contributory, this paragraph **3.** does not apply to insurance on which the additional insured is a named insured.

The Insurer has no duty to defend or indemnify an additional insured under this endorsement until the Insurer receives written notice of a **claim** from the additional insured.

VII. Solely with respect to the insurance granted by this endorsement, the section entitled **DEFINITIONS** is amended to add the following definition:

Written contract means a written contract or written agreement that requires you to make a person or organization an additional insured on this **coverage part**, provided the contract or agreement:

A. is currently in effect or becomes effective during the term of this policy; and

B. was executed prior to:

1. the **bodily injury** or **property damage**; or
2. the offense that caused the **personal and advertising injury**;

for which the additional insured seeks coverage.

Any coverage granted by this endorsement shall apply solely to the extent permissible by law.

All other terms and conditions of the Policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the Policy issued by the designated Insurers, takes effect on the effective date of said Policy at the hour stated in said Policy, unless another effective date is shown below, and expires concurrently with said Policy.

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NOTARY STATEMENT

STATE OF Oklahoma)
) §
COUNTY OF Oklahoma)

I, Kerri Shelton, a Notary Public in and for said County and State, do hereby certify that on this 4th day of December, 20 20, Mark Nowell personally known to me to be the same person and official who executed the above foregoing instrument as Agent, appeared before me in person and acknowledged that, as such official, he/she executed the above instrument as his/her free and voluntary act on behalf of Rich & Cartmill, Inc. pursuant to authority conferred and for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and seal the day and year last above written.

KERRI SHELTON NOTARY #19005335 EXP. 05/23/2023 PUBLIC STATE OF OKLAHOMA

Notary Public

19005335
Notary Commission Number

My Commission Expires:

05/23/2023
(Seal)

FIRS-25 OP ID: L2

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 12/04/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
RICH & CARTMILL - OKC
9401 Cedar Lake Avenue
Oklahoma City, OK 73114
Mark Nowell

CONTACT NAME: Michelle Lunski
PHONE (A/C, No, Ext):
FAX (A/C, No):
E-MAIL ADDRESS: mlunski@rcins.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Continental Ins Co.	35289
INSURER B : Valley Forge Ins Co.	20508
INSURER C : Continental Casualty Co	20443
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
First Water Contracting, LLC
2400 SE 15th St
Oklahoma City, OK 73129

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

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INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR			6057111287	03/08/2020	03/08/2021	DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
C	X Prof Liability			6057537111	03/08/2020	03/08/2021	MED EXP (Any one person)	$ 15,000
C	X Poll Liability			6057537111	03/08/2020	03/08/2021	PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY X PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:						Prof&Poll	$ 1,000,000
B	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO			6057111290	03/08/2020	03/08/2021	BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$
	DED RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						X PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N (Mandatory in NH)	N/A		6057111306	04/01/2020	04/01/2021	E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A	Equipment Floater			6057111287	03/08/2020	03/08/2021		

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Project: The Grove at Shawnee- Approach

Notary Statement Attached.

CERTIFICATE HOLDER

CITYS08

City of Shawnee
P O Box 1448
Shawnee, OK 74802-1448

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Mark D Nowell

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The ACORD name and logo are registered marks of ACORD

North American Specialty Insurance Company
650 Elm Street
Manchester, NH 03101

MAINTENANCE BOND

Bond No. 2316177

KNOW ALL BY THESE PRESENTS,

That We, First Water Contracting, LLC
(hereinafter called the "Principal"), as Principal, and **North American Specialty Insurance Company**, of Manchester, New Hampshire, a New Hampshire corporation duly licensed to transact business in the State of Oklahoma, (hereinafter called the "Surety"), as Surety, are held and firmly bound City of Shawnee (hereinafter called the "Obligee"), in the sum in the sum of One MIllion Fifty Thousand Five Hundred Thirty Two & 00/100---1st Yr / One Hundred Five Thousand Five Hundred Thirty Two & 20/100---Next 4 Yrs Dollars ($ 1,050,532.00* / $105,053.20**), for the payment of which sum well and truly to be made, we, the said Principal and said Surety bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly be these presents.

WHEREAS the Principal has entered into a written contract with said Obligee dated the 16th day of April, 20 21, for Wildwood - Paving & Drainage

and

WHEREAS, the said Principal is required to guarantee the installed under said contract, against defects in materials or workmanship which may develop for a period of (5) year(s) from and after the date of acceptance of said work.

In no event shall losses paid under this bond aggregate more than the amount of this bond.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that said Principal shall faithfully carry out and perform the said guarantee, and shall, on due notice, repair and make good at its own expense any and all defects in materials and workmanship in the said work which may develop during the period specified above or shall pay over, make good and reimburse to the said obligee all losses sustained by reason of failure or default of said Principal so to do, then this obligation shall be null and void; otherwise shall remain in full force and effect.

Sealed with our seals and dated the 20th day of April, 20 21.

First Water Contracting, LLC
Principal

By _____

North American Specialty Insurance Company

By _____
Attorney-In-Fact Deborah L. Raper

*First Year Maintenance Amount
**2nd Through 5th Years Maintenance Amount

SWISS RE CORPORATE SOLUTIONS

NORTH AMERICAN SPECIALTY INSURANCE COMPANY
WASHINGTON INTERNATIONAL INSURANCE COMPANY

GENERAL POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, THAT North American Specialty Insurance Company, a corporation duly organized and existing under laws of the State of New Hampshire, and having its principal office in the City of Kansas City, Missouri, and Washington International Insurance Company, a corporation organized and existing under the laws of the State of New Hampshire and having its principal office in the City of Kansas City, Missouri, each does hereby make, constitute and appoint:

JOHN K. DEER, VAUGHN P. GRAHAM, VAUGHN P. GRAHAM, JR., STEPHEN M. POLEMAN, TRAVIS E. BROWN, DEBORAH L. RAPER, JAMIE BURRIS,SHELLI R. SAMSEL,

MARK D. NOWELL, CATHY COMBS, VICKI WILSON, AUSTIN K. GREENHAW, CLAYTON HOWELL, CAREY L. KENNEMER, RANDY D. WEBB, AARON WOOLSEY, GARY LILES, and THOMAS PERRAULT

JOINTLY OR SEVERALLY

Its true and lawful Attorney(s)-in-Fact, to make, execute, seal and deliver, for and on its behalf and as its act and deed, bonds or other writings obligatory in the nature of a bond on behalf of each of said Companies, as surety, on contracts of suretyship as are or may be required or permitted by law, regulation, contract or otherwise, provided that no bond or undertaking or contract or suretyship executed under this authority shall exceed the amount of:

FIFTY MILLION ($50,000,000.00) DOLLARS

This Power of Attorney is granted and is signed by facsimile under and by the authority of the following Resolutions adopted by the Boards of Directors of both North American Specialty Insurance Company and Washington International Insurance Company at meetings duly called and held on the 9th of May, 2012:

"RESOLVED, that any two of the Presidents, any Managing Director, any Senior Vice President, any Vice President, any Assistant Vice President, the Secretary or any Assistant Secretary be, and each or any of them hereby is authorized to execute a Power of Attorney qualifying the attorney named in the given Power of Attorney to execute on behalf of the Company bonds, undertakings and all contracts of surety, and that each or any of them hereby is authorized to attest to the execution of any such Power of Attorney and to attach therein the seal of the Company; and it is

FURTHER RESOLVED, that the signature of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be binding upon the Company when so affixed and in the future with regard to any bond, undertaking or contract of surety to which it is attached."

By _____
Steven P. Anderson, Senior Vice President of Washington International Insurance Company
& Senior Vice President of North American Specialty Insurance Company

By _____
Michael A. Ito, Senior Vice President of Washington International Insurance Company
& Senior Vice President of North American Specialty Insurance Company

IN WITNESS WHEREOF, North American Specialty Insurance Company and Washington International Insurance Company have caused their official seals to be hereunto affixed, and these presents to be signed by their authorized officers this 18th day of FEBRUARY, 2021.

North American Specialty Insurance Company
Washington International Insurance Company

State of Illinois
County of Cook ss:

On this 18th day of FEBRUARY, 2021, before me, a Notary Public personally appeared Steven P. Anderson, Senior Vice President of Washington International Insurance Company and Senior Vice President of North American Specialty Insurance Company and Michael A. Ito, Senior Vice President of Washington International Insurance Company and Senior Vice President of North American Specialty Insurance Company, personally known to me, who being by me duly sworn, acknowledged that they signed the above Power of Attorney as officers of and acknowledged said instrument to be the voluntary act and deed of their respective companies.

OFFICIAL SEAL
M. KENNY
Notary Public - State of Illinois
My Commission Expires
12/04/2021

M. Kenny, Notary Public

I, Jeffrey Goldberg, the duly elected Assistant Secretary of North American Specialty Insurance Company and Washington International Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney given by said North American Specialty Insurance Company and Washington International Insurance Company, which is still in full force and effect.

IN WITNESS WHEREOF, I have set my hand and affixed the seals of the Companies this 20th day of April, 2021.

Jeffrey Goldberg, Vice President & Assistant Secretary of
Washington International Insurance Company & North American Specialty Insurance Company

FIRSWAT-01 MLUNSKI

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 4/19/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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PRODUCER	CONTACT NAME: Michelle Lunski
Rich & Cartmill, Inc. 9401 Cedar Lake Avenue Oklahoma City, OK 73114	PHONE (A/C, No, Ext): (405) 418-8611 FAX (A/C, No): E-MAIL ADDRESS: mlunski@rcins.com

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
First Water Contracting, LLC 2400 SE 15th St Oklahoma City, OK 73129	INSURER A : Continental Ins Co	35289
	INSURER B : Valley Forge Ins Co	20508
	INSURER C : National Fire Ins Co of Hart	20478
	INSURER D : Columbia Casualty Ins Co	31127
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

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INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC [ ] OTHER:			6057111287	3/8/2021	3/8/2022	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 100,000 $ 15,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
B	AUTOMOBILE LIABILITY [X] ANY AUTO [ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS [X] HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY			6057111290	3/8/2021	3/8/2022	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
A	[X] UMBRELLA LIAB [X] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [X] RETENTION $ 10,000			6057111323	3/8/2021	3/8/2022	EACH OCCURRENCE AGGREGATE Prod-Comp Ops	$ 5,000,000 $ 5,000,000 $ 5,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N [ ] (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		6057111306	4/1/2021	4/1/2022	[X] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ 1,000,000 $ 1,000,000 $ 1,000,000
A	Equipment Floater			6057111287	3/8/2021	3/8/2022		
D	Prof&Poll Liability			6057537111	3/8/2021	3/8/2022	Occurrence/Aggregate	2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Project: Wildwood- P&D

Notary Statement Attached.

CERTIFICATE HOLDER

City of Shawnee
16 W. 9th St
Shawnee, OK 74802

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Mark D Nanell

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NOTARY STATEMENT

STATE OF Oklahoma)
) §
COUNTY OF Oklahoma)

I, Kerri Shelton, a Notary Public in and for said County and State, do hereby certify that on this 19th day of April, 2021, Mark Nowell personally known to me to be the same person and official who executed the above foregoing instrument as Agent, appeared before me in person and acknowledged that, as such official, he/she executed the above instrument as his/her free and voluntary act on behalf of Rich & Cartmill, Inc. pursuant to authority conferred and for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and seal the day and year last above written.

KERRI SHELTON NOTARY #19005335 EXP. 05/23/2023 PUBLIC STATE OF OKLAHOMA

Notary Public

19005335
Notary Commission Number

My Commission Expires:

05/23/2023
(Seal)

FIRSWAT-01 MLUNSKI

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 4/19/2021

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PRODUCER
Rich & Cartmill, Inc.
9401 Cedar Lake Avenue
Oklahoma City, OK 73114

CONTACT NAME: Michelle Lunski
PHONE (A/C, No, Ext): (405) 418-8611 FAX (A/C, No):
E-MAIL ADDRESS: mlunski@rcins.com

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INSURER F :	

INSURED
First Water Contracting, LLC
2400 SE 15th St
Oklahoma City, OK 73129

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

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INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	[ ] CLAIMS-MADE [X] OCCUR	X		6057111287	3/8/2021	3/8/2022	DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
							MED EXP (Any one person)	$ 15,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	[ ] POLICY [X] PRO-JECT [ ] LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	[ ] OTHER:							$
B	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	[X] ANY AUTO	X		6057111290	3/8/2021	3/8/2022	BODILY INJURY (Per person)	$
	[ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	[X] HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
A	[X] UMBRELLA LIAB [X] OCCUR						EACH OCCURRENCE	$ 5,000,000
	[ ] EXCESS LIAB [ ] CLAIMS-MADE			6057111323	3/8/2021	3/8/2022	AGGREGATE	$ 5,000,000
	[ ] DED [X] RETENTION $ 10,000						Prod-Comp Ops	$ 5,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						[X] PER STATUTE [ ] OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N [ ] (Mandatory in NH)	N / A		6057111306	4/1/2021	4/1/2022	E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A	Equipment Floater			6057111287	3/8/2021	3/8/2022		
D	Prof&Poll Liability			6057537111	3/8/2021	3/8/2022	Occurrence/Aggregate	2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Project: Wildwood- P&D
As required by written contract, subject to policy terms and exclusions, the Certificate Holder is included as an Additional Insured as respects General Liability and Auto Liability.

CERTIFICATE HOLDER

Salazar Homes, Inc
c/o Crafton Tull & Associates
300 Pointe Parkway Blvd.
Yukon, OK 73099

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
Mark D Nanell

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Regular Board of Commissioners 2. e. 1.
Meeting Date: 07/18/2022
Agreement
Submitted By: Kacie Eck, City Clerk
Department: City Clerk

Information
Title of Item for Agenda
Agreement with South Central Industries, Inc. for Right-of-way Maintenance Services.

Attachments
Agreement

AGREEMENT FOR ROW MAINTENANCE SERVICES

This contract made and entered into this 1st day of July, 2022, between the City of Shawnee, Oklahoma, hereinafter referred to as "City" and South Central Industries, Inc., 130 North Louisa, Shawnee, Oklahoma, hereinafter referred to as "Contractor".

WHEREAS, the Contractor has submitted a Proposal pursuant to a request by the City of Shawnee to furnish trash pickup on the City right of ways.

NOW THEREFORE, in consideration of the mutual agreements and covenants herein contained, it is understood and agreed by and between Contractor and City that:

1. The term of this contract is from July 1, 2022 to June 30, 2023. At the end of the term of the contract, the City may continue the contract for the succeeding fiscal year or discontinue the contract with no penalty upon thirty (30) days written notice to the Contractor at any time.

2. The City agrees to pay and the Contractor agrees to accept in full consideration for the performance of the Contractor's obligations, the sum of $1,995.00 (One Thousand Nine Hundred Ninety-Five Dollars) per month.

3. This contract constitutes the entire agreement and understanding between the parties hereto, and shall not be modified, altered, changed or amended in any respect unless in writing and signed by both parties hereto.

4. Contractor shall not assign this contract to another party, company, partnership or corporation without specific approval in writing from the City.

5. This Contract shall be governed by the laws of the State of Oklahoma both as to interpretation and performance.

6. The Contractor shall procure a policy of Workers' Compensation Insurance and shall procure a policy of liability insurance, the terms, limits and conditions of which shall be acceptable to the City.

7. The Contractor shall furnish transportation for its workers to and from the various Right of Way locations and transport trash to dumpsters at various locations. Cleanup location list attached to contract.

8. The City shall provide necessary supplies so the Contractor can pick up trash in accordance with the list.

9. It is agreed this agreement shall not be construed as a joint venture agreement or partnership between the City and the Contractor, and the Contractor is not an agent or entity of the City. On the contrary, the Contractor is an independent contractor and shall be responsible for its acts and omissions.

CLEANUP LOCATIONS

- Kickapoo 1 (Both sides) — 45th to north edge of Shawnee Mall
- Kickapoo 2 (Both sides) — 45th to Hazel Dale Road (Pistol Range)
- Mission Parkway — Kickapoo to Dead End East
- Mall Drive — Kickapoo to Harrison
- Harrison (Both sides) — MacArthur to Wolverine (including Westech ¼ mile east.)
- Bryan (Both sides) — 45th to Highland (North-South)
- Highland (Both sides) — Bryan to River Bridge
- Gordon Cooper (Both sides) — Farrall to River Bridge
- Farrall (Both sides) — Leo to Pottenger (No medians)
- Leo Street 1 (Both sides) — Farrall North to Central Plastics
- Lake Road (Both sides) — Kennedy to River Bridge
- Lake Road (Both sides) — Hwy 102 and Lake Road
- Daily Lane (Both sides) — South off of Lake Rd East of Hwy 177 (Dirt Road)
- Kickapoo Spur (Both sides) — Kickapoo to SH-177 & Clover Leafs (No median)
- Independence (Both sides) — Airport Drive to EXPO Center
- MacArthur (Both sides) — SH-177 to Airport Drive
- Leo 2 (Both sides) — 45th to Macarthur
- Acme (Both sides) — 45th to Macarthur
- 45th (Both sides) — Leo to Bryan (East to West)
- Union (Both sides) — 45th to ¼ south

IT WITNESS WHEREOF, we, the contracting parties, by our duly authorized agents, hereto affix our signatures and seals at Shawnee, Oklahoma, on _____.

CITY OF SHAWNEE, OKLAHOMA

_____
ANDREA WECKMUELLER-BEHRINGER,
CITY MANAGER

(SEAL)
ATTEST:

_____
LISA LASYONE, CMC, CITY CLERK

SOUTH CENTRAL INDUSTRIES, INC.

_____
ADMINISTRATOR

_____
SECRETARY/NOTARY

Approved as to form and legality on _____.

_____
JOSEPH M. VORNDRAN, CITY ATTORNEY

Regular Board of Commissioners 2. e. 2.

Meeting Date: 07/18/2022

Agreement

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Agreement with Shawnee Shotgun Club for use of City Property known as Shawnee Twin Lakes Trap Range.

Attachments

Agreement

AGREEMENT

This Agreement ("Agreement") is entered into between the CITY OF SHAWNEE, a municipal corporation LESSOR ("City"), and the SHAWNEE SHOTGUN CLUB, collectively the ("Parties").

WHEREAS the City is the owner of public property and facilities known as The Shawnee Twin Lakes Trap Range, in the City of Shawnee, Pottawatomie County, State of Oklahoma, and;

WHEREAS the City recognizes that the Trap Range and facilities located at the North East corner of Patterson Road and Hardesty Road shall be used for certain recreational purposes for the benefit of the health, safety and welfare of the residents of the of the City of Shawnee, and;

WHEREAS, it is the desire of the parties to set out in detail the rights and responsibilities of the parties regarding the operations of the Sporting Trap area of the Range and the use of City property.

NOW, THEREFORE, in consideration of the covenants, terms and conditions herein contained, the City and the SHAWNEE SHOTGUN CLUB agree as follows:

1. The City hereby grants the right and privilege to the SHAWNEE SHOTGUN CLUB to use the facilities and property located generally at the North East corner of Patterson Road and Hardesty Road, City of Shawnee, Pottawatomie County, State of Oklahoma, East half of property, hereinafter jointly referred to as the "Property".

2. This Agreement shall commence on July 1, 2022 and end on June 30, 2023 unless sooner terminated in accordance with the express provisions of this Agreement or renewed as provided in this section. This Agreement shall automatically renew for successive one (1) year terms at the end of the Original Term and each subsequent renewal term, unless revoked in writing by the City or the SHAWNEE SHOTGUN CLUB, by May 1st of the then-current renewal term. It is further agreed that either of the Parties shall have the right and privilege of terminating this Agreement at any time in the event of a material default by the other Party, upon giving sixty (60) days' notice, in writing, delivered by certified mail, to the other Party of its intention to terminate provided the other party fails to cure, or commence the taking of actions designed to cure, such default within such sixty (60) day time period. In the event this Agreement is terminated, all rights and interests of the Parties hereto shall thereupon cease. Upon termination of this Agreement, the SHAWNEE SHOTGUN CLUB shall retain all rights to maintenance equipment, concession equipment, and all other items not considered permanent structural improvements or not purchased by the City. Any and all structures which have been placed or constructed on the Property by the SHAWNEE SHOTGUN CLUB shall become the property of the City unless otherwise mutually agreed to in writing by the

City and the SHAWNEE SHOTGUN CLUB. The Parties acknowledge that the SHAWNEE SHOTGUN CLUB shall pay to the City a sum of One Dollar ($1.00) on the first day of July every calendar year as lease payment for use of the Property. The Parties acknowledge that at the time of execution of this agreement there have been no permanent improvements constructed by the SHAWNEE SHOTGUN CLUB.

3. Before any changes are made in the improvements, structures, or land and before the construction of any permanent building, the SHAWNEE SHOTGUN CLUB shall obtain approval from the City Manager or his designee for such changes or construction costing Fifty Thousand Dollars ($50,000.00) or less. All changes or construction costing in excess of Fifty Thousand Dollars ($50,000.00) shall require the approval of the City Commission.

4. It is agreed that the Property area is to be used by the SHAWNEE SHOTGUN CLUB solely for the purposes of recreation and education, and development of sports skills, primarily for the purpose of shooting sport traps, and associated supportive services. Any other use of the Property area must be approved by the City. The SHAWNEE SHOTGUN CLUB shall provide the City with by-laws, league rules, league registration fees and schedules of all the SHAWNEE SHOTGUN CLUB activities. It is further agreed between the Parties that the SHAWNEE SHOTGUN CLUB shall make every effort to accommodate the City of Shawnee residents to facilitate shared use. If the SHAWNEE SHOTGUN CLUB makes the property available for use by others, the SHAWNEE SHOTGUN CLUB shall make ready the facilities, determine costs and assess such costs against such entities using the property.

5. The SHAWNEE SHOTGUN CLUB shall not assign this Agreement, or any interest herein, or sublet any portion of the Property area without the consent of the City Manager or his designee. The SHAWNEE SHOTGUN CLUB may grant permission and authority to any entities to occupy and use the Property area for any supportive services necessary for SHAWNEE SHOTGUN CLUB or for the conduct of a function not sponsored by SHAWNEE SHOTGUN CLUB. SHAWNEE SHOTGUN CLUB will be responsible for informing all other entities using the City property of the rules and obligations for the use of the property.

6. The SHAWNEE SHOTGUN CLUB will hold the City harmless and exempt from any damage or injury to persons or any damage to property of every kind arising from the management and use of the Property area by the SHAWNEE SHOTGUN CLUB, its invitees, employees, representatives

and successors from the failure of the SHAWNEE SHOTGUN CLUB to keep the Property and structures in good condition and repair or for any negligent or intentional act committed by SHAWNEE SHOTGUN CLUB, its employees, officers, successors and assigns resulting in injury of any kind.

7. The SHAWNEE SHOTGUN CLUB, at its expense, shall keep in force, during the term of this Agreement, Public Liability Insurance issued by an insurance company authorized to conduct business in Oklahoma by the Oklahoma Insurance commissioner. The insurance will be in a form acceptable to the City Attorney and City Manager for the City, for the protection of the City and the SHAWNEE SHOTGUN CLUB against all liabilities, judgments, costs, damages and expenses which may accrue against, be charged to, or recovered from City, on account of any matter or thing which may occur on the Property, excluding Participants who will not be covered during the actual participation in an event, in a Public Liability Insurance policy or policies in the amount of One Million Dollars ($1,000,000.00). The use of the Sporting Trap area by any entity other than SHAWNEE SHOTGUN CLUB will require that entity to comply with the requirements of this paragraph for the obtaining of insurance. The insurance obtained will include a rider for the City and SHAWNEE SHOTGUN CLUB to be covered by the policy.

8. The Shawnee Shotgun Club will share the building space with the Trap Club (currently the STLTC). The SHAWNEE SHOTGUN CLUB will provide maintenance to Sporting Trap area including mowing of the area, cost share with the STLTC janitorial and sanitizing service and supplies, trash receptacles and liners to be disposed of on an as needed basis, field supplies and other equipment. Major repairs to existing facilities such as replacing buildings, roofs, sewer lines, major water line breaks, parking lot repairs, and fencing replacement previously installed by the City, and other repairs traditionally within the responsibility of the "landlord", will be the responsibility of the City at no cost to the SHAWNEE SHOTGUN CLUB. The SHAWNEE SHOTGUN CLUB will be responsible for helping with minor repairs to the building, replacement of equipment, minor plumbing repairs such as clogged toilets, clogged sink drains, toilet and sink replacement, light bulb replacement and all maintenance and repair to new facilities constructed by the SHAWNEE SHOTGUN CLUB for at least one (1) year after construction and during warranty period. All members and employees of the lessee that work on or do repairs will be considered independent contractors and not working for the City. The SHAWNEE SHOTGUN CLUB shall be responsible for ensuring that trash is picked up from grounds after events and deposited into the dumpster provided by the City. The SHAWNEE SHOTGUN CLUB shall exercise a high degree

of care in ensuring grounds are continually in good repair during the term of this agreement. The City shall be charged for electric services and the SHAWNEE SHOTGUN CLUB will exercise reasonable efforts to conserve electric. The SHAWNEE SHOTGUN CLUB will provide and pay for their own phone service.

9. The SHAWNEE SHOTGUN CLUB will exercise reasonable efforts to make its customers aware of parking regulations during SHAWNEE SHOTGUN CLUB activities to assist the City in an effort to insure that the ground and vegetation of the Property, and adjacent premises, are not damaged by vehicles being driven or parked in places other than those defined by signage or in the plan as road or parking areas.

10. The SHAWNEE SHOTGUN CLUB agrees to provide activities, primarily for Shawnee area residents without discrimination as to race, religion, color, creed, sex, or national origin.

11. If any person believes that the SHAWNEE SHOTGUN CLUB has violated the provisions of this Agreement and has exhausted all appeal procedures through the SHAWNEE SHOTGUN CLUB Board, that person may file a written complaint with the City Manager or his designee. The City Manager or his designee shall so advise the SHAWNEE SHOTGUN CLUB, provide it with a copy of the complaint, and give the SHAWNEE SHOTGUN CLUB ten (10) days to consult with counsel and file a written response with the City Manager or his designee. Thereafter, the City Manager or his designee may, if he/she deems prudent, conduct an investigation into the situation, and within thirty (30) days of the response by the SHAWNEE SHOTGUN CLUB, advise of a ruling on the matter. Failure of the SHAWNEE SHOTGUN CLUB to follow the directions so given by the City Manager or his designee may result in the termination of this Agreement (without further notice).

12. The City Manager may designate one (1) person to serve as a non-voting, advisory to the SHAWNEE SHOTGUN CLUB Board. Alternatively, the SHAWNEE SHOTGUN CLUB may designate one (1) person to serve as liaison between the SHAWNEE SHOTGUN CLUB and the City Parks Department to address issues regarding maintenance and program administration. The SHAWNEE SHOTGUN CLUB will provide the City semi-annual financial statements and reports of business activities. There shall be ultimate City Commission review for capital improvements in excess of fifty thousand dollars ($50,000.00). The SHAWNEE SHOTGUN CLUB shall permit City or City's designee to conduct a financial review of its operations at any time per discretion of the City.

13. The SHAWNEE SHOTGUN CLUB shall maintain a local contact, accessible to the City and the public at reasonable hours and otherwise make arrangements to accommodate the working public to the extent necessary for registration and similar activities. The contact will be responsible for disseminating all administrative and operational functions to include management, registration, access to all records that are subject to disclosure pursuant to Title 51 O.S. §24A.1, et seq., known as the Oklahoma Open Records Act, and access to the operational staff.

14. This Agreement shall only be amended in writing by the mutual consent of the SHAWNEE SHOTGUN CLUB and the City. In the event that anyone or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, the other provisions of the Agreement shall not be affected. The Agreement shall be construed as if the valid, legal, or enforceable provisions for the Agreement were not affected, and the Agreement shall be construed as if the invalid, illegal, or unenforceable provisions had never been contained therein. No terms inconsistent with this Agreement shall be deemed binding on the parties. This Agreement contains all essential terms necessary to accomplish the purposes expressed by the parties and any other prior agreements, written or oral, consistent or inconsistent with the terms herein, are hereby rendered null and void. The parties also agree that this Agreement is fully integrated, embracing all essential terms necessary to carry out the purpose stated herein.

IN WITNESS HEREOF the City of Shawnee, and Shawnees Shotgun Club, by their representatives, set their hands to this Agreement on _____.

THE CITY OF SHAWNEE, OKLAHOMA

_____
ANDREA WECKMUELLER-BEHRINGER,
CITY MANAGER

ATTEST:
(SEAL)

_____
LISA LASYONE, CMC, CITY CLERK

SHAWNEE SHOTGUN CLUB

PRESIDENT/CHAIRMAN

SECRETARY/NOTARY

Approved as to form and legality on _____.

JOSEPH M. VORNDRAN, CITY ATTORNEY

Regular Board of Commissioners 4.

Meeting Date: 07/18/2022

Presentation

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Presentation by the United States Small Business Administration to present information on federal disaster loans.

Attachments

Presentation

City Manager's Office
16 W. 9th St.
Shawnee, OK 74801
ShawneeOK.org

Date: July 14, 2022

To: City Commission

From: Andrea Weckmueller-Behringer, City Manager

Subject: U.S. Small Business Administration Presentation on Federal Disaster Loans

Background: Following the disaster declaration for severe storms, tornados, and flooding events that took place between May 2 and May 8, 2022, Pottawatomie County businesses, homeowners, and renters as well as private, non-profit organizations are eligible for a variety of Federal Disaster Loans.

Ms. Barbara Nitis from the U.S. Small Business Administration (SBA) Office of Disaster Assistance will provide an overview of available assistance, which is broken out into the following three categories:

- Business Physical Disaster Loans – to repair and replace disaster-damaged property
- Economic Injury Disaster Loans (EIDL) – to provide working capital to meet financial obligations
- Home Disaster Loans – to repair or replace disaster-damaged real estate and personal property

Financial Impact: None.

Attachment: U.S. SBA Disaster Loans Fact Sheet

Staff Recommendation: Informational item only.

Date: 06/30/2022

U.S. Small Business Administration

U.S. SMALL BUSINESS ADMINISTRATION
FACT SHEET - DISASTER LOANS

OKLAHOMA Declaration #17499 & #17500
(Disaster: OK-00157)
Incident: SEVERE STORMS, TORNADOES & FLOODING

occurring: *May 2 through May 8, 2022*

*in the **Oklahoma** counties of:* ***Adair, Cherokee, Muskogee, Okmulgee, Pottawatomie, Seminole & Tulsa;***

*for economic injury only in the contiguous **Oklahoma** counties of:* ***Cleveland, Creek, Delaware, Haskell, Hughes, Lincoln, Mayes, McClain, McIntosh, Okfuskee, Oklahoma, Osage, Pawnee, Pontotoc, Rogers, Sequoyah, Wagoner & Washington;***

*and for economic injury only in the contiguous **Arkansas** counties of:* ***Benton, Crawford & Washington***

Application Filing Deadlines:
Physical Damage: *August 29, 2022* **Economic Injury: *March 29, 2023***

If you are located in a declared disaster area, you may be eligible for financial assistance from the U.S. Small Business Administration (SBA).

What Types of Disaster Loans are Available?

- Business Physical Disaster Loans – Loans to businesses to repair or replace disaster-damaged property owned by the business, including real estate, inventories, supplies, machinery and equipment. Businesses of any size are eligible. Private, non-profit organizations such as charities, churches, private universities, etc., are also eligible.
- Economic Injury Disaster Loans (EIDL) – Working capital loans to help small businesses, small agricultural cooperatives, small businesses engaged in aquaculture, and most private, non-profit organizations of all sizes meet their ordinary and necessary financial obligations that cannot be met as a direct result of the disaster. These loans are intended to assist through the disaster recovery period.
- Home Disaster Loans – Loans to homeowners or renters to repair or replace disaster-damaged real estate and personal property, including automobiles.

What are the Credit Requirements?

- Credit History – Applicants must have a credit history acceptable to SBA.
- Repayment – Applicants must show the ability to repay all loans.
- Collateral – Collateral is required for physical loss loans over $25,000 and all EIDL loans over $25,000. SBA takes real estate as collateral when it is available. SBA will not decline a loan for lack of collateral, but requires you to pledge what is available.

What are the Interest Rates?

By law, the interest rates depend on whether each applicant has Credit Available Elsewhere. An applicant does not have Credit Available Elsewhere when SBA determines the applicant does not have sufficient funds or other resources, or the ability to borrow from non-government sources, to provide for its own disaster recovery. An applicant, which SBA determines to have the ability to provide for his or her own recovery is deemed to have Credit Available Elsewhere. Interest rates are fixed for the term of the loan. The interest rates applicable for this disaster are:

Loan Types	No Credit Available Elsewhere	Credit Available Elsewhere
Home Loans	1.688%	3.375%
Business Loans	2.935%	5.870%
Non-Profit Organizations	1.875%	1.875%

Economic Injury Loans

Loan Types	No Credit Available Elsewhere	Credit Available Elsewhere
Businesses & Small Agricultural Cooperatives	2.935%	N/A
Non-Profit Organizations	1.875%	N/A

What are Loan Terms?

The law authorizes loan terms up to a maximum of 30 years. However, the law restricts businesses with credit available elsewhere to a maximum 7-year term. SBA sets the installment payment amount and corresponding maturity based upon each borrower's ability to repay.

What are the Loan Amount Limits?

- Business Loans – The law limits business loans to $2,000,000 for the repair or replacement of real estate, inventories, machinery, equipment and all other physical losses. Subject to this maximum, loan amounts cannot exceed the verified uninsured disaster loss.
- Economic Injury Disaster Loans (EIDL) – The law limits EIDLs to $2,000,000 for alleviating economic injury caused by the disaster. The actual amount of each loan is limited to the economic injury determined by SBA, less business interruption insurance and other recoveries up to the administrative lending limit. EIDL assistance is available only to entities and their owners who cannot provide for their own recovery from non-government sources, as determined by the U.S. Small Business Administration.
- Business Loan Ceiling – The $2,000,000 statutory limit for business loans applies to the combination of physical, economic injury, mitigation and refinancing, and applies to all disaster loans to a business and its affiliates for each disaster. If a business is a major source of employment, SBA has the authority to waive the $2,000,000 statutory limit.
- Home Loans – SBA regulations limit home loans to $200,000 for the repair or replacement of real estate and $40,000 to repair or replace personal property. Subject to these maximums, loan amounts cannot exceed the verified uninsured disaster loss.

What Restrictions are there on Loan Eligibility?

- Uninsured Losses – Only uninsured or otherwise uncompensated disaster losses are eligible. Any insurance proceeds which are required to be applied against outstanding mortgages are not available to fund disaster repairs and do not reduce loan eligibility. However, any insurance proceeds voluntarily applied to any outstanding mortgages do reduce loan eligibility.
- Ineligible Property – Secondary homes, personal pleasure boats, airplanes, recreational vehicles and similar property are not eligible, unless used for business purposes. Property such as antiques and collections are eligible only to the extent of their functional value. Amounts for landscaping, swimming pools, etc., are limited.
- Noncompliance – Applicants who have not complied with the terms of previous SBA loans may not be eligible. This includes borrowers who did not maintain flood and/or hazard insurance on previous SBA loans.

Note: Loan applicants should check with agencies / organizations administering any grant or other assistance program under this declaration to determine how an approval of SBA disaster loan might affect their eligibility.

Is There Help with Funding Mitigation Improvements?

If your loan application is approved, you may be eligible for additional funds to cover the cost of improvements that will protect your property against future damage. Examples of improvements include retaining walls, seawalls, sump pumps, etc. Mitigation loan money would be in addition to the amount of the approved loan, but may not exceed 20 percent of total amount of physical damage to real property, including leasehold improvements, and personal property as verified by SBA to a maximum of $200,000 for home loans. It is not necessary for the description of improvements and cost estimates to be submitted with the application. SBA approval of the mitigating measures will be required before any loan increase.

Is There Help Available for Refinancing?

- SBA can refinance all or part of prior mortgages that are evidenced by a recorded lien, when the applicant (1) does not have credit available elsewhere, (2) has suffered substantial uncompensated disaster damage (40 percent or more of the value of the property or 50% or more of the value of the structure), and (3) intends to repair the damage.
- Businesses – Business owners may be eligible for the refinancing of existing mortgages or liens on real estate, machinery and equipment, up to the amount of the loan for the repair or replacement of real estate, machinery, and equipment.
- Homes – Homeowners may be eligible for the refinancing of existing liens or mortgages on homes, up to the amount of the loan for real estate repair or replacement.

What if I Decide to Relocate?

You may use your SBA disaster loan to relocate. The amount of the relocation loan depends on whether you relocate voluntarily or involuntarily. If you are interested in relocation, an SBA representative can provide you with more details on your specific situation.

Are There Insurance Requirements for Loans?

To protect each borrower and the Agency, SBA may require you to obtain and maintain appropriate insurance. By law, borrowers whose damaged or collateral property is located in a special flood hazard area must purchase and maintain flood insurance. SBA requires that flood insurance coverage be the lesser of 1) the total of the disaster loan, 2) the insurable value of the property, or 3) the maximum insurance available.

Applicants may apply online, receive additional disaster assistance information and download applications at https://disasterloanassistance.sba.gov/. Applicants may also call SBA's Customer Service Center at (800) 659-2955 or email disastercustomerservice@sba.gov for more information on SBA disaster assistance. For people who are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services. Completed applications should be mailed to U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

Regular Board of Commissioners 5.

Meeting Date: 07/18/2022

Agreement

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Consideration of a Funding Agreement between the Oklahoma Development Finance Authority and the City of Shawnee for the City of Shawnee P3 Infrastructure Project.

Attachments

Documents

Office of Engineering

222 N. Broadway Ave.
Shawnee, OK 74801
ShawneeOK.org

Date: July 14, 2022

To: City Commission

From: Seth Barkhimer, Director of Engineering

Subject: Consideration of a Funding Agreement between the Oklahoma Development Finance Authority and the City of Shawnee for the City of Shawnee P3 Infrastructure Project.

Background: In early May of 2022, the Engineering office, with aid from the Tourism department and the City Manager's office, applied for an Oklahoma Public/Private Partnership (P3) Program grant through the Oklahoma Development Finance Authority (ODFA). In late May, staff presented to the ODFA and was given a positive determination on a seven hundred- and fifty-thousand-dollar ($750,000) grant for use on the Main Street bridge project.

The grant takes a portion of participating private partner's income taxes and withholds them for return to the applying public entity for use in an infrastructure project that will benefit the private partner. In our case, the Main Street bridge project was determined to benefit seventy-two businesses in Shawnee throughout the downtown area. In total, the downtown area had 18 businesses that agreed to participate in the P3 program. After review by the ODFA, six companies were selected and deemed of sufficient size to participate in the P3 program.

The funding agreement proposed, outlines the understanding between the ODFA and the City of Shawnee.

Staff recommends approval of the funding agreement. If you have any questions or need additional information, Staff is happy to provide additional information.

Financial Impact: $750,000 to Capital Outlay-Equipment, 302-5-0920-54800.

Attachment: Agreement.

Staff Recommendation: Approval of the agreement.

OKLAHOMA

May 12, 2022

Michael Davis; President & CEO
Oklahoma Development Finance Authority
9220 North Kelley Avenue
Oklahoma City, OK 73131

Re: Determination Letter – Positive Net Benefit for the P3 Development Pool

Mr. Davis:
The state of Oklahoma supports the City of Shawnee's infrastructure development project that replaces a ninety year-old structurally-deficient and load-rated bridge near downtown Shawnee. The bridge is utilized by customers, employees and suppliers for seventy-two businesses in the vicinity of the downtown district.

Pursuant to 62 O.S. § 891.18, the Oklahoma Department of Commerce has made a review of the information submitted by the city of Shawnee to the P3 Development Pool. The review by the Oklahoma Department of Commerce has determined that there is a positive net benefit to the state of Oklahoma associated with improving bridge infrastructure in Shawnee. This review is based on:

- Total development costs of $1,537,292 to replace a bridge and improve transportation and waterline infrastructure on Main Street in Shawnee;
- Seventy-two companies will be directly benefitted by the bridge and transportation infrastructure, and these companies employ more than 400 Oklahomans with average wages in excess of $42,500 and total payroll in excess of $16,500,000;
- Potential additional jobs created at these companies totaling 31 jobs over the next three years;
- Additional capital expenditures for these businesses totaling of nearly $1.0 million; and
- Sustaining access to of seventy-two businesses to distribution networks, labor and customers.

The positive net benefit to the state is based on projected future state revenues being greater than projected future state expenditures related to the above project parameters. State revenues include state sales and income taxes. State expenditures include, but are not limited to, state expenditures for education, highway, health, public welfare and police protection.

Oklahoma Department of Commerce
900 North Stiles Avenue
Oklahoma City, OK 73104

Due to the positive net benefit, if the City of Shawnee causes the construction and replacement of the bridge on East Main Street, as well as improved roadway and water infrastructure to serve seventy-two businesses in Shawnee, state withholding taxes of **up to $750,000** may be captured from the six companies below beginning anytime on or after June 1, 2022. The term of the project shall not be more than three years but may end sooner.

FEI	Company	Beginning Date
73-0444550	Shawnee Milling Company	On or After June 1, 2022
73-0989793	Mills Machine Company, Inc.	On or After June 1, 2022
73-1487669	Ritchie Rock & Atwood	On or After June 1, 2022
61-1519581	GOCS, Inc.	On or After June 1, 2022
26-4513115	Stuart & Clover, PLLC	On or After June 1, 2022
82-0820026	Downtown Auto Body	On or After June 1, 2022

The city of Shawnee and all of the companies associated with these projects are valued parts of Oklahoma's economy. This transportation infrastructure project benefit seventy-two companies listed with access to customers, labor and their respective supply chains. We look forward to partnering with the City of Shawnee on this infrastructure development project.

This award will expire in 180 days if recipient has not executed Pooled Finance incentive documents with ODFA. If you have any questions, please contact Jon Chiappe, of this office at 405.815.5210 or e-mail at jon.chiappe@okcommerce.gov.

Sincerely,

Brent Kisling
Executive Director; Oklahoma Department of Commerce

Cc: Oklahoma Tax Commission
City of Shawnee

Oklahoma Department of Commerce
900 North Stiles Avenue
Oklahoma City, OK 73104

FUNDING AGREEMENT

Between

THE OKLAHOMA DEVELOPMENT FINANCE AUTHORITY,
Authority,

And

CITY OF SHAWNEE,
Public Entity

Relating to:

$750,000
The Oklahoma Development Finance Authority
Community Economic Development Pooled Finance Act
Oklahoma Business Expansion Incentive Program
Public-Private Partner Development Infrastructure Pool
(City of Shawnee P3 Infrastructure Project)
Series 2022

Dated as of July 1, 2022

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FUNDING AGREEMENT

THIS FUNDING AGREEMENT (this "***Funding Agreement***") is made and entered into as of July 1, 2022, by and between **THE OKLAHOMA DEVELOPMENT FINANCE AUTHORITY**, a public trust and instrumentality of the State of Oklahoma (the "***Authority***"), and the **CITY OF SHAWNEE, OKLAHOMA,** an Oklahoma municipal corporation (the ***"Public Entity"***).

RECITALS

A. The Authority was organized pursuant to Title 60, Oklahoma Statutes 2021, Section 176 *et seq*., as amended, and Title 74, Oklahoma Statutes 2021, Section 5062.1 *et seq*., as amended (collectively, the "***ODFA Act***"), and is authorized and empowered, *inter alia*, to foster economic development within the State of Oklahoma (the "***State***"), by providing financing and other assistance to its citizens, including, but not limited to, issuing bonds, notes or other obligations and utilizing the proceeds thereof in furtherance of its mission.

B. The Authority is authorized under the Oklahoma Community Economic Development Pooled Finance Act, Title 62, Oklahoma Statutes 2021, Sections 891.1 *et seq.,* as amended (the "***Act***"), to administer various pooled finance programs pursuant to the provisions of the Act, and is designated to function as a "conduit issuer" within the meaning of the Act, which provides that the Authority shall act for the benefit of either a combination of local government entities or a local government entity or entities in conjunction with a for-profit business entity or entities for authorized economic development and infrastructure projects.

C. Specifically, in accordance with the Act, there has been created a Public-Private Partner Development Infrastructure Pool within the Oklahoma Business Expansion Incentive Program (the ***"Program"***) that is designed to be used for infrastructure projects in the State that benefit the private sector and where the infrastructure is owned by a public entity. The incentive offered by this Program targets job creation and retention, together with infrastructure development. The incentive is available to the State's public entities that enlist the support of existing for-profit businesses in the State, to develop or expand infrastructure that would benefit the community and area businesses. The financial incentive available to the public entity is in the form of a periodic cash payment (the ***"Award"***), which is funded by the Oklahoma Tax Commission's (the ***"Tax Commission"***) capture of certain eligible employee withholding taxes (the ***"Eligible Employee Withholding Taxes"***) paid to the State with respect to new jobs or existing jobs associated with the Federal Employer Identification Number (***"FEIN"***) of the participating for-profit business entities that elect to partner with and support the public entity's infrastructure project.

D. Section 891.18B of the Act permits an eligible public entity, in partnership with one or more for-profit business that would otherwise qualify to receive or benefit from proceeds of obligations issued by the Authority for the Public-Private Partner Development Infrastructure Pool, to seek from the Oklahoma Department of Commerce (***"ODOC"***), a determination letter (the ***"ODOC Award Letter"***), notifying the public entity that the proposed infrastructure project

described in its application will result in a positive net economic benefit to the State, using the methodology described in the Act.

E. If ODOC makes a determination that a positive net economic benefit exists with respect to a particular application, the applying public entity shall be allowed an Award, as a financial incentive under the Program. The amount of the Award, together with the terms and conditions associated therewith, if any, that must be observed or satisfied in connection with the capture of the Eligible Employee Withholding Taxes and the distribution of the Award to the public entity are set forth in the ODOC Award Letter. The Act mandates that such letter be distributed to an authorized representative of the applicant/public entity, and that copies be sent to the Oklahoma Tax Commission (the ***"Tax Commission"***) and the Authority.

F. A determination has been made by ODOC that the infrastructure development projects described by the Public Entity in the application it submitted to ODOC (collectively, the "***Project***"), together with the support and participation of each private sector, for-profit business entity listed in the ODOC Award Letter (each, a ***"Partner"***) will result in a positive net economic benefit to the State in accordance with the Act. As a result, the Project qualifies for an incentive Award under the Act, which shall be funded from the capture of Eligible Employee Withholding Taxes for the Public-Private Partner Development Infrastructure Pool Revolving Fund-City of Shawnee Project, Series 2022 (the ***"Revolving Fund***"), established by the Oklahoma State Treasurer pursuant to the Act. The Act further directs the Tax Commission to segregate and deposit to the Revolving Fund that percentage of the Eligible Employee Withholding Taxes associated with each Partner's FEIN, in accordance with the ODOC Award Letter which is attached hereto as Exhibit A and made a part hereof.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Authority and the Public Entity agree as follows:

ARTICLE I.
DEFINITIONS

Section 1.01 Definitions. Capitalized terms used but not otherwise defined herein shall have the meanings set forth below, unless the context or use clearly indicates otherwise.

.1 "***Act***" means the Oklahoma Community Economic Development Pooled Finance Act, Title 62, Oklahoma Statutes 2021, Sections 891.1 *et seq.,* as it may be amended from time to time.

.2 "***Authority***" means The Oklahoma Development Finance Authority, a public trust and instrumentality of the State, and its successors and assigns.

.3 ***"Award"*** means the award authorized to be made to the Public Entity by ODOC, pursuant to the ODOC Award Letter and this Funding Agreement.

.4 "***Eligible Employee Withholding Taxes***" means, as to each Partner, the amount of its eligible State employee withholding taxes with respect to all new or existing jobs in the State associated with the Partner's FEIN that are required to be collected and deposited in the

Revolving Fund by the Oklahoma Tax Commission, in accordance with the terms of the ODOC Award Letter and the Act.

.5 "***FEIN***" means the Federal Employer Identification Number of each Partner, set forth in the ODOC Award Letter.

.6 "***Facility***" means, collectively, the Public Entity's infrastructure projects in Oklahoma, for the City of Shawnee, as more particularly described in its application to ODOC and in the ODOC Award Letter.

.7 "***Funding Agreement***" means this Funding Agreement, dated as of July 1, 2022, between the Authority and the Public Entity, as the same may be amended and/or supplemented from time to time.

.8 "***ODFA Act***" means, collectively, Title 60, Oklahoma Statutes 2021, Section 176 *et seq*., as amended, and Title 74, Oklahoma Statutes 2021, Section 5062.1 *et seq*., as amended.

.9 "***ODOC***" means the Oklahoma Department of Commerce**.**

.10 ***"ODOC Award Letter"*** means the letter issued by ODOC that notifies the Public Entity that its analysis of the Project resulted in a determination that a positive net economic benefit to the State exists, lists each Partner and describes the terms and conditions of any Award to the Public Entity.

.11 ***"Partner"*** each for-profit business entity that has agreed to allow its Eligible Employee Withholding Taxes to be captured and invested in the infrastructure Project proposed by the Public Entity, in the percentage and for the duration described in the ODOC Award Letter.

.12 ***"Program"*** means the Public-Private Partner Development Infrastructure Pool, created within the Oklahoma Business Expansion Incentive Program pursuant to the Act, to foster infrastructure development within the State.

.13 "***Project***" means, collectively, the Public Entity's infrastructure development project in Oklahoma, for the City of Shawnee, as more particularly described in its application to ODOC and in the ODOC Award Letter.

.14 ***"Public Entity"*** means City of Shawnee, Oklahoma, an Oklahoma municipal corporation, and its successors and assigns.

.15 ***"Revolving Fund"*** means the Public-Private Partner Development Infrastructure Pool Revolving Fund-City of Shawnee Project, Series 2022, established by the State Treasurer pursuant to the Act.

.16 "***State***" means the State of Oklahoma.

.17 ***"Tax Commission"*** means the Oklahoma Tax Commission.

ARTICLE II.
FUNDING AGREEMENT

Section 2.01 Funding Agreement. The Public Entity has received an ODOC Award Letter notifying it that it has received an Award, the amount of the Award and the terms and conditions thereof. To the extent of available monies in the Revolving Fund, the Award shall be paid not more often than quarterly, commencing on or about October 15, 2022, and continuing not more often than quarterly thereafter, to and including July 15, 2025, or such earlier date the amount thereof shall be paid in full, all in accordance with the terms hereof and the ODOC Award Letter.

Section 2.02 Source of Award Payment. All Eligible Employee Withholding Taxes deposited to the credit of the Revolving Fund by the Tax Commission have been appropriated pursuant to the Act and will be budgeted and expended by the Authority for the payment of the Award and other costs associated therewith.

Section 2.03 Costs. The Public Entity shall bear its proportionate share of costs of the Program associated with its Award, including the following: (i) at closing a fee payable to the Authority in the amount of $15,000, which includes the acceptance fee of the Authority and the costs and expenses incurred by the Authority, including its legal fees and expenses, payable from the Revolving Fund at such time sufficient funds are available, and (ii) an annual fee in the amount of $4,000, payable to the Authority on July 15, 2023 and annually thereafter to and including July 15, 2025, which amounts shall be payable from the Revolving Fund at such time as sufficient funds are available.

Section 2.04 Change of Circumstances. If following the execution and delivery of this Funding Agreement, the Public Entity elects to terminate or reduce or alter its capital investment in the State or the scope and nature of the Project, the Authority and ODOC shall be promptly notified of such change of circumstances. If the proposed changes to its capital investment or the Project result in fewer jobs being created or retained or if the average of the wages associated with such jobs is reduced, ODOC shall conduct a review of its initial determination of the net positive economic benefit of the project to the State and advise the Authority and the Public Entity whether a reduced Award will result from such change of circumstances. If the Award for the Project is reduced, the Public Entity may elect to accept such reduced Award and the parties hereto shall amend the Public Entity's signature page hereto to reflect such change. If the Public Entity elects not to accept the reduced Award or if the Public Entity elects to terminate the Project, the parties shall execute a rescission agreement to evidence the termination of the Award.

Section 2.05 Termination of Funding Agreement. This Funding Agreement shall terminate, as between the Public Entity and the Authority, on the first to occur of one of the following events: (i) the date on which the Public Entity elects to terminate this Funding Agreement, in accordance with Section 2.04, above, (ii) the date on which the Public Entity's Award has been paid in full, or (iii) at 12:01 a.m. CT on July 16, 2025.

ARTICLE III.
REVOLVING FUND

Section 3.01 Purpose of Revolving Fund. The purpose of the Revolving Fund established by the State Treasurer pursuant to the Act is to receive certain Eligible Employee Withholding Taxes attributable to the income of new or existing jobs of employees in the State associated with each Partner's FEIN, which amounts shall be used by the Authority to pay the Award and other costs pursuant to the Act.

Section 3.02 Deposits to Revolving Fund. The Tax Commission is required by the Act to determine the amount of Eligible Employee Withholding Taxes attributable to the wages and other compensation of employees in the State associated with each Partner's FEIN and to deposit such amounts to the credit of the Revolving Fund.

Section 3.03 Corporate Income Tax Exception. Partners that participate in the Program will not be subject to corporate income tax associated with the segregation and payment of withholding taxes to local government entities when such payment is made for the purpose of infrastructure development under the Program.

Section 3.04 Application of Moneys in the Revolving Fund. The Authority is authorized by the Act to budget and expend amounts in the Revolving Fund for the purpose of paying such incentive Awards and other costs associated therewith. The Authority agrees that it shall budget and expend all Eligible Employee Withholding Taxes deposited to the Revolving Fund to the payment of the Award and other costs associated therewith. Pursuant to the Act, the Authority agrees to timely file claims with the Office of the State Treasurer and take such other actions as are necessary to transfer all such Eligible Employee Withholding Taxes then on deposit in the Revolving Fund to pay the Award and other costs associated therewith.

ARTICLE IV.
REPRESENTATIONS AND WARRANTIES OF THE AUTHORITY

Section 4.01 Representations and Warranties of the Authority. The Authority represents and warrants that:

(a) Existence; Authorization. The Authority is duly organized and validly existing as a public trust and instrumentality organized under the laws of the State with the State as its beneficiary and has the power and authority to execute and deliver this Funding Agreement and perform the duties contemplated of it thereunder. The Authority has duly adopted a resolution authorizing the execution and delivery of this Funding Agreement and making the Awards to the Public Entity hereunder.

(b) Binding Agreements. This Funding Agreement is the legal, valid and binding obligation of the Authority, enforceable against it in accordance with its terms, except that the enforceability thereof may be limited by laws relating to the bankruptcy or

insolvency of the Authority or other similar laws affecting creditors' rights generally or by general principles of equity.

(c) No Default. The execution and delivery of this Funding Agreement and the consummation of the transactions contemplated hereby will not conflict with, or constitute a breach of, or default by it under its declaration of trust, bylaws, or any statute, indenture, mortgage, deed of trust, lease, note, loan agreement or other agreement or instrument to which it is a party or by which it or its properties are bound, and will not constitute a violation of any order, rule or regulation of any court or governmental agency or body having jurisdiction over it or any of its activities or properties.

(d) Litigation. There are no actions, suits or proceedings of any type whatsoever pending or, to the best of its knowledge threatened against the Authority, seeking to prevent the execution and delivery of this Funding Agreement or affecting it or its assets, properties or operations which, if determined adversely to it or its interests, could have a material adverse effect upon its assets, properties or operations or the transactions contemplated hereby.

(e) Survival of Representations and Warranties. All covenants, representations and warranties of the Authority made herein shall survive the making of the execution of this Funding Agreement.

ARTICLE V.
REPRESENTATIONS AND WARRANTIES OF THE PUBLIC ENTITY

Section 5.01 Representations and Warranties of the Public Entity. The Public Entity represents and warrants that:

(a) Existence. The Public Entity is duly organized, validly existing agency of the State of Oklahoma in good standing and has full legal right, power and authority to execute and deliver this Funding Agreement and to carry out and consummate all transactions contemplated thereby. It has, by proper action duly taken, authorized the execution and delivery of this Funding Agreement.

(b) Binding Agreements. This Funding Agreement is the legal, valid and binding obligation of the Public Entity, enforceable against the Public Entity in accordance with its terms, except that the enforceability thereof may be limited by laws relating to the bankruptcy or insolvency of the Public Entity or other similar laws affecting creditors' rights generally or by general principles of equity.

(c) No Default. The execution and delivery of this Funding Agreement and the consummation of the transactions contemplated thereby, including the application of the proceeds of the Award, will not conflict with, or constitute a breach of, or default by it under its certificate of formation, or any statute, indenture, mortgage, deed of trust, lease, note, loan agreement or other agreement or instrument to which it is a party or by which it or its properties are bound, and will not constitute a violation of any order, rule or regulation of any court or governmental agency or body having jurisdiction over it or any of its activities or properties.

(d) Litigation. There are no actions, suits or proceedings of any type whatsoever pending or, to its knowledge, threatened against the Public Entity, seeking to prevent the execution and delivery of this Funding Agreement or affecting it, the Facility or its other assets, properties or operations as to which there is a reasonable possibility of an adverse determination and that if determined adversely to it or its interests would have a material adverse effect upon the Facility, or the financial condition, assets, properties or operations of the Public Entity.

(e) Compliance with Applicable Laws. To its knowledge, the Public Entity has not violated and is not now in violation in any material respect of any applicable statute, regulation, rule or ordinance of the United States of America or any foreign country, or of any state, municipality or any other jurisdiction, or of any agency thereof, in any respect materially adversely affecting the business, property, assets, operations or condition, financial or otherwise, of the Public Entity and its consolidated subsidiaries, taken as a whole.

(f) Survival of Representations and Warranties. All covenants, representations and warranties of the Public Entity made herein shall survive the making of the Award hereunder and the execution and delivery of this Funding Agreement.

ARTICLE VI.
COVENANTS, CONDITIONS AND RESTRICTIONS

Until payment in full of the Award and the performance of all obligations owing to the Authority under this Funding Agreement, unless the Authority shall otherwise consent in writing, the Public Entity covenants and agrees as follows:

Section 6.01 Performance of Obligations. The Public Entity will promptly and punctually perform all of its obligations under the terms of this Funding Agreement.

Section 6.02 Use of Award Proceeds. The Public Entity will not use or permit any person, association or entity to use any funds advanced to the Public Entity under this Funding Agreement to (a) defray living expenses, (b) anticipate profit, or (c) defray any other item not directly connected with the Project and payable to unrelated third parties.

Section 6.03 Information. The Public Entity will promptly furnish, or cause to be furnished, to the Authority all reasonably requested information concerning the Project and the financial status of the Public Entity.

Section 6.04 Transfer of Facility. The Public Entity (a) shall give the Authority and ODOC thirty (30) days' prior written notice of any proposed sale, transfer or conveyance of all or any portion of the Facility, and (b) shall not sell, transfer or convey all or any portion of the Facility to a person or entity other than an affiliate of the Public Entity, without the prior written consent of ODOC which consent shall not be unreasonably withheld. To enable ODOC to make a determination, the Public Entity shall provide, and it shall cause the proposed transferee to provide, to ODOC such information as ODOC determines to be relevant for the analysis, as contemplated by Section 891.18 of the Act, including, but not limited to, the nature of the proposed transferee's business, its ownership and financial stability and its post-transfer plans for

the Project. ODOC shall review its initial determinations with respect to the Project and conduct an additional review to make a determination that the net positive economic benefit of the Project to the State will not be lessened by the transfer. In the event of an adverse determination by ODOC, the Public Entity shall elect one of the remedial options set forth in Section 2.04, hereof. Notwithstanding the foregoing, the Public Entity may transfer or dispose of equipment included in the Facility which is obsolete or no longer used or useful in connection with the Public Entity's business, and the Public Entity may replace equipment included in the Facility in the ordinary course of business.

Section 6.05 Payment of Taxes. All taxes, assessments and governmental charges or levies imposed on the Public Entity or on the Public Entity's assets, income or profits, will be paid prior to the date on which penalties attach thereto. Notwithstanding the foregoing, the Public Entity shall not be required to pay any tax, assessment, charge or levy which is being contested in good faith by proper proceedings.

Section 6.06 Double Dipping.

(a) The Credit Enhancement Reserve Fund shall not be utilized in support of any pooled financing obligations issued pursuant to this Act, prior to the full use of any revenues committed to the repayment of any such pooled obligations.

(b) A Partner may not receive or continue to receive incentive payments pursuant to the Oklahoma Quality Jobs Program Act or claim any investment tax credits otherwise authorized pursuant to Section 2357.4 of Title 68 of the Oklahoma Statutes, during the period of time that any withholding taxes attributable to the payroll of such Partner are being paid to the Revolving Fund.

Section 6.07 Withholding Taxes.

(a) The Public Entity and each Partner shall enter into such agreements as may be reasonably required by the Authority and the Tax Commission to provide for the segregation of withholding taxes attributable to new direct jobs created or existing payroll retained by the Public Entity and each Partner. The Authority shall be provided such information by the Public Entity and each Partner as may be reasonably required in order to determine the necessary amount of segregated withholding taxes attributable to new direct jobs or existing payroll.

(b) The Tax Commission shall determine, with respect to the withholding taxes attributable to the income of employees engaged in new direct jobs or existing jobs for each Partner, the amount of such withholding taxes required to be deposited to the Revolving Fund, and each Partner shall provide the Tax Commission such information as may be reasonably required to make such determination.

Section 6.08 Compliance with Laws. The Public Entity will comply in all material respects with all statutes, laws, rules and regulations to which the Public Entity is subject or by which its properties are bound or affected, including, without limitation, those pertaining or

relating to (a) environmental standards and controls, (b) occupational health and safety standards, (c) equal employment and credit practices and civil rights, and (d) the Facility and the ownership, operation and use thereof, except where the failure to do so would not be reasonably likely to have a material adverse effect on the Public Entity and its consolidated subsidiaries, taken as a whole.

Section 6.09 Further Assurances. The Public Entity will, from time to time, promptly cure any defects or omissions in the execution and delivery of or the compliance with this Funding Agreement or the conditions described herein, including the execution and delivery of additional documents reasonably required by the Authority.

ARTICLE VII.
GENERAL PROVISIONS.

Section 7.01 Expenses. The Public Entity agrees to pay the following fees, expenses and charges in respect to the Award: (a) fees and expenses involved in the closing and administration of the Award, as set forth in Section 2.03 of this Funding Agreement; (b) the reasonable fees and expenses of counsel employed by the Authority in regard to any litigation arising out of or relating to this transaction; and (c) the fees and expenses payable by the Authority which are incidental to the enforcement or defense of this Funding Agreement or any instrument executed pursuant hereto.

Section 7.02 Hold Harmless. Except for a successful claim against the Authority by the Public Entity or in the case of the Authority's willful misconduct or gross negligence, the Public Entity will indemnify and hold the Authority harmless from all liability, loss, damages or expense, including reasonable attorney's fees, that the Authority may incur in good faith as a result of entering into this Funding Agreement or making the Award, or in compliance with or in the enforcement of the terms thereof.

Section 7.03 Notices. All notices, requests and demands shall be served by first class mail, by overnight delivery or e-mail, as follows:

To the Authority:	The Oklahoma Development Finance Authority 9220 N. Kelley Avenue Oklahoma City, OK 73131 Attn: President E-mail: mdavis@okfinance.com
To the Public Entity:	See Public Entity's signature page hereto.

or at such other address as any party hereto shall designate for such purpose in a written notice to the other party hereto. Any notice, request or demand given (i) by first class mail shall be effective and deemed given three business days after being deposited in the United States mail, postage prepaid, (ii) by overnight delivery shall be effective and deemed given on the next business day after being picked up by or delivered to the overnight delivery service, and (iii) by e-mail shall be effective and deemed given on the date sent, if a business day and sent before 5:00 p.m. local time. Otherwise, it shall be effective and deemed given on the next business day.

Section 7.04 Construction; Applicable Law. This Funding Agreement shall be deemed to be contracts made under the laws of the State and shall be construed in accordance with the laws of the State. Nothing in this Funding Agreement shall be construed to constitute the Authority as a joint venturer with the Public Entity or to constitute a partnership. The descriptive headings of the paragraphs of this Funding Agreement are for convenience only and shall not be used in the construction of the content of this Funding Agreement.

Section 7.05 Binding Effect; Severability. This Funding Agreement shall be binding on, and shall inure to the benefit of, the parties hereto and their respective successors and assigns. In the event any one or more of the provisions contained in this Funding Agreement shall, for any reason, be held to be invalid, illegal or unenforceable in any respect and in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other provision thereof and the remaining provisions shall remain in full force and effect.

Section 7.06 Entire Agreement; Conflicting Provisions. This Funding Agreement constitutes the entire agreement of the parties hereto with respect to the Award and all matters arising out of or related thereto, and there are no agreements, understandings, warranties or representations between the parties regarding the financing of the Project other than those set forth herein. In the event of any conflict between or among the provisions of this Funding Agreement and any other agreement between the parties, the provisions of this Funding Agreement shall control.

Section 7.07 Amendment and Assignment. This Funding Agreement may not be amended or modified in any way, except by an instrument in writing executed by the parties hereto; provided, however, the Authority may, in writing: (a) extend the time for performance of any of the obligations of the Public Entity; (b) waive any default by the Public Entity; and (c) waive the satisfaction of any condition that is precedent to the performance of the Authority's obligations under this Funding Agreement. This Funding Agreement shall not be assignable by the Public Entity without the prior written consent of the Authority and the ODOC.

Section 7.08 Counterpart Execution. This Funding Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute one and the same instrument.

[Signature pages follow.]

IN WITNESS WHEREOF, the parties have caused this instrument to be duly executed as of the day and year first above written.

THE OKLAHOMA DEVELOPMENT FINANCE AUTHORITY

By: _____

Name: Michael D. Davis
Title: President

ODFA Signature Page to this Funding Agreement

PUBLIC ENTITY: City of Shawnee
AWARD AMOUNT: $ 750,000
PROJECT ADDRESS: 222 N. Broadway, Shawnee, OK 74802
PUBLIC ENTITY CONTACT: Seth Barkhimer, Director of Engineering
CONTACT E-MAIL: Seth.Barkhimer@shawneeok.org

CITY OF SHAWNEE

By: _____
Name: _____
Title: _____

NOTICE ADDRESS: 222 N. Broadway
Shawnee, Oklahoma 74802

Public Entity Signature Page to this Funding Agreement

Regular Board of Commissioners 6.

Meeting Date: 07/18/2022

Agreement

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Consideration of a Professional Services Agreement with Halff Associates Inc. for the development of the Shawnee Twin Lakes Master Plan.

Attachments

Professional Services Agreement Documents

Community Development

222 N. Broadway Ave.
Shawnee, OK 74801
ShawneeOK.org

Date: July 14, 2022

To: City Commission

From: Rian Harkins, Community Development Director

Subject: Professional Services Agreement with Halff and Associates for the development of the Shawnee Twin Lakes Master Plan

Background: The City Commission received recommendations from the Lake Advisory Committee in February 2022 after an in-depth process designed to address multiple issues relating to the Twin Lakes area. One of the recommendations of the Lake Advisory Committee was the development of an area master plan that addresses issues relating to land use, public facilities, and infrastructure.

To implement that recommendation, City staff issued a Request for Proposals, and subsequently received four (4) qualified responses. A selection team comprised of department heads and the city manager reviewed the submittals, and then interviewed two of the consultant teams before arriving at a final selection based on relevant project experience, proposed approach, and best fit for the community. At that time, Halff and Associates was the unanimous choice of the selection team.

City staff have been working with Halff and Associates over the past few weeks to negotiate a Scope of Work and associated fee for this project**.** The proposed scope of work includes a scenario-based approach to be completed within a nine (9) month timeframe.

Financial Impact: $150,000 will be allocated to this agreement, funding through: Tourism, Other Contractual Services, 106-5-0140-53390.

Attachment: Agreement.

Staff Recommendation: Approval of the item.

AGREEMENT FOR PROFESSIONAL PLANNING AND LANDSCAPE ARCHITECTURE SERVICES ON A DEFINED SCOPE OF SERVICES BASIS

This Agreement for Professional Planning and Landscape Architecture Services, hereinafter called "Agreement," is entered into by the **City of Shawnee** an incorporated municipality of the State of **Oklahoma**, hereinafter referred to as "Client", duly authorized to act by the **City Commission** of said Client, and **HALFF ASSOCIATES, INC.**, a Texas corporation, acting through a duly authorized officer, herein called "Planner and Landscape Architect," relative to Planner and Landscape Architect providing professional Planning and Landscape Architecture services to the Client. Client and Planner and Landscape Architect when mentioned collectively shall be referred to as the "Parties".

W I T N E S S E T H:

For the mutual promises and benefits herein described, the Client and Planner and Landscape Architect agree as follows:

I. Term of Agreement. This Agreement shall become effective on the date of its execution by both Parties and shall continue in effect thereafter until terminated as provided herein.

II. Services to be Performed by Planner and Landscape Architect. Planner and Landscape Architect shall provide to the Client basic Planning and Landscape Architecture services as described in the scope of services attachment and fully incorporated herein as "**Exhibit A"** which services may include, but will not be limited to, those services normally rendered by a Planner and Landscape Architect to a municipality, Planner and Landscape Architect shall perform its obligations under this agreement as an independent contractor and not as an agent or fiduciary of any other party.

III. Compensation. Client agrees to compensate Planner and Landscape Architect for the planning services performed in accordance with this agreement, and as set out in the fee schedule attachment fully incorporated herein as **"Exhibit B."** Client agrees to pay monthly invoices or their undisputed portions within 30 days of receipt. Payment later than 30 days shall include interest at 1 percent (1%) per month or lesser maximum enforceable interest rate, from the date the Client received the invoice until the date Planner and Landscape Architect receives payment. Such interest is due and payable when the overdue payment is made.

It is understood and agreed by the Parties that Planner and Landscape Architect's receipt of payment(s) from Client is not contingent upon Client's receipt of payment, funding, reimbursement, or any other remuneration from others.

Time-related charges will be billed as specified in this Agreement. Unless stated otherwise in this Agreement, direct expenses, subcontracted services, and direct costs will be billed at actual cost plus a service charge of 10 percent. Mileage will be billed at current IRS rates.

IV. Client's Obligations. The Client agrees that it will (i) designate a specific person to act as the Client's representative, (ii) provide Planner and Landscape Architect with any previous studies, reports, data, budget constraints, special Client requirements, or other pertinent information known to the Client, when necessitated by a project, (iii) Client agrees to provide site access, and to provide those services described in the attached scope of services to assist Planner and Landscape Architect in obtaining access to property necessary for performance of Planner and Landscape Architect's work for the Client, (iv) make prompt payments in response to Planner and Landscape Architect's statements, (v) respond in a timely fashion to requests from Planner and Landscape Architect and (vi) all other support services as described in **"Exhibit C"** which is attached and fully incorporated into this agreement. Planner and Landscape Architect is entitled to rely upon and use, without independent verification and without liability, all information and services provided by the Client or the Client's representatives.

V. Termination of Work. Either the Client or the Planner and Landscape Architect may terminate this Agreement at any time with or without cause upon giving the other Party ten (10) calendar days' prior written notice. Client agrees that termination of Planner and Landscape Architect for Client's convenience shall only be utilized in good faith and shall not be utilized if either the purpose or the result of such termination is the performance of all or part of Planner and Landscape Architect's services under this Agreement by Client or by another service provider. Following Planner and Landscape Architect's receipt of such termination notice the Client shall, within ten (10)

calendar days of Client's receipt of Planner and Landscape Architect's final invoice, pay the Planner and Landscape Architect for all services rendered and all costs incurred up to the date of Planner and Landscape Architect's receipt of such notice of termination.

VI. Ownership of Documents. Upon Planner and Landscape Architect's completion of services and receipt of payment in full, Planner and Landscape Architect shall grant to Client a non-exclusive license to possess the final reports, maps, drawings and instruments produced in connection with Planner and Landscape Architect's performance of the work under this Agreement, if any. Said reports, maps, drawings and instruments may be copied, duplicated, reproduced, and used by Client for the purpose of constructing, operating, and maintaining the improvements. Notwithstanding the foregoing, Client understands and agrees that any and all computer programs, GIS applications, proprietary data or processes related to the services performable under this Agreement are and shall remain the sole and exclusive property of Planner and Landscape Architect and may not be used or reused, in any form, by Client without the express written authorization of Planner and Landscape Architect. Client agrees that any reuse by Client, or by those who obtain said information from or through Client, without written verification or adaptation by Planner and Landscape Architect, will be at Client's sole risk and without liability or legal exposure to Planner and Landscape Architect or to Planner and Landscape Architect's employees, agents, representatives, officers, directors, affiliates, shareholders, owners, members, managers, attorneys, subsidiary entities, advisors, subconsultants or independent contractors or associates. Planner and Landscape Architect may reuse all drawings, reports, maps, data, and other information developed in performing the services described by this Agreement in Planner and Landscape Architect's other activities. Under no circumstances shall delivery of electronic files for use by the Client be deemed a sale by Consultant, and Consultant makes no warranties, either express or implied, of merchantability or fitness for any particular purpose. In no event shall Consultant be liable for any damages, including but not limited to indirect or consequential damages, as a result of the Client's unauthorized use or reuse of the electronic files. The Client is aware that differences may exist between the electronic files delivered and the printed hard-copy original documents. In the event of a conflict between the signed original documents prepared by Consultant and any electronic or other files or data provided it is understood and agreed that the original signed or sealed hard-copy documents shall govern.

VII. Notices. Any notices to be given hereunder by either party to the other may be affected either by personal delivery, in writing, or by registered or certified mail.

VIII. Sole Parties and Entire Agreement. This Agreement shall not create any rights or benefits to anyone except the Client and Planner and Landscape Architect and contains the entire agreement between the parties. Oral modifications to this Agreement shall have no force or effect.

IX. Insurance. Planner and Landscape Architect shall, at its own expense, purchase, maintain and keep in force throughout the duration of this Agreement and for a period of four (4) years thereafter, professional liability insurance. The limits of liability shall be $2,000,000 per claim and in the aggregate. Planner and Landscape Architect shall submit to the Client a certificate of insurance prior to commencing any work for the Client.

X. Prompt Performance by Planner and Landscape Architect. All services provided by Planner and Landscape Architect hereunder shall be performed in accordance with the degree of care and skill ordinarily exercised under similar circumstances by competent members of the Planning and Landscape Architecture profession in the State of **Oklahoma** applicable to such Planning and Landscape Architecture services contemplated by this Agreement.

XI. Client Objection to Personnel. If at any time after entering into this Agreement, the Client has any reasonable objection to any of Planner and Landscape Architect's personnel, or any personnel, professionals and/or consultants retained by Planner and Landscape Architect, Planner and Landscape Architect shall promptly propose substitutes to whom the Client has no reasonable objection, and Planner and Landscape Architect's compensation shall be equitably adjusted to reflect any difference in Planner and Landscape Architect's costs occasioned by such substitution.

XII. Assignment and Delegation. Neither the Client nor Planner and Landscape Architect may assign their rights or delegate their duties without the written consent of the other party. This Agreement is binding on the Client and Planner and Landscape Architect to the fullest extent permitted by law. Nothing herein is to be construed as creating any personal liability on the part of any Client officer, employee or agent.

XIII. Jurisdiction and Venue. This Agreement shall be administered under the substantive laws of the State of **Oklahoma** (and not its conflicts of law principles) which shall be used to govern all matters arising out of, or relating

to, this Agreement and all of the transactions it contemplates, including without limitation, its validity, interpretation, construction, performance and enforcement. Exclusive venue shall lie in any court of competent jurisdiction in ***Pottawatomie*** **County, Oklahoma.**

XIV. Integration, Merger and Severability. This Agreement and the Scope of Services, including fee and schedule are fully incorporated herein and represent the entire understanding of Client and Planner and Landscape Architect. No prior oral or written understanding shall be of any force or effect with respect to those matters covered herein. The Agreement may not be modified or altered except in writing signed by both Parties. This Agreement constitutes, represents and is intended by the Parties to be the complete and final statement and expression of all of the terms and arrangements between the Parties to this Agreement with respect to the matters provided for in this Agreement. This Agreement supersedes any and all prior or contemporaneous agreements, understandings, negotiations, and discussions between the Parties and all such matters are merged into this Agreement. Should any one or more of the provisions contained in this Agreement be determined by a court of competent jurisdiction or by legislative pronouncement to be void, invalid, illegal, or unenforceable in any respect, such voiding, invalidity, illegality, or unenforceability shall not affect any other provision hereof, and this Agreement shall be considered as if the entirety of such void, invalid, illegal, or unenforceable provision had never been contained in this Agreement.

XV. Exclusivity of Remedies. The Parties acknowledge and agree that the remedies set forth in this Agreement (Agreed Remedies) are and shall remain the Parties' sole and exclusive remedy with respect to any claim arising from, or out of, or related to, the subject matter of this Agreement. The Parties agree that Planner and Landscape Architect is to have no liability or responsibility whatsoever to Client for any claim(s) or loss(es) of any nature, except as set forth in this Agreement. No Party shall be able to avoid the limitations expressly set forth in this Agreement by electing to pursue some other remedy.

XVI. Timeliness of Performance. Planner and Landscape Architect shall perform its professional services with due and reasonable diligence consistent with sound professional practices.

XVII. Dispute Resolution. In the event of any disagreement or conflict concerning the interpretation of this Agreement, and such disagreement cannot be resolved by the signatories hereto, the signatories agree to schedule a series of no less than two meetings of senior personnel of Client and Planner and Landscape Architect in which the disagreement or conflict will be discussed. The first of such meetings will be scheduled as soon as possible following identification of such disagreement or conflict and the second meeting must occur within thirty (30) days following the initial meeting. Subsequent meetings, if any may be scheduled upon mutual agreement of the parties. The parties agree that these two meetings are conditions precedent to the institution of legal proceedings unless such meetings will adversely affect the rights of one or more of the parties as such rights relate to statutes of limitation or repose.

XVIII. AGREED REMEDIES

A. IT IS THE INTENT OF THE PARTIES TO THIS AGREEMENT THAT PLANNER AND LANDSCAPE ARCHITECT'S SERVICES UNDER THIS AGREEMENT SHALL NOT SUBJECT PLANNER AND LANDSCAPE ARCHITECT'S INDIVIDUAL EMPLOYEES, OFFICERS OR DIRECTORS TO ANY PERSONAL LEGAL EXPOSURE FOR CLAIMS AND RISKS ASSOCIATED WITH THE SERVICES PERFORMED OR PERFORMABLE UNDER THIS AGREEMENT.

B. IN RECOGNITION OF THE RELATIVE RISKS AND BENEFITS OF THE PROJECT TO BOTH THE CLIENT AND THE PLANNER AND LANDSCAPE ARCHITECT AND ACKNOWLEDGING THAT THE ALLOCATION OF RISKS AND LIMITATIONS OF REMEDIES ARE BUSINESS UNDERSTANDINGS BETWEEN THE PARTIES AND THESE RISKS AND REMEDIES SHALL APPLY TO ALL POSSIBLE LEGAL THEORIES OF RECOVERY. CLIENT FURTHER AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, AND NOTWITHSTANDING ANY OTHER PROVISIONS OF THIS AGREEMENT OR ANY REFERENCE TO INSURANCE OR THE EXISTENCE OF APPLICABLE INSURANCE COVERAGE, THAT THE TOTAL LIABILITY, IN THE AGGREGATE, OF THE PLANNER AND LANDSCAPE ARCHITECT AND PLANNER AND LANDSCAPE ARCHITECT'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, AND SUBCONSULTANTS TO THE CLIENT OR TO ANYONE CLAIMING BY, THROUGH OR UNDER THE CLIENT, FOR ANY AND ALL CLAIMS, LOSSES, COSTS OR DAMAGES WHATSOEVER ARISING OUT OF, RESULTING FROM, OR IN ANY WAY RELATED TO, THE SERVICES UNDER THIS AGREEMENT FROM ANY CAUSE OR CAUSES OF THE PLANNER AND LANDSCAPE ARCHITECT OR THE PLANNER AND LANDSCAPE ARCHITECT'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, AND SUBCONSULTANTS, SHALL NOT EXCEED THE PLANNER AND LANDSCAPE ARCHITECT'S FEE RECEIVED FOR THE SERVICES PERFORMED, ADJUSTED DOWNWARD TO ACCOUNT FOR SUBCONSULTANT/SUBCONTRACTOR FEES INCURRED AND REIMBURSEABLE EXPENSES UNDER THIS

_____/_____
Client Initial / Date

AGREEMENT. INCREASED LIMITS MAY BE NEGOTIATED FOR ADDITIONAL FEE.

C. NOTWITHSTANDING ANY OTHER PROVISION OF THE AGREEMENT, PLANNER AND LANDSCAPE ARCHITECT SHALL HAVE NO LIABILITY TO THE CLIENT FOR CONTINGENT, CONSEQUENTIAL OR OTHER INDIRECT DAMAGES INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF USE, REVENUE OR PROFIT; OPERATING COSTS AND FACILITY DOWNTIME; OR OTHER SIMILAR BUSINESS INTERRUPTION LOSSES, HOWEVER, THE SAME MAY BE CAUSED.

D. CLIENT MAY NOT ASSERT ANY CLAIM AGAINST PLANNER AND LANDSCAPE ARCHITECT AFTER THE SHORTER OF (A) THREE YEARS FROM SUBSTANTIAL COMPLETION OF SERVICES GIVING RISE TO THE CLAIM, OR (B) THE STATUTE OF LIMITATION PROVIDED BY LAW.

E. IT IS UNDERSTOOD AND AGREED BY BOTH PARTIES TO THIS AGREEMENT THAT THE FIRST TEN DOLLARS ($10.00) OF REMUNERATION PAID TO PLANNER AND LANDSCAPE ARCHITECT UNDER THIS AGREEMENT SHALL BE IN CONSIDERATION FOR INDEMNITY/INDEMNIFICATION PROVIDED FOR IN THIS AGREEMENT.

XIX. WAIVER. Any failure by the Client and Planner and Landscape Architect to require strict compliance with any provision of this Agreement shall not be construed as a waiver of such provision, and the Client and Planner and Landscape Architect may subsequently require strict compliance at any time, notwithstanding any prior failure to do so.

XX. Signatories. The Client and Planner and Landscape Architect mutually warrant and represent that the representation of each who is executing this Agreement on behalf of the Client or Planner and Landscape Architect, respectively, has full authority to execute this Agreement and bind the entity so represented.

[SIGNATURE PAGE TO FOLLOW]

_____/_____
Client Initial / Date

IN WITNESS WHEREOF, the parties, having read and understood this Agreement, have executed such in duplicate copies, each of which shall have full dignity and force as an original, on the _____ day of _____, 20___.

HALFF ASSOCIATES, INC.	**CLIENT: CITY OF SHAWNEE, Oklahoma**
By: _____	By: _____
Signature	Signature
_____	_____
Printed Name	Printed Name
_____	_____
Title	Title
_____	_____
Date	Date

_____/_____
Client Initial / Date

1111 N. Lee Avenue
Oklahoma City, OK 73103
(405) 546-3820

EXHIBIT A
SCOPE OF SERVICES

City of Shawnee, Oklahoma
Twin Lakes Master Plan

Under contract to the City of Shawnee (the "City"), Halff Associates, Inc. ("Halff") will provide planning services to the City to prepare a Master Plan to guide the development of the City of Shawnee, Oklahoma's, Twin Lakes area for the next 10 – 20 years. The plan will address inter-related growth and development topics such as land use, community character, natural resources, transportation and utilities, public services, housing, and economic development.

Halff's project involvement and facilitation will be carried out according to this scope of services (Exhibit A), and contingent upon Exhibit B, *Basis of Compensation* and Exhibit C, *Support Services of the City of Shawnee*.

PLANNING PROCESS PARAMETERS

This scope of services is subject to the following parameters:

1. It is anticipated that the Master Plan will take 9 months to complete – including delivery of a draft report to the City Commission. The subsequent timeframe and adoption of the final report will vary depending on the City's scheduling preferences.
2. The project will begin from the date of contract execution and will follow a task-by-task schedule prepared as part of the project initiation process outlined in this scope of services. Any adjustments made to the project schedule during the project term will be jointly agreed upon between the City and Halff.
3. The study area will include all properties and within the Lakes Area of Shawnee as depicted in the Shawnee Next Horizons Comprehensive Plan (2019). Other surrounding properties or facilities that may directly impact the growth potential and patterns of study area properties may be considered as applicable and as agreed upon between the City and Halff.
4. Draft and final Master Plan reports will be prepared in Adobe In-Design format. Reports will be provided to the City of Shawnee in INDD and PDF format suitable for distribution electronically and for posting to the City website. Mapping files will be provided in ArcGIS format including shapefiles and layer packages for use by the City.
5. Tasks undertaken as part of this planning effort may occur concurrently where appropriate, or in some cases may vary from the sequence shown in the scope of work.
6. Cost projections prepared as part of this effort, if applicable, are understood to be at a planning (order-of-magnitude) level and are prepared prior to any detailed design for individual projects. Such cost projections will vary as more detailed design occurs and as inflationary influences occur following Master Plan adoption. Itemized cost estimates will be provided using Microsoft Excel spreadsheet for future use by City staff.

7. References to a "Trip" within this Exhibit refer to travel to the City by members of the Halff team from outside of the Oklahoma City, Oklahoma metropolitan statistical area. All other team members will be from Halff's Oklahoma City, Oklahoma, office.

8. Where possible, stakeholder and planning meetings will be scheduled by Halff and/or the City on concurrent days and evenings for greater project efficiency.

9. Any additional meetings or events beyond those shown in the scope of work will be considered an additional service and are not included in this scope of services.

SCOPE OF WORK

Specific tasks and subtasks related to the execution of this scope of services include the following:

TASK 1: PROJECT ORGANIZATION (DESCRIBE YOUR CONDITION)

Project organization activities will enable Halff and the City to efficiently initiate the project by ensuring that necessary project information and administrative structure is in place to begin subsequent research and public outreach activities.

1.1 PROJECT ADMINISTRATION AND INITIATION

Halff will undertake the following activities to ensure the efficient initiation and ongoing administration of the master planning process:

A. Project Administration. Halff will conduct administrative activities throughout the project term. Examples of relevant activities may include but not be limited to meeting logistics, contract administration, invoicing, and progress reporting.

B. Project Initiation Meeting (Trip #1). Halff will convene a project initiation and coordination meeting with City staff to discuss project goals, establish communications protocol, discuss data and documentation needs for the project, and determine the final plan for public outreach - including meetings with residents and interested parties through the course of this project. This meeting will accomplish several pre-planning objectives:

1. **Orientation.** City and Halff staff will become familiar with the project team structure and organization and arrive at a complete understanding of the roles and responsibilities of all project participants.

2. **Review of Key Issues.** Key issues to be addressed during the project term will be reviewed including the overall project objectives, and opportunities and challenges that must be addressed by the planning effort.

3. **Schedule.** The project schedule will be formalized, and key milestone dates will be established.

4. **Project Committee.** The membership of the project's Advisory Committee (see **Task 2**) will be affirmed, and other key stakeholder groups will be identified.
5. **Field Review (Site Tour):** As part of **Trip #1**, Halff will convene a study area site tour led by City staff to identify issues, opportunities, and challenges related to municipal service delivery to the Twin Lakes area**.**

1.2 PRE-PLANNING AND BACKGROUND INFORMATION

Halff will conduct the following activities in analyzing baseline community conditions and preparing for public outreach:

A. Report / Plan Template. Halff will develop a project report template and graphics program for formatting and organizing plan headings, figures, tables, maps, and other graphics.

B. Public Outreach Plan. Halff will produce a public outreach plan in the form of a technical memorandum, which shall clearly state the goals and process for public engagement. The memorandum will expand upon this scope of work by listing outreach techniques, responsible parties, and anticipated outreach schedule and by noting how each activity integrates with the planning process.

C. Assemble a List of Requested Files and Information. Halff will submit a list of required information to Shawnee staff, including, but not limited to, most recent demographic data (including preferred population projections); municipal finance data; tax data; relevant ordinances, department and City capital improvement program (CIP) and annual budgets; and most recent GIS information including parcels, land use, zoning, infrastructure, natural features and other applicable data sets.

D. Plan Review and Documentation. In conjunction with other requested data, City staff will provide Halff with access to a digital copy of all relevant City, regional, and state plans, studies, assessments, policies, and programs that may influence the Master Plan. Halff will review previously completed and on-going applicable concept plans, studies, assessments, policies, programs, and processes to understand recent planning efforts and document plan findings, including issues, opportunities, and recommendations.

1.3 BASELINE FISCAL CONDITIONS

The Halff team will utilize population, land use, utility and municipal finance data compiled as part of **Task 1.2** activities to prepare a baseline inventory of municipal revenues and revenue potential, and standard costs of public service delivery. Baseline revenue and cost assumptions produced by the Halff team will be provided to City staff for verification. Final baseline assumptions agreed upon by the City and Halff will serve as a framework for scenario planning activities in subsequent project phases.

TASK 1, MEETING SUMMARY

Task 1 meetings include: **A)** Bi-weekly project coordination meetings (videoconference and ongoing); and **B)** Project initiation meeting and tour (**Trip #1**).

TASK 1, ITEMS PROVIDED BY CITY

As described in the task descriptions and Exhibit C, *Support Services of the City of Shawnee*.

TASK 1, KEY DELIVERABLES

Key **Task 1** deliverables will include: **A)** Monthly progress reports; **B)** Public outreach plan memorandum; **C)** Project Schedule; **D)** Requests for information spreadsheets; and **E)** Baseline municipal revenue and cost assumptions.

TASK 2: PUBLIC OUTREACH

On-site and online public outreach activities will occur throughout the project term. Subtasks include those activities that will be administered on a recurring or ongoing basis. Where applicable, many of the subtasks listed herein are also cross-referenced in subsequent tasks to illustrate their relationship to other project activities.

2.1 PUBLIC OUTREACH PREPARATION

Concurrent with the public outreach plan developed in **Task 1: Project Organization**, Halff will begin behind-the-scenes preparation of principal public outreach activities, including on-line survey preparation and the tentative scheduling of community meetings. Public outreach materials will be prepared in partnership with the City.

2.2 FOCUS GROUP MEETINGS

Halff will conduct up to four (4) small-group listening sessions with community representatives to understand local issues and preferences about the study area, and to guide initial Master Plan development and analysis. Focus group composition will be determined by the City with input from Halff. Focus group participants should be distinct from the Advisory Committee membership and should not exceed up to 12 participants per session.

Focus group meetings will be conducted in an informal interview format, will last between 60-90 minutes, and will occur during normal business hours. It is intended that all focus group meetings occur in conjunction with Advisory Committee Meeting #1 (**Trip #2**) however, the City and Halff may agree to postpone one or more meetings to align with other project benchmarks and scheduled Trips.

2.3 COMMUNITY PREFERENCES SURVEY

To solicit appropriate and specific feedback from the residents of Shawnee, Halff will prepare and administer an electronic online survey which will be cross-linked to the City website's home page, project page and any other social media platforms maintained by the City.

A. Survey Preparation/Distribution. Survey preparation will occur in advance of and concurrent with **Task 3, Visioning Activities**. Content will focus on community preferences regarding development intensity, land uses, recreation and public

services within the study area. Survey distribution and collection will occur for a to-be-determined time frame around Public Open House #1 (**Trip #3**).

B. Survey Results and Feedback. The raw results of the on-line engagement activities will be provided to the City and a summary overview of pertinent results will be included in the Master Plan document.

2.4 ADVISORY COMMITTEE MEETINGS

The Master Plan will be prepared with the input of an Advisory Committee whose membership shall be determined by the City in consultation with Halff. A total of seven (7) Advisory Committee meetings will be held in conjunction with project benchmarks and milestones. Benchmark meetings will occur as follows (although the City and Halff may agree to scheduling and agenda changes as the project progresses):

A. Visioning Workshop (Meeting #1, Trip #2). Halff will facilitate an interactive workshop-style meeting to provide a project overview and prepare a preliminary vision statement and associated guiding principles.

B. Vision Refinement (Meeting #2, Virtual). Halff will conduct a virtual meeting to present a refined vision statement and guiding principles, and to present tentative project goals.

C. Baseline Scenario (Meeting #3, Virtual). Halff will present baseline growth scenario and market conditions assessment findings.

D. Scenario Planning Workshop (Meeting #4, Trip 4). Halff will facilitate a joint workshop of the City Commission, Planning Commission and Advisory Committee to introduce the baseline scenario and generate two alternative growth and development scenarios for the Twin Lakes area.

E. Preferred Scenario (Meeting #5, Virtual). Halff will present a preferred growth and development scenario.

F. Future Development Plan (Meeting #6, Virtual). Halff will present a preliminary future development plan and map, and recommended policy and investment program, based on the preferred growth scenario.

G. Work Program (Meeting #7, Virtual). Halff will present a draft work program that highlights recommended policies, programs and investments for the Twin Lakes area that align with the preferred growth scenario and future development plan.

2.5 PUBLIC MEETINGS

A. Public Open Houses. Halff will facilitate two (2) public open houses at fixed sites within the City to solicit public feedback regarding study area growth and development preferences and preliminary growth and land use recommendations. Public open houses will occur as follows (although the City and Halff may agree to scheduling and agenda changes as the project progresses):

1. **Public Open House #1 (Trip #3).** Halff will provide access to project overview materials, solicit public feedback on land use and development preferences and identify amenity needs, conservation preferences, etc.
2. **Public Open House #2 (Trip #5).** Halff will present the future development map and design strategies to the public.

B. Public Information Booths. As an alternative to public open houses at fixed sites, abbreviated open house meeting materials may be displayed at a public information booth staffed by Halff team members at key locations in Shawnee including lake access areas, parks or during community-wide events.

Should the use of public information booths be agreed upon by the City and Halff in lieu of a public open house, Halff may staff up to two (2) total public information booths for up to four-hour periods. Advertisement, set-up and administration of public information booths will occur with the active assistance of City staff.

TASK 2, MEETING SUMMARY

Task 2 meetings include: **A)** Focus Group meetings (4 total, **Trip #2**); **B)** Advisory Committee meetings (7 total, **Trips #2, #4 and virtual**); and **C)** Public open houses (2 total, **Trips #3** and **#5**).

TASK 2, ITEMS PROVIDED BY CITY

As described in the task descriptions and Exhibit C, *Support Services of the City of Shawnee*.

TASK 2, KEY DELIVERABLES

Key **Task 2** deliverables will include: **A)** Meeting materials; **B)** Meeting summaries; **C)** Online public survey and summary report including spreadsheet for applicable survey data.

TASK 3: VISIONING ACTIVITIES (CONFIRM YOUR VISION)

Visioning activities are designed to understand the varying perceptions of interested parties and the public in the preferred development future for the Twin Lakes study area.

3.1 VISION DEVELOPMENT

Halff will work with City staff and the Advisory Committee to prepare a vision for the Twin Lakes study area. It is anticipated that the visioning process will generate a vision statement and a series of associated guiding principles, although the City and Halff may jointly determine during the planning process that the structure of the Master Plan vision may differ slightly.

Halff's behind-the-scenes visioning activities may occur throughout the initial project phases but will be augmented by the following key activities:

A. Vision Workshop. Halff will facilitate an interactive workshop-style meeting with the Advisory Committee (**Meeting #1, Trip #2**) to provide a project overview and prepare a preliminary vision statement and associated guiding principles. Workshop activities may include elements of a S.O.A.R. analysis (strengths, opportunities, aspirations and

results) to inform vision statement development and subsequent scenario planning activities.

B. Public Open House #1 (Trip #3). Activities as described in **Task 2.4**.

C. Vision Refinement. Halff will conduct a virtual meeting with the Advisory Committee (**Meeting #2**) to present a refined vision statement and guiding principles, and to present tentative project goals. The refined vison will incorporate preliminary feedback received during initial public outreach activities, including the online community survey (**Task 2.3**) and Public Open House #1 (**Trip #3**).

3.2 MARKET CONDITIONS ASSESSMENT

Halff will conduct an assessment of current and potential market conditions within and in the vicinity of the Twin Lakes study area – including regional market trends. The assessment will focus on the potential for developing enhanced outdoor recreation and tourism, including supportive commercial services. This information will be compiled in an outdoor recreation and tourism audit memorandum in subsequent growth and development planning activities.

TASK 3, MEETING SUMMARY

Task 3 meetings include: **A)** Advisory Committee meetings #1 & #2 (**Trip #2** and **virtual**); **B)** Public Open House #1 (**Trip #3**).

TASK 3, ITEMS PROVIDED BY CITY

As described in the task descriptions and Exhibit C, *Support Services of the City of Shawnee*.

TASK 3, KEY DELIVERABLES

Key Task 3 deliverables will include: **A)** Meeting materials; **B)** Twin Lakes vision (preliminary and final draft including vision statement and guiding principles); **C)** Preliminary goal statements for inclusion in subsequent action plan; and **D)** Outdoor recreation and tourism audit memorandum.

TASK 4: GROWTH AND DEVELOPMENT PATTERNS (CHOOSE YOUR PATH)

Results of project initiation and visioning activities (**Tasks 1 & 2**) will influence the research undertaken by the Halff team in preparing to address study area growth and development patterns. Activities will lead to the identification of a "preferred" growth and development scenario for the Twin Lakes study area and a future development map.

4.1 GROWTH SCENARIOS

Halff will utilize the information compiled in **Task 1.3, Baseline Fiscal Conditions**, and informed by the findings of **Task 3.2, Market Conditions Assessment**, to prepare a baseline "business as usual" growth scenario applying presumed population projections to land within the planning area. The baseline scenario will consider development trends in the Twin Lakes area, pending capital investments and the application of current codes.

The baseline scenario will be vetted by City staff in advance of activities designed to explore scenario refinements, which reflect alternative assumptions/inputs. Growth scenario activities will include:

A. **Advisory Committee Meeting #3 (Virtual).** Halff will present the baseline growth scenario and market conditions assessment findings prepared as part of previous tasks.

B. **Scenario Planning Workshop (Trip #4).** Halff will facilitate an Advisory Committee workshop (**Meeting #4**) to introduce the baseline scenario and generate up to two alternative growth and development scenarios for the Shawnee Twin Lakes area. Alternative scenario parameters will be identified during the workshop. It is presumed that one scenario will promote a constrained/targeted growth pattern, while the other will promote a more ambitious development approach.

4.2 PREFERRED GROWTH SCENARIO

Utilizing feedback received from the results of the scenario planning workshop (Task 4.1), Halff will prepare a "preferred" development scenario that reflects the defined vision for the Twin Lakes area and that addresses fiscal constraints. Scenario refinement tasks include:

A. **Fiscal Impacts.** Halff will work with the City who oversee the provision of municipal public services such as streets, water, wastewater, solid waste, drainage, parks and public safety to assess the financial ramifications of each growth and development alternative.

B. **Advisory Committee Meeting #5 (Virtual).** Halff will present a preferred growth and development scenario for the Advisory Committee's consideration.

4.3 FUTURE DEVELOPMENT MAP

Halff will prepare a preliminary future development map and design strategies that define Shawnee's preferred future land uses and development character for the study area. The future development map will identify various "place types" for application within different portions of the study area and reflect growth patterns illustrated by the preferred growth scenario (**Task 4.2**).

The preliminary future development map and recommended design strategies will be presented for consideration at Public Open House #2 (**Trip #5**). The open house will feature interactive ways to generate feedback from participants as defined by the public outreach plan (**Task 2.1**) and subject to alternative approaches agreed upon by the City and Halff to account for conditions/expectations revealed during the planning process.

TASK 4, MEETING SUMMARY

Task 4 meetings include: **A)** Advisory Committee meetings #3, #4 & #5 (**Virtual, Trip #4** and **Virtual**); **B)** Scenario Planning Workshop (**Trip #4**); and **C)** Public Open House #2 (**Trip #5**).

TASK 4, ITEMS PROVIDED BY CITY

As described in the task descriptions and Exhibit C, *Support Services of the City of Shawnee*.

TASK 4, KEY DELIVERABLES

Key **Task 4** deliverables will include: **A)** Baseline growth scenario; **B)** Growth scenario alternatives (up to 2 sets of alternative inputs); **C)** Scenario planning summary report (i.e. technical memorandum); **D)** Preferred growth scenario; and **E)** Preliminary Future Development Map/Plan.

TASK 5: POLICY PROGRAMMING (DEFINE YOUR FUTURE)

The feasibility of the Twin Lakes future development plan will be contingent on preparing corresponding program, design and investment strategies. Halff will work with the City to prepare an overarching policy and investment program that establishes a framework by which to implement that City's preferred growth vision.

5.1 POLICY AND INVESTMENT PROGRAM

Halff will coordinate with the City to prepare a series of strategies for facilitating the implementation of the Master Plan's guiding principles, preferred growth vision and future development plan. The policy and investment program will include the following elements:

A. Public Policies/Strategies. Public activities design to promote private sector investment within the study area, including strategies to conserve natural resources and protect residential and non-residential investments in the area. Policy programming strategies may take the form of policies, programs, regulations or adjustments to the operations of the City or other public authorities.

B. Public Investment Strategies. A series of strategies and projects to guide public investments in the Twin Lakes study area that will support the recommended future development plan. Investment strategies and projects will address public services and infrastructure needs, including transportation, utilities, natural resources, public safety, parks and recreation, etc.

C. Design Framework. A program of design strategies that promote the development character recommended in the future development plan and support and unify district aesthetics that can be applied to streets, gateways and other public spaces.

The future development plan and preliminary policy and investment program will be presented to the Advisory Committee (**Meeting #6, Virtual**).

The projects identified in the policy and investment program are conceptual and will not represent schematic design suitable for the preparation of construction drawings. Any associated cost estimates are provided at an order of magnitude (planning) level and exclude any detailed design. Such cost projections will vary as more detailed design occurs and as inflationary influences occur following Master Plan completion.

Master Plan project recommendations do not include:

- Graphics or marketing material other than indicated in this scope of services.
- Topographical and design surveys.
- Construction document and permitting services.
- Bidding and construction phase services.
- Environmental analysis and permitting.
- Hydraulic and hydrology study and analysis other than indicated in basic services.
- Design of areas outside the preferred trail alignment.
- Permit fees, filing fees, pro-rated fees, impact fees, taxes, federal and/or state regulatory agency review fees.
- Design of gas, telephone or other utility improvements.
- Traffic engineering reports or studies.
- Negotiations/agreements with adjacent property owners.
- Plat preparation.
- Any additional work not specifically included in this scope of services.

5.2 CATALYTIC DESIGN PROJECTS

Halff will coordinate with the City to identify up to three public spaces (less than 5 acres) that can serve as "catalytic" examples of applied design framework recommendations prepared as part of **Task 5.1**. Halff will prepare a conceptual site plan for each of the identified spaces to illustrate site enhancements, which will elevate the visitor experience at each location and serve as iconic points of community pride. At least one site will include an option for conversion to a festival space during fixed times of the year.

TASK 5, MEETING SUMMARY

Task 5 meetings include: **A)** Advisory Committee meeting #6 (**Virtual**).

TASK 5, ITEMS PROVIDED BY CITY

As described in the task descriptions and Exhibit C, *Support Services of the City of Shawnee*.

TASK 5, KEY DELIVERABLES

Key **Task 5** deliverables will include: **A)** Policy and Investment Program (as elements of the final report); and **B)** "Catalytic" conceptual site plans (3 total).

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TASK 6: IMPLEMENTATION PROGRAM AND ADOPTION (SET YOUR AGENDA)

Activities to compile all Master Plan products into a comprehensive report and present to the City for adoption and implementation.

6.1 MASTER PLAN WORK PROGRAM

Halff will prepare a work program and implementation plan that categorizes and prioritizes policy, investment, and design-based actions and strategies prepared as part of **Task 5**. The work program will include the following:

- Actions by implementation types, time frame and responsible entities. Action types may include operational change, financial investment, regulation, policy, future study, etc.
- A list of prioritized capital projects (and planning level cost estimates) that may be added to the City's existing capital improvements program or that may otherwise result in modifying one or more existing projects.
- An administration program that verifies Master Plan implementation and oversight roles and establishes plan monitoring, metrics and amendments.

A draft of the work program will be presented to the Advisory Committee (**Meeting #7, Virtual**) for review and incorporated into a consolidated draft Master Plan report.

6.2 MASTER PLAN REVIEW AND APPROVAL

Halff will combine the information compiled in each of the tasks above into a final Master Plan. The Master Plan final document will include the following features:

A. Comprehensive Master Plan. A detailed data document includes topic-by-topic research and findings, recommendations, and an overview of community input. It also contains the Master Plan vision and guiding principles, future land use and development maps, and implementation strategies. **The comprehensive Master Plan will be produced in advance of the Master Plan adoption process.**

B. Summary Plan. A concise, highly graphic report will summarize the principal goals and recommendations presented in the comprehensive Master Plan. **The Summary Plan will be provided following the Master Plan adoption process.**

C. Technical Documentation. Halff shall provide the technical documentation as an appendix to the plan and shall be intended for limited production. This documentation may be a compilation of technical data & analysis.

Halff will support City staff throughout the required process to adopt the plan. This will include the following subtasks:

A. City Staff Review. Review of the Master Plan report by City officials. Halff will make one round of edits prior to producing a copy of the report for City review and subsequent adoption meetings.

B. Post Electronic Copy for Citizen Review. Halff will transmit a PDF of the Master Plan document to City staff for posting on the City's website (or project website, if applicable) for review and comment.

C. Planning Commission Workshop and Hearing (Trip #6). Initial master plan recommendations will be presented to the public at a Planning Commission workshop and public hearing.

D. City Commission Review and Recommendation (Trip #7). Halff will provide an overview of the final Master Plan document to the City Commission for adoption.

Following Plan adoption, Halff will provide electronic versions of all original files related to the Master Plan including all maps and data. Halff will make any a single round of necessary changes to the final adopted Master Plan, as advised by the City Commission and reviewed and approved by the City's Project Manager or designee, prior to final acceptance by the City. Changes within this scope of services will be limited to those which require simple text edits and do not necessitate substantial changes to document format, maps, tables, or figures; nor, require new research or public outreach. Final Master Plan documentation will be provided in a digital format suitable for print and electronic distribution.

TASK 6, MEETING SUMMARY

Task 6 meetings include: **A)** Advisory Committee meeting #7 (**Virtual**); **B)** Planning Commission workshop and public hearing (**Trip #6**); and **C)** City Commission adoption meeting (**Trip #7**).

TASK 6, ITEMS PROVIDED BY CITY

As described in the task descriptions and Exhibit C, *Support Services of the City of Shawnee*.

TASK 6, KEY DELIVERABLES

Key **Task 6** deliverables will include: **A)** Final Master Plan (digital); **B)** Summary Plan (digital); and **C)** Technical Appendices including an outdoor recreation and tourism audit, and scenario planning report (digital).

End of Exhibit A – Scope of Services

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EXHIBIT B
BASIS OF COMPENSATION

City of Shawnee, Oklahoma
Twin Lakes Master Plan

BASIC SERVICES – FEE SUMMARY

Planning services as described in Exhibit A, *Scope of Services*, will be provided by Halff Associates Inc. on a lump sum basis, with an authorized lump sum contract fee of **$150,000.00** for the Twin Lakes Master Plan. The lump sum fee includes all labor and reimbursable expenses including compensation for document copying, printing, travel/mileage, and other associated expenses necessary for the planning effort. The task-by-task projection of effort shown below is estimated and may vary as each phase is conducted.

Task	
Task 1: Project Organization	**$24,000.00**
Task 2: Public Outreach	**$12,000.00**
Task 3: Visioning Activities	**$9,000.00**
Task 4: Growth and Development Patterns	**$47,000.00**
Task 5: Policy Programming	**$42,000.00**
Task 6: Implementation Program and Adoption	**$16,000.00**
TOTAL PROJECT FEE	**$150,000.00**

ADDITIONAL SERVICES AND MEETINGS

Should the need arise for additional services, including meetings, Halff can provide such services on an hourly basis and/or agreed upon fee.

End of Exhibit B – Basis of Compensation

1111 N. Lee Avenue
Oklahoma City, Oklahoma 73103
(405) 546-3820

EXHIBIT C
SUPPORT SERVICES OF THE CITY OF SHAWNEE

City of Shawnee, Oklahoma
Twin Lakes Master Plan

The City of Shawnee (the "City") will provide administrative and technical support services to assist Halff Associates, Inc. ("Halff") in performing the Scope of Services described in Exhibit A. The support services to be provided by the City will include the following services and tasks:

- Halff's activities will be overseen by the City's Community Development Department (the "Department"). The Department will identify a single individual to serve as a Project Manager who will be the City's primary point of contact. The designated Project Manager will be the source of day-to-day work program direction for this collaborative planning effort involving both City and Halff personnel, resources, and capabilities.
- Assist Halff in establishing contacts with agencies and organizations for data collection and coordination purposes.
- Ensure that key City personnel and project committee members will participate as needed in the planning process and be available upon request, through arrangements made by the City's Project Manager, to provide information and referrals and offer opinions, insights and suggestions that are necessary for completion of the project. This will include potential formal or informal meetings and briefings with the Board of Commissioners and parties as specified in Exhibit A, *Scope of Services*.
- Upon project initiation the City's Project Manager will coordinate with Halff to transfer spatial data and mapping that the City can make available for the project, including data sets and GIS coverages (and AutoCAD layers, as useful and appropriate) already developed/maintained by the City for its entire planning area or readily available to the City from other sources. The City will be responsible for ensuring that GIS data obtained for this project is compatible, including projections and other formatting elements.
- Provide all available data, maps, aerial imagery, previous reports/plans/studies, ordinances and resolutions, and other information that is available and applicable to Halff in digital or printed format and is pertinent and necessary for development of interim and final deliverables.
- Utilize and administer the City's website to disseminate information and inform, update and educate the public about the ongoing project. As applicable, Halff will support Ciy website development and faciltiation by providing already-completed interim documents or GIS maps in an Adobe PDF format, and other pertinent information which can be easily posted on the City's website.
- Conduct public information activities in conjunction with major public meetings/events and other fitting project milestones. The City will be responsible for news media contacts, preparation and distribution of news releases and any other public information materials,

promotion and advertising for all public events and citizen surveys, mailing of engagement announcements (if mailing is utilized), and posting of meeting notices and project information and updates on the City's website.

- Provide such public notice of meetings and hearings as is required by law or deemed desirable by the City.
- Arrange and provide use of public meeting facilities for each scheduled public involvement event and meeting identified in Exhibit A, *Scope of Services*, including adequate setup for presentations (PowerPoint projector, sound system, screen or white wall, reduced lighting, extension cords and multi-plug power strips, easels, flip pads and markers, etc.). The City's support services will include providing public and news media notification of public meetings, preparing sign-in sheets, producing/mailing/distributing notices, and reproducing agendas and other handout materials. Halff will be responsible for presentations and preparation of necessary graphic aids for all meetings. The City will also be responsible for inviting members of the Board of Commissioners and committees, and representatives of other key agencies and community organizations, to attend public meetings related to the planning process.
- Commit the necessary resources to prepare adequately for the promotion of citizen participation in, and media coverage of, key community involvement events. The City might consider inviting other community organizations to co-sponsor or "co-host" such key events and provide further logistical support.
- Provide Halff written summaries, and copies of any handouts/materials, from all project-related meetings not attended by Halff.
- Reproduce and forward each draft project deliverable submitted by Halff (via email) to Board of Commissioners members, key City staff members, and other project participants as appropriate.
- Consider and act on all deliverables and other interim work items submitted by Halff that require City review, comments or approval within a reasonable period to enable Halff to complete work on schedule. Specific timeframes for such City response may be incorporated into the detailed project schedule approved following project initiation.

End of Exhibit C – Support Services of the City of Shawnee

Regular Board of Commissioners 7.

Meeting Date: 07/18/2022

Ordinance

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Public hearing and consideration of an ordinance to rezone property located at 502 North Beard Avenue from C-2 (Limited Office District) to R-2 (Medium Density Residential District). Case No. RZ08-22, Applicants: Rucker and Lugo.

Attachments

Staff Report

Ordinance

Community Development

222 N. Broadway Ave.
Shawnee, OK 74801
ShawneeOK.org

Date: July 15, 2022

To: City Commission

From: Rian Harkins, Community Development Director

Subject: Public hearing and consideration of an ordinance to rezone property located at 502 N. Beard Avenue from C-2 (Limited Office District) to R-2 (Medium Density Residential District).
Case No. RZ08-22 | Applicants: Rucker and Lugo

Background: The subject property is located at 502 N. Beard Avenue. The property contains a principal residential structure, which is a duplex and an accessory dwelling unit. The principal structure is currently being remodeled. The accessory structure is not yet habitable. The request is to rezone from C-2 (Limited Office District) to R-2 (Medium Density Residential District).

The Comprehensive Plan Future Land Use Map (FLUM) indicates the subject property has Downtown and Mixed Use land use designations. R-2 is an appropriate zoning district for these land use designations. The request is in conformance with the 2040 Comprehensive Plan.

Planning Commission recommended approval of the application RZ08-22 at its regular July 6, 2022 meeting on a 5-0 vote.

Attachment: Application, supporting documents, and ordinance

Recommendation: Approval of Case No. RZ08-22 to the City Commission based on the factors outlined in the staff report and the recommendation of the Planning Commission.

Planning Commission Meeting – 07.06.2022 – City of Shawnee, Oklahoma

Staff Report | RZ08-22 | C-2 to R-2 | 502 N. Beard Ave.

To: Shawnee Planning Commission

From: Rachel Clyne, City Planner

Date: 6.20.2022

Subject: RZ08-22 – Staff Report - Public hearing and consideration of a request for rezoning property from C-2 (Limited Office District) to R-2 (Medium Density Residential District) at 502 N Beard Ave.

Background

The subject property is located at 502 N. Beard Avenue. The property contains a principal residential structure, which is a duplex and an accessory dwelling unit. The principal structure is currently being remodeled. The accessory structure is not yet habitable. The request is to rezone from C-2 (Limited Office District) to R-2 (Medium Density Residential District). The applicants for this request are Rucker and Lugo.

Discussion

The subject property is zoned C-2 (Limited Office District). The properties surrounding the subject property are zoned C-3. Two blocks to the north the properties are zoned R-3 (Multifamily Residential District). A separate rezoning case (RZ10-22), which also requests R-2 zoning, abuts the subject property on the north side.

The Comprehensive Plan Future Land Use Map (FLUM) indicates the subject property has Down Town and Mixed Use land use designations. R-2 is an appropriate zoning district for these land use designations. The request is in conformance with the 2040 Comprehensive Plan.

Referencing the City of Shawnee Zoning Code (Code) DIVISION 15. - Amendments; Procedures. Section 22-645. – Planning commission recommendation required**.** This section gives authority to the Planning Commission to make changes (amendments) to the official Zoning Map. *"…be amended, supplemented, changed, modified, or repealed by ordinance, but no change shall be made until the planning commission, after notice and public hearing, files with the city commission a report and recommendation on the proposed change."*

Staff completed the required public hearing notifications for this application. All property owners within 300' from the perimeter of the subject property were mailed a public hearing notification letter.

Additionally, a notice of public hearing was published in The County Democrat weekly newspaper. A sign providing details and contact information was placed on the subject property.

Recommendation

Staff recommends that the Planning Commission recommend to the City Commission **APPROVAL** of **RZ08-22** to rezone the subject property from C-2 (Limited Office District) to R-2 (Medium Density Residential District).

This rezoning application will be heard at the City Commission meeting on Monday, July 18, 2022, at 6:00 pm.

PLANNING COMMISSION APPLICATION

City of Shawnee
Planning Department

222 N. Broadway
Shawnee, OK 74801
(405) 878-1616 Fax (405) 878-1587
www.ShawneeOK.org

For Office Use Only

Case Number:_____

Project Number :_____

Date Filed:_____

_____
Planning Commission Secretary

REQUEST:

X Rezoning
_____Conditional Use Permit
_____Rezoning w/Conditional Use Permit
_____Planned Unit Development

I, the undersigned, do hereby respectfully make application and petition to the City Commission to amend the zoning map, and to change the zoning district of the Shawnee area, from_____District to _____District, as hereinafter requested, and in support of this application, the following facts are shown:

PROPERTY LOCATION (STREET ADDRESS): 502 n beard Ave Shawnee ok

LEGAL DESCRIPTION: Lot 8,block 5,woodland park addition

PROPERTY OWNER (S): Tyler j Rucker ,Jose a lugo

PROPERTY AGENT **(**APPLICANT**):** _____

APPLICANT'S ADDRESS**:** 12056 Czech hall circle

CITY: Yukon STATE: Ok ZIP: 73099

EMAIL ADDRESS: James.ruck92@gmail.com

TELEPHONE NUMBER: (_____)_____CONTACT NUMBER:(4053014344

DIMENSIONS OF PROPERTY: AREA:_____ WIDTH: 34

LENGTH: 58 FRONTAGE:_____

CURRENT ZONING: C2 **CURRENT USE:**_____

PROPOSED ZONING: R3 or c3 **PROPOSED USE:** Rental properties

With the filing of this application, I acknowledge that I have been informed of off-street parking, fencing and paving requirements in regard to the zoning I have requested as witnessed by my signature.

COMPLETED APPLICATION AND ALL CORRESPONDING DOCUMENTS MUST BE RECEIVED 30 DAYS PRIOR TO MEETING TO MAKE THE AGENDA.

_____
SIGNATURE OF APPLICANT

FOR STAFF USE ONLY

REZONING &/OR C.U.P FEE $ 280.00 **PLANNED UNIT DEVELOPMENT FEE $ 550.00**

RECEIPT NO. _____ **NOTIFICATION SIGN $ 50.00**

PLANNING COMMISSION ACTION:_____ **DATE:**_____

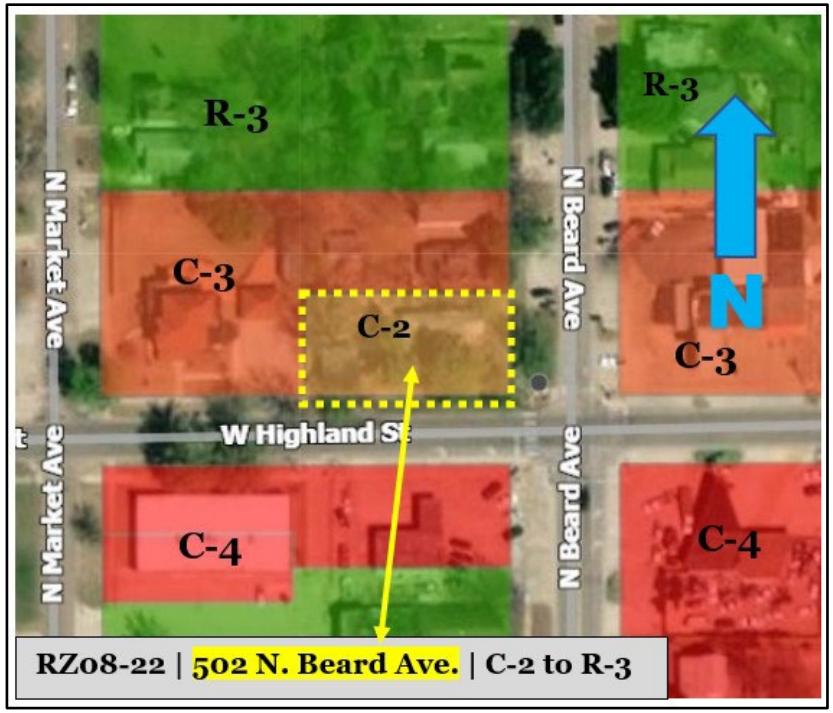
CITY COMMISSION ACTION:_____ **DATE:**_____

PLACE ON ZONING MAP: _____**ORDINANCE NO.:**_____

City of Shawnee
OKLAHOMA

PUBLIC HEARING

For more information
Community Development Department
Annex Building
222 N. Broadway Avenue **405-878-1672**
Shawnee, OK 74801



Planning Commission
Wednesday, July 6, 2022
City Hall at 16 W. 9th Street, Commission Chambers
1:30 PM

City Commission
Monday, July 18, 2022
City Hall at 16 W. 9th Street, Commission Chambers
6:00 PM

Project Information

Request: Request to rezone from **C-2** (Limited Office District) to **R-2** (Medium Density Residential District)

Applicant: Rucker and Lugo

Location: 502 N. Beard Avenue

Case #: RZ08-22

Frequently Asked Questions

What is a Rezoning?
A Rezoning is a request to change the zoning of a property to a different zoning district. The zoning of a property determines many of the allowed uses available for development.

Why did I receive a letter?
You own property within 300 feet of the subject property.

How do I make comment on the request?
Try to attend the public hearing if you are able. Staff will also accept written comments for those who cannot attend.

What if I have questions?
Call the Community Development at 405-878-1672 or contact the City Planner at rachel.clyne@shawneeok.org.

What if I cannot attend the hearing?
Staff will accept written comments. You may also have a neighbor or friend attend the hearing to represent your interests at the meeting.

How will this request affect me?
Every property is different.
Contact the Community Development for more information if you have concerns about any impact on you.

I am not in favor of the request, what do I do?
Attend the meetings or provide written comments if you cannot attend. Property owners within 300 feet of the subject property may also prepare a protest petition. Staff can supply additional information about the protest petition requirements.

Legal Description:

The Lot Eight (8), Block Five (5), WOODLAND PARK ADDITION, to the City of Shawnee, Pottawatomie County, Oklahoma, according to the recorded plat thereof.

RZ08-22

ORDINANCE NO. _____NS

AN ORDINANCE CONCERNING THE ZONING CLASSIFICATION OF THE FOLLOWING DESCRIBED PROPERTY LOCATED WITHIN THE CORPORATE LIMITS OF THE CITY OF SHAWNEE, POTTAWATOMIE COUNTY, OKLAHOMA, TO-WIT: LOT EIGHT (8), BLOCK FIVE (5), WOODLAND PARK ADDITION, TO THE CITY OF SHAWNEE, POTTAWATOMIE COUNTY, OKLAHOMA, ACCORDING TO THE RECORDED PLAT THEREOF; FROM ZONING CLASSIFICATION C-2 (LIMITED OFFICE DISTRICT) TO R-2 (MEDIUM DENSITY RESIDENTIAL DISTRICT) AMENDING THE OFFICIAL ZONING MAP OF THE CITY OF SHAWNEE ACCORDINGLY.

WHEREAS, pursuant to notice duly given as required by law, a public hearing conducted by the Board of Commissioners of the City of Shawnee, Oklahoma on the 18th day of July, 2022, upon an application to rezone certain properties located in the City of Shawnee, Oklahoma, from zoning classification C-2 (Limited Office District) to R-2 (Medium Density Residential District).

WHEREAS, the Planning Commission of the City of Shawnee has conducted one or more public hearings on said application pursuant to notice as required by law and has submitted its final report and recommendation upon said application to the Board of Commissioners; and,

WHEREAS, it appears to be in the best interest of the City of Shawnee and the inhabitants thereof for said properties to be rezoned to R-2 (Medium Density Residential District).

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COMMISSIONERS OF THE CITY OF SHAWNEE, OKLAHOMA:

SECTION 1: That the following described property located in the City of Shawnee, Oklahoma, to-wit: LOT EIGHT (8), BLOCK FIVE (5), WOODLAND PARK ADDITION, TO THE CITY OF SHAWNEE, POTTAWATOMIE COUNTY, OKLAHOMA, ACCORDING TO THE RECORDED PLAT THEREOF; FROM ZONING CLASSIFICATION C-2 (LIMITED OFFICE DISTRICT) TO R-2 (MEDIUM DENSITY RESIDENTIAL DISTRICT) AMENDING THE OFFICIAL ZONING MAP OF THE CITY OF SHAWNEE ACCORDINGLY.

PASSED AND APPROVED this ___ day of _____, 2022.

(SEAL)
ATTEST: _____
ED BOLT, MAYOR

_____
LISA LASYONE, CMC, CITY CLERK

Approved as to form and legality this ___ day of _____, 2022.

_____
JOSEPH M. VORNDRAN,
CITY ATTORNEY

DRAFT

Regular Board of Commissioners 8.

Meeting Date: 07/18/2022

Ordinance

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Public hearing and consideration of an ordinance to rezone property located at 1303 West Farrall Street from A-1 (Rural Agriculture District) to C-3 (Highway Commercial District). Case No. RZ09-22, Applicant: Kaye Steele.

Attachments

Staff Report

Ordinance

Community Development

222 N. Broadway Ave.
Shawnee, OK 74801
ShawneeOK.org

Date: July 15, 2022

To: City Commission

From: Rian Harkins, Community Development Director

Subject: Public hearing and consideration of an ordinance to rezone property located at 1303 W. Farrall Street from A-1 (Rural Agricultural District) to C-3 (Highway Commercial District).
Case No. RZ09-22 | Applicant: Kaye Steele

Background: The subject property is located at 1303 W. Farrall Street and is approximately 31 acres. The property contains a residential structure and two (2) accessory structures. The request is to rezone from A-1 (Rural Agricultural District) to C-3 (Highway Commercial District).

The Comprehensive Plan Future Land Use Map (FLUM) indicates the subject property has a Mixed Use land use designation. C-3 is an appropriate zoning district for this land use designation. The request is in conformance with the 2040 Comprehensive Plan.

Planning Commission recommended approval of the application RZ09-22 at its regular July 6, 2022 meeting on a 5-0 vote.

Attachment: Application, supporting documents, and ordinance

Recommendation: Approval of Case No. RZ09-22 to the City Commission based on the factors outlined in the staff report and the recommendation of the Planning Commission.

Planning Commission Meeting – 07.06.2022 – City of Shawnee, Oklahoma

Staff Report | RZ09-22 | A-1 to C-3 | 1303 W. Farrall St.

To: Shawnee Planning Commission

From: Rachel Clyne, City Planner

Date: 6.22.2022

Subject: RZ09-22 – Staff Report - Public hearing and consideration of a request for rezoning property from A-1 (Rural Agricultural District) to C-3 (Highway Commercial District) at 1303 W. Farrall St.

Background

The subject property is located at 1303 W. Farrall Street and is approximately 31 acres. The property contains a residential structure and two (2) accessory structures. The request is to rezone from A-1 (Rural Agricultural District) to C-3 (Highway Commercial District). The applicant for this request is Kaye Steele.

Discussion

The subject property is zoned A-1 (Rural Agricultural District). The properties surrounding the subject property to the east, south, and west are zoned A-1 (Rural Agricultural District). To the north, across W. Farrall Street, the land is zoned I-2 (Light Industrial District).

The Comprehensive Plan Future Land Use Map (FLUM) indicates the subject property has a Mixed Use land use designation. C-3 is an appropriate zoning district for this land use designation. The request is in conformance with the 2040 Comprehensive Plan.

Referencing the City of Shawnee Zoning Code (Code) DIVISION 15. - Amendments; Procedures. Section 22-645. – Planning commission recommendation required**.** This section gives authority to the Planning Commission to make changes (amendments) to the official Zoning Map. *"…be amended, supplemented, changed, modified, or repealed by ordinance, but no change shall be made until the planning commission, after notice and public hearing, files with the city commission a report and recommendation on the proposed change."*

Staff completed the required public hearing notifications for this application. All property owners within 300' from the perimeter of the subject property were mailed a public hearing notification letter. Additionally, a notice of public hearing was published in The County Democrat weekly newspaper. A sign providing details and contact information was placed on the subject property.

Recommendation

Staff recommends that the Planning Commission recommend to the City Commission **APPROVAL** of **RZ09-22** to rezone the subject property from A-1 (Rural Agricultural District) to C-3 (Highway Commercial District).

This rezoning application will be heard at the City Commission meeting on Monday, July 18, 2022, at 6:00 pm.

PLANNING COMMISSION APPLICATION

City of Shawnee
Community Development Department
222 N. Broadway
Shawnee, OK 74801
(405) 878-1672
www.ShawneeOK.org

For Office Use Only
Case Number: _____
Project Number : _____
Date Filed: _____
_____
Planning Commission Secretary

REQUEST:

X Rezoning
_____ Conditional Use Permit
_____ Rezoning w/Conditional Use Permit
_____ Planned Unit Development

I, the undersigned, do hereby respectfully make application and petition to the City Commission to amend the zoning map, and to change the zoning district of the Shawnee area, from Ag 1 District to Commerical District, as hereinafter requested, and in support of this application, the following facts are shown:

PROPERTY LOCATION (STREET ADDRESS): 1303 W Farrall, Shawnee, OK 74801
LEGAL DESCRIPTION: SE/SW Section 24, Township 10, Range 3
PROPERTY OWNER (S): Kaye Steele
PROPERTY AGENT **(**APPLICANT**):** (Same)
APPLICANT'S ADDRESS: 1303 W Farrall
CITY: Shawnee STATE: OK ZIP: 74801
EMAIL ADDRESS: lizziekhomes@gmail.com
TELEPHONE NUMBER: (405) 630-7533 CONTACT NUMBER:(405) 630-7533
DIMENSIONS OF PROPERTY: AREA: 1320 ft x 1320 ft WIDTH: _____ 40 Acres corner 177 & farrall
LENGTH: _____ FRONTAGE: 1320 ft x 1320 ft
CURRENT ZONING: A-1 **CURRENT USE:** Resident
PROPOSED ZONING: Commerical **PROPOSED USE:** commerical

With the filing of this application, I acknowledge that I have been informed of off-street parking, fencing and paving requirements in regard to the zoning I have requested as witnessed by my signature.

COMPLETED APPLICATION AND ALL CORRESPONDING DOCUMENTS MUST BE RECEIVED 30 DAYS PRIOR TO MEETING TO MAKE THE AGENDA.

Kaye Steele
SIGNATURE OF APPLICANT

Check 14302 **FOR STAFF USE ONLY**

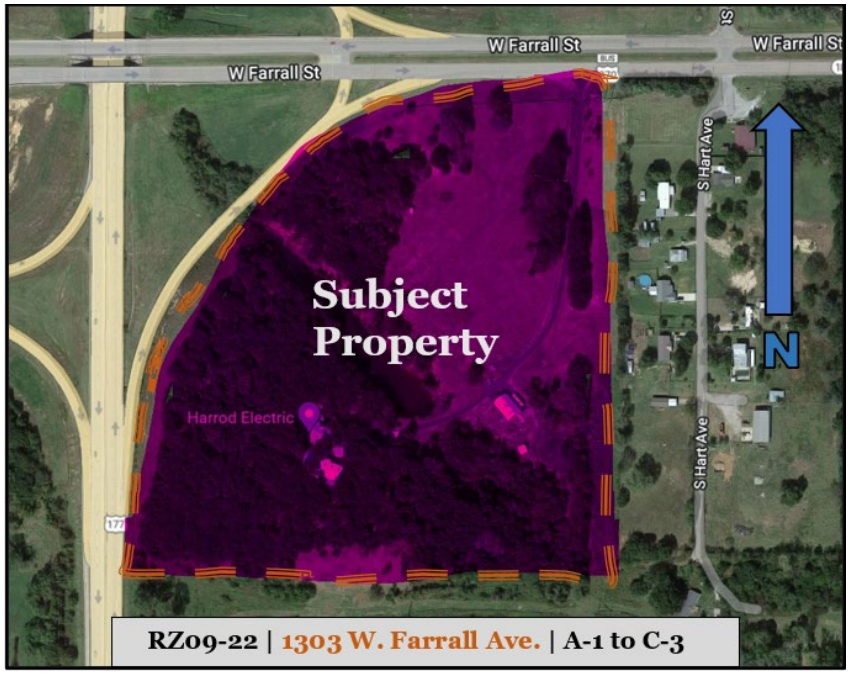
REZONING &/OR C.U.P FEE $ 280.00 **PLANNED UNIT DEVELOPMENT FEE $ 550.00**
RECEIPT NO. _____ **NOTIFICATION SIGN $ 50.00**

PLANNING COMMISSION ACTION: _____ **DATE:** _____
CITY COMMISSION ACTION: _____ **DATE:** _____
PLACE ON ZONING MAP: _____ **ORDINANCE NO.:** _____

City of Shawnee
OKLAHOMA

PUBLIC HEARING

For more information
Community Development Department
Annex Building
222 N. Broadway Avenue **405-878-1672**
Shawnee, OK 74801



Planning Commission
Wednesday, July 6, 2022
City Hall at 16 W. 9th Street, Commission Chambers
1:30 PM

City Commission
Monday, July 18, 2022
City Hall at 16 W. 9th Street, Commission Chambers
6:00 PM

Project Information

Request:	Request to rezone from **A-1** (Rural Agricultural District) to **C-3** (Highway Commercial District)
Applicant:	Kaye Steele
Location:	1303 W. Farrall Avenue
Case #:	RZ09-22

Frequently Asked Questions

What is a Rezoning?
A Rezoning is a request to change the zoning of a property to a different zoning district. The zoning of a property determines many of the allowed uses available for development.

Why did I receive a letter?
You own property within 300 feet of the subject property.

How do I make comment on the request?
Try to attend the public hearing if you are able. Staff will also accept written comments for those who cannot attend.

What if I have questions?
Call the Community Development at 405-878-1672 or contact the City Planner at rachel.clyne@shawneeok.org.

What if I cannot attend the hearing?
Staff will accept written comments. You may also have a neighbor or friend attend the hearing to represent your interests at the meeting.

How will this request affect me?
Every property is different.
Contact the Community Development for more information if you have concerns about any impact on you.

I am not in favor of the request, what do I do?
Attend the meetings or provide written comments if you cannot attend. Property owners within 300 feet of the subject property may also prepare a protest petition. Staff can supply additional information about the protest petition requirements.

Legal Description:

The Southeast Quarter of the Southwest Quarter (SE/4 SW/4) of Section Twenty-four (24), Township Ten (10) North, Range Three (3) East of the Indian Meridian, Pottawatomie County, Oklahoma, LESS AND EXCEPT that portion of subject property taken for highway purposes as shown by Report of Commissioners recorded in Book 187, Page 686 and by Report of Commissioners recorded in Book 220, Page 692 and by Report of Commissioners recorded in Book 229, Page 66 and by Journal Entry recorded in Book 258, Page 457, records of the County Clerk of Pottawatomie County, Oklahoma.

RZ09-22

ORDINANCE NO. _____NS

AN ORDINANCE CONCERNING THE ZONING CLASSIFICATION OF THE FOLLOWING DESCRIBED PROPERTY LOCATED WITHIN THE CORPORATE LIMITS OF THE CITY OF SHAWNEE, POTTAWATOMIE COUNTY, OKLAHOMA, TO-WIT: THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER (SE/4 SW/4) OF SECTION TWENTY-FOUR (24), TOWNSHIP TEN (10) NORTH, RANGE THREE (3) EAST OF THE INDIAN MERIDIAN, POTTAWATOMIE COUNTY, OKLAHOMA, LESS AND EXCEPT THAT PORTION OF SUBJECT PROPERTY TAKEN FOR HIGHWAY PURPOSES AS SHOWN BY REPORT OF COMMISSIONERS RECORDED IN BOOK 187, PAGE 686 AND BY REPORT OF COMMISSIONERS RECORDED IN BOOK 220, PAGE 692 AND BY REPORT OF COMMISSIONERS RECORDED IN BOOK 229, PAGE 66 AND BY JOURNAL ENTRY RECORDED IN BOOK 258, PAGE 457, RECORDS OF THE COUNTY CLERK OF POTTAWATOMIE COUNTY; FROM ZONING CLASSIFICATION A-1 (RURAL AGRICULTURE DISTRICT) TO C-3 (HIGHWAY COMMERCIAL DISTRICT) AMENDING THE OFFICIAL ZONING MAP OF THE CITY OF SHAWNEE ACCORDINGLY.

WHEREAS, pursuant to notice duly given as required by law, a public hearing conducted by the Board of Commissioners of the City of Shawnee, Oklahoma on the 18th day of July, 2022, upon an application to rezone certain properties located in the City of Shawnee, Oklahoma, from zoning classification A-1 (Rural Agriculture District) to C-3 (Highway Commercial District).

WHEREAS, the Planning Commission of the City of Shawnee has conducted one or more public hearings on said application pursuant to notice as required by law and has submitted its final report and recommendation upon said application to the Board of Commissioners; and,

WHEREAS, it appears to be in the best interest of the City of Shawnee and the inhabitants thereof for said properties to be rezoned to C-3 (Highway Commercial District).

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COMMISSIONERS OF THE CITY OF SHAWNEE, OKLAHOMA:

SECTION 1: That the following described property located in the City of Shawnee, Oklahoma, to-wit: THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER (SE/4 SW/4) OF SECTION TWENTY-FOUR (24), TOWNSHIP TEN (10) NORTH, RANGE THREE (3) EAST OF THE INDIAN MERIDIAN, POTTAWATOMIE COUNTY, OKLAHOMA, LESS AND EXCEPT THAT PORTION OF SUBJECT PROPERTY TAKEN FOR HIGHWAY PURPOSES AS SHOWN BY REPORT OF COMMISSIONERS RECORDED IN BOOK 187, PAGE 686 AND BY REPORT OF COMMISSIONERS RECORDED IN BOOK 220, PAGE 692 AND BY REPORT OF COMMISSIONERS RECORDED IN BOOK 229, PAGE 66 AND BY JOURNAL ENTRY RECORDED IN BOOK 258, PAGE 457, RECORDS OF THE COUNTY CLERK OF POTTAWATOMIE COUNTY; FROM ZONING CLASSIFICATION A-1 (RURAL AGRICULTURE DISTRICT) TO C-3 (HIGHWAY COMMERCIAL DISTRICT) AMENDING THE OFFICIAL ZONING MAP OF THE CITY OF SHAWNEE ACCORDINGLY.

PASSED AND APPROVED this ___ day of _____, 2022.

(SEAL)
ATTEST:

_____
ED BOLT, MAYOR

_____
LISA LASYONE, CMC, CITY CLERK

Approved as to form and legality this ___ day of _____, 2022.

_____
JOSEPH M. VORNDRAN,
CITY ATTORNEY

Regular Board of Commissioners 9.

Meeting Date: 07/18/2022

Ordinance

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Public hearing and consideration of an ordinance to rezone property located at 506 North Beard Avenue from C-3 (Highway Commercial District) to R-2 (Medium Density Residential District). Case No. RZ10-22, Applicant: Abraham Santana.

Attachments

Staff Report

Ordinance

Community Development

222 N. Broadway Ave.
Shawnee, OK 74801
ShawneeOK.org

Date: July 15, 2022

To: City Commission

From: Rian Harkins, Community Development Director

Subject: Public hearing and consideration of an ordinance to rezone property located at 506 North Beard Avenue from C-3 (Highway Commercial District) to R-2 (Medium Density Residential District).
Case No. RZ10-22 | Applicant: Abraham Santana

Background: The subject property is located at 506 N. Beard Avenue. The property contains a single-family residential structure. The structure is currently being remodeled. The request is to rezone from C-3 (Highway Commercial District) to R-2 (Medium Density Residential District).

The Comprehensive Plan Future Land Use Map (FLUM) indicates the subject property has a Mixed Use land use designation. R-2 is an appropriate zoning district for this land use designation. The request is in conformance with the 2040 Comprehensive Plan.

Planning Commission recommended approval of the application RZ10-22 at its regular July 6, 2022 meeting on a 5-0 vote.

Attachment: Application, supporting documents, and ordinance

Recommendation: Approval of Case No. RZ10-22 to the City Commission based on the factors outlined in the staff report and the recommendation of the Planning Commission.

Planning Commission Meeting – 07.06.2022 – City of Shawnee, Oklahoma

Staff Report | RZ10-22 | C-3 to R-2 | 506 N. Beard Ave.

To: Shawnee Planning Commission

From: Rachel Clyne, City Planner

Date: 6.20.2022

Subject: RZ10-22 – Staff Report - Public hearing and consideration of a request to rezone the property from C-3 (Highway Commercial District) to R-2 (Medium Density Residential District) at 506 North Beard Avenue.

Background

The subject property is located at 506 N. Beard Avenue. The property contains a single-family residential structure. The structure is currently being remodeled. The request is to rezone from C-3 (Highway Commercial District) to R-2 (Medium Density Residential District). The applicant for this request is Abraham Santana.

Discussion

The subject property is zoned C-3 (Highway Commercial District). The properties to the east and west of the subject property are zoned C-3. Land to the north is zoned R-3 (Multifamily Residential District). A separate rezoning case (RZ08-22), which also requests R-2 zoning, abuts the subject property on the south side.

The Comprehensive Plan Future Land Use Map (FLUM) indicates the subject property has the Mixed Use land use designation. R-2 is an appropriate zoning district for this land use designation. The request is in conformance with the 2040 Comprehensive Plan.

Referencing the City of Shawnee Zoning Code (Code) DIVISION 15. - Amendments; Procedures. Section 22-645. – Planning commission recommendation required**.** This section gives authority to the Planning Commission to make changes (amendments) to the official Zoning Map. *"…be amended, supplemented, changed, modified, or repealed by ordinance, but no change shall be made until the planning commission, after notice and public hearing, files with the city commission a report and recommendation on the proposed change."*

Staff completed the required public hearing notifications for this application. All property owners within 300' from the perimeter of the subject property were mailed a public hearing notification letter.

Additionally, a notice of public hearing was published in The County Democrat weekly newspaper. A sign providing details and contact information was placed on the subject property.

Recommendation

Staff recommends that the Planning Commission recommend to the City Commission **APPROVAL** of **RZ10-22** to rezone the subject property from C-3 (Highway Commercial District) to R-2 (Medium Density Residential District).

This rezoning application will be heard at the City Commission meeting on Monday, July 18, 2022, at 6:00 pm.

PLANNING COMMISSION APPLICATION

City of Shawnee
Community Development Department
222 N. Broadway
Shawnee, OK 74801
(405) 878-1672
www.ShawneeOK.org

For Office Use Only
Case Number:_____
Project Number :_____
Date Filed:_____
_____
Planning Commission Secretary

REQUEST:

X Rezoning
_____Conditional Use Permit
_____Rezoning w/Conditional Use Permit
_____Planned Unit Development

I, the undersigned, do hereby respectfully make application and petition to the City Commission to amend the zoning map, and to change the zoning district of the Shawnee area, from **C3** District to **R2** District, as hereinafter requested, and in support of this application, the following facts are shown:

PROPERTY LOCATION (STREET ADDRESS): 506 N Beard Ave, Shawnee Oklahoma, 74801

LEGAL DESCRIPTION: WOODLAND PARK BLK 5 S1/2 LOT 7

PROPERTY OWNER (S): AMSolutions LLC

PROPERTY AGENT (APPLICANT): Abraham Santana

APPLICANT'S ADDRESS: 3813 NW 28th St

CITY: Oklahoma City STATE: Oklahoma ZIP: 73107 EMAIL ADDRESS: a.m.sant81@gmail.com

TELEPHONE NUMBER: (323)740-8961 CONTACT NUMBER: (323) 740-8961 **DIMENSIONS OF PROPERTY:**

AREA:788 Sq mi WIDTH: 37.58

LENGTH:146.65 FRONTAGE: Unk

CURRENT ZONING: Commercial CURRENT USE: Residential

PROPOSED ZONING: R2

PROPOSED USE: Multifamily

With the filing of this application, I acknowledge that I have been informed of off-street parking, fenc-ing and paving requirements in regard to the zoning I have requested as witnessed by my signature.

COMPLETED APPLICATION AND ALL CORRESPONDING DOCUMENTS MUST BE RECEIVED 30 DAYS PRIOR TO MEETING TO MAKE THE AGENDA.

_____
SIGNATURE OF APPLICANT

FOR STAFF USE ONLY

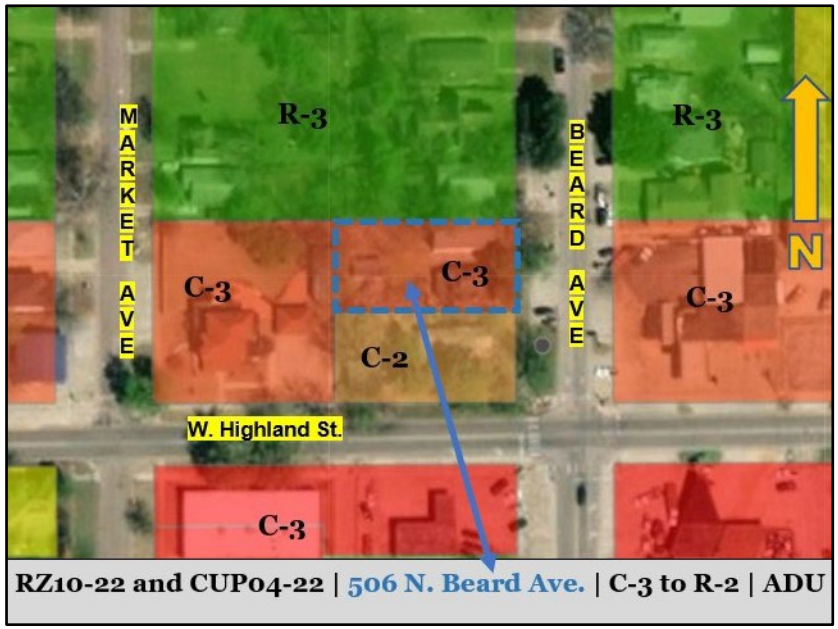
REZONING &/OR C.U.P FEE $ 280.00
RECEIPT NO. _____
PLANNED UNIT DEVELOPMENT FEE $ 550.00
NOTIFICATION SIGN $ 50.00

PLANNING COMMISSION ACTION:_____ DATE:_____
CITY COMMISSION ACTION:_____ DATE:_____
PLACE ON ZONING MAP: _____ORDINANCE NO.:_____

City of Shawnee
OKLAHOMA

PUBLIC HEARING

For more information
Community Development Department
Annex Building
222 N. Broadway Avenue **405-878-1672**
Shawnee, OK 74801



Planning Commission
Wednesday, July 6, 2022
City Hall at 16 W. 9th Street, Commission Chambers
1:30 PM

City Commission
Monday, July 18, 2022
City Hall at 16 W. 9th Street, Commission Chambers
6:00 PM

Project Information

Request: Request to rezone from **C-3** (Highway Commercial District) to **R-2** (Medium Density Residential District); and a request for Conditional Use Permit (CUP) for an Accessory Dwelling Unit (ADU).

Applicant: Abraham Santana

Location: 506 N. Beard Avenue

Case #: RZ10-22 and CUP04-22

Frequently Asked Questions

What is a Rezoning?
A Rezoning is a request to change the zoning of a property to a different zoning district. The zoning of a property determines many of the allowed uses available for development.

What is a Conditional Use Permit (CUP)?
A Conditional Use Permit (CUP) is a request for a particular use that has been classified in the Zoning Code as requiring a CUP. These uses require a thorough review because some uses could more intensely affect the area in which it is located.

Why did I receive a letter?
You own property within 300 feet of the subject property.

How do I make comment on the request?
Try to attend the public hearing if you are able. Staff will also accept written comments for those who cannot attend.

What if I have questions?
Call the Community Development at 405-878-1672 or contact the City Planner at rachel.clyne@shawneeok.org.

What if I cannot attend the hearing?
Staff will accept written comments. You may also have a neighbor or friend attend the hearing to represent your interests at the meeting.

How will this request affect me?
Every property is different.
Contact the Community Development for more information if you have concerns about any impact on you.

I am not in favor of the request, what do I do?
Attend the meetings or provide written comments if you cannot attend. Property owners within 300 feet of the subject property may also prepare a protest petition. Staff can supply additional information about the protest petition requirements.

Legal Description:

The South Half of Lot Seven (7), Block Five (5), WOODLAND PARK ADDITION, to the City of Shawnee, Pottawatomie County, Oklahoma, according to the recorded plat thereof.

RZ10-22
and
CUP04-22

ORDINANCE NO. _____NS

AN ORDINANCE CONCERNING THE ZONING CLASSIFICATION OF THE FOLLOWING DESCRIBED PROPERTY LOCATED WITHIN THE CORPORATE LIMITS OF THE CITY OF SHAWNEE, POTTAWATOMIE COUNTY, OKLAHOMA, TO-WIT: THE SOUTH HALF OF LOT SEVEN (7), BLOCK FIVE (5), WOODLAND PARK ADDITION, TO THE CITY OF SHAWNEE, POTTAWATOMIE COUNTY, OKLAHOMA, ACCORDING TO THE RECORDED PLAT THEREOF; FROM ZONING CLASSIFICATION C-3 (HIGHWAY COMMERCIAL DISTRICT) TO R-2 (MEDIUM DENSITY RESIDENTIAL DISTRICT) AMENDING THE OFFICIAL ZONING MAP OF THE CITY OF SHAWNEE ACCORDINGLY.

WHEREAS, pursuant to notice duly given as required by law, a public hearing conducted by the Board of Commissioners of the City of Shawnee, Oklahoma on the 18th day of July, 2022, upon an application to rezone certain properties located in the City of Shawnee, Oklahoma, from zoning classification C-3 (Highway Commercial District) to R-2 (Medium Density Residential District).

WHEREAS, the Planning Commission of the City of Shawnee has conducted one or more public hearings on said application pursuant to notice as required by law and has submitted its final report and recommendation upon said application to the Board of Commissioners; and,

WHEREAS, it appears to be in the best interest of the City of Shawnee and the inhabitants thereof for said properties to be rezoned to R-2 (Medium Density Residential District).

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COMMISSIONERS OF THE CITY OF SHAWNEE, OKLAHOMA:

SECTION 1: That the following described property located in the City of Shawnee, Oklahoma, to-wit: THE SOUTH HALF OF LOT SEVEN (7), BLOCK FIVE (5), WOODLAND PARK ADDITION, TO THE CITY OF SHAWNEE, POTTAWATOMIE COUNTY, OKLAHOMA, ACCORDING TO THE RECORDED PLAT THEREOF; FROM ZONING CLASSIFICATION C-3 (HIGHWAY COMMERCIAL DISTRICT) TO R-2 (MEDIUM DENSITY RESIDENTIAL DISTRICT) AMENDING THE OFFICIAL ZONING MAP OF THE CITY OF SHAWNEE ACCORDINGLY.

PASSED AND APPROVED this ___ day of _____, 2022.

(SEAL)
ATTEST: _____
ED BOLT, MAYOR

_____
LISA LASYONE, CMC, CITY CLERK

Approved as to form and legality this ___ day of _____, 2022.

_____
JOSEPH M. VORNDRAN,
CITY ATTORNEY

DRAFT

Regular Board of Commissioners 10.

Meeting Date: 07/18/2022

Ordinance

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Public hearing and consideration of an ordinance to rezone property located at 506 North Beard Avenue from R-2 (Medium Density Residential District) to R-2 (Medium Density Residential District) with a Conditional Use Permit (CUP) for an Accessory Dwelling Unit (ADU). Case No. CUP04-22, Applicant: Abraham Santana.

Attachments

Staff Report

Community Development

222 N. Broadway Ave.
Shawnee, OK 74801
ShawneeOK.org

Date: July 15, 2022

To: City Commission

From: Rian Harkins, Community Development Director

Subject: Public hearing and consideration of an ordinance to rezone property located at 506 N. Beard Avenue from R-2 (Medium Density Residential District) to R-2 (Medium Density Residential District) with a Conditional Use Permit (CUP) for an Accessory Dwelling Unit (ADU).
Case No. CUP04-22 | Applicant: Abraham Santana

Background: After public notification but before the July 6, 2022, Planning Commission meeting, the applicant withdrew this application.

Attachment: None.

Recommendation: No action is required.

Regular Board of Commissioners 11.
Meeting Date: 07/18/2022
Budget Amendment
Submitted By: Kacie Eck, City Clerk
Department: City Clerk

Information
Title of Item for Agenda
Consideration of the following budget amendments for Fiscal Year 2022 – 2023:

Attachments
Memo

Finance

16 W. 9th St.
Shawnee, OK 74801
ShawneeOK.org

Date: July 14, 2022

To: City Commission

From: Jacob Bussell, Assistant Finance Director

Subject: Consideration of budget amendments to appropriate fund balance for FY22 Encumbrances for which goods or services will be received in FY23.

Background: In estimating fund balances for the fiscal year 2022-2023 (FY23) budget, staff's calculations utilized all fiscal year 2021-2022 (FY22) encumbrances, counting them as expenses in FY22. Due to the timing of invoices, some of the FY22 encumbrances will be expensed in FY23, as goods and services will be rendered in FY23. Since June 30, 2022, staff has gathered all FY22 encumbrances for which goods and services will not be rendered until FY23 and are requesting that fund balance be appropriated to cover them. The amount for appropriation, is as follows:

- $51,487 – General Fund - FY22 Encumbrances to be expensed in FY23
- $223,745 – Capital Improvement Fund - FY22 Encumbrances to be expensed in FY23
- 45,500 – 2018 Capital Improvement Fund - FY22 Encumbrances to be expensed in FY23

In addition, for FY22 the Shawnee Municipal Fund (SMA Fund) was budgeted to transfer approximately $4.6M to the General Fund. A portion of the transfer was delayed to allow for the processing of reimbursements from loan proceeds for the Water Treatment Plant project. Staff is requesting the appropriation of SMA fund balance to complete this FY22 transfer to the General Fund. The amount to be transferred is as follows:

- $2,000,000 – Transfers from SMA Fund to General Fund.

Financial Impact: See Attached Budget Amendment.

Attachment: Amendment.

Staff Recommendation: Approval of the item.

Regular Board of Commissioners 11. a.

Meeting Date: 07/18/2022

Budget Amendment

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Fund 001 General Fund to appropriate fund balance for General Fund for encumbrances in Fiscal Year 2021-2022 which goods and services were not received in Fiscal Year 2021-2022 but will be received in Fiscal Year 2022-2023. Also, additional transfers from Shawnee Municipal Authority due to Fiscal Year 2021-2022 reduced transfers due to timing issues.

Attachments

Budget Amendment

City of Shawnee
2022-2023 Budget Amendment
General Fund

Estimated Revenue, Fund Balance, or Transfers IN

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
001	49100			TRANSFER FROM SMA	4,360,000.00	2,000,000.00	6,360,000.00
				Total	4,360,000.00	2,000,000.00	6,360,000.00

Appropriations

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
001	5-0620-54500			CAPITAL OUTLAY-EQUIPMENT	-	14,136.00	14,136.00
001	5-0720-52050			UNIFORMS AND CLOTHING	70,000.00	286.80	70,286.80
001	5-0720-52200			TOOLS & MINOR EQUIPMENT	22,611.00	113.52	22,724.52
001	5-0720-52500			OTHER MATERIALS & SUPPLIES	12,000.00	500.00	12,500.00
001	5-0720-53040			REPAIR & MAINT. - VEHICLES	140,000.00	36,450.18	176,450.18
					244,611.00	51,486.50	296,097.50

Approved by the City Commission this

Explanation of Budget Amendment:
To appropriate fund balance for General Fund for encumbrances in FY22 which goods and services were not received in FY22 but will be received in FY23. Also, additional Transfers from SMA due to FY22 reduced transfers due to timing issues.

Approved:

Mayor _____
Attest:

Posted By _____ Date _____ BA# _____ Pkt.# _____

City Clerk _____

Regular Board of Commissioners 11. b.

Meeting Date: 07/18/2022

Budget Amendment

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Fund 301 Capital Improvement Fund to appropriate fund balance for Capital Improvement Fund for encumbrances in Fiscal Year 2021-2022 which goods and services were not received in Fiscal Year 2021-2022 but will be received in Fiscal Year 2022-2023.

Attachments

Budget Amendment

City of Shawnee
2022-2023 Budget Amendment
Capital Improvement Fund

Estimated Revenue, Fund Balance, or Transfers IN

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
				Total	-	-	-

Appropriations

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
301	5-0620-54500			CAPITAL OUTLAY-EQUIPMENT	134,522.00	14,145.92	148,667.92
301	5-0710-54500			CAPITAL OUTLAY-EQUIPMENT	20,000.00	40,606.00	60,606.00
301	5-0720-54500			CAPITAL OUTLAY-EQUIPMENT	143,000.00	72,082.30	215,082.30
301	5-0930-54500			CAPITAL OUTLAY-EQUIPMENT	-	53,300.00	53,300.00
301	5-0950-54500			CAPITAL OUTLAY-EQUIPMENT	22,000.00	43,611.00	65,611.00
					319,522.00	223,745.22	543,267.22

Approved by the City Commission this

Explanation of Budget Amendment:
To appropriate fund balance for Cap Imprv Fund for encumbrances in FY22 which goods and services were not received in FY22 but will be received in FY23.

Approved:

Mayor _____
Attest:

Posted By _____ Date _____ BA# _____ Pkt.# _____

City Clerk _____

Regular Board of Commissioners 11. c.

Meeting Date: 07/18/2022

Budget Amendment

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Fund 301 Capital Improvement Fund to appropriate grant revenue for capital expenditures in Fiscal Year 2022-2023.

Attachments

Budget Amendment

Finance

16 W. 9th St.
Shawnee, OK 74801
ShawneeOK.org

Date: July 14, 2022

To: City Commission

From: Jacob Bussell, Assistant Finance Director

Subject: Consideration of budget amendments to appropriate grant revenue received for capital outlay.

Background: In July 2022, the City of Shawnee was awarded a grant from the Avedis Foundation for construction of an amphitheater at Woodland Veterans Park. To expend funds from the grant award, staff is requesting that this grant revenue be appropriated for fiscal year 2022-2023. The amount for appropriation, is as follows:

- $766,883 – Avedis Foundation grant revenue to be appropriated for capital outlay at Woodland Veterans Park.

Financial Impact: See Attached Budget Amendment.

Attachment: Amendment.

Staff Recommendation: Approval of the item.

City of Shawnee
2022-2023 Budget Amendment
Capital Improvement Fund

Estimated Revenue, Fund Balance, or Transfers IN

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
301	41090			AVEDIS GRANT	-	766,833.25	766,833.25
				Total	-	766,833.25	766,833.25

Appropriations

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
301	5-0940-54200			CAPITAL OUTLAY-BLDGS & IMPRV	-	766,833.25	766,833.25
					-	766,833.25	766,833.25

Approved by the City Commission this

Explanation of Budget Amendment:
To appropriate grant revenue for capital expenditure in FY23

Approved:

Mayor _____
Attest:

Posted By _____ Date _____ BA# _____ Pkt.# _____

City Clerk _____

Regular Board of Commissioners 11. d.

Meeting Date: 07/18/2022

Budget Amendment

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Fund 303 2018 Capital Improvement Fund to appropriate fund balance for 2018 Capital Improvement Fund for encumbrances in Fiscal Year 2021-2022 which goods and services were not received in Fiscal Year 2021-2022 but will be received in Fiscal Year 2022-2023.

Attachments

Budget Amendment

City of Shawnee
2022-2023 Budget Amendment
2018 Capital Improvement Fund

Estimated Revenue, Fund Balance, or Transfers IN

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
				Total	-	-	-

Appropriations

Fund Number	Account Number	Project Code	Line Item	Description	Balance Before Amendment	Amount of Amendment Increase (Decrease)	Balance After Amendment
303	5-0720-54200			CAPITAL OUTLAY-BLDGS & IMPRV	-	45,500.00	45,500.00
					-	45,500.00	45,500.00

Approved by the City Commission this

Explanation of Budget Amendment:
To appropriate fund balance for 2018 Cap Imprv Fund for encumbrances in FY22 which goods and services were not received in FY22 but will be received in FY23.

Approved:

Mayor _____
Attest:

Posted By _____ Date _____ BA# _____ Pkt.# _____

City Clerk _____

Regular Board of Commissioners 12. a.
Meeting Date: 07/18/2022
Bid Award
Submitted By: Kacie Eck, City Clerk
Department: City Clerk

Information
Title of Item for Agenda
Woodland Veterans Park Improvements Project (Award)

Attachments
Award Memos
Advertisement
Specifications
Plan Holders List
Addendum No. 1
Addendum No. 2
Addendum No. 3
Addendum No. 4
Bid Tabulation

Office of Engineering

222 N. Broadway Ave.
Shawnee, OK 74801
ShawneeOK.org

Date: July 14, 2022

To: City Commission

From: Seth Barkhimer, Director of Engineering

Subject: Consideration of Woodland Veterans Park Improvement (Award)

Background: In 2019 the City of Shawnee entered into a Professional Services Agreement with Planning Design Group (PDG) for final design on the Woodland Veterans Park Improvement project. With design complete, the project was advertised, and staff opened bids at the July 5, 2022 commission meeting.

Staff, and the PDG design team, have reviewed the bid proposals. Six bids were received with Base Bid ranging from $4,648,233.00 (low) to $5,017,459.53 (high). The design estimate prior to the bid opening was $4,152,454.50.

Staff recommends awarding the contract to Downey Construction Company. Downey was the lowest bid received with a break down outlined below:

• Base Bid:	$4,648,233.00
• Alternate 1 – Pickleball Lighting:	$ 13,000.00
• Alternate 2a – Demo & Removal of Existing Chain link:	$ 6,900.00
• Alternate 2b – Tennis 10' Black Vinyl Chain link:	$ 58,760.00
• Alternate 2c – 1' W. Concrete Curb (tennis fence):	$ 14,760.00
• Alternate 3 – Resurfacing:	$ 18,000.00
• Alternate 4 – Tennis Court Equipment:	$ 8,500.00

It is important to note that the project costs for improvements to Kid's Space Park and Woodland Veterans Park exceed the initial estimate established with the 2018 Half-Cent Sales Tax funding. Staff's financial analysis of the sales tax receipts to date, and conservative projections for sales tax receipts through 2028, concludes that there will be sufficient funding to accommodate both projects without impacting other projects.

Staff is requesting approval to award the base bid, along with all alternates for a total contract in the amount of $4,768,153.00.

Financial Impact: The contract is for $4,768,153.00. It will be funded from account - 303-5-0940-54200 – Capital Outlay Buildings and Improvement; Project No. C-21-03C2

Attachment: Bid tabulation, Consultant Recommendation Letter

Staff Recommendation: Award of the Contract

PDG
PLANNING DESIGN GROUP
Landscape Architecture | Land Planning

July 12, 2022

Mr. Seth Barkhimer, PE, Director of Engineering
City of Shawnee
16 West 9th Street
Shawnee, OK 74801

RE: Woodland Veterans Park Improvements Project – Bid Tabulation

Dear Mr. Barkhimer:

A total of six (6) bids were opened on Monday, July 5, 2022, for the Woodland Veterans Park Improvements Project.

A summation of the six (6) bids is attached to this letter. The bids are shown with the Architect's Estimate listed first, and the remaining bids listed from lowest to highest.

Based upon the review of the attached bids, the apparent low bidder for the Woodland Veterans Park is Downey Contracting, with a Total Bid with all Alternates of $4,768,153.00. The corrected Bid Tabulation information for each bidder is attached.

Planning Design Group recommends the bid be awarded to Downey Contracting, for $4,768,153.00 be accepted and placed on the City Commission Agenda for award of the construction contract.

If I can answer any questions, please don't hesitate to contact me.

Sincerely,

Geoffery Evans, PLA, ASLA
Project Manager
PLANNING DESIGN GROUP, Inc.

Attachment: Woodland Veterans Park Improvements Project Bid Tabulation – Corrected

ADVERTISEMENT FOR BIDS

Woodland Veterans Park Improvements Project

FOR

CITY OF SHAWNEE, OKLAHOMA

Separate sealed bids for the **Woodland Veterans Park Improvements Project,** for the City of Shawnee, Oklahoma will be received by the City Clerks Office at the City of Shawnee, Oklahoma at City Hall, 16 West 9th Street, Shawnee, Oklahoma 74801, until **4:00 P.M., June 20, 2022** for furnishing tools, materials and labor, and performing the work necessary to be done in the construction of the above.

All bids that have been duly received will be publicly opened and read aloud by the designated representative, in the Commission Chambers of the City of Shawnee, Oklahoma, during the Commission Meeting that starts at 6:00pm.

The information for Bidders, Bid Forms, Contract, Plans, Specifications, Bond Forms and other Contract Documents (and addenda, if any) may be examined at the following locations:

1. City of Shawnee, Oklahoma, 16 West 9th Street, Shawnee, Oklahoma 74801
2. Bid News/iSqFt
3. Southwest Construction News
4. ePlan

Plans and Specifications for this project may be obtained from Planning Design Group through a digital download file. Download will contain PDF files of the plans and specifications.

Pre-Bid Conference: A **"MANDATORY"** Pre-Bid Conference will be held, June 8, 2022, at 10:00am, at the Shawnee Commission Chambers, 16 West 9th Street, Shawnee, Oklahoma 74801 which is a prequalification.

The Owner reserves the right to waive any informality or to reject any or all bids.

The sealed proposal of each bidder shall be accompanied by a Noncollusion Affidavit, Business Relationship Affidavit, Experience and Equipment Questionnaire and a Certified or Cashier's Check or Bidder's Surety Bond in the sum of five percent (5%) of the amount of the bid will be required from each bidder to be retained as liquidated damages in the event the successful bidder fails, neglects, or refuses to enter into said contract for the construction of said public improvements for said project, and furnish the necessary bonds within ten (10) days from and after the date the award is made.

Bids received more than ninety-six hours, excluding Saturdays, Sundays and holidays, before the time set for opening of bids, as well as bids received after the time set for opening of bids, will not be considered and will be returned unopened.

No bidder may withdraw his bid within sixty (60) days after the actual date of the opening.

5/13/22
Date

Andrea Weckmueller-Behringer
Andrea Weckmueller-Behringer, City Manager

CONTRACT DOCUMENTS
AND
TECHNICAL SPECIFICATIONS

FOR

WOODLAND VETERANS PARK IMPROVEMENTS

CITY OF SHAWNEE
Department of Engineering
Seth Barkhimer, Director

Prepared By

Planning Design Group
5314 South Yale Ave, Suite 510
Tulsa, Oklahoma 74135
918/628-1255

CONTRACT DOCUMENTS
AND
TECHNICAL SPECIFICATIONS

FOR

Woodland Veterans Park Improvements Project

FOR

THE CITY OF SHAWNEE

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Anti-Kickback Affidavit		AKA - 1
Business Relationships Affidavit		BA - 1
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Statutory Bond		SB - 1
Maintenance Bond		MB - 1
Non-collusion Affidavit – 74 92 85.23 (Contract)		NCA/CONT - 1
Claim or Invoice Affidavit		CIA-1
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TECHNICAL SPECIFICATIONS

ADVERTISEMENT FOR BIDS

Woodland Veterans Park Improvements Project

FOR

CITY OF SHAWNEE, OKLAHOMA

Separate sealed bids for the **Woodland Veterans Park Improvements Project,** for the City of Shawnee, Oklahoma will be received by the City Clerks Office at the City of Shawnee, Oklahoma at City Hall, 16 West 9th Street, Shawnee, Oklahoma 74801, until **4:00 P.M., June 20, 2022** for furnishing tools, materials and labor, and performing the work necessary to be done in the construction of the above.

All bids that have been duly received will be publicly opened and read aloud by the designated representative, in the Commission Chambers of the City of Shawnee, Oklahoma, during the Commission Meeting that starts at 6:00pm.

The information for Bidders, Bid Forms, Contract, Plans, Specifications, Bond Forms and other Contract Documents (and addenda, if any) may be examined at the following locations:

1. City of Shawnee, Oklahoma, 16 West 9th Street, Shawnee, Oklahoma 74801
2. Bid News/iSqFt
3. Southwest Construction News
4. ePlan

Plans and Specifications for this project may be obtained from Planning Design Group through a digital download file. Download will contain PDF files of the plans and specifications.

Pre-Bid Conference: A **"MANDATORY"** Pre-Bid Conference will be held, June 8, 2022, at 10:00am, at the Shawnee Commission Chambers, 16 West 9th Street, Shawnee, Oklahoma 74801 which is a prequalification.

The Owner reserves the right to waive any informality or to reject any or all bids.

The sealed proposal of each bidder shall be accompanied by a Noncollusion Affidavit, Business Relationship Affidavit, Experience and Equipment Questionnaire and a Certified or Cashier's Check or Bidder's Surety Bond in the sum of five percent (5%) of the amount of the bid will be required from each bidder to be retained as liquidated damages in the event the successful bidder fails, neglects, or refuses to enter into said contract for the construction of said public improvements for said project, and furnish the necessary bonds within ten (10) days from and after the date the award is made.

Bids received more than ninety-six hours, excluding Saturdays, Sundays and holidays, before the time set for opening of bids, as well as bids received after the time set for opening of bids, will not be considered and will be returned unopened.

No bidder may withdraw his bid within sixty (60) days after the actual date of the opening.

Date

Andrea Weckmueller-Behringer, City Manager

INSTRUCTIONS TO BIDDERS

1. Receipt and Opening of Bids

The City of Shawnee (herein called the "Owner"), invites bids on the form attached hereto. All blanks must be appropriately filled in. Bids will be received by the Owner at the office of the City Clerk until **4:00 P.M., June 20, 2022.** The envelopes containing the bids must be sealed, addressed to the City of Shawnee, 16 West 9th Street, Shawnee, Oklahoma, and designated as Bid for the **Woodland Veterans Park Improvements Project** All bids that have been duly received will be publicly opened and read aloud by the City in the City Hall Commission Chambers of the City of Shawnee.

The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. The awarding of a contract to the lowest responsible bidder or bidders shall be made within sixty (60) days after the opening of bids unless the governing body of the awarding public agency, by formal recorded action and for good cause shown, provides for a reasonable extension of that period, which extension period shall not in any event exceed fifteen (15) days where only state or local funds are involved, or not to exceed ninety (90) days on any award of contract for the construction of a public improvement where funds are utilized which are furnished by an agency of the United States Government.

2. Pre-Bid Conference

A mandatory pre-bid conference for prospective bidders will be held on June 8, 2022, at 10:00 A.M., in the Commission Chambers, City Hall, 16 West 9th Street, Shawnee, Oklahoma 74801. The purpose of this conference is to afford the prospective bidders the opportunity to ask questions relative to the project. The fact that a prospective bidder does not choose to attend will in no way affect his bid and the City of Shawnee (Owner) will in no way be bound by any statement made at this conference.

3. Preparation of Bids

Each bid must be submitted in a sealed, opaque envelope bearing on the outside the name of the bidder, his address and the name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in the bid form.

The following documents shall be submitted in the bid package:

a. Proposal (including acknowledging of any/all addenda)
b. Bid Bond
c. Noncollusion Affidavit 74 92 85.22 (Bid)
d. Nondiscrimination Certificate
e. Anti-kickback Affidavit
f. Business Relationships Affidavit

4. Subcontracts

The bidder is specifically advised that any person, firm or other party to whom it is proposed to award a subcontract under this contract must be acceptable to the Owner.

5. Telegraphic Modification

Shall not be accepted.

6. Method of Bidding

The Owner invites the following bid:

Completed Proposal Form for the Woodland Veterans Park Improvements Project for the City of Shawnee.

7. Qualifications of Bidders

Each Bidder shall be prepared, as requested by the Owner, to present evidence of experience, qualifications and financial ability to execute the terms of the Bid / Contract Documents. In determining the lowest, qualified, and best responsible Bid, the following elements shall be considered:

A. Whether the Contractor(s) maintains a permanent place of business.
B. Whether the Contractor(s) and/or their subcontractor(s) has adequate staffing, manpower and equipment to do the Work promptly and properly.
C. Whether the Contractor(s) has suitable financial ability to meet the obligations incidental to the Work.
D. Whether the Contractor(s) and/or their Subcontractor(s) has appropriate training and technical experience.
E. Whether the Contractor(s) and/or their subcontractor(s) has a past record appropriate to the responsibilities and scope of the project.
F. The Contractor(s) project references.
G. The Contractor(s) bonding capacity and status.
H. The Contractor(s) and/or their subcontractor(s) ability, capacity, and skill to perform the level of service required.
I. Whether the Contractor(s) and/or their subcontractor(s) can perform the scope of work and/or provide the service promptly or within the time specified, without delay or interference, including but not limited to, past experience with the Owner or any duly constituted authority thereof.
J. The character, integrity, reputation, judgment, experience and efficiency of the Contractor(s).
K. The quality of performance of previous contracts or services.
L. The previous and existing compliance by the Contractor(s) and/or their Subcontractor(s) with any laws and ordinances (Federal, State and/or local) relating to the scope of work or level of services required.
M. The quality, suitability, availability, and adaptability of the goods, products, supplies, equipment, or contractual services to the particular use required.
N. The operating cost, maintenance requirements, and performance data of major items of materials and equipment proposed by the Bidder.
O. The ability of the Contractor(s) and/or their subcontractor(s) to provide future maintenance and service for the use of the subject of the Contract.
P. The complexity, number, and scope of conditions of the Contract.
Q. The bidders conformance to the Bid / Contract Documents.
R. The Bidder's warranties, bonds, terms, and conditions.
S. Whether the bid complies with the specifications, drawings, and other requirements herein.

8. Execution of the Contract

A. The Owner reserves the right to accept any bid or portions thereof, or to reject any and all Bids or portions thereof, to waive any and all informalities not involving price, time or changes in the scope of work and to negotiate contract terms with the successful Bidder, and the right to disregard all nonconforming, non-responsive, unbalanced, or conditional Bids. The Owner also reserves the right to reject the Bid of any Bidder if the Owner believes that it would be in their best interest.

B. Upon the request of the Owner, a Bidder(s) whose Bid is under consideration for award of Contract shall submit promptly to the Owner, satisfactory evidence indicating the Bidder's financial resources, construction experience and organization available for the performance of the Contract and the name of any alternate subcontractor(s) proposed for Owner approval.

C. Not withstanding any delay in the preparation and execution of the formal Contract(s), each Bidder shall be prepared, upon written Notice of Award, to commence Work following the Owner's issuance of the Notice to Proceed.

9. Bid Security

Each bid must be accompanied by cash, certified check of the Bidder or a bid bond duly executed by

the Bidder as principal and having as surety thereon a surety company approved by the Owner, in the amount of five percent (5%) of the bid. Such cash, checks or bid bonds will be returned to all except the three lowest bidders within three (3) days after the opening of bids and the remaining cash, checks, or bid bonds will be returned promptly after the Owner and the accepted Bidder have executed the contract. The awarding of a contract to the lowest responsible bidder or bidders shall be made within sixty (60) days after the opening of bids unless the governing body of the awarding public agency, by formal recorded action and for good cause shown, provides for a reasonable extension of that period, which extension period shall not in any event exceed fifteen (15) days where only state or local funds are involved, or not to exceed ninety (90) days on any award of contract for the construction of a public improvement where funds are utilized which are furnished by an agency of the United States Government.

10. Liquidated Damages for Failure to Enter into Contract

The successful bidder, upon his failure or refusal to execute and deliver the contract and bonds required within ten (10) days after he has received notice of the acceptance of his bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with his bid.

11. Time of Completion and Liquidated Damages

Bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" of the Owner and to fully complete the project within **300** consecutive calendar days thereafter. Bidder must also agree to pay liquidated damages for each consecutive calendar day thereafter as hereinafter provided in General Conditions 208.07.

12. Conditions of Work

Each bidder must inform himself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his obligation to furnish all material and labor necessary to carry out the provisions of his contract. Insofar as possible, the contractor, in carrying out his work, must employ all methods or means as will not cause any interruptions of or interference with the work of any other contract.

13. Addenda and Interpretations

No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any bidder orally.

A. Should a Bidder find discrepancies in or omissions from the Bid Documents, or be in doubt as to their meaning or intent, he must notify and request a clarification from the Owner in writing. All interpretations and clarifications considered necessary by the Owner shall be issued to all Bidders of record as Addenda to the Bid Documents and shall become part of the Contract. All questions are to be received from the Bidders by June 15, 2022, by 1:00pm. Any questions received after this date, shall not be answered. The Owner shall not be responsible for oral clarification. All Addenda items issued during the time of bidding shall be covered in the Bid and acknowledged on the proposal.

B. If any person contemplating submitting a Bid for the proposed Contract is in doubt as to the meaning of any part of the Contract Documents shall submit questions, in writing, to the Owner for clarification or interpretation. The Owner shall log this request, obtain the appropriate answer, and if necessary, issue a response in the form of an Addendum to all bidders of record. The Bidder shall submit all requests to the following person:

Mr. Geoff Evans
Planning Design Group
5314 South Yale Ave., Suite 510
Tulsa, Oklahoma 74135
Phone: (918) 628-1255
Email: gevans@pdgtulsa.com

Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be emailed with return receipt requested to all prospective bidders (at the respective email addresses furnished for such purposes). Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under this bid as submitted. All addenda so issued shall become part of the contract documents and shall be acknowledged on the proposal form.

14. Security for Faithful Performance

Simultaneously with his delivery of the executed contract, the Contractor shall furnish a surety bond or bonds as security for faithful performance of this contract and for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract, as specified in the General Conditions included herein. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the Owner.

15. Power of Attorney

Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of this power of attorney.

16. Notice of Special Conditions

Attention is particularly called to those parts of the contract documents and specifications that deal with the following:

a. Inspection and testing of materials
b. Insurance requirements

17. Laws and Regulations

The bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

18. Obligation of Bidder

At the time of the opening of bids, each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form, instrument or documents shall in no way relieve any bidder from any obligation in respect to his bid.

19. Disqualification of Bidders

No contract will be awarded to any persons, firm, partnership, company, or corporation in arrears to the City of Shawnee upon a debt or contract, or in default as surety or otherwise upon any obligation to the City of Shawnee.

20. Exemption from State and Local Sales Tax

Omit sales tax on this project in compliance with provisions set forth in Sections 1356(A), 1356(B) and 1356(I) of Title 68 of the Oklahoma Statutes. Both the named Contractor and subcontractors, in accordance with such Statutes and consistent with the Oklahoma Tax Commission Decision No. M8700147 in the execution of a public contract will be exempt after having been duly appointed as purchasing agents by the public entity. The Owner will appoint the Contractor and subcontractor as agents for the City of Shawnee for this project on a state and local sales tax exempt basis in accordance with the foregoing authorities. A copy of the Appointment of Agent form is included in the Contract Documents.

21. Noncollusion Affidavits:

A. The Bidder shall be required to execute and submit as a part of his bid the Owner's Noncollusion Affidavit. Refer to the enclosed form 74 OS 85.22 (Bid)
B. The Contractor (successful bidder) shall be required to execute and submit as a part of executing the Contract, the Owner's Noncollusion Affidavit. Refer to the enclosed form 74 OS 85-23 (Contract).

22. Nondiscrimination Certificate

The bidder shall be required to execute and submit as a part of their bid the Owner's Nondiscrimination Certificate. Refer to the enclosed form.

23. Anti-Kickback Affidavit

The bidder shall be required to execute and submit as a part of their bid the Owner's Anti-Kickback Affidavit. Refer to the enclosed form.

24. Proposal

Before submitting the Proposal, carefully examine all Bid Documents, visit the site, examine existing conditions and limitations, and include a sum to cover the cost of all items included in the Bid Documents. Failure or omission of the Bidder to receive or examine any form, instrument, Addendum or other documents, or visit the site and acquaint himself with existing conditions shall not relieve the Bidder from obligations with respect to his Bid or to Contract requirements. Submission of the Proposal shall be taken as prima facie evidence of the Contractor's acceptance of and intent to comply with the Bid Documents.

A. Proposals shall be made only on the form provided in these specifications. All blank spaces on the form shall be completed (fully filled out), bids stated both in writing (words) and numerically, signatures signed in longhand, and form completed without interlineations, alteration or erasure. Oral, telegraphic or telephonic proposal or modifications shall no be accepted.

B. Proposals may contain pre-approved alternate proposals in accordance with the conditions outlined in these Specifications.

C. Proposals shall be delivered to the place designated, on or before the day and hour set for the opening of Bids. It is the sole responsibility of the Bidder to deliver the Proposal before the scheduled closing time. Bids received after the scheduled closing time shall be returned unopened.

D. In the event of a discrepancy between prices quoted in writing (words) and those quoted numerically, writing shall govern. Unit Prices shall govern over totals. All prices shall include the furnishing of materials equipment, tools and all other facilities and performance of labor and services necessary for proper completion of the Work specified herein.

E. Proposals shall not contain any recapitulation of the Work to be done.

F. The Bid shall contain an acknowledgment of receipt of all Addenda issued by the Owner. The Bidder must fill in the number and date of each addendum.

G. Failure of the Bidder to properly fill out the Form of Proposal, provide proper bonding, or provide all necessary documents and affidavits as required by these Contract Documents, shall be grounds for rejection of the Bid by the Owner.

25. Bonds

A. The Contractor(s) shall furnish and pay for a Performance Bond, Statutory Bond and Maintenance Bond in accordance with these documents. Furnish bonds in such form as the Owner may prescribe and with a surety company licensed to conduct business in the State of Oklahoma and acceptable to the Owner. The Bidder shall deliver said bonds to the Owner, no

later than fifteen (15) business days after the date of the Notice to Award. Failure or neglecting to deliver said bonds, as specified, shall be considered as having abandoned the Contract and the bid security shall be retained as liquidated damages.

B. In lieu of the required Bonds, the Contractor(s) may provide an irrevocable letter of credit complying with the provisions of Sections 1 and 2, Title 61 of the Oklahoma Statutes: and containing such terms as may be prescribed by the Department of Central Services issued by a solvent financial institution insured by the Federal Deposit Insurance Corporation for the Benefit of the State of Oklahoma, on behalf of the awarding public agency, in a sum equal to the bond price, to ensure the proper and prompt completion of the Work in accordance with the provisions of the contract and bidding documents and to protect the awarding public agency against defective workmanship and materials for a period of two (2) years after final acceptance of the Project by the Owner.

26. Subcontractors, Suppliers, and Others

A. If the Owner, after due investigation, has a reasonable objection to any proposed subcontractor or supplier, other person or organization, the Owner will request the apparent successful bidder to submit an acceptable substitute without an increase in the Bid Price. Prior to the Notice of Award, if the apparent successful bidder declines to provide the acceptable substitute for the project, the Owner may, at their option, award the contract to the next qualified bidder. If the Owner awards the contract to another bidder, the bid security will be returned to the original apparent successful bidder.

B. No Contractor shall be required to employ a subcontractor, supplier, or other person and/or organization against whom the Contractor has reasonable objection.

27. Surface and Subsurface Conditions

The bidder shall exercise due diligence in making determinations which would concern any complications or difficulties due to surface or sub-surface conditions. Accordingly, based upon Contractor's due diligence, the City of Shawnee is indemnified from any additional work, additional costs whatsoever incurred arising out of sub-surface water, clay conditions, soil conditions, or other difficulties or hardships which might arise as a result of surface or sub-surface conditions of a geographical or hydrological nature.

28. METHOD OF PAYMENT

A. The Contractor(s) shall be paid for installed materials (Work completed in place), which have been approved by the Owner, based upon the prices identified on the Proposal.
B. The Contractor(s) shall submit monthly invoices for consideration by the Owner. The invoices shall be submitted on a form approved by the Owner. The invoices will clearly itemize the amount of each material installed, the prices, the total for each item, and the total amount.
C. The Owner will withhold five (5%) percent retainage from each invoice until completion of the project and final written approval by the Owner (acceptance of the installed Work).

29. Affidavit of Claimant

With each pay estimate the Contractor shall execute a copy of the Affidavit of Claimant included in the Contract Documents.

PROPOSAL

WOODLAND VETERANS PARK IMPROVEMENTS PROJECT
CITY OF SHAWNEE, OKLAHOMA

Date_____

Proposal of _____

(hereinafter called "Bidder"), organized and existing under the laws of the State of _____,

doing business as _____.*

To the **City of Shawnee, Oklahoma** (hereinafter called "Owner").

Gentlemen:

The Bidder, in compliance with your invitation for bids for the **Woodland Veterans Park Improvements Project** having examined the Plans and Specifications with related documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project, including the availability of materials and labor, hereby proposes to furnish all labor, materials and supplies, and to construct the project in accordance with the contract documents, within the time set forth therein, and at the unit prices stated below. These prices are to cover all expenses incurred in performing the work required under the contract documents, of which this Proposal is a part.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in a written "Notice to Proceed" of the Owner and to fully complete the project within **300 consecutive calendar days** thereafter as stipulated in the specifications. **Bidder further agrees to pay as liquidated damages in accordance with section 208.07.**

Each unit Price space provided herein shall be filled out by the bidder and shall become a part of the Base Proposal. Prices quoted herein shall include all amounts that would be payable to the Contractor in case of additions to the Contract, or would be deducted from the Contract sum by the Owner in case of reductions. Unit Prices shall include all expenses incurred in performing all of the work required under the Contract Documents as applicable to the unit item, including taxes payable, labor, material, equipment, supplies, supervision, overhead and profit. It is expressly stated that the Contract Sum is derived from the entire work as called for in the Contract Documents and while these Unit Prices may or may not have been used in the computing the Contract Sum, their inclusion here is for the purpose herein described, and the Owner reserves the right to deduct from the Base Proposal or add to the Base Proposal any of the item's prices or portions thereof at the price quoted herein either before or after Contract awarding.

This proposal is based on the Contract Documents, Technical Specifications and Drawings as listed in the Table of Contents and any addendum issued.

Bidder acknowledges receipt of the following addendum:

NUMBER:	DATE:	NUMBER:	DATE:
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

* Insert "a corporation", "a partnership" or an "individual", as applicable.

Bidder agrees to perform all the construction described in the specifications and shown on the Plans for the following unit prices: (NOTE: Bids shall include applicable taxes and fees.)

Unit prices in Base Bid and Add Alternates must contain the same Unit Price when Bid Items Identical. If Unit Prices vary from Base Bid and Alternate Bid Items, the lower of the Unit Prices will be used for all Identical Bid Items.

For the performance of all the work necessary to complete the work under Bid Schedule, as defined in the Contract Documents.

BID FORM

BASE BID PAY ITEMS

Item	Description	Unit	Quantity	Amount
1	General Conditions/Bonds/Insurance	LS	1	
	@_____Dollars	($_____)	=	$_____
2	Earthwork-Excavation/Embankment/Compaction/Grading - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
3	Demolition - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
4	Erosion Control - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
5	Electric Service, Lighiting & Distribution - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
6	Water Service for Irrigation - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
7	6" Water and Fire Line - CIP	LF	298	
	@_____Dollars	($_____)	=	$_____
8	6" Tapping Valve & Box - CIP	EA	2	
	@_____Dollars	($_____)	=	$_____
9	6"x6" Tee - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
10	6" Gate Valve & Box - CIP	EA	2	
	@_____Dollars	($_____)	=	$_____
11	6"x45º Bend - CIP	EA	5	
	@_____Dollars	($_____)	=	$_____
12	6"x90º Bend - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
13	Fire Hydrant - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
14	Water Tap & Valve (1") - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
15	Water Tap & Valve (1.5") - CIP	EA	2	
	@_____Dollars	($_____)	=	$_____
16	Water Service Line (1") - CIP	LF	17	
	@_____Dollars	($_____)	=	$_____
17	Water Service Line (1.5") - CIP	LF	317	
	@_____Dollars	($_____)	=	$_____
18	Water Meter (1") - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
19	Sanitary Sewer Service Line (4") - CIP	LF	523	
	@_____Dollars	($_____)	=	$_____
20	Cleanouts (4") - CIP	EA	8	
	@_____Dollars	($_____)	=	$_____
21	4"x4" Wye - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
22	Sewer Tap (4") - CIP	EA	2	
	@_____Dollars	($_____)	=	$_____

Item	Description	Unit	Quantity	Amount
23	HDPE Storm Pipe (18") - CIP	LF	38	
	@_____Dollars	($_____)	=	$_____
24	HDPE Storm Pipe (6") - CIP	LF	400	
	@_____Dollars	($_____)	=	$_____
25	HDPE Perforated French Drain w/sleeve - CIP	LF	321	
	@_____Dollars	($_____)	=	$_____
26	5" Channel Drain and Grate - CIP	LF	40	
	@_____Dollars	($_____)	=	$_____
27	ADS Inlet (30"-1 grated, 1 solid) - CIP	EA	2	
	@_____Dollars	($_____)	=	$_____
28	RipRap 12" Median Dia - CIP	SF	40	
	@_____Dollars	($_____)	=	$_____
29	Imported Select Fill - CIP	CY	500	
	@_____Dollars	($_____)	=	$_____
30	Imported Topsoil - CIP	CY	1,500	
	@_____Dollars	($_____)	=	$_____
31	Asphalt Type S4 1.5" Thick - CIP	TONS	243	
	@_____Dollars	($_____)	=	$_____
32	Asphalt Type S3 2.5" Thick - CIP	TONS	405	
	@_____Dollars	($_____)	=	$_____
33	Asphalt Tack Coat - CIP	GAL	135	
	@_____Dollars	($_____)	=	$_____
34	Asphalt Removal and Repair	SY	26	
	@_____Dollars	($_____)	=	$_____
35	Concrete 7" Thick Heavy Duty - CIP	CY	72	
	@_____Dollars	($_____)	=	$_____
36	Concrete Curb & Gutter (6" tall) - CIP	LF	1,721	
	@_____Dollars	($_____)	=	$_____
37	Concrete Curb & Gutter (Trasition 6" to 12" tall) - CIP	LF	20	
	@_____Dollars	($_____)	=	$_____
38	Concrete Curb & Gutter (12" tall) - CIP	LF	86	
	@_____Dollars	($_____)	=	$_____
39	ODOT Type A 6" thick (for parking and roads) - CIP	CY	53	
	@_____Dollars	($_____)	=	$_____
40	Parking Striping - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
41	4" Thick Concrete Pavement - CIP	SF	23,717	
	@_____Dollars	($_____)	=	$_____
42	4" Thick Integral Color Concrete Pavement - CIP	SF	11,055	
	@_____Dollars	($_____)	=	$_____
43	Concrete ADA Ramps - CIP	EA	11	
	@_____Dollars	($_____)	=	$_____
44	Decomposed Granite - CIP	SF	2,669	
	@_____Dollars	($_____)	=	$_____
45	10" Retaining Wall - CIP	LF	131	
	@_____Dollars	($_____)	=	$_____

Item	Description	Unit	Quantity	Amount
46	Step and Ramp Handrails - CIP @_____Dollars ($_____)	LF	120 =	$_____
47	1' W Extended Curb - CIP @_____Dollars ($_____)	LF	197 =	$_____
48	Stage Structure/Restroom at Ampitheater - CIP @_____Dollars ($_____)	LS	1 =	$_____
49	5' L Retaining Seat Stones at Ampitheater - CIP @_____Dollars ($_____)	EA	24 =	$_____
50	Park Entry I-Beam Structure - CIP @_____Dollars ($_____)	EA	7 =	$_____
51	Restroom Building - CIP @_____Dollars ($_____)	EA	1 =	$_____
52	Snow Cone Structure - CIP @_____Dollars ($_____)	LS	1 =	$_____
53	Water Park Fence Removal & Modifications - CIP @_____Dollars ($_____)	LS	1 =	$_____
54	Existing Sculpture Relocation - CIP @_____Dollars ($_____)	EA	2 =	$_____
55	12'x12' Fabric Shade Structure - CIP @_____Dollars ($_____)	EA	4 =	$_____
56	Pickleball Court (2 Total) - CIP @_____Dollars ($_____)	LS	1 =	$_____
57	Pickleball 6' Black Vinyl Chain Link Fence - CIP @_____Dollars ($_____)	LF	188 =	$_____
58	1' W. Concrete Curb at Pickleball Court - CIP @_____Dollars ($_____)	LF	190 =	$_____
59	Pickleball Court Equipment - CIP @_____Dollars ($_____)	EA	2 =	$_____
60	Play Equipment Installation @_____Dollars ($_____)	LS	1 =	$_____
61	Treehouse Platform - CIP @_____Dollars ($_____)	EA	1 =	$_____
62	Rubberized Safety Surface w/ Concrete Base-CIP @_____Dollars ($_____)	SF	7,386 =	$_____
63	Synthetic Turf (berm) - CIP @_____Dollars ($_____)	SF	2,720 =	$_____
64	Playground Curb (8" W.) - CIP @_____Dollars ($_____)	LF	1,085 =	$_____
65	Playground Drainage - CIP @_____Dollars ($_____)	LS	1 =	$_____
66	Picnic Tables - CIP @_____Dollars ($_____)	EA	8 =	$_____
67	Picnic Tables with Umbrella hole - CIP @_____Dollars ($_____)	EA	8 =	$_____
68	Picnic Table Umbrella - CIP @_____Dollars ($_____)	EA	8 =	$_____

Item	Description	Unit	Quantity	Amount
69	Benches - CIP	EA	28	
	@_____Dollars	($_____)	=	$_____
70	Trash Receptacles - CIP	EA	11	
	@_____Dollars	($_____)	=	$_____
71	Bike Racks - CIP	EA	6	
	@_____Dollars	($_____)	=	$_____
72	Standard Bollards - CIP	EA	8	
	@_____Dollars	($_____)	=	$_____
73	5' L Retaining Seat Stones - CIP	EA	50	
	@_____Dollars	($_____)	=	$_____
74	5' L Free Standing Seat Stones - CIP	EA	23	
	@_____Dollars	($_____)	=	$_____
75	Landscaping - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
76	Trees - CIP	EA	66	
	@_____Dollars	($_____)	=	$_____
77	U-3 Bermuda Solid Sod - CIP	SF	100,000	
	@_____Dollars	($_____)	=	$_____
78	Irrigation - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
79	Construction Allowance	LS	1	
	@_____Dollars	**($ 50,000.00)**	=	**$ 50,000.00**

TOTAL BASE BID ITEMS_____Dollars ($_____)

BASE BID PAY ITEMS

Item	Description	Unit	Quantity	Amount
A-1	Pickleball Lighting - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
A-2a	Demo & Removal of Exsting Chain-Link Fence	LS	1	
	@_____Dollars	($_____)	=	$_____
A-2b	Tennis 10' Black Vinyl Chain Link Fence - CIP	LF	520	
	@_____Dollars	($_____)	=	$_____
A-2c	1' W. Concrete Curb (for Tennis Fence_ - CIP	LF	492	
	@_____Dollars	($_____)	=	$_____
A-3	Resurfacing - CIP	SF	12000	
	@_____Dollars	($_____)	=	$_____
A-4	Tennis Court Equipment - CIP	EA	2	
	@_____Dollars	($_____)	=	$_____

TOTAL ALTERNATE BID ITEMS_____Dollars ($_____)

TOTAL BASE & ALTERNATE BID_____Dollars ($_____)

CIP = COMPLETE IN PLACE

Lowest and best bidder will be determined by the sum of the Base Bid and all, some, or none of the Add Alternates. The City reserves the right to award all, some, or none of the Add Alternates.

The Owner reserves the right to waive any informality or to reject any or all bids.

Amounts are to be shown in both words and figures. In case of discrepancy, the amount shown in words for unit prices will govern.

The above unit prices shall include all labor, materials, overhead, profit, insurance, etc. to cover the finished work of the several kinds called for.

Bidder understands that the Owner reserves the right to reject any or all bids in accordance with their best interests.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of sixty (60) calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the acceptance of this Bid, Bidder will execute the formal contract attached within ten (10) days and deliver a Surety Bond or Bonds as required by the General Conditions. The bid security attached in the sum of _____ Dollars ($_____) is to become the property of the Owner in the event the contract and bonds are not executed within the time above set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

Respectfully submitted,

By: _____

_____
Type or Print Name

Title: _____

_____
Business Address

_____

(S E A L - if bid is by a corporation)

_____

NONCOLLUSION AFFIDAVIT
74 92 85.22 (BID)

STATE OF OKLAHOMA)
COUNTY OF _____)

_____, of lawful age, being first duly sworn, on oath says:

1. He/she is the duly authorized agent of _____, the BIDDER submitting the competitive Bid which is attached to this statement for the purpose of certifying the facts pertaining to the existence of collusion among bidders and between bidders and City officials or employees, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in the letting of any contract pursuant to the bid to which this statement is attached.
2. He/she is fully aware of the facts and circumstances surrounding the making of the bid to which this statement is attached and has been personally and directly involved in the proceedings leading to the submission of such bid; and
3. Neither the bidder nor anyone subject to the bidder's direction or control has been a party:
    a. To any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding,
    b. To any collusion with any City official or employee as to quantity, quality or price in the prospective contract, or as to any other terms of such prospective contract, nor
    c. In any discussions between bidders and any City official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

_____
Authorized Agent

SUBSCRIBED AND SWORN to before me this _____ day of _____, 202__.

_____
Notary Public

My Commission Expires: _____

NONDISCRIMINATION CERTIFICATE

STATE OF OKLAHOMA)
COUNTY OF _____)

I, _____ do here by certify that I am the _____ of the _____, a corporation, partnership, or sole proprietorship.

I further certify that I have this date, submitted a bid to the **City of Shawnee, Oklahoma** pursuant to the solicitation for bids dated _____, 202___.

I certify that if I am the successful Bidder on the Project, I will not discriminate against anyone in the employment or employment practices because of race, creed, color, sex, national, origin, religion, handicap or age. I will comply with all federal and state laws and executive orders concerning the subject of nondiscrimination.

By: _____

_____
Title

SUBSCRIBED AND SWORN to before me this ___ day of _____, 202___.

_____
Notary Public

My Commission Expires: _____

ANTI-KICKBACK AFFIDAVIT

STATE OF OKLAHOMA
COUNTY OF _____

_____, of lawful age, being first duly sworn, on oath says:

1. He/she is the duly authorized agent of_____., the CONTRACTOR under the contract which is attached to this statement for the purpose of certifying the facts pertaining to the offering or giving of money or other things of value directly or indirectly to government personnel in order to procure said contract..
2. He/she is fully aware of the facts and circumstances surrounding the making of the contract to which this statement is attached and has been personally and directly involved in the proceedings leading to the procurement of said contract; and
3. Neither the Contractor nor anyone subject to the Contractor's direction or control has paid, given or donated or agreed to pay, give or donate to any officer or employee of The City of Shawnee or the Shawnee Public Works Authority, any money or other things of value, either directly or indirectly, in procuring the contract to which this statement is attached.

_____
Authorized Agent

SUBSCRIBED AND SWORN to before me this _____ day of _____, 202___.

_____
Notary Public

My Commission Expires: _____

BUSINESS RELATIONSHIPS AFFIDAVIT

STATE OF _____}
} SS
COUNTY OF _____}

_____, of lawful age, being first duly sworn, on oath, says that (he/she) is the agent authorized by the Bidder to submit the attached Bid.

Affiant further states that the nature of any partnership, joint venture, or other business relationship presently if effect, or which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

_____

_____

_____

Affiant further states that any such business relationship presently in effect, or which existed within one (1) year prior to the date of this statement between any officer or director of the Bidding company and any officer or director of the architectural or engineering firm or other party to the project, is as follows:

_____

_____

_____

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

_____

_____

_____

(If none of the business relationships hereinabove mentioned exist, Affiant should so state.)

_____

SUBSCRIBED AND SWORN TO before me this_____ day of _____, 202___.

_____

My Commission Expires: Notary Public

_____

C O N T R A C T

Woodland Veterans Park Improvements Project

THIS CONTRACT AND AGREEMENT, made and entered into this _____ day of _____ , 202___, by and between **The City of Shawnee, Oklahoma,** Party of the First Part, hereinafter termed "Owner" and_____Party of the Second Part, hereinafter termed "Contractor".

W I T N E S S E T H :

WHEREAS, The City of Shawnee, Oklahoma (Owner) has caused to be prepared in accordance with law, certain Plans, Specifications, and other Bidding Documents for The Work hereinafter described and has approved and adopted all of said Bidding Documents, and has caused Solicitation for Bids to be given and advertised as required by law, and has received sealed Proposals for the furnishing of all labor and materials for _____ as outlined and set out in the Bidding Documents and in accordance with the terms and provisions of said Contract; and,

WHEREAS, Contractor, in response to said Solicitation for Bids, has submitted to Owner in the manner and at the time specified, a sealed Proposal in accordance with the terms of this Contract; and,

WHEREAS, the Owner, in the manner provided by law, has publicly opened, examined, and canvassed the Proposals submitted and has determined and declared the above-named Contractor to be the lowest responsible Bidder on the above-described project, and has duly Awarded this Contract to said Contractor, for the sum name in the Proposal, to-wit:_____
Dollars ($_____):

NOW, THEREFORE, for and in consideration of the mutual agreements and covenants herein contained, the parties to this Contract have agreed, and hereby agree, as follows:

1. The Contractor shall, in a good and first-class, workmanlike manner, at his own cost and expense, furnish all labor, materials, tools, and equipment required to perform and complete said Work in strict accordance with this Contract and the following Contract Documents:

   _____ all of which documents are on file in the office of the Owner: **The City of Shawnee, Oklahoma at 16 West 9th Street, Shawnee, Oklahoma 74801**, and
   are made a part of this Contract as fully as if the same were herein set out at length, with the following additions and exceptions: (If none, so state)_____
   _____

2. The Owner shall make payments to the Contractor in the following manner: On or before the last working day of each month, the agency engineer, or other appropriate person, will make accurate estimates of the value, based on contract prices, of work done and materials incorporated in The Work and of materials suitably stored at the site thereof during the preceding calendar month. The Contractor shall furnish to the agency engineer, or other appropriate person, such detailed information as he may request to aid him as a guide in the preparation of the monthly estimates.

   Each monthly estimate for payment must contain or have attached an affidavit as required by Senate Bills 469 and 565 of the 1974 Legislature.

2-a. Contractor expects to store during the construction period certain materials and equipment on site. Contractor assumes full responsibility for any theft, loss or damage to materials stored on site. The City of Shawnee assumes no responsibility for any loss, damage or theft of any equipment, tools or supplies occurring during period of construction.

3. On completion of The Work, but prior to the acceptance thereof by the Owner, it shall be the duty of the agency engineer, or other appropriate person, to determine that said Work has been completely and fully performed in accordance with said Contract Documents; and upon making such determination said official shall make his final certificate to the Owner. The Contractor shall furnish proof that all claims and obligations incurred by him in connection with the performance of said Work have been fully paid and settled; said information shall be in the form of an affidavit, which shall bear the approval of the Surety on the Contract Bonds for payment of the final estimate to the Contractor; thereupon, the final estimate (including retainages) will be approved and paid.

4. The sworn, notarized statement below must be signed and notarized before this Contract will become effective.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed, in four (4) duplicate originals, the day and year first above written.

PARTY OF THE SECOND PART:	PARTY OF THE FIRST PART:
CONTRACTOR: _____	OWNER: City of Shawnee, Oklahoma
By_____	By_____
Title: _____	Mayor
ATTEST:	ATTEST:
_____	_____
Title: _____	City Clerk
(SEAL)	(SEAL)

STATE OF _____}
} SS
COUNTY OF _____}

_____, of lawful age, being first duly sworn, on oath says that (he/she) is the agent authorized by Contractor to submit the above Contract to the Owner.

Affiant further states that Contractor has not paid, given, or donated or agreed to pay, give, or donate to any officer or employee of Owner any money or other thing of value, either directly or indirectly, in the procuring of the Contract.

_____
Title: _____

SUBSCRIBED AND SWORN TO BEFORE ME, this____ day of _____, 202___.

_____
Notary Public

My Commission Expires:

_____

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT _____ ,as Principal, and _____, a corporation organized under the laws of the State of Oklahoma and authorized to transact business in the State of Oklahoma, as Surety, are held and firmly bound unto **The City of Shawnee, Oklahoma** (Owner) in the penal sum of _____ Dollars ($_____) in lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves and each of us, our heirs, executors, administrators, trustees, successors and assigns, jointly and severally, firmly by these presents.

Dated this _____ day of _____ , 202___.

The condition of this obligation is such that:

WHEREAS, said Principal entered into a written Contract with **The City of Shawnee, Oklahoma** (Owner), dated this _____ day of _____, 202___, for the **Woodland Veterans Park Improvements Project** in compliance with the Plans and Specifications therefore, made a part of said Contract and on file in the office of **The City of Shawnee, Oklahoma** (Owner) at 16 West 9th Street, Shawnee, Oklahoma 74801.

NOW, THEREFORE, if said Principal shall, in all particulars well, truly, and faithfully perform and abide by said Contract and each and every covenant, condition and part thereof and shall fulfill all obligations resting upon said Principal by the terms of said Contract and said Specifications; and if said Principal shall promptly pay, or cause to be paid, all labor, materials and/or repairs and all bills for labor performed on said Work, whether by subcontract or otherwise; and if said Principal shall protect and save harmless said **The City of Shawnee, Oklahoma** (Owner) from all loss, damage, and expense to life or property suffered or sustained by any person, firm, or corporation caused by said Principal or his or its agents, servants, or employees in the construction of said Work, or by or in consequence of any negligence, carelessness or misconduct in guarding and protecting the same, or from any act or omission of said Principal or his or its agents, servants, or employees, and if said Principal shall protect and save **The City of Shawnee, Oklahoma** (Owner) harmless from all suits and claims of infringement or alleged infringement or patent rights or processes, then this obligation shall be null and void, otherwise to be and remain in full force and effect.

It is further expressly agreed and understood by the parties hereto that no changes or alterations in said Contract and no deviations from the plan or mode of procedure herein fixed shall have the effect of releasing the sureties, or any of them, from the obligations of this Bond.

IN WITNESS WHEREOF, the said Principal has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its duly authorized officers, and the said Surety has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its attorney-in-fact, duly authorized so to do, the day and year first above written.

PRINCIPAL:

_____

ATTEST: By _____

_____

SURETY:

_____

By _____
Attorney-in-Fact

STATUTORY BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT _____, as principal, and _____ a Corporation organized under the laws of the State of Oklahoma, and authorized to transact business in the State of Oklahoma as Surety, are held and firmly bound unto the **State of Oklahoma**, in the penal sum of _____ _____ Dollars ($_____) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our successors and assigns, jointly and severally, firmly by these presents.

Signed, sealed and delivered this _____ day of _____, 202__.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH THAT WHEREAS, the said _____ has on this _____ day of _____, 202___, entered into a written contract with **The City of Shawnee, Oklahoma** for the **Woodland Veterans Park Improvements Project** according to the plans and specifications attached to said contract, which include the furnishing of all necessary labor, tools, equipment and materials, in accordance with the plans and specifications contained in said contract and made a part thereof, which contract, plans and specifications are by reference thereto made a part of this Bond.

NOW, THEREFORE, if said _____ shall pay all indebtedness incurred for labor, tools, equipment or materials furnished or consumed in connection with the construction of the said contract work, then this obligation shall become null and void; otherwise, to be in full force and effect.

PRINCIPAL

_____

By: _____
Signature & Title

ATTEST:

_____

SURETY:

_____

By: _____
Attorney-in-Fact

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT _____
as Principal, and _____
a corporation organized under the laws of the State of _____
and authorized to transact business in the State of Oklahoma, as Surety, are held and firmly bound unto **The City of Shawnee, Oklahoma** (Owner) in the penal sum of _____ Dollars ($_____) in lawful money of the United States of America for the payment of which, well and truly to be made, we bind ourselves and each of us, our heirs, executors, administrators, trustees, successors, and assigns, jointly and severally, firmly by these presents.

Dated this _____ day of _____, 202__.

The condition of this obligation is such that:

WHEREAS, said Principal entered into a written Contract with **The City of Shawnee, Oklahoma** (Owner) dated _____ 202__**,** for the **Woodland Veterans Park Improvements Project** all in compliance with the plans and specifications therefore, made a part of said Contract, and on file in the office of **The City of Shawnee, Oklahoma** (Owner) at **16 West 9th Street, Shawnee, Oklahoma 74801.**

NOW, THEREFORE, if said Principal shall pay or cause to be paid **The City of Shawnee, Oklahoma** (Owner) all damage, loss and expense which may result by reason of defective materials and/or workmanship in connection with said work, occurring within a period of two (2) years for all projects, from and after acceptance of said project by **The City of Shawnee, Oklahoma** (Owner); and if Principal shall pay or cause to be paid all labor and materials, including the prime contractor and all subcontractors; and if Principal shall save and hold **The City of Shawnee, Oklahoma** (Owner) harmless from all damages, loss and expense occasioned by or resulting from any failure whatsoever of said Principal, then this obligation shall be null and void, otherwise to be and remain in full force and effect.

It is further expressly agreed and understood by the parties hereto that no changes or alterations in said Contract and no deviations from the plan or mode of procedure herein fixed shall have the effect of releasing the sureties, or any of them, from the obligations of this Bond.

IN WITNESS WHEREOF, the said Principal has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its duly authorized officers, and the said Surety has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its attorney-in-fact, duly authorized so to do, the day and year first above written.

PRINCIPAL:

By:_____
Signature & Title

ATTEST:

SURETY:

_____

_____

By_____
Attorney-in-Fact

NONCOLLUSION AFFIDAVIT
74 92 85.22 (CONTRACT)

STATE OF OKLAHOMA)
COUNTY OF _____)

_____, of lawful age, being first duly sworn, on oath says:

1. He/she is the duly authorized agent of _____, the CONTRACTOR under the contract which is attached to this statement for the purpose of certifying the facts pertaining to the giving or offering or giving of things of value to government personnel in order to procure said contract; and,.

2. He/she is fully aware of the facts and circumstances surrounding the making of the contract to which this statement is attached and has been personally and directly involved in the proceedings leading to the procurement of said contract; and

3. Neither the Contractor nor anyone subject to the Contractor's direction or control has paid, given or donated or agreed to pay, give or donate to any officer or employee of The City of Shawnee, any money or other things of value, either directly or indirectly, in procuring the contract to which this statement is attached.

_____
Authorized Agent

SUBSCRIBED AND SWORN to before me this _____ day of _____, 202__.

_____
Notary Public

My Commission Expires: _____

CLAIM or INVOICE AFFIDAVIT

STATE OF OKLAHOMA)
) SS
COUNTY OF_____)

The undersigned Contractor, of lawful age, being first duly sworn, on oath says that his invoice or claim is true and correct. Affiant further states that the work and materials as shown by this claim have been completed in accordance with the Plans, Specifications, orders or requests furnished the affiant. Affiant further states that (s)he has made no payment, given or donated or agreed to pay, give or donate, either directly or indirectly, to any elected official, officer or employee of the State, County, City or Authority of money or any other thing of value to obtain payment or the Award of this Contract.

_____
Contractor

Subscribed and sworn to before me this _____ day of _____, 202___.

_____
Notary Public

My Commission Expires:

_____

APPOINTMENT OF AGENT

The City of Shawnee, Oklahoma hereafter referred to as the "City" does hereby appoint _____., (an individual, partnership, or corporation) doing business in Oklahoma acting through its officers and employees, hereafter referred to as "Agent" of the City for the sole purpose of completing **Woodland Veterans Park Improvements Project** under a contract dated the _____ day of _____, 202__, being constructed in Shawnee, Oklahoma, hereafter referred to as the "Project" for the use of the City. Agent agrees to act as Agent for the City subject to the provisions of this Appointment.

Legal title to all tangible personal property purchased, and the right to direct the use of all tangible personal property rented, by the Agent pursuant to this Appointment shall pass directly from the vendor to the City. Agent shall designate on its purchase orders and elsewhere as appropriate when it is making purchases pursuant to this appointment, following legend:

> _____ has been appointed Agent for the City of Shawnee, Oklahoma for the purpose of the property described herein. Upon passage of title all of such property will be included in the project owned by the City. Title to all such property shall pass to said City from the vendor F.O.B. place specified in this purchase order. All such property is exempt from Oklahoma sales and use taxes and /or City sales tax."

Rental agreements relating to such property shall contain suitable provisions which disclose the Agent's agency and indicate that no Oklahoma sales or use tax or City sales tax is payable.

Agent agrees no to purchase or rent any tangible personal property pursuant to this Appointment unless such property is authorized for inclusion in or exclusive use in the construction of the Project described above. Agent shall not have the power to appoint any other person or entity as Agent for the City.

Agent shall be responsible in a separate capacity for payment of the purchase price or other consideration for the property purchased or rented as Agent and shall not have the power to bind the City to any financial or other commitments or obligations. Agent shall hold the City harmless from any liability for or arising out of the purchase, rental or use of the property purchased or rented hereunder.

This Appointment shall be effective upon execution by the City acting through the City Manager and by the Agent and shall be binding upon the successors of the parties hereto.

Executed by the undersigned Manager of the City of Shawnee, State of Oklahoma, on behalf of the City of Shawnee, on this _____ day of _____, 202__.

CITY OF SHAWNEE, OKLAHOMA

BY: _____ _____
City Manager Tax Exemption Number

ATTEST: _____
City Clerk

AGENT'S MAILING ADDRESS: Company Name: _____

Address: _____.

City, State, Zip: _____

SPECIAL PROVISIONS

101 EXISTING UTILITIES

Contractor shall be responsible for locating existing utilities in the area of construction prior to any work being done. All conflicts should be reported to the Engineer. Any work done in the area of a conflict without the Engineer's knowledge shall be at the Contractor's own risk.

102 SALVAGEABLE MATERIALS

All materials which are salvageable, as determined by the Engineer and/or Owner, shall remain the property of the Owner. Those materials deemed to be unsalvageable shall be properly disposed of by the contractor.

103 TESTING

The Owner will have performed and pay for the costs of all tests required by the Engineer such as densities and concrete strength. Contractor shall assist as required, in the performance of these tests.

Re-testing required by the failure of original tests not meeting the specifications will be required by the Owner to be paid for by the contractor.

104 CONSTRUCTION LINES AND GRADES

The new fence shall be located on the same alignment as the existing fence where an existing fence exists. If an existing fence does not exist the new fence shall be located at a location established by the Owner.

It shall be the responsibility of the Contractor to set, protect and maintain basic control points to define the existing fence location until the new fence is installed.

105 UNDERGROUND INSTALLATIONS AND STRUCTURES

Pipelines and other existing underground installations and structures in the vicinity of the work to be done hereunder are indicated on the drawings according to information available to the Engineer; however, all lines actually existing may not be shown. The Contractor shall make every effort to locate all underground pipelines, conduits, and structures by contacting owners of underground utilities and by prospecting in advance of trench excavation.

106 UNFORESEEN CONDITIONS

The bidder shall exercise due diligence in making determinations which would concern any complications or difficulties due to surface or sub-surface conditions. Accordingly, based upon Contractor’s due diligence, the City of Shawnee is indemnified from any additional work, additional costs whatsoever incurred arising out of sub-surface water, clay conditions, soil conditions, or other difficulties or hardships which might arise as a result of surface or sub-surface conditions of a geographical or hydrological nature.

107 WORKING DAYS

The calendar days in this contract have been established based on the average number of working days each month base on ODOT standards. The Contractor is to submit a request for adverse weather days with each Pay Application. The City of Shawnee and the Design Consultant, will provide a response including acceptance or denial of adverse weather days.

108 PAY ITEMS

Any work shown on the plans or required for a complete project and not covered by a bid item shall be considered incidental to the project and included in the price for listed bid items.

GENERAL CONDITIONS

SECTION 201 - DEFINITION OF TERMS

201.1 DEFINITIONS:

Wherever the words, forms or phrases herein defined, or pronouns used in their stead, occur in these Specifications in the Contract, or in the Advertisement, or any Document, or instrument herein contemplated, or to which these Specifications apply, the intent and meaning shall be interpreted as follows:

AASHTO - The American Association of State Highway and Transportation Officials.

Act of God - An earthquake, flood, cyclone or other cataclysmic phenomenon of nature. Rain, wind, flood or other natural phenomenon of normal intensity for the locality shall not be construed as an Act of God.

Advertisement - All of the legal publications pertaining to The Work contemplated or under Contract.

AGA - The American Gas Association

ANSI - The American National Standards Institute (formerly the American Standards Association).

Architect, Landscape Architect or Engineer – Architect, Landscape Architect or Engineering Company or their duly authorized agents.

ASA - The American Standards Association. (Now designated as the American National Standards Institute.) ASA and ANSI, where used in these Specifications, shall denote the American National Standards Institute.

ASTM - The American Society for Testing Materials.

Award - The decision of the Owner to accept the Proposal of the lowest and best Bidder for The Work, subject to the execution and approval of a satisfactory Contract and the required Bonds therefore, and to such other conditions as may be specified or otherwise required by law.

AWWA - The American Water Works Association.

Beneficial Occupancy - A period in time determined by the Engineer when the Owner permanently occupies The Work or a portion thereof. The Contractor will be required to furnish a release from his Surety and from his insurance carrier prior to the establishment of beneficial occupancy.

Bidder - Any person or persons, partnership, company, firm or corporation acting directly or through a duly authorized representative submitting a Proposal for The Work contemplated.

Change of Address - If shall be the duty of each party to advise the other parties to the Contract as to any change in his business address until completion of the Contract.

Contract - The Agreement covering the performance of The Work described in the Contract Documents including all supplemental agreements thereto and all General and Special Conditions pertaining to The Work or materials thereof.

Contract Documents - The Contract Documents comprise the following documents, including all additions, deletions and modifications incorporated therein:

A. Legal and Procedural Documents

1. Advertisement
2. Instructions to Bidders
3. Proposal
4. Proposal Guaranty
5. Contract
6. Performance Bond
7. Statutory Bond
8. Maintenance Bond
9. Experience and Equipment Questionnaire (if required)
10 Special Equipment Questionnaire (if required)
11. Addenda
12. Change Orders

B. Special Conditions of the Contract

C. General Conditions of the Contract

D. Detailed Specification Requirements

E. Drawings - Bound separately or with the Specifications

Contractor - The person or persons, partnership, company, firm or corporation entering into Contract for the execution of The Work, acting directly or through a duly authorized representative.

Drawings - Those listed in the Index to Specifications and Drawings with all Addenda thereto.

Engineer –The City of Shawnee Engineers or their duly authorized agents.

Furnish - To supply.

Maintenance Bond - The approved form of security furnished by the Contractor and his surety as a guarantee that he will maintain The Work constructed by him in good condition for the period of time required.

Owner - The Owner named in the Contract Documents.

Performance Bond - The approved form of security furnished by the Contractor and his Surety as a guaranty of good faith on the part of the Contractor to execute The Work in accordance with the terms of the Contract.

Plan or Plans - All of the Drawings pertaining to the Contract and made a part thereof, including such supplementary Drawings as the Engineer may issue from time to time, in order to elucidate other Drawings for the purpose of showing changes in The Work as authorized under the Section, "Changes and Alterations", or for showing details not shown thereon.

Proposal - The offer of a Bidder to perform The Work described by the Contract Documents when made out and submitted on the prescribed Proposal Form, properly signed and guaranteed.

Proposal Guaranty - The cashier's check or Bidder's Bond accompanying the Proposal submitted by the Bidder, as a guarantee that the Bidder will enter into a Contract with the Owner for the Construction of The Work, if the Contract is awarded to him.

Provide - To furnish and erect or install.

Special Conditions - The special clauses setting forth conditions or requirements peculiar to the specific project involved, supplementing the Standard Specifications and taking precedence over any conditions or requirements of the Standard Specifications with which they are in conflict.

Specifications - The Legal and Procedural Documents, General Conditions of the Contract, together with the modifications thereof, and the detailed Technical Specification requirements, with all Addenda thereto.

Statutory Bond - The approved form of Surety set up and furnished by the Contractor and his Surety as a guarantee that he will pay, in full all bills and accounts for materials and labor used in the construction of The Work, as provided by law.

Subcontractor - Any person, firm or corporation with a direct contract with the Contractor who acts for or on behalf of the Contractor in executing any part of the Contract, but does not include one who merely furnishes material.

Surety - The person, firm or corporation who executes the Contractor's Performance Bond.

The Work - All work, including the furnishing of labor, materials, tools, equipment and incidentals, to be performed by the Contractor under the terms of the Contract.

Working Day - Any day, other than a legal holiday, Saturday or Sunday, on which the approximate normal working forces of the Contractor may proceed with regular work in a manner satisfactory to the Engineer for at least six (6) hours, toward completion of The Work. When it is desirable for any cause to increase the normal working schedule beyond there herein defined, the Contractor shall provide the Engineer with at least twenty-four (24) hours prior notice so that the Engineer and/or Owner may provide for inspection to The Work of the Contractor during such abnormal circumstances.

Written Notice - Written notice shall be considered as served when delivered in person or sent by registered mail to the individual, firm or corporation or to the last business address of such known to him who serves the notice.

SECTION 202 - PROPOSAL REQUIREMENTS AND CONDITIONS

202.01 CONTENTS OF PROPOSAL FORM

The Owner will furnish Bidders with Proposal Forms which will state the general location and description of the contemplated Work and which will contain a list of the items of Work to be done or materials to be furnished and upon which Bid prices are asked. The Contract Form will state the time limits for commencing and for completing The Work and will provide for entering the amount of the Proposal Guaranty. The Proposal Form will contain a Non-Collusion Affidavit.

202.02 INTERPRETATION OF PLANS AND SPECIFICATIONS

If any person contemplating submitting a Bid for the proposed Contract is in doubt as to the true meaning of any part of the Plans, Specifications or other proposed Contract Documents, he may submit to the Engineer a written request for an interpretation thereof. The person submitting such request will be responsible for its prompt delivery. An interpretation of the proposed Documents will be made only by Addendum duly issued and a copy of such Addendum will be mailed or delivered to each person receiving a set of such Documents. The Owner will not be responsible for any other explanations or interpretations of the proposed Documents.

The Drawings are not intended to be scaled for dimensions, and if dimensions not shown on the Drawings are

required, the Contractor shall request them from the Engineer. Where existing utility lines or other sub-surface obstructions are shown on the Drawings, the same have been located as nearly as practicable from information furnished by owners of such, and from such surface indications as may exist at the work site. Such obstructions are shown for the purpose of advising the Contractor that they may interfere with the work to be done hereunder, but not for the purpose of indicating that the work can be performed without such interference.

202.03 EXAMINATION OF DOCUMENTS AND SITE OF WORK

Bidders are required, prior to submitting any Proposal, to read carefully the Specifications, the Proposal, Contract and Bid Forms, to examine carefully all Plans on file with the Owner; to visit the site of The Work; to examine carefully local conditions; to inform themselves by their independent research of the difficulties to be encountered and judge for themselves of the accessibility of The Work and all attending circumstances affecting the cost of doing The Work or the time required for its completion and obtain all information required to make an intelligent Proposal. Bidders shall rely exclusively upon their own estimates, investigations and other data which are necessary for full and complete information upon which the Proposal may be based. It is mutually agreed that submission of a Proposal will be evidence that the Bidder has made the examinations and investigations required herein.

Where soundings are shown on the drawings, the depths are determined by driving a drill rod, using the chum method with water lubrication, to a maximum depth of nine feet or to refusal, whichever is lesser in depth. By showing soundings on the drawings, the City represents only that material of hardness and character which could be penetrated by a drill rod found above the depth of sounding as shown at the point where the drill rod was driven.

Where exploratory drilling is indicated to have been performed on the plans, boring logs will be available for review at the office of the Engineer. The logs will be furnished for information purposes only, and are not to be construed as a true representation of actual subsurface conditions.

202.04 PREPARATION OF PROPOSAL

The Bidder shall submit his Proposal on the Forms furnished by the Owner or the Engineer. All blank spaces in the Proposal Forms shall be correctly filled in and the Bidder shall state the prices, written in ink or typewritten, both in words and numerals, for which he proposes to do The Work contemplated or furnish the materials required.

The Contractor shall include in his Proposal the cash allowances that may be stated in the Special Conditions. The Contractor shall purchase the "Allowed Materials" by soliciting bids, as directed by the Engineer or Owner. If the actual price for purchasing the "Allowed Materials" is more or less than the "Cash Allowance", the Contract price shall be adjusted accordingly. The adjustment in Contract price shall be made on the basis of the purchase price without additional charges for overhead, profit, insurance, or any other incidental expenses. The cost of installation of the "Allowed Materials" shall be included in the applicable sections of the Contract Specifications covering this work.

Wherever the estimated quantities of Work to be done and materials to be furnished under this Contract are shown in any of the Documents including the Proposal, they are given for use in comparing Bids and the right is especially reserved except as herein otherwise specifically limited, to increase or diminish them as may be deemed reasonably necessary or desirable by the Owner to complete The Work contemplated by this Contract, and such increase or diminution shall in no way vitiate this Contract, nor shall any such increase or diminution give cause for claims or liability for damages.

All prices shall be written distinctly and legibly. In case of conflict between words and numerals, the words will govern. If the Proposal is submitted by an individual, his name must be signed by him or his duly authorized agent and his post office address given. If the Proposal is submitted by a firm or partnership, the name and post office address of each member must be given and the Proposal signed by a member of the firm or partnership as a person duly authorized. If the Proposal is made by a company or corporation, the company or corporate name

and the state under the laws of which said company or corporation is chartered and the business address must be given and one Proposal signed by an official or agent duly authorized. Powers of Attorney, authorizing agents or others to sign Proposals must be properly certified and must be in writing and on file with the Owner.

202.05 PROPOSAL AFFIDAVIT

Each Proposal or copy thereof shall be accompanied by a sworn statement in writing that the person signing the Proposal executed said Proposal in behalf of the Bidder therein named and that he had lawful authority to do so and that said Bidder has not directly or indirectly entered into any agreement, expressed or implied, with any other Bidder or Bidders having for its object the controlling of the amount of such Bid or any Bids, the limiting of Bids or Bidders, the parceling or farming out to any Bidder or Bidders or other persons of any part of the Contract or any Bid or the subject matter of the Bid or of the profits thereof, and that he has not and will not divulge said sealed Bid to any person whatever except those having a partnership or other financial interest with him in said Bid, until after the said sealed Bids are opened.

202.06 PROPOSAL GUARANTY

Proposals will not be considered unless the original filed with the Owner is accompanied by a Bidder's Bond or certified or cashier's check in the required amount, made payable to the Owner. The guaranty shall be in the amount as designated in the Advertisement. The Proposal Guaranty is required as evidence of good faith and as a guarantee that, if awarded the Contract, the Bidder will execute the Contract and furnish the required Bonds within the required time.

202.07 QUESTIONNAIRES

Experience and Equipment Questionnaire are not required for this project.

202.08 FILING OF PROPOSALS

Proposals shall be submitted in accordance with the requirements of the "Notice to Bidders" and the "Instructions to Bidders". Each proposal shall be plainly marked on the envelope with the word "Proposal" and the name of the project.

202.09 WITHDRAWAL OF PROPOSALS

Permission will not be granted to withdraw or modify any Proposal after it has been filed and before the time set for opening Proposals. Request for non-consideration of Proposals must be made in writing, addressed to the Owner and filed with the Owner or his duly authorized representative before the time set for opening Proposals. After other Proposals are opened and read, the Proposal for which withdrawal is properly requested will be returned unopened.

202.10 OPENING OF PROPOSALS

The original Proposals filed with the designated Owner's representative shall be opened in the presence of the Owner at the time stated in the Advertisement and shall thereafter remain on file in the office of said Owner's representative forty-eight (48) hours before any Contract will be entered into based on such Proposals.

Bidders are invited to attend the meeting for opening Proposals at the time set.

202.11 IRREGULAR PROPOSALS

Proposals will be considered irregular if they show any omissions, alterations of forms, additions or conditions not called for, unauthorized alternate Bids or irregularities of any kind. However, the Owner reserves the right to waive technicalities as to changes, alterations or reservations and make the Award in his best interest.

202.12 REJECTION OF PROPOSALS

The Owner reserves the right to reject any or all Proposals, and all Proposals submitted are subject to this reservation. Proposals may be rejected for any of the following specific reasons:

A. Proposal received after the time limit for receiving Proposals as stated in the Advertisement.

B. Proposal prices obviously unbalanced.

C. Summation of Proposal prices on any one project above the Engineer's estimate of cost for such project.

D. Proposal containing any irregularities.

202.13 DISQUALIFICATION OF BIDDERS

Bidders will be disqualified and their Proposals not considered for any of the following specific reasons:

A. Where more than one Proposal for an individual, firm, partnership or corporation is filed under the same or different names and where such Proposals are not identical in every respect.

B. Reasonable grounds for believing that any Bidder is interested in more than one Proposal for The Work contemplated or materials to be furnished.

C. Reason for believing that collusion exists among the Bidders.

D. The Bidder being in arrears on any existing contracts, interested in any litigation against the Owner or having defaulted on a previous contract.

E. Lack of competency, as revealed by the Financial Statement, Experience and Equipment Questionnaires, etc.

F. Uncompleted work which, in the judgment of the Owner, will hinder or prevent the prompt completion of additional Work, if Awarded.

SECTION 203 - AWARD AND EXECUTION OF CONTRACT

203.01 CONSIDERATION OF PROPOSALS

After the Proposals are opened, those Proposals containing unit prices will be tabulated for comparison on the basis of the quantities shown in the approximate estimate. Until the final award of the Contract, the Owner reserves the right to reject any or all Proposals, to waive irregularities and to advertise for new Proposals or proceed to do The Work otherwise when the best interests of the Owner will be promoted thereby.

203.02 AWARD OF CONTRACT

The Owner reserves the right to withhold the Award of the Contract for a reasonable period of time from the date of opening the Proposals and no Award will be made until the necessary investigations are made as to the responsibility of the low Bidder. No Contract will be Awarded until at least forty-eight (48) hours after opening the Proposals. The Awarding of the Contract shall give the Bidder no right of action or claim against the Owner upon such Contract until the execution of the Contract shall have been completed and the Contract delivered to the Contractor. The Owner reserves the right to Award all or any portion or portions of The Work.

203.03 RETURN OF PROPOSAL GUARANTY

As soon as the Proposal prices have been compared, the Owner may, at his discretion return the Proposal Guaranties accompanying those Proposals which, in his judgment, would not be considered in making the Award. After the Award is made, only the successful Bidder's Proposal Guaranty will be retained until the required Contract and Bonds have been executed, after which it will be returned to the Bidder. Should the Awarding of the Contract be delayed more than thirty (30) days, all Bidders' Guaranties will be returned, unless such delay is from causes beyond the control of the Owner and in such event, the Proposal and Bidder's Guaranty, of any Bidder, will be returned at the Bidder's option.

203.04 SURETY BONDS

With the execution and delivery of the Contract, the Contractor shall furnish and file with the Owner in the amounts required, the following Surety Bonds:

A. A Performance Payment Bond in an amount equal to one hundred percent (100%) of the approximate total amount of the Contract, guaranteeing the full and faithful execution of The Work and performance of the Contract and for the protection of the Owner and all property owners interested against any damage by reason of negligence of the Contractor, or the improper execution of The Work or the use of inferior materials.

B. A good and sufficient Statutory Bond in an amount equal to one hundred percent (100%) of the approximate total amount of the Contract, guaranteeing payment for all labor, materials and equipment used in the construction of the improvements.

C. A good and sufficient Maintenance Bond in an amount equal to one hundred (100%) of the total amount of the Contract, guaranteeing the maintenance in good condition of such improvements for a period of one (1) year from and after the time of the completion and acceptance by the Owner of said improvements.

No Surety will be accepted who is now in default or delinquent on any Bond or who is interested in any litigation against the Owner. All Bonds shall be made on forms furnished by the Owner and shall be executed by Surety companies licensed to do business in the State of Oklahoma, and who are acceptable to the Owner. Each Bond shall be executed by the Contractor and the Surety.

Should any Surety on the Contract be determined unsatisfactory at any time by the Owner, notice will be given to the Contractor to that effect, and the Contractor shall forthwith substitute a new Surety or Sureties satisfactory to the Owner.

No payment will be made under the Contract until the new Surety or Sureties, as required, have qualified and have been accepted by the Owner. The Contract shall not be operative, nor shall any payments be due until approval of the Bonds has been made by the Owner.

203.05 EXECUTION OF CONTRACT

The person or persons, partnership, company, firm or corporation to whom a Contract is Awarded shall within ten (10) days after such Award sign the necessary agreements entering into the required Contract with the Owner and execute and deliver the required Bonds.

No Contract shall be binding on the Owner until it has been approved by the Owner's Attorney, executed by the Owner and delivered to the Contractor.

203.06 FAILURE TO EXECUTE CONTRACT

Upon failure of the Bidder to execute the required Bonds or to sign the required Contract within ten (10) days after the Contract is Awarded, he will be considered to have abandoned his Proposal and the Owner may annul the Award. By reason of the uncertainty of market prices of the materials and labor, and it being impracticable and extremely difficult to fix the amount of damages to which the Owner would be put by reason of Bidder's failure to execute said Bonds and Contract within ten (10) days, the Proposal Guaranty accompanying the Proposal shall be the agreed amount of damages which the Owner will suffer by reason of such failure on the part of the Bidder and shall thereupon be retained by the Owner as liquidated damages. The filing of a Proposal will be considered as an acceptance of this provision.

SECTION 204 - SCOPE OF WORK

204.01 INTENT OF PLANS AND SPECIFICATIONS

The intent of the Plans and Specifications is that the Contractor furnish all labor and materials, equipment and transportation necessary for the proper execution of The Work unless specifically noted otherwise. The Contractor shall do all The Work shown on the Plans and described in the Specifications and all incidental work considered necessary to complete the project in a substantial and acceptable manner, and to fully complete the work or improvement, ready for use, occupancy and operation by the Owner.

204.02 CONFLICT

If there be conflicting variance between the Plans and the Specifications, the provisions of the Specifications shall control. In case of conflict between the General Conditions of the Contract, or any modifications thereof, and the Detailed Technical Specification Requirements, the Detailed Specification Requirements shall control.

Where a standard American Society for Testing Materials, American Concrete Institute, American Standards Association, American Water Works Association, or other agency designation is specified for a material, that designation shall be the current revision, either tentative or adopted. If a referenced specification is in disagreement with these specifications, the City of Shawnee specifications shall govern.

204.03 DISCREPANCIES IN PLANS

Any discrepancies found between the Plans and Specifications and site conditions or any errors or omissions in the Plans or Specifications shall be immediately reported to the Engineer, who shall promptly correct such error or omission in writing. Any Work done by the Contractor after his discovery of such discrepancies, errors, or omissions shall be done at the Contractor's own risk.

204.04 ADEQUACY OF PLANS AND SPECIFICATIONS

Responsibility for adequacy of the design and for sufficiency of the Drawings and Specifications shall be borne by the Owner. The complete requirements of The Work to be performed under the Contract shall be set forth in Plans and Specifications to be supplied by the Owner through the Engineer or by the Engineer as representative of the Owner. Plans and Specifications furnished shall be in accordance with the Contract Documents and shall be true and accurate developments thereof.

The Plans show the location of certain existing surface and subsurface structures. The Owner assumes no responsibility for failure to show any or all structures on the Plans, or to show them in their exact location. It is mutually agreed such failure will not be considered sufficient basis for claims for extra work or for increasing the pay quantities in any manner whatsoever, unless the obstruction encountered is such as to necessitate substantial changes in the lines or grades or requires the building of a special structure, provision for which is not made in the Plans, in which case the provisions in these Specifications for "Extra Work" will apply.

The cost of adjusting water mains or services to grade shall be included in the prices Bid for other items of work, except where a specific item for this work is included in the Proposal.

Contractor shall be responsible for locating existing utilities, underground installations, and structures in the vicinity of construction prior to any Work being done. All conflicts should be reported to the Engineer. Any work done in the area of a conflict without the Engineer's knowledge shall be at the Contractor's own risk.

204.05 ADDITIONAL INSTRUCTIONS

Further instructions may be issued by the Engineer during the progress of The Work by means of Drawings or otherwise to make more clear or specific the Plans and Specifications, or as may be necessary to explain or illustrate changes in The Work to be done.

204.06 COPIES OF DRAWINGS AND SPECIFICATIONS FURNISHED

Except as provided for otherwise, all required copies of Plans and Specifications necessary for the execution of The Work shall be furnished to the Contractor without charge.

One complete set of all Plans and Specifications shall be maintained at the job site and shall be available to the Engineer at all times.

All original or duplicated Plans and Specifications and other data prepared by the Engineer shall remain the property of the Engineer, and they shall not be re-used on other work, but shall be returned to him upon completion of The Work.

204.07 DIMENSIONS

Figured dimensions on the Plans will be used in preference to scaling the Plans. Where The Work of the Contractor is affected by finish dimensions, these shall be determined by the Contractor at the site, and he shall assume the responsibility therefore.

204.08 SAMPLES

All samples called for in the Specifications or required by the Engineer shall be furnished by the Contractor and shall be submitted to the Engineer for his approval. Samples shall be furnished so as not to delay fabrication, allowing the Engineer reasonable time for the consideration of the samples submitted.

The Contractor shall furnish such samples of material as may be required for examination and test. All materials and workmanship shall be in accordance with approved samples. All samples of materials for tests shall be taken according to methods provided in the Specifications.

204.09 SHOP DRAWINGS

The Contractor shall provide show drawings, settings, schedules and such other drawings as may be necessary for the prosecution of The Work in the shop and in the field as required by the Plans, Specifications or Engineer's instructions. Deviations from the Plans and Specifications shall be called to the attention of the Engineer at the time of the first submission of shop drawings and other drawings for approval. The Engineer's approval of any drawings shall not release the Contractor from responsibility for such deviations. Shop drawings shall be submitted according to the following schedule:

A. Four (4) copies shall be submitted at least thirty (30) days before the materials indicated thereon are to be needed, or earlier if required to prevent delay of The Work.

B. The Engineer shall, within fourteen (14) days of the submittal of any shop drawings, return one copy to the Contractor marked with all corrections and changes.

C. The Contractor shall then correct the shop drawings to conform to the corrections and changes requested by the Engineer.

D. Following completion of such corrections and changes, the Contractor shall furnish the Engineer three (3) copies of the shop drawings conforming to the required corrections and changes.

204.10 "OR EQUAL" CLAUSE

Whenever a material or article required is specified or shown on the Plans by using the name of the proprietary product or of a particular manufacturer or vendor, any material or article which will perform adequately the duties imposed by the general design will be considered equal and satisfactory providing the material or article so proposed is of equal substance and function in the Architect/Engineer's opinion. It shall not be purchased or installed without the Engineer's written approval.

204.11 SUBMITTALS

The Contractor shall furnish four copy's of complete catalog data for every manufactured item of equipment and all components to be used in The Work, including specific performance data, material description, rating, capacity, working pressure, material gage or thickness, brand name, catalog number and general type as appropriate:

A. This submission shall be compiled by the Contractor and approved by the Engineer before any of the equipment is ordered.

B. After written approval, this submission shall become a part of the Contract, and may not be deviated from except upon written approval of the Engineer.

C. Catalog data for equipment approved by the Engineer does not in any case supersede the Engineer's Contract Documents. The approval of the Engineer shall not relieve the Contractor from responsibility for deviations from Plans or Specifications, nor shall it relieve him from responsibility for errors of any sort in the items submitted. The Contractor shall check The Work described by the catalog data with the Engineer's Contract Documents for deviations and errors.

D. It shall be the responsibility of the Contractor to ensure that items to be furnished fit the space available. He shall make necessary field measurements to ascertain space requirements, including those for connections, and shall order such sizes and shapes of equipment that the final installation shall suit the true intent and meaning of the Plans and Specifications.

E. Where equipment requiring different arrangement of connections from those shown is approved, it shall be the responsibility of the Contractor to install the equipment to operate properly, and in harmony with the intent of the Drawings and Specifications, and to make all changes in The Work required by the different arrangements of connections.

204.12 SURVEYS

Unless otherwise specified, the Owner shall establish all base lines for the location of the principal component parts of The Work together with a suitable number of bench marks adjacent to The Work. Based upon the information provided by the Owner, the Contractor shall develop and make all detail surveys necessary for construction, including slope stakes, batter boards, stakes for pile locations and other working points, lines and elevations. The Contractor shall have the responsibility to carefully preserve bench marks, reference points and stakes, and, in the case of destruction thereof by the Contractor or resulting from his negligence the Contractor shall be charged with the expense and damage resulting therefrom and shall be responsible for any mistakes that may be caused by the unnecessary loss or disturbance of such bench marks, reference points and stakes.

The Contractor shall provide an experienced instrument man, competent assistants, and such instruments, tools, stakes, and other materials as required to complete the survey, layout, measurement work. In addition, the

Contractor shall furnish, without charge, competent men from his force and such tools, stakes, and other materials as the Engineer may require in establishing or designating control points or in checking survey, layout, and measurement work performed by the Contractor.

The Contractor shall keep the Engineer informed, a reasonable time in advance, of the times and places at which he wishes to do work, so that horizontal and vertical control points may be established and any checking deemed necessary by Engineer may be done with minimum inconvenience to the Engineer and minimum delay to the Contractor.

204.13 SPECIAL CONDITIONS

Should any work or any conditions which are not thoroughly or satisfactorily stipulated or covered by the general or standard specifications be anticipated on any proposed work, "Special Conditions" for such work may be prepared and shall be considered as a part of the Specifications and Contract.

204. 14 INCREASED OR DECREASED QUANTITIES OF WORK

The Owner reserves the right to alter the quantities of The Work to be performed or to extend or shorten the improvement at any time when and as found necessary, and the Contractor shall perform The Work as altered, increased or decreased, at the Contract unit prices. No allowance will be made for any change in anticipated profits nor shall such changes be considered as waiving or invalidating any condition or provisions of the Contract.

204.15 ALTERATIONS OF PLANS AND SPECIFICATIONS

The Owner reserves the right to make such changes in the Plans and in the character of The Work as may be necessary or desirable to insure completion of The Work in the most satisfactory manner, provided such changes do not materially alter the original Plans and Specifications or change the general nature of The Work as a whole. Such changes shall not be considered as waiving or invalidating any condition or provision of the Contract.

SECTION 205 - ENGINEER - OWNER - CONTRACTOR RELATIONS

205.01 ENGINEER'S RESPONSIBILITY AND AUTHORITY

All Work shall be done under the general engineering supervision of the Engineer to his satisfaction.

The Engineer shall decide all questions which arise as to the quality and acceptability of materials furnished, Work performed, manner of performance, rate of progress of The Work, interpretation of the Plans and Specifications, acceptable fulfillment of the Contract, compensation, mutual rights between Contractors under these Specifications and suspension of Work. The Engineer shall have the right to establish any sequence or priority of operation in the interest of desirable cooperation with other work. He shall determine the amount and quality of Work performed and materials furnished and his decisions and estimates shall be final. His estimate in such event shall be a condition precedent to the right of the Contractor to receive money due him under the Contract.

The authority of the Engineer shall to be construed to include the authority to waive, revise or modify Specifications, as herein set forth, either as to kind, type or quality of materials or manner or quality of construction.

205.02 SUSPENSION OF WORK

The Engineer shall have the authority to suspend The Work, wholly or in part, for such period or periods, based on his judgment, as he may deem necessary. Reasons for such suspension shall be given to the Contractor or his superintendent and can include, but shall not be restricted to, inclement weather, non-compliance with Plans or Specifications, improper or insufficient safety precautions, or improper sequencing of Work.

205.03 INSPECTION OF WORK

All materials and each part or detail of The Work shall be subject at all times to inspection by the Engineer, and the Contractor will be held strictly to the true intent of the Specifications in regard to quality of materials, workmanship, and the diligent execution of the Contract. Such inspection may include mill, plant or shop inspection, and any material furnished under these Specifications is subject to such inspection. The Engineer shall be allowed access to all parts of The Work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.

205.04 EXAMINATION OF COMPLETED WORK

At the Engineer's request, the Contractor, at any time before acceptance of The Work, shall remove or uncover such portions of the finished Work as may be directed. After examination, the Contractor shall restore said portions of The Work to the standard required by the Specifications. Should The Work thus exposed or examined prove acceptable, the uncovering or removing, and the replacing of the covering or making good of the parts removed shall be paid for as Extra Work, but should The Work so exposed or examined prove unacceptable, the uncovering, removing and replacing shall be at the Contractor's expense.

205.05 CONTRACTOR'S SUPERINTENDENT

A qualified superintendent, who is acceptable to the Engineer, shall be maintained on The Work and give efficient supervision to The Work until its completion. The superintendent shall have full authority to act in behalf of the Contractor, and all directions given to the superintendent shall be considered given to the Contractor. In general, the Engineer's instructions shall be confirmed in writing and always upon written request from the Contractor.

205.06 LANDS BY OWNER

The Owner shall provide the lands shown on the Plans upon which The Work under the Contract is to be performed and to be used for right-of-way for access. Any delay in furnishing these lands by the Owner shall be deemed proper clause for adjustment in the time of completion.

205.07 LANDS BY CONTRACTOR

Any additional land and access thereto not shown on the Plans that may be required for temporary construction facilities or for storage of materials shall be provided by the Contractor with no liability to the Owner. The Contractor shall confine his apparatus and storage of materials and operation of his workmen to those areas described in the Plans and Specifications and such additional areas which he may provide as approved by the Engineer.

205.08 PRIVATE PROPERTY

The Contractor shall not enter upon private property for any purpose without obtaining permission, and he shall be responsible for the preservation of all public property, trees, monuments, etc. along and adjacent to the street and/or right-of-way, and shall use every precaution necessary to prevent damage or injury thereto. He shall use suitable precautions to prevent damage to pipes, conduits and other underground structures, and shall protect carefully from disturbance or damage all monuments and property marks until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed.

205.09 ASSIGNMENT OF CONTRACT

Neither the Contractor nor the Owner shall sublet, sell, transfer, assign or otherwise dispose of the Contract or any portion thereof, or of his right, title or interest therein, or his obligations thereunder, without written consent of the other party.

205.10 REMOVAL OF CONSTRUCTION EQUIPMENT, TOOLS AND SUPPLIES

At the termination of this Contract, before acceptance of The Work by the Engineer, the Contractor shall remove all of his equipment, tools and supplies from the property of the Owner. Should the Contractor fail to remove such equipment, tools, and supplies, the Owner shall have the right to remove them at the Contractor's expense.

205.11 SUSPENSION OF WORK BY OWNER FOR CAUSE

The Work or any portion thereof may be suspended at any time by the Owner for good and valid cause provided that he gives the Contractor five (5) days written notice of suspension, which shall set forth the date on which Work is to be resumed. The Contractor shall resume The Work upon written notice from the Owner and within ten (10) days after the date set forth in the notice of suspension. If the Owner does not give written notice to resume Work within ten (10) days of the date fixed in the notice of suspension, the Contractor may abandon that portion of The Work so suspended and shall be entitled to payment in accordance with Section 209.10.

205.12 OWNER'S RIGHT TO CORRECT DEFICIENCIES

Upon failure of the Contractor to perform The Work in accordance with the Contract Documents, including any requirements with respect to the Schedule of Completion, and after five (5) days written notice to the Contractor, and receipt of written approval from the Engineer, the Owner may, without prejudice to any other remedy he may have, correct such deficiencies.

205.13. OWNER'S RIGHT TO TERMINATE CONTRACT AND COMPLETE THE WORK

The Owner shall have the right to terminate the employment of the Contractor after giving ten (10) days written notice of termination to the Contractor in the event of any default by the Contractor. In the event of such termination, the Owner may take possession of The Work and all materials, tools and equipment thereon and may finish The Work by whatever method and means he may select. It shall be considered a default by the Contractor whenever he shall:

A. Declare bankruptcy, become insolvent or assign his assets for the benefit of his creditors.

B. Disregard or violate important provisions of the Contract Documents or Engineer's instructions, or fail to prosecute The Work according to the agreed schedule of completion, including extensions thereof.

C. Fail to provide a qualified superintendent, competent workmen or subcontractors, or proper materials, or fail to make prompt payment therefore.

205.14 SEPARATE CONTRACTS

The Owner may let other Contracts in connection with The Work of the Contractor. The Contractor shall cooperate with other Contractors with regard to storage of materials and execution of their Work. It shall be the Contractor's responsibility to inspect all Work by other Contractors affecting his Work and to report to the Engineer any irregularities which will not permit him to complete his Work in a satisfactory manner. His failure to notify the Engineer of such irregularities shall indicate the Work of other Contractors has been satisfactorily completed to receive his Work. The Contractor shall not be responsible for defects of which he could not have known, which develop in the work of others after the work is completed. It shall be the responsibility of the Contractor to measure the completed Work in place and report to the Engineer immediately any difference between contemplated Work by others and the Plans.

205.15 SUBCONTRACTS

At the time specified by the Contract Documents or when requested by the Engineer, the Contractor shall submit in writing to the Owner for approval of the Engineer the names of the subcontractors proposed for The Work. Sub-contractors may not be changed except at the request or with the approval of the Engineer. The Contractor

is responsible to the Owner for the acts and omissions of his subcontractors, and of their direct and indirect employees, to the same extent as he is responsible for the acts and omissions of his employees. The Contract Documents shall not be construed as creating any contractual relation between any subcontractor and the Owner. The Contractor shall bind every subcontractor by the terms of the Contract Documents.

For convenience of reference and to facilitate the letting of contracts and subcontracts, the Specifications are separated into titled sections. Such separations shall not, however, operate to make the Engineer an arbiter to establish limits to the contracts between Contractor and subcontractors.

205.16 WORK DURING AN EMERGENCY

The Contractor shall perform any Work and shall furnish and install any materials and equipment necessary during an emergency endangering life or property. In all cases he shall notify the Engineer of the emergency and its nature as soon as practicable and he shall proceed to properly protect both life and property.

205.17 ORAL AGREEMENTS

No oral order, objection, claim or notice by any party to the others shall affect or modify any of the terms or obligations contained in any of the Contract Documents, and none of the provisions of the Contract Documents shall be held to be waived or modified by reason of any act whatsoever, other than by a definitely agreed waiver or modification thereof in writing, and no evidence shall be introduced in any proceeding of any other waiver or modification.

SECTION 206 - MATERIALS AND WORKMANSHIP

206.01 MATERIALS FURNISHED BY THE CONTRACTOR

All materials used in The Work shall meet the requirements of the respective Specifications, and no material shall be used until it has been approved by the Engineer. All materials not otherwise specifically indicated shall be furnished by the Contractor. Other materials shall be immediately removed from the job site at the request of the Engineer.

All materials furnished by the Contractor shall be manufactured within the United States and shall be new and unused, unless otherwise specified or approved in writing by the Engineer.

206.02 MATERIALS FURNISHED BY THE OWNER

Materials specifically indicated shall be furnished by the Owner. The fact that the Owner is to furnish material is conclusive evidence of its acceptability for the purpose intended, and the Contractor may continue to use it until otherwise directed. If the Contractor discovers any defect in material furnished by the Owner, he shall notify the Engineer. Unless otherwise noted or specifically stated, materials furnished by the Owner, which are not of local occurrence, are considered to be f.o.b. the nearest railroad station. The Contractor shall be prepared to unload and properly protect all such material from damage or loss. The Contractor shall be responsible for material loss or damage after receipt of material at the point of delivery.

206.03 STORAGE OF MATERIALS

Materials shall be so stored as to insure the preservation of their quality and fitness for The Work. When considered necessary, they shall be placed on wooden platforms or other hard, clean surfaces, and not on the ground, and/or they shall be placed under cover. Stored materials shall be located so as to facilitate prompt inspection. Private property shall not be used for storage purposes without the written permission of the Owner or Lessor.

206.04 CHARACTER OF WORKMEN

The Contractor shall at all times be responsible for the conduct and discipline of his employees and/or any subcontractor or persons employed by subcontractors. All workmen must have sufficient knowledge, skill and experience to perform properly the work assigned to them. Any foreman or workman employed by the Contractor or subcontractor who, in the opinion of the Engineer, does not perform his Work in a skillful manner, or appears to be incompetent or to act in a disorderly or intemperate manner shall, at the written request of the Engineer, be discharged immediately and shall not be employed again in any portion of The Work without the approval of the Engineer.

206.05 REJECTED WORK AND MATERIALS

All materials which do not conform to the requirements of the Contract Documents, are not equal to samples approved by the Engineer, or are in any way unsatisfactory or unsuited to the purpose for which they are intended, shall be rejected. Any defective Work whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause, shall be removed within ten (10) days after written notice is given by the Engineer, and The Work shall be re-executed by the Contractor. The fact that the Engineer may have previously overlooked such defective Work shall not constitute an acceptance of any part of it.

Should the Contractor fail to remove rejected Work or materials within ten (10) days after written notice to do so, the Owner may remove them and may store the materials and the cost of such removal to be taken out of the money that may be due or may become due the Contractor on account of or by virtue of this Contract

Correction of faulty Work after final payment shall be in accordance with the requirements of Section 209.17.

206.06 MANUFACTURER'S DIRECTIONS

Manufactured articles, material and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer unless herein specified to the contrary.

206.07 CUTTING AND PATCHING

The Contractor shall do all necessary cutting and patching of The Work that may be required to properly receive The Work of the various trades or as required by the Plans and Specifications to complete the structure. He shall restore all such cut or patched work as directed by the Engineer. Cutting of existing structure that shall endanger The Work, adjacent property, workmen or the public shall not be done unless approved by the Engineer and under his direction.

206.08 CLEANING UP

The Contractor shall remove from the Owner's property, and from all public and private property, all temporary structures, rubbish and waste materials resulting from his operation or caused by his employees, and shall remove all surplus materials leaving the site smooth, clean and true to line and grade.

206.09 GUARANTY PERIOD

The Contractor shall warrant all equipment furnished and Work performed by him for a period of two (2) years from the date of written acceptance or beneficial occupancy of The Work, whichever is earlier.

206.10 SALVAGEABLE MATERIALS

All materials which are salvageable, as determined by the Engineer and/or Owner, shall remain the property of the Owner. Those materials deemed to be unsalvageable shall be properly disposed of by the Contractor.

SECTION 207 - INSURANCE, LEGAL RESPONSIBILITY AND PUBLIC SAFETY

207.01 INSURANCE

The Contractor shall secure and maintain such insurance from an insurance company authorized to write casualty insurance in the State where The Work is located as will protect himself, his subcontractors and the Owner from claims for bodily injury, death or property damage which may arise from operations under this Contract. The Contractor shall not commence Work under this Contract until he has obtained all insurance required under this paragraph and shall have filed the certificate of insurance or the certified copy of the insurance policy with the Owner. Each insurance policy shall contain a clause providing that it shall not be cancelled by the insurance company without ten (10) days written notice to the Owner of intention to cancel. The amounts of such insurance shall not be less than the following:

A. Workmen's Compensation and Employer's Liability Insurance
shall be secured and maintained as required by the State where The Work is located.

B. Public Liability, Bodily Injury and Property Damage:

1.	Personal Injury, each person	$ 100,000
2.	Personal Injury, each accident	$ 1,000,000
3.	Property Damage, each occurrence	$ 100,000

C. Automobile and Truck Public Liability, Bodily Injury and Property Damage:

1.	Personal Injury, each person	$ 100,000
2.	Personal Injury, each accident	$ 1,000,000
3.	Property Damage, each accident	$ 100,000

207.02 INDEMNITY

The Contractor shall indemnify and save harmless the Owner from and against all losses and all claims, demands, payments, suits, actions, recoveries and judgments of every nature and description brought or recovered against him by reason of any omission or act of the Contractor, his agents or employees in the execution of The Work or in the guarding of it. The Contractor shall obtain in the name of the Owner and shall maintain and pay the premiums for such insurance in such amount and with such provisions as will protect the Owner from contingent liability under this Contract and a copy of such insurance policy or policies shall be delivered to the Owner. Full compliance by the Owner with the terms and provisions of such insurance policy or policies shall be a condition precedent to the Owner's right to enforce against the Contractor any provisions of this article.

207.03 OTHER INSURANCE

In addition to such other insurance as the Contractor elects to carry for his own protection and the insurance requirements of 207.01, he shall secure and maintain in the name of the Owner policies upon such structures and material and in such amounts as shall be designated in the Special Conditions, if applicable. The policies shall be secured from a company which is satisfactory to the Owner and delivered to the Owner.

207.04 PATENTS AND ROYALTIES

If any design, device, material or process covered by letters, patent or copy right is used by the Contractor, he shall provide for such use by legal agreement with the owner of the patent or a duly authorized licensee of such owner, and shall save harmless the Owner from any and all loss or expense on account thereof, including its use by the Owner.

207.05 PERMITS

All permits and licenses necessary for the prosecution of The Work not furnished by the Owner or Engineer shall be secured by the Contractor. All permit fees will be waived by the City of Shawnee for this project.

207.06 LAWS TO BE OBSERVED

The Contractor shall give all notices and comply with all Federal, State and local laws, ordinances and regulations in any manner affecting the conduct of The Work, and all such orders and decrees as exist, or may be enacted by bodies or tribunals having any jurisdiction or authority over The Work, and shall indemnify and save harmless the Owner against any claim or liability arising from, or based on, the violation of any such law, ordinance, regulation, order or decree, whether by himself or his employees.

207.07 WARNING SIGNS AND BARRICADES

The Contractor shall provide adequate signs, barricades, red lights and watchmen and take all necessary precautions for the protection of The Work and the safety of the public. All barricades and obstructions shall be protected at night by red signal lights which shall be kept burning from sunset to sunrise. Barricades shall be of substantial construction and shall be painted white or whitewashed to increase their visibility at night. Suitable warning signs shall be so placed and illuminated at night as to show in advance where construction, barricade or detours exist.

207.08 PUBLIC SAFETY AND CONVENIENCE

Danger Signals and Protection: When the Contractor is performing any type of construction or excavation work, or is stockpiling or storing any materials or equipment upon or adjacent to any street, alley, sidewalk, residence, public ground, or other location that is likely to be subject to pedestrian or vehicular traffic, he shall furnish, erect, and maintain substantial guard rails, safety fencing, lights, and traffic control devices around the project to protect pedestrians, animals, and vehicles from injury or damage. All traffic control shall be in accordance with the Oklahoma Department of Transportation Standards and Procedures for Street Use and Temporary Traffic Control. Safety and traffic control devices shall be installed and removed only at the direction of the Engineer. The Contractor shall provide sufficient proper signals and flagmen for warning during blasting operations.

Interference with Traffic: The Contractor shall construct and maintain adequate and safe bridges or crosswalks over excavations, where required. When a roadway or sidewalk is not closed, the Contractor shall provide a safe substitute route for any portion obstructed by his operations. If a roadway or sidewalk is closed to traffic, the Contractor shall provide and make detours. As directed by the Engineer, construction across roadways or sidewalks may be done by open excavation.

Excavations: The Contractor shall adequately shore, or sheet, and brace the excavation, or shall slope the sides of the trench in accordance with the State of Oklahoma Department of Labor requirements.

The Contractor shall at all times so conduct his work as to insure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of The Work, and to insure the protection of persons and property in a manner satisfactory to the Engineer. No road or street shall be closed to the public except with the permission of the Engineer and proper governmental authority. Fire hydrants on or adjacent to the work shall be kept accessible to firefighting equipment at all times. Temporary provisions shall be made by the Contractor to ensure the use of sidewalks and the proper functioning of all gutters, sewer inlets, drainage ditches, and irrigation ditches, which shall not be obstructed except as approved by the Engineer.

207.09 CROSSING UTILITIES

Pipelines and other existing underground installations and structures in the vicinity of the work to be done hereunder are indicated on the drawings according to information available to the Engineer; however, all lines actually existing may not be shown. The Contractor shall make every effort to locate all underground pipelines, conduits, and structures by contacting owners of underground utilities and by prospecting in advance of trench excavation.

When new construction crosses highways, streets or utilities under the jurisdiction of State, County, City or other public agency, public utility or private entity, written permission from the proper authority shall be secured before executing such new construction. A copy of this written permission must be filed with the Owner before any work is done. The contractor will be required to furnish a release from the proper authority before final acceptance of The Work.

When The Work encroaches upon the right-of-way of any railway, the Owner will secure for the Contractor, all the necessary contracts, easements or authority to enter upon such right-of-way for the prosecution and completion of The Work. All construction shall be in strict accord with the pertinent provisions of the railway authority. The Contractor shall take such special precautions for the safety of The Work and the travelling public as may be necessary by sheeting, bracing and thoroughly supporting the sides of any excavation and supporting and protecting any adjacent structures, so as not to interfere with the operation of the railroad.

207.10 SANITARY PROVISION

The Contractor shall provide and maintain such sanitary accommodations for the use of his employees and those of his subcontractors as may be necessary to comply with the requirements and regulations of the local and State departments of health and as directed by the Engineer.

207.11 USE OF EXPLOSIVES

No Explosives are to be allowed on this project without gaining approval from City of Shawnee

207.12 PUBLIC UTILITIES AND PUBLIC PROPERTY TO BE CHANGED

In case it is necessary to change or move the property of any owner of a public utility, such owner will, upon proper application by the Contractor, be notified by the Engineer to change or move such property within a specified time, and the Contractor shall not interfere with such property until ordered to do so by the Engineer. The right is reserved to the Owner of public utilities to enter upon the limits of the Contract for the purpose of making such repairs or changes of their property that may be necessary by performance of the Contract. The municipality in which the performance of the Contract is to be executed shall have the privilege of entering upon the limits of the Contract for the purpose of repairing or relaying sewer and water lines and appurtenances, repairing culverts or storm drains, and for making other repairs, changes or extensions to any property owned by the municipality.

207.13 TEMPORARY SEWER AND DRAIN CONNECTIONS

When existing sewers have to be taken up or removed, the Contractor, at his own expense, shall provide and maintain temporary outlets and connections for all private or public drains, sewers or sewer inlets. He shall also take care of all sewage and drainage which will be received from these drains, sewers and sewer inlets; and for this purpose he shall provide and maintain at his own expense adequate pumping facilities and temporary outlets or diversions. He shall construct such troughs, pipes or other structures necessary and be prepared at all times to dispose of drainage and sewage received from these temporary connections until such time as the permanent connections are built and in service. The sewers and connections shall be kept in service and maintained under the contract save where specified or ordered to be abandoned by the Engineer.

All water and sewage shall be disposed of in a satisfactory manner so that nuisance is created and that The Work under construction will be adequately protected.

207.14 ARRANGEMENT AND CHARGE FOR WATER FURNISHED BY A MUNICIPALITY

If the Contractor desires to use municipal water he shall pay the rate established by Municipal Ordinances for such service and he shall make complete and satisfactory arrangements with the Municipal Water Department for so doing. Meters will be used and the Contractor shall deposit the cost of the water meter with the Water Department and will pay for all repairs and maintenance of the meter for the period which he has the meter in use or in his possession.

207.15 USE OF FIRE HYDRANTS

The Contractor or his employees shall not open, turn off, interfere with, attach pipe or hose to or connect anything with any fire hydrant, stop valve or stop cock or tap any water main belonging to the municipality, unless duly authorized to do so by the municipality.

SECTION 208 - PROGRESS AND COMPLETION OF WORK

208.01 NOTICE TO PROCEED

Following the execution of the Contract by the Owner, written Notice to Proceed with The Work shall be given to the Contractor. The Contractor shall begin and shall prosecute The Work regularly and uninterruptedly thereafter (unless otherwise directed in writing by the Owner) with such force as to secure the completion of The Work within the time stated in the Proposal.

208.02 CONTRACT TIME

The Contractor shall complete, in an acceptable manner, all of The Work Contracted for in the time stated in the Proposal. Computation of Contract time shall commence on the date specified on the Notice to Proceed. If no date is specified, Contract time shall commence on the tenth (10th) day following the date of mailing, by regular mail, of the Notice to Proceed. Every calendar day following, except as herein provided, shall be counted as a working day.

208.03 SCHEDULE OF COMPLETION

The Contractor shall submit, at such times as may reasonably be requested by the Engineer, schedules which shall show the order in which the Contractor proposes to carry on The Work, with dates at which the Contractor will start the several parts of The Work, and estimated dates of completion of the several parts.

208.04 CHANGES IN THE WORK

The Owner may, as the need arises, order changes in The Work through additions, deletions or modifications without invalidating the Contract. Compensation and time of completion affected by the change shall be adjusted at the time of ordering such change.

208.05 EXTRA WORK

New and unforeseen items of work found to be necessary and which cannot be covered by any item or combination of items for which there is a Contract price shall be classed as Extra Work. The Contractor shall do such Extra Work and furnish such materials as may be required for the proper completion for construction of the whole Work contemplated upon written order from the Owner as approved by the Engineer. In the absence of such written order, no claim for Extra Work shall be considered. Extra Work shall be performed in accordance with these Specifications where applicable and work not covered by the Specifications or Special Conditions shall be done in accordance with the best practice as approved by the Engineer. Extra Work required in an emergency to protect life and property shall be performed by the Contractor as required.

208.06 EXTENSION OF CONTRACT TIME

A delay beyond the Contractor's control occasioned by an Act of God, or act or omission on the part of the Owner, or by strikes, lockouts, fire, etc., may entitle the Contractor to an extension of time on which to complete The Work as determined by the Engineer, provided, however, that the Contractor shall immediately give written notice to the Engineer of the cause of such delay.

208.07 FAILURE TO COMPLETE WORK ON TIME

The time of completion is the essence of the Contract. For each working day that any Work shall remain uncompleted after the time agreed upon in the Proposal and the Contract, or as automatically increased by additional Work or materials ordered after the Contract is signed, or the increased time granted by the Owner for the completion of said Work, the sum per day given in the following schedule, unless otherwise specified in the Proposal or Special Conditions, will be deducted from the monies due the Contractor, not as a penalty but as liquidated damages:

Amount of Contract	Amount of Liquidated Damages per Day
Less than $25,000.00	50.00
$25,000.00 and less than $50,000.00.	100.00
$50,000.00 and less than $100,000.00	200.00
$100,000.00 and less than $250,000.00.	300.00
$250,000.00 and less than $500,000.00.	400.00
$500,000.00 and less than $1,000,000.00. . . .	500.00
Over $1,000,000.00	1,000.00

The sum of money thus deducted for such delay, failure or non-completion is not to be considered as a penalty, but should be deemed taken and treated as reasonable liquidated damages since it would be impracticable and extremely difficult to fix the actual damages.

208.08 USE OF A SECTION OR PORTION OF THE WORK

Whenever, at the request of the Owner and in the opinion of the Engineer, any portion of The Work has advanced sufficiently, it may be put into use by the Owner through the written order of the Engineer. This beneficial occupancy by the Owner will be permitted only after receipt of written notice of release by the Contractor's Surety and Insurance carrier. The Guaranty Period, as defined elsewhere in these Specifications, for all Work covered by the Engineer's written order shall commence at the start of beneficial occupancy by the Owner.

SECTION 209 - MEASUREMENT AND PAYMENT

209.01 DETAILED BREAKDOWN OF CONTRACT AMOUNT

Except in cases where unit prices form the basis for payment under the Contract, the Contractor shall within ten (10) days of receipt of Notice to Proceed, submit a complete breakdown of the Contract Amount showing the value assigned to each part of The Work, including an allowance for profit and overhead. Upon approval of the breakdown of the Contract Amount by the Engineer, it shall be used as the basis for all Requests for Payment.

209.02 REQUESTS FOR PAYMENT

The Contractor may submit periodically but not more than once each month a Request for Payment for work done and materials delivered and stored on the site. The Contractor shall furnish the Engineer all reasonable facilities required for obtaining the necessary information relative to the progress and execution of The Work. Payment for materials stored on the site will be conditioned upon evidence submitted to establish the Owner's title to such materials. Each Request for Payment shall be computed from the work completed on all items listed in the Detailed Breakdown of Contract Amount, less ten percent (10%) to be retained until final completion and acceptance of The Work, and less previous payments, provided that any time after fifty percent (50%) of the work has been satisfactorily completed, the Owner may reduce the percentage retainage. Where unit prices are specified, the Request for Payment shall be based on the quantities completed.

209.03 ENGINEER'S ACTION ON A REQUEST FOR PAYMENT

Within ten (10) days of submission of any Request for Payment by the Contractor the Engineer shall:

A. Approve the Request for Payment, as submitted.

B. Approve such other amount as he shall decide is due the Contractor, informing the Contractor in writing of his reasons for approving the amended amount.

C. Withhold the Request for Payment, informing the Contractor in writing of his reasons for withholding it.

209.04 OWNER'S ACTION ON AN APPROVED REQUEST FOR PAYMENT

Within thirty (30) days from the date of approval of a Request for Payment by the Engineer, the Owner shall:

A. Pay the Request for Payment as approved.

B. Pay such other amount in accordance as herein provided as he shall decide is due the Contractor, informing the Contractor and the Engineer in writing of his reasons for paying the amended amount.

C. Withhold payment in accordance as herein provided informing the Contractor and the Engineer of his reasons for withholding payment.

209.05 OWNER'S RIGHT TO WITHHOLD PAYMENT OF AN APPROVED REQUEST FOR PAYMENT

The Owner may withhold payment in whole or in part on an approved Request for Payment to the extent necessary to protect himself from loss on account of any of the following causes discovered subsequent to approval of a Request for Payment by the Engineer:

A. Defective work.

B. Evidence indicating the probable filing of claims by other parties against the Contractor.

C. Failure of the Contractor to make payments to subcontractors, material suppliers or labor.

D. Damage to another contractor.

209.06 RESPONSIBILITY OF THE CONTRACTOR

Unless specifically noted otherwise, the Contractor shall furnish all materials and services, and perform all The Work described by the Contract Documents or shall have all materials and services furnished and all The Work performed at his expense. It shall also be the Contractor's responsibility to pay for:

A. Replacement of survey bench marks, reference points and stakes provided by the Owner under Section 204.12.

B. Lands by Contractor provided in accordance with Section 205.07.

C. Insurance obtained in accordance with Sections 207.01 and 207.02.

D. Other insurance obtained in accordance with Section 207.03.

E. Performance Payment Bond obtained in accordance with Section 203.04.

F. Statutory Bond obtained in accordance with Section 203.04.

G. Maintenance Bond obtained in accordance with Section 203.04.

H. Royalties required under Section 207.04.

I. Permits and licenses required of the Contractor and all subcontractors.

209.07 PAYMENT FOR UNCORRECTED WORK

If, in the opinion of the Engineer, it is undesirable to replace any defective or damaged material or to reconstruct or correct any portion of The Work injured or not performed in accordance with the Contract Documents, the compensation to be paid the Contractor hereunder shall be reduced by such amount as in the judgment of the Architect/Engineer shall be equitable.

209.08 PAYMENT FOR REJECTED WORK AND MATERIALS

The removal of work and materials rejected under Section 206.05 and the re-execution of acceptable work by the Contractor shall be at the expense of the Contractor, and he shall pay the cost of replacing The Work of other contractors destroyed or damaged by the removal of the rejected work or materials and the subsequent replacement of acceptable work.

Removal of rejected Work or materials and storage of materials by the Owner shall be paid by the Contractor within thirty (30) days after written notice to pay is given by the Owner. If the Contractor does not pay the expenses of such removal and after ten (10) days written notice being given by the Owner of his intent to sell the materials, the Owner may sell the materials at auction or at private sale, and shall pay to the Contractor the net proceeds therefrom after deducting all the costs and expenses that should have been borne by the Contractor.

209.09 PAYMENTS FOR EXTRA WORK

Written notice of claims for payments for Extra Work shall be given by the Contractor within ten (10) days after receipt of instructions from the Owner as approved by the Engineer to proceed with the Extra Work, and also before any work is commenced, except in emergency endangering life or property. No claim shall be valid unless so made. In all cases, the Contractor's itemized estimate sheets showing all labor and material shall be submitted to the Engineer. The Owner's order for Extra Work shall specify any extension of the Contract time and one of the following methods of payment:

A. Unit prices or combinations of unit prices which formed the basis of the original Contract.

B. A lump sum based on the Contractor's estimate, accepted by the Owner, and approved by the Engineer.

C. Actual cost-plus fifteen percent (15%) for overhead and profit.

209.10 PAYMENT FOR WORK SUSPENDED BY THE OWNER

If The Work or any part thereof shall be suspended by the Owner and abandoned by the Contractor, as provided in Section 205.11, the Contractor will then be entitled to payment for all work done on the portions so abandoned, plus fifteen percent (15%) of the value of the abandoned work to compensate for overhead, plant expense and anticipated profit.

209.11 PAYMENT FOR WORK BY THE OWNER

The cost of The Work performed by the Owner in removing construction equipment, tools and supplies in accordance with Section 205.10 and in correcting deficiencies in accordance with Section 205.12 shall be paid by the Contractor.

209.12 PAYMENT FOR WORK BY THE OWNER FOLLOWING HIS TERMINATION OF THE CONTRACT

Upon termination of the Contract by the Owner in accordance with Section 205.13, no further payments shall be due the Contractor until The Work is completed. If the unpaid balance of the Contract Amount shall exceed the cost of completing the work including all overhead costs, the excess shall be paid to the Contractor. If the cost of completing the work shall exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The cost incurred by the Owner, as herein provided, and the damage incurred through the Contractor's default, shall be certified by the Owner and approved by the Engineer.

209.13 PAYMENT FOR SAMPLES AND TESTING OF MATERIALS

Samples furnished in accordance with Section 204.08 shall be furnished by the Contractor at his expense.

Testing of samples and materials furnished in accordance with Section 204.08 shall be arranged and paid for by the Owner. Contractor shall assist as required, in the performance of tests.

Re-testing required by the failure of the original tests not meeting the Specifications will be paid for by the Contractor.

209.14 RELEASE OF LIENS

The Contractor shall deliver to the Owner a complete release of all liens arising out of this Contract before the retained percentage or before the final Request for Payment is paid. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner such amounts as the Owner may have been compelled to pay in discharging such liens including all costs and a reasonable attorney's fee.

209.15 ACCEPTANCE AND FINAL PAYMENT

When the Contractor shall have completed The Work in accordance with the terms of the Contract Documents, the Engineer shall certify his acceptance to the Owner and his approval of the Contractor's final Request for Payment, which shall be the Contract Amount plus all approved additions less all approved deductions and less previous payments made. The Contractor shall furnish evidence that he has fully paid all debts for labor, materials and equipment incurred in connection with The Work, following which the Owner shall accept The Work and release the Contractor except as to the conditions of the Performance Bond, any legal rights of the Owner, required guarantees, and Correction of Faulty Work after Final Payment, and shall authorize payment of the Contractor's final Request for Payment. The Contractor must allow sufficient time between the time of completion of The Work and approval of the final Request for Payment for the Engineer to assemble and check the necessary data.

209.16 TERMINATION OF CONTRACT

The Contract will be considered fulfilled, save as provided in any Bond or Bonds or by law, when all The Work has been completed, the final inspection made by the Engineer, and final acceptance and Final Payment have been made by the Owner.

209.17 CORRECTION OF FAULTY WORK AFTER FINAL PAYMENT

The approval of the final Request for Payment by the Engineer and the making of the Final Payment by the Owner to the Contractor shall not relieve the Contractor of responsibility for faulty materials or workmanship. The Owner shall promptly give notice of faulty materials or workmanship and the Contractor shall promptly replace any such defects discovered within one year from the date of written acceptance of The Work. The Engineer shall decide all questions arising under this paragraph.

SECTION 210 - INTENTION OF CONTRACTING PARTIES

The Contract, and all Documents incorporated therein by reference or executed in connection therewith, are intended solely to govern the relationship between the Contractor and Owner and their mutual obligations in respect to the subject of the Contract. To that end, no provision of the Contract or of any such Documents above mentioned shall be interpreted or given legal effect to create an obligation on the part of the Owner to third persons, including by way of illustration but not of exclusion, Sureties upon Performance Bonds, Payment Bonds or other Bonds, assignees of the Contractor, subcontractors, and persons performing labor, furnishing material or in any other way contributing to or assisting in the performance of the obligations of the Contractor; nor, shall any such provision be interpreted or given legal effect to afford a defense against any obligation owed or assumed by such third person to the Owner, or in any way to restrict the freedom of the Owner to exercise full discretion in its dealing with the Contractor.

END OF DIVISION

IMPORTANT

TO COMPLY WITH TITLE 74, SEC. 3109, YOU MUST COMPLETE THIS AFFIDAVIT AND RETURN IT TO OUR FINANCE DEPARTMENT BEFORE PAYMENT CAN BE MADE

VENDOR'S NAME
& ADDRESS:

_____

_____

_____

MAIL TO:

CITY OF SHAWNEE

16 West 9th Street

Shawnee, Oklahoma 74801

AFFIDAVIT OF CLAIMANT

STATE OF)
) SS.
COUNTY OF)

The undersigned (Architect, Engineer, Contractor, Supplier) of lawful age, being first duly sworn, on oath says that this invoice or claim is true and correct. Affiant further states that the (work, services, or materials) as shown by this invoice or claim have been (completed or performed) in accordance with the plans, specifications, orders, or requests, furnished the affiant. Affiant further states that (s)he has made no payment directly or indirectly to any elected official, officer, or employee of the State of Oklahoma, any county or local subdivision of the state, of money or any other thing of value to obtain payment of the invoice or procure the contract or purchase order pursuant to which an invoice is required.

_____
Engineer, Contractor, or Supplier

Subscribed and sworn before me the _____ day of _____, 202___.

_____
Notary Public (or Clerk or Judge)

_____
Architect

My commission expires _____ ,202___.

NOTE: 62 O.S. 1993, ss310.9B, authorizes any municipality executing more than one contract, exceeding $ 1,000 during the fiscal year, with an Architect, Engineer, Contractor, or Supplier to accept one affidavit applying to all work, services, or materials completed or supplied under the terms of awarded contracts, or which are needed on a continual basis; such affidavit to be in lieu of all individual affidavits for each invoice submitted in relation to such contract.

Invoice Number of Description	Date	Amount

NOTE: THIS AFFIDAVIT MUST BE RETURNED TO ABOVE ADDRESS.

TECHNICAL SPECIFICATIONS TABLE OF CONTENTS
KIDS SPACE PARK IMPROVEMENTS PROJECT

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SECTION 01050
FIELD ENGINEERING

PART I - GENERAL

1.01 REQUIREMENTS INCLUDED

A. Provide and pay for field engineering services required for project.
   1. Survey work required in execution of project.
   2. Civil, structural or other professional engineering services specified, or required to execute Contractor's construction methods.
   3. Record drawings.

B. Owner's Representative will identify existing control points indicated on the drawings as required.

1.02 QUALIFICATIONS OF SURVEYOR OR ENGINEER

A. Qualified engineer or registered land surveyor, acceptable to Contractor and Owner.

B. Registered professional engineer in the State of Oklahoma, of the discipline required for the specific service required.

1.03 SURVEY REFERENCE POINTS

A. Existing basic horizontal and vertical control points for the project are those designated on drawings.

B. Locate and protect control points prior to starting site work and preserve all permanent reference points during construction.
   1. Make no changes or relocations without prior written notice to Owner.
   2. Report to Owner's Representative when any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations.

1.04 PROJECT SURVEY REQUIREMENTS

A. Establish a minimum of one permanent bench mark on each site, referenced to data established by survey control points.
   1. Record locations with horizontal and vertical data on project record documents.

B. Establish lines and levels, locate and lay out, by instrumentation and similar appropriate means.
   1. Site improvements:

a. Stakes for grading, fill and topsoil placement.
b. Utility slopes for invert elevations.

2. Batter boards for structures.
3. Building foundation, column locations and floor levels.
4. Controlling lines and levels required for Divisions 15 and 16.

C. From time to time, verify layouts by same methods.

1.05 RECORDS

A. Maintain a complete, accurate log of all control and survey work as it progresses.

1.06 SUBMITTALS

A. Submit name and address of surveyor and professional engineer to Owner's Representative.

B. Submit certificates signed by registered surveyor certifying that elevations and locations of improvements are in conformance or non-conformance with contract documents.

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

Not used

END OF SECTION

SECTION 01152
APPLICATION FOR PAYMENT

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included: Comply with procedures described in this Section when applying for progress payment and final payment under the Contract.

B. Related work:
   1. Proposal and contract documents.

1.02 QUALITY ASSURANCE

A. Prior to start of construction, secure the Owner's Representative's approval of the schedule of values required to be submitted.

B. During progress of the work, modify the schedule of values as approved by the Owner's Representative to reflect changes in the contract sum due to change orders or other modifications of the Contract.

C. Base requests for payment on the approved schedule of values.

1.03 SUBMITTALS

A. Formal submittal: Unless otherwise directed by the Owner's Representative:
   1. Make formal submittal of request for payment by filling in the agreed data, by typewriter or neat lettering in ink, on AIA Document G702, "Application and Certificate for Payment", plus continuation sheet or sheets, or other form as approved by Owner.
   2. Sign and notarize the Application and Certificate for Payment and the City “Uniform Voucher and Invoice for Construction Services”.
   3. Submit the original of the Application and Certificate of Payment plus three (3) identical copies of the continuation sheet or sheets to the Owner's Representative.
   4. The Owner's Representative will sign the Application and Certificate for Payment, and distribute:
      a. One original and two copies to Owner;

END OF SECTION

SECTION 01200
PROJECT MEETINGS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included: To enable orderly review during progress of the work and to provide for systematic discussion of problems, the Owner's Representative will conduct project meetings throughout the construction period.

B. Related work:
   1. Documents affecting work of this Section include, but are not necessarily limited to, Proposal and Contract Documents and Sections in Division 1 of these Specifications.
   2. The Contractor's relations with his subcontractors and materials suppliers, and discussions relative thereto, are not the Owner's Representative responsibility and normally are not part of project meetings content.

1.02 QUALITY ASSURANCE

A. For those persons designated by the Contractor to attend and participate in project meetings, provide required authority to commit the Contractor to solutions agreed upon in the project meetings.

1.03 SUBMITTALS

A. Job notes:
   1. The Owner's Representative will compile job notes of each project meeting and will furnish copies to the Contractor and to the Owner.
   2. Recipients of copies may make and distribute such other copies as they wish.

PART 2 - PRODUCTS

No products are required in this Section.

PART 3 - EXECUTION

3.01 MEETING SCHEDULE

A. Except as noted below for Pre-construction Meeting, project meetings will be held monthly or as requested by the City or contractor.
B. Coordinate as necessary to establish mutually acceptable schedule for meetings.

3.02 MEETING LOCATION

A. The Owner's Representative will establish meeting location. To the maximum extent practicable, meetings will be held at the job site.

3.03 PRECONSTRUCTION MEETING

A. A Pre-construction meeting will be scheduled after issuing the Notice to Proceed.
   1. Provide attendance by authorized representatives of the Contractor and major subcontractors.
   2. The Owner will advise other interested parties, including the Owner's Representative, and request their attendance.

B. Minimum agenda: Data will be distributed and discussed on at least the following items.
   1. Organizational arrangement of Contractor's forces and personnel, and those of subcontractors, materials suppliers and Owner's Representative.
   2. Channels and procedures for communication.
   3. Construction schedule, including sequence of critical work and closing of any facilities.
   4. Contract documents, including distribution of required copies of original documents and revisions.
   5. Processing of shop drawings and other data submitted to Owner's Representative for review.
   6. Rules and regulations governing performance of the work.
   7. Procedures for safety and first aid, security, quality control, housekeeping and related matters.
   8. Location of underground utilities.
   9. Notification procedures for adjacent property owners.

3.04 PROJECT MEETINGS

A. Attendance:
   1. To the maximum extent practicable, assign the same person or persons to represent the Contractor at project meetings throughout progress of the work.
   2. Subcontractors, materials suppliers, and others may be invited to attend those project meetings in which their aspect of the work is involved.

B. Minimum agenda:
   1. Review, revise and approve job notes of previous meetings.
   2. Review progress of the work since last meeting, including status of submittals for approval.
   3. Identify problems which impede planned progress.
   4. Develop corrective measures and procedures to regain planned schedule.
   5. Complete other current business.

END OF SECTION

SECTION 01340
SUBMITTALS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. Procedures:
   1. Wherever possible throughout the Contract Documents the minimum acceptable quality of workmanship and materials has been defined by manufacturer's name and catalog number, reference to recognized industry and government standards, or description of required attributes and performance.
   2. To ensure that the specified products are furnished and installed in accordance with design intent, procedures have been established for advance submittal of design data and for their review by the Owner's Representative.
   3. Make all submittals required by the Contract Documents and revise and resubmit as necessary to establish compliance with the specified requirements.

B. Construction progress schedules.

C. Schedule of values.

D. Shop drawings, product data and samples.

E. Manufacturer's instructions and certificates.

F. Submittal log.

1.02 RELATED REQUIREMENTS

A. Individual requirements for submittals are described in pertinent sections of these Specifications.

B. Related work:

Section 01700:	Contract Closeout: Project Record Documents, Operating and Maintenance Data, Warranties and Bonds.

1.03 QUALITY ASSURANCE/CONTRACTOR RESPONSIBILITIES

A. Coordination of submittals: Before each submittal, carefully review and coordinate all aspects of each item being submitted and verify that each item, and the submittal for it, conforms in all respects with the requirements of the Contract Documents. Coordinate with other trades as required. By affixing the

Contractor's signature to each submittal, certify that this coordination has been performed.

B. Grouping of submittals: Unless otherwise specified, make all submittals in groups containing all associated items to ensure that information is available for checking each item when it is received. Partial submittals may be rejected as not complying with the provisions of the Contract Documents and the Contractor shall be strictly liable for all delays so occasioned.

C. Timing: Make all submittals far enough in advance of scheduled dates for installation to provide all time required for reviews, for securing necessary approvals, for possible revisions and resubmittals, and for placing orders and securing deliveries.

D. Notify Owner's Representative in writing with submittal of any deviations in submittals from Contract Document requirements.

E. Do no fabrication or work which requires submittals until accepted by the Owner's Representative.

1.04 SUBMITTAL SCHEDULE

A. Compile a complete and comprehensive schedule of all submittals anticipated to be made during progress of the work. Include a list of each type of item for which Contractor's drawings, shop drawings, certificates of compliance, material samples, guarantees or other types of submittals are required. Adhere to the schedule except when specifically otherwise permitted. Submittal log is for Owner's Representative to track review.

B. Coordinate the schedule with all necessary subcontractors and materials suppliers to ensure their ability to adhere. Coordinate as required to ensure the grouping of submittals.

C. Revise and update the schedule on a monthly basis to reflect conditions and sequences. Promptly submit revised schedules to Owner's Representative for review and comment.

1.05 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

A. Shop Drawings:

1. Present in clear and thorough manner, with details referenced to sheet, detail, schedule or room numbers shown on Contract Drawings. Provide quantity directed by Owner's Representative.

B. Product Data:
   1. Preparation: Clearly mark each copy to identify pertinent products or models. Show performance characteristics and capacities, dimensions and clearances required, and wiring or piping diagrams and controls.
   2. Modify manufacturer's standard drawings, diagrams and literature to delete information not applicable to work and supplement information specifically applicable to the work.

C. Samples:
   1. Office samples: Provide in quantity and size directed, complete with integrally related parts and attachment devices and illustrating functional characteristics of product and full range of color, texture and pattern.
   2. Field samples/mock-ups: Erect at project site at location acceptable to Owner's Representative in size or area specified in other specification sections. Fabricate to be complete and finished. Remove at conclusion of work or when directed.

D. Make submittals promptly and in such sequence as to cause no delay in work.

E. Submission Requirements:
   1. Quantity required:
      a. Shop drawings: Submit digital copies each..
      b. Submit index brochures of mechanical and electrical submittals (manufacturer's literature and drawings) for final approval and distribution.
      c. Product data: Complete catalogs will not be acceptable. Manufacturer's regular catalog sheets will be acceptable if they indicate completely all specification requirements. When manufacturer's catalog sheets are submitted, material not directly connected with subject shall be completely lined out. Where drawings cover several sizes or types of construction they shall clearly indicate size or type of construction to be used including a schedule identifying each piece of equipment. Submittals containing more than five different items of equipment shall be assembled with a table of contents.
   2. Submittal contents:
      a. Submission date and dates of any previous submissions.
      b. Project title and number.
      c. Names of Contractor, supplier and manufacturer.
      d. Identification of product, with specification section number.
      e. Field dimensions, clearly identified as such.
      f. Applicable standards, such as ASTM, Federal Spec numbers, etc.
      g. Relation to adjacent or critical features of work or materials.
      h. Identification of deviations from Contract Documents.
      i. Identification of revisions on resubmittals.

j. Contractor certification of submittal review, to include product verification, field measurements, quantities, coordination with adjacent equipment structural members, or architectural features, and coordination of information within submittal with requirements of work and Contract Documents. Certification may be by stamp of approval or a letter of transmittal containing a statement to the effect that they have been reviewed. Uncertified submittals will be rejected.

F. Resubmission Requirements:
1. Make corrections or changes required by Owner's Representative and resubmit until accepted.
2. Shop drawings and product data: Revise and resubmit as specified for initial submittal; indicate any changes which have been made other than those requested by Owner's Representative.
3. Samples: Submit new samples as required for initial submittal.
4. Resubmission of structural shop drawings and product data: Resubmit finalized drawings and product data. File copy to Owner's Representative and Owner; field copy to field office. Resubmit all subsequent changes with changes and dates noted.

G. Distribution:
1. Distribute reproductions of shop drawings and product data which carry Owner's Representative and Owner's stamp of approval to job site and record documents file, other affected contractors, subcontractors and supplier or fabricator.
2. Distribute samples with Owner's Representative and Owner's stamp of approval as directed by Owner's Representative.

1.06 SUBSTITUTIONS AND PRODUCT OPTIONS

Not Used

1.07 MANUFACTURER'S CERTIFICATES

A. Submit certificates in accordance with requirements of each specification section.

1.08 PROJECT RECORD DOCUMENTS

A. Submit in accordance with Section 01720 Project Record Documents.

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

3.01 GENERAL PROCEDURES

A. Deliver submittals to Owner's Representative.

B. Transmit each item under Contractor's Standard Letter of Transmittal. Identify project, contractor, subcontractor, major supplier, pertinent drawing sheet and detail number and specification section number as appropriate. Identify deviations from Contract Documents.

C. Submit initial progress and submittal schedules within 15 days after execution of Contract and schedule of values with first application for payment. Update with each Application for Payment reflecting changes since previous submittal.

D. Comply with progress schedule for submittals related to work progress.

E. After Owner's Representation and Owner's review of submittal, revise and resubmit as required, identifying changes made since previous submittal.

F. Distribute copies of review submittals to concerned persons. Instruct recipients to promptly report any inability to comply with provisions.

3.02 OWNER'S REPRESENTATIVE REVIEW

A. Owner's Representative duties:
1. Review submittals with reasonable promptness.
2. Affix stamp and initials or signature and indicate re-submittal requirements or approval of submittal.
3. Submit to Owner for approval.
4. Return submittals to Contractor for distribution or for resubmission.

B. Review by the Owner's Representative shall not be construed as a complete check, but only that the general method of construction and detailing is satisfactory. Review shall not relieve the Contractor from responsibility for errors which may exist.

C. Authority to Proceed: The notations "Approved" or "Approved as Corrected" authorizes the Contractor to proceed with fabrication, purchase, or both, of the items so noted, subject to the revisions, required by the Owner's Representative review comments.

D. Revisions: Make only those revisions directed or approved by the Owner's Representative and Owner.

E. Revisions after approval: When a submittal has been reviewed by the Owner, re-submittal for substitution of materials or equipment will not be considered unless accompanied by an acceptable explanation as to why the substitution is necessary.

END OF SECTION

SECTION 01500
TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included: Provide temporary facilities and controls needed for the work including, but necessarily limited to:
   1. Temporary utilities such as heat, water, electricity and telephone;
   2. Field office for Contractor's personnel;
   3. Sanitary facilities;
   4. Enclosures such as tarpaulins, barricades and canopies;
   5. Temporary fencing of the construction site;
   6. Project sign.

B. Related work:
   1. Documents affecting work of this Section include, but are not necessarily limited to, Proposal and Contract Documents and Sections in Division 1 of these Specifications.
   2. Except that equipment furnished by Subcontractors shall comply with requirements pertinent safety regulations, such equipment normally furnished by the individual trades in execution of their own portions of the work are not part of this Section.
   3. Permanent installation and hookup of the various utility lines are described in other Sections of these Specifications.

1.02 PRODUCT HANDLING

A. Maintain temporary facilities and controls in proper and safe condition throughout progress of the work.

PART 2 - PRODUCTS

2.01 UTILITIES

A. Water:
   1. Provide as necessary temporary piping and water supply and, upon completion of the work, remove such temporary facilities.

B. Electricity:
   1. Provide necessary temporary wiring and, upon completion of the work, remove such temporary facility.
   2. Provide and pay for electricity used in construction.

C. Heating: Provide and maintain heat necessary for proper conduct of operations needed in the work.

D. Telephone and Fax:
   1. Contractor and superintendent to have cellular telephones accessible during normal business hours.
   2. Contractor to maintain telephone and fax service at the Contractor's primary office to receive job correspondence. On-site fax not required.

2.02 FIELD OFFICES AND SHEDS

A. Contractor's facilities:
   1. Contractor may at his discretion provide a field office building and sheds adequate in size and accommodation for Contractor's offices, supply and storage.
   2. Within the Contractor's facilities, provide enclosed space, for holding project meetings. Furnish with table, chairs and utilities.

B. Sanitary facilities:
   1. Provide temporary sanitary facilities in the quantity required for use by all personnel.
   2. Maintain in a sanitary condition at all times.

2.03 ENCLOSURES

A. Provide and maintain for the duration of construction all scaffolds, tarpaulins, canopies, warning signs, steps, platforms, bridges and other temporary construction necessary for proper completion of the work in compliance with pertinent safety and other regulations.

2.04 TEMPORARY FENCING

A. Provide and maintain for the duration of construction a temporary safety barricade of design and type needed to prevent entry onto the work by the public.

PART 3 - EXECUTION

3.01 MAINTENANCE AND REMOVAL

A. Maintain temporary facilities and controls as long as needed for safe and proper completion of the work.

B. Remove such temporary facilities and controls as rapidly as progress of the work will permit, or as directed by the Owner's Representative.

END OF SECTION

SECTION 01510
SITE ACCESS

PART 1 - GENERAL

1.01 REQUIREMENTS

A. Work included: this information applies to situations in which a Contractor or his representatives including, but not limited to, suppliers, subcontractors, employees and field engineers enter upon The Project property.

B. Related work:

Section 02000:	Site Work.
Section 02070:	Selective Demolition.
Section 02100:	Site Preparation.
Section 02220:	Excavating, Backfilling & Compacting.

1.02 QUALITY ASSURANCE

A. Upon approval by Owner for access, notify all pertinent personnel regarding requirements of this information.

B. Require that all personnel who will enter upon property certify their awareness of and familiarity with the requirements of the Owner.

C. Tree protection in accordance with Section 02100.

1.03 SUBMITTALS

A. Maintain an accurate record of the names and identification of all persons entering upon Park property and permit periodic review of record by Owner and/or Owner's Representative.

B. Pre-construction photographs per Paragraph 1.07.

1.04 TRANSPORTATION FACILITIES

A. Vehicle and equipment access:

1. Provide protection for curbs, sidewalks, roads, parking, utilities and amenities over which trucks and equipment pass to reach work areas.

Contractor's vehicles:
Limit the access of vehicles belonging to employees and all other vehicles entering upon Park property to use only the access route shown on the drawings.
Do not permit vehicles to park on any other area of the property except in the areas so designated at the pre-construction meeting.

1.05 NOTIFICATION BY CONTRACTOR

A. The Contractor shall notify the Owner, in writing, two weeks in advance of any proposed construction activity on Owner's property. Said notice does not constitute authority to proceed with work in the Park. Official notice of approval will be at the discretion of the Owner.

1.06 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE

A. The Contractor shall be responsible for the preservation of all property and shall protect carefully from disturbance or damage all said property witnessed or otherwise referenced their location and shall not move any item until directed.

B. The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of the work, resulting from any act, omission, neglect, or misconduct in his manner or method of executing the work, or at any time due to defective work or materials.

C. The Contractor shall consult with the Owner regarding his work activities and shall install any and all barriers, warning signs, fencing, property protection, access control or other devices to the satisfaction of the Owner and needed to provide for public safety and protection of Property.

D. When or where any direct or indirect damage or injury is done to property by or on account of any act, omission, neglect, or misconduct in the execution of the work or in consequence of the non-execution thereof by the Contractor, he shall restore, at his own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring as may be directed by the Owner or he shall make good such damage or injury in an acceptable manner to the Owner.

E. Tree protection in accordance with Section 02100.

F. The contractor will work out a mutually acceptable plan with the Owner to provide access to the existing tennis courts and existing parking lot to accommodate league play.

1.07 PRE-CONSTRUCTION PHOTOGRAPHS OR VIDEO

A. The Contractor shall provide digital photographs or video tapes of the specified work area one day prior to any work starting, but after appropriate construction staking and protection.

B. Photographs shall be 3" x 5" color prints with information on the back of each print as follows: Show the job name, location of photograph, date of photograph and photographer's name, address and photograph number.

C. Photographs shall be from a minimum of twenty-four (24) diversified overall views of the work area and of any pertinent Park property within construction limits. Additional photos may be required in unusual or extremely large sites.

D. Each photograph shall be clear, in focus, with high resolution and sharpness and with minimum distortion.

1.08 CLEANING

A. Progress cleaning:
   1. Daily, and more often if necessary, inspect the site and pick up all scrap, debris, packaging and shipping material. Remove such items from premises weekly.
   2. Weekly, and more often if necessary, inspect all materials stored on site, re-stack, tidy, or otherwise arrange in safe condition.

B. Final cleaning:
   1. Completely remove resultant construction debris, particularly any loose rock or stone imported or uncovered during construction.
   2. Broom clean paved areas on site.
   3. Mow grass areas as directed which had not been under normal maintenance.
   4. Repair any areas of turfing that have been damaged by construction operations in accordance with Section 02934 Sodding.
   5. Alleviate compacted turf areas if access has been over turf, but no turf has to be placed. Compaction should be alleviated by a coring implement with 6" O.C. minimum coverage of 3" deep. Drag cores until leveled.
   6. Often when fences are erected for protection, holes are left when fence posts are pulled. Holes should be filled with appropriate top soil and settled with water to grade.

1.09 RECORD DOCUMENTS

A. Submit to Owner a complete record drawing clearly indicating all work both concealed and visible.

B. Information shall be tied to base line control data of the Owner and so noted on the Owner's field books.

1.10 FINAL APPROVAL

A. Upon the completion of all work a final inspection must be made by the Owner to determine whether the work has been completed in accordance with the contract, plans and/or specifications.

B. When the work has been so completed the Owner will provide certification of same and forward to appropriate contracting authorities.

C. Acceptance by Owner shall not restrict or prohibit the rights provided for in regard to latent defects, frauds or such gross mistakes as may amount to fraud or as regards the rights under any warranty guarantee.

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

Not used

END OF SECTION

SECTION 01700
CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included: Provide an orderly and efficient transfer of the completed work to the Owner.

B. Related work:
   1. Proposal and contract documents.

1.02 QUALITY ASSURANCE

A. Prior to requesting inspection by the Owner's Representative, use adequate means to assure that the work is completed in accordance with the specified requirements and is ready for the requested inspection.

1.03 PROCEDURES

A. Substantial Completion:
   1. Contractor:
      a. Submit written certification through Owner's Representative to the Owner that project is substantially complete in accordance with the construction contract.
      b. Submit list of major items to be completed or corrected. The failure to include any items on such list does not alter the responsibility of the contractor to complete all work in accordance with the contract documents.
   2. Owner's Representative will make an inspection within seven (7) days after receipt of certification together with the Owner.
   3. Should Owner's Representative consider that work is substantially complete in accordance with the construction contract:
      a. Contractor shall prepare a punch list of items to be completed or corrected as determined by the inspection.
      b. The Owner will prepare a Certificate of Substantial Completion for the Contractor for their written acceptance of the responsibilities assigned to them in such Certificate. The Certificate of Substantial Completion shall contain the following:
         (1) Date of Substantial Completion;
         (2) Punch list of items to be completed or corrected.
         (3) The time within which Contractor shall complete or correct work of listed items.
         (4) Date and time Owner will assume possession of work or designated portion thereof.

c. Contractor shall:
(1) Complete work listed for completion or correction within the designated time.
(2) Refer to Construction Contract for post substantial completion requirements.

4. Should Owner's Representative consider that work is not substantially completed:
a. He shall immediately notify Contractor in writing stating reasons.
b. Contractor: Complete work and send second written notice through Owner's Representative to Owner certifying that the project is substantially complete.
c. Owner's Representative will re-inspect work.

B. Final Completion:
1. Contractor shall submit written certification that:
a. Contract documents have been reviewed;
b. Project has been inspected for compliance with contract documents.
c. Work has been completed in accordance with the construction contract.
d. Equipment and systems have been tested in presence of Owner and are operational.
(1) Equipment and systems shall be operated in a normal mode for a minimum period of three (3) weeks prior to final inspection.
e. Owner's personnel have been instructed in operation of all systems, mechanical, electrical and other equipment.
f. Project is completed, ready for final inspection.

2. Owner's Representative will make final inspection within seven (7) days after receipt of certification.

3. Should Owner's Representative consider that work is finally complete in accordance with contract documents, contractor shall submit final Application for Payment.

4. Should Owner's Representative consider that work is not finally complete:
a. He shall notify contractor, in writing, stating reasons.
b. Contractor shall take immediate steps to remedy the stated deficiencies and send second written notice through Owner's Representative to Owner certifying that work is complete.
c. Owner's Representative will re-inspect work.

1.04 REINSPECTION COSTS

A. Should Owner's Representative be required to perform more than two (2) inspections for project substantial completion and project final completion, respectively because of failure of work to comply with original certifications of contractor, the contractor will compensate Owner's Representative for additional services to include time and reimbursable expenses incurred by the Owner's Representative and his consultants. This amount will be deducted from final payment to the Contractor.

1.05 RETURN OF CONTRACT DOCUMENTS

A. Return of Drawings: Drawings, details, sketches and specifications are property of Owner, and are issued to contractor as instruments of service only. If required, contractor shall return same to Owner.

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

Not used

END OF SECTION

SECTION 01720
PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included:
   1. Throughout progress of the work, maintain an accurate record of changes in the Contract Documents as described in Article 3.01 below.
   2. Upon completion of the work, transfer the recorded changes to a set of Record Documents, as described in Article 3.02 below.

B. Related work:
   1. Proposal and contract documents.
   2. Other requirements affecting Project Record Documents may appear in pertinent other Sections of these Specifications.

1.02 QUALITY ASSURANCE

A. Delegate the responsibility for maintenance of Record Documents to one person on the Contractor's staff as approved by the Owner's Representative.

B. Accuracy of records:
   1. Thoroughly coordinate changes within the Record Documents, making adequate and proper entries on each page of Specifications and each sheet of Drawings and other Documents where such entry is required to show the change properly.
   2. Accuracy of records shall be such that future search for items shown in the Contract Documents may relay reasonably on information obtained from the approved Project Record Documents.

C. Make entries within 24 hours after receipt of information that the change has occurred.

1.03 SUBMITTALS

A. Comply with pertinent provisions of Section 01340.

B. The Owner's Representative's approval of the current status of Project Record Documents may be a prerequisite to the Owner's Representative approval of requests for progress payment and request for final payment under the Contract.

C. Prior to submitting each request for progress payment, secure the Owner's Representative's approval of the current status of the Project Record Documents.

D. Prior to submitting request for final payment, submit the final Project Record Documents to the Owner's Representative and secure his approval.

1.04 PRODUCT HANDLING

A. Maintain the job set of Record Documents completely protected from deterioration and from loss and damage until completion of the work and transfer all recorded data to the final Project Record Documents.

B. In the event of loss of recorded data, use means necessary to again secure the data to the Owner's Representative's approval.
   1. Such means shall include, if necessary in the opinion of the Owner's Representative, removal and replacement of concealing materials.
   2. In such case, provide replacements to the standards originally required by the Contract Documents.

PART 2 - PRODUCTS

2.01 RECORD DOCUMENTS

A. Job set: Promptly following receipt of the Owner Notice to Proceed, secure from the Owner's Representative at no charge to the Contractor one complete set of all Documents comprising the Contract.

B. Final Record Documents: At the time of completion of the work, deliver all job as-built plans to the Owner’s Representative clearly marked and legible.

PART 3 - EXECUTION

3.01 MAINTENANCE OF JOB SET

A. Immediately upon receipt of the job set described in Paragraph 2.01 above, identify each of the Documents with the title, "RECORD DOCUMENTS - JOB SET."

B. Preservation:
   1. Considering the Contract completion time, the probable number of occasions upon which the job set must be taken out for new entries and for examination, and the conditions under which these activities will be performed, devise a suitable method for protecting the job set to the approval of the Owner's Representative.
   2. Do not use the job set for any purpose except entry of new data and for review by the Owner's Representative until start of transfer of data to final Project Record Documents.
   3. Maintain the job set at the site of work as that site is designated by the Owner's Representative.

C. Making entries on Drawings:
   1. Using an erasable colored pencil (not ink or indelible pencil), clearly describe the change by graphic line and note as required.
   2. Date all entries.
   3. Call attention to the entry by a "cloud" drawn around the area or areas affected.
   4. In the event of overlapping changes, use different colors for the overlapping changes.

D. Make entries in the pertinent other Documents as approved by the Owner's Representative.

E. Conversion of schematic layouts:
   1. In some cases on the Drawings, arrangements of conduits, circuits, piping, ducts and similar items is shown schematically and is not intended to portray precise physical layout.
      a. Final physical arrangement is determined by the Contractor, subject to the Owner's Representative's approval.
      b. However, design of future modifications of the facility may require accurate information as to the final physical layout of items which are shown only schematically on the Drawings.
   2. Show on the job set of Record Drawings, by dimension accurate to within one inch, the centerline of each run of items such as are described in subparagraph 3.01 E. 1. above.
      a. Clearly identify the item by accurate note such as "cast iron drain", "galv. water" and the like.
      b. Show, by symbol note, the vertical location of the item ("under slab", "in ceiling plenum", "exposed" and the like).
      c. Make all identification sufficiently descriptive that it may be related reliably to the Specifications.
   3. The Owner's Representative may, subject to Owner approval, waive the requirements for conversion of schematic layouts where, in the Owner's Representative's judgement, conversion serves no useful purpose. However, do not rely upon waivers being issued except as specifically issued in writing by the Owner.

3.02 FINAL PROJECT RECORD DOCUMENTS

A. The purpose of the final Project Record Documents is to provide factual information regarding all aspects of the work, both concealed and visible, to enable future modification of the work to proceed without lengthy and expensive site measurement, investigation and examination.

B. Approval of recorded data prior to transfer:

1. Secure the Owner's Representative's approval that all recorded data is clearly marked and legible.
2. Make required revisions requested by the Owner's Representative.

C. Transfer of data to other Documents:
1. If the Documents other than Drawings have been kept clean during progress of the work, and if entries thereon have been orderly to the approval of the Owner's Representative, the job set of those Documents other than Drawings will be accepted as final Record Documents.
2. If any such Document is not so approved by the Owner's Representative, secure a new copy of that Document from the Owner's Representative at the Owner's Representative's usual charge for reproduction and handling and carefully transfer the change data to the new copy to the approval of the Owner's Representative.

D. Review and submittal:
1. Submit the completed set of Project Record Documents to the Owner's Representative.
2. Participate in review meetings as required.

E. Final Record Documents: At the time of completion of the work, deliver all job as-built plans to the Owner's Representative clearly marked and legible. The Owner's Representative will transfer the contractor's information electronically to the original contract documents.
1. The Contractor is responsible for the accuracy of all information contained within the Record Documents. The Owner's Representative is not responsible for the accuracy of the information and is responsible only for entering the information into the original Construction Documents.
2. The Owner's Representative will be responsible for delivering the final Record Documents to the Owner.

END OF SECTION

SECTION 01730
OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included: To aid the continued instruction of operating and maintenance personnel and to provide a positive source of information regarding the products incorporated into the work, furnish and deliver the data described in this Section and in pertinent other Sections of these Specifications.

B. Related work:
   1. Proposal and construction documents.
   2. Required contents of submittals also may be amplified in pertinent other Sections of these Specifications.

1.02 QUALITY ASSURANCE

A. In preparing data required by this Section, use only personnel who are thoroughly trained and experienced in operation and maintenance of the described items, completely familiar with the requirements of this Section and skilled in technical writing to the extent needed for communicating the essential data.

1.03 SUBMITTALS

A. Comply with pertinent provisions of Section 01340.

B. Submit two copies of a preliminary draft of the proposed Manual or Manuals to the Owner's Representative for review and comments.

C. Unless otherwise directed in other Sections, or in writing by the Owner's Representative, submit four copies of the final Manual to the Owner's Representative prior to indoctrination of operation and maintenance personnel.

PART 2 - PRODUCTS

2.01 INSTRUCTION MANUALS

A. Where instruction Manuals are required to be submitted under other Sections of these Specifications, prepare in accordance with the provisions of this Section.

B. Format:
   1. Size: 8-1/2" x 11".
   2. Paper: White bond, at least 20 lb. Wt.
   3. Text: Neatly written or printed.

4. Drawings: 11' in height; bind in with text; foldout acceptable, not to exceed 11x17".
5. Flysheets: Separate each portion of the Manual with neatly prepared flysheets briefly describing contents of the ensuing portion; flysheets may be in color.
6. Binding: Use heavy-duty plastic or fiberboard covers with binding mechanism concealed inside the Manual; 3-ring binders will be acceptable; all binding is subject to Owner's Representative's approval.
7. Measurements: Provide all measurements in U.S. standard units such as feet and inches, lbs, and cfm.

C. Provide front and back covers for each Manual, using durable material approved by the Owner's Representative and clearly identified on or through the cover with at least the following information:

OPERATING AND MAINTENANCE INSTRUCTIONS
Name and address of work
Name of Contractor
General Subject of this Manual

_____
Owner's Representative

D. Contents: Include at least the following:
1. Neatly typewritten index near the front of the Manual.
2. For architectural products, applied materials and finishes:
   a. Manufacturer's data, giving full information on finishes:
      (1) Catalog number, size, composition.
      (2) Color and texture designations.
      (3) Information required for reordering special manufactured products.
   b. Instructions for care and maintenance:
      (1) Manufacturer's recommendations for types of cleaning agents and methods.
      (2) Cautions against cleaning agents and method which are detrimental to product.
      (3) Recommended schedule for cleaning and maintenance.
   c. All approved submittals.
3. For moisture protection and weather exposed products:
   a. Manufacturer's data, giving full information on products.
      (1) Applicable standards.
      (2) Chemical composition.
      (3) Details of installation.
   b. Instructions for inspection, maintenance and repair.
   c. All approved submittals.

4. For each electric and electronic system and mechanical system as appropriate:
    a. Description of system and component parts. Function, normal operating characteristics and limiting conditions. Complete nomenclature and commercial number of replaceable parts.
    b. Circuit directories of panel boards: Electrical service, controls and communications.
    c. Operating procedures: Routine and normal operating instructions, sequences required and special operating instructions.
    d. Maintenance procedures: Routine operations, guide to "trouble-shooting", disassembly, repair and re-assembly and adjustment and checking.
    e. Manufacturer's printed operating and maintenance instructions.
    f. List of original manufacturer's spare parts, manufacturer's current prices and recommended quantities to be maintained in storage.
    g. Other data as required under pertinent sections of specifications.
    h. All approved submittals.
5. Certificate of substantial completion.
6. Master list of extended warranty items.

PART 3 - EXECUTION

3.01 INSTRUCTION MANUALS

A. Preliminary:
1. Prepare a preliminary draft of each proposed Manual.
2. Show general arrangement, nature of contents in each portion, probable number of drawings and their size, and proposed method of binding and covering.
3. Secure the Owner's Representative's approval prior to proceeding.

B. Final:
1. Complete the Manuals in strict accordance with the approved preliminary drafts and the Owner's Representative's review comments.

C Revisions:
1. Following the indoctrination and instruction of operation and maintenance personnel, review all proposed revisions of the Manual with the Owner's Representative.

END OF SECTION

SECTION 02000
SITE WORK

PART 1 - GENERAL

1.01 DESCRIPTION

A. These general site work requirements apply to all site work operations. Refer to Division 2 specification sections for specific general, product and execution requirements.

B. Related work:

Section 01510:	Site Access.
Section 02070:	Selective Demolition.
Section 02100:	Site Preparation.
Section 02220:	Excavating, Backfilling and Compacting.

1.02 QUALITY ASSURANCE

A. Comply with all applicable local, state and federal requirements regarding materials, methods of work and disposal of excess and waste materials.

1.03 PROJECT CONDITIONS

A. Locate and identify existing underground and overhead services and utilities within contract limit work areas. Provide adequate means of protection of utilities and services designated to remain. Repair utilities damaged during site work operations at Contractor's expense.

B. Arrange for disconnection, disconnect and seal or cap all utilities and services designated to be removed before start of site work operations. Perform all work in accordance with the requirements of the applicable utility company or agency involved.

C. When uncharted or incorrectly charted underground piping or other utilities and services are encountered during site work operations, notify the applicable utility company immediately to obtain procedure directions. Cooperate with the applicable utility company in maintaining active services in operation. If the services are Owner maintained, notify Owner's Representative immediately.

D. Locate, protect and maintain bench marks, monuments, control points and project engineering reference points. Re-establish disturbed or destroyed items at Contractor's expense.

E. Perform site work operations and the removal of debris and waste materials to assure minimum interference with streets, walks and other adjacent facilities.

F. Give the owner 24 hour advanced notice to close or obstruct street, walks and adjacent facilities. Provide alternate routes around closed or obstructed traffic ways.

G. Control dust caused by the work. Dampen surfaces as required. Comply with pollution control regulations of governing authorities.

H. Protect existing buildings, paving and other services or facilities on site and adjacent to the site from damage caused by site work operations. Cost of repair and restoration of damaged items at Contractor's expense.

I. Protect and maintain street lights, utility poles and services, traffic signal control boxes, curb boxes, valves and other services, except items designated for removal. Remove or coordinate the removal of traffic signs, parking meters and postal mail boxes with the applicable governmental agency. Provide for temporary relocation when required to maintain facilities and services in operation during construction work.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 PREPARATION

A. Examine the areas and conditions under which site work is performed. Do not proceed with the work until unsatisfactory conditions are corrected.

B. Consult the records and drawings of adjacent work and of existing services and utilities which may affect site work operations.

END OF SECTION

SECTION 02070
SELECTIVE DEMOLITION

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included: Carefully demolish and remove from the site those items scheduled to be demolished and removed.

B. Related work:
   1. Documents affecting work of this Section include, but are not necessarily limited to Proposal and Contract Documents and Sections in Division 1 of these Specifications.
   2. Section 01510: Site Access.

1.02 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

A. By careful study of the Contract Documents, determine the location and extent of selective demolition to be performed.

B. Visit the site and verify the extent and location of selective demolition required.
   1. Carefully identify limits of selective demolition.
   2. Mark interface surfaces as required to enable workmen also to identify items to be removed and items to be left in place intact.

C. Prepare and follow an organized plan for demolition and removal of items.
   1. Shut off, cap and otherwise protect existing public utility lines in accordance with the requirements of the public agency or utility having jurisdiction.
   2. Completely remove items scheduled to be so demolished and removed, leaving surfaces clean, solid and ready to receive new materials specified elsewhere.

3. In all activities, comply with pertinent regulations of governmental agencies having jurisdiction.

D. Demolished material shall be considered to be property of the Contractor and shall be completely removed from the job site unless otherwise specified.

E. Use means necessary to prevent dust becoming a nuisance to the public, to neighborhoods and to other work being performed on or near the site.

3.02 REPLACEMENTS

A. In the event of demolition of items not so scheduled to be demolished, promptly replace such items to the approval of the Owner at no additional cost to the Owner.

END OF SECTION

SECTION 02100
SITE PREPARATION

PART 1 - GENERAL

1.01 DESCRIPTION

A. Perform site preparation work as shown and specified. The work includes:
   1. Protecting existing trees to remain.
   2. Removing trees and other vegetation.
   3. Removing designated site improvements.

B. Related work:
   Section 01510: Site Access.

1.02 QUALITY ASSURANCE

A. Comply with Section 02000 Site Work requirements.

B. Notify all contractor employees and subcontractors of provisions of this Section.

C. Council of Tree and Landscape Appraisers

PART 2 - PRODUCTS

2.01 MATERIALS

A. Materials and equipment: As selected by the contractor except as noted.

B: Tree protection:
   1. Wood fencing, snow fencing.

PART 3 - EXECUTION

3.01 TREE PROTECTION

A. Protect existing trees scheduled to remain against injury or damage, including cutting, breaking or skinning of roots, trunks or branches; smothering by stockpiled construction materials, excavated materials or vehicular traffic within branch spread.
   1. Protect designated trees with temporary wood or vinyl snow fence enclosure. Provide a minimum 12'-0" radius from center of tree trunk. Increase enclosure size as directed for large trees up to and including the drip line.

2. Erect temporary fencing before commencing site preparation work. Maintain fencing during full construction period. Remove temporary fencing when acceptable to Owner's Representative.
4. Repair trees scheduled to remain and damaged by construction operations in a manner acceptable to the Owner's Representative. Repair damaged trees promptly to prevent progressive deterioration caused by damage.
5. Replace trees scheduled to remain and damaged beyond repair by construction operations as determined by the Owner's Representative with trees of similar size and species of equal dollar value. Cost for tree replacement shall be determined in accordance with the "Guide for Establishing The Value of Trees and Other Plants", published by the Council of Tree and Landscape Appraisers.
6. Tree replacement as required by paragraph 5 shall be in accordance with Specification Section 02900 Trees, Plants and Ground Covers.
7. Replacement of trees scheduled to remain and damaged by construction operations during construction operations, and securing an opinion as to the tree or plant's health and its value, shall be at contractor's expense.
8. Tree loss appraisal shall be in accordance with the "Guide for Establishing the Values of Trees and Other Plants", by the Council of Tree and Landscape Appraisers.

3.02 CLEARING

A. Locate and suitably identify trees and improvements indicated to remain.

B. Clear and grub areas within contract limits as required for site and execution of the work.

C. Remove trees as designated on the plans with the approval of the Owner's Representative.

3.03 STRIPPING TOPSOIL

A. Strip topsoil to its full depth at all areas to be re-graded, resurfaced or paved within contract limit work area.

B. Stockpile topsoil in a location acceptable to the Owner's Representative for use in finish grading and preparation of lawns and planting beds.
   1. Grade and slope stockpiles for proper drainage and to prevent erosion.
   2. No topsoil shall be removed from the site.

C. Protect all areas which are not to be resurfaced or re-graded and adjacent areas outside of the contract limits from damage due to site preparation work.

3.04 SITE IMPROVEMENTS

A. Existing Utilities
   1. Information on the drawings relating to existing utility lines and services is from the best sources presently available. All such information is furnished only for information and is not guaranteed. Excavate test pits as required to determine exact locations of existing utilities.
   2. Call Okie for utility staking not County owned.
   3. Call Owner's Representative to coordinate County maintained utility staking.

3.05 DISPOSAL OF WASTE MATERIALS

A. Stockpile, haul from site and legally dispose of waste materials and debris. Accumulation is not permitted.

B. Maintain disposal routes clear, clean and free of debris.

C. On-site burning of combustible cleared materials is allowed with proper permit and burn pit.

3.06 CLEANING

A. Upon completion of site preparation work, clean area within contract limits, remove tools and equipment. Provide site clear, clean and free of materials and debris and suitable for site work operations.

END OF SECTION

SECTION 02211
ROUGH GRADING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Removal and stockpiling of topsoil and subsoil.
B. Cutting, grading, filling and rough contouring the site.

1.02 RELATED SECTIONS

A. Section 021010 - Site Preparation.
B. Section 02220 - Excavating, Backfilling & Compaction.
C. Section 02265 - Finish Grazing: Finish grading with topsoil to contours.

1.03 REFERENCES

A. Relations of soils and Soil-Aggregate Mixtures, Using 5.5 lb Rammer and 12 inch Drop.
B. ANSI/ASTM D 1556 - Test Method for Density of Soil in Place by the Sand-Cone Method.
C. ANSI/ASTM D1557 - Test Methods for Moisture-Density Relations of soils and Soil-Aggregate Mixtures Using 10 lb. Rammer and 18 inch Drop.

1.04 PROJECT RECORDS DOCUMENTS

A. Submit under provisions of section 01700.
B. Accurately record actual locations of utilities remaining, by horizontal dimensions, elevations or inverts, and slops gradients.

PART 2 PRODUCTS

2.01 SOIL MATERIALS

A. Off-Site Fill: Off-site fill shall be material with plasticity index less than 18 and shall contain at least 15% fines (material passing #200 sieve.)

PART 3 EXECUTION

3. 01 EXAMINATION

A. Verify site conditions.
B. Verify that survey benchmark and intended elevations for the work are as indicated.

3.02 PREPARATION

A. Identify required lines. levels. Contours, and datum.
B. Identity known underground, above ground, and aerial utilities. Stake and flag locations.
C. Notify utility company as necessary to remove and relocate utilities.
D. Protect above and below grade utilities which are to remain.
E. Protect plant life, lawns, rock outcropping and other features remaining as portion of final landscaping.
F. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavation equipment and vehicular traffic.

3.03 TOPSOIL EXCAVATION

A. Excavate topsoil from areas to be further excavated, re-landscaped, or re-graded.
B. Stockpile in area designated on site. Remove excess topsoil not being reused, from site.
C. Do not excavate wet topsoil.
D. Stockpile to depth not exceeding 8 feet. Cover to protect from erosion.

3.04 SUBSOIL EXCAVATION

A. Excavate subsoil from areas to be further excavated, re-landscaped, or re-graded.
B. Stockpile in area designated on site. Remove excess subsoil not being reused, from site.
C. Do not excavate wet subsoil.
D. Stockpile subsoil to depth not exceeding 8 feet. Cover to protect from erosion.
E. When excavation through roots is necessary, perform work by hand and cut roots with sharp axe.

3.05 FILLING

A. Fill areas to contours and elevations with unfrozen materials
B. Granular Fill: Place and compact materials in continuous layers not exceeding 8 inches compacted depth, compacted to 95 percent.

C. Subsoil and Topsoil Fill: Place and compact material in continuous layers not exceeding 9 inches compacted depth compacted to 95 percent.
D. Maintain optimum moisture content of fill materials to attain required compaction density.
E. Slope grade away from building minimum 2 inches in 10 ft, unless noted otherwise.
F. Make grade changes gradual. Blend slope into level areas.
G. Remove surplus fill materials from site.

3.06 TOLERANCES

A. Top Surface of Subgrade: Plus or minus 1/10 foot.

3. 07 FIELD QUALITY CONTROL

A. Field inspection and testing will be performed under provisions of Section 01410.
B. Tests and analysis of fill materials will be performed in accordance with ANSI/ASTM D698 D1557 and with Section 01410.
C. Compaction testing will be performed in accordance with ANSI/ASTM D968 and with Section 01410.
D. If test indicate Work does not meet specified requirements, remove work, replace and retest at no cost to owner.
E. Frequency of Test: 50 feet on center.

END OF SECTION

SECTION 02220
EARTHWORK

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included: Excavate, backfill, compact and grade the site to the elevations shown on the drawings as specified herein and as needed to meet the requirements of the construction shown in the Contract Documents.

B. Related work:
1. Documents affecting work of this Section include, but are not necessarily limited to, Proposal and Contract Documents and Sections in Division 1 of these Specifications.
2. Section 01510: Site Access.

1.02 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Use equipment adequate in size, capacity and numbers to accomplish the work of this Section in a timely manner.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS

A. Fill and backfill materials:

1. Provide soil materials free from organic matter and deleterious substances, containing no rocks or lumps over 6” in greatest dimension and with not more than 15% of the rocks or lumps larger than 2-1/2” in their greatest dimension.
2. Fill material is subject to the approval of the Owner’s Representative and is that material removed from excavations or imported from off-site borrow areas, predominantly granular, non-expansive soils free from roots and other deleterious matter.
3. Do not permit rocks having a dimension greater than 1” in the upper 12” of fill or embankment.
4. Where fill material is required to build up a building pad and/or under building slabs, provide select low PI material. Select fill material used should be free of organic or other deleterious matters, have a maximum particle size of three (3) inches, and have a liquid limit less than thirty-five

(35) and a plasticity index between six (6) and twelve (12) and consist of sandy clays or clayey sands.

5. Where granular base is called for under building slabs, provide aggregate complying with requirements of Section 03300 of these Specifications.

2.02 TOPSOIL

A. Where shown on the drawings or otherwise required, provide topsoil consisting of friable fertile soil of loamy character containing a minimum of 2% decayed organic matter (humus) normal to the region, capable of sustaining healthy plant life and reasonably free from subsoil, roots, heavy or stiff clay, stones larger than 1" in greatest dimension, noxious weeds, sticks, brush, litter and other deleterious matter.

B. Obtain topsoil from sources within the project limits or provide imported topsoil obtained from sources outside the project limits or from both sources.

2.03 OTHER MATERIALS

A. Provide other materials not specifically described but required for complete and proper installation as selected by the Contractor subject to the approval of the Owner's Representative.

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

A. Utilities: Refer to Section 2000 Site Work.

B. Protection of persons and property:

1. Barricade open holes and depressions occurring as part of the work and post warning lights on property adjacent to or with public access.
2. Operate warning lights during hours from dusk to dawn each day and as otherwise required.
3. Protect structures, utilities, sidewalks, pavements and other facilities from damage caused by settlement, lateral movement, washout and other hazards created by operations under this Section.

C. De-watering:

1. Remove all water, including rain water, encountered during trench and sub-structure work to an approved location by pumps, drains and other approved methods.
2. Keep excavations and site construction area free from water.

D. Use means necessary to prevent dust becoming a nuisance to the public, to neighbors and to other work being performed on or near the site.

E. Maintain access to adjacent areas at all times.

3.02 EXCAVATING

A. Perform unclassified excavating of every type of material encountered within the limits of the work to the lines, grades and elevations indicated and specified herein.

B. Excavation of rock:
   1. Where rocks, boulders, or similar material is encountered and where such material cannot be removed or excavated by conventional earth moving or ripping equipment, take required steps to proceed with the general grading operations of the work and remove or excavate such material by means which will neither cause additional cost to the Owner nor endanger buildings or structures whether on or off the site.
   2. Do not use explosives without written permission from the Owner's Representative.
   3. The definition of "Rock Excavation" will apply as stated in the "Standard Specifications for Highway Construction", Oklahoma Department of Transportation, edition of 1988 or latest revision.

C. Excavate and backfill in a manner and sequence that will provide proper drainage at all times.

D. Borrow:
   1. Obtain material required for fill or embankment in excess of that produced within the grading limits of the work from borrow areas selected and paid for by the Contractor and approved by the Owner's Representative.
   2. Grade borrow areas upon completion to provide complete surface drainage and to blend with surrounding contours.
   3. Contractor is required to excavate sufficient material to construct contours and features as per plans. Payment of all excavation will be paid as a lump sum.

E. Surplus material:
   1. Owner's Representative will direct contractor in the placement of surplus excavated material.
   2. Surplus material will be used on the project or stored on site at a location approved be the Owner's Representative.

F. Swales, ditches and gutters:
   1. Cut accurately to the cross sections, grades and elevations shown on the grading plans.
   2. Maintain excavations free from detrimental quantities of leaves, sticks, trash and other debris until completion of the work.
   3. Swales and ditches shall be smooth in nature to accommodate standard mowing practices and equipment.

G. Unauthorized excavation:
   1. Unauthorized excavation consists of removal of materials beyond indicated sub-grade elevations or dimensions without specific instruction from the Owner's Representative.

2. Under footings, foundations or retaining walls:
    a. Fill unauthorized excavations by extending the indicated bottom elevation of the footing or base to the excavation bottom without altering the required top elevation.
    b. When acceptable to the Owner's Representative, lean concrete fill may be used to bring the bottom elevation to proper position.
3. Elsewhere, backfill and compact unauthorized excavations as specified for authorized excavations, unless otherwise directed by the Owner's Representative.

H. Stability of excavations:
1. Slope sides of excavations to 1:1 or flatter, unless otherwise directed by the Owner's Representative.
2. Shore and brace where sloping is not possible because of space restrictions or stability of the materials being excavated.
3. Maintain sides and slopes of excavations in a safe condition until completion of backfilling.

I. Excavating for structures:
1. Conform to elevations and dimensions shown within a tolerance of 0.10 ft and extending a sufficient distance from footings and foundations to permit placing and removing concrete formwork, installation of services, other construction required and for inspection.
2. In excavating for footings and foundations, take care not to disturb bottom of excavation:
    a. Excavate by hand tools to final grade just before concrete is placed.
    b. Trim bottoms to required lines and grades to leave solid base to receive concrete.
3. Excavate for footings and foundations only after general site excavating, filling and grading are complete.

J. Cold weather protection:
1. Protect excavation bottoms against freezing when atmospheric temperature is less than 35 degrees F.

K. Excavating for detention ponds:
1. The exposed sub-grade of pond areas shall be scarified to a minimum depth of 8 inches. Before compaction, the scarified soils shall be adjusted to within a moisture content range of plus or minus 2 percent of optimum moisture content.

3.03 FILLING AND BACKFILLING

A. General:

1. For each classification listed below, place acceptable soil material in layers to required sub-grade elevations.
2. In excavations:
   a. Use satisfactory excavated or borrow material.
3. Building pads and/or under building slabs:
   a. Provide Select low PI material to build up building pad and slab to elevations called out on the drawings. If the material on site is not suitable, the select material will need to be imported from off site.
   b. Use granular fill, if so called for on the drawings or soils report, complying with aggregate acceptable under Section 03300 of these Specifications.

B. Ground surface preparation:
1. Remove vegetation, debris, unsatisfactory soil materials, obstructions and deleterious matter from ground surface prior to placement of fills.
2. Plow, strip or break up sloped surfaces steeper than one vertical to four horizontal so that fill material will bond with existing surface.
3. When existing ground surface has a density less than that specified under "compacting" for the particular area, break up the ground surface, pulverize, moisture-condition to the optimum moisture content and compact to required depth and percentage of maximum density.

C. Placing and compacting:
1. Place backfill and fill materials in layers not more than 8" in loose depth.
2. Before compacting, moisten or aerate each layer as necessary to provide the optimum moisture content.
3. Compact each layer to required percentage of maximum density for area. Compact per paragraph 3.05 A., B. and C. this Section.
4. Do not place backfill or fill material on surfaces that are muddy, frozen or containing frost or ice.
5. Place backfill and fill materials evenly adjacent to structure's required elevations.
6. Take care to prevent wedging action of backfill against structures by carrying the material uniformly around the structure to approximately the same elevation in each lift.

3.04 GRADING

A. General:
1. Uniformly grade the areas within limits of grading under this Section, including adjacent transition areas.
2. Smooth the finished surface within specified tolerance.

3. Compact with uniform levels or slopes between points where elevations are shown on the drawings or between such points and existing grades.
4. Where a change of slope is indicated on the drawings, construct a rolled transition section having a minimum radius of approximately 8'-0" unless adjacent construction will not permit such a transition or if such a transition defeats positive control of drainage.

B. Grading outside building lines:
1. Grade adjacent to buildings to achieve drainage away from the structures and to prevent ponding.
2. Finish the surfaces to be free from irregular surface changes, and:
a. Shape the surface of areas scheduled to be under walks to line, grade and cross-section with finished surface not more than 0.10 ft above or below the required sub-grade elevation.
b. Shape the surface of areas scheduled to be under pavement to line, grade and cross-section, with finished surface not more than 0.05 ft above or below the required sub-grade elevation.

3.05 COMPACTING

A. Control soil compaction during construction to provide the minimum percentage of density specified for each area as determined according to ASTM D1557. All areas are to achieve a 95% proctor density minimum, and an 85% proctor density for the final lift in sod and planting areas only.
B. Provide not less than the following maximum density of soil material compacted at optimum moisture content for the actual density of each layer of soil material in place and/or as specified by the Soil Engineer's report.
1. Structures:
a. Compact the top 8" of sub-grade and each layer of fill material or backfill material at 98% of maximum density unless otherwise called out in the plans or soils report.
2. Lawn and unpaved areas:
a. Compact the top 8" of sub-grade at 85% of maximum density, all other layers of fill material or backfill material are to be 95% of maximum density. The top 8" of sub-grade in lawn areas is not to exceed 90% of maximum density.

3. Walks
a. Compact the top 8" of sub-grade and each layer of fill material or backfill material at 95% of maximum density unless otherwise called out in the plans or soils report.
4. Pavements:
a. Compact the top 8" of sub-grade and each layer of fill material or backfill material at 95% of maximum density unless otherwise called out in the plans or soils report.

C. Moisture control:
   1. Soil material that has been removed because it is too wet to permit compacting may be stockpiled or spread and allowed to dry. Assist drying by disking, harrowing or pulverizing until moisture content is reduced to a satisfactory value as determined by moisture-density relation tests approved by the Owner's Representative.

3.06 TREATED SUBGRADE

A. All parking lot pavement sub-grade shall be treated in accordance the plans and Engineers Soils Report.

3.07 FIELD QUALITY CONTROL

A. Secure Owner's Representative's inspection and approval of sub-grades and fill layers before subsequent construction is permitted thereon.
B. Provide at least the following tests to the approval of the Owner's Representative.
   1. At paved areas, a minimum of one field density test for every 7,500 square feet, but a minimum of three tests for all areas or as requested by the Owner's Representative. Testing to be paid for by the City.
   2. At lawn and unpaved areas, at least one field density test for every 20,000 square feet, but a minimum of three test for all areas or as requested by the Owner's Representative. Testing to be paid for by the City.
   3. Sub-grade shall be checked for stability even though it may meet the compaction requirements. The check for stability shall be proof rolling with a large roller or loaded dump truck and visual observation to insure that there is no pumping of the sub-grade.

C. If, in the Owner's Representative's opinion based on reports of the testing laboratory, sub-grade or fills which have been placed are below specified density, provide additional compacting and testing under the provisions of Section 01410 of these Specifications. Re-testing of areas that failed and have to be re-tested to be paid for by the contractor.

3.08 MAINTENANCE

A. Protection of newly graded areas:
   1. Protect newly graded areas from traffic and erosion and keep free from trash and weeds.
   2. Repair and reestablish grades in settled, eroded and rutted areas to the specified tolerances.

B. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify the surface, reshape and compact to the required density prior to further construction.

3.09 CERTIFICATION

A. Upon completion of this portion of the work and as a condition of its acceptance, deliver to the Owner's Representative a written report certifying that the compaction requirements have been obtained. State in the report the area or fill or embankment, the compaction density obtained and the type or classification of fill material placed.

END OF SECTION

SECTION 02265
FINISH GRADING

PART 1 GENERAL

1.01 WORK INCLUDED

A. Finish grade subsoil.

B. Place, level, and compact topsoil.

1.02 RELATED WORK

A. Section 02211 - Rough grading subsoil to site contours.

B. Section 03300 – Cast In Place Concrete

1.03 PROTECTION

A. Protect landscaping and other features remaining as final work.

B. Protect existing structures, fences, sidewalks, paving and curbs.

PART 2 PRODUCTS

2.01 MATERIALS

A. Topsoil: Imported, see Section 02220 – Excavating, Backfilling and Compaction; and 02934 – Sodding.

PART 3 EXECUTION

3.01 INSPECTION

A. Verify site conditions and note irregularities affecting work of this Section.

B. Beginning work of this Section means acceptance of existing conditions.

3.02 SUBSOIL PREPARATION

A. Eliminate uneven areas and low spots. Remove debris, roots, branches, and stones, in excess of ½ inch in size. Remove subsoil contaminated with petroleum products.

3.03 PLACING TOPSOIL

A. Place topsoil in areas where earth or no other building or paving is scheduled on the drawings.

B. Use topsoil in relatively dry state. Place during dry weather.

C. Fine grade topsoil eliminating rough or low areas. Maintain levels, profiles, and contours of subgrade.

D. Remove stone, roots, grass, weeds, debris, and foreign material while spreading.

E. Manually spread topsoil around trees, plants, building, and concrete curbs to prevent damage.

F. Remove surplus subsoil and topsoil from site.

G. Leave stockpile area and site clean and raked, ready to receive landscaping.

3.04 TOLERANCES

A. Top of Topsoil: Plus or minus 1/10 ft.

END OF SECTION

SECTION 02400
SITE DRAINAGE

PART 1 - GENERAL

1.01 DESCRIPTION

A. Provide site drainage as shown and specified. The work includes:
   1. Drainage structures and piping.
   2. Excavating and backfilling site drainage work.

B. Related work:
   Section 01510: Site Access.
   Section 02200: Earthwork

1.02 QUALITY ASSURANCE

A. Comply with Section 02000 Site Work requirements.

B. Materials and methods of construction shall comply with the following:
   1. Oklahoma Department of Transportation Standards and Specifications.
   2. American Society for Testing and Materials ASTM).
   3. American Association of State Highway and Transportation Officials (AASHTO).
   4. American Concrete Pipe Association (ACPA).

C. Excavating, backfilling and compacting operations: Comply with Section 02220 requirements and as specified.

D. Obtain acceptance of Owner's Representative of installed and tested site drainage system prior to installing backfill materials.

E. Identify all existing underground utilities and their location.

1.03 SUBMITTALS

A. Comply with Provisions of Section 01340.

B. Provide site drainage record drawings:
   1. Legibly mark drawings to record actual construction.
   2. Indicate horizontal and vertical locations, referenced to permanent surface improvements.
   3. Identify field changes of dimension and detail and changes made by Change Order.

C. Provide manufacturer's product data for each type of pipe material.

1.04 PROJECT CONDITIONS

A. Known underground and surface utility lines are indicated on the drawings.

B. Protect existing trees, plants, lawns and other features designated to remain as part of the landscape work.

C. Protect excavations by shoring, bracing, sheeting, underpinning or other methods as required to prevent cave-ins or loose dirt from entering excavations. Barricade open excavations and post warning lights at work adjacent to public streets and walks in accordance with OSHA requirements.

D. Underpin adjacent structure(s) including utility service lines which may be damaged by excavation operations.

E. Promptly repair damage to adjacent facilities caused by site drainage earthwork operations. Cost of repair at Contractor's expense.

F. Promptly notify the Owner's Representative of unexpected subsurface conditions.

PART 2 - PRODUCT

2.01 MATERIALS

A. Site drainage piping: Provide types and sizes indicated. Provide matching couplings, fittings and accessory components to ensure continuity of the site drainage system.
   1. Reinforced concrete pipe fittings: ASTM C76, Class IV pipe or of equal strength sufficient to attain D-load, 0.01" of 2,000 lbs. with ASTM C443 "O" ring seals or compression type rubber gasket joints. Sizes to 10" diameter may be non-reinforced with equivalent strength.
   2. Corrugated Polyethylene Tubing: ASTM F405 and F667. A product which meets this specification is ADS N-12 perforated corrugated polyethylene tubing by Advanced Drainage Systems, Inc., Columbus, Ohio or conform to AASHTO M252.

B. Trench drains, manholes, catch basins, inlets: Provide type and sizes indicated.
   1. Frames, grates and covers: ASTM A48 grey cast iron, asphalt coated.
   2. Concrete masonry units: ASTM C139.
   3. Brick: ASTM C32, grade MS.
   4. Precast concrete manhole barrels and cones: ASTM C478, 5" wall thickness with ASTM C443 "O" ring gasket joints.

5. Mortar:
   a. Mortar for jointing concrete pipe and for laying and parging concrete masonry:
      1 part Portland cement and 2 parts sand.
   b. Mortar for brickwork: 1 part Portland Cement, 1/2 part hydrated lime and 4-1/2 parts sand.

C. Fine granular fill: Clean natural sand.

D. Course granular fill: ¾" crushed limestone.

E. Concrete: 3,000 psi air entrained concrete complying with requirements of Section 03300 Cast-In-Place Concrete.

F. Earth fill: Natural sandy-clay subsoil, soil-rock mixtures, or approved excavated materials, free of foreign matter, organic material and debris.
   1. Excavated materials removed in site drainage trenching operation may be used as backfill when acceptable to the Owner's Representative.

G. Soil separator: Rot resistant polypropylene filter fabric, permeable and unaffected by freezing and thawing.

PART 3 - EXECUTION

3.01 DESCRIPTION

A. Lay out site drainage work and establish extent of excavation by area and elevation. Designate and identify datum elevation and project engineering reference points. Set required lines, levels and elevations.

B. Do not cover or enclose work of this Section before obtaining required inspections, tests, approvals and location recording.

C. Remove existing paving, including base material, as required to accommodate site drainage work. Saw cut existing paving to provide uniform straight transition at intersection of new to existing paving.

3.02 EXISTING UTILITIES

A. Conform to Section 02000 Site Work.

3.03 INSTALLATION

A. Perform excavating and backfilling as required to install site drainage work.

B. Provide trench wall support and pumping of surface and ground water as required to provide suitable conditions.

C. Excavate trenches to accommodate indicated bedding conditions and material. Trim and shape trench bottoms to proper line and grade, free of irregularities. Remove unstable material and replace with compacted fill.

D. Install site drainage system true to grade and alignment indicated.
   1. Provide necessary equipment for lowering pipe safely into trenches. Handle pipe and accessories to prevent damage. Damaged materials replaced at Contractor's expense.
   2. Do not place pipe in water, nor when trench or weather is unsuitable for site drainage.
   3. Remove all dirt and foreign material from pipe before installation. Provide bulkheads as required to prevent entrance of dirt or water after installation.
   4. Lay and fit pipe sections to provide a smooth, uniform invert, with sealed joints and full bearing in bedding material. Provide continuous fall in flow direction.
   5. Excavate bell holes under each bell to ensure uniform bedding for all types of bell and spigot piping.
   6. Install pipe joint gaskets in accordance with manufacturer's instructions. Install concrete pipe in accordance with ACPA "Concrete Pipe Field Manual".
   7. Cut pipe ends entering structures flush with inner face of structures.
   8. Provide soil separator over granular backfill at perforated site drainage piping.
   9. Extend site drainage system to outfall indicated and make required connection.
   10. Obtain required inspections and perform testing prior to backfilling. Remove obstructions, replace damaged components and retest as required. Provide a satisfactory free flowing drainage system.
   11. Sub-drain pipe installation: Conform to AASHTO M252-851.

E. Backfill trenches with an approved backfill material, free from large clods, stones and debris.
   1. Backfill trenches in 8" compacted layers until there is a cover of not less than 24" over piping. Place remaining backfill material in 12" compacted layers.
   2. Backfill evenly on both sides of piping for full depth. Provide thorough compaction of fill under pipe haunches.
   3. Provide granular backfill at all paved areas.
   4. Provide concrete encasement where indicated.

F. Mechanically compact backfill. Water settling, puddling and jetting as a compaction method are not acceptable.

G. Fill, compact and restore to original level and condition all settlement.

H. Replace paving, lawns and finished surfaces removed to accommodate the site drainage system, except where new surfaces are provided as part of the work.

I. Construct trench drains, catch basins, manholes, inlets and other drainage structures as indicated.
   1. Install drainage structures on a sound cast-in-place or pre-cast segmented concrete base.
   2. Lay radial and batter concrete masonry with full mortar joints completely filled with Portland cement mortar. Strike joints flush with surface of concrete masonry.
   3. Horizontal joints shall not exceed 1/2". Vertical joints shall not exceed 1/4" on their interior surface.
   4. Provide headers where required to adjust frames to grade, breaking joints between courses.
   5. Parge inside and outside face of masonry structure walls with 1/4" mortar.
   6. Construct flow channels with concrete or brick conforming to the inside diameter of connecting lines. Make changes in grade gradually and make changes in line with true curves.
   7. Set frames and covers to required grade and bed in place with mortar.
   8. Cold weather protection: Provide all necessary means for heating concrete, masonry materials and mortar to protect concrete and masonry work during and after installation from damaged by frost and freezing.
   9. Perform no work when the temperature is below 25 degrees F. (ambient).

3.04 DISPOSAL OF WASTE MATERIALS

A. Transport excess excavated materials, including rock, to designated disposal area on Owner's property. Stockpile or spread as directed. Remove from site and legally dispose of trash and debris.

3.05 CLEANING

A. Maintain site drainage piping and structures in workable condition during construction operations.

B. Flush site drainage system with water in sufficient volume to obtain free flow through each line. Remove all silt, trash and debris just prior to acceptance of work.

C. Upon completion of site drainage work, remove tools and equipment. Provide site clear, clean, free of debris and suitable for site work operations.

END OF SECTION

SECTION 02800
PLAYGROUND EQUIPMENT

PART 1 -- GENERAL

1.01 DESCRIPTION

A. Provide and install play equipment as shown on the schematic drawings and as specified herein, complete in place, tested and approved, including but not limited to:
   (1) Playground equipment
   (2) Concrete footings

1.02 QUALITY ASSURANCE

A. All playground equipment, safety surfacing and installation of equipment and safety surfacing shall be manufactured to conform to the guidelines of the most recent U.S. Consumers Product Safety Commission Guidelines and ASTM F1487 Standard for playground safety and accessibility.

B. Manufacturers shall provide an insurance certificate on both product and General liability of not less than one million dollars. The issuing underwriter Insurer shall have a current Best's Key Rating Guide Policyholders Rating of "A" or above, and Best's Financial Size Group must be indicated. The Manufacturer's Insurer shall comply with the general laws and duly constituted authorities of the State of Oklahoma. Proof of Insurance Certificates shall be submitted with playground equipment submittals prior to purchase and installation of equipment.

C. Manufacturers shall provide a minimum one-year warranty from the date of final acceptance on materials and workmanship, with an additional ten-year warranty on post and deck integrity.

D. The General Contractor shall be required to provide a Warranty Validation Certificate made out to the Owner from the Manufacturer of both the playground equipment and the safety surfacing which states the installation of all playground equipment and safety surfacing meets or exceeds the most recent Consumer Products Safety Commission's (CPSC) Playground Equipment Guidelines and ASTM F1487, Safety and Accessibility Standard.

E. All playground equipment shall be constructed to meet or exceed the most recent U.S. Consumer Products Safety Commission Guidelines and ASTM standards for protrusions. All nuts and bolts shall be recessed.

B. Manufacturer shall provide maintenance schedule and estimate the frequency with which inspection and maintenance should be performed.

G. Installer's Qualifications:

1. The playground equipment and safety surface installation shall be done by a Manufacturer's Certified installer or workmen supervised by a representative of the playground equipment manufacturer. See 1.02 (D) for certification requirements for installation. Equipment will not be accepted without certification being submitted prior to request for acceptance by General Contractor.

2. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the requirements and the methods needed for proper performance of the work of this section.

1.03 SUBMITTALS

A. Prior to installation, submit manufacturer's installation instructions.

B. Prior to installation, submit manufacturer's checklist for site verification that equipment is installed in accordance with manufacturer's requirements.

C. Prior to ordering equipment, submit manufacturer's plan view drawing of the equipment with the manufacturer's recommendations for depth of surfacing for each event and the minimum fall zone for all play components or systems. All playground equipment, components, swings, spring animals and free-standing climbers or other incidental equipment shall be shown to scale and must fit within the area shown on the drawings including ASTM fall zones and the perimeter clear zone. Modifications to the playground during installation to make the equipment fit into the concrete border will be at the expense of the contractor. **The playground layout submittal of the equipment, as it fits in the designed perimeter border, must be approved by the Landscape Architect and City prior to any sitework beginning.**

D. After installation, submit touch-up paint of each color specified. Color of materials to be selected by Parks and Recreation Department from those available from the Manufacturer.

PART 2-- PRODUCTS

2.01 MATERIALS

METAL EQUIPMENT

A. Deck support posts shall be of 5" O.D. round posts constructed from galvanized steel, powder coated at the factory. They shall have caps that are factory installed and secured. All steel pipe shall be hot dipped in zinc for a

uniform galvanizing. The interior of pipes shall be sprayed with a zinc-rich cold galvanizing compound or otherwise treated with a galvanizing process. The components shall be free of excess weld splatter and shall be cleaned in a three-bath system which shall include a rust-inhibitive iron phosphate wash prior to painting.

B. All steel components (excluding slides) shall be painted with an electrostatically applied polyester powder coating which shall be cured at temperatures between 400 and 500 degrees Fahrenheit.

C. Decks shall be constructed from steel plate, coated with a U.V. stabilized, poly-vinyl-chloride and oven cured coating. Center dimension of deck width shall not be less than 46 inches.

D. All platform protective barriers and safety rails shall be made of vertical metal tubing. Plastic Panels must be approved by Representatives of the Parks and Recreation Department.

E. All slides shall be plastic (see below for description). Owner will allow the spiral slide to be proposed as a steel slide beds. If proposed, they shall be constructed of 16 gauge reinforced stainless steel with more than one part being connected with lap joints. The orientation of the slide shall not be facing south in any manner. **All tunnel slides shall be 30 inch diameter or larger.**

F. Chains may be used in playground components, climbers, tire swings or belt swings. All chain used in playground components shall be 5/0 steel welded links, with no vinyl coating.

G. All moving joints shall be constructed using bearings. Metal-to-metal "S" hooks are not acceptable.

H. Belt swings shall be made of heavy molded rubber with metal insert and reinforcing metal cables.

I. Posts, decks or other components made of wood are not acceptable.

J. The deck heights shown on the drawings are schematic. Final heights may vary slightly according to manufacturer. However, the separation between decks shall be 8 inches or less (unless otherwise shown) and must provide a kick barrier to meet current CPSC and ASTM F-1487 standards for entrapment.

K. All spring play events shown on plans shall be constructed of aluminum.

PLASTIC EQUIPMENT

A. All rotationally molded plastic parts shall be molded of a linear low density polyethylene that is U.V. and color stabilized. Wall thickness may vary by product from .187"(3/16") to .312" (5/16"). Rotationally molded products shall meet or exceed tensile strength of 2200 psi.

B. Plastic slides are to be constructed of rotationally molded polyethylene with ultraviolet (UV) light stabilizers with the color molded in. All dimensions for slide sides, exits, and protrusions shall meet, or exceed, CPSC and ASTM F-1487 guidelines.

KNOWN ACCEPTABLE PLAYGROUND EQUIPMENT :
A. See Construction Drawings

C. Other playground equipment manufacturers may be considered if they meet the basic specification as described above. Contractor must submit manufacturers' product data a minimum of 7 days prior to the bid date to be considered as meeting the intent of the specifications. See "Instruction to Bidders", Section 3.3, or contact City Engineer's Office for substitutions.

PART 3-- EXECUTION

3.01 INSPECTION

A. Verify gradients and elevations of sub-base, base, curbs and drainage are correct

.

B. Beginning of installation means acceptance of sub-base, curbs and drainage by City. **The playground equipment for each location shall be completely installed with safety surface placed, within 20 working days, once installation begins, barring weather delays.**

3.02 INSTALLATION

A. Install play equipment with a minimum setback of seven feet from the edge of playground surfacing material. Install higher and moving equipment with setbacks per manufacturer's recommendations and the most recent U.S. Consumer Products Safety Commission guidelines.

B. Tops of playground footings shall be smooth with a radius where the top transitions to the sides of the footing. Footings shall be covered with the same depth of playground surfacing material as the rest of the play area.

C. Playground equipment shall have light colored grab bars located at corners or positioned to help children enter a new play area or event. Grab bars shall be provided at every transfer point.

D. Play equipment shall be configured so that children with hearing or visual disabilities can see potential hazards and other children playing on the equipment. Any change from the playground layout concept provided in the details shall be submitted and approved by the City Parks and Recreation Department.

E. Playground materials and construction shall conform to the most current U.S. Consumer Products Safety Commission Guidelines and ASTM F1487 Safety and Accessibility Standard. Surface material must meet the peak deceleration requirements in accordance with procedures described in ASTM F1292 " A Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment".

F. In the event the play equipment and the playground surfacing materials are not installed and completed on the same day, the play equipment shall be barricaded and signed sufficiently to prevent play, or access by the public, until the playground surfacing materials are completely installed. Acceptable fence includes T-posts with four-foot height orange snow fence attached completely encircling play area.

G. Contractor is responsible for receiving, storing and protecting play equipment as it is delivered from the manufacturer. Mistakes in shipping shall be remedied by the Contractor prior to installation. Equipment damaged or improperly stored at the site during installation is the responsibility of the Contractor. Contractor shall be responsible for replacing damaged equipment vandalized during installation.

H. The play area subbase shall have positive drainage to the underdrain and to accommodate the specific site grading. Decks shall be level and uprights plumb. No equipment will be accepted if improperly installed.

I. Playground Equipment (decks, slides, climbers, uprights, ramps, etc.) installed incorrectly or at improper heights (according to the submittals) shall be reinstalled at the Contractor’s expense. The heights shall be based on the approved submittals with the finish grade of the safety surface two inches below the level of the perimeter border (see plan details). Slide exits shall meet the manufacturer’s requirements for clearance and be based upon the finish grade of the safety surface in relation to the border.

3.03 REPLACEMENTS

A. In the event equipment delivered to the site is damaged or improperly installed, the Contractor shall be responsible for replacing such equipment to the satisfaction of the City Engineer at no additional cost to the City.

B. Contractor is responsible, during installation, for providing temporary safety fencing around playground equipment components, climbers, etc. sufficient to keep children from playing on unfinished or unsecured play equipment. Partially installed equipment scarred or damaged due to lack of protection during installation will be replaced to the manufacturers' requirements at the expense of the Contractor with no additional expense to the City.

END OF SECTION

SECTION 02806
POURED IN PLACE PLAYGROUND SURFACE MATERIAL

PART 1 -GENERAL

1.01 DESCRIPTION

A. Provide and install rubber playground surfacing material as shown on the Drawings and as specified herein, complete in place, tested and approved, including but not limited to:
   (1) poured-in-place playground surface
   (2) cast-in-place concrete
   (3) playground equipment

1.02 RELATED WORK:

Section 02220:	Earthwork.
Section 02800:	Playground Equipment
Section 02805:	Playground Surfacing.
Section 03300:	Cast-in-place Concrete

1.03 QUALITY ASSURANCE

A. Manufacturers shall be required to provide a Manufacturer's Certificate of Compliance with the most recent Consumer Products Safety Commission's Playground Equipment Guidelines, in accordance with Procedure C of ASTM F-355, 'Shock Absorbing Properties of Play Surface Systems and Materials'. Playground surfacing materials and construction shall conform to the most current U.S. Consumer Products Safety Commission Guidelines and ASTM F1487 Safety and Accessibility Standard. Surface material must meet the peak deceleration requirements of the CPSC Guidelines in accordance with procedures described in ASTM F1292 "A Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment.' Manufacturer shall provide proof of Product Liability Insurance of at least one million dollars.

B. Installer’s Qualifications:

(1.) Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts, and who are completely familiar with the requirements and the methods needed from proper performance of the work of this section.

1.04 SUBMITTALS

A. Contractor shall submit the following samples, certificates or test results prior to use on the project.
   1. Product data on rubber surface.
   2. Product data on binder.
   3. Product data on primer.

B. Other manufacturer's may be considered if they meet the basic specification as described in this section. Contractor must submit manufacturers' product data and product sample to the Parks and Recreation Department a minimum of 7 days prior to bid date to be considered as meeting the intent of the specifications.

PART 2 – PRODUCTS

A.01 MATERIALS

A. Color of base mat to be black and color of top surface to be indicated by Parks and Recreation Department plans during submittal stage of project. The top surface, shall be a maximum of 25% black unless otherwise approved by the Landscpae Architect.

B. Warranty, Two(minimum) year warranty from manufacturer.

C. Concrete shall conform to Section 03300, Cast-in-Place Concrete (3500 psi).

PART 3 – EXECUTION

3.01 INSPECTION

A. Verify that gradients and elevations of sub-base are correct. Subgrade shall provide a 2% slope in the direction indicated on the plans.

B. Verify that the Concrete base has been allowed to cure a minimum of 28 days prior to applying the poured-in-place surfacing.

C. Beginning of installation means acceptance of sub-base.

3.02 INSTALLATION

A. Stake layout for concrete base. This shall occur after the installation of the play structure. If adjustments in the layout are required as a result of the play structure location, notify owner prior to installation.

B. Refer to Section 03100 Cast-in-Place Concrete for construction methods of the base. Pavement shall be width and extent shown on the plans.

C. All joints that occur under Pour-in-Place surfacing shall not be edged.

D. At the expansion joints, trim preformed expansion joint filter with sharp chisel ¼" below the concrete surface.

E. Install Poured-in-Place resilient surface as per manufacturer's instructions and to the patterns, colors and dimensions shown on the plans.

F. Contractor shall place temporary barricades and fencing to prevent the public from using the play equipment while the concrete pavement is curing. The contractor shall inspect the barricades and fences daily to ensure they are not damaged or altered by the public and shall be adjusted by the contractor as needed.

END OF SECTION

SECTION 02870
SITE FURNISHINGS

PART I - GENERAL

1.01 DESCRIPTION

A. Work Included: Provide site furnishings where shown on Drawings, as specified herein, and as needed for a complete and proper installation of the following:

1. Park Benches
2. Picnic Tables
3. Trash Receptacles
4. Bike Racks

B. Related work:
Section 03300: Cast-in-Place Concrete.

1.02 QUALITY ASSURANCE

A. Set items in a timely manner in accordance with Manufacturer's recommendations.

B. PVC coating material shall be of the highest grade resin coating with plasticizers and stabilizers added to insure resistance to fading and shall be thermally fused and adhered to a primer that is thermally cured onto galvanized steel. Vinyl properties, when applied at 250 mils, shall be as follows:

1. Specific Gravity	ASTM-D792	1.30 Max. +/-.03
2. Hardness Durometer	ASTM-D676	A90 +/- *5*
3. Tensile Strength	ASTM-D412	2600 +/- 5%
4. Ultimate Elongation	ASTM-412	275% +/- *5%*
5. Dielectric Strength	ASTM-D149	750
6. Compress & Cut through Lbs.	Bell Labs	1500
7. Accelerated Aging Test	ASTM-D1499	1500 Hrs @ 145° F

No degradation of PVC powder when exposed to 500,000 langleys of ultraviolet exposure time using a fresenel-reflecting concentration employed in the EMMAQUA test method in accordance with ASTM-E838, ASTM-D4364 and ASTM-D4141.

In addition to the above, the PVC material shall be impervious to the following alkalies, acids and oils: Sulfuric acid, hydrochloric acid, citric acid, sodium hydroxide, petroleum, mineral and synthetic urine.

1.03 SUBMITTALS

A. Comply with provisions of Section 01340.
B. Samples:

Accompanying the Shop Drawings, submit samples of all finishes including actual materials on suitable substrates for true representation of color and textures of products called out under this Section.

1.04 DELIVERY, STORAGE AND HANDLING

A. Deliver materials to the site in Manufacturer's original, unopened packaging.

B Components should be covered or otherwise protected to prevent any use until after final inspection.

PART 2 - PRODUCTS

2.01 PICNIC TABLES

A. Vinyl Clad Picnic Table (6'0"): Overall size to be 59-1/4" wide x 29" high x 6 ft. long. Seat height above ground to be 17". Table top width to be 29". Picnic table leg frame shall be fabricated from 2-3/8" O.D. iron pipe and shall be electrically welded into a one piece end frame. Frame shall be walk-through design. All bends are to be on a 4-13/16" inside radius. No pipe or metal parts shall extend past the outside edge of the seat. All table top and seat mounting brackets shall be fabricated from 3/16" x 6" steel plate bent at 90 degrees to form a 4" x 2"angle. All table top and seat mounting brackets shall be precision punched. For safety, all mounting brackets shall be rounded to a l 1/2" radius on all comers of surfaces in a vertical plane. Cross braces shall consist of 1-5/16" O. D. galvanized iron pipe with ends flattened, punched and rounded to a 1-1/2" radius.

Frame shall be finished with a dry polyester powder, baked to a high gloss finish. Seats and tops shall be fabricated on 9 GA unflattened, expanded galvanized steel sheets. Framing for seats and tops shall consist of 10 GA angle steel, electrically welded to the expanded steel sheet. Seats and tops shall be coated with polyvinyl chloride to a thickness of no less than 1/8", oven cured for a durable, easily cleaned finish. Manufacturer and model as called out on plans. Color to be selected from Manufacturer's standard colors as directed by Owner's Representative.

B. Handicap Accessible Vinyl Clad Picnic Table (8'-O'): Overall size to be 59-1/4" wide x 29" high x 8 ft. long, benches 6 ft. long. All other specifications equal to paragraph 2.01 A. Manufacturer and model as called out on plans. Color to be selected from Manufacturer's standard colors as directed by Owner's Representative.

C. Single Pedestal Four Seat Picnic Table: Overall size shall be 30" high x 76" square. Table top, 46" square. Seat height shall be 18". Pedestal column shall consist of one 4" x 4" x 1/4" wall x 48" square steel tubing. All bench and table supports, made from 2-1/2" square steel tubing and 2-1/2" x 3" x 3/6" angle, shall be electrically welded in horizontal components and shall also be electrically welded together with vertical column into a one piece unit. For safety, all mounting brackets shall be rounded on a 1-1/2" radius on all corners of surfaces in a vertical plane.

Finish for the frame shall be a high gloss black finish. Seats and tops shall be fabricated of 9 GA unflattened, expanded galvanized steel sheets. Framing for seats and tops shall consist of 10 GA angle steel, electrically welded to the expanded steel sheet. Seats and tops shall be coated with polyvinyl chloride to a thickness of not less than 1/8", oven cured for a durable, easily cleaned finish. Manufacturer and model as called out on plans. Color for seats and tops to be selected from Manufacturer's standard colors as directed by Owner's Representative.

D. Acceptable Manufacturers:
   1. Refer to Construction Drawings for Specified Products

2.02 LITTER RECEPTACLES

A. 32 gallon, 30" high x 24" diameter receptacle and accessories. Manufacturer and model as called out on plans. Color to be selected from Manufacturer's standard colors as directed by Owner's Representative.

2.03 GRILLS

A. No grills to be used for this project.

2.04 BENCHES

A. Park Benches: As called out on the drawings. Average seat height above ground shall be 18" (unless designated otherwise on the drawings). All frame components shall be electrically welded together such that sharp corners and edges are eliminated. Seats and backs shall be 3/4" x 9 gauge un-flattened expanded galvanized steel and shall be coated with polyvinyl chloride to a thickness of no less than 1/8", oven cured for a durable, easily cleaned finish (in accordance with Section 02870) (unless designated otherwise on the drawings). Frame finish shall be electrostatically applied dry polyester powder, baked to a high gloss finish. Single benches o are to be in ground mounted as shown on the drawings. Manufacturer and model as called out on plans. Color to be selected from Manufacturer's standard colors as directed by Owner's Representative.

B. Acceptable Manufacturer's:
   1. Refer to Construction Drawings for Specified Products

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Connect conditions detrimental to timely and proper execution of the work. Do not proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION

A. Coordinate as required with other trades to assume proper interface with the work of this Section.

B. Install the work of this Section in strict accordance with the design, approved shop drawings and the Manufacturer's recommendations,

C. Upon completion of the installation, touch-up all scratches and abrasions to be completely invisible to the unaided eye from a distance of five feet.

END OF SECTION

SECTION 02900
PLANTING

1.01 SCOPE:

A. Perform all work required to complete the planting as described herein and shown on accompanying drawings.

1.02 RELATED WORK SPECIFIED ELSEWHERE:

A. General Conditions
B. General Requirements - Division 1

1.03 REFERENCE STANDARDS:

A. American Joint Committee on Horticultural Nomenclature: 1942 Edition of Standard Plant Names.

B. American Standard for Nursery Stock (ANSI 260), latest edition, American Association of Nurserymen.

1.04 QUALITY ASSURANCE:

A. All work shall be performed by skilled personnel within the industry in a workmanlike manner and supervised by an experienced foreman.

B. The contractor, when required, will submit samples of all trees, for the Landscape Architect and/or Owners approval. When approved, these will be tagged and maintained as representative samples for all future plant materials. Rejected material shall be removed from the site immediately. The Landscape Architect reserves the right to reject any material he deems unsatisfactory.

C. When required, the contractor shall also submit for approval sufficient quantities of loam, manure, peat moss and fertilizer as to be representative. All samples must be approved by the Landscape Architect before use in the job.

1.05 DELIVERY, STORAGE, AND HANDLING:

A. Deliver all packaged material in original unopened and undamaged containers bearing manufacturer's label identifying name, weight, analysis and any other pertinent data.

B. Protect plant material during delivery to prevent damage to root ball and desecration of leaves. Damaged material will be rejected.

1.06 WARRANTY PERIOD AND REPLACEMENT:

A. All trees and shrubs shall be warranted for one (1) years after Final Acceptance. Plants shall be in full leaf for a minimum of 30 days at the end of the warranty period. Termination of the warranty period will be extended as necessary to comply.

B. Plants used for replacement shall be of the same kind and size as those originally specified. All work, including materials, labor and equipment used in replacements, shall be at no cost to the owner. Any damage, including ruts in lawn or bed areas, incurred in making replacements, shall be immediately repaired.

C. Plant material will be replaced once at the owners request and at the end of the twelfth (12th) month. A list of material to be replaced shall be submitted to the Landscape Architect and/or Owner prior to any replacements being made.

1.07 ACCEPTANCE:

A. Substantial completion and contract close-out shall be in accordance with Division 1.

B. Final acceptance shall be when the contractor has completed to the Landscape Architect's satisfaction, the final punch list.

1.08 MAINTENANCE:

A. The contractor shall maintain all plant materials under this contract by watering, cultivating, weeding, spraying and replacing as necessary to keep plants in a vigorous, healthy condition until final acceptance.

PART II PRODUCTS

2.01 MATERIAL:

A. Plants (general): All plants shall be well-formed No. 1 grade or better nursery stock and shall meet the applicable standards noted herein for nursery stock and shall be subject to rejection by the Landscape Architect. All plants shall remain the property of the contractor until final acceptance.

B. Ornamental trees: Plants shall be healthy, vigorous, bushy, well-branched, of normal habit of growth for the species, and shall be free from disease, insect eggs and larvae. The specified sizes shall be before pruning, and the plants shall be measured with their branches in normal position.

C. Shade trees: Shall be healthy, vigorous, full-branches, well-shaped, and shall meet trunk diameter and height requirements of the plant list. Balls shall be

firm, neat, slightly tapered and well burlapped. Any tree loose in the ball or with broken ball at the time of planting will be rejected. Any trees are subject to approval by the Landscape Architect.

D. Topsoil: Where additional topsoil is needed, it shall be fertile, sandy loam of natural occurrence, free of rubble, stones, lumps and perennial plant root stocks. The presence of noxious weeds will be cause for rejection.

E. Mulch: Shredded cedar bark.

F. Compost: Back to Nature, composed cotton seed hulls with iron sulfate as manufactured by Back to Nature Resources, Inc., Dallas, Texas, or approved equal.

G. Fertilizer: Osmocote 18-6-12, or approved equal. To be paid as part of the installed plant cost.

H. Steel bed Edging: Ryerson Steel Bed Edging, 3/16" x 4" steel landscape edging with steel stakes as manufactured by Joseph Ryerson, Dallas, Texas.

2.02 ACCESSORIES:

A. Tree Wrap: Not used on this project.

B. Tree Stakes: Split tee metal fence post, green.

C. Wire, eye bolts: Non corrosive of sufficient strength.

D. Straps for staking: 2” Flexible Tree Strap

PART III EXECUTION

3.01 PREPARATION:

A. Verify grades and conditions prior to accepting any portion of the site from general contractor before commencing with work. Beginning work under this section indicates acceptance of existing site conditions.

B. All planting beds should have a minimum of 6" of amended topsoil.

C. Outline all planting beds for approval by the Landscape Architect. Prior to commencing with bed preparation.

D. Stake all tree locations for approval by the Landscape Architect prior to digging tree pits.

E. Remove all weeds and grasses from planting beds. If Bermuda grass is present,
it shall be eradicated by approved means.

F. Within approved bed lines prepare soil by roto-tilling two inches (2") of compost over entire bed area to a depth of six inches (6").

G. Azaleas and rhododendron shall be planted in 100% pure sphagnum peat moss. Place peat moss to a height of 4" above surrounding bed grade, (12" total depth).
1. Excavate entire area to be planted to a depth of 8" and backfill with peat
2. Peat moss shall be thoroughly wetted with water prior to planting.
3. Scarify root balls so plants will not become root bound.

H. Position plants and groundcover on prepared beds prior to planting for approval of Landscape Architect.

3.02 INSTALLATION:

A. Plant in Landscape Architect's approved location, setting plant with top of ball even with top of bed, and compact soil carefully around each plant ball. Water each plant thoroughly with hose to eliminate air pockets. Plants shall be carefully pruned to remove dead or broken branches, and entire bed area shall be hand raked to a smooth, even surface.

B. Spread an even 2" layer of mulch over entire planting bed.

C. Shade Trees: Will be planted in tree pits twenty four inches (24") greater in diameter than the size of the ball or root system. Scarify sides and slope pit bottom.

D. Ornamental Trees: Will be planted in tree pits eighteen inches (18") greater in diameter than the size of the ball or root system. Scarify sides and slope pit bottom.

E. All trees are to be set so that top of ball is even with finish grade or if poor soil conditions and with the architect’s approval 1/4 of the root ball above finish grade.

F. On all trees the top 6" of backfill shall consist of a 1:1 mixture of compost to soil.

G. On all trees thoroughly water to eliminate air pocket and future settling.

H. Around all trees form a circular ring free of any vegetation. For trees 3" and greater in caliper form a 5' diameter ring and for trees less than 3" caliper form a 3'-6" diameter ring. Circle shall be true in form and centered on tree.

I. Cut all strings and wires, etc. from around the top of the root balls and tree trunks.

J. Spread an even 2" layer of mulch within all tree rings.

K. Prune all trees after planting to remove dead and broken branches.

L. All trees shall be staked with two (2) metal split tee green fence posts and tied north and south with wire through tree straps.

M. Apply Osmocote at a rate of 1/2 pound per tree and as per the manufacture's Recommendations for all shrub and groundcover planting beds.

3.03 CLEANING:

A. During the work, the premises are to be kept neat and orderly at all times. Storage areas for planting and other materials shall be organized so that they, too, are neat and orderly. All trash, including debris from removing weeds or rocks from planting areas, preparing beds, or planting plants, shall be removed from the site daily as the work progresses. All walk and driveway areas shall be kept clean by sweeping or hosing.

END OF SECTION

SECTION 02934
SODDING

PART 1 - GENERAL

1.01 SCOPE:

A. Provide and install sodded lawns as indicated on drawings and specified herein.

1.02 RELATED WORK SPECIFIED ELSEWHERE:

A. General Requirements

1.03 QUALITY ASSURANCE:

A. Comply with American Sod Producers Association (ASPA) guideline specifications to sodding.

1.04 DELIVERY, STORAGE AND HANDLING:

A. Deliver sod on pallets and protect from sun, wind and dehydration prior to installation.

B. Do not cut or deliver more sod than can be laid within 24 hours.

1.05 SUBMITTALS:

A. Submit name, address and phone number of sod supplier.

B. Manufacturer's label with analysis data on lawn fertilizer.

1.06 MAINTENANCE:

A. Maintain sod after installation to achieve a well rooted and vigorous growing lawn or until final acceptance, whichever is longer. If sodded areas need to be mowed during construction operations, this is the responsibility of the contractor.

PART 2 - PRODUCTS

2.01 MATERIAL:

A. Sod shall be U-3 Bermuda (Cynodon dactylon "U-3") or of type as indicated on drawings and shall be well rooted, healthy, free of weeds, disease, nematodes, and soil borne insects. Sod shall also be uniform in color, leaf texture, and density.

B. Fertilizer shall be granular or pellet 13-13-13 or as determined by soil testing.

C. Water shall be free of substances harmful to sod growth.

PART 3 - EXECUTION

3.01 INSPECTION

A. Examine finish surfaces, grades, topsoil quality and depth. Do not start sodding work until unsatisfactory conditions are corrected. Beginning of installation indicates acceptance of existing site conditions.

3.02 PREPARATION:

A. Loosen topsoil of lawn areas to be planted. Remove existing vegetation, sticks, roots, rubbish, foreign matter and stones over one inch (1") in any dimension from the top two inches (2") of the sod bed. Areas where the finish grade has sat for extended periods of time will need to be tilled or disked to remove vegetation and to loosen compacted soil to 85% maximum density.

B. Fine grade lawn areas to smooth, even surface with a loose, uniformly fine texture. Float smooth to remove ridges and fill depressions as required to drain.

C. Finish grade shall be smooth and approximately one inch (1") below curbs, walks and other paved surfaces.

D. Apply fertilizer on finish grade prior to sod installation at a rate of one (1) pound of actual nitrogen per 1000 square feet.

E. Restore prepared areas to specified condition if eroded, settled, or otherwise disturbed after fine grading and prior to sodding.

3.03 SOD INSTALLATION:

A. Work within seasonal limitations of the sod type specified. Install sod between April 15 and August 30. Deviation from these dates shall be submitted by the contractor for approval by the owner or the owner’s representative before installation.

B. Large roll sod will be allowed only if netting is removed during the installation of the sod. All sod netting is to be removed on any size sod rolls.

C. Lay sod to form a solid mass tightly-fitted joints. Do not overlay edges. Stagger strips to offset joints in adjacent courses.

D. Sod shall be placed so that top of sod is flush with adjoining grass areas if any, curbs, walks, and other paved surfaces.

E. Do not install sod on saturated or frozen soil.

F. Water sod lightly then roll with a water filled commercial lawn roller to ensure contact with subgrade and to insure a smooth surface free of lumps and depressions.

G. Immediately following rolling, water sod thoroughly and continue to water after installation to achieve a well rooted and vigorous growing lawn or until final acceptance, whichever is longer. Contractor to provide watering equipment as required for areas not covered by an irrigation system.

H. Repeat sod rolling as needed after one week to achieve a smooth level surface.

I. On 3:1 slopes or greater sod shall be secured with sod staples as needed to prevent sod from sloughing off slopes.

J. Replace dead sod as required prior to final acceptance.

3.04 CLEANING:

A. During the work, the premises are to be kept neat and orderly at all times. Storage areas for materials shall be organized so that they are neat and orderly. All trash, including debris from removing weeds or rocks from sodded areas, shall be removed from the site daily as the work progresses. All walk and driveway areas shall be kept clean by sweeping or hosing.

END OF SECTION

SECTION 03100
CONCRETE FORMWORK

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included: Provide formwork in accordance with provisions of this Section for cast-in-place concrete shown on the drawings or required by other Sections of these Specifications.

B. Related work:
Section 03210: Steel Reinforcement
Section 03300: Cast-in-place Concrete

1.02 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Design of formwork is the Contractor's responsibility.

C. Standards: in addition to complying with pertinent regulations of governmental agencies having jurisdiction, comply with pertinent provisions of ACI 347.

1.03 SUBMITTALS

A. Comply with pertinent provisions of Section 01340.

B. Product data: After the Contractor has received the Owner's Notice to Proceed, submit manufacturer's data and installation instructions for proprietary materials including form coatings, ties, and accessories, and manufactured form systems if used.

PART 2 PRODUCTS

2.01 FORM MATERIALS

A. Except for metal forms, use new materials. Materials may be reused during progress of the work, provided they are completely cleaned and reconditioned, re-coated for each use, and capable of producing formwork of the required quality.

B. For footings and foundations, use boards or planks secured to wood or steel stakes, substantially constructed to shapes indicated and to support the required loads.

2.02 FORM TIES

A. Hold inner and outer forms for vertical concrete together with combination steel ties and spreaders approved by the Owner's Representative:
   1. Space ties symmetrically in tiers and rows, each tier plumb from top to bottom and each row level.
   2. At horizontal pour lines, locate ties not more than 6" below the pour lines. Tighten after concrete has set and before the next pour is made.
   3. For exposed concrete surfaces, provide form ties of removable type with the bolts equipped with permanent plugs and a system approved by the Owner's Representative for fixing the plugs in place.

2.03 DESIGN OF FORMWORK

A. General:
   1. Design, erect, support, brace, and maintain formwork so it will safely support vertical and lateral loads that might be applied, until such loads can be supported by the concrete structure.
   2. Carry vertical and lateral loads to ground by formwork system and in-place construction that has attained adequate strength for that purpose.
   3. Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation, and position.
   4. Design forms and formwork to include assumed values of live load, dead load, weight of moving equipment operated on the formwork, concrete mix, height of concrete drop, vibrator frequency, ambient temperature, foundation pressures, stresses, lateral stability, and other factors pertinent to safety of the structure during construction.
   5. Provide trussed supports when adequate foundations for shores and struts cannot be secured.
   6. Support form materials by structural members spaced sufficiently close to prevent objectionable deflection.
   7. Fit forms placed in successive units for continuous surfaces to accurate alignment, free from irregularities, and within the allowable tolerances.
   8. Provide formwork sufficiently tight to prevent leakage of cement paste during concrete placement. Solidly butt joints, and provide backup material at joints as required to prevent leakage and prevent fins.
   9. Provide camber in formwork as required for anticipated deflections due to weight and pressure of fresh concrete and construction loads.

2.04 EARTH FORMS

A. Side forms for footings may be omitted, and concrete may be placed directly against excavation only when requested by the Contractor and approved by the Owner's Representative.

B. When omission of forms is accepted, provide additional concrete 1" on each side of the minimum design profiles and dimensions shown on the drawings.

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

3.02 FORM CONSTRUCTION

A. General:
   1. Construct forms complying with ACI 347 to the exact sizes, shapes, lines and dimensions shown, and as required to obtain accurate alignment, location, grades and level and plumb work in the finished structure.
   2. Provide for openings, offsets, keyways, recesses, moldings, reglets, chambers, blocking, screens, bulkheads, anchorages, inserts, and other features as required.

B. Fabrication:
   1. Fabricate forms for easy removal without hammering or prying against concrete surfaces.
   2. Provide crush plates or wrecking plates where stripping may damage cast concrete surfaces.
   3. Kerf wood inserts for forming keyways, reglets, recesses, and the like to prevent swelling and assure ease of removal.
   4. Provide top forms for inclined surfaces where so directed by the Owner's Representative.

C. Forms for exposed concrete:
   1. Drill forms to suit ties being used, and to prevent leakage of cement paste around tie holes. Do not splinter forms by driving ties through improperly prepared holes.
   2. Provide sharp, clean corners at intersection planes, without visible edges or offsets. Back the joints with extra studs or girts to maintain true, square intersections.
   3. Use extra studs, walls and bracing to prevent objectionable bowing of forms between studs, and to avoid bowed appearance in concrete. Do not use narrow strips of form material which will produce bow.

D. Corner treatments:
   1. Unless shown otherwise, form chamfers with 3/4" x 3/4" strips, accurately formed and surfaced to produce uniformly straight lines and tight edges.
   2. Extend terminal edges to required limit, and miter the chamfer strips at changes in direction.

E. Locate control joints as indicated on the drawings and as approved by the Owner's Representative.

F. Provisions for other trades:
   1. Provide openings in concrete formwork to accommodate work of other trades.
   2. Verify size and location of openings, recesses, and chases with the trade

requiring such items.

3. Accurately place and securely support items to be built into the concrete.

3.03 REMOVAL OF FORMS

A. General:
   1. Do not disturb or remove forms until the concrete has hardened sufficiently to permit form removal with complete safety.
   2. Do not remove shoring until the member has acquired sufficient strength to support its own weight, the load upon it, and the added load of construction.
   3. Do not strip floor slabs in less than two days.
   4. Do not strip vertical concrete in less than seven days.

B. Finished surfaces:
   1. Exercise care in removing forms from finished concrete surfaces so that surfaces are not marred or gouged, and that corners are true, sharp, and unbroken.
   2. Release sleeve nuts or clamps, and pull the form ties neatly.
   3. Do not permit steel spreaders, form ties, or other metal to project from, or be visible on, any concrete surface except where so shown on the drawings.
   4. Solidly pack form tie holes, rod holes, and similar holes in the concrete. For packing, use the cement grout specified in Section 03300, flushing the holes with water before packing, screeding off flush, and grinding to match adjacent surfaces.

END OF SECTION

SECTION 03210
STEEL REINFORCEMENT

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included: Provide concrete reinforcement where shown on the drawings specified herein, and as needed for a complete and proper installation.

B. Related Work:
Section 03100: Concrete Formwork.
Section 03300: Cast-in-place Concrete.
Section 03345: Concrete Finishing.

l.02 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Comply with pertinent provisions of the following, except as may be modified herein:
1. ACl 318.
2. CRSI "Manual of Standard Practice."

1.03 SUBMITTALS

A. Comply with pertinent provisions of Section 01340.

B. Product data: After the Contractor has received the Owner's Notice to proceed, submit:
1. Materials list of items proposed to be provided under this Section.
2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
3. Shop Drawings showing details of bars, anchors, and other items, if any, provided under this Section.

1.04 PRODUCT HANDLING

A. Delivery and Storage:
1. Use necessary precautions to maintain identification.
2. Store in a manner to prevent excessive rusting and fouling with dirt, grease, and other bond-breaking coatings.

PART 2 - PRODUCTS

2.01 REINFORCEMENT MATERIALS AND ACCESSORIES

A. Bars:
   1. Provide deformed billet steel bars complying with ASTM A615. Using grades shown on the Drawings.

B. Steel Wire:
   1. Comply with ASTM A82.
   2. For tie wire, comply with Fed Spec QQ-W-461, annealed steel, black, 16 gage minimum.

C. Welded Wire Fabric:
   1. Provide welded steel, complying with ASTM A185, 6" x 6" x 10" x 10".

D. Bolsters, chairs, spacers, and other devices for spacing, supporting and fastening reinforcement in place:
   1. Use wire bar type supports complying with CRSI recommendations, unless otherwise shown on the Drawings.
   2. Do not use wood, brick, or other non-complying material.
   3. For slabs on grade, use supports with sand plates or horizontal runners where base material will not support chair legs.

2.02 FABRICATION

A. General:
   1. Fabricate reinforcing bars to conform to the required shapes and dimensions, with fabrication tolerances complying with the CRSI Manual.
   2. In case of fabricating errors, do not straighten or re-bend reinforcement in a manner that will weaken or injure the material.
   3. Reinforcement with any of the following defects will not be acceptable:
      a. Bar lengths, depths, and/or bends exceeding the specified fabrication tolerances.
      b. Bends and/or kinks not shown on the Drawings.
      c. Bars with reduced cross-section due to excessive rusting or other cause.

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION

A. General:
   1. Comply with the specified standards for detail and method of placing reinforcement and supports, except as may be modified herein.
   2. Clean reinforcement to remove loose rust and mill scale, earth, and other materials which reduce or destroy bond with concrete.
   3. Position, support, and secure reinforcement against displacement by formwork, construction, and concrete placing operations.
   4. Locate and support reinforcement by metal chairs, runners, bolsters, spacers, and hangers, as required.
   5. Place reinforcement to obtain minimum coverage's for concrete protection.
   6. Arrange, space, and securely tie bars and bar supports together with the specified tie wire.
   7. Set wire ties so twisted ends are directed away from exposed concrete surfaces.

B. Install welded wire fabric in as long lengths as practicable, lapping adjoining pieces at least one full mesh.

C. Provide sufficient numbers of supports, and of strength to carry the reinforcement.

D. Do not place reinforcing bars more than 2" beyond last leg of any continuous bar support.

E. Do not use supports as bases for runways for concrete conveying equipment and similar construction loads.

3.03 SPLICES

A. Lap Splices:
   1. Tie securely with the specified wire to prevent displacement of splices during placement of concrete.

B. Splice Devices:
   1. Obtain the Owner's Representative approval prior to using splice devices.
   2. Install in accordance with manufacturer's written instructions.
   3. Splice in a manner developing at least 125% of the yielding strength of the bar.

C. Welding:
   1. Perform in accordance with AWS D1.4-79.

D. Do not splice bars except at locations shown on the drawings, or as otherwise specifically approved by the Owner's Representative.

3.04 TESTING

A. Samples:
   1. Materials to be sampled at the building site shall have been delivered thereto at least 72 hours before it is needed.

END OF SECTION

SECTION 03300
CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 DESCRIPTION

A. The extent of cast-in-place concrete is shown on drawings.

B. Related work specified elsewhere:
Section 03100: Concrete Formwork.
Section 03210: Steel Reinforcement.
Section 03345: Concrete Finishing.

1.02 TESTING

A. Owner to employ and pay for an independent testing laboratory, to perform specified testing.

B. Tests required for aggregate:
1. Test for conformance to ASTM C-33.
2. Make one test for each 100 cubic yards of fine aggregate.
3. Make one test for each 250 cubic yards of coarse aggregate.

C. Tests required for concrete:
1. Make and store test specimens in conformance with ASTM C-31.
2. Compressive strength tests: ASTM C-39:
   a. Make four (4) cylinders for each test.
   b. Break two cylinders at seven days and two at 28 days unless otherwise directed by Owner's Representative.
3. Make one compressive strength test for each day's placement or each 50 cubic yards of concrete of each specified strength.
4. If test strength of concrete does not comply with strength requirements of these specifications and is sufficiently low that, in opinion of Owner's Representative, performance of structure is jeopardized, the Owner's Representative may require that drilled core test specimens be cut from structure at location at which the questionable concrete was placed. Cores shall be secured and tested in accordance with ASTM C-42. If results of these tests show that actual strength of concrete is sufficiently low as to jeopardize performance of structure, the Owner's Representative may require that concrete be removed from structure, and replaced at no additional cost to Owner.
5. Perform slump test at point of placement immediately prior to placing concrete. Test in accordance with ASTM C-143.
6. Test for percentage of entrained air in accordance with ASTM C-231 at time of slump testing.

D. Inspection of batch plant:

1. Batch plant operation will be inspected as required to insure that concrete delivered to the job complies with specifications. Testing laboratory engaged by Contractor will provide this service as directed by Owner's Representative.
2. Plant inspection reports shall include:
   a. Location of plant.
   b. Job location.
   c. Concrete design mix number and strength.
   d. Concrete design proportion, source, type and amount of cement, aggregates and admixtures used, surface water added and total water used.
   e. Slump.
   f. Air content.
   g. Temperature of heated concrete.
   h. Capacity and condition of mixing truck.
   i. Percent of capacity loaded.
   j. Condition of batching installation.
   k. Condition of heating installation.
   l. Period of inspection.
   m. Number and sizes of batches delivered.

1.04 REFERENCE STANDARDS

A. The following codes and manuals form a part of this specification:
   1. Standard Specifications for Structural Concrete for Buildings (ACI 301-72; Rev 81).
   2. Recommended Practice for Selecting Proportions for Concrete (ACI 211-77).
   3. Concrete production facilities shall have a current "National Ready Mixed Concrete Association Certificate of Conformance for Concrete Production Facilities".
   4. Building Code Requirements for Reinforced Concrete (ACI 318-77).

1.05 SUBMITTALS

A. Submit proposed mix design to Owner's Representative for review. Include certification required in admixture specification.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Cement: Portland Cement (ASTM C-150, Type I). Use high early strength Portland Cement (Serial designation C-150, Type III) where specified and elsewhere at Contractor's option and at no additional cost to Owner.

B. Fine aggregate: Sand particles shall be coarse, sharp, clean and conforming to ASTM C-33.

C. Coarse aggregate:

1. Crushed limestone conforming to ASTM C-33 for normal weight concrete.
2. Light weight conforming to ASTM C-330 for semi-light weight concrete. Minimum Fsp (splitting ratio) of 6.0.

D. Water: Clean and free from injurious amounts of oil, acids, alkalines, organic materials or other deleterious substances.

E. Admixtures:
1. Water reducing admixture: ASTM C-494, Type A, containing no more chlorideions than are present in municipal drinking water.
   a. Acceptable products:
      (1) Eucone WR-75; The Euclid Chemical Co.
      (2) Pozzolith ZOON: Master Builders.
      (3) Plastocrete 160; Sika Chemical Corp.
2. Water reducing, retarding admixture: ASTM C 494, Type D, containing no more chlorideions than are present in municipal drinking water.
   a. Acceptable products:
      (1) Eucone Retarder-75: Euclid Chemical Co.
      (2) Pozzolith 100XR: Master Builders.
      (3) Plastiment: Sika Chemical Co.
3. High range water reducing admixture (Superplasticizer): ASTM C-494, Type F or G, containing no more chlorideions than are present in municipal drinking water.
   a. Acceptable products:
      (1) Eucon 37; The Euclid Chemical Co.
      (2) Sikament; Sika Chemical Corp.
4. Non-chloride accelerator: ASTM C-494, Type C or E, containing no more chlorideions than are present in municipal drinking water.
   a. Acceptable products:
      (1) Accelguard 80; The Euclid Chemical Co.
      (2) Darex Set Accelerator; W. R. Grace.
5. Air entraining admixture: ASTM C-260.
6. No calcium chloride or admixtures containing more than 0.1% chloride ions will be permitted.
7. Written certification of conformance to specified requirements and the chloride ion content will be required from admixture manufacturer prior to mix design review.

F. Curing compound: ASTM C-309 for cast-in-place slabs, except those receiving concrete staining products cementious topping, or tennis court surfacing. No concrete treatment shall be used without Owner's Representative's approval.
1. Acceptable products:
   a. West Concrete Floor Treatment.
   b. Guardian Clear Bond.
   c. TRI-KOTE Concrete Treatment.
   d. Horn Clear Seal.
   e. Master Builders Master Seal.
   f. Conspec No. 1" by Conspec Marketing & Mfg. Co.

G. Furnish concrete in accordance with ASTM C-94, Alternate No. 3, Specification for Ready Mixed Concrete. Design concrete in accordance with ACI Standard Recommended Practice for the Design of Concrete Mixes (ACI 211-77) to produce strength of concrete with slumps and maximum sizes of coarse aggregate specified. Design concrete so the concrete materials will not segregate and excessive bleeding will not occur.

H. Reinforcing: As specified in Division 3.

I. Floor underlayment: Ardex K-15; Ardex, Inc., 630 Stoops Ferry Road, Corapolis, Pa. 15108, (412) 264-4240.

Note: Curing agents or hardeners are not allowed for tennis courts, sport courts, playground or spraygrounds surfaces to receive color finish.

2.02 CONCRETE MIX REQUIREMENTS

A. Use a testing laboratory acceptable to Owner's Representative for preparing and reporting proposed mix designs. Submit written reports to Owner's Representative of each proposed mix at least 28 days prior to start of work. Do not place concrete until mixes have been reviewed and approved by Owner's Representative. The specified minimum strengths are to be exceeded in accordance with Paragraph 4.3 of Building Code Requirements for Reinforced Concrete (ACI 318-83).

B. Minimum compressive strength 28 day: 3000 psi footings; 3500 psi, all other unless specifically called out on the plans.

C. Minimum cement content: 5 sacks per cu. yd. for footings; 6 sacks per cu. yd. for other unless otherwise approved in submittals.

D. Slump: 4" plus or minus 1".

E. Maximum size aggregate: Generally 3/4".

2.03 WATER STOP

A. Acceptable manufacturers: Williams Products, Inc.

B. Flat, natural rubber, dumbbell type, 5" wide, 1/4" minimum center thickness, 3500 psi minimum tensile strength, 525% minimum elongation to break.

2.04 COLORING

A. NOT USED

PART 3 - EXECUTION

3.01 PLACING

A. Notify Owner's Representative of intent to pour at least twenty-four (24) hours prior to placing concrete.

B. Before placing concrete, clean equipment for mixing and transporting concrete. Remove debris and ice from spaces to be occupied by concrete. Forms to be removed shall be thoroughly wetted or oiled. Sprinkle sub-grade sufficiently to prevent suction, where waterproof membrane is not required. Remove excess water from place of deposit. Reinforcement, forms, membrane, fillers and ground with which concrete is to come in contact shall be free from frost. Do not deposit concrete during rain unless it is adequately protected. In that case, be prepared to protect newly placed concrete from rain until it has hardened sufficiently so that it will not be damaged. Minimum of 2 hours between placing columns and floors.

C. Before placing concrete, verify installation of all reinforcements, sleeves, waterproof membrane, forms for openings, fill materials, anchors and items related to mechanical, plumbing and electrical trades.

D. Convey from mixer to place of final deposit by methods which will prevent separation or loss of materials. Do not permit concrete to drop freely any distance greater than 4 feet. Where longer drops are necessary, use a chute, tremie or other approved conveyance to assist concrete into place without separation. Chutes shall be metal and have maximum slope of 1 vertical to 2 horizontal; minimum of 1 vertical to 3 horizontal. Chutes greater than 20 feet long will not be permitted.

E. Place concrete at a rate to keep concrete plastic and flowing readily into spaces between bars. Concrete temperature shall be 60-80 □F. No concrete that is partially hardened or has been contaminated by foreign materials shall be deposited, nor shall re-tempered concrete be used.

F. Thoroughly compact concrete by suitable means during placing and work around reinforcement and into corners and recesses of forms. Use vibrators under competent supervision to aid in placement of concrete. Insert vibrators and withdraw vertically at 18" to 30" spacing for 5 to 15 seconds duration.

3.02 HOT WEATHER CONCRETING

A. Conform to ACI 305 when concreting during hot weather.

3.03 COLD WEATHER CONCRETING

A. Conform to ACI 306 when concreting during cold weather.

3.04 FINISH FOR FORMED CONCRETE

A. After removal of forms, if any honeycomb places or rock pockets exist, notify Owner's Representative and repair in accordance with his instructions. In general, remove all loose material, wet surface thoroughly, and fill all voids with a stiff mixture of one part cement to two parts sand. In exposed construction, mix white Portland Cement with standard to blend patch with surrounding surface.

B. On exposed concrete, smooth off joint marks and fins and leave surface smooth, dense and free from honeycomb, prominent grain markings and bulges or depressions more than 3/16" in 4'.

C. Cork floated finish (on exposed concrete, except omit at round columns):
   1. Remove forms at an early stage, within 2 to 3 days of placement where possible. Remove ties. Remove all burrs and fins.
   2. Mix one part Portland Cement and one part fine sand with sufficient water to produce a stiff mortar. Dampen wall surface. Apply mortar with firm rubber float or with trowel, filling all surface voids. Compress mortar into voids using a slow-speed grinder or stone. If the mortar surface dries too rapidly to permit proper compaction and finishing, apply a small amount of water with a fog-sprayer. Produce the final texture with a cork float.

3.05 FINISH FOR SLABS

A. After suitable bulkheads, screens and, if specified, jointing materials have been positioned, concrete shall be placed continuously between construction joints, beginning at a bulkhead edge form or corner. Place each batch into the edge of previously placed concrete to avoid stone pockets and segregations. If there is a delay in casting, thoroughly spade concrete placed after the delay and consolidate at edge of that previously placed to avoid cold joints. Distribute concrete by shovels and consolidate by other suitable means. Bring concrete to correct level with a wood straightedge and strike off. Do not use wood bullfloats or darbies to smooth the surface.

B. Roughen slabs to receive toppings with stiff brushes or rakes before the final set.

C. After concrete has been properly placed, struck off and darbied or bullfloated, it shall not be worked until ready for floating. The off time between darbying and power floating may vary from 2 to 8 hours or more depending on the weather conditions, concrete temperature and concrete mixture. Begin power floating when water sheen has disappeared and mix has stiffened sufficiently that weight of a man standing on it leaves only a slight imprint on surface. If two power floating operations are necessary to bring surface to desired state, allow concrete to stiffen or become harder before beginning second floating operation.

D. Float finish: After power floating is complete, use wood float by hand to tighten the surface and achieve a medium coarse finish. Hand wood float in a circular motion. Float sufficiently to remove cement paste from surface.

E. Trowel finish: Both power and hand troweling shall be required. Begin power troweling as soon as little or no cement paste clings to blades. Continue troweling until surface is dense, smooth and free of all minor blemishes, such as trowel marks.
   1. Final hand troweling shall be required to remove slight imperfections left by troweling machines and to bring surface to a dense, smooth polished finish. Final hand troweling shall be continued until a ringing sound is heard as trowel passes over surface.

F. Give platforms and steps a light broom finish following sufficient troweling to seal the surface and remove all minor blemishes such as trowel marks.

G. Pitch all slabs to drain as indicated on drawings; finish exposed slab edges; stair nosings with 1/2" round radius.

H. Finishes shall be true to planes to match requirements of Section 02514-3.01-C. If variations greater than this exist, the Owner's Representative may direct contractor to grind floor to bring surface within the requirements. Grind as soon as possible, preferably within three (3) days, but not without Owner's Representative's direction and not until concrete is sufficiently strong to prevent dislodging coarse aggregate particles. Grinding will be considered only where slabs will be covered by finish materials. Patching of low spots will not be permitted.
   1. Sprinkling of dry cement or a mixture of dry cement and sand on the surface of fresh concrete to absorb water or to stiffen the mix will not be permitted during any stage of floor construction. If bleeding is excessive, remove by dragging hose just ahead of floating operation.

3.06 CURING

A. Protect freshly deposited concrete from premature drying and excessively hot or cold temperatures. Maintain without drying at a relatively constant temperature for the period of time necessary for hydration of cement and proper hardening of concrete.

B. Initial curing shall immediately follow finishing operation. Keep concrete continuously moist at least overnight.
   1. On slabs, use one of the following:
      a. Ponding or continuous sprinkling.
      b. Absorptive mat or fabric kept continuously wet.
      c. Sand or other covering kept continuously wet.

C. Immediately following initial curing and before concrete has dried, additional curing shall be accomplished by one of the following materials or methods:
   1. Continuing the method used in initial curing.

2. Waterproof paper conforming to "Specifications for Waterproof Paper for Curing Concrete" (ASTM C-171).
3. Other moisture-retaining coverings approved.

D. Continue final curing until the cumulative number of days or fractions thereof, not necessarily consecutive, during which temperature of air in contact with concrete is above 50□F has totaled seven (7) days. Prevent rapid drying at end of curing period.

E. Excessive temperature changes: Changes in temperature of concrete shall be as uniform as possible and shall not exceed 5 Deg. F in any one (1) hour or 50 Deg. F in any twenty-four (24) hour period.

F. Steel forms heated by sun and all wood forms in contact with concrete during final curing period shall be kept wet. If forms are to be removed during curing period, immediately employ one of above curing materials or methods. Continue such curing for remainder of curing period.

G. On completion of construction, clean all exposed slabs and apply a coat of curing compound at rate of 600 sq. ft. per gallon.

3.07 LEVELING EXISTING SLABS

A. Mix floor underlayment with water and apply to existing slab in accordance with manufacturer's instructions. Level floor to a tolerance of 1/8" in ten feet in any direction.

END OF SECTION

SECTION 03345
CONCRETE FINISHING

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included: provide finishes on cast-in-place concrete as called for on the drawings, specified herein, and needed for a complete and proper installation.

B. Related work:
Section 03300: Cast-in-place Concrete

1.02 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.03 SUBMITTALS

A. Comply with pertinent provisions of Section 01340.

B. Product data: After the Contractor has received the Owner's Notice to Proceed, submit:
1. Materials list of items proposed to be provided under this section.
2. Manufacturer's recommended installation procedures which, when approved by the Owner's Representative, will become the basis for accepting or rejecting actual installation procedures used on the work.

PART 2 PRODUCTS

2.01 MATERIALS

A. General:
1. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until conditions are correct.

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until conditions are correct.

3.02 FINISHING SLABS

A. Definition of Finishing Tolerances:
   1. Class “B”: True plane within tolerances described in Section 02514-3.01-C as determined by a ten foot straightedge placed anywhere on the slab in any direction.
   2. Unless otherwise directed by the Owner's Representative, provide the texturing in one direction only.
   3. Provide “medium” texturing as directed by the Owner's Representative or otherwise called for on the drawings.

3.03 CURING AND PROTECTION

A. Beginning immediately after placement, protect concrete from premature drying, excessively hot and cold temperatures, and mechanical injury.

B. Temperature, Wind, and Humidity:
   1. Cold Weather:
      a. When the mean daily temperature outdoors is less than 40 degrees F, maintain the temperature of the concrete between 50 degrees F and 70 degrees F for the required curing period.
      b. When necessary, provide proper and adequate heating system capable of maintaining the required heat without injury due to concentration of heat.
      c. Do not use combustion heaters during the first 24 hours unless precautions are taken to prevent exposure of the concrete to exhaust gases which contain carbon dioxide.

   2. Hot Weather: When necessary, provide wind breaks, fog spraying, shading, sprinkling, ponding, or wet covering with a light colored material, applying as quickly as concrete hardening and finishing operations will allow.

   3. Rate of temperature change: Keep the temperature of the air immediately adjacent to the concrete during and immediately following the curing period as uniform as possible and not exceeding a change of 5 degrees F in any one hour period, or 50 degrees F in any 24 hour period.

C. Protection From Mechanical Injury:
   1. During the curing period, protect the concrete from damaging mechanical disturbances such as heavy shock, load stresses, and excessive vibration.
   2. Protect finished concrete surfaces from damage from construction equipment, materials, and methods, by application of curing procedures, and by rain and running water.
   3. Do not load self-supporting structures in such a way as to over stress the concrete.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the contract apply to work specified in this section as well as all codes and standards referenced.

1.02 DESCRIPTION

A. These specifications cover the furnishing of all labor, material, services, supplies and equipment required in conjunction with or properly incidental to the pre-stressing of concrete by the post-tensioning method as shown on the plans and as specified herein.

B. Related work not included in this Section include:
Section 03100: Concrete Formwork.
Section 03210: Steel Reinforcement.
Section 03300: Cast-in-Place Concrete.

1.03 TERMS DEFINED

A. Post-tensioning shall refer to a method of pre-stressing concrete in which the post-tensioning tendon is tensioned after concrete has been placed and cured to the minimum specified strength.
1. Tendon: The complete assembly consisting of anchorage, pre-stressing steel and sheathing. The tendon imparts pre-stressing forces to the concrete.
2. Anchorage: The means by which the pre-stressing force is permanently transmitted from the pre-stressing steel to the concrete.
3. Pre-stressing: That element of a post-tensioning tendon which is elongated and anchored to provide the necessary permanent pre-stressing force.
4. Sheathing: Enclosure around the pre-stressing steel to avoid temporary bond between the pre-stressing steel and the surrounding concrete.

1.04 QUALITY ASSURANCE

A. Materials and Procedures: The following post-tensioning materials and design procedure specifications apply and are part of this Specification.
1. ASTM A416.
2. PTI "Tentative Specification for Post-Tensioning Materials".
3. ACI 318 "Building Code Requirements for Reinforced Concrete".
4. ACI 301 "Specifications for Structural Concrete for Buildings".

B. Post-Tensioning Installer-Experience: Post-tensioning concrete work specified in this Section shall be performed only by an installer having not less than 3 years experience in post-tensioning work and who has successfully completed at least 5 installations of nature and magnitude similar to this project.

Work is to be completed under immediate and continual control of installer's Superintendent with adequate previous experience.

1.05 SUBMITTALS

A. Comply with provisions of Section 01340.
B. Shop Drawings:
   1. Shop drawings showing any additional details of tendon profile, anchorage components and stressing procedures not shown on the drawings shall be submitted for approval by the Owner's Representative.
C. Data Reports and Tests:
   1. Field reports of elongation and tension applied for each tendon and each stressing operation are to be compiled and submitted to the Owner's Representative by an independent qualified individual or subcontractor.

1.06 DELIVERY, HANDLING AND STORAGE

A. Deliver post-tensioning steel in prefabricated coils, tagged and marked. Use metal tags indicating location, length and other information corresponding to placement drawings.
B. Store post-tensioning steel off the ground and in a manner to prevent rust, damage and accumulation of dirt.

PART 2 - MATERIALS

2.01 PRODUCTS

A. Unbonded Tendons: Pre-stressing steel shall be uncoated seven-wire low-relaxation strand for pre-stressed concrete manufactured in accordance with ASTM A416, Grade 270.
B. Anchorages: The anchorages of unbonded tendons shall develop the minimum specified ultimate strength of the pre-stressing steel. Elongation under ultimate load of the tendon shall not be less than 2 percent measured in a minimum gauge length of 10 feet.
C. Sheathing, Unbonded Strand:
   1. Coat strands to protect them permanently against corrosion and rust. Strand shall be completely shop coated with a non-volatile, low friction mineral oil base grease with a rust preventing additive having a uniform viscosity under temperature ranges of 20 degrees F to 120 degrees F.
   2. Provide continuous coating that will remain ductile and free from cracks without becoming fluid over anticipated range of temperatures, chemically stable and non-reactive to cement and material used for sheathing.
   3. The sheathing for the unbonded strand shall have tensile strength and water-resistance sufficient to resist un-repairable damage and deterioration during transport, storage at the jobsite and installation. The sheathing shall prevent the intrusion of cement paste and the escape of the coating material. The sheathing shall be extruded polyethylene or polypropylene tube. Damage in the sheathing shall be repaired by re-sheathing prior to concreting as recommended and directed by the manufacturer. Except where repaired and approved by Owner's Representative, damaged sheathing shall be rejected and new strands with no damage shall be installed.

D. Anchorages:
   1. All anchorages shall meet the minimum requirements as set forth in the "Tentative Specification for Post-Tensioning Materials" as prepared by the Post-Tensioning Institute.
   2. The load from the anchoring device shall be uniformly distributed to the concrete by means of approved devices. Such approved devices shall conform to the following requirements.
      a. Provide anchor plates of sufficient size to keep concrete bearing stresses within allowable limit of ACI 318 for the specified concrete strength at stressing.
      b. Enclose splices in housings long enough to permit necessary movements.

E. Grout Materials for Stressing Pockets:
   1. Mixture of cement, sand, and water. Aggregate and/or mix shall not contain any metallic materials. Slump shall be as low as practical for application.
   2. Bonding agent for grouting stress pockets: Aqueous phase film forming freeze-thaw resistant compound suitable for brush or spray application and complying with Mil-B-19235, Chem-Master Corporation; "Polyweld", Larsen Products Corporation; "Welder", W. R. Grace; "Daraweld-PBA" or approved equal.

2.02 DESIGN CRITERIA

A. Strand: Base selection on required spacing indicated and per project requirements.
   1. Maximum working stress in strands at 70% of minimum guaranteed ultimate strength of strand immediately after anchoring strand. Temporary stress in strands is not to exceed 80% of minimum guaranteed ultimate strength of strand without approval of the Owner's Representative.

2.03 MANUFACTURE

A. Post-tensioning tendons shall be fabricated in accordance with detailed construction drawings as provided by the Owner's Representative, unless otherwise noted on the plans.

B. Precaution shall be taken to prevent rust through prolonged exposure of the pre-stressing steel. Contractor shall coordinate deliveries and provide storage to keep exposure of strands to corrosion to a minimum.

C. Remove and replace strands having broken wires and/or strands showing fabrication defects.

D. Tag pre-stressing steel with assigned heat number.

2.04 EQUIPMENT

A. Fabricating and Placing: All equipment used for fabricating, handling and placing tendons shall be such that it does not damage or deteriorate the pre-stressing steel or the anchorages.

B. Stressing: All hydraulic jacks shall be equipped with calibrated hydraulic pressure gauges to permit the stress in pre-stressing steel to be computed at any time. A calibration chart shall accompany each jack-pump-gauge unit. If inconsistencies

between the measured elongation and the jack gauge reading occur, the jack and gauge shall be recalibrated. An agreement of within +\- 5% shall be satisfactory. Check jack chucks for uneven wear before each use and replace if such wear is evident.

PART 3 - EXECUTION

3.01 PLACING

A. Installation:
   1. The installation of post-tensioned tendons shall be performed by an organization that has successfully completed previous installations of a major nature similar to the one involved in this contract.
   2. All post-tensioning shall be under the immediate control of a person experienced in this type of work. He shall exercise close check and rigid control of all operations as necessary for full compliance with all requirements.
   3. Post-tensioning strands have priority over the other reinforcement, conduit and embedded items for location.
   4. Location of pre-stressing tendons in the field must be in accordance with the approved shop drawings. Any changes due to interference with other trades must be approved by the Owner's Representative.

B. Profile: Provide suitable horizontal and vertical spacers and/or chairs as required to hold strands in true position and in required profile. Placing tolerance: +\- ½ inch in vertical direction.

C. Fabrication: Fabricate all strands in given pour full length without splices or couplers unless accepted by the Owner's Representative.

D. Horizontal Deviation:
   1. Strands shall clear openings and drains by at least 6 inches. Slight deviation in spacing of strands is permitted where required to avoid openings and inserts which are specifically located on drawings.

   2. Keep horizontal plane deviations to a radius of curvature of not less than 21 ft.

E. Blockouts/Sleeves/Openings: Provide blockouts or sleeves prior to the concrete pour for all openings required by Owner's Representative through the pre-stressed slabs. Any openings not provided for shall be located to miss pre-stressing tendons and locations shall be submitted for approval prior to cutting any opening.

F. Concrete Placement:
   1. Concrete shall be placed in such a manner as to ensure that alignment or post-tensioning tendons remains unchanged. Special provision shall be made to ensure proper vibration of concrete around tendon bearing plates.
   2. Where the end of a post-tensioned assembly will not be covered by concrete, the anchoring devices shall be recessed so that the ends of the pre-stressing steel and all parts of the anchoring devices will be at least 2 inches inside of the end surface of the members. Unless a greater embedment is shown on the plans. Following post-tensioning, the recesses shall be filled with non-metallic, non-shrink grout and finished flush.

3.02 STRESSING

A. Concrete Strength: Do not commence tensioning until concrete has reached a strength of at least f'c = 2,100 psi or as otherwise specified on the drawings, as evidenced by test results of field cured cylinders and until approval has been given by the Owner's Representative. Perform testing by approved independent testing laboratory in accordance with ANSI/ASTM C31. Minimum of three field cured cylinders are required for each break.

B. Tendon Position: If tendons move out of their designed positions during concreting operations, adjust tendons to their correct position.

C. Records: Keep records of elongation and tension applied to each tendon and submit them to the Owner's Representative promptly upon completion of each slab.

D. Procedure: At the time of stressing, check individual strand to establish procedure for ensuring uniform results.

E. Recheck: Owner's Representative shall have the right to order a recheck at any time it appears that design stresses are not being attained.

F. Sheathing Check: Do not tension unless the stressing steel is reasonably free and unbonded in enclosure. All tears and holes in the enclosure shall be repaired before concreting begins.

G. Record Review: Do not cut or cover strand ends until tensioning records have been received and reviewed by the Owner's Representative and his permission given to proceed.

3.03 GROUTING OF STRESSING POCKETS

A. Coat exposed tensioning recesses with an approved bonding agent and then fill flush with specified grout. Perform this work as soon as practical after completion of stressing.

END OF SECTION

SECTION 07900
SEALANTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. The general provisions of the Contract, including Standard Requirements for Contract Work, Special Provisions and General Requirements, apply to the work specified in this Section.

1.02 SCOPE

A. Work under this Section consists of furnishing everything necessary for and incidental to the execution and completion of all sealant work, as indicated on the Drawings and specified herein.

1.03 DESCRIPTION OF WORK

A. The extent of sealant work is indicated on the Drawings.

B. The required applications of sealants includes, but are not necessarily limited to the following general locations:

1. New Sidewalk Expansion Joints.
2. Between Courts and Fence Bands.

1.04 QUALITY ASSURANCE

A. Obtain sealant materials only from manufacturers who will, if required, send a qualified technical representative to the project site, for the purpose of advising the installer of proper procedures and precautions for the use of the materials.

B. Installer: A firm with a minimum of five (5) years successful experience in the application of the types of materials required.

1.05 SUBMITTALS

A. Comply with Section 01340.

B. Samples, Sealants and Caulking: Submit three (3), 12" long samples of each color required (except black) for each type of sealant or caulking compound exposed to view. Install sample between 2 strips of material similar to or representative of typical surfaces where sealant or compound will be used, held apart to represent typical joint widths. Samples will be reviewed by Owner's Representative for color and texture only. Compliance with all other requirements is the exclusive responsibility of the Contractor.

C. Guarantee, Sealants: Submit four (4) copies of written guarantee agreeing to repair or replace sealants which fail to perform as air-tight and water-tight joints; or fail in joint adhesion, cohesion, abrasion resistance, weather resistance, extrusion resistance, migration resistance, stain resistance, or general durability; or appear to deteriorate in any other manner not clearly specified by submitted manufacturer's data, as an inherent quality of the material for the exposure indicated. Provide guarantee signed by the Installer and Contractor.

1. Guarantee period of one (1) year from and after acceptance of the project by the Owner.

1.06 JOB CONDITIONS

A. Pre-Installation Meeting: At the Contractor's direction, the Installer, Owner and/or the Owner's Representative, sealant manufacturer's technical representative, and other trades involved in coordination with sealant work shall meet with the Contractor at the project site to review the procedures and time schedule proposed for installation of sealants in coordination with other work. Review each major sealant application required on the project.

B. Condition of Other Work: The Installer must examine the joint surfaces, backing, and anchorage of units forming sealant rabbet, and the conditions under which the sealant work is to be performed, and notify the Contractor and the Owner's Representative in writing of conditions detrimental to the proper and timely completion of the work and performance of the sealants. Do not proceed with the sealant work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer.

C. Weather Conditions: Do not proceed with installation of sealants under adverse weather conditions, or when temperatures are below or above manufacturer's recommended limitation for installation. Proceed with the work only when forecasted weather conditions are favorable for proper cure and development of high early bond strength. Wherever joint width is affected by ambient temperature variations, install elastomeric sealants only when temperatures are in the lower third of manufacturer's recommended installation temperature so that sealant will not be subjected to excessive elongation and bond stress at subsequent low temperatures. Coordinate time schedule with Contractor to avoid delay of project.

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

A. Colors: Provide manufacturer's standard colors plus thirty (30) additional Fastpak, as selected by Owner's Representative.

B. Compatibility: Before purchase of each specified sealant, investigate it's compatibility with the joint surfaces, joint fillers, sealers and other materials in the system. Provide only materials (manufacturer's recommended variation of the specified materials) which are know to be fully compatible with the actual installation condition, as shown by

manufacturer's published data or certification.

C. Provide size and shape of preformed sealant units as shown or, if not shown, as recommended by the manufacturer, either in the published data or upon consultation with technical representative.

2.02 SELF-LEVELING JOINT SEALANT

A. Materials shall be Tremco THC-900 multi-component, chemically curing, self-leveling polyurethane joint sealant as manufactured by Tremco, 10701 Shaker Blvd., Cleveland, Ohio 44104, or approved equal.

2.03 GENERAL PURPOSE SEALANT

A. Materials shall be Tremco Dymeric, epoxidized polyurethane terpolymer general purpose sealant as manufactured by Tremco, 10701 Shaker Blvd., Cleveland, Ohio 44104, or approved equal.

2.04 MISCELLANEOUS MATERIALS

A. Joint Cleaner: Provide the type of joint cleaning compound recommended by the sealant or caulking compound manufacturer, for the joint surfaces to be cleaned.

B. Joint Primer/Sealer: Provide the type of joint primer/sealer recommended by the sealant manufacturer, for the joint surfaces to be primed or sealed.

C. Bond Breaker Tape: Polyethylene tape or other plastic tape as recommended by sealant manufacturer, to be applied to sealant-contact surfaces where bond to the substrate or joint filler must be avoided for proper performance of sealant. Provide self-adhesive tape wherever applicable.

D. Sealant Backer Rod: Compressible rod stock polyethylene foam, polyethylene jacketed polyurethane foam, butyl rubber foam, neoprene foam or other flexible, permanent, durable non-absorptive material as recommended for compatibility with sealant by the sealant manufacturer. Provide size and shape of rod which will control the joint depth for sealant placement, break bond of sealant at bottom of joint, form optimum shape of sealant bead on back side, and provide a highly compressible backer to minimize the possibility of sealant extrusion when joint is compressed.

2.05 APPLICATIONS

A. Tremco THC-900 Sealant: Provide at all exterior horizontal slab or paving joints.

B. Tremco Dymeric Sealant: Provide at all other joints noted on the Drawings and around steel handrail base plates where handrail has been raised.

PART 3 - EXECUTION

3.01 JOINT SURFACE PREPARATION

A. Clean joint surfaces immediately before installation of sealants. Remove dirt, insecure coatings, moisture and other substances which would interfere with bond of sealants. All joint surface preparation shall be in accordance with sealant manufacturer's printed instructions.

3.02 INSTALLATION

A. Comply with sealant manufacturer's printed instructions except where more stringent requirements are shown or specified and except where manufacturer's technical representative directs otherwise.

B. Prime or seal the joint surfaces wherever shown or recommended by the sealant manufacturer. Do not allow primer/sealer to spill or migrate onto adjoining surfaces.

C. Install sealant backer rod for liquid elastomeric sealants, except where shown to be omitted or recommended to be omitted by sealant manufacturer for the application shown.

D. Install bond breaker tape wherever required by manufacturer's recommendations to ensure that elastomeric sealants will perform properly.

E. Employ only proven installation techniques, which will ensure that sealants will be deposited in uniform, continuous ribbons without gaps or air pockets, with complete "wetting" of joint bond surfaces equally on opposite sides. Except as otherwise indicated, fill sealant rabbet to a slightly concave surface, slightly below adjoining surfaces. Where horizontal joints are between a horizontal surface and a vertical surface, fill joint to form a slight cove, so that joint will not trap moisture and dirt.

F. Install sealants to depths as shown or, if not shown, as recommended by the sealant manufacturer but within the following general limitations, measured at the center (thin) section of the bead.

G. Spillage: Do not allow sealants or compounds to overflow or spill onto adjoining surfaces, or to migrate into the voids of adjoining surfaces including rough textures such as exposed aggregate panels. Use masking tape or other precautionary devices to prevent staining of adjoining surfaces, by either the primer/sealer or the sealant/caulking compound.

H. Remove excess and spillage of compounds promptly as the work progresses. Clean the adjoining surfaces by whatever means may be necessary to eliminate evidence of spillage, without damage to the adjoining surfaces of finishes.

3.03 CURE AND PROTECTION

A. Cure sealants and caulking compounds in compliance with manufacturer's instructions and recommendation, to obtain high early bond strength, internal cohesive strength and surface durability.

B. The Installer shall advise the Contractor of procedures required for the curing and protection of sealants and caulking compounds during the construction period, so that they will be without deterioration or damage (other than normal wear and weathering) at the time of Owner's acceptance.

END OF SECTION

SECTION 032000
CONCRETE REINFORCING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Reinforcing steel for cast-in-place concrete.

B. Supports and accessories for steel reinforcement.

1.02 RELATED REQUIREMENTS

A. Section 033000 - Cast-in-Place Concrete.

1.03 REFERENCE STANDARDS

A. ACI 301 - Specifications for Structural Concrete; 2016.

B. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; 2014 (Errata 2018).

C. ACI SP-66 - ACI Detailing Manual; 2004.

D. ASTM A184/A184M - Standard Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement; 2019.

E. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2020.

F. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2018a.

G. CRSI (DA4) - Manual of Standard Practice; 2009.

H. CRSI (P1) - Placing Reinforcing Bars; 2011.

1.04 SUBMITTALS

A. Shop Drawings: Comply with requirements of ACI SP-66. Include bar schedules, shapes of bent bars, spacing of bars, and location of splices.

1.05 QUALITY ASSURANCE

A. Perform work of this section in accordance with ACI 301.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Do not store reinforcing materials in contact with ground.

PART 2 PRODUCTS

2.01 REINFORCEMENT

A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi).
   1. Plain billet-steel bars.
   2. Unfinished.

B. Steel Welded Wire Reinforcement (WWR): Galvanized, deformed type; ASTM A1064/A1064M.
   1. Form: Flat Sheets.

C. Reinforcement Accessories:
   1. Tie Wire: Annealed, minimum 16 gauge, 0.0508 inch.
   2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.
   3. Provide stainless steel components for placement within 1-1/2 inches of weathering surfaces.

2.02 FABRICATION

A. Fabricate concrete reinforcing in accordance with CRSI (DA4) - Manual of Standard Practice.

B. Welding of reinforcement is not permitted.

C. Locate reinforcing splices not indicated on drawings at point of minimum stress.

PART 3 EXECUTION

3.01 PLACEMENT

A. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale.

B. Place, support and secure reinforcement against displacement. Do not deviate from required position.

C. Do not displace or damage vapor barrier.

D. Accommodate placement of formed openings.

E. Comply with applicable code for concrete cover over reinforcement.

F. Bond and ground all reinforcement to requirements of Section 260526.

3.02 FIELD QUALITY CONTROL

A. An independent testing agency will inspect installed reinforcement for compliance with contract documents before concrete placement.

END OF SECTION

SECTION 033000
CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Concrete formwork.

B. Floors and slabs on grade.

C. Concrete shear walls, elevator shaft walls, and foundation walls.

D. Concrete foundations and anchor bolts for pre-engineered building.

E. Joint devices associated with concrete work.

F. Miscellaneous concrete elements, including equipment pads, light pole bases, and flagpole bases.

G. Concrete curing.

1.02 RELATED REQUIREMENTS

A. Section 032000 - Concrete Reinforcing.

1.03 REFERENCE STANDARDS

A. ACI 117 - Specifications for Tolerances for Concrete Construction and Materials; 2010 (Reapproved 2015).

B. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; 1991 (Reapproved 2009).

C. ACI 301 - Specifications for Structural Concrete; 2016.

D. ACI 302.1R - Guide to Concrete Floor and Slab Construction; 2015.

E. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; 2000 (Reapproved 2009).

F. ACI 305R - Guide to Hot Weather Concreting; 2010.

G. ACI 306R - Guide to Cold Weather Concreting; 2016.

H. ACI 308R - Guide to External Curing of Concrete; 2016.

I. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; 2014 (Errata 2018).

J. ACI 347R - Guide to Formwork for Concrete; 2014, with Errata (2017).

K. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2020.

L. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2018a.

M. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2018.

N. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2020.

O. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2020.

P. ASTM C109/C109M - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or (50-mm) Cube Specimens); 2020a.

Q. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete; 2015a.

R. ASTM C150/C150M - Standard Specification for Portland Cement; 2020.

S. ASTM C171 - Standard Specification for Sheet Materials for Curing Concrete; 2016.

T. ASTM C173/C173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method; 2016.

U. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete; 2010a (Reapproved 2016).

V. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete; 2019.

W. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete; 2019.

X. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2019.

Y. ASTM C685/C685M - Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing; 2017.

Z. ASTM C827/C827M - Standard Test Method for Change in Height at Early Ages of Cylindrical Specimens of Cementitious Mixtures; 2016.

AA. ASTM C881/C881M - Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete; 2015.

AB. ASTM C1059/C1059M - Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete; 2013.

AC. ASTM C1107/C1107M - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink); 2017.

AD. ASTM C1240 - Standard Specification for Silica Fume Used in Cementitious Mixtures; 2020.

AE. ASTM C1315 - Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete; 2019.

AF. ASTM C1602/C1602M - Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete; 2012.

AG. ASTM D2103 - Standard Specification for Polyethylene Film and Sheeting; 2015.

AH. ASTM E1643 - Standard Practice for Selection, Design, Installation and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs; 2018a.

AI. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs; 2017.

AJ. COE CRD-C 513 - COE Specifications for Rubber Waterstops; 1974.

AK. NSF 61 - Drinking Water System Components - Health Effects; 2019.

AL. NSF 372 - Drinking Water System Components - Lead Content; 2016.

1.04 SUBMITTALS

A. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
   1. For curing compounds, provide data on method of removal in the event of incompatibility with floor covering adhesives.

B. Mix Design: Submit proposed concrete mix design.
   1. Indicate proposed mix design complies with requirements of ACI 301, Section 4 - Concrete Mixtures.
   2. Indicate proposed mix design complies with requirements of ACI 318, Chapter 5 - Concrete Quality, Mixing and Placing.

C. Samples: Submit samples of underslab vapor retarder to be used.

D. Test Reports: Submit report for each test or series of tests specified.

E. Manufacturer's Installation Instructions: For concrete accessories, indicate installation procedures and interface required with adjacent construction.

F. Project Record Documents: Accurately record actual locations of embedded utilities and components that will be concealed from view upon completion of concrete work.

1.05 QUALITY ASSURANCE

A. Perform work of this section in accordance with ACI 301 and ACI 318.

B. Follow recommendations of ACI 305R when concreting during hot weather.

C. Follow recommendations of ACI 306R when concreting during cold weather.

PART 2 PRODUCTS

2.01 FORMWORK

A. Formwork Design and Construction: Comply with guidelines of ACI 347R to provide formwork that will produce concrete complying with tolerances of ACI 117.

B. Form Materials: Contractor's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.
   1. Earth Cuts: Earth cuts may be used for foundation elements only with approval from Geotechnical Engineer and Structural Engineer of Record.

2.02 REINFORCEMENT MATERIALS

A. Comply with requirements of Section 032000.

2.03 CONCRETE MATERIALS

A. Cement: ASTM C150/C150M, Type I - Normal, Type II - Moderate, or Type I/II - Blended
   1. Acquire cement for entire project from same source.

B. Fine and Coarse Aggregates: ASTM C33/C33M.
   1. Acquire aggregates for entire project from same source.

C. Fly Ash: ASTM C618, Class C or F.

D. Silica Fume: ASTM C1240, proportioned in accordance with ACI 211.1.

E. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete.

2.04 ADMIXTURES

A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.

B. Air Entrainment Admixture: ASTM C260/C260M.

C. High Range Water Reducing and Retarding Admixture: ASTM C494/C494M Type G.

D. High Range Water Reducing Admixture: ASTM C494/C494M Type F.

E. Water Reducing and Accelerating Admixture: ASTM C494/C494M Type E.

F. Water Reducing and Retarding Admixture: ASTM C494/C494M Type D.

G. Accelerating Admixture: ASTM C494/C494M Type C.

H. Retarding Admixture: ASTM C494/C494M Type B.

I. Water Reducing Admixture: ASTM C494/C494M Type A.

2.05 ACCESSORY MATERIALS

A. Underslab Vapor Retarder:
   1. Sheet Material: ASTM E1745, Class A; stated by manufacturer as suitable for installation in contact with soil or granular fill under concrete slabs. Single ply polyethylene is prohibited.
   2. Accessory Products: Vapor retarder manufacturer's recommended tape, adhesive, mastic, prefabricated boots, etc., for sealing seams and penetrations.

B. Non-Shrink Cementitious Grout: Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
   1. Grout: Comply with ASTM C1107/C1107M.
   2. Height Change, Plastic State; when tested in accordance with ASTM C827/C827M:
      a. Maximum: Plus 4 percent.

b. Minimum: Plus 1 percent.
3. Minimum Compressive Strength at 48 Hours: 2,000 pounds per square inch.
4. Minimum Compressive Strength at 28 Days: 7,000 pounds per square inch.

2.06 BONDING AND JOINTING PRODUCTS

A. Latex Bonding Agent: Non-redispersable acrylic latex, complying with ASTM C1059/C1059M, Type II.

B. Epoxy Bonding System:
1. Complying with ASTM C881/C881M and of Type required for specific application.

C. Waterstops: Rubber, complying with COE CRD-C 513.

D. Waterstops: Bentonite and butyl rubber, complying with NSF 61 and NSF 372.

E. Slab Isolation Joint Filler: 1/2 inch thick, height equal to slab thickness, with removable top section that will form 1/2 inch deep sealant pocket after removal.

F. Slab Contraction Joint Device: Preformed linear strip intended for pressing into wet concrete to provide straight route for shrinkage cracking.

2.07 CURING MATERIALS

A. Evaporation Reducer: Liquid thin-film-forming compound that reduces rapid moisture loss caused by high temperature, low humidity, and high winds; intended for application immediately after concrete placement.

B. Curing Compound, Naturally Dissipating: Clear, water-based, liquid membrane-forming compound; complying with ASTM C309.

C. Curing and Anti-Spalling Compound: Boiled linseed oil compound.

D. Curing and Sealing Compound, Moisture Emission-Reducing, Membrane-Forming: Liquid, membrane-forming, clear sealer, for application to newly-placed concrete; capable of providing adequate bond for flooring adhesives, initially and over the long term; with sufficient moisture vapor impermeability to prevent deterioration of flooring adhesives due to moisture emission.
1. Use this product to cure and seal all slabs to receive adhesively applied flooring or roofing.
2. Comply with ASTM C309 and ASTM C1315 Type I Class A.
3. VOC Content: Less than 100 g/L.

E. Moisture-Retaining Sheet: ASTM C171.

F. Polyethylene Film: ASTM D2103, 4 mil, 0.004 inch thick, clear.

G. Water: Potable, not detrimental to concrete.

2.08 CONCRETE MIX DESIGN

A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.

B. Concrete Strength: Establish required average strength for each type of concrete on the basis of field experience or trial mixtures, as specified in ACI 301.
1. For trial mixtures method, employ independent testing agency acceptable to Architect or Engineer for preparing and reporting proposed mix designs.

C. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended or required by manufacturer.

D. Normal Weight Concrete:
1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: As indicated on drawings.
2. Water-Cement Ratio: Maximum 40 percent by weight.
3. Maximum Aggregate Size: 5/8 inch.

2.09 MIXING

A. On Project Site: Mix in drum type batch mixer, complying with ASTM C685/C685M. Mix each batch not less than 1-1/2 minutes and not more than 5 minutes.

B. Transit Mixers: Comply with ASTM C94/C94M.

C. Adding Water: If concrete arrives on-site with slump less than suitable for placement, do not add water that exceeds the maximum water-cement ratio or exceeds the maximum permissible slump.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify lines, levels, and dimensions before proceeding with work of this section.

3.02 PREPARATION

A. Formwork: Comply with requirements of ACI 301. Design and fabricate forms to support all applied loads until concrete is cured, and for easy removal without damage to concrete.

B. Verify that forms are clean and free of rust before applying release agent.

C. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.

D. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning and applying bonding agent in according to bonding agent manufacturer's instructions.
   1. Use epoxy bonding system for bonding to damp surfaces, for structural load-bearing applications, and where curing under humid conditions is required.
   2. Use latex bonding agent only for non-load-bearing applications.

E. Interior Slabs on Grade: Install vapor retarder under interior slabs on grade. Comply with ASTM E1643. Lap joints minimum 6 inches. Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions. Repair damaged vapor retarder before covering.

3.03 PLACING CONCRETE

A. Place concrete in accordance with ACI 304R.

B. Place concrete for floor slabs in accordance with ACI 302.1R.

C. Notify Architect or Engineer not less than 24 hours prior to commencement of placement operations.

D. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.

E. Ensure reinforcement, inserts, waterstops, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.

F. Place concrete continuously without construction (cold) joints wherever possible; where construction joints are necessary, before next placement prepare joint surface by removing laitance and exposing the sand and sound surface mortar, by sandblasting or high-pressure water jetting.

G. Finish floors level and flat, unless otherwise indicated, within the tolerances specified below.

3.04 SLAB JOINTING

A. Locate joints as indicated on drawings.

B. Anchor joint fillers and devices to prevent movement during concrete placement.

C. Isolation Joints: Use preformed joint filler with removable top section for joint sealant, total height equal to thickness of slab, set flush with top of slab.

3.05 FLOOR FLATNESS AND LEVELNESS TOLERANCES

A. Maximum Variation of Surface Flatness:
   1. Exposed Concrete Floors: 1/4 inch in 10 feet.
   2. Under Seamless Resilient Flooring: 1/4 inch in 10 feet.
   3. Under Carpeting: 1/4 inch in 10 feet.

B. Correct the slab surface if tolerances are less than specified.

C. Correct defects by grinding or by removal and replacement of the defective work. Areas requiring corrective work will be identified. Re-measure corrected areas by the same process.

3.06 CONCRETE FINISHING

A. Repair surface defects, including tie holes, immediately after removing formwork.

B. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch or more in height.

C. Exposed Form Finish: Rub down or chip off and smooth fins or other raised areas 1/4 inch or more in height. Provide finish as follows:

D. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:
   1. Surfaces to Receive Thin Floor Coverings: "Steel trowel" as described in ACI 302.1R; thin floor coverings include carpeting, resilient flooring, seamless flooring, resinous matrix terrazzo, thin set quarry tile, and thin set ceramic tile.
   2. Other Surfaces to Be Left Exposed: Trowel as described in ACI 302.1R, minimizing burnish marks and other appearance defects.

E. In areas with floor drains, maintain floor elevation at wwlls; pitch surfaces uniformly to drains at 1:100 nominal, unless indicated otherwise on drawings.

3.07 CURING AND PROTECTION

A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.

B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.

C. Formed Surfaces: Cure by moist curing with forms in place for full curing period.

D. Surfaces Not in Contact with Forms:
   1. Slabs and Floors To Receive Adhesive-Applied Flooring: Curing compounds and other surface coatings are usually considered unacceptable by flooring and adhesive manufacturers. If such materials must be used, either obtain the approval of the flooring and adhesive manufacturers prior to use or remove the surface coating after curing to flooring manufacturer's satisfaction.
   2. Initial Curing: Start as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than three days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
   3. Final Curing: Begin after initial curing but before surface is dry.

3.08 FIELD QUALITY CONTROL

A. An independent testing agency will perform field quality control tests.

B. Provide free access to concrete operations at project site and cooperate with appointed firm.

C. Submit proposed mix design of each class of concrete to inspection and testing firm for review prior to commencement of concrete operations.

D. Tests of concrete and concrete materials may be performed at any time to ensure compliance with specified requirements.

E. Compressive Strength Tests: ASTM C39/C39M, for each test, mold and cure three concrete test cylinders. Obtain test samples for every 100 cubic yards or less of each class of concrete placed.

F. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.

G. Perform one slump test for each set of test cylinders taken, following procedures of ASTM C143/C143M.

3.09 DEFECTIVE CONCRETE

A. Test Results: The testing agency shall report test results in writing to Architect or Engineer and Contractor within 24 hours of test.

B. Defective Concrete: Concrete not complying with required lines, details, dimensions, tolerances or specified requirements.

C. Repair or replacement of defective concrete will be determined by the Architect or Engineer. The cost of additional testing shall be borne by Contractor when defective concrete is identified.

D. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Architect or Engineer for each individual area.

3.10 PROTECTION

A. Do not permit traffic over unprotected concrete floor surface until fully cured.

END OF SECTION

SECTION 040511
MORTAR AND MASONRY GROUT

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Mortar for masonry.

B. Grout for masonry.

1.02 RELATED REQUIREMENTS

A. Section 042000 - Unit Masonry: Installation of mortar and grout.

1.03 REFERENCE STANDARDS

A. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures; 2016.

B. ASTM C5 - Standard Specification for Quicklime for Structural Purposes; 2018.

C. ASTM C91/C91M - Standard Specification for Masonry Cement; 2018.

D. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2020.

E. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar; 2018.

F. ASTM C150/C150M - Standard Specification for Portland Cement; 2020.

G. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes; 2018.

H. ASTM C270 - Standard Specification for Mortar for Unit Masonry; 2019.

I. ASTM C387/C387M - Standard Specification for Packaged, Dry, Combined Materials for Concrete and High Strength Mortar; 2017.

J. ASTM C404 - Standard Specification for Aggregates for Masonry Grout; 2018.

K. ASTM C476 - Standard Specification for Grout for Masonry; 2020.

L. ASTM C780 - Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry; 2019.

M. ASTM C1019 - Standard Test Method for Sampling and Testing Grout for Masonry; 2019.

N. ASTM C1072 - Standard Test Methods for Measurement of Masonry Flexural Bond Strength; 2019.

O. ASTM C1142 - Standard Specification for Extended Life Mortar for Unit Masonry; 1995 (Reapproved 2013).

P. ASTM C1314 - Standard Test Method for Compressive Strength of Masonry Prisms; 2018.

Q. ASTM E518/E518M - Standard Test Methods for Flexural Bond Strength of Masonry; 2015.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Include design mix and indicate whether the Proportion or Property specification of ASTM C270 is to be used. Also include required environmental conditions and admixture limitations.

C. Reports: Submit reports on mortar indicating compliance of mortar to property requirements of ASTM C270 and test and evaluation reports per ASTM C780.

D. Reports: Submit reports on grout indicating compliance of component grout materials to requirements of ASTM C476 and test and evaluation reports to requirements of ASTM C1019.

E. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.05 QUALITY ASSURANCE

A. Comply with provisions of TMS 402/602, except where exceeded by requirements of Contract Documents.

1.06 FIELD CONDITIONS

A. Cold and Hot Weather Requirements: Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

PART 2 PRODUCTS

2.01 MORTAR AND GROUT APPLICATIONS

A. At Contractor's option, mortar and grout may be field-mixed from packaged dry materials, made from factory premixed dry materials with addition of water only, or ready-mixed.

B. Mortar Color: Natural gray unless otherwise indicated.

C. Mortar Mix Designs: ASTM C270, Property Specification.
   1. Masonry below grade and in contact with earth: Type S.
   2. Engineered Masonry: Type M.

2.02 MATERIALS

A. Packaged Dry Material for Mortar for Unit Masonry: Premixed Portland cement, hydrated lime, and sand; complying with ASTM C387/C387M and capable of producing mortar of the specified strength in accordance with ASTM C270 with the addition of water only.
   1. Color: Standard gray.

B. Packaged Dry Material for Grout for Masonry: Premixed cementitious materials and dried aggregates; capable of producing grout of the specified strength in accordance with ASTM C476 with the addition of water only.

C. Portland Cement: ASTM C150/C150M.
   1. Type: Type I - Normal; ASTM C150/C150M.
   2. Color: Standard gray.

D. Masonry Cement: ASTM C91/C91M.
   1. Type: Type N; ASTM C91/C91M.

E. Hydrated Lime: ASTM C207, Type S.

F. Quicklime: ASTM C5, non-hydraulic type.

G. Mortar Aggregate: ASTM C144.

H. Grout Aggregate: ASTM C404.

I. Water: Clean and potable.

J. Bonding Agent: Latex type.

2.03 MORTAR MIXING

A. Ready Mixed Mortar: ASTM C1142, Type equivalent to that specified according to ASTM C270.

B. Thoroughly mix mortar ingredients using mechanical batch mixer, in accordance with ASTM C270 and in quantities needed for immediate use.

C. Maintain sand uniformly damp immediately before the mixing process.

D. Do not use anti-freeze compounds to lower the freezing point of mortar.

E. If water is lost by evaporation, re-temper only within two hours of mixing.

2.04 GROUT MIXING

A. Mix grout in accordance with ASTM C94/C94M.

B. Thoroughly mix grout ingredients in quantities needed for immediate use in accordance with ASTM C476 for fine and coarse grout.

PART 3 EXECUTION

3.01 PREPARATION

A. Verify that field conditions are acceptable and are ready to receive masonry.

B. Apply bonding agent to existing concrete surfaces.

C. Plug clean-out holes for grouted masonry with brick masonry units. Brace masonry to resist wet grout pressure.

3.02 INSTALLATION

A. Install mortar and grout to requirements of section(s) in which masonry is specified.

B. Work grout into masonry cores and cavities to eliminate voids.

C. Do not install grout in lifts greater than 16 inches without consolidating grout by rodding.

D. Do not displace reinforcement while placing grout.

E. Remove excess mortar from grout spaces.

3.03 GROUTING

A. Use either high-lift or low-lift grouting techniques, at Contractor's option, subject to other limitations of Contract Documents.

B. Low-Lift Grouting:
   1. Limit height of pours to 12 inches.
   2. Limit height of masonry to 16 inches above each pour.
   3. Pour grout only after vertical reinforcing is in place; place horizontal reinforcing as grout is poured. Prevent displacement of bars as grout is poured.
   4. Place grout for each pour continuously and consolidate immediately; do not interrupt pours for more than 1-1/2 hours.

C. High-Lift Grouting:
   1. Verify that horizontal and vertical reinforcement is in proper position and adequately secured before beginning pours.
   2. Hollow Masonry: Limit lifts to maximum 4 feet and pours to maximum height of 24 feet.
   3. Place grout for spanning elements in single, continuous pour.

3.04 FIELD QUALITY CONTROL

A. An independent testing agency will perform field tests, in accordance with provisions of Section 014000 - Quality Requirements.

B. Test and evaluate mortar in accordance with ASTM C780 procedures.

C. Test and evaluate grout in accordance with ASTM C1019 procedures.

D. Prism Tests: Test masonry and mortar panels for compressive strength in accordance with ASTM C1314, and for flexural bond strength in accordance with ASTM C1072 or ASTM E518/E518M; perform tests and evaluate results as specified in individual masonry sections.

END OF SECTION

SECTION 042000
UNIT MASONRY

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Concrete block.

B. Mortar and grout.

C. Reinforcement and anchorage.

D. Accessories.

1.02 RELATED REQUIREMENTS

A. Section 032000 - Concrete Reinforcing: Reinforcing steel for grouted masonry.

B. Section 040511 - Mortar and Masonry Grout.

1.03 REFERENCE STANDARDS

A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.

B. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2020.

C. ASTM A641/A641M - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire; 2019.

D. ASTM A951/A951M - Standard Specification for Steel Wire for Masonry Joint Reinforcement; 2016, with Editorial Revision (2018).

E. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2018a.

F. ASTM C90 - Standard Specification for Loadbearing Concrete Masonry Units; 2016a.

G. ASTM C129 - Standard Specification for Nonloadbearing Concrete Masonry Units; 2017.

H. ASTM C140/C140M - Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units; 2020.

I. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar; 2018.

J. ASTM C270 - Standard Specification for Mortar for Unit Masonry; 2019.

K. ASTM C780 - Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry; 2019.

L. BIA Technical Notes No. 7 - Water Penetration Resistance – Design and Detailing; 2017.

M. BIA Technical Notes No. 13 - Ceramic Glazed Brick Exterior Walls; 2017.

N. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures; 2016.

1.04 SUBMITTALS

A. Product Data: Provide data for masonry units, fabricated wire reinforcement, mortar, and masonry accessories.

B. Shop Drawings: Indicate pertinent dimensions, materials, anchorage, size and type of fasteners, and accessories for brickwork support system.

C. Manufacturer's Certificate: Certify that masonry units meet or exceed specified requirements.

D. Test Reports: Concrete masonry manufacturer's test reports for units with integral water repellent admixture.

1.05 QUALITY ASSURANCE

A. Comply with provisions of TMS 402/602, except where exceeded by requirements of Contract Documents.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver, handle, and store masonry units by means that will prevent mechanical damage and contamination by other materials.

PART 2 PRODUCTS

2.01 CONCRETE MASONRY UNITS

A. Concrete Block: Comply with referenced standards and as follows:
   1. Size: Standard units with nominal face dimensions of 16 by 8 inches and nominal depths as indicated on drawings for specific locations.
   2. Special Shapes: Provide non-standard blocks configured for corners.
   3. Load-Bearing Units: ASTM C90, normal weight.
      a. Hollow block, as indicated.
   4. Non-Loadbearing Units: ASTM C129.
      a. Hollow block, as indicated.
      b. Lightweight.

2.02 MORTAR AND GROUT MATERIALS

A. Mortar and Grout: As specified in Section 040511.

2.03 REINFORCEMENT AND ANCHORAGE

A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi), deformed billet bars; galvanized.

B. Joint Reinforcement: Use ladder type joint reinforcement where vertical reinforcement is involved and truss type elsewhere, unless otherwise indicated.

C. Single Wythe Joint Reinforcement: ASTM A951/A951M.
   1. Material: ASTM A1064/A1064M steel wire, mill galvanized to ASTM A641/A641M, Class 3.
   2. Size: 0.1875 inch side rods with 0.1875 inch cross rods; width as required to provide not less than 5/8 inch of mortar coverage on each exposure.

D. Masonry Veneer Anchors: 2-piece anchors that permit differential movement between masonry veneer and structural backup, hot dip galvanized to ASTM A 153/A 153M, Class B.
   1. Anchor plates: Not less than 0.075 inch thick, designed for fastening to structural backup through sheathing by two fasteners; provide design with legs that penetrate sheathing and insulation to provide positive anchorage.
   2. Wire ties: Manufacturer's standard shape, 0.1875 inch thick.
   3. Vertical adjustment: Not less than 3-1/2 inches.

2.04 ACCESSORIES

A. Preformed Control Joints: Rubber material. Provide with corner and tee accessories, fused joints.

B. Joint Filler: Closed cell polyvinyl chloride; oversized 50 percent to joint width; self expanding; in maximum lengths available.

C. Cavity Mortar Control: Semi-rigid polyethylene or polyester mesh panels, sized to thickness of wall cavity, and designed to prevent mortar droppings from clogging weeps and cavity vents and allow proper cavity drainage.

D. Weeps:
   1. Type: Polyester mesh.
   2. Color(s): As indicated on drawings.

E. Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field conditions are acceptable and are ready to receive masonry.

B. Verify that related items provided under other sections are properly sized and located.

C. Verify that built-in items are in proper location, and ready for roughing into masonry work.

3.02 PREPARATION

A. Direct and coordinate placement of metal anchors supplied for installation under other sections.

B. Provide temporary bracing during installation of masonry work. Maintain in place until building structure provides permanent bracing.

3.03 COLD AND HOT WEATHER REQUIREMENTS

A. Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

3.04 COURSING

A. Establish lines, levels, and coursing indicated. Protect from displacement.

B. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.

C. Concrete Masonry Units:
   1. Bond: Running.
   2. Coursing: One unit and one mortar joint to equal 8 inches.
   3. Mortar Joints: Concave.

3.05 PLACING AND BONDING

A. Lay solid masonry units in full bed of mortar, with full head joints, uniformly jointed with other work.

B. Lay hollow masonry units with face shell bedding on head and bed joints.

C. Buttering corners of joints or excessive furrowing of mortar joints is not permitted.

D. Remove excess mortar and mortar smears as work progresses.

E. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment must be made, remove mortar and replace.

F. Perform job site cutting of masonry units with proper tools to provide straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.

3.06 WEEPS/CAVITY VENTS

A. Install weeps in veneer and cavity walls at 24 inches on center horizontally on top of through-wall flashing above shelf angles and lintels and at bottom of walls.

3.07 CAVITY MORTAR CONTROL

A. Do not permit mortar to drop or accumulate into cavity air space or to plug weep/cavity vents.

3.08 REINFORCEMENT AND ANCHORAGE - MASONRY VENEER

A. Masonry Back-Up: Embed anchors to bond veneer at maximum 16 inches on center vertically and 36 inches on center horizontally. Place additional anchors at perimeter of openings and ends of panels, so maximum spacing of anchors is 8 inches on center.

B. Stud Back-Up: Secure veneer anchors to stud framed back-up and embed into masonry veneer at maximum 16 inches on center vertically and 24 inches on center horizontally. Place additional anchors at perimeter of openings and ends of panels, so maximum spacing of anchors is 8 inches on center.

3.09 MASONRY FLASHINGS

A. Whether or not specifically indicated, install masonry flashing to divert water to exterior at all locations where downward flow of water will be interrupted.

3.10 GROUTED COMPONENTS

A. Lap splices minimum 24 bar diameters.

B. Support and secure reinforcing bars from displacement. Maintain position within 1/2 inch of dimensioned position.

C. Place and consolidate grout fill without displacing reinforcing.

3.11 CONTROL AND EXPANSION JOINTS

A. Do not continue horizontal joint reinforcement through control or expansion joints.

B. Install preformed control joint device in continuous lengths. Seal butt and corner joints in accordance with manufacturer's instructions.

C. Form expansion joint as detailed on drawings.

3.12 BUILT-IN WORK

A. As work progresses, install built-in metal door frames and glazed frames and other items to be built into the work and furnished under other sections.

B. Install built-in items plumb, level, and true to line.

C. Do not build into masonry construction organic materials that are subject to deterioration.

3.13 TOLERANCES

A. Install masonry within the site tolerances found in TMS 402/602.

B. Maximum Variation From Unit to Adjacent Unit: 1/16 inch.

C. Maximum Variation from Plane of Wall: 1/4 inch in 10 ft and 1/2 inch in 20 ft or more.

D. Maximum Variation from Plumb: 1/4 inch per story non-cumulative; 1/2 inch in two stories or more.

E. Maximum Variation from Level Coursing: 1/8 inch in 3 ft and 1/4 inch in 10 ft; 1/2 inch in 30 ft.

F. Maximum Variation of Mortar Joint Thickness: Head joint, minus 1/4 inch, plus 3/8 inch.

G. Maximum Variation from Cross Sectional Thickness of Walls: 1/4 inch.

3.14 CUTTING AND FITTING

3.15 FIELD QUALITY CONTROL

A. An independent testing agency will perform field quality control tests, as specified in Section 014000 - Quality Requirements.

B. Concrete Masonry Unit Tests: Test each variety of concrete unit masonry in accordance with ASTM C140/C140M for compliance with requirements of this specification.

C. Mortar Tests: Test each type of mortar in accordance with ASTM C780, testing with same frequency as masonry samples.

3.16 CLEANING

A. Remove excess mortar and mortar droppings.

B. Replace defective mortar. Match adjacent work.

C. Clean soiled surfaces with cleaning solution.

D. Use non-metallic tools in cleaning operations.

3.17 PROTECTION

A. Without damaging completed work, provide protective boards at exposed external corners that are subject to damage by construction activities.

END OF SECTION

SECTION 051200
STRUCTURAL STEEL FRAMING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Structural steel framing members.

B. Base plates, shear stud connectors and expansion joint plates.

C. Grouting under base plates.

1.02 RELATED REQUIREMENTS

A. Section 053100 - Steel Decking: Support framing for small openings in deck.

1.03 REFERENCE STANDARDS

A. AISC (MAN) - Steel Construction Manual; 2017.

B. AISC 303 - Code of Standard Practice for Steel Buildings and Bridges; 2016.

C. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2014.

D. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; 2018.

E. ASTM A108 - Standard Specification for Steel Bar, Carbon and Alloy, Cold Finished; 2018.

F. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.

G. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength; 2014, with Editorial Revision (2017).

H. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2020.

I. ASTM A501/A501M - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing; 2014.

J. ASTM A563 - Standard Specification for Carbon and Alloy Steel Nuts; 2015.

K. ASTM A563M - Standard Specification for Carbon and Alloy Steel Nuts (Metric); 2007 (Reapproved 2013).

L. ASTM A992/A992M - Standard Specification for Structural Steel Shapes; 2011 (Reapproved 2015).

M. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2018a.

N. ASTM C827/C827M - Standard Test Method for Change in Height at Early Ages of Cylindrical Specimens of Cementitious Mixtures; 2016.

O. ASTM E164 - Standard Practice for Contact Ultrasonic Testing of Weldments; 2019.

P. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated, Inch Dimensions 120 ksi and 150 ksi Minimum Tensile Strength, and Metric Dimensions 830 MPa and 1040 MPa Minimum Tensile Strength; 2019.

Q. ASTM F436/F436M - Standard Specification for Hardened Steel Washers Inch and Metric Dimensions; 2019.

R. ASTM F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength; 2018.

S. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2012.

T. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2015, with Errata (2016).

U. RCSC (HSBOLT) - Specification for Structural Joints Using High-Strength Bolts; Research Council on Structural Connections; 2014, with Errata (2015).

V. SSPC-Paint 15 - Steel Joist Shop Primer/Metal Building Primer; 1999 (Ed. 2004).

1.04 SUBMITTALS

A. Shop Drawings:
   1. Indicate profiles, sizes, spacing, locations of structural members, openings, attachments, and fasteners.
   2. Indicate welded connections with AWS A2.4 welding symbols. Indicate net weld lengths.

B. Manufacturer's Mill Certificate: Certify that products meet or exceed specified requirements.

C. Fabricator Test Reports: Comply with ASTM A1011/A1011M.

D. Welders Certificates: Certify welders employed on the Work, verifying AWS qualification within the previous 12 months.

1.05 QUALITY ASSURANCE

A. Fabricate structural steel members in accordance with AISC (MAN) "Steel Construction Manual."

B. Design connections not detailed on drawings under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in the State in which the Project is located.

PART 2 PRODUCTS

2.01 MATERIALS

A. Steel Angles and Plates: ASTM A36/A36M.

B. Steel W Shapes and Tees: ASTM A992/A992M.

C. Rolled Steel Structural Shapes: ASTM A992/A992M.

D. Cold-Formed Structural Tubing: ASTM A500/A500M, Grade B.

E. Hot-Formed Structural Tubing: ASTM A501/A501M, seamless or welded.

F. Pipe: ASTM A53/A53M, Grade B, Finish black.

G. Shear Stud Connectors: Made from ASTM A108 Grade 1015 bars.

H. Structural Bolts and Nuts: Carbon steel, ASTM A307, Grade A and galvanized in compliance with ASTM A153/A153M, Class C.

I. High-Strength Structural Bolts, Nuts, and Washers: ASTM F3125/F3125M, Type 1, with matching compatible ASTM A563 or ASTM A563M nuts and ASTM F436/F436M washers.

J. Tension Control Bolts: Twist-off type; ASTM F3125/F3125M.

K. Unheaded Anchor Rods: ASTM F1554, Grade 36, plain, with matching ASTM A563 or ASTM A563M nuts and ASTM F436/F436M Type 1 washers.

L. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.

M. Grout: ASTM C1107/C1107M; Non-shrink; premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
   1. Minimum Compressive Strength at 48 Hours: 2,000 pounds per square inch.
   2. Minimum Compressive Strength at 28 Days: 7,000 pounds per square inch.
   3. Height Change, Plastic State; when tested according to ASTM C827/C827M:
      a. Maximum: Plus 4 percent.
      b. Minimum: Plus 1 percent.

N. Shop and Touch-Up Primer: Fabricator's standard, complying with VOC limitations of authorities having jurisdiction.

O. Touch-Up Primer for Galvanized Surfaces: Fabricator's standard, complying with VOC limitations of authorities having jurisdiction.

2.02 FABRICATION

A. Shop fabricate to greatest extent possible.

B. Continuously seal joined members by continuous welds. Grind exposed welds smooth.

C. Fabricate connections for bolt, nut, and washer connectors.

2.03 FINISH

A. Shop prime structural steel members. Do not prime surfaces that will be fireproofed, field welded, in contact with concrete, or high strength bolted.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that conditions are appropriate for erection of structural steel and that the work may properly proceed.

3.02 ERECTION

A. Erect structural steel in compliance with AISC 303.

B. Allow for erection loads and provide sufficient temporary bracing to maintain structure in safe condition, plumb, and in true alignment until completion of erection and installation of permanent bracing.

C. Field weld components and shear studs indicated on shop drawings.

D. Use carbon steel bolts only for temporary bracing during construction, unless otherwise specifically permitted on drawings. Install high-strength bolts in accordance with RCSC (HSBOLT) "Specification for Structural Joints Using High-Strength Bolts".

E. Do not field cut or alter structural members without approval of Architect or Engineer.

F. After erection, prime welds, abrasions, and surfaces not shop primed, except surfaces to be in contact with concrete.

G. Grout solidly between column plates and bearing surfaces, complying with manufacturer's instructions for nonshrink grout. Trowel grouted surfaces smooth, splaying neatly to 45 degrees.

3.03 TOLERANCES

A. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.

B. Maximum Offset From True Alignment: 1/4 inch.

3.04 FIELD QUALITY CONTROL

A. An independent testing agency will perform field quality control tests, as specified in Section 014000 - Quality Requirements.

END OF SECTION

SECTION 053100
STEEL DECKING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Roof deck.

B. Supplementary framing for openings up to and including 18 inches.

C. Bearing plates and angles.

1.02 RELATED REQUIREMENTS

A. Section 051200 - Structural Steel Framing: Support framing for openings larger than 18 inches and shear stud connectors.

B. Section 051200 - Structural Steel Framing: Placement of embedded steel anchors for bearing plates in cast-in-place concrete.

C. Section 052100 - Steel Joist Framing: Support framing for openings larger than 18 inches and shear stud connectors.

D. Section 052100 - Steel Joist Framing: Placement of embedded steel anchors for bearing plates and joist seats in cast-in-place concrete.

1.03 REFERENCE STANDARDS

A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2014.

B. ASTM A510/A510M - Standard Specification for General Requirements for Wire Rods and Coarse Round Wire, Carbon Steel, and Alloy Steel; 2018.

C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2020.

D. ASTM B633 - Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel; 2019.

E. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2015, with Errata (2016).

F. AWS D1.3/D1.3M - Structural Welding Code - Sheet Steel; 2018.

G. ICC-ES AC43 - Acceptance Criteria for Steel Deck Roof and Floor Systems; 2016.

H. ICC-ES AC70 - Acceptance Criteria for Fasteners Power Driven into Concrete, Steel and Masonry Elements; 2016.

I. SDI (DM) - Publication No.30, Design Manual for Composite Decks, Form Decks, and Roof Decks; 2007.

J. SSPC-Paint 15 - Steel Joist Shop Primer/Metal Building Primer; 1999 (Ed. 2004).

K. SSPC-Paint 20 - Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic"); 2002 (Ed. 2004).

1.04 SUBMITTALS

A. Product Data: Provide deck profile characteristics, dimensions, structural properties, and finishes.

B. Shop Drawings: Indicate deck plan, support locations, projections, openings, reinforcement, pertinent details, and accessories.

C. Certificates: Certify that products furnished meet or exceed specified requirements.

D. Submit manufacturer's installation instructions.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Cut plastic wrap to encourage ventilation.

B. Separate sheets and store deck on dry wood sleepers; slope for positive drainage.

PART 2 PRODUCTS

2.01 STEEL DECK

A. Roof Deck: Non-composite type, fluted steel sheet:
   1. Galvanized Steel Sheet: ASTM A653/A653M, Structural Steel (SS) Grade 33/230, with G90/Z275 galvanized coating.
   2. Primer: Shop coat of manufacturer's standard primer paint over cleaned and phosphatized substrate.

2.02 ACCESSORY MATERIALS

A. Bearing Plates and Angles: ASTM A36/A36M steel, galvanized per ASTM A123/A123M.

B. Welding Materials: AWS D1.1/D1.1M.

C. Fasteners: Galvanized hardened steel, self tapping.

D. Powder Actuated Mechanical Fasteners: Steel; with knurled shank and forged ballistic point. Comply with applicable requirements of ICC-ES AC70.
   1. Design Requirements: Provide number and type of fasteners that comply with the applicable requirements of SDI (DM) design method for roof deck and floor deck applications and ICC-ES AC43.
   2. Material: Steel; ASTM A510/A510M.

E. Mechanical Fasteners: Steel; hex washer head, self-drilling, self-tapping.
   1. Fasteners for Steel Roof Decks Protected with Waterproofing Membrane: ASTM B633, SC1, Type III zinc electroplate.
   2. Fasteners for Exposed Steel Roof Deck Application: Manufacturer's standard stainless steel with bonded neoprene washer.

F. Weld Washers: Mild steel, uncoated, 3/4 inch outside diameter, 1/8 inch thick.

G. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.

H. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, complying with VOC limitations of authorities having jurisdiction.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions prior to beginning work.

3.02 INSTALLATION

A. Erect metal deck in accordance with SDI Design Manual and manufacturer's instructions. Align and level.

B. On concrete and masonry surfaces provide minimum 4 inch bearing.

C. On steel supports provide minimum 1-1/2 inch bearing.

D. Fasten deck to steel support members at ends and intermediate supports at 12 inches on center maximum, parallel with the deck flute and at each transverse flute using methods specified.

E. At mechanically fastened male/female side laps fasten at 24 inches on center maximum.

F. Drive mechanical sidelap connectors completely through adjacent lapped sheets; positively engage adjacent sheets with minimum three-thread penetration.

G. At welded male/female side laps weld at 18 inches on center maximum.

H. Weld deck in accordance with AWS D1.3/D1.3M.

I. At deck openings from 6 inches to 18 inches in size, provide 2 by 2 by 1/4 inch steel angle reinforcement. Place angles perpendicular to flutes; extend minimum two flutes beyond each side of opening and fusion weld to deck at each flute.

J. At deck openings greater than 18 inches in size, provide steel angle reinforcement. as specified in Section 051200.

K. Where deck (other than cellular deck electrical raceway) changes direction, install 6 inch minimum wide sheet steel cover plates, of same thickness as deck. Fusion weld 12 inches on center maximum.

L. At floor edges, install concrete stops upturned to top surface of slab, to contain wet concrete. Provide stops of sufficient strength to remain stationary without distortion.

M. At openings between deck and walls, columns, and openings, provide sheet steel closures and angle flashings to close openings.

N. Position roof drain pans with flange bearing on top surface of deck. Fusion weld at each deck flute.

O. Immediately after welding deck and other metal components in position, coat welds, burned areas, and damaged surface coating, with touch-up primer.

END OF SECTION

SECTION 328000

LANDSCAPE IRRIGATION SYSTEM

PART 1 -- GENERAL

1.1 SCOPE:

A. Furnish all work and materials, appliances, tools, equipment, facilities, transportation, and services necessary for and incidental to performing all operations in connection with the installation of underground sprinkler irrigation system complete, as shown on drawings and/or specified herein. When the term "Contractor" is used in this section, it shall refer to the irrigation Subcontractor.

1.2 QUALITY ASSURANCE:

The following Codes, Regulations, Reference Standards, and Specifications apply to work included in this section: ASTM: D2241, D2464, D2466, and D2564.

1.3 WARRANTY AND MAINTENANCE:

A. The Contractor shall warranty material and workmanship for one year after final acceptance including repair and replacement of defective materials, workmanship, and repair of backfill settlement.

B. Maintenance during warranty shall include, but not necessarily be limited to, the following:

1. Adjustment of sprinkler height and plumb to compensate for settlement and/or plant growth.
2. Backfilling of all trenches.
3. Adjustment of head coverage (arc of spray) as necessary.
4. Unstopping heads plugged by foreign material.
5. Adjustment of controller as necessary to insure proper sequence and watering time.
6. All maintenance necessary to keep the system in good operating order. Repair of damage caused by vandals, other contractors or weather conditions shall be considered extra to these specifications.

C. Warranty and maintenance after final acceptance does not include alterations as necessitated by re-landscaping, re-grading, addition of trees or the addition and/or changes in sidewalks, walls, driveways, etc.

D. Maintenance shall continue for one month after final acceptance.

1.4 SUBMITTALS:

A. The Contractor shall submit shop drawings or manufacturer's "cut sheet" for each type of sprinkler head, pipe, controller, valves, check valve assemblies, valve boxes, wire, conduit, fittings, and all other types of fixtures and equipment proposed to install on the job. The submittal shall include the manufacturer's name, model number, equipment capacity, and manufacturer's installation recommendation, if applicable, for each proposed item.

B. No partial submittal will be accepted, and submittals shall be neatly bound into a brochure and logically organized. After the submittal has been approved, substitutions will not be allowed except by written consent of the Landscape Architect.

C. Shop drawings shall include dimensions, elevations, construction, details, arrangements, and capacity of equipment, as well as manufacturer's installation recommendations**.**

1.5 "APPROVED EQUAL" SUBSTITUTIONS:

Where items on the plans are specified by a manufacturer's brand name and catalog number, followed by the phrase "or approved equal". This is not intended to unduly restrict competitive procurements or bidding but is done to assure a minimum standard of quality which is believed to be best for the item specified and to match existing equipment.

1.6 CODES/PERMITS:

A. All work under this section shall comply with the provisions of these Specifications, as illustrated on the accompanying drawings, or as directed by the Owner and shall satisfy all applicable local codes, ordinances, or regulations of the governing bodies and all authorities having jurisdiction over this Project.

B. Installation of equipment and materials shall be done in accordance with requirements of the National Electrical Code, City Plumbing Code, and standard plumbing procedures. The drawings and these Specifications are intended to comply with all the necessary rules and regulations; however, some discrepancies may occur, the Contractor shall immediately notify the Landscape Architect in writing of the discrepancies and apply for an interpretation. Should the discovery and notification occur after the execution of a contract, any additional work required for compliance with the regulations shall be paid for as covered by these Contract documents.

C. The Contractor shall give all necessary notices, obtain all permits, and pay all costs in connection with his work; file with all governmental departments having jurisdiction; obtain all required certificates of inspection for his work and deliver to the Owner.

D. The Contractor shall include in the work any labor, materials, services, apparatus, or drawings in order to comply with all applicable laws, ordinances, rules, and regulations whether or not shown on the drawings and/or specified.

1.7 EXISTING UTILITIES:

A. Locations and elevations of various utilities included with the scope of this work have been obtained from the most reliable sources available and should serve as a general guide without guarantee to accuracy. The Contractor shall examine the Site and verify to his own satisfaction the locations and elevation of all utilities and availability of utilities and services required. The Contractor shall inform himself as to their relation to the work and the submission of bids shall be deemed as evidence thereof. The Contractor shall repair at his own expense, and to the satisfaction of the Owner, for damage to any utility shown or not shown on the plans.

B. Should utilities not shown on the plans be found during excavations, Contractor shall promptly notify the Owner for instructions as to further action.

C. Contractor shall make necessary adjustments in the layout as may be required to connect to existing stub-outs, should such stub- outs not be located exactly as shown and as may be required to work around existing work, at no increase in cost to the Owner. All such work will be recorded on record drawings and turned over to the Owner prior to final acceptance.

1.8 RECORD DRAWINGS:

A. Record dimensioned locations and depths for each of the following:

1. Point of connection.
2. Sprinkler pressure line routing (provide dimensions for each 100 lineal feet (maximum) along each routing, and for each change in directions).
3. Gate valves.

4. Sprinkler control valves (buried only).
5. Control wire routing.
6. Other related items as may be directed by the Landscape Architect.

B. Locate all dimensions from two permanent points (buildings, monuments, sidewalks, curbs, or pavements).

C. Record all changes which are made from the Contract drawings, including changes in the pressure and non-pressure lines.

D. Record all required information on a set of reproducible drawing files.

E. Maintain information daily. Keep Contract drawings at the Worksite at all times and available for review by the Owner's representative.

1.9 CONTROLLER CHARTS:

A. Do not prepare charts until record drawings have been approved by the Owner's representative.

B. Provide one controller chart for each automatic controller installed.

1. Chart may be a reproduction of the record drawing, if the scale permits fitting within the controller door. If photo reduction prints are required, keep reduction to maximum size possible to retain full legibility.
2. Chart shall be blackline print of the actual system, showing the area covered by that controller.

C. Identify the area of coverage of each remote control valve, using a distinctly different pastel color, drawn over the entire area of coverage.

D. Following approval of charts by the Owner's representative, they shall be hermetically sealed between two layers of 20 mil. thick plastic sheet.

E. Charts must be completed and approved prior to final acceptance of the irrigation system.

1.10 OPERATING AND MAINTENANCE MANUALS:

A. Provide individual bound manuals detailing operating and maintenance requirements for irrigation systems.

B. Manuals shall be delivered to the Owner's representative for review and approval no later than 10 days prior to completion of work. Revise manual as required.

C. Provide descriptions of all installed materials and systems in sufficient detail to permit maintenance personnel to understand, operate, and maintain the equipment.

D. Provide the following in each manual:

1. Index sheet, stating Irrigation Contractor's name, address, telephone number, and name of person to contact.
2. Duration of guarantee period.
3. Equipment list providing the following for each item:

    a. Manufacturer's name.
    b. Make and model number.
    c. Name and address of local manufacturer's representative.
    d. Spare parts list in detail.
    e. Detailed operating and maintenance instructions of major equipment.

4. Recommended programs for watering by season.

1.11 CHECKLIST:

A. Provide a signed and dated checklist and deliver to the Owner's representative prior to final acceptance of the work.

B. Use the following format:

1. Plumbing permits: if none required, so note.
2. Material approvals: approved by and date.
3. Pressure line tests: by whom and date.
4. Record Drawings: received by and date.
5. Controller charts: received by and date.
6. Materials furnished: received by and date.
7. Operation and maintenance manuals: received by and date.
8. System and equipment operation instructions: received by and date.
9. Manufacturer's warranties if required: received by and date.
10. Written guarantee: received by and date.
11. Lowering of heads in lawn areas: if incomplete, so state.

1.12 ELECTRIC POWER:

Electric power shall be provided within five feet of each controller location by the G.C. The irrigation contractor shall provide final hardwire connection.

1.13 WATER FOR TESTING:

Unless noted otherwise on the plans or elsewhere, furnish all water necessary for testing, flushing, and jetting.

1.14 BORINGS, SLEEVES AND ELECTRICAL CONDUITS:

Sleeves and electrical conduits are the responsibility of the Irrigation Contractor to install prior to paving or related construction and should be installed as noted on the drawings and specifications. Contractors shall be responsible for locating all sleeves and conduits at no additional cost to the Authority. Borings under existing paving will be required where noted on the drawings and shall be provided at no additional cost to the Owner. Borings shall be a minimum of 18 inch depth and new pipes shall be incased in PVC sleeves as noted on the plans.

1.15 SPARE PARTS:

The Contractor shall supply the Owner with five spray heads, one for each head designated on the plan. The Contractor shall supply one additional key and hose swivel for every six quick couplers (one minimum).

PART 2 -- PRODUCTS

2.1 GENERAL:

Unless otherwise noted on the plans, all materials shall be new and unused. The irrigation equipment catalog numbers used for reference in these Specifications are to establish minimum quality standards and may be substituted with an "approved equal" as outlined in Paragraph 1.5 of this section.

2.2 POLYVINYL CHLORIDE PIPE (PVC PIPE):

PVC pipe manufactured in accordance with ASTM Standards noted herein.

A. Marking and Identification: PVC pipe shall be continuously and permanently marked with following information: Manufacturer's name, size, type of pipe, and material, SDR number, Product Standard number, and the NSF (National Sanitation Foundation) Seal.

B. PVC pipe fittings: Shall be of the same material as the PVC pipe specified and compatible with PVC pipe furnished. Solvent weld type fittings shall be Schedule 40.

C. PVC Pipe: Shall be as noted on the plans. Sizes up to 3” diameter shall be solvent weld type. Pipe sizes of 4” diameter and larger shall be o-ring gasket type with ductile iron gasket fittings.

D. Pipe sleeves: Shall be as noted on the plans.

2.3 SWING JOINTS:

Swing joints shall be O-ring seal type, Lasco or approved equal.

2.4 WIRE AND SPLICES:

A. Valve wire shall be as noted on the plans, minimum 14 gauge with type UF insulation which is Underwriters Laboratory approved for direct underground burial when used in a National Electrical Code Lass II Circuit (30 volts AC or less) as per Articles 725 and 300. Voltage drop shall be taken into consideration.

B. All connectors shall be UL listed, rated 600 volt, for PVC insulated wire. No wire splices shall be buried.

2.5 QUICK COUPLING VALVES:

A. Quick coupling valves shall be composed of a bronze cast body with a purple, (NP) cover.

B. The valve shall accept a single lug 3/4 inch bronze valve key for operation unless noted otherwise.

2.6 MANUAL VALVES:

A. Unless noted otherwise, manual valves 2-1/2 inches and smaller shall be all brass, globe type with composition disc rated at 150 pounds W.O.G. Manual valve size 4” and larger shall be Kennedy cast iron type.

B. All valves shall have wheel handles unless cross handles are called for on the plan.

2.7 VALVE BOXES:

A. A box shall be provided for all valves.

B. Valve boxes shall be made of high-strength plastic suitable for turf irrigation purposes.

C. Boxes shall be suitable in size and configuration for the operability and adjustment of the valve.

D. Extension sections will be used as appropriate to the depth of piping.

E. All valve box covers shall bolt down or have locking mechanisms and shall be colored green or black as selected by the Contracting Officer, or purple where required, as noted.

2.8 POP-UP SPRAY, BUBBLERS AND ROTARY HEADS:

A. Sprinkler heads are specified on the drawings. Spray heads shall have a minimum 4 inch pop-up.

B. The sprinkler body and all related parts shall be plastic cycolac or polycarbonate. They shall have a spring retraction for positive return action of the pop-up nozzle.

C. The spring for retraction and the adjustable nozzle screw shall be made of corrosion resistant materials.

2.9 DRIP TUBE WITH PRESSURE COMPENSATING EMITTERS:

Drip tube shall be of the manufacturer and model as noted on the plans. Pressure compensating emitters with internal check valves are required unless noted otherwise.

A. Barbed Insert Fittings

1. All barbed insert fittings shall be constructed of molded, ultra-violet-resistant plastic having nominal inside dimension (I.D.) of 0.24".
2. Each fitting shall have a minimum of two ridges or barbs per outlet with a raised barb nearest the fitting outlet. All fittings shall be of one manufacturer and shall be available in one of the following end configurations:

a. Barbed insert fittings, or
b. Male pipe threads (MPT) with barbed insert fittings, or
c. Female pipe threads (FPT) with barbed insert fittings.

2.10 ELECTRIC CONTROLLER:

A. The electric irrigation controller shall be as noted on the plans. The system may be designed to operate multiple section valves at a time, per controller unless otherwise noted.

B. Power source shall be 110v A.C. Output for operation of companion solenoid actuated valves shall be 24 volts 60 Cycle AC.

2.11 ELECTRIC REMOTE CONTROL VALVES:

A. Electric remote control valves shall have plastic bodies and covers and shall be globe-type diaphragm valves of normally closed design. The valves are specified on the drawings.

B. Operation shall be accomplished by means of integrally mounted heavy-duty 24-V DC solenoid complying with National Electrical Code, Class II Circuit. Solenoid coil shall be potted in epoxy resin within a plastic coated stainless steel housing. Solenoids shall be completely waterproof, suitable for direct underground burial.

C. A flow stem adjustment shall be included in each valve.

2.12 BACKFLOW PREVENTER:

A. An approved backflow prevention device is required, as noted on the plans. The device shall include all materials as required by the local municipality and shall be inspected accordingly.

2.13 TEMPERATURE SENSORS & RAIN SENSORS:

A. Rain and freeze sensors shall be provided and installed as noted on the plans.

PART 3 – EXECUTION

3.1 INSTALLATION, GENERAL:

A. Design Pressure: This irrigation system has been designed to operate with a minimum static inlet water pressure as indicated on the drawings. The Contractor shall take a pressure

reading prior to beginning construction. If the pressure reading is 5% less than above, the Contractor shall notify the Owner's Representative.

B. Contractor Responsibility: The Contractor shall not willfully install the irrigation system as shown on the drawings when it is obvious in the field that obstructions, grade differences or discrepancies in equipment usage, area dimensions or water pressure exist that might not have been considered in the engineering. Such obstructions or differences shall be brought to the attention of the Owner's Representative in writing. In the event this notification is not performed, the Contractor shall assume full responsibility for any revision necessary.

C. Staking: Before installation is started, place a stake or flag where each sprinkler is to be located, in accordance with drawing. Staking shall be approved by the Landscape Architect before proceeding.

D. Piping Layout: Piping layout is diagrammatic. Route piping around existing trees and root zones in such a manner as to avoid damage to plantings. Do not dig within the ball of newly planted trees or shrubs.

E. In areas where trees are present, trenches will be adjusted on site to provide a minimum clearance of four times the trunk diameter of the tree (at its base) between any tree and any trench.

F. All material and equipment shall be delivered to the Worksite in unbroken reels, cartons or other packaging to demonstrate that such material is new and of a quality and grade in keeping with the intent of these Specifications.

3.2 EXCAVATION AND TRENCHING:

A. The Contractor shall perform all excavation to the depth indicated in these Specifications and Contract drawings. The banks of trenches shall be kept as nearly vertical as practicable. Trenches shall be wide enough to allow a minimum of 4" between parallel pipelines or electrical wiring. Where rock excavation is required, or where stones are encountered in the bottom of the trench that would create a concentrated pressure on the pipe, the rock or stones shall be removed to a depth of six (6) inches minimum below the trench depth indicated. The over depth rock excavation and all excess trench excavation shall be backfilled with loose, moist earth or sand, thoroughly tamped. Whenever wet or otherwise unstable soil that is incapable of properly supporting the pipe is encountered in the trench bottom, such shall be removed to a depth and length required, and the trench backfilled to trench bottom grade as hereinafter specified, with course sand, fine gravel or other suitable material.

B. Bottom of trench grade shall be continued past ground surface deviations to avoid air pockets and low collection points in the line. The minimum cover specifications shall govern regardless of variations in ground surface profile and the occasional deeper excavation required at banks and other field conditions. Excavation shall be such that a uniform trench grade variation will occur in all cases where variations are necessary.

C. Trench excavation shall comprise the satisfactory removal and disposition of all materials and shall include all shoring and sheeting required to protect the excavation and to safeguard employees.

D. During excavation, material suitable for backfilling shall be stockpiled in an orderly manner a sufficient distance back from edge of trenches to avoid overloading and prevent slides or cave-ins. Material unsuitable for backfilling shall be wasted as directed by the Owner's Representative. When excavated material is of a rocky nature and the topsoil or any other layer of excavated material is suitable for pipe bedding and backfill in the vicinity of the pipe, such material shall be separately stockpiled for use in such bedding and pipe backfill operations, unless satisfactory imported material is used.

E. All excavations and backfill shall be unclassified and covered in the basic bid. No additional compensation will be allowed for rock encountered.

F. Restore all surfaces, existing underground installations, etc., damaged or cut as a result of the excavations to their original conditions in a manner acceptable to the Owner's Representative.

3.3 PIPE INSTALLATION:

A. Sprinkler Mains: Sprinkler mains are that portion of piping from water source to electric valves. This portion of piping is subject to surges since it is a closed portion of the sprinkler system. Sprinkler mains shall be installed in a trench with a minimum of 18 inches of cover.

B. Lateral Piping: Lateral piping is that portion of piping from electrical valve to sprinkler heads. This portion of piping is not subject to surges since it is an "open end" portion of the sprinkler system. Lateral piping shall be installed in a trench with a minimum of 12 inches of cover.

3.4 PVC PIPE AND FITTING ASSEMBLY:

A. Solvent: Use only solvent recommended by manufacturer to make solvent-welded joints following standards noted herein. Thoroughly clean pipe and fittings of dirt, dust, and moisture with an approved PVC primer before applying solvent.

B. PVC to Metal Connection: Work metal connections first. Use a non-hardening pipe dope such as Permatex No. 2 or "Teflon" tape on threaded PVC to metal joints. Use only light wrench pressure.

C. Threaded PVC Connections: Where required, use threaded PVC adapters into which pipe may be welded.

D. Remove lumber, rubbish, and rocks from trenches. Provide firm, uniform bearing for entire length of each pipeline to prevent uneven settlement. Wedging or blocking of pipe will not be permitted. Remove foreign matter or dirt from inside of pipe before welding and keep piping clean during and after laying pipe.

E. PVC pipe shall not be installed where there is water in the trench, nor shall PVC pipe be laid when temperature is 40 deg. F or below or when rain is imminent. PVC pipe will expand and contract as the temperature changes. Therefore, pipe shall be snaked from side to side of trench bottom to allow for expansion and contraction.

3.5 HYDROSTATIC TESTS:

Pressure Test: After the pipe is laid, the joints completed, and the trench partially backfilled, leaving the joints exposed for examination, the newly laid mainline pipe or any valved section of main pressure line piping shall, unless otherwise specified, be subjected for four hours to a hydrostatic pressure test of normal city water pressure. Each valve shall be opened and closed during the test. Enclosed pipe, joints, fittings, and valves shall be carefully examined during the partially open trench test. Joints showing visible leakage shall be replaced or remade, as necessary. Cracked or defective pipe, joints, fittings, or valves discovered in consequence of this pressure test shall be repeated until the test results are satisfactory. All replacement and repair shall be at contractor's cost.

3.6 CONTROL WIRE INSTALLATION:

A. All control wire less than 500 feet in length shall be continuous without splices or joints from the controller to the valves. Connections to the electric valves shall be made within 18 inches of the valve using connectors specified in Paragraph 2.4 of this section, unless otherwise approved by the Owner's Representative in writing.

B. All control wires shall be installed at least 18 inches deep. Contractor shall obtain the Owner's Representative's approval for wire routing when installed in a separate ditch. Control wires may be installed in a common ditch with piping, however wires must be installed a minimum of 4 inches below or to one side of piping.

C. All wire passing under existing or future paving, sidewalk, construction, etc., shall be encased in PVC conduit extending at least 2 feet beyond edges of paving, sidewalks, or construction.

3.7 POP-UP SPRAY, BUBBLER HEADS:

A. Provide heads and nozzles as specified and install in locations as shown on the Contract Drawings.

B. Pop-up spray heads shall be installed with connections to rigid PVC pipe as detailed on the Contract drawings. Rotary heads shall be installed on a double swing joint connected to the lateral pipe as detailed on the drawings.

C. Heads shall be installed with underside of flange flush with the finished grade.

D. Contractor will be required to adjust heads as necessary after establishment of grass or other plant material.

3.8 DRIP EQUIPMENT:

A. Drip tube can be installed in one of the following methods:

1. Over-excavation: Over-excavate the entire area to a depth of 2” to 4” below finish grade. Plant all specimen trees and shrubs 15 gallon size and larger, then place drip tube at the row spacing interval indicated on the plans.
2. Pipe Pulling: Where ground disruption is to be minimized, pneumatic tire, pipe-pulling machinery shall be used. Potholes shall be used at the ends of each run for making connection to supply and exhaust headers of rigid PVC pipe or polyethylene pipe.
3. Trenching: Hand or mechanically trench to the pipe depth indicated on the plans or in these specifications and backfill flush with finish grade. Avoid mechanically trenching within the dripline of existing trees. Hand-trench around existing tree roots when roots of 2” and larger are encountered. Remove all rock 1½” and larger when excavating and remove from site. Do not backfill trenches with rock that will come in direct contact with tubing or rigid PVC piping.

B. Placement of Rigid PVC Piping: Install pipe in a serpentine (snaked) manner to allow for expansion and contraction in trench before backfilling. Install pipes at temperatures over 40°F. Pipe markings shall face upward out of the trench whenever possible.

C. Drip tube: Drip tube can be installed with the water outlets facing up, down, or sideways. In irregular areas, some water outlets could end up too close to fixed improvements and may have to be capped off with a dripper plug ring.

D. Cover: Install underground piping horizontally and as evenly as possible to a maximum depth of 4”, unless otherwise specified. (Typical pipe depth is 2” shrub beds, 4” in turf unless periodic aeration is anticipated, and then pipe depth should be lowered to 6”.)

E. Barbed Insert Fittings: Connect drip tube to barbed insert fittings by pushing the tubing on and over both barbs of the fitting until the tubing has seated against another piece of tubing or has butted against another portion of the barbed fitting. For water pressures in excess of the 30 psi, or the maximum stated system pressure for the drip tube, whichever is less, use stainless steel clamps.

F. Clamping: When design-operating pressure exceeds 30 psi, or maximum stated system pressure for the drip tube, whichever is less, stainless steel pipe clamps shall be used. Slip clamps over tubing before slipping tubing over barbed insert fitting. Place clamp between the first and second ridge of the barbed fittings and crimp the “ear” of the clamp tightly. Crimp the “ear” twice to ensure proper seating.

3.9 QUICK COUPLING VALVES:

A. Quick coupling valves shall be installed with the underside of flange flush with the finished grade.

B. Quick coupling valves shall be installed on a swing joint assembly as detailed on the drawings.

C. Under the warranty, the Contractor shall return after grass is established and adjust valves and valve boxes to proper grade.

3.10 MANUAL VALVES:

A. Manual valves shall be sized and located where shown on the Contract drawings.

B. Valve boxes shall be adjusted to be flush with finished grade. The Contractor will be required to adjust after establishment of grass.

C. Valve boxes shall be properly supported and of sufficient construction that tractors and mowers crossing over the boxes will not push boxes down and crush the pipe, valve, or box.

3.11 VALVE AND VALVE BOX PLACEMENT:

A. All manual, electric, and quick coupling valves shall be in boxes as specified in Paragraph 2.7 of this section and shall be set with a minimum of six (6) inches of space between their top surface and the bottom of the valve box. The base of the box shall be filled with pea gravel as shown on plan.

B. Valves shall be fully opened and fully closed to ensure that all parts are in operating condition.

C. Valve boxes shall be set plumb, vertical, and concentric with the valve stem.

D. Any valve box which has moved from this required position so as to prevent the use of the operating wheel of the valve shall be reset by the Contractor at his own expense.

3.12 ELECTRIC CONTROLLER:

A. Electric controller location shall be confirmed with the L.A. before installation, as shown on the plans.

3.13 ELECTRIC REMOTE CONTROL VALVES:

A. Remote control valves shall be located and sized as shown on the plans. All electrical connections shall be made when the weather is dry with connection kits as specified in Paragraph 2.4 of this section in strict accordance with manufacturer's recommended procedures. All remote control valves shall be installed in a horizontal position, in accordance to the manufacturer's published installation instructions.

B. It shall be the responsibility of the Contractor to furnish and install the proper size wire on each of the low voltage circuits from the master control center to the various electric remote control valves.

C. Consideration shall be given to each circuit for allowance of voltage drop and economy consistent with accepted practices of electrical installation. Under no circumstances shall the voltage of any branch circuit be reduced more than proper due to length of run exceeding the maximum allowable for the wire size used.

3.14 BACKFILL AND COMPACTION:

A. After system is operating and required tests and inspections have been made, the trenches shall be carefully backfilled with the excavated materials approved for backfilling, consisting of earth, loam, sandy clay, sand, gravel, soft shale, or other approved materials, free from large clods of earth or stone. Rock, broken concrete, or pavement, and large boulders shall

not be used as backfill material. The backfill shall be thoroughly compacted and evened with the adjacent soil level.

B. Compact trenches in areas to be planted by thoroughly flooding the backfill. Compact all other areas by flooding or hand tamping. The jetting process may be used in areas when flooding.

C. Backfill for all trenches, regardless of the type of pipe covered, shall be compacted to a minimum of 90% density.

D. Any trenches improperly backfilled, or where settlement occurs, shall be reopened to the depth required for compaction, then refilled and compacted with the surface restored to the required grade and left in a completed surface condition as described above.

E. Specifically tamp backfill under heads and around the flange of heads for one foot (1') by a suitable means after trench backfill has dried from flooding to prevent heads loosening in the ground.

3.15 FINAL ADJUSTMENT:

A. After installation has been completed, make final adjustment of sprinkler system prior to Owner’s Representative's final inspection.

B. Completely flush system to remove debris from lines by removing nozzle from heads on ends of lines and turning on system.

C. Check sprinklers for proper operation and proper alignment for direction of throw.

D. Check each section for operating pressure and balance to other sections by use of flow adjustment on top of each valve.

E. Check nozzles for proper coverage. Prevailing wind conditions may indicate that arc or angle of spray should be other than as shown on drawings. In this case, change nozzles to provide correct coverage and furnish record data to Owner’s Representative with each change.

F. After system is thoroughly flushed and ready for operation, each section of sprinklers shall be adjusted to control pressure at heads. Use the following method, one section at a time:

1. Remove last head on section and install a temporary riser above grade. Install tee with pressure gauge attached on top of riser and re-install head with nipple onto tee.
2. Correct operating pressure at last head of each section as follows: Spray and rotor heads - 30-35 psi.
3. After replacing head, at grade, tamp thoroughly around head.
4. Drip zone valve pressure regulating devices shall be set at not to exceed 40 psi.

3.16 CLEAN-UP:

A. The Worksite shall be thoroughly cleaned of all waste materials and all unused or salvaged materials, equipment, tools, etc.

B. After completion of the work, areas disturbed shall be leveled and the Worksite shall be raked clean and left in an orderly condition.

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SECTION 055000
METAL FABRICATIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Shop fabricated steel items.

B. Steel framing and supports for mechanical and electrical equipment.

C. Shelf angles

1.02 RELATED REQUIREMENTS

A. Section 042000 - Unit Masonry: Placement of metal fabrications in masonry.

B. Section 099113 - Exterior Painting: Paint finish.

C. Section 099123 - Interior Painting: Paint finish.

1.03 REFERENCE STANDARDS

A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel 2019.

B. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless 2020.

C. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products 2017.

D. ASTM A283/A283M - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates 2018.

E. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength 2021.

F. ASTM A501/A501M - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing 2021.

G. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated, Inch Dimensions 120 ksi and 150 ksi Minimum Tensile Strength, and Metric Dimensions 830 MPa and 1040 MPa Minimum Tensile Strength 2021.

H. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination 2020.

I. AWS D1.1/D1.1M - Structural Welding Code - Steel 2020, with Errata (2021).

J. IAS AC172 - Accreditation Criteria for Fabricator Inspection Programs for Structural Steel AC172 2019.

K. SSPC-Paint 20 - Zinc-Rich Coating (Type I - Inorganic, and Type II - Organic) 2019.

L. SSPC-SP 2 - Hand Tool Cleaning 2018.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.

1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.

C. Welders' Certificates: Submit certification for welders employed on the project, verifying AWS qualification within the previous 12 months.

D. Fabricator's Qualification Statement: Provide documentation showing steel fabricator is accredited under IAS AC172.

1.05 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel".

B. Project Conditions: Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication.

PART 2 PRODUCTS

2.01 MATERIALS - STEEL

A. Steel Sections: ASTM A36/A36M.

B. Steel Tubing: ASTM A501/A501M hot-formed structural tubing.

C. Plates: ASTM A283/A283M.

D. Pipe: ASTM A53/A53M, Grade B Schedule 40, black finish.

E. Bolts, Nuts, and Washers: ASTM A307, Grade A, plain.

F. Bolts, Nuts, and Washers: ASTM F3125/F3125M, Type 1, plain.

G. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.

H. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.

2.02 FABRICATION

A. Fit and shop assemble items in largest practical sections, for delivery to site.

B. Fabricate items with joints tightly fitted and secured.

C. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.

D. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

2.03 FABRICATED ITEMS

A. Lintels: As detailed; galvanized finish.
   1. All lintels supporting masonry veneer and CMU systems shall be shop galvanized and field painted to match adjacent masonry color.

2.04 MISCELLANEOUS FRAMING AND SUPPORTS

A. General: Provide steel framing and supports not specified in other Sections as needed to complete the work.

B. Fabricate units from steel shapes, plates and bars of welded construction unless otherwise indicated.

C. Miscellaneous framing and supports shall be shop galvanized.

2.05 SHELF ANGLES

A. Fabricate shelf angles from steel angles of sizes indicated and for both loose laid installation and attachment to wood framing. Where attached, provide horizontally slotted holes to receive 3/4-inch (19-mm) bolts, spaced not more than 6 inches (150 mm) from ends and 24 inches (600 mm) o.c., unless otherwise indicated.

B. Galvanize shelf angles in exterior walls.
   1. All lintels supporting masonry veneer and CMU systems shall be shop galvanized and field painted to match adjacent masonry color.

2.06 FINISHES - STEEL

A. Prepare surfaces to be primed in accordance with SSPC-SP2.

B. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.

C. Galvanizing of Structural Steel Members: Galvanize after fabrication to ASTM A123/A123M requirements. Provide minimum 1.7 oz/sq ft galvanized coating. (Provide minimum 530 g/sq m galvanized coating.)

D. Galvanizing of Non-structural Items: Galvanize after fabrication to ASTM A123/A123M requirements.

2.07 FABRICATION TOLERANCES

A. Squareness: 1/8 inch (3 mm) maximum difference in diagonal measurements.

B. Maximum Offset Between Faces: 1/16 inch (1.5 mm).

C. Maximum Misalignment of Adjacent Members: 1/16 inch (1.5 mm).

D. Maximum Bow: 1/8 inch (3 mm) in 48 inches (1.2 m).

E. Maximum Deviation From Plane: 1/16 inch (1.5 mm) in 48 inches (1.2 m).

PART 3 EXECUTION

3.01 PREPARATION

A. Clean and strip primed steel items to bare metal where site welding is required.
   1. After completion of welding, bare steel shall be field galvanized as required to meet the hot dipped galvanized performance.

B. Supply setting templates to the appropriate entities for steel items required to be cast into concrete or embedded in masonry.

3.02 INSTALLATION

A. Install items plumb and level, accurately fitted, free from distortion or defects.

B. All items shall be installed in strict accordance with manufacturers written recommendations.

C. Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.

D. Obtain approval prior to site cutting or making adjustments not scheduled.

3.03 TOLERANCES

A. Maximum Variation From Plumb: 1/4 inch (6 mm) per story, non-cumulative.

B. Maximum Offset From True Alignment: 1/4 inch (6 mm).

C. Maximum Out-of-Position: 1/4 inch (6 mm).

END OF SECTION

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SECTION 061000
ROUGH CARPENTRY

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Roofing nailers.

B. Preservative treated wood materials.

1.02 RELATED REQUIREMENTS

A. Section 076200 - Sheet Metal Flashing and Trim: Sill flashings.

1.03 REFERENCE STANDARDS

A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2021a.

B. AWPA U1 - Use Category System: User Specification for Treated Wood 2021.

C. PS 20 - American Softwood Lumber Standard 2021.

D. SPIB (GR) - Grading Rules 2014.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

1.05 QUALITY ASSURANCE

1.06 DELIVERY, STORAGE, AND HANDLING

A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
   1. If no species is specified, provide any species graded by the agency specified; if no grading agency is specified, provide lumber graded by any grading agency meeting the specified requirements.
   2. Grading Agency: Any grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee (www.alsc.org) and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

B. Lumber fabricated from old growth timber is not permitted.

2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

A. Grading Agency: Southern Pine Inspection Bureau, Inc; SPIB (GR).

B. Sizes: Nominal sizes as indicated on drawings, S4S.

C. Moisture Content: Kiln-dry or MC15.

D. Stud Framing (2 by 2 through 2 by 6 (50 by 50 mm through 50 by 150 mm)):
   1. Species: Douglas Fir-Larch.
   2. Grade: No. 1.

E. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
   1. Lumber: S4S, No. 1 or Construction Grade.
   2. Boards: Standard or No. 3.

2.03 FACTORY WOOD TREATMENT

A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.

1. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWPA standards.

B. Preservative Treatment:
   1. Preservative Pressure Treatment of Lumber Above Grade: AWPA U1, Use Category UC3B, Commodity Specification A using waterborne preservative.
      a. Kiln dry lumber after treatment to maximum moisture content of 19 percent.
      b. Treat lumber in contact with roofing, flashing, or waterproofing.
      c. Treat lumber in contact with masonry or concrete.

PART 3 EXECUTION

3.01 INSTALLATION - GENERAL

A. Select material sizes to minimize waste.

B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.

C. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

3.02 BLOCKING, NAILERS, AND SUPPORTS

A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.

B. In framed assemblies that have concealed spaces, provide solid wood fireblocking as required by applicable local code, to close concealed draft openings between floors and between top story and roof/attic space; other material acceptable to code authorities may be used in lieu of solid wood blocking.

C. In metal stud walls, provide continuous blocking around door and window openings for anchorage of frames, securely attached to stud framing.

3.03 ROOF-RELATED CARPENTRY

A. Coordinate installation of roofing carpentry with deck construction, framing of roof openings, and roofing assembly installation.

3.04 CLEANING

A. Waste Disposal: Comply with the requirements of Section 017419 - Construction Waste Management and Disposal.
   1. Comply with applicable regulations.
   2. Do not burn scrap on project site.
   3. Do not burn scraps that have been pressure treated.
   4. Do not send materials treated with pentachlorophenol, CCA, or ACA to co-generation facilities or “waste-to-energy” facilities.

B. Do not leave any wood, shavings, sawdust, etc. on the ground or buried in fill.

C. Prevent sawdust and wood shavings from entering the storm drainage system.

END OF SECTION

SECTION 072100
THERMAL INSULATION

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Board insulation at perimeter foundation wall.

B. Batt insulation for filling crevices in exterior wall and roof.

1.02 RELATED REQUIREMENTS

A. Section 060573 - Wood Treatment: Field-applied termiticide for wood.

B. Section 061000 - Rough Carpentry: Supporting construction for batt insulation.

1.03 REFERENCE STANDARDS

A. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation 2019.

B. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing 2017.

C. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2021a.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

1.05 QUALITY ASSURANCE

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Thermal Insulation:

2.02 APPLICATIONS

A. Insulation at Perimeter of Foundation: Extruded polystyrene (XPS) board.

2.03 FOAM BOARD INSULATION MATERIALS

A. Extruded Polystyrene (XPS) Board Insulation: Complies with ASTM C578 with either natural skin or cut cell surfaces.
   1. Flame Spread Index (FSI): Class A - 0 to 25, when tested in accordance with ASTM E84.
   2. Smoke Developed Index (SDI): 450 or less, when tested in accordance with ASTM E84.
   3. Type and Thermal Resistance, R-value (RSI-value): Type IV, 5.0 (0.88) per 1 inch (25.4 mm) thickness at 75 degrees F (24 degrees C) mean temperature.
   4. Board Edges: Square.

2.04 BATT INSULATION MATERIALS

A. Mineral Fiber Batt Insulation: Flexible or semi-rigid preformed batt or blanket, complying with ASTM C665; friction fit; unfaced flame spread index of 0 (zero) when tested in accordance with ASTM E84.
   1. Flame Spread Index: 25 or less, when tested in accordance with ASTM E84.
   2. Smoke Developed Index: 0 (zero), when tested in accordance with ASTM E84.
   3. Thickness: 3 inches.
   4. Manufacturers:
      a. Johns Manville; MinWool Sound Attenuation Fire Batts: www.jm.com/#sle.
      b. Knauf Insulation; EcoBatt Insulation: www.knaufinsulation.com/#sle.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation.

B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.

3.02 BOARD INSTALLATION AT FOUNDATION PERIMETER

A. Install boards vertically on foundation perimeter.
   1. Butt edges and ends tightly to adjacent boards and to protrusions.

B. Extend boards over expansion joints, unbonded to foundation on one side of joint.

C. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.

3.03 BATT INSTALLATION

A. Install insulation in accordance with manufacturer's instructions.

B. Install in exterior wall spaces without gaps or voids. Do not compress insulation.

C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.

D. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.

E. Tape insulation batts in place.

3.04 FIELD QUALITY CONTROL

A. See Section 014000 - Quality Requirements, for additional requirements.

3.05 PROTECTION

A. Do not permit installed insulation to be damaged prior to its concealment.

END OF SECTION

SECTION 076100
SHEET METAL ROOFING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Sheet metal roofing, associated flashings, and underlayment.

B. Gutters and downspouts.

C. Integral fascias.

D. Sealants for joints within sheet metal fabrications.

1.02 REFERENCE STANDARDS

A. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.

B. ASTM C920 - Standard Specification for Elastomeric Joint Sealants 2018.

C. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection 2021.

D. ASTM E96/E96M - Standard Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials 2021.

1.03 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide data on metal types, finishes, characteristics.

C. Shop Drawings: Indicate material profile, fastening methods, flashings, terminations, and installation details.

D. Color Samples for Sheet Metal Roofing and Roof Screen Panels:
   1. Provide colors as selected by Architect, one for the sheet metal roofing.
   2. Color Selection Samples: Submit selection samples of all available colors and finishes.
   3. Verification Color Samples: Submit two samples in appropriate size illustrating metal finish color.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Stack material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.

B. Prevent contact with materials that could cause discoloration or staining.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Sheet Metal Roofing Manufacturers:
   1. Berridge Manufacturing Company: Doublelock Zee-Lockwww.berridge.com/#sle
   2. Fabral Metal Wall and Roof Systems: Powerseam II www.fabral.com/#sle
   3. Petersen Aluminum Corporation; Tite-Loc Plus: www.pac-clad.com/#sle.
   4. Sheffield Metals International; SMI 2.0" Mechanicl Seam Panel: www.sheffieldmetals.com/#sle.
   5. Substitutions: See Section 016000 - Product Requirements.
      a. Available colors requirement: Manufacturer shall provide the range of color and finish options described in Subpart 2.04 below.

2.02 SHEET MATERIALS

A. Pre-Finished Galvanized Steel Sheet: ASTM A653/A653M, with G90/Z275 zinc coating; 24 gauge, 0.0239 inch (0.61 mm) minimum base metal thickness, shop pre-coated with PVDF (polyvinylidene fluoride) coating; color as selected.

2.03 FABRICATION OF SHEET METAL ROOFING

A. Form sections true to shape, accurate in size, square, and free from distortion or defects.

B. Fabricate cleats of same material as sheet, thickness to match roofing sheet, and at least 4 inch (101.6 mm) wide, interlockable with sheet.

C. Fabricate starter strips, interlockable with sheet.

D. Form pieces in longest practical lengths.

E. Hem exposed edges on underside 1/2 inch (13 mm); miter and seam corners.

F. Fabricate corners from single piece with minimum 18 inches (457 mm) long legs; seam for rigidity, seal with sealant.

G. Fabricate vertical faces with bottom edge formed outward 1/4 inch (6 mm) and hemmed to form drip.

2.04 FINISHES

A. Architect to select colors from the manufacturer's full range with the following systems:

B. Color: As selected by Architect from manufacturer's full colors.
   1. Manufacturer's full line of colors shall include at least 25 standard solid colors and four metallic colors.

2.05 ACCESSORIES

A. Fasteners: Stainless steel, with soft neoprene washers. All fasteners shall be concealed.

B. Underlayment: Self-adhering butyl-rubber sheet complying with ASTM D1970/D1970M; strippable release film.
   1. Top Sheet: Woven polypropylene top surface.
   2. Sheet Thickness: 40 mil (1 mm), minimum.
   3. Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
   4. Low Temperature Flexibility: Passing test specified in ASTM D1970/D1970M.
   5. Water Vapor Permeance: 0.05 perm (0.30 ng/(Pa s sq m)), maximum, when tested in accordance with ASTM E96/E96M, Procedure A (desiccant method).
   6. Functional Temperature Range: Minus 45 degrees F (42.8 C) to 250 degrees F (121 C).
   7. Ultraviolet (UV) Resistance and Weatherability: Approved in writing by manufacturer for exposure to weather for minimum of three months.
   8. Manufacturers:
      a. GCPT; grace ice and water shield HT: www.gcpt.com.
      b. Protecto Wrap Company; Jiffy Seal Ice and Water Guard HT: www.protectowrap.com/#sle.

C. Concealed Sealants: Non-curing butyl sealant.

D. Exposed Sealants: ASTM C920 elastomeric sealant, with minimum movement capability as recommended by manufacturer for sealed substrates; color to match adjacent material.

PART 3 EXECUTION

3.01 EXAMINATION

A. Inspect roof deck to verify deck is clean and smooth, free of depressions, waves, or projections, properly sloped to gutters.

B. Verify deck is dry and free of snow or ice. Verify joints in wood deck are solidly supported and fastened.

C. Verify roofing termination and base flashings are in place, sealed, and secure.

3.02 PREPARATION

A. Install starter and edge strips, and cleats before starting installation.

B. Back paint concealed metal surfaces and surfaces in contact with dissimilar metals with protective backing paint to a minimum dry film thickness of 15 mil (0.4 mm).

3.03 INSTALLATION - ROOFING

A. Apply underlayment over entire roof area.

B. Apply slip sheet in one layer, laid loose.

C. Cleat and seam all joints.

D. Use plastic cement for joints between metal and bitumen and for joints between metal and felts.

E. Provide gutters.

3.04 INSTALLATION - STANDING SEAM ROOFING

A. Lay sheets with long dimension perpendicular to eaves. Apply pans beginning at eaves.

B. Lock cleats into seams and flatten.

C. Stagger transverse joints of roofing sheets.

D. At eaves and gable ends, terminate roofing by hooking over edge strip.

E. Bend up one side edge 1-1/2 inches (38 mm) and other edge 1-3/4 inches (44 mm).

F. Make first fold 1/4 inch (6 mm) wide single fold and second fold 1/2 inch (13 mm) wide, providing locked portion of standing seam, 5 plies in thickness.

G. Fold lower ends of seams at eaves over at 45 degree angle.

3.05 INSTALLATION - BUILT-IN GUTTERS AND DOWNSPOUTS

A. Secure gutter lining to substrate with cleats spaced minimum 12 inches ([____] mm) on center along edges of gutters.

B. Longitudinal joints not acceptable.

C. At roof edges, extend gutter lining under metal roofing 6 inches (152 mm) minimum and terminate in 3/4 inch (19 mm) folded edge secured by cleats; hook lower end of roofing into lock strip to form 3/4 inch (19 mm) wide loose-lock seam.

D. Seal gutters watertight, and seal joint of gutter to drain.

3.06 INSTALLATION - FLASHINGS

A. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted.

B. Cleat and seam all joints.

C. Apply plastic cement compound between metal flashings and felt flashings.

D. Fit flashings tight in place, and make corners square, surfaces true and straight in planes, and lines accurate to profiles.

E. Seal metal joints watertight.

3.07 PROTECTION

A. Do not permit traffic over unprotected roof surface.

END OF SECTION

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SECTION 076200
SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Fabricated sheet metal items, including flashings, counterflashings, gutters, and downspouts.

B. Sealants for joints within sheet metal fabrications.

1.02 RELATED REQUIREMENTS

A. Section 042000 - Unit Masonry: Metal flashings embedded in masonry.

B. Section 061000 - Rough Carpentry: Wood nailers for sheet metal work.

1.03 REFERENCE STANDARDS

A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix) 2020.

B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.

C. ASTM C920 - Standard Specification for Elastomeric Joint Sealants 2018.

D. ASTM D4586/D4586M - Standard Specification for Asphalt Roof Cement, Asbestos-Free 2007 (Reapproved 2018).

E. CDA A4050 - Copper in Architecture - Handbook current edition.

F. SMACNA (ASMM) - Architectural Sheet Metal Manual 2012.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene one week before starting work of this section.

1.05 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

1.06 QUALITY ASSURANCE

A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.

B. Maintain one copy of each document on site.

C. Fabricator and Installer Qualifications: Company specializing in sheet metal work with 5 years of documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.

B. Prevent contact with materials that could cause discoloration or staining.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Sheet Metal Flashing and Trim Manufacturers:
   1. Petersen Aluminum Corporation: www.pac-clad.com/#sle.
   2. Substitutions: See Section 016000 - Product Requirements.

2.02 SHEET MATERIALS

A. Pre-Finished Galvanized Steel: ASTM A653/A653M, with G90/Z275 zinc coating; minimum 24 gage, (0.0239) inch (0.61 mm) thick base metal, shop pre-coated with PVDF coating.

1. PVDF (Polyvinylidene Fluoride) Coating: Superior Performance Organic Finish, AAMA 2605; multiple coat, thermally cured fluoropolymer finish system.
2. Color (for items concealed from public view): Selected from full range of manufacturers options..
3. Color (for items exposed to public view): Color as selected by the Design Team. Shall match the color of the standing seam metal roof.

2.03 FABRICATION

A. Form sections true to shape, accurate in size, square, and free from distortion or defects.

B. Fabricate cleats of continuous galvanized type sheet metal, interlocking with sheet.

C. Form pieces in longest possible lengths.

D. Hem exposed edges on underside 1/2 inch (13 mm); miter and seam corners.

E. Form material with flat lock seams, except where otherwise indicated; at moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.

F. Fabricate corners from one piece with minimum 18 inch (450 mm) long legs; seam for rigidity, seal with sealant.

G. Fabricate vertical faces with bottom edge formed outward 1/4 inch (6 mm) and hemmed to form drip.

H. Fabricate flashings to allow toe to extend 2 inches (50 mm) over roofing gravel. Return and brake edges.

2.04 GUTTER AND DOWNSPOUT FABRICATION

A. Gutters: Profile as indicated.

B. Downspouts: Rectangular profile.

C. Gutters and Downspouts: Size indicated.

D. Accessories: Profiled to suit gutters and downspouts.
   1. Anchorage Devices: In accordance with SMACNA (ASMM) requirements.
   2. Gutter Supports: Brackets.
   3. Downspout Supports: Brackets.

E. Downspout Extenders: Same material and finish as downspouts.

F. Seal metal joints.

2.05 ACCESSORIES

A. Fasteners: Galvanized steel, with soft neoprene washers.

B. Primer: Zinc chromate type.

C. Concealed Sealants: Non-curing butyl sealant.

D. Exposed Sealants: ASTM C920; elastomeric sealant, with minimum movement capability as recommended by manufacturer for substrates to be sealed; color to match adjacent material.

E. Plastic Cement: ASTM D4586/D4586M, Type I.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.

B. Verify roofing termination and base flashings are in place, sealed, and secure.

3.02 PREPARATION

A. Install starter and edge strips, and cleats before starting installation.

B. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil (0.4 mm).

3.03 INSTALLATION

A. Comply with drawing details.

B. Insert flashings into reglets to form tight fit; secure in place with lead wedges; pack remaining spaces with lead wool; seal flashings into reglets with sealant.

C. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted..

D. Apply plastic cement compound between metal flashings and felt flashings.

E. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.

F. Secure gutters and downspouts in place with concealed fasteners.

3.04 FIELD QUALITY CONTROL

A. See Section 014000 - Quality Requirements, for field inspection requirements.

B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

END OF SECTION

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SECTION 079200
JOINT SEALANTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Nonsag gunnable joint sealants.

B. Self-leveling pourable joint sealants.

C. Joint backings and accessories.

1.02 REFERENCE STANDARDS

A. ASTM C794 - Standard Test Method for Adhesion-In-Peel of Elastomeric Joint Sealants 2018.

B. ASTM C920 - Standard Specification for Elastomeric Joint Sealants 2018.

C. ASTM C1087 - Standard Test Method for Determining Compatibility of Liquid-Applied Sealants with Accessories Used in Structural Glazing Systems 2016.

D. ASTM C1193 - Standard Guide for Use of Joint Sealants 2016.

E. ASTM C1248 - Standard Test Method for Staining of Porous Substrate by Joint Sealants 2018.

F. ASTM C1330 - Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid-Applied Sealants 2018.

G. ASTM C1521 - Standard Practice for Evaluating Adhesion of Installed Weatherproofing Sealant Joints 2019 (Reapproved 2020).

1.03 SUBMITTALS

A. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
   1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
   2. List of backing materials approved for use with the specific product.
   3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
   4. Substrates the product should not be used on.
   5. Sample product warranty.

B. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended tools.

C. Samples for Verification: Where custom sealant color is specified, obtain directions from Architect and submit at least two physical samples for verification of color of each required sealant.

D. Preconstruction Laboratory Test Reports: Submit at least four weeks prior to start of installation.

E. Installation Plan: Submit at least four weeks prior to start of installation.

F. Preinstallation Field Adhesion Test Plan: Submit at least two weeks prior to start of installation.

G. Preinstallation Field Adhesion Test Reports: Submit filled out Preinstallation Field Adhesion Test Reports log within 10 days after completion of tests; include bagged test samples and photographic records.

H. Installation Log: Submit filled out log for each length or instance of sealant installed.

1.04 QUALITY ASSURANCE

A. Maintain one copy of each referenced document covering installation requirements on site.

B. Installer Qualifications: Company specializing in performing the work of this section and with at least three years of documented experience.

C. Preconstruction Laboratory Testing: Arrange for sealant manufacturer(s) to test each combination of sealant, substrate, backing, and accessories.

1. Adhesion Testing: In accordance with ASTM C794.
2. Compatibility Testing: In accordance with ASTM C1087.
3. Allow sufficient time for testing to avoid delaying the work.
4. Deliver to manufacturer sufficient samples for testing.
5. Report manufacturer's recommended corrective measures, if any, including primers or techniques not indicated in product data submittals.
6. Testing is not required if sealant manufacturer provides data showing previous testing, not older than 24 months, that shows satisfactory adhesion, lack of staining, and compatibility.

D. Installation Plan: Include schedule of sealed joints, including the following.
   1. Joint width indicated in Contract Documents.
   2. Joint depth indicated in Contract Documents; to face of backing material at centerline of joint.
   3. Method to be used to protect adjacent surfaces from sealant droppings and smears, with acknowledgement that some surfaces cannot be cleaned to like-new condition and therefore prevention is imperative.
   4. Installation Log Form: Include the following data fields, with known information filled out.
      a. Date of installation.
      b. Name of installer.
      c. Actual joint width; provide space to indicate maximum and minimum width.
      d. Actual joint depth to face of backing material at centerline of joint.
      e. Air temperature.

E. Preinstallation Field Adhesion Test Plan: Include destructive field adhesion testing of one sample of each combination of sealant type and substrate, except interior acrylic latex sealants, and include the following for each tested sample.
   1. Identification of testing agency.
   2. Preinstallation Field Adhesion Test Log Form: Include the following data fields, with known information filled out.
      a. Test date.
      b. Copy of test method documents.
      c. Age of sealant upon date of testing.
      d. Test results, modeled after the sample form in the test method document.
      e. Indicate use of photographic record of test.

F. Field Adhesion Test Procedures:
   1. Allow sealants to fully cure as recommended by manufacturer before testing.
   2. Have a copy of the test method document available during tests.
   3. Record the type of failure that occurred, other information required by test method, and the information required on the Field Quality Control Log.
   4. When performing destructive tests, also inspect the opened joint for proper installation characteristics recommended by manufacturer, and report any deficiencies.
   5. Deliver the samples removed during destructive tests in separate sealed plastic bags, identified with project, location, test date, and test results, to Owner.
   6. If any combination of sealant type and substrate does not show evidence of minimum adhesion or shows cohesion failure before minimum adhesion, report results to Architect.

G. Destructive Field Adhesion Test: Test for adhesion in accordance with ASTM C1521, using Destructive Tail Procedure.
   1. Sample: At least 18 inch (457 mm) long.
   2. Minimum Elongation Without Adhesive Failure: Consider the tail at rest, not under any elongation stress; multiply the stated movement capability of the sealant in percent by two; then multiply 1 inch (25 mm) by that percentage; if adhesion failure occurs before the "1 inch mark" is that distance from the substrate, the test has failed.
   3. If either adhesive or cohesive failure occurs prior to minimum elongation, take necessary measures to correct conditions and re-test; record each modification to products or installation procedures.

1.05 WARRANTY

A. Correct defective work within a five year period after Date of Substantial Completion.

B. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal , exhibit loss of adhesion or cohesion, or do not cure.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Non-Sag Sealants: Permits application in joints on vertical surfaces without sagging or slumping.
   1. Dow Chemical Company: consumer.dow.com/en-us/industry/ind-building-construction.html/#sle.
   2. Pecora Corporation: www.pecora.com/#sle.
   3. Sika Corporation: www.usa-sika.com/#sle.
   4. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com/#sle.

B. Self-Leveling Sealants: Pourable or self-leveling sealant that has sufficient flow to form a smooth, level surface when applied in a horizontal joint.
   1. Bostik Inc: www.bostik-us.com/#sle.
   2. Pecora Corporation: www.pecora.com/#sle.
   3. Sika Corporation: www.usa-sika.com/#sle.
   4. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com/#sle.

2.02 JOINT SEALANT APPLICATIONS

A. Scope:
   1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
      a. Wall expansion and control joints.
      b. Joints between door, window, and other frames and adjacent construction.
      c. Joints between different exposed materials.
      d. Openings below ledge angles in masonry.
      e. Other joints indicated below.
   2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
      a. Joints between door, window, and other frames and adjacent construction.
      b. Other joints indicated below.
   3. Do not seal the following types of joints.
      a. Intentional weepholes in masonry.
      b. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
      c. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
      d. Joints where installation of sealant is specified in another section.
      e. Joints between suspended panel ceilings/grid and walls.

B. Exterior Joints: Use non-sag non-staining silicone sealant, unless otherwise indicated.

C. Interior Joints: Use non-sag polyurethane sealant, unless otherwise indicated.
   1. Use mildew resistant silicone sealant adjacent to plumbing fixtures. Use type in compliance with adjacent materials.

2.03 JOINT SEALANTS - GENERAL

2.04 NONSAG JOINT SEALANTS

A. Type JS-1 - Non-Staining Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
   1. Movement Capability: Plus 100 percent, minus 50 percent, minimum.

2. Non-Staining To Porous Stone: Non-staining to light-colored natural stone when tested in accordance with ASTM C1248.
3. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
4. Color: Match adjacent finished surfaces.
5. Cure Type: Single-component, neutral moisture curing.
6. Service Temperature Range: Minus 65 to 180 degrees F (Minus 54 to 82 degrees C).
7. Manufacturers:
   a. Dow Chemical Company; DOWSIL 795: Silicone Building Sealant: consumer.dow.com/en-us/industry/ind-building-construction.html/#sle.

B. Type JS-2 - Mildew-Resistant Silicone Sealant: ASTM C920, Grade NS, Uses M and A; single component, mildew resistant; not expected to withstand continuous water immersion or traffic.
1. Color: Selected from Manufacturers full range.
2. Manufacturers:
   a. Pecora Corporation; 898: www.pecora.com/#sle.
   b. Sika Corporation; Sikasil GP: www.usa-sika.com/#sle.
   c. Substitutions: See Section 016000 - Product Requirements.

C. Type JS-3 - Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single or multi-component; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: Plus and minus 25 percent, minimum.
2. Color: Match adjacent finished surfaces.
3. Service Temperature Range: Minus 40 to 180 degrees F (Minus 40 to 82 degrees C).
4. Manufacturers:
   a. Pecora Corporation; Dynatred: www.pecora.com/#sle.
   b. Sika Corporation; Sikaflex-2c NS: www.usa-sika.com/#sle.
   c. Tremco Commercial Sealants & Waterproofing; Vulkem 116: www.tremcosealants.com/#sle.
   d. Substitutions: See Section 016000 - Product Requirements.

2.05 SELF-LEVELING SEALANTS

A. Type JS-4 - Self-Leveling Polyurethane Sealant: ASTM C920, Grade P, Uses M and A; single or multi-component; explicitly approved by manufacturer for traffic exposure; not expected to withstand continuous water immersion .
1. Movement Capability: Plus and minus 25 percent, minimum.
2. Color: To be selected by Architect from manufacturer's standard range.
3. Service Temperature Range: Minus 40 to 180 degrees F (Minus 40 to 82 degrees C).
4. Manufacturers:
   a. Pecora Corporation Urexpan NR-201: www.pecora.com/#sle.
   b. Sika Corporation; Sikaflex-1c SL: www.usa-sika.com/#sle.
   c. Tremco; Vulkem 45.

2.06 ACCESSORIES

A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
1. Type for Joints Not Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type O - Open Cell Polyurethane.
2. Type for Joints Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type B - Bi-Cellular Polyethylene.
3. Open Cell: 40 to 50 percent larger in diameter than joint width.
4. Closed Cell and Bi-Cellular: 25 to 33 percent larger in diameter than joint width.

B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.

C. Masking Tape: Self-adhesive, nonabsorbent, non-staining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.

D. Joint Cleaner: Non-corrosive and non-staining type, type recommended by sealant manufacturer; compatible with joint forming materials.

E. Primers: Type recommended by sealant manufacturer to suit application; non-staining.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that joints are ready to receive work.

B. Verify that backing materials are compatible with sealants.

C. Verify that backer rods are of the correct size.

D. Preinstallation Adhesion Testing: Install a sample for each test location indicated in the test plan.
   1. Test each sample as specified in PART 1 under QUALITY ASSURANCE article.
   2. Notify Architect of date and time that tests will be performed, at least 7 days in advance.
   3. Record each test on Preinstallation Adhesion Test Log as indicated.
   4. If any sample fails, review products and installation procedures, consult manufacturer, or take whatever other measures are necessary to ensure adhesion; re-test in a different location; if unable to obtain satisfactory adhesion, report to Architect.
   5. After completion of tests, remove remaining sample material and prepare joint for new sealant installation.

3.02 PREPARATION

A. Remove loose materials and foreign matter that could impair adhesion of sealant.

B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.

C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.

D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

E. Concrete Floor Joints That Will Be Exposed in Completed Work: Test joint filler in inconspicuous area to verify that it does not stain or discolor slab.

3.03 INSTALLATION

A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.

B. Perform installation in accordance with ASTM C1193.

C. Install bond breaker backing tape where backer rod cannot be used.

D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.

E. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.

F. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

3.04 FIELD QUALITY CONTROL

A. Perform field quality control inspection/testing as specified in PART 1 under QUALITY ASSURANCE article.

B. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.

END OF SECTION

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SECTION 081113
HOLLOW METAL DOORS AND FRAMES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Non-fire-rated hollow metal doors and frames.

B. Thermally insulated hollow metal doors with frames.

1.02 RELATED REQUIREMENTS

A. Section 087100 - Door Hardware.

B. Section 099113 - Exterior Painting: Field painting.

C. Section 099123 - Interior Painting: Field painting.

1.03 REFERENCE STANDARDS

A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design 2010.

B. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames and Frame Anchors 2018.

C. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100) 2017.

D. ANSI/SDI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames 2020.

E. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.

F. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Required Hardness, Solution Hardened, and Bake Hardenable 2021a.

G. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength 2018a.

H. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2021a.

I. BHMA A156.115 - Hardware Preparation In Steel Doors And Steel Frames 2016.

J. ICC A117.1 - Accessible and Usable Buildings and Facilities 2017.

K. NAAMM HMMA 830 - Hardware Selection for Hollow Metal Doors and Frames 2002.

L. NAAMM HMMA 831 - Hardware Locations for Hollow Metal Doors and Frames 2011.

M. NAAMM HMMA 840 - Guide Specifications For Receipt, Storage and Installation of Hollow Metal Doors and Frames 2017.

1.04 SUBMITTALS

A. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and any indicated finish requirements.
   1. Shop drawings shall designate shop preparation of all hardware. Construction Manager shall coordinate between door/frame supplier and hardware supplier prior to submission of shop drawings.

B. Installation Instructions: Manufacturer's published instructions, including any special installation instructions relating to this project.

C. Manufacturer's Certificate: Certification that products meet or exceed specified requirements.

D. Manufacturer's Qualification Statement.

E. Installer's Qualification Statement.

1.05 QUALITY ASSURANCE

A. Maintain at project site copies of reference standards relating to installation of products specified.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Comply with NAAMM HMMA 840 or ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.

B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion and adverse effects on factory applied painted finish.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Hollow Metal Doors and Frames:
   1. Ceco Door, an Assa Abloy Group company: www.assaabloydss.com/#sle.
   2. Curries, an Assa Abloy Group company: www.assaabloydss.com/#sle.
   3. Steelcraft, an Allegion brand: www.allegion.com/#sle.

2.02 PERFORMANCE REQUIREMENTS

A. Requirements for Hollow Metal Doors and Frames:
   1. Steel Sheet: Comply with one or more of the following requirements; galvannealed steel complying with ASTM A653/A653M, cold-rolled steel complying with ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel complying with ASTM A1011/A1011M, commercial steel (CS) Type B, for each.
   2. Accessibility: Comply with ICC A117.1 and ADA Standards.
   3. Exterior Door Top Closures: Flush end closure channel, with top and door faces aligned.
   4. Door Edge Profile: Manufacturers standard for application indicated.
   5. Typical Door Face Sheets: Flush.
   6. Hardware Preparations, Selections and Locations: Comply with NAAMM HMMA 830 and NAAMM HMMA 831 or BHMA A156.115 and ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.
      a. All hollow metal doors and frames shall be shop prepped for hardware.
   7. Zinc Coating for Typical Interior and/or Exterior Locations: Provide metal components zinc-coated (galvanized) and/or zinc-iron alloy-coated (galvannealed) by the hot-dip process in accordance with ASTM A653/A653M, with manufacturer's standard coating thickness, unless noted otherwise for specific hollow metal doors and frames.

B. All Metal Door Frames shall be provided with a wrought box, strike cover and hinge reinforcement cover.

C. All Metal Frames shall have hinge reinforcement fabricaed from plate stock, 1/4"x9" C1018 steel 160 scale Brinnel hardness. Reinforcement is to be securely attached to frame with minimum of four (4) contacts each side of the opening.Reinforcing for holders and closers shall be bow type or double channel of not less than ten gauge steel for three bolt attachment. Reinforcing for field attachment of corner brackets is to be not less than eight gauge steel.

D. All Door frames shall be anchored to the wall with a minimum of three anchors.

E. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent.

2.03 HOLLOW METAL DOORS

A. Door Finish: Factory primed and field finished.

B. Exterior Doors: Thermally insulated.
   1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
      a. Level 3 - Extra Heavy-duty.

b. Physical Performance Level A, 1,000,000 cycles; in accordance with ANSI/SDI A250.4.
c. Model 1 - Full Flush.
d. Door Face Metal Thickness: 16 gage, 0.053 inch (1.3 mm), minimum.
e. Zinc Coating: A60/ZF180 galvannealed coating; ASTM A653/A653M.

2. Door Core Material: Polyisocyanurate, 2 lbs/cu ft minimum density.
   a. Foam Plastic Insulation: Manufacturer's standard board insulation with maximum flame spread index (FSI) of 75, and maximum smoke developed index (SDI) of 450 in accordance with ASTM E84, and completely enclosed within interior of door.
3. Door Thermal Resistance: R-Value of 6.0 minimum, for installed thickness of polystyrene.
4. Door Thickness: 1-3/4 inch (44.5 mm), nominal.
5. Weatherstripping: Refer to Section 087100.

C. Interior Doors, Non-Fire-Rated:
   1. Door Thickness: 1-3/4 inch (44.5 mm), nominal.

2.04 HOLLOW METAL FRAMES

A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.

B. Frame Finish: Factory primed and field finished.

C. Exterior Door Frames: Full profile/continuously welded type.
   1. Weatherstripping: Separate, see Section 087100.

D. Interior Door Frames, Non-Fire Rated: Full profile/continuously welded type.
   1. Frame Metal Thickness: 18 gage, 0.042 inch (1.0 mm), minimum.

2.05 FINISHES

A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.

2.06 ACCESSORIES

A. Louvers: Roll formed steel with overlapping frame; finish same as door components ; factory-installed.
   1. Style: Standard straight slat blade.
   2. Fasteners: Concealed fasteners.
   3. Size: 18x18 minimum - coordinate with engineer of record prior to preparation of shop drawings.

B. Silencers: Resilient rubber, fitted into drilled hole; provide three on strike side of single door, three on center mullion of pairs, and two on head of pairs without center mullions.

C. Temporary Frame Spreaders: Provide for factory- or shop-assembled frames.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify that opening sizes and tolerances are acceptable.

C. Verify that finished walls are in plane to ensure proper door alignment.

3.02 PREPARATION

A. Coat inside of frames to be installed in masonry or to be grouted, with bituminous coating, prior to installation.

B. All hollow metal doors and frames shall be shop for hardware before delivery to the jobsite.

3.03 INSTALLATION

A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.

B. Coordinate frame anchor placement with wall construction.

C. Install door hardware as specified in Section 087100.

D. Coordinate installation of electrical connections to electrical hardware items.

E. Touch up damaged factory finishes.

3.04 TOLERANCES

A. Maximum Diagonal Distortion: 1/16 inch (1.6 mm) measured with straight edge, corner to corner.

3.05 ADJUSTING

A. Adjust for smooth and balanced door movement.

3.06 SCHEDULE

A. Refer to Door and Frame Schedule on the drawings.

END OF SECTION

SECTION 083100
ACCESS DOORS AND PANELS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Wall and ceiling mounted access units.

1.02 RELATED REQUIREMENTS

A. Section 042000: Openings in masonry.

B. Section 099123 - Interior Painting: Field paint finish.

1.03 SUBMITTALS

A. List of required access doors: Based on mechanical, plumbing, and electrical drawings and specifications, prepare a comprehensive list of all required access doors, with sizes and locations.

B. Product Data: Provide sizes, types, finishes, hardware, scheduled locations, and details of adjoining work.

C. Shop Drawings: Indicate exact position of each access door and/or panel unit.

PART 2 PRODUCTS

2.01 ACCESS DOORS AND PANELS ASSEMBLIES

A. Wall-Mounted Units in Wet Areas (including toilet rooms):
   1. Panel Material: Aluminum with gasketing.
   2. Size: 12 by 12 inches (305 by 305 mm), and other sizes as required.
   3. Door/Panel: Hinged, standard duty, with tool-operated spring or cam lock and no handle.
   4. Masonry Mounting Criteria: Provide surface-mounted frame with door surface flush with frame surface.

B. Ceiling-Mounted Units :
   1. Size - Other Ceilings: 12 by 12 inches (305 by 305 mm), or as required.
   2. Door/Panel: Hinged, standard duty, with tool-operated spring or cam lock and no handle.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that rough openings are correctly sized and located.

B. Begin installation only after substrates have been properly prepared, and if the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

A. Clean surfaces thoroughly prior to proceeding with this work.

B. Prepare surfaces using methods recommended by manufacturer for applicable substrates in accordance with project conditions.

3.03 INSTALLATION

A. Install units in accordance with manufacturer's instructions.

B. Install frames plumb and level in openings, and secure units rigidly in place.

C. Position units to provide convenient access to concealed equipment when necessary.

END OF SECTION

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SECTION 087100
DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.
2. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.

C. Related Sections:

1. Division 08 Section “Hollow Metal Doors and Frames”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 70 - National Electrical Code.
4. NFPA 80 - Fire Doors and Windows.
5. NFPA 101 - Life Safety Code.
6. NFPA 105 - Installation of Smoke Door Assemblies.
7. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards:

1. ANSI/BHMA Certified Product Standards - A156 Series
2. UL10C – Positive Pressure Fire Tests of Door Assemblies

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door

Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."

2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.

3. Content: Include the following information:

    a. Type, style, function, size, label, hand, and finish of each door hardware item.
    b. Manufacturer of each item.
    c. Fastenings and other pertinent information.
    d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    e. Explanation of abbreviations, symbols, and codes contained in schedule.
    f. Mounting locations for door hardware.
    g. Door and frame sizes and materials.
    h. Warranty information for each product.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

D. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

E. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Submittals.

1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

C. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

D. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

E. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.

F. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

G. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

H. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.

D. Special Warranty Periods:

1. Ten years for mortise locks and latches.
2. Five years for exit hardware.

1.8 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.

B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:

a. Two Hinges: For doors with heights up to 60 inches.
b. Three Hinges: For doors with heights 61 to 90 inches.
c. Four Hinges: For doors with heights 91 to 120 inches.
d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.

2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:

a. Widths up to 3’0”: 4-1/2” standard or heavy weight as specified.
b. Sizes from 3’1” to 4’0”: 5” standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:

a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.

b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.

4. Hinge Options: Comply with the following:

a. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.

5. Manufacturers:

a. Hager Companies (HA).
b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).

B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge. with minimum 0.120-inch thick extruded 6060 T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.

1. Manufacturers:

a. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).

2.3 DOOR OPERATING TRIM

A. Door Push Plates and Pulls: ANSI/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
2. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.

3. Manufacturers:

a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

2.4 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.

1. Manufacturers:

a. Stanley Best (BE). Peaks

b. No Substitution.

C. Cylinders: Original manufacturer cylinders complying with the following:

1. Mortise Type: Threaded cylinders with rings and cams to suit hardware application.
2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
5. Keyway: Match Facility Restricted Keyway.

D. Permanent Cores: Manufacturer's standard; finish face to match lockset; complying with the following:

1. Interchangeable Cores: Core insert, removable by use of a special key; usable with other manufacturers' cylinders.

E. Keying System: Each type of lock and cylinders to be factory keyed.

1. Conduct specified "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. Existing System: Key locks to Owner's existing system.

F. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).
3. Final key quantity to be determined between the owner and Best.

G. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

H. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.

1. Manufacturers:

a. Lund Equipment (LU).
b. Telkee (TK).

2.5 MECHANICAL LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 certified. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.

1. Manufacturers:

    a. Corbin Russwin Hardware (RU) – ML2000 Series.
    b. No Substitution.

2.6 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.7 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.

2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer’s catalog and template book for specific requirements.

3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.

4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.

5. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.

    a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
    b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.

6. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.

7. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2” wide stiles.

8. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.

9. Rail Sizing: Provide exit device rails factory sized for proper door width application.

10. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 certified panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.

1. Manufacturers:

    a. Von Duprin (VD) - 35A/98 XP Series.
    b. No Substitution.

2.8 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers including installation and adjusting information on inside of cover.

2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.

3. Cycle Testing: Provide closers which have surpassed 15 million cycles in a test witnessed and verified by UL.

4. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of

use. Where closers are indicated for doors required to be accessible to the physically handicapped, provide units complying with ANSI ICC/A117.1.

5. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.

6. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.

7. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Large Body Cast Iron): ANSI/BHMA A156.4, Grade 1 surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control.

1. Manufacturers:

a. LCN Closers (LC) - 4040XP Series. Exterior Openings
b. No Substitution.

C. Door Closers, Surface Mounted (Commercial Duty): ANSI/BHMA 156.4, Grade 1 certified surface mounted, institutional grade door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck, closing sweep, and latch speed control valves. Provide non-handed units standard.

1. Manufacturers:

a. Sargent Manufacturing (SA) - 1461 Series. Interior Openings

2.9 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.

2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1” LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.

3. Where plates are applied to fire rated doors with the top of the plate more than 16” above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer’s catalog and template book for specific requirements for size and applications.

4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:

    a. Stainless Steel: 300 grade, 050-inch thick.

5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.

6. Manufacturers:

    a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

2.10 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:

    a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

C. Overhead Door Stops and Holders: ANSI/BHMA A156.6, Grade 1 certified overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.

1. Manufacturers:

    a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

2.11 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:

1. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).

2.12 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.13 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

A. Field Inspection: Supplier will perform a final inspection of installed door hardware and state in report whether work complies with or deviates from requirements, including whether door hardware is properly installed, operating and adjusted.

3.5 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

B. The supplier is responsible for handing and sizing all products and providing the correct option for the appropriate door type and material where more than one is presented in the hardware sets. Quantities listed are for each pair of doors, or for each single door.

C. Manufacturer’s Abbreviations:

1. MK - McKinney
2. PE - Pemko
3. VD - Von Duprin
4. RU - Corbin Russwin
5. BE - dormakaba Best
6. RO - Rockwood
7. RF - Rixson
8. LC - LCN Closers

9. OT - OTHER

Hardware Sets

Set: 1.0

Doors: 101

1 Continuous Hinge	CFM83HD1		PE
1 Storeroom Lock	ML2057 NSN CLS7	626	RU
1 7 Pin Small Format Core	Best Peaks		BE
1 Door Closer	4040XP SCUSH TBSRT	AL	LC
1 Threshold	2009APK		PE
1 Gasketing	312CR		PE
1 Rain Guard	346C		PE
1 Sweep	315CN		PE

Set: 2.0

Doors: 100, 102

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK
1 Cylindrical Deadbolt	CR DL3200	US26D	CR
1 Push Plate	70C-RKW	US32D	RO
1 Pull Plate	107x70C	US32D	RO
1 Surface Closer w/ Stop	1461 SCUSH TBSRT	AL	LC
1 Kick Plate	K1050 10" x Width Req'd CSK	US32D	RO
3 Silencer	608-RKW		RO

END OF SECTION 087100

SECTION 088300
MIRRORS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Polished stainless steel mirrors.

1.02 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data on Mirror Types: Submit structural, physical and environmental characteristics, size limitations, special handling and installation requirements.

C. Samples: Submit two samples, illustrating mirrors design, edging, coloration, and [_____].

D. Manufacturer's Certificate: Certify that mirrors, meets or exceeds specified requirements.

E. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 016000 - Product Requirements, for additional provisions.

1.03 QUALITY ASSURANCE

A. Fabricate, store, transport, receive, install, and clean mirrors in accordance with manufacturer's recommendations.

1.04 FIELD CONDITIONS

A. Do not install polished stainless steel mirrors when ambient temperature is less than 50 degrees F (10 degrees C).

B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.05 WARRANTY

A. See Section 017800 - Closeout Submittals, for additional warranty requirements.

B. Provide five year manufacturer warranty for reflective coating on mirrors and replacement of same.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Polished Stainless Steel Mirrors:
   1. Vandal Stop Products (530) 894-7867.
   2. Size: 24x48 - refer drawings for additional information.

2.02 MATERIALS

A. Polished stainless steel Mirror:
   1. #8 non directional mirror polished stainless steel.
   2. Type 304 Stainless Steel
   3. 16 ga material (.0595 inches)

2.03 ACCESSORIES

A. Glazing Clips: Provide in conjunction with mirror adhesive.
   1. Stainless J Trim:
      a. Manufacturers: Stainless J Trim

B. Stainless Steel Mirror Adhesive: Manufacturers recommended highest performing mirror adhesive - provided in conjunction with mirror glazing clips/trim.
   1. Install in strict accordance with manufacturers written instructions.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that surfaces of mirror frames or recesses are clean, free of obstructions, and ready for installation of polished stainless steel mirrors.

3.02 PREPARATION

A. Clean contact surfaces with solvent and wipe dry.

B. Seal porous polished stainless steel mirrors frames or recesses with substrate compatible primer or sealer. Prime surfaces scheduled to receive sealant.

C. Prepare installation in accordance with ASTM C1193 for solvent release sealants, and install sealant in accordance with manufacturer's instructions.

3.03 INSTALLATION

A. Install polished stainless steel mirrors in accordance with manufacturer's recommendations.

B. Set polished stainless steel mirrors plumb and level, and free of optical distortion.

C. Set polished stainless steel mirrors with edge clearance free of surrounding construction including countertops or backsplashes.

D. Installation in Frames:
   1. Install in strict accordance with manufacturers written recommendations, including both mechanical fasteners and adhesive installation systems.

3.04 CLEANING

A. Remove labels after work is complete.

B. Clean polished stainless steel mirrors and adjacent surfaces.

END OF SECTION

SECTION 092116
GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Metal channel ceiling framing.

B. Gypsum wallboard.

C. Joint treatment and accessories.

D. Textured finish system.

1.02 REFERENCE STANDARDS

A. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board 2017.

B. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members 2018.

C. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing 2017.

D. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products 2020.

E. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board 2020.

F. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs 2020.

G. ASTM C1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base 2019.

H. ASTM C1396/C1396M - Standard Specification for Gypsum Board 2017.

I. GA-216 - Application and Finishing of Gypsum Panel Products 2016, with Errata.

1.03 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing gypsum board installation and finishing, with minimum five (5) years of experience.

PART 2 PRODUCTS

2.01 GYPSUM BOARD ASSEMBLIES

A. Provide completed assemblies complying with ASTM C840 and GA-216.

2.02 METAL FRAMING MATERIALS

A. Non-Loadbearing Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 5 psf (L/120 at 240 Pa).
   1. Studs: "C" shaped with flat or formed webs with knurled faces.
   2. Runners: U shaped, sized to match studs.
   3. Ceiling Channels: C-shaped.

2.03 BOARD MATERIALS

A. Manufacturers - Gypsum-Based Board:
   1. CertainTeed Corporation: www.certainteed.com/#sle.
   2. Georgia-Pacific Gypsum: www.gpgypsum.com/#sle.
   3. USG Corporation: www.usg.com/#sle.

B. Gypsum Wallboard: Glass Mat-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
   1. Application: Use for ceilings, unless otherwise indicated.
   2. Thickness:
      a. Ceilings: 1/2 inch (13 mm).

3. Glass Mat Faced Products:
    a. Georgia-Pacific Gypsum; DensArmor Plus
        1) Ceilings in exterior locations and toilet areas.

2.04 GYPSUM WALLBOARD ACCESSORIES

A. Acoustic Insulation: ASTM C665; preformed glass fiber, friction fit type, unfaced. Thickness: 3 inch (77 mm).

B. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.

C. Beads, Joint Accessories, and Other Trim: ASTM C1047, rigid plastic, galvanized steel, or rolled zinc, unless noted otherwise.
1. Edge Trim:
    a. Products: USG No. 200A Edge Trim.
2. Expansion Joints:
    a. Type: V-shaped metal with factory-installed protective tape.
    b. Products:
        1) Phillips Manufacturing Co; 093 Expansion Control Joint: www.phillipsmfg.com/#sle.

D. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
1. Paper Tape: 2 inch (50 mm) wide, creased paper tape for joints and corners, except as otherwise indicated.
2. Joint Compound: Drying type, vinyl-based, ready-mixed.
    a. Products:
        1) CertainTeed Corporation; Extreme All-Purpose Joint Compound: www.certainteed.com/#sle.
        2) Substitutions: See Section 016000 - Product Requirements.

E. Finishing Compound: Surface coat and primer, takes the place of skim coating.
1. Products:
    a. CertainTeed Corporation; Quick Prep Plus Interior Prep Coat: www.certainteed.com/#sle.

F. High Build Drywall Surfacer: Vinyl acrylic latex-based coating for spray application, designed to take the place of skim coating and separate paint primer in achieving Level 5 finish.

G. Textured Finish Materials: Latex-based compound; plain.

H. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inch (0.84 mm) in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion resistant.

I. Screws for Fastening of Gypsum Panel Products to Steel Members from 0.033 to 0.112 inch (0.84 to 2.84 mm) in Thickness: ASTM C954; steel drill screws, corrosion resistant.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that project conditions are appropriate for work of this section to commence.

3.02 FRAMING INSTALLATION

A. Metal Framing: Install in accordance with ASTM C754 and manufacturer's instructions.

B. Suspended Ceilings: Space framing and furring members as indicated.
1. Level ceiling system to a tolerance of 1/1200.
2. Laterally brace entire suspension system.
3. Install bracing as required at exterior locations to resist wind uplift.

C. Basis of Design System: 6' DGS Cross Tee Drywall Grid System.

D. Studs: Space studs at 16 inches on center (at 406 mm on center).

1. Extend partition framing to structure where indicated and to ceiling in other locations.
2. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.

3.03 ACOUSTIC ACCESSORIES INSTALLATION

A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.

B. Acoustic Sealant: Install in accordance with manufacturer's instructions.
   1. Place one bead continuously on substrate before installation of perimeter framing members.
   2. Place continuous bead at perimeter of each layer of gypsum board.
   3. Seal around all penetrations by conduit, pipe, ducts, and rough-in boxes, except where firestopping is provided.

3.04 BOARD INSTALLATION

A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.

B. Single-Layer Non-Rated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.
   1. Exception: Tapered edges to receive joint treatment at right angles to framing.

C. Exposed Gypsum Board in Interior Wet Areas: Seal joints, cut edges, and holes with water-resistant sealant.

3.05 INSTALLATION OF TRIM AND ACCESSORIES

A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.
   1. Not more than 30 feet (10 meters) apart on walls and ceilings over 50 feet (16 meters) long.
   2. At exterior soffits, not more than 30 feet (10 meters) apart in both directions.

B. Corner Beads: Install at external corners, using longest practical lengths.

C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials.

3.06 JOINT TREATMENT

A. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
   1. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
   2. Level 1: Wall areas above finished ceilings, whether or not accessible in the completed construction.

B. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
   1. Feather coats of joint compound so that camber is maximum 1/32 inch (0.8 mm).
   2. Taping, filling, and sanding is not required at surfaces behind adhesive applied ceramic tile and fixed cabinetry.

C. Where Level 5 finish is indicated, spray apply high build drywall surfacer over entire surface after joints have been properly treated; achieve a flat and tool mark-free finish.

3.07 TEXTURE FINISH

A. Apply finish texture coating by means of spraying apparatus in accordance with manufacturer's instructions and to match approved sample.

3.08 TOLERANCES

A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet (3 mm in 3 m) in any direction.

END OF SECTION

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SECTION 096700
FLUID-APPLIED FLOORING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Fluid-applied flooring and base.

1.02 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns and colors available.

C. Samples: Submit two samples, 12"x12" in size illustrating color and pattern for each floor material for each color specified.
   1. Sample shall show overall system thickness and slip-resistant system for both flooring and cove base.

1.03 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

B. Applicator Qualifications: Company specializing in performing the work of this section.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Store resin materials in a dry, secure area.

PART 2 PRODUCTS

2.01 FLUID-APPLIED FLOORING SYSTEMS

A. Fluid-Applied Flooring: Epoxy, two component, thermosetting, colored with mineral filler, with aggregate broadcast on base coat.
   1. Base Coat: Thickness as specified by manufacturer; color as selected by the Owner and Architect.
   2. Aggregate: Small quartz chips, multiple colors as selected. Aggregate shall be a combination of 1/8" and 1/16" chips in percentages as selected by Owner and Architect.
   3. Top Coat: Epoxy, two component, thermosetting; 1/16" thick; clear. Total system shall be 1/8" thick.
   4. Color: Selected by Owner and Architect.
   5. Basis of Design Product: FloroChip Epoxy Flake Flooring as manufactured by Florock, system documented as follows:..
      a. Floropoxy Primer
      b. Floropoxy Pigmented epoxy system
      c. 1st Broadcast Florochips
      d. Floropoxy Clear epoxy system
      e. High Performance Topcoat Clear
      f. Additional Slip Resistance
      g. Provide integral 4" base with same material as floor system.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that sub-floor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive flooring.

B. Verify that sub-floor surfaces are dust-free and free of substances that could impair bonding of materials to sub-floor surfaces.

C. Verify that concrete sub-floor surfaces are ready for flooring installation by testing for moisture emission rate and alkalinity; obtain instructions if test results are not within limits recommended by flooring materials manufacturer.

D. Verify that required floor-mounted utilities are in correct location.

3.02 INSTALLATION - FLOORING

A. Apply in accordance with manufacturer's instructions.

B. Apply each coat to minimum thickness required by manufacturer.

C. Finish to smooth level surface with Owner provided slip resistance.

3.03 PROTECTION

A. Barricade area to protect flooring until fully cured.

END OF SECTION

SECTION 099113
EXTERIOR PAINTING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface preparation.

B. Field application of paints.

C. Scope: Finish exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
   1. Exposed surfaces of steel lintels and ledge angles.

D. Do Not Paint or Finish the Following Items:
   1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
   2. Items indicated to receive other finishes.
   3. Items indicated to remain unfinished.
   4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
   5. Floors, unless specifically indicated.
   6. Brick, glass unit masonry, architectural concrete, cast stone, integrally colored plaster and stucco.
   7. Glass.
   8. Concealed pipes, ducts, and conduits.

1.02 RELATED REQUIREMENTS

A. Section 055000 - Metal Fabrications: Shop-primed items.

B. Section 099123 - Interior Painting.

1.03 REFERENCE STANDARDS

A. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual Current Edition.

B. SSPC-SP 1 - Solvent Cleaning 2015, with Editorial Revision (2016).

C. SSPC-SP 2 - Hand Tool Cleaning 2018.

D. SSPC-SP 6 - Commercial Blast Cleaning 2007.

1.04 SUBMITTALS

A. Product Data: Provide complete list of products to be used, with the following information for each:
   1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
   2. MPI product number (e.g. MPI #47).
   3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
   4. Manufacturer's installation instructions.
   5. If proposal of substitutions is allowed under submittal procedures, explanation of substitutions proposed.

B. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches (216 by 279 mm) in size, illustrating range of colors available for each finishing product specified.
   1. Where sheen is specified, submit samples in only that sheen.
   2. Paint color submittals will not be considered until color submittals for major materials not to be painted, such as masonry, have been approved.

C. Certification: By manufacturer that paints and finishes comply with VOC limits specified.

D. Manufacturer's Instructions: Indicate special surface preparation procedures.

E. Maintenance Data: Submit data including finish schedule showing where each product/color/finish was used, product technical data sheets, material safety data sheets (MSDS), care and cleaning instructions, touch-up procedures, repair of painted and finished surfaces, and color samples of each color and finish used.

F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 016000 - Product Requirements, for additional provisions.
   2. Extra Paint and Finish Materials: 5 gallons (20 L) of each color; from the same product run, store where directed.
   3. Label each container with color in addition to the manufacturer's label.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum three years documented experience.

B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 5 years experience and approved by manufacturer.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.

B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

C. Paint Materials: Store at minimum ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.

1.07 FIELD CONDITIONS

A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.

B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.

C. Do not apply exterior paint and finishes during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.

D. Provide lighting level of 80 ft candles (860 lx) measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Provide paints and finishes used in any individual system from the same manufacturer; no exceptions.

B. Paints:
   1. Tnemec Company: www.tnemec.com.

C. Primer Sealers: Same manufacturer as top coats.

D. Substitutions: See Section 016000 - Product Requirements.

2.02 PAINTS AND FINISHES - GENERAL

A. Paints and Finishes: Ready mixed, unless required to be a field-catalyzed paint.
   1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
   2. Supply each paint material in quantity required to complete entire project's work from a single production run.
   3. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.

2.03 PAINT SYSTEMS - EXTERIOR

A. Paint E-OP - Exterior Surfaces to be Painted, Unless Otherwise Indicated: Including primed metal.
   1. Two top coats and one coat primer.
      a. Top coats: HDP Acrylic Polymer. Basis of Design: Series 1029 Enduratone as manufactured by Tnemec.
      b. Primer: Manufacturers recommended high performance primer for specific application and top coat material.

2.04 ACCESSORY MATERIALS

A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.

B. Patching Material: Latex filler.

C. Fastener Head Cover Material: Latex filler.

PART 3 EXECUTION

3.01 EXAMINATION

A. Do not begin application of paints and finishes until substrates have been properly prepared.

B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.

C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.

D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

E. Test shop-applied primer for compatibility with subsequent cover materials.

3.02 PREPARATION

A. Clean surfaces thoroughly and correct defects prior to application.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces for finishing.

D. Seal surfaces that might cause bleed through or staining of topcoat.

E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

F. Galvanized Surfaces:
   1. Remove surface contamination and oils and wash with solvent according to SSPC-SP 1.
   2. Prepare surface according to SSPC-SP 2.

G. Ferrous Metal:
   1. Solvent clean according to SSPC-SP 1.
   2. Shop-Primed Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.
   3. Remove rust, loose mill scale, and other foreign substances using using methods recommended in writing by paint manufacturer and blast cleaning according to SSPC-SP 6 "Commercial Blast Cleaning". Protect from corrosion until coated.

H. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.

3.03 APPLICATION

A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.

B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".

C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.

D. Apply each coat to uniform appearance.

E. Dark Colors and Deep Clear Colors: Regardless of number of coats specified, apply additional coats until complete hide is achieved.

F. Sand metal surfaces lightly between coats to achieve required finish.

G. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

H. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

I. All metal doors and door frames shall be spray painted. Brushed on paint shall not be allowed. Repairs or corrections to paint on Metal Doors and Door Frames shall be spray painted.

J. All Electrical disconnects supplying fire alarm power shall be painted red (final color to be selected by the Architect).

3.04 CLEANING

A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.05 PROTECTION

A. Protect finishes until completion of project.

B. Touch-up damaged finishes after Substantial Completion.

3.06 COLOR SCHEDULE

A. Provide Custom Color:

END OF SECTION

SECTION 099123
INTERIOR PAINTING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface preparation.

B. Field application of paints.

C. Scope: Finish interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
   1. Mechanical and Electrical:
      a. In finished areas, paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, mechanical equipment, and electrical equipment, unless otherwise indicated.

D. Do Not Paint or Finish the Following Items:
   1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
   2. Items indicated to receive other finishes.
   3. Items indicated to remain unfinished.
   4. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
   5. Floors, unless specifically indicated.
   6. Glass.
   7. Concealed pipes, ducts, and conduits.
   8. Do not paint aluminum, brass, bronze, stainless steel and chrome plated steel.
   9. Do not paint code required labels, UL and FM and equipment identification, performance rating, name and nomenclature plates.

1.02 REFERENCE STANDARDS

A. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual Current Edition.

1.03 SUBMITTALS

A. Product Data: Provide complete list of products to be used, with the following information for each:
   1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
   2. MPI product number (e.g. MPI #47).
   3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
   4. Manufacturer's installation instructions.
   5. If proposal of substitutions is allowed under submittal procedures, explanation of substitutions proposed.

B. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches (216 by 279 mm) in size, illustrating range of colors available for each finishing product specified.
   1. Where sheen is specified, submit samples in only that sheen.
   2. Paint color submittals will not be considered until color submittals for major materials not to be painted, such as masonry, have been approved.

C. Certification: By manufacturer that paints and finishes comply with VOC limits specified.

D. Manufacturer's Instructions: Indicate special surface preparation procedures.

E. Maintenance Data: Submit data including finish schedule showing where each product/color/finish was used, product technical data sheets, material safety data sheets (MSDS), care and cleaning instructions, touch-up procedures, repair of painted and finished surfaces, and color samples of each color and finish used.

1.04 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum three years documented experience.

B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 5 years experience and approved by manufacturer.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.

B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

C. Paint Materials: Store at minimum ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.

1.06 FIELD CONDITIONS

A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.

B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.

C. Do not apply materials when relative humidity exceeds 85 percent; at temperatures less than 5 degrees F (3 degrees C) above the dew point; or to damp or wet surfaces.

D. Minimum Application Temperatures for Paints: 50 degrees F (10 degrees C) for interiors unless required otherwise by manufacturer's instructions.

E. Provide lighting level of 80 ft candles (860 lx) measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Provide paints and finishes used in any individual system from the same manufacturer; no exceptions.

B. Paints:
   1. PPG Paints: www.ppgpaints.com/#sle.
   2. Benjamin Moore: www.benjaminmoore.com

C. Substitutions: See Section 016000 - Product Requirements.

2.02 PAINTS AND FINISHES - GENERAL

A. Paints and Finishes: Ready mixed, unless intended to be a field-catalyzed paint.
   1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
   2. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
   3. For opaque finishes, tint each coat including primer coat and intermediate coats, one-half shade lighter than succeeding coat, with final finish coat as base color.
   4. Supply each paint material in quantity required to complete entire project's work from a single production run.
   5. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.

B. Colors: full range of colors including custom color.
   1. Allow for minimum of five colors for each system, unless otherwise indicated, without additional cost to Owner.
   2. Extend colors to surface edges; colors may change at any edge as directed by Architect.

3. In finished areas, finish pipes, ducts, conduit, and equipment the same color as the wall/ceiling they are mounted on/under.

2.03 PAINT SYSTEMS - INTERIOR

A. Paint I-OP - Interior Ceiling Surfaces to be Painted, Unless Otherwise Indicated: Including high performance gypsum board.
   1. Two top coats and one coat manufacturer recommended primer.
   2. Top Coat(s): High Performance Architectural Interior Latex; MPI #138, 139, 140, or 141.
      a. Products:
         1) Benjamin Moore Ultra Spec 500 Interior Paint
         2) Substitutions: Section 016000 - Product Requirements.
   3. Primer: As recommended by top coat manufacturer for specific substrate.

B. Paint I-OP-MD-DT - Medium Duty Door/Trim: For surfaces subject to frequent contact by occupants, including metals:
   1. Medium duty applications include doors and door frames.
   2. Two top coats and one coat manufacturer recommended primer.
   3. Top Coat(s): High Performance Architectural Interior Latex; MPI #139, 140, or 141.
      a. Products:
         1) PPG Paints Pitt-Glaze WB1 Pre-Catalyzed Water-Borne Acrylic Epoxy, 16-510 Series, Semi-Gloss.
   4. Primer: As recommended by top coat manufacturer for specific substrate.

C. Paint I-OP-MD-WC - Medium Duty Vertical and Overhead: Including concrete masonry units.
   1. Two top coats and one coat manufacturer recommeded primer.
   2. Top Coat(s): High Performance Architectural Interior Latex; MPI #138, 139, 140, or 141.
      a. Products:
         1) PPG Paints Pitt-Glaze WB1 Pre-Catalyzed Water-Borne Acrylic Epoxy, 16-310 Series, Eggshell.
   3. Primer: As recommended by top coat manufacturer for specific substrate.

2.04 ACCESSORY MATERIALS

A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.

B. Patching Material: Latex filler.

C. Fastener Head Cover Material: Latex filler.

PART 3 EXECUTION

3.01 EXAMINATION

A. Do not begin application of paints and finishes until substrates have been properly prepared.

B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.

C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.

D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

E. Test shop-applied primer for compatibility with subsequent cover materials.

F. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
   1. Gypsum Wallboard: 12 percent.
   2. Masonry, Concrete, and Concrete Masonry Units: 12 percent.

3.02 PREPARATION

A. Clean surfaces thoroughly and correct defects prior to application.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.

D. Seal surfaces that might cause bleed through or staining of topcoat.

E. Masonry:

F. Gypsum Board: Fill minor defects with filler compound. Spot prime defects after repair.

G. Wood Doors to be Field-Finished: Seal wood door top and bottom edge surfaces with clear sealer.

H. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.
   1. Metal Doors and Frames shall be spray painted. Brushed on paint shall not be allowed. Repairs or corrections to paint on Metal Doors and Door Frames shall be spray painted.

3.03 APPLICATION

A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.

B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".

C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.

D. Apply each coat to uniform appearance in thicknesses specified by manufacturer.

E. Sand wood and metal surfaces lightly between coats to achieve required finish.

F. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

G. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.04 FIELD QUALITY CONTROL

A. See Section 014000 - Quality Requirements, for general requirements for field inspection.

3.05 CLEANING

A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.06 PROTECTION

A. Protect finishes until completion of project.

B. Touch-up damaged finishes after Substantial Completion.

END OF SECTION

SECTION 101400
SIGNAGE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Room and door signs.

B. Each door visible to the public shall be provided with signage.

1.02 RELATED REQUIREMENTS

A. Division 26: Exit signs required by code.

1.03 REFERENCE STANDARDS

A. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines current edition.

B. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design 2010.

C. ICC A117.1 - Accessible and Usable Buildings and Facilities 2017.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Manufacturer's printed product literature for each type of sign, indicating sign styles, font, foreground and background colors, locations, overall dimensions of each sign.

C. Signage Schedule: Provide information sufficient to completely define each sign for fabrication, including room number, room name, other text to be applied, sign and letter sizes, fonts, and colors.
   1. When room numbers to appear on signs differ from those on drawings, include the drawing room number on schedule.
   2. When content of signs is indicated to be determined later, request such information from Owner through Architect at least 2 months prior to start of fabrication; upon request, submit preliminary schedule.
   3. Submit for approval by Owner through Architect prior to fabrication.

D. Samples: Submit two samples of each type of sign, of size similar to that required for project, illustrating sign style, font, and method of attachment.

E. Selection Samples: Where colors are not specified, submit two sets of color selection charts or chips.

F. Verification Samples: Submit samples showing colors specified.

G. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 016000 - Product Requirements, for additional provisions.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Package signs as required to prevent damage before installation.

B. Package room and door signs in sequential order of installation, labeled by floor or building.

C. Store tape adhesive at normal room temperature.

1.07 FIELD CONDITIONS

A. Do not install tape adhesive when ambient temperature is lower than recommended by manufacturer.

B. Maintain this minimum temperature during and after installation of signs.

PART 2 PRODUCTS

2.01 SIGNAGE APPLICATIONS

A. Accessibility Compliance: Signs are required to comply with ADA Standards and ICC A117.1, unless otherwise indicated; in the event of conflicting requirements, comply with the most comprehensive and specific requirements.

B. Room and Door Signs: Provide a sign for every doorway, whether it has a door or not, not including corridors, lobbies, and similar open areas.
   1. Sign Type: Flat signs with injection molded panel media as specified .
   2. Provide "tactile" signage, with letters raised minimum 1/32 inch (0.8 mm) and Grade II braille.
   3. Character Height: 1 inch (25 mm).
   4. Sign Height: 3 inches (75 mm), unless otherwise indicated. .
   5. Service Rooms: Identify with the room names and numbers indicated on drawings.
   6. Rest Rooms: Identify with pictograms, the names "MEN" and "WOMEN", and braille.

2.02 SIGN TYPES

1. Wall Mounting of One-Sided Signs: Tape adhesive.

B. Color and Font: Unless otherwise indicated:
   1. Character Font: Helvetica, Arial, or other sans serif font.
   2. Character Case: Upper case only.
   3. Background Color: As scheduled.
   4. Character Color: Contrasting color selected by the architect.

2.03 TACTILE SIGNAGE MEDIA

A. Engraved Panels: Laminated colored plastic; engraved through face to expose core as background color:

B. Injection Molded Panels: One-piece acrylic plastic, with raised letters and braille.
   1. Total Thickness: 1/8 inch.

2.04 ACCESSORIES

A. Concealed Screws: Stainless steel, galvanized steel, chrome plated, or other non-corroding metal.

B. Tape Adhesive: Double sided tape, permanent adhesive.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that substrate surfaces are ready to receive work.

3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install neatly, with horizontal edges level.

C. Locate signs and mount at heights indicated on drawings and in accordance with ADA Standards and ICC A117.1.

D. Protect from damage until Date of Substantial Completion; repair or replace damaged items.

END OF SECTION

SECTION 102113.13
METAL TOILET COMPARTMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Stainless Steel toilet compartments.

1.02 RELATED REQUIREMENTS

A. Section 102800 - Toilet, Bath, and Laundry Accessories.

1.03 REFERENCE STANDARDS

A. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.

B. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar 2015.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination: Coordinate the work with placement of support framing and anchors in walls.

1.05 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Indicate partition plan, elevation views, dimensions, details of wall, floor, and ceiling supports, door swings.

C. Product Data: Provide data on panel construction, hardware, and accessories.

D. Manufacturer's Installation Instructions: Indicate special procedures.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Stainless Steel Toilet Compartments:
   1. Basis of Design: Subject to compliance with the requirements, provide products, Sentinel, Series 400, of The Mills Company, Marion, OH 43302
   2. Contact Information: 1(800) 272-3539; www.bradleycorp.com

B. Accepted alternate manufacturers.
   1. ASI Accurate Partitions; Stainless Steel: www.asi-accuratepartitions.com/#sle.
   2. ASI Global Partitions; Stainless Steel: www.asi-globalpartitions.com/#sle.
   3. Substitutions: Section 016000 - Product Requirements.

2.02 MATERIALS

A. Steel Sheet: Hot-dipped galvanized steel sheet, ASTM A653/A653M, with G90/Z275 coating.

B. Stainless Steel Sheet: ASTM A666, Type 304.

2.03 COMPONENTS

A. Toilet Compartments: Powder coated steel, floor-mounted unbraced.

B. Doors, Panels, and Pilasters: Sheet steel faces, pressure bonded to sound deadening core, formed and closed edges; corners made with corner clips or mitered, welded, and ground smooth.
   1. Panel Faces: 20 gauge, 0.0359 inch (0.91 mm).
   2. Door Faces: 22 gauge, 0.0299 inch (0.76 mm).
   3. Pilaster Faces: 20 gauge, 0.0359 inch (0.91 mm).
   4. Reinforcement: 12 gauge, 0.1046 inch (2.66 mm).
   5. Internal Reinforcement: Provide in areas of attached hardware and fittings. Mark locations of reinforcement for partition mounted washroom accessories.

C. Door and Panel Dimensions:
   1. Thickness: 1 inch (25 mm).

2. Door Width: 24 inch (610 mm).
3. Door Width for Handicapped Use: 36 inch (915 mm) , out-swinging.
4. Height: 58 inch (1473 mm).

D. Pilasters: 1-1/4 inch (32 mm) thick, of sizes required to suit compartment width and spacing.

2.04 ACCESSORIES

A. Pilaster Shoes: Formed ASTM A666 Type 304 stainless steel with No. 4 finish, 3 inch (175 mm) high, concealing floor fastenings.
1. Provide adjustment for floor variations with screw jack through steel saddles integral with pilaster.

B. Head Rails: Hollow anodized aluminum tube, 1 by 1-5/8 inch (25 by 41 mm) size, with anti-grip strips and cast socket wall brackets.

C. Brackets: Full height Satin stainless steel.

D. Attachments, Screws, and Bolts: Stainless steel , tamper proof type.

E. Hardware: Polished stainless steel:
1. Self closing continuous spring loaded type adjustable to hold doors copen at any angle up to 90 degrees..
2. Thumb turn or sliding door latch with exterior emergency access feature.
3. Door strike and keeper with rubber bumper; mounted on pilaster in alignment with door latch.
4. Coat hook with rubber bumper; one per compartment, mounted on door.
5. Provide door pull on both sides of outswinging doors. Provide pulls on outside of inswinging doors.

F. Note: All fasteners shall be tamper resistant and stainless steel.

2.05 FINISHING

A. Stainless Steel Compartments: No. 4 finish or textured finish at Owners option.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify that field measurements are as indicated.

C. Verify correct spacing of and between plumbing fixtures.

D. Verify correct location of built-in framing, anchorage, and bracing.

3.02 INSTALLATION

A. Install partitions secure, rigid, plumb, and level in accordance with manufacturer's instructions.

B. Maintain 3/8 to 1/2 inch (9 to 13 mm) space between wall and panels and between wall and end pilasters.

C. Attach panel brackets securely to walls using anchor devices.

D. Attach panels and pilasters to brackets. Locate head rail joints at pilaster center lines.

3.03 TOLERANCES

A. Maximum Variation From True Position: 1/4 inch (6 mm).

B. Maximum Variation From Plumb: 1/8 inch (3 mm).

3.04 ADJUSTING

A. Adjust and align hardware to uniform clearance at vertical edge of doors, not exceeding 3/16 inch (5 mm).

B. Adjust hinges to position doors in partial opening position when unlatched. Return out swinging doors to closed position.

C. Adjust adjacent components for consistency of line or plane.

END OF SECTION

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SECTION 102800
TOILET, BATH, AND LAUNDRY ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Commercial toilet accessories.

B. Under-lavatory pipe supply covers.

C. Utility room accessories.

1.02 RELATED REQUIREMENTS

A. Section 102113.13 Metal Toilet Compartments

1.03 REFERENCE STANDARDS

A. ASTM C1036 - Standard Specification for Flat Glass 2021.

B. ASTM C1503 - Standard Specification for Silvered Flat Glass Mirror 2018.

C. ASTM G21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi 2015, with Editorial Revision (2021).

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordinate the work with the placement of internal wall reinforcement, concealed ceiling supports, and reinforcement of toilet partitions to receive anchor attachments.

1.05 SUBMITTALS

A. Product Data: Submit data on accessories describing size, finish, details of function, and attachment methods.

B. Manufacturer's Installation Instructions: Indicate special procedures and conditions requiring special attention.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Commercial Toilet, Shower, and Bath Accessories:
   1. Bradley Corporation: www.bradleycorp.com/#sle.

B. Under-Lavatory Pipe Supply Covers:
   1. Truebro LAV GUARD2.

2.02 MATERIALS

A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.

B. Mirror Glass: Annealed float glass, ASTM C1036 Type I, Class 1, Quality Q2, with silvering, protective and physical characteristics complying with ASTM C1503.

2.03 FINISHES

A. Stainless Steel: Satin finish, unless otherwise noted.

2.04 COMMERCIAL TOILET ACCESSORIES

A. Toilet Paper Dispenser: Dual Jumbo Roll Stainless Steel Toilet Paper Dispenser:
   1. Basis of Design: Georgia Pacific 12" Sr. Jumbo Bath Tissue Dispenser
   2. Architect's pre-apprroved equal.

B. Paper Towel Dispenser: Electric, roll paper type.
   1. Cover: Stainless steel.
   2. Paper Discharge: Touchless automatic.
   3. Capacity: 6 inch diameter roll.
   4. Mounting: Semi recessed.
   5. Power: Battery operated.

6. Refill Indicator: Illuminated refill indicator.
7. Products:
    a. Basis of Design: Georgia Pacific model #59460, enMotion Automated Touchless Dispenser.

C. Waste Receptacle: Shall be Owner provided and Contractor Installed.

D. Soap Dispenser: Shall be Owner provided and Contractor Installed.

E. Mirrors: Stainless steel framed, 1/4 inch (6 mm) thick annealed float glass; ASTM C1036.
1. Annealed Float Glass: Silvering, protective and physical characteristics in compliance with ASTM C1503.
2. Size: As shown on the Drawings.
3. Frame: 0.05 inch (1.3 mm)angle shapes, with mitered and welded and ground corners, and tamperproof hanging system; satin finish.

F. Seat Cover Dispenser
1. Basis of Design: Bobrick Model No. B-4221
2. Architect's Pre-Approved Equal

G. Grab Bars: Stainless steel, smooth surface.
1. Standard Duty Grab Bars:
    a. Push/Pull Point Load: 250 pound-force (1112 N), minimum.
    b. Dimensions: 1-1/2 inch (38 mm) outside diameter, minimum 0.05 inch (1.3 mm) wall thickness, exposed flange mounting, 1-1/2 inch (38 mm) clearance between wall and inside of grab bar.
    c. Length and Configuration: As indicated on drawings.

H. Combination Sanitary Napkin/Tampon Dispenser: Stainless steel, surface-mounted.
1. Door: Seamless 0.05 inch (1.3 mm) door with returned edges and tumbler lock.
2. Cabinet: Fully welded, 0.03 inch (0.8 mm) thick sheet.
3. Operation: 25 cent coin required to operate dispenser. Provide locked coin box, separately keyed.
4. Identify dispensers slots without using brand names.
5. Minimum capacity: 15 napkins and 20 tampons.
6. Approved Manufacturers:
    a. Bobrick Washroom Equipment.

I. Sanitary Napkin Disposal Unit: Stainless steel, surface-mounted, self-closing door, locking bottom panel with full-length stainless steel piano-type hinge, removable receptacle.
1. Products:
    a. Basis of Design:Rubbermaid 6140.
    b. Architect's Pre-Approved Equal

2.05 UNDER-LAVATORY PIPE AND SUPPLY COVERS

A. Under-Lavatory Pipe and Supply Covers:
1. Insulate exposed drainage piping including hot, cold, and tempered water supplies under lavatories or sinks to comply with ADA Standards.
2. Exterior Surfaces: Smooth non-absorbent, non-abrasive surfaces.
3. Construction: 1/8 inch (3.2 mm) flexible PVC.
    a. Microbial and Fungal Resistance: Comply with ASTM G21.
4. Color: White.
5. Fasteners: Reusable, snap-locking fasteners with no sharp or abrasive external surfaces.
6. Products:
    a. Plumberex Specialty Products, Inc; Plumberex Pro-Extreme: www.plumberex.com/#sle.
    b. Substitutions: Section 016000 - Product Requirements.

2.06 UTILITY ROOM ACCESSORIES

A. Combination Utility Shelf/Mop and Broom Holder: 0.05 inch (1.3 mm) thick stainless steel, Type 304, with 1/2 inch (12 mm) returned edges, 0.06 inch (1.6 mm) steel wall brackets.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify exact location of accessories for installation.

C. For electrically-operated accessories, verify that electrical power connections are ready and in the correct locations.

D. Verify that field measurements are as indicated on drawings.

3.02 PREPARATION

A. Deliver inserts and rough-in frames to site for timely installation.

B. Provide templates and rough-in measurements as required.

3.03 INSTALLATION

A. Install accessories in accordance with manufacturers' instructions in locations indicated on drawings.

B. Install plumb and level, securely and rigidly anchored to substrate.

C. Mounting Heights: As required by accessibility regulations, unless otherwise indicated.
   1. Grab Bars: As indicated on drawings.
   2. Electric Hand Dryers: Measured from floor to bottom of nozzle:
      a. Handicap: 36 inches (910 mm).
   3. Other Accessories: As indicated on drawings.

3.04 PROTECTION

A. Protect installed accessories from damage due to subsequent construction operations.

END OF SECTION

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SECTION 313116
TERMITE CONTROL

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Chemical soil treatment.

1.02 RELATED REQUIREMENTS

A. Section 033000 - Cast-in-Place Concrete: Vapor barrier placement under concrete slab-on-grade.

1.03 PRICE AND PAYMENT PROCEDURES

A. See Section 012200 - Unit Prices, for additional unit price requirements.

1.04 REFERENCE STANDARDS

A. Title 7, United States Code, 136 through 136y - Federal Insecticide, Fungicide and Rodenticide Act 2019.

1.05 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Indicate toxicants to be used, composition by percentage, dilution schedule, intended application rate.

C. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements.

D. Test Reports: Indicate regulatory agency approval reports when required.

E. Certificate of compliance from authority having jurisdiction indicating approval of toxicants.

F. Manufacturer's Instructions: Indicate caution requirement.

G. Record and document moisture content of soil before application.

H. Installer Qualifications: Company specializing in performing work of the type specified and with minimum three (3) years of documented experience.

I. Warranty: Submit warranty and ensure that forms have been completed in Owner's name.

1.06 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing this type of work and:
   1. Having minimum of three (3) years documented experience.
   2. Approved by manufacturer of treatment materials.
   3. Licensed in the State in which the Project is located.

1.07 WARRANTY

A. See Section 017800 - Closeout Submittals, for additional warranty requirements.

B. Provide five year installer's warranty against damage to building caused by termites.

PART 2 PRODUCTS

2.01 CHEMICAL SOIL TREATMENT

A. Toxicant Chemical: EPA Title 7, United States Code, 136 through 136y approved; synthetically color dyed to permit visual identification of treated soil.

B. Diluent: Recommended by toxicant manufacturer.

C. Manufacturers:
   1. Bayer Environmental Science Corp; [____]: www.backedbybayer.com/pest-management/#sle.Bayer Environmental Science Corp; [____]: www.backedbybayer.com/pest-management/#sle.Bayer Environmental Science Corp; [____]: www.backedbybayer.com/pest-management/#sle.
   2. Substitutions: See Section 016000 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that soil surfaces are unfrozen, sufficiently dry to absorb toxicant, and ready to receive treatment.

B. Verify final grading is complete.

3.02 APPLICATION - CHEMICAL TREATMENT

A. Comply with requirements of U.S. EPA and applicable state and local codes.

B. Spray apply toxicant in accordance with manufacturer's instructions.

C. Apply toxicant at following locations:
   1. Under Slabs-on-Grade.
   2. At Both Sides of Foundation Surface.
   3. Soil Within 10 feet (3 m) of Building Perimeter For a Depth of [____] feet ([____] m).

D. Under slabs, apply toxicant immediately prior to installation of vapor barrier.

E. At foundation walls, apply toxicant immediately prior to finish grading work outside foundations.

F. Apply extra treatment to structure penetration surfaces such as pipe or ducts, and soil penetrations such as grounding rods or posts.

G. Re-treat disturbed treated soil with same toxicant as original treatment.

H. If inspection or testing identifies the presence of termites, re-treat soil and re-test.

3.03 PROTECTION

A. Do not permit soil grading over treated work.

END OF SECTION

Plan Holder's List			
CITY OF SHAWNEE - WOODLAND VETERANS PARK IMPROVEMENTS			
	Company	Address	Contact Information
	SW Construction News	5031 South 33rd West Avenue, Suite #210 Tulsa, OK 74107 *918-493-5066*	Thressie Terrell thressie@swcnews.com
	(iSQft)	Construct Connect 30 Technology Parkway South Ste 100 Norcross, GA 30092	Nikki Diggs nikki.diggs@cmdgroup.com
	ePlan	1400 Forum Blvd. Suite 7B Columbia, MO 65203 Phone: (573)447-7130	Sharon Picard eplanadmin@eplanbidding.com
1	Wynn Construction	405-753-1120	Derek Robbins bid@wynnconstruction.com
2	Haskell Lemon Group	405-206-5119	bids@haskelllemon.com
3	Bruce Johnson Construction	405-922-5000	Bruce Johnson brucejohnsonconst@att.net
4	Downey Contracting, LLC	405-478-5277	David Vaughn bids@downeycontracting.com
5	TCS Construction	405-625-9197	Dylan Wilson estimating@tcs-ok.com
6	Beau's Landscaping	405-708-2605	Beau Batcheller info@beauslandscaping.com
7	Cunningham Recreation	620-440-9831	Justin Long justin@cunninghamrec.com
8	MacHill Construction	580-320-6601	Cason Hill chill@machillconstruction.com
9	Urban Lawn and Landscape	405-792-6922	Scot Latham scot@urbanlawnsinc.com
10	Hammer Construction	405-226-8834	Bob Shitson bwhitson.hammer@gmail.com
11	Jenco Construction	405-525-6045	Jon Dowell estimating@jencoconstruction.com
12	WL McNatt & Co.	405-232-7245	Jason Masterson jason@wlmcnatt.com
13	Kinder Dozer	405-865-2740	Pamela Kinder pam.kinderdozer@gmail.com
14	Lambert Construction	405-372-1444	Steve Hughes estimating@lambertconstructionco.com
15	Rudy Construction	405-478-9900	Phil Pratt info@rudyconstruction.com
16	Tektone Builders	918-261-0885	Rick Henrie bids.tektone@outlook.com
17	Paragon Contractors	918-894-7075	Dillon Collins estimator@paragontulsa.com

ADDENDUM NUMBER ONE
TO
CONTRACT DOCUMENTS AND SPECIFICATIONS
FOR
WOODLAND VETERANS PARK IMPROVEMENTS

Dated: June 9, 2022

The following changes, clarifications and/or additions are hereby made a part of the contract documents for the construction of this project, as fully and completely as if the same were originally included therein, and shall supersede anything contained in the plans and specifications with which it might conflict.

1. **BID DATE:**
   The Bid Date for this project has changed. Please refer to the below information for the revised Bid Date:

   - Separate sealed bids for the **Woodland Veterans Park Improvements Project,** for the City of Shawnee, Oklahoma will be received by the City Clerk's Office at the City of Shawnee, Oklahoma at City Hall, 16 West 9th Street, Shawnee, Oklahoma 74801, until **4:00 P.M., July 5, 2022** for furnishing tools, materials and labor, and performing the work necessary to be done in the construction of the above.

2. **PRE-BID CONFERENCE:**
   An additional Mandatory Pre-Bid Conference will be held for this project. Contractors who attended the original Mandatory Pre-Bid Conference on June 8th, will not be required to attend the additional meeting. Please refer to the below information for the additional Mandatory Pre-Bid Conference:

   Pre-Bid Conference: A **"MANDATORY"** Pre-Bid Conference will be held, June 23, 2022, at 3:00pm, at the Shawnee Commission Chambers, 16 West 9th Street, Shawnee, Oklahoma 74801 which is a prequalification for all contractors, other than those who attended the original Pre-Bid Conference.

   The list of contractors exempt from the additional meeting are those listed on the attached Pre-Bid Sign In Sheet from June 8, 2022.

Receipt of this Addendum will be confirmed by Planning Design Groups via email read receipt.
This Addendum forms a part of the Contract Documents and modifies the original
Bidding Documents advertised on May 18, 2022, in accordance with
PROJECT AND BID SPECIFICATIONS and as noted below.
Acknowledge receipt of this Addendum on the Proposal Form.
Failure to do so may subject the Bidder to disqualification.
This Addendum is a one (1) page Addendum.

End of Addendum #1

WOODLAND VETERANS PARK IMPROVEMENTS PROJECT - SIGN IN SHEET **Wednesday, June 8, 2022**

Shawnee, Oklahoma

COMPANY NAME	PHONE	EMAIL	CONTACT PERSON
Planning Design Group (PDG) - Design Consultant	918-628-1255	gevans@pdgtulsa.com	Geoff Evans
City of Shawnee - Director of Engineering	405-878-1760	Seth.Barkhimer@shawneeok.org	Seth Barkhimer
City of Shawnee - Public Works Director	405-273-1960	Bradley.Schmidt@shawneeok.org	Bradley Schmidt
City of Shawnee - Recreation Manager	405-214-5050	kerri.foster@shawneeok.org	Kerri Foster
City of Shawnee	405-878-1547	shane.lomeli@shawneeok.org	Shane Lomeli
Wynn Construction	405-753-1120	bid@wynnconstruction.com	Derek Robbins
Haskell Lemon Group	405-206-5119	bids@haskelllemon.com	Jacob Roush
Bruce Johnson Construction	405-922-5000	brucejohnsonconst@att.net	Bruce Johnson
Bruce Johnson Construction	405-201-7721	ryan@brucejohnson.construction	Ryan Hunt
Downey Contracting	405-478-5277	bids@downeycontracting.com	David Vaughn
TCS Construction	405-625-9197	estimating@tcs-ok.com	Dylan Wilson
Beau's Landscaping	405-708-2605	info@beauslandscaping.com	Beau Batcheller
Cunningham Recreation	620-440-9831	justin@cunninghamrec.com	Justin Long
MacHill Construction	580-320-6601	chill@machillconstruction.com	Cason Hill

ADDENDUM NUMBER TWO
TO
CONTRACT DOCUMENTS AND SPECIFICATIONS
FOR
WOODLAND VETERANS PARK IMPROVEMENTS

Dated: June 24, 2022

The following changes, clarifications and/or additions are hereby made a part of the contract documents for the construction of this project, as fully and completely as if the same were originally included therein, and shall supersede anything contained in the plans and specifications with which it might conflict.

GENERAL ITEMS

1. **EXCEL VERSION OF BID FORM:**
   An Excel Copy of the Bid Form has been placed in the Shared Folder for this project and has been attached to the email Addendum. Contractor is responsible for verifying all quantities, formulas, etc. This is for information purposes only.

2. **BID ITEM #60:**
   Bid Item #60 should read Play Equipment with Installation – Complete In Place. This should include providing all materials and installation for the Play Equipment.

3. **BID ITEM #72 – STANDARD BOLLARDS – CIP:**
   There are 16 Standard Bollards called for in the plans. This should include 13 Non-removeable Bollards and 3 Removeable Bollards. Please include the cost of the 3 Removable Bollards within the existing 16 Standard Bollard Line Item.

4. **SHEET LS-1 THRU LS-4:**
   The plant materials list has item "COR IRG" listed with the incorrect Information. The correct Information for COR IRG is as follow:
   Cornus Sericea'SMNCSBD' TM
   Arctic Fire Yellow Dogwood
   5 Gallon Pot - 18"-24" High @ 36" OC

5. **ELECTRICAL ITEMS CLARIFICATION:**
   All site items are to be included in Bid Item #5 – Electrical, Lighting and Distribution. This includes the Lighted Bollards. All items associated with the buildings/structures, are to be included in each structure.

6. **TRAFFIC CONTROL ON HIGHLAND:**
   Contractor is responsible for providing and paying for a traffic control plan and all necessary barriers, signs, or others items on site.

7. **EXISTING SPLASH PAD:**
   The Existing Splash Pad will remain open until the end of August.

8. **VINYL COATED CHAIN LINK FENCING:**
   Specification 02445 – Vinyl Coated Chain Link Fencing has been added to this Addendum. This will be utilized for the fencing around all sports courts. Contractor is to follow associated details within original drawing set.

9. **RELOCATED MONUMENTS AND SIGNS:**
   Per the Bid Form, only the two (2) sculptures will be relocated on site. The existing sign that is located on the NW corner of the site is to be removed as is and provided to the City of Shawnee.

10. **SNOW CONE BUILDING:**
    The Snow Cone Building and the Concession Building are the same structure. This should be referred to as the Snow Cone Building.

11. **FENCE AT SNOW CONE BUILDING:**
    Fence is t be reinstalled as close as possible to the Snow Cone Building Wall. This is to be installed per manufacturer's recommendations. The space between the building and the post should not exceed 3.99 Inches.

12. **ELECTRICAL ITEMS CLARIFICATION:**
    All site items are to be included in Bid Item #5 – Electrical, Lighting and Distribution. This includes the Lighted Bollards. All items associated with the buildings/structures, are to be included in each structure.

13. **TUNNEL AND BERM AT WEST PLAY AREA:**
    The below information only applies to the berm in the center of the west play area that contains a tunnel and multiple pieces of play equipment…..

- The tunnel is to be constructed utilizing a pre-fabricated berm.
- Manufacturer must meet all elements of the originally specified product. This includes but is not limited to design intent, finish, warranty, playground safety standards, etc.

a. Contractor is to be able to supply specified padding and any other associated items.
b. Contractor is to ensure the tunnels, play equipment attached to berm, etc., are all coordinated with the construction of the berm.
c. The tunnel that is recessed into the berm will be made out of a prefabricated plastic playground material. This will need to match berm widths on site, and modified as necessary to match the face of the berm.
d. There will be no Poured In Place Rubber material inside of the tunnel. Tunnel is to be set at grade of adjacent rubber or turf.

14. **SEAT STONES CLARIFICATION:**
    The quantities listed in the Bid Form are correct. Please refer to the below information for clarification…..
    - Bid Item 49 – 5' L Retaining Seat Stones at Amphitheater - 24
    - Bid Item 73 – 5' L Retaining Seat Stones – 50
      - These will utilize the same stone, but be stacked to create the retaining wall.
      - Plan only shows 26, but there will be additional stacked on top to create retaining wall
    - Bid Item 74 – 5' L Free Standing Seat Stones – 23 (Various locations around the site)

15. **BID ITEM # 61 – TREEHOUSE PLATFORM-CIP:**
    Below is additional information pertaining to this element:
    - This is to include all items listed on Detail #3 on Sheet D-6
    - Per the Sheet GR-2, the "Deck" is 1.25' Above Finished Grade

ARCHITECTURAL ITEMS

1. **METAL SOFFIT PANELS:**

   As a clarification to the documents. Basis of Design for Metal Soffit Panels shall be prefinished, 24 ga. FW 120, with concealed fasteners, as manufactured by MBCI, Inc, a part of Cornerstone brands. Soffit panels shall be provided in manufacturers maximum lengths without intermediate joints. Color selection shall be from manufacturers complete line of colors. Provide all accessories as required for a complete installation. Installation shall be in full accordance with manufacturers written recommendations.

2. **RE: SECTION 076100 SHEET METAL ROOFING**

   As a clarification to the documents – the following shall be added in its entirety:

   1.05 UALITY ASSURANCE

   A. Perform work in accordance with SMACNA (ASMM) requirements and standard details, except as otherwise noted.

   1. Maintain one copy on project site.

   B. Installer Qualifications: Company specializing in performing sheet metal roof installations with minimum 5 years experience under the current company name and approved by manufacturer.

   1.06 DELIVERY, STORAGE, AND HANDLING

   A. Stack material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.

   B. Prevent contact with materials that could cause discoloration or staining.

   1.07 WARRANTY

   A. See Section 017800 - Closeout Submittals, for additional warranty requirements.

   B. Provide manufacturers 20 year, no dollar limit (NDL) warranty. Warranty shall include all labor, equipment and materials.

3. **RE: SNOW CONE BUILDING – INTERIOR CEILINGS**

   As a clarification to the documents. Basis of Design for the interior ceiling in the Snow Cone Building shall be Georgian 794 high washability panels in a Prelude 15/16" suspended system both as manufactured by Armstrong Ceilings Inc. Provide all accessories as required for a complete installation. Installation shall be in full accordance with manufacturers written recommendations.

4. **RE: SECTION 099113 EXTERIOR PAINTING**

   As a clarification to the documents – all exposed steel elements, including but not limited to columns, beams, and exposed decking, shall be primed and painted per the section requirements.

5. **RE: VAPOR PERMEABLE AIR BARRIER**

   As a clarification to the documents – Basis of Design for the Vapor Permeable Air Barrier shall Air Shield LMP as manufactured by WR Meadows.

6. **RE: SECTION 102113.13 METAL TOILET COMPARTMENTS**

   As a clarification to the documents, Toilet Partitions shall be floor mounted and overhead braced (Series 400). All Toilet Compartment components shall be stainless steel.

ARCHITECTURAL QUESTIONS AND ANSWERS

1. **Q:** Sheet A2.00 Floor plan shows 3 areas 14 feet 2 inches long x 1 foot 6 inches wide. There is no cut or detail for these , however on sheet S2.1 detail 2 cut 9 S4.1 shows 12 x8x16 block. If this is block, what height and what finish?

   A: These elements are walls that are double wythe CMU, 1'-4" in width and matching the lower portion of the toilet area, Echelon Trendstone Honed Face CMU-2. Wall height is 8'-0" plus a 3" tall cap.

2. **Q:** Page A2.01 floor plan appears to show 3 columns that receive a veneer around them. Page A6.01 appears to show these columns veneering with a cap. If this is the case what do they veneer with and what is the cap?

   A: Veneer wrap shall be CMU-2 with a 2" solid matching cap.

3. **Q:** Page A12.01 detail 06-typical exterior wall Type A it says that all cells without grout shall receive rigid insulation inserts and vermiculite fill. Is this correct or is one or the other sufficient?
   A: Provide rigid inserts and vermiculite fill in the remaining voids.
4. **Q:** The roofing/truss system for the concessions building that is being called out on sheets S2-3 and A6.02. It states that it is cold formed roof joists by manufacturer with a max spacing of 2' O.C. Would you like us to provide the entire truss system or just the horizontal ceiling joists spaced at 2'?

   A: The intent was for the entire truss system.

APPROVED OR EQUALS

1. **SITE FURNISHINGS:**
   a. The following company listed below is approved as an equal to supply the site furnishings as listed below. Only those items are approved for bidding.
   b. The company must meet all elements of the originally specified product. This includes but is not limited to design intent, materials, finish, construction, warranty, etc.

      1. **DUMOR**
         ITEMS APPROVED
         TRASH RECEPTACLES, BOLLARD, AND BIKE RACKS ONLY
         Local Contact:
         ACS Playgrounds
         Bryan Montgomery
         405-406-9670
         bryanm@acsplay.com

2. **SYNTHETIC TURF APPROVED EQUALS:**
    a. The following company listed below is approved as an equal material to be utilized as the Synthetic Turf for the project.
    b. Manufacturer must meet all elements of the originally specified product. This includes but is not limited to design intent, materials, finish, construction, warranty, etc.
    c. Contractor is to be able to supply specified padding and any other associated items.

        1. **TURFSCAPE HIGHLAND**
        Local Contact:
        ACS Playgrounds
        Bryan Montgomery
        405-406-9670
        bryanm@acsplay.com

3. **SHADE STRUCTURES:**
    a. The following companies listed below are approved as an equal to supply the shade structures for the project.
    b. The company must meet all elements of the originally specified product. This includes but is not limited to design intent, materials, connections, height, construction, warranty, etc.
    c. If or equal product is used during construction, Contractor is to provide all necessary coordination between shade structure manufacturer, structural engineer, electrical engineer, and architect, to ensure all elements are compatible.

        1. **SKYWAYS (LANDSCAPE STRUCTURES)**
        Local Contact:
        ACS Playgrounds
        Bryan Montgomery
        405-406-9670
        bryanm@acsplay.com

        2. **SHADE SYSTEM INC**
        Local Contact:
        Josh Walk
        800-609-6066
        josh@shadesystemsinc.com

        3. **USA SHADE**
        Local Contact:
        USA Shade
        Angela Holmes
        214-557-8210
        angela.holmes@usa-shade.com

4. **POURED IN PLACE RUBBER SURFACING APPROVED EQUALS:**
    a. The following companies listed below are approved as an equal material to be utilized as the Poured In Place Rubber Surfacing for the project.
    b. Manufacturer must meet all elements of the originally specified product. This includes but is not limited to design intent, materials, finish, colors, construction, warranty, etc.

        1. **ROSEHILL SPORTS AND PLAY SURFACING**
           Local Contact:
           ACS Playgrounds
           Bryan Montgomery
           405-406-9670
           bryanm@acsplay.com

Receipt of this Addendum will be confirmed by Planning Design Groups via email read receipt.
This Addendum forms a part of the Contract Documents and modifies the original
Bidding Documents advertised on May 18, 2022, in accordance with
PROJECT AND BID SPECIFICATIONS and as noted below.
Acknowledge receipt of this Addendum on the Proposal Form.
Failure to do so may subject the Bidder to disqualification.
End of Addendum #2

SECTION 02445
VINYL COATED CHAIN LINK FENCING

PART 1 – GENERAL

1.01 DESCRIPTION

A. Work included: Provide Vinyl coated chain link fence system where shown on the drawings and as needed for a complete and proper installation.

1.02 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
B. ASTM A-120: Zinc Coating.
C. ASTM A-123: Zinc Coated Forged Steel.
D. ASTM F-567: Fence Installation.
E. ASTM A-392: Class I PVC Coated Fabric.
F. Polyester Powder:
   1. ASTM D-1734 - Flexibility Mandrel Test.
   2. ASTM D-2794 - Impact Resistance Test.
   3. ASTM B-117 - Salt Spray Resistance Test.
   4. ASTM D-2247 - Humidity Resistance Test.
   5. ASTM D-822 - Weatherability Test.
   6. ASTM D-3363 - Pencil Hardness Test.
   7. ASTM D-2454 - Overbake Resistance Test.
   8. ASTM D-3359B - Adhesion Crosshatching Test.
   9. Epoxy or hybrid paints are not acceptable due to poor weatherability characteristics.

1.03 SUBMITTALS

A. Comply with pertinent provision of Section 01340 Submittals.
B. Product data: After the Contractor has received the Owner's Notice to Proceed, submit:

   1. Materials list of items proposed to be provided under this Section.
   2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
   3. Shop drawings in sufficient detail to show fabrication, installation, anchorage and interface of the work of this Section with the work of adjacent trades.

   4. Manufacturer's recommended installation procedures which, when approved by the Owner's Representative, will become the basis for accepting or rejecting

actual installation procedures used on the work.

5. Sample of fabric, end, line, gate, frame posts (6" lengths marked as to size); fittings; hardware and accessories; one each.

1.04 PRODUCT HANDLING

A. Comply with pertinent provisions of Section 01640 Product Handling.

1.05 WARRANTY

A. Record manufacturer's 10 year warranty against rust or corrosion for fabric.

PART 2 – PRODUCTS

2.01 DIMENSIONAL DATA

A. General:
1. Pipe sizes indicated are commercial pipe sizes.
2. Roll-formed section sizes indicated are the nominal outside dimensions.

2.02 GALVANIZING

A. On steel framework and appurtenances, provide galvanized finish with not less than the following weight of zinc per sq. ft.:
1. Pipe: 1.8 oz., complying with ASTM A120.
2. H-Sections and square tubing: 2.0 oz. complying with ASTM A123.
3. Hardware and accessories: Comply with Table I of ASTM A153.
4. Fabric: 1.2 oz. complying with Class I of ASTM A392.

2.03 FABRIC

A. Provide number 6 gage (9 gage wire 0.148" O.D. with Vinyl equals 6 gage) wires, vinyl clad, in accordance with ASTMF-668, Type 28, in 2" mesh where noted on drawings with top and bottom salvages knuckled.

B. Provide fabric in one piece widths. Full height up to 12'-0".

2.04 POSTS, RAILS AND ASSOCIATED ITEMS

A. End, corner, slope and pull posts: Provide at least the following minimum sizes and weights with powder coated finish:
1. Up to and including 6'-0" fabric height: 2.375" (2-1/2") OD, Schedule 40 Type I round pipe, 3.65 lbs. per lineal foot.
2. Above 6'-0" to 10'-0" fabric height: 2.875" (3") OD, Schedule 40 Type I round pipe, 5.79 lbs per lineal foot.
3. Above 10'-0" fabric height: 4.000" (4") OD, Schedule 40 Type I round pipe, 9.10 lbs per lineal foot.

B. Line posts: Provide minimum sizes and weights as follows:
1. Up to and including 6'-0" fabric height: 1.900" (2") OD, Schedule 40 Type I round pipe, 2.72 lbs. per lineal foot.
2. Above 6'-0" to 10'-0" fabric height: 2.375" (2-1/2") OD, Schedule 40 Type I round pipe, 3.65 lbs per lineal foot.
3. Above 10'-0" fabric height: 2.875" (3") OD, Schedule 40 Type I round pipe, 5.79 lbs. per lineal foot.

C. Gate Posts: Provide gate posts for supporting single gate leaf, or one leaf of a double gate installation, for nominal gate widths as follows:
1. For 6' wide or less: Use 2.875" (3") OD, Schedule 40 Type I round pipe, 5.79 lbs. per lineal foot.
2. Over 6 feet wide and up to 13 feet wide: Use 4.000" (4") OD, Schedule 40 Type I round pipe, 9. 10 lbs. per lineal foot.
3. Over 13 feet wide and up to 18 feet wide: Use 6.625" OD, Schedule 40 Type I round pipe, 8.92 lbs per lineal foot.
4. Over 18 feet wide: Use 8.625" OD, Schedule 40 Type I round pipe, 28.55 lbs per lineal foot.

D. Top Rails:
1. Use 1.660" OD, Schedule 40 Type I round pipe, 2.27 lbs. per lineal foot.
2. Provide in manufacturer's longest lengths, with expansion type couplings approximately 6" long for each joint.
3. Provide means for attaching top rail securely to each gate, pull, slope, line and endpost.

E. Post Brace Assemblies:
1. Provide at end and gate posts, and at both sides of comer, slope and pull posts with the horizontal brace located at mid-height of the fabric.
2. Use 1.660" OD pipe 2.27 lbs. per lineal ft. for horizontal brace.
3. Use 3/8" diameter rod with turnbuckle for diagonal truss.

F. Tension wire: Provide number 7 gage coiled spring wire at bottom of fabric.

G. Post Tops:
1. Provide steel, wrought iron or malleable iron designed as weathertight closurecap.
2. Provide one cap for each post.
3. Provide caps with openings to permit through passage of top rail.

H. Stretcher Bars:
1. Provide one-piece lengths equal to full height of fabric, with a minimum cross-section of 3/16" x ¾".
2. Provide one stretcher bar for each gate and end post and two for each corner, slope and pull post except where fabric
is woven integrally into the post.

I.Stretcher Bar Bands:
1. Provide steel, wrought iron or malleable iron, spaced not over 15" on centers, to secure stretcher bars to end, comer, pull, slope and gate posts.
2. Bands may be used also with special fittings for secure end, corner, pull, slope and gate posts.

2.05 GATES

A. General:

1. Fabricate gate perimeter frames of tubular or pipe members.
2. Provide additional horizontal and vertical members to assure proper operation of the gate, and for attachment of fabric, hardware and accessories.
3. Space so frame members are not more than 8 feet apart.
4. Fabricate gate frames from:
   a. 6’ to 10’ H x 8’ W or less, 1.90” (2”) OD, Schedule 40 Type I round pipe, 2.72 lbs. per linear foot.
5. All materials shall have powder coated finish.

B. Fabrication:

1. Assemble gate frames by welding with special malleable or pressed steel fittings and rivets for rigid connections.
2. Use same fabric as used in the fence.
3. Install fabric with stretcher bars at vertical edges as a minimum.
4. Attach stretchers to gate frame at not more than 15” on centers.
5. Attach hardware with rivets or by other means which will provide security against removal and breakage.
6. Provide diagonal cross-bracing consisting of 3/8” diameter adjustable length truss rods on gates where required to provide frame rigidity without sag or twist.

C. Gate Hardware:

1. Hinges:
   a. Pressed or forged steel or malleable iron to suite the gate size; non-lift-off type, offset to permit 180 degree opening.
   b. Provide 1-1/2 pair of hinges for each leaf over 6 feet in nominal height.
2. Latches:
   a. Provide heavy duty commercial grade forked type or plunger-bar type to permit operation from either side of the gate.
   b. Provide padlock eye as integral part of latch.
3. Keeper:
   a. Provide keeper for vehicle gates, which automatically engages the gate leaf and holds it in the open position until manually released.
4. Double Gates:
   a. Provide gate stops for double gates consisting of mushroom or flushplate,with anchors.
   b. Set in concrete to engage the center drop rod or plunger bar.
   c. Provide heavy duty commercial grade locking device and padlock eyes as an integral part of the latch, requiring one padlock for locking both gate leaves.

5. Rollers and Tracks:
   a. Roller and assembly shall have a 250 lb. rating per assembly.
   b. Three assemblies for overhead sliding gate.

2.06 MISCELLANEOUS MATERIALS

A. Wire Ties:
1. For tying fabric to line posts, use number 9 gage wire ties spaced 12" on centers.
2. For tying fabric to rails and braces, use number 9 gage wire ties spaced 24" on centers.
3. For tying fabric to tension wire, use number I I gage hog rings spaced 24" on centers.
4. Manufacturer's standard wire ties will be acceptable if of equal strength and durability.

B. Concrete: Comply with provisions of Section 03300 for 3000 psi concrete footings.

2.07 ACCESSORIES

A. Tubular post tops: Weather tight closure caps, I top for each post. Provide tops with openings to accommodate top rails. Finish matching framework finish.

B. Sleeves, stretcher bars, stretcher bar bands, clips, ties, rail ends, fasteners, fittings and accessories: Provide manufacturer's standard complying with CLMI specifications. Finish matching framework finish.

2.08 WIRE COATING

A. Thermally fused and bonded plasticized polyvinyl chloride (PVC) with low temperature plasticizers. No filters, extenders or extraneous matter, other than the necessary stabilizers and pigments.

2.09 POWDER COATING

A. All polyesters equal to topcoat PE50000 series by Armstrong Products Company.
1. Coating electrostatically sprayed with a film thickness of one to five mils with average of two mils.
2. All coated parts to be cured at a temperature of 400 degrees F for ten minutes.
3. Owner shall approve coating company and inspect parts before shipping.

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION

A. General:

1. Install posts at a maximum spacing of 10 feet on centers.
2. Install corner or slope posts where changes in line or grade exceed a 30 degree deflection.

B. Excavating:

1. Drill holes for post footings in firm, undisturbed or compacted soil, strictly adhering to the dimensions and spacing shown.
2. Post hole dimensions:
   a. Provide 30" deep by 8" diameter foundations for line posts for 6 foot fabric height and less.
   b. Provide 36" deep by 8" diameter foundations for line posts for fabric heights exceeding 6 feet.
   c. Provide 36" deep by 12" diameter foundations for all other posts.
3. Spread soil from excavations uniformly adjacent to the fence line, or on adjacent areas of the site if so directed.
4. When solid rock is encountered near the surface, drill into rock at least 12" for line posts and at least 18" for end, pull, gate and corner posts. Drill hole at least 1" greater diameter than the largest dimension of the post to be placed.
5. If solid rock is below soil overburden, drill to full depth required, except penetration into rock need not exceed minimum depths specified above.

C. Setting Posts:

1. Remove loose and foreign materials from sides and bottoms of holes and moisten soil prior to placing concrete.
2. Center and align posts in holes.
3. Place concrete around posts in a continuous pour and vibrate or tamp for consolidation.
4. Check each post for vertical and top alignment and hold in position during placement and finishing operations.
5. Trowel tops of footings and slope or dome to direct water away from posts.
6. Extend footings for gate posts to the underside or bottom hinge.
7. Set keeps, stops, sleeves and other accessories into concrete as required.
8. Keep exposed concrete surfaces moist for at least seven days after placement, or cure with membrane curing material or other curing method approved by the Owner's Representative.
9. Grout-in those posts which are set into sleeved holes, concrete constructions, or rock excavations, using non cement grout or other grouting material approved by the Owner's Representative.

D. Concrete Strength:
1. Allow concrete to attain at least 75% of its minimum 28-day strength before rails, tension wires and/or fabric is installed.
2. Do not, in any case, install such items in less than seven days after placement of concrete.
3. Do not stretch and tension fabric and wire, and do not hang gates, until concrete has attained its full design strength.

E. Rails and Bracing:
1. Install fence with a top rail and bottom tension wire.
2. Install fence with a top rail and bottom on fence as specified on drawings.
3. Install top rails continuously through post caps or extending to radius for curved runs.
4. Provide expansion couplings as recommended by the fencing manufacturer.
5. Provide bracing to the midpoint of the nearest line post or posts at all end, corner, slope, pull and gate posts.
6. Install tension wires parallel to the line of fabric by weaving through the fabric, and tying to each post with not less than number 7 gage galvanized wire, or by securing the wire to the fabric.
7. Weld all posts, rails and braces at heights over 10’-0”.

F. Installing Fabric:
1. Leave approximately ½” between finish grade and bottom selvage.
2. Excavate high points in the ground to clear the bottom of the fence.
3. Place and compact fill to within 1” of the bottom of the fabric in depressions.
4. Pull fabric taut and tie to posts, rails and tension wires.
5. Install fabric on the activity (court) side of fence and anchor to framework so that the fabric remains in tension after pulling force is removed.
6. Install stretcher bars by threading through or clamping to fabric on 4” centers and secure to post with metal bands spaced 15” on centers.
7. Note: All sports fields or courts fabric shall be installed on the activity side.

G. Installing Gates:
1. Install gates plumb, level and secure for full opening without interference.
2. Install ground-set items in concrete for anchorage in accordance with the fence manufacturer’s recommendations as approved by the Owner’s Representative.
3. Lubricate and adjust the hardware for smooth operation.
4. Provide stops for overhead track type gates.
5. Maximum gate height of 7’ in 10’ and higher fencing.

H. Miscellaneous:
1. Use U-shaped tie wires, conforming to diameter of pipe to which attached, clasping pipe and fabric firmly with ends twisted at least two full turns.
2. Bend ends of wire to minimize hazards to persons and clothing.
3. Fasteners:

a. Install nuts for tension band and hardware bolts on side of fence opposite fabric side.

b. Peen the ends of bolts to prevent removal of nuts.

4. Repair coatings damaged in the shop or field erection, using a hot-applied repair compound applied in accordance with its manufacturer's recommendations as approved by Owner's Representative.

END OF SECTION

ADDENDUM NUMBER THREE
TO
CONTRACT DOCUMENTS AND SPECIFICATIONS
FOR
WOODLAND VETERANS PARK IMPROVEMENTS

Dated: June 29, 2022

The following changes, clarifications and/or additions are hereby made a part of the contract documents for the construction of this project, as fully and completely as if the same were originally included therein, and shall supersede anything contained in the plans and specifications with which it might conflict.

GENERAL ITEMS

1. **REVISED BID FORM:**
   The "REVISED BID FORM 06-29-2022" is attached to this Addendum. The changes include:
   - Bid Item #80 - 12' Square Umbrella Shade Structure – CIP, has been added to the bid form.
   - Bid Item #81 – Stamped Concrete Band at Curb – CIP, has been added to the bid form.
   - Bid Item #42 – 4" Thick Integral Color Concrete Pavement – CIP, the quantity has been revised

2. **EXCEL VERSION OF BID FORM:**
   A Revised version of the Excel Bid Form has been placed in the Shared Folder for this project and has been attached to the email Addendum. Contractor is to use this in place of the original bid form. Contractor is responsible for verifying all quantities, formulas, etc. This is for information purposes only.

3. **ARCHITECTURAL SPECIFICATIONS:**
   Attached are Revised Architectural Specifications for the project. This will include the Architectural Specifications Table of Contents and all associated sections. Contractor is to use these in lieu of the original spec sections.

4. **LIGHTED BOLLARDS:**
   Attached to this addendum is the Cut-Sheet for the Lighted Bollards. This is to be used for bidding the lighted bollards only.

Receipt of this Addendum will be confirmed by Planning Design Groups via email read receipt.
This Addendum forms a part of the Contract Documents and modifies the original
Bidding Documents advertised on May 18, 2022, in accordance with
PROJECT AND BID SPECIFICATIONS and as noted below.
Acknowledge receipt of this Addendum on the Proposal Form.
Failure to do so may subject the Bidder to disqualification.
End of Addendum #3

For the performance of all the work necessary to complete the work under Bid Schedule, as defined in the Contract Documents.

REVISED BID FORM 06-29-2022

BASE BID PAY ITEMS

Item	Description	Unit	Quantity	Amount
1	General Conditions/Bonds/Insurance	LS	1	
	@_____Dollars	($_____)	=	$_____
2	Earthwork-Excavation/Embankment/Compaction/Grading - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
3	Demolition - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
4	Erosion Control - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
5	Electric Service, Lighiting & Distribution - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
6	Water Service for Irrigation - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
7	6" Water and Fire Line - CIP	LF	298	
	@_____Dollars	($_____)	=	$_____
8	6" Tapping Valve & Box - CIP	EA	2	
	@_____Dollars	($_____)	=	$_____
9	6"x6" Tee - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
10	6" Gate Valve & Box - CIP	EA	2	
	@_____Dollars	($_____)	=	$_____
11	6"x45° Bend - CIP	EA	5	
	@_____Dollars	($_____)	=	$_____
12	6"x90° Bend - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
13	Fire Hydrant - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
14	Water Tap & Valve (1") - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
15	Water Tap & Valve (1.5") - CIP	EA	2	
	@_____Dollars	($_____)	=	$_____
16	Water Service Line (1") - CIP	LF	17	
	@_____Dollars	($_____)	=	$_____
17	Water Service Line (1.5") - CIP	LF	317	
	@_____Dollars	($_____)	=	$_____
18	Water Meter (1") - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
19	Sanitary Sewer Service Line (4") - CIP	LF	523	
	@_____Dollars	($_____)	=	$_____
20	Cleanouts (4") - CIP	EA	8	
	@_____Dollars	($_____)	=	$_____
21	4"x4" Wye - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
22	Sewer Tap (4") - CIP	EA	2	
	@_____Dollars	($_____)	=	$_____
23	HDPE Storm Pipe (18") - CIP	LF	38	
	@_____Dollars	($_____)	=	$_____

Item	Description	Unit	Quantity	Amount
24	HDPE Storm Pipe (6") - CIP @_____Dollars	LF ($_____)	400 =	$_____
25	HDPE Perforated French Drain w/sleeve - CIP @_____Dollars	LF ($_____)	321 =	$_____
26	5" Channel Drain and Grate - CIP @_____Dollars	LF ($_____)	40 =	$_____
27	ADS Inlet (30"-1 grated, 1 solid) - CIP @_____Dollars	EA ($_____)	2 =	$_____
28	RipRap 12" Median Dia - CIP @_____Dollars	SF ($_____)	40 =	$_____
29	Imported Select Fill - CIP @_____Dollars	CY ($_____)	500 =	$_____
30	Imported Topsoil - CIP @_____Dollars	CY ($_____)	1,500 =	$_____
31	Asphalt Type S4 1.5" Thick - CIP @_____Dollars	TONS ($_____)	243 =	$_____
32	Asphalt Type S3 2.5" Thick - CIP @_____Dollars	TONS ($_____)	405 =	$_____
33	Asphalt Tack Coat - CIP @_____Dollars	GAL ($_____)	135 =	$_____
34	Asphalt Removal and Repair @_____Dollars	SY ($_____)	26 =	$_____
35	Concrete 7" Thick Heavy Duty - CIP @_____Dollars	CY ($_____)	72 =	$_____
36	Concrete Curb & Gutter (6" tall) - CIP @_____Dollars	LF ($_____)	1,721 =	$_____
37	Concrete Curb & Gutter (Trasition 6" to 12" tall) - CIP @_____Dollars	LF ($_____)	20 =	$_____
38	Concrete Curb & Gutter (12" tall) - CIP @_____Dollars	LF ($_____)	86 =	$_____
39	ODOT Type A 6" thick (for parking and roads) - CIP @_____Dollars	CY ($_____)	513 =	$_____
40	Parking Striping - CIP @_____Dollars	LS ($_____)	1 =	$_____
41	4" Thick Concrete Pavement - CIP @_____Dollars	SF ($_____)	23,717 =	$_____
42	4" Thick Integral Color Concrete Pavement - CIP @_____Dollars	SF ($_____)	10,483 =	$_____
43	Concrete ADA Ramps - CIP @_____Dollars	EA ($_____)	11 =	$_____
44	Decomposed Granite - CIP @_____Dollars	SF ($_____)	2,669 =	$_____
45	10" Retaining Wall - CIP @_____Dollars	LF ($_____)	131 =	$_____
46	Step and Ramp Handrails - CIP @_____Dollars	LF ($_____)	120 =	$_____

Item	Description	Unit	Quantity	Amount
47	1' W Extended Curb - CIP	LF	197	
	@_____Dollars	($_____)	=	$_____
48	Stage Structure/Restroom at Ampitheater - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
49	5' L Retaining Seat Stones at Ampitheater - CIP	EA	24	
	@_____Dollars	($_____)	=	$_____
50	Park Entry I-Beam Structure - CIP	EA	7	
	@_____Dollars	($_____)	=	$_____
51	Restroom Building - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
52	Snow Cone Structure - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
53	Water Park Fence Removal & Modifications - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
54	Existing Sculpture Relocation - CIP	EA	2	
	@_____Dollars	($_____)	=	$_____
55	12'x12' Fabric Shade Structure - CIP	EA	4	
	@_____Dollars	($_____)	=	$_____
56	Pickleball Court (2 Total) - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
57	Pickleball 6' Black Vinyl Chain Link Fence - CIP	LF	188	
	@_____Dollars	($_____)	=	$_____
58	1' W. Concrete Curb at Pickleball Court - CIP	LF	190	
	@_____Dollars	($_____)	=	$_____
59	Pickleball Court Equipment - CIP	EA	2	
	@_____Dollars	($_____)	=	$_____
60	Play Equipment Installation	LS	1	
	@_____Dollars	($_____)	=	$_____
61	Treehouse Platform - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
62	Rubberized Safety Surface w/ Concrete Base-CIP	SF	7,386	
	@_____Dollars	($_____)	=	$_____
63	Synthetic Turf (berm) - CIP	SF	2,720	
	@_____Dollars	($_____)	=	$_____
64	Playground Curb (8" W.) - CIP	LF	1,085	
	@_____Dollars	($_____)	=	$_____
65	Playground Drainage - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
66	Picnic Tables - CIP	EA	8	
	@_____Dollars	($_____)	=	$_____
67	Picnic Tables with Umbrella hole - CIP	EA	8	
	@_____Dollars	($_____)	=	$_____
68	Picnic Table Umbrella - CIP	EA	8	
	@_____Dollars	($_____)	=	$_____
69	Benches - CIP	EA	28	
	@_____Dollars	($_____)	=	$_____
70	Trash Receptacles - CIP	EA	11	
	@_____Dollars	($_____)	=	$_____

Item	Description	Unit	Quantity	Amount
71	Bike Racks - CIP	EA	6	
	@_____Dollars	($_____)	=	$_____
72	Standard Bollards - CIP	EA	16	
	@_____Dollars	($_____)	=	$_____
73	5' L Retaining Seat Stones - CIP	EA	50	
	@_____Dollars	($_____)	=	$_____
74	5' L Free Standing Seat Stones - CIP	EA	23	
	@_____Dollars	($_____)	=	$_____
75	Landscaping - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
76	Trees - CIP	EA	66	
	@_____Dollars	($_____)	=	$_____
77	U-3 Bermuda Solid Sod - CIP	SF	100,000	
	@_____Dollars	($_____)	=	$_____
78	Irrigation - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
79	Construction Allowance	LS	1	
	@_____Dollars	**($ 50,000.00)**	=	**$ 50,000.00**
80	12' Square Umbrella Shade Structure - CIP	EA	1	
	@_____Dollars	($_____)	=	$_____
81	Stamped Concrete Band at Curb - CIP	SF	1,588	
	@_____Dollars	($_____)	=	$_____

TOTAL BASE BID ITEMS_____Dollars ($_____)

BASE BID PAY ITEMS

Item	Description	Unit	Quantity	Amount
A-1	Pickleball Lighting - CIP	LS	1	
	@_____Dollars	($_____)	=	$_____
A-2a	Demo & Removal of Exsting Chain-Link Fence	LS	1	
	@_____Dollars	($_____)	=	$_____
A-2b	Tennis 10' Black Vinyl Chain Link Fence - CIP	LF	520	
	@_____Dollars	($_____)	=	$_____
A-2c	1' W. Concrete Curb (for Tennis Fence_ - CIP	LF	492	
	@_____Dollars	($_____)	=	$_____
A-3	Resurfacing - CIP	SF	12000	
	@_____Dollars	($_____)	=	$_____
A-4	Tennis Court Equipment - CIP	EA	2	
	@_____Dollars	($_____)	=	$_____

TOTAL ALTERNATE BID ITEMS_____Dollars ($_____)

TOTAL BASE & ALTERNATE BID_____Dollars ($_____)

CIP = COMPLETE IN PLACE

RADEAN Bollard
LED Site Luminaire

Buy American

Catalog Number TYPE B

Notes

Type

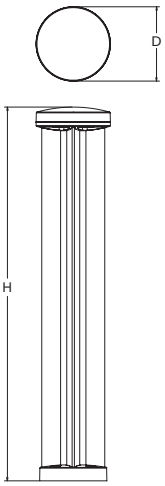
Hit the Tab key or mouse over the page to see all interactive elements.

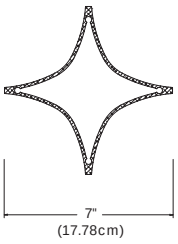
Specifications

Diameter: D = 8.25" (20.96cm)

Height: H = 41.5" Standard (105.41cm)

Weight (max): 20lbs (9.07Kg)

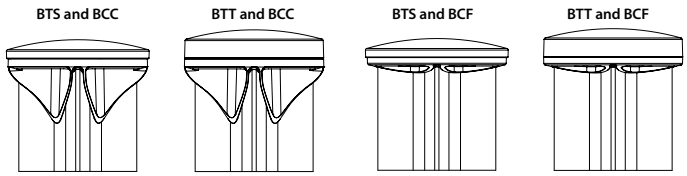




Introduction

The Radean LED Bollard is an award-winning, energy-saving, long-life solution designed to perform the way a bollard should.

The Radean LED Bollard's rugged construction, durable finish and long-lasting LEDs will provide years of maintenance-free service.



Ordering Information

EXAMPLE: RADB LED P4 30K SYM MVOLT BTS BCCDNATXD DBLXD

RADB LED

Series	Performance Package	Color temperature	Distribution	Voltage	Control options
RADB LED	P1	27K 2700 K	ASY Asymmetric [2]	MVOLT [3]	**Shipped installed**
	P2	30K 3000 K	SYM Symmetric [1]	120	PE Photoelectric cell, button type [4,5]
	P3	35K 3500 K		208 [3]	DMG 0-10V dimming driver (no controls)
	P4	40K 4000 K		240 [3]	E7WH Emergency battery backup,Certified in CA Title 20 MAEDBS1 [6,7]
	P5 [1]	50K 5000 K		277	FAO Field adjustable output [5]
				347	PIR Motion sensor Bi-level [3,5,6,7]
				480	

Bollard top *(required)*

Slim Top		Tall Top	
BTS	Slim top, painted to match shaft [5,8]	BTT	Tall top painted to match shaft [8]
BTSDWHXD	Slim top, white [5,8]	BTTDBLBXD	Tall top, black textured [8]
BTSDBLBXD	Slim top, black texture [5,8]	BTTDBLXD	Tall top, black [8]
BTSDBLXD	Slim top, black [5,8]	BTTDDBTXD	Tall top, dark bronze textured [8]
BTSDDBTXD	Slim top, dark bronze textured [5,8]	BTTDDBXD	Tall top, dark bronze [8]
BTSDDBXD	Slim top, dark bronze [5,8]	BTTDNATXD	Tall top, natural aluminum textured [8]
BTSDNATXD	Slim top, natural aluminum textured [5,8]	BTTDNAXD	Tall top, natural aluminum
BTSDNAXD	Slim top, natural aluminum [5,8]	BTTDWHGXD	Tall top, white textured [8]
BTSDWHGXD	Slim top, white textured [8]	BTTDWHXD	Tall top, white [8]

Bollard crown *(required)*

Deep Crown		Flat Crown	
BCC	Deep crown, painted to match shaft [8]	BCF	Flat crown, painted to match shaft [8]
BCCDWHXD	Deep crown, white [8]	BCFDBLBXD	Flat crown, black textured [8]
BCCDBLXD	Deep crown, black [8]	BCFDBLXD	Flat crown, black [8]
BCCDBLBXD	Deep crown, black textured [8]	BCFDDBTXD	Flat crown, dark bronze textured [8]
BCCDDBTXD	Deep crown, dark bronze textured [8]	BCFDDBXD	Flat crown, dark bronze [8]
BCCDDBXD	Deep crown, dark bronze [8]	BCFDNATXD	Flat crown, natural aluminum textured [8]
BCCDNATXD	Deep crown, natural aluminum textured [8]	BCFDNAXD	Flat crown, natural aluminum [8]
BCCDNAXD	Deep crown, natural aluminum [8]	BCFDWHGXD	Flat crown, white textured [8]
BCCDWHGXD	Deep crown, white textured [8]	BCFDWHXD	Flat crown, white [8]

Other options

H24 [6,9]	24" overall height
H30 [6,9]	30" overall height
H36 [6,9]	36" overall height
L/AB	Without anchor bolts

Finish *(required)*

DDBXD	Dark bronze
DBLXD	Black
DNAXD	Natural aluminum
DWHXD	White
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white

Accessories

Ordered and shipped separately.

RADBAB U	Anchor bolts (4)	RK1RADB BCKIT (FINISH) U	Base cover with bolt caps
RADBABC DDBXD U	Replacement anchor bolt covers (specify finish) (4)	RK1RADB EMTESTMAG U	Emergency test stylus

NOTES

1. P5 only available in SYM distribution.
2. ASY has only two illuminated quadrants driven at higher drive currents to generate similar output as the SYM-4-quadrant product.
3. PIR not available with 208V or 240V.
4. PE only available with ASY.
5. PE, PIR and FAO not available with BTS.
6. E7WH and PIR only available in full height. Not available with H24, H30 or H36.
7. PIR not available with E7WH.
8. Architectural and custom colors available (additional leadtimes and cost may apply).
9. 42" Height is standard. H24, H30 and H36 have longer leadtimes.

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SECTION 055000
METAL FABRICATIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Shop fabricated steel items.

B. Steel framing and supports for mechanical and electrical equipment.

C. Shelf angles

1.02 RELATED REQUIREMENTS

A. Section 042000 - Unit Masonry: Placement of metal fabrications in masonry.

B. Section 099113 - Exterior Painting: Paint finish.

C. Section 099123 - Interior Painting: Paint finish.

1.03 REFERENCE STANDARDS

A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel 2019.

B. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless 2020.

C. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products 2017.

D. ASTM A283/A283M - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates 2018.

E. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength 2021.

F. ASTM A501/A501M - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing 2021.

G. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated, Inch Dimensions 120 ksi and 150 ksi Minimum Tensile Strength, and Metric Dimensions 830 MPa and 1040 MPa Minimum Tensile Strength 2021.

H. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination 2020.

I. AWS D1.1/D1.1M - Structural Welding Code - Steel 2020, with Errata (2021).

J. IAS AC172 - Accreditation Criteria for Fabricator Inspection Programs for Structural Steel AC172 2019.

K. SSPC-Paint 20 - Zinc-Rich Coating (Type I - Inorganic, and Type II - Organic) 2019.

L. SSPC-SP 2 - Hand Tool Cleaning 2018.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.

1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.

C. Welders' Certificates: Submit certification for welders employed on the project, verifying AWS qualification within the previous 12 months.

D. Fabricator's Qualification Statement: Provide documentation showing steel fabricator is accredited under IAS AC172.

1.05 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel".

B. Project Conditions: Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication.

PART 2 PRODUCTS

2.01 MATERIALS - STEEL

A. Steel Sections: ASTM A36/A36M.

B. Steel Tubing: ASTM A501/A501M hot-formed structural tubing.

C. Plates: ASTM A283/A283M.

D. Pipe: ASTM A53/A53M, Grade B Schedule 40, black finish.

E. Bolts, Nuts, and Washers: ASTM A307, Grade A, plain.

F. Bolts, Nuts, and Washers: ASTM F3125/F3125M, Type 1, plain.

G. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.

H. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.

2.02 FABRICATION

A. Fit and shop assemble items in largest practical sections, for delivery to site.

B. Fabricate items with joints tightly fitted and secured.

C. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.

D. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

2.03 FABRICATED ITEMS

A. Lintels: As detailed; galvanized finish.
   1. All lintels supporting masonry veneer and CMU systems shall be shop galvanized and field painted to match adjacent masonry color.

2.04 MISCELLANEOUS FRAMING AND SUPPORTS

A. General: Provide steel framing and supports not specified in other Sections as needed to complete the work.

B. Fabricate units from steel shapes, plates and bars of welded construction unless otherwise indicated.

C. Miscellaneous framing and supports shall be shop galvanized.

2.05 SHELF ANGLES

A. Fabricate shelf angles from steel angles of sizes indicated and for both loose laid installation and attachment to wood framing. Where attached, provide horizontally slotted holes to receive 3/4-inch (19-mm) bolts, spaced not more than 6 inches (150 mm) from ends and 24 inches (600 mm) o.c., unless otherwise indicated.

B. Galvanize shelf angles in exterior walls.
   1. All lintels supporting masonry veneer and CMU systems shall be shop galvanized and field painted to match adjacent masonry color.

2.06 FINISHES - STEEL

A. Prepare surfaces to be primed in accordance with SSPC-SP2.

B. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.

C. Galvanizing of Structural Steel Members: Galvanize after fabrication to ASTM A123/A123M requirements. Provide minimum 1.7 oz/sq ft galvanized coating. (Provide minimum 530 g/sq m galvanized coating.)

D. Galvanizing of Non-structural Items: Galvanize after fabrication to ASTM A123/A123M requirements.

2.07 FABRICATION TOLERANCES

A. Squareness: 1/8 inch (3 mm) maximum difference in diagonal measurements.

B. Maximum Offset Between Faces: 1/16 inch (1.5 mm).

C. Maximum Misalignment of Adjacent Members: 1/16 inch (1.5 mm).

D. Maximum Bow: 1/8 inch (3 mm) in 48 inches (1.2 m).

E. Maximum Deviation From Plane: 1/16 inch (1.5 mm) in 48 inches (1.2 m).

PART 3 EXECUTION

3.01 PREPARATION

A. Clean and strip primed steel items to bare metal where site welding is required.
   1. After completion of welding, bare steel shall be field galvanized as required to meet the hot dipped galvanized performance.

B. Supply setting templates to the appropriate entities for steel items required to be cast into concrete or embedded in masonry.

3.02 INSTALLATION

A. Install items plumb and level, accurately fitted, free from distortion or defects.

B. All items shall be installed in strict accordance with manufacturers written recommendations.

C. Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.

D. Obtain approval prior to site cutting or making adjustments not scheduled.

3.03 TOLERANCES

A. Maximum Variation From Plumb: 1/4 inch (6 mm) per story, non-cumulative.

B. Maximum Offset From True Alignment: 1/4 inch (6 mm).

C. Maximum Out-of-Position: 1/4 inch (6 mm).

END OF SECTION

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SECTION 061000
ROUGH CARPENTRY

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Roofing nailers.

B. Preservative treated wood materials.

1.02 RELATED REQUIREMENTS

A. Section 076200 - Sheet Metal Flashing and Trim: Sill flashings.

1.03 REFERENCE STANDARDS

A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2021a.

B. AWPA U1 - Use Category System: User Specification for Treated Wood 2021.

C. PS 20 - American Softwood Lumber Standard 2021.

D. SPIB (GR) - Grading Rules 2014.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

1.05 QUALITY ASSURANCE

1.06 DELIVERY, STORAGE, AND HANDLING

A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
   1. If no species is specified, provide any species graded by the agency specified; if no grading agency is specified, provide lumber graded by any grading agency meeting the specified requirements.
   2. Grading Agency: Any grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee (www.alsc.org) and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

B. Lumber fabricated from old growth timber is not permitted.

2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

A. Grading Agency: Southern Pine Inspection Bureau, Inc; SPIB (GR).

B. Sizes: Nominal sizes as indicated on drawings, S4S.

C. Moisture Content: Kiln-dry or MC15.

D. Stud Framing (2 by 2 through 2 by 6 (50 by 50 mm through 50 by 150 mm)):
   1. Species: Douglas Fir-Larch.
   2. Grade: No. 1.

E. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
   1. Lumber: S4S, No. 1 or Construction Grade.
   2. Boards: Standard or No. 3.

2.03 FACTORY WOOD TREATMENT

A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.

1. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWPA standards.

B. Preservative Treatment:
   1. Preservative Pressure Treatment of Lumber Above Grade: AWPA U1, Use Category UC3B, Commodity Specification A using waterborne preservative.
      a. Kiln dry lumber after treatment to maximum moisture content of 19 percent.
      b. Treat lumber in contact with roofing, flashing, or waterproofing.
      c. Treat lumber in contact with masonry or concrete.

PART 3 EXECUTION

3.01 INSTALLATION - GENERAL

A. Select material sizes to minimize waste.

B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.

C. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

3.02 BLOCKING, NAILERS, AND SUPPORTS

A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.

B. In framed assemblies that have concealed spaces, provide solid wood fireblocking as required by applicable local code, to close concealed draft openings between floors and between top story and roof/attic space; other material acceptable to code authorities may be used in lieu of solid wood blocking.

C. In metal stud walls, provide continuous blocking around door and window openings for anchorage of frames, securely attached to stud framing.

3.03 ROOF-RELATED CARPENTRY

A. Coordinate installation of roofing carpentry with deck construction, framing of roof openings, and roofing assembly installation.

3.04 CLEANING

A. Waste Disposal: Comply with the requirements of Section 017419 - Construction Waste Management and Disposal.
   1. Comply with applicable regulations.
   2. Do not burn scrap on project site.
   3. Do not burn scraps that have been pressure treated.
   4. Do not send materials treated with pentachlorophenol, CCA, or ACA to co-generation facilities or “waste-to-energy” facilities.

B. Do not leave any wood, shavings, sawdust, etc. on the ground or buried in fill.

C. Prevent sawdust and wood shavings from entering the storm drainage system.

END OF SECTION

SECTION 072100
THERMAL INSULATION

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Board insulation at perimeter foundation wall and over roof deck.

B. Batt insulation and vapor retarder in exterior envelope above the ceiling line within the truss construction.

C. Batt insulation for filling perimeter window and door shim spaces and crevices in exterior wall and roof.

D. Molded Polystyrene inserts for CMU walls.

E. Vermiculite fill for all open spaces in CMU walls.

1.02 RELATED REQUIREMENTS

A. Section 061000 - Rough Carpentry: Supporting construction for batt insulation.

1.03 REFERENCE STANDARDS

A. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation 2019.

B. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing 2017.

C. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2021a.

D. ASTM E136 - Standard Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750°C 2019a.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

1.05 QUALITY ASSURANCE

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Thermal Insulation:

2.02 APPLICATIONS

A. Insulation at Perimeter of Foundation: Extruded polystyrene (XPS) board.

B. Insulation Over Roof Deck: Extruded polystyrene (XPS) board.

2.03 FOAM BOARD INSULATION MATERIALS

A. Extruded Polystyrene (XPS) Board Insulation: Complies with ASTM C578 with either natural skin or cut cell surfaces.
   1. Flame Spread Index (FSI): Class A - 0 to 25, when tested in accordance with ASTM E84.
   2. Smoke Developed Index (SDI): 450 or less, when tested in accordance with ASTM E84.
   3. Type and Thermal Resistance, R-value (RSI-value): Type IV, 5.0 (0.88) per 1 inch (25.4 mm) thickness at 75 degrees F (24 degrees C) mean temperature.
   4. Board Edges: Square.
   5. Manufacturers:
      a. Basis of Design for Foundation Insulation:Owens Corning Foamular XPS insulation.
      b. Basis of Design for Roof Insulation:Owens Corning Foamular NGX XPS high performance insulation.
      c. Architect's Pre-approved Equal.

B. Molded Polystyrene Inserts for Open CMU cells.
   1. Basis of Design: Korfil Block Insulation as manufactured by CBIS Inc.

C. Masonry Block Fill Vermiculite Aggregate

1. Basis of Design: 37BVMB as manufactured by the Cary Company.

2.04 BATT INSULATION MATERIALS

A. Glass Fiber Batt Insulation: Flexible preformed batt or blanket, complying with ASTM C665; friction fit.
   1. Flame Spread Index: 75 or less, when tested in accordance with ASTM E84.
   2. Smoke Developed Index: 450 or less, when tested in accordance with ASTM E84.
   3. Combustibility: Non-combustible, when tested in accordance with ASTM E136, except for facing, if any.
   4. Facing: Aluminum foil, flame spread 25 rated; one side.

B. Mineral Fiber Batt Insulation: Flexible or semi-rigid preformed batt or blanket, complying with ASTM C665; friction fit; unfaced flame spread index of 0 (zero) when tested in accordance with ASTM E84.
   1. Flame Spread Index: 25 or less, when tested in accordance with ASTM E84.
   2. Smoke Developed Index: 0 (zero), when tested in accordance with ASTM E84.
   3. Thickness: 3 inches.
   4. Manufacturers:
      a. Johns Manville; MinWool Sound Attenuation Fire Batts: www.jm.com/#sle.
      b. Knauf Insulation; EcoBatt Insulation: www.knaufinsulation.com/#sle.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation.

B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.

3.02 BOARD INSTALLATION AT FOUNDATION PERIMETER

A. Install boards vertically on foundation perimeter.
   1. Butt edges and ends tightly to adjacent boards and to protrusions.

B. Extend boards over expansion joints, unbonded to foundation on one side of joint.

C. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.

3.03 BOARD INSTALLATION OVER SLOPED ROOF DECK

A. Board Installation Over Roof Deck, General:
   1. See applicable roofing specification section for specific board installation requirements.
   2. Fasten insulation to deck in accordance with roofing manufacturer's written instructions and applicable Factory Mutual requirements.
   3. Do not apply more insulation than can be covered with roofing in same day.

3.04 BATT INSTALLATION

A. Install insulation in accordance with manufacturer's instructions.

B. Install in exterior wall spaces without gaps or voids. Do not compress insulation.

C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.

D. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.

E. Install with factory applied vapor retarder membrane facing warm side of building spaces. Lap ends and side flanges of membrane over framing members.

F. Tape insulation batts in place.

G. Tape seal butt ends, lapped flanges, and tears or cuts in membrane.

3.05 CMU CELL INSULATION

A. Install polystyrene inserts and vermiculite aggregate in accordance with manufacturers written recommendations

3.06 FIELD QUALITY CONTROL

A. See Section 014000 - Quality Requirements, for additional requirements.

B. Coordination of Air Barrier Association of America (ABAA) Tests and Inspections:
   1. Provide testing and inspection required by ABAA Quality Assurance Program (QAP).
   2. Notify in ABAA writing of schedule for air barrier work, and allow adequate time for testing and inspection.
   3. Cooperate with ABAA testing agency.
   4. Allow access to air barrier work areas and staging.
   5. Do not cover air barrier work until tested, inspected, and accepted.

3.07 PROTECTION

A. Do not permit installed insulation to be damaged prior to its concealment.

END OF SECTION

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SECTION 076100
SHEET METAL ROOFING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Sheet metal roofing, associated flashings, and underlayment.

B. Gutters and downspouts.

C. Integral fascias.

D. Sealants for joints within sheet metal fabrications.

1.02 REFERENCE STANDARDS

A. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.

B. ASTM C920 - Standard Specification for Elastomeric Joint Sealants 2018.

C. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection 2021.

D. ASTM E96/E96M - Standard Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials 2021.

1.03 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide data on metal types, finishes, characteristics.

C. Shop Drawings: Indicate material profile, fastening methods, flashings, terminations, and installation details.

D. Color Samples for Sheet Metal Roofing and Roof Screen Panels:
   1. Provide colors as selected by Architect, one for the sheet metal roofing.
   2. Color Selection Samples: Submit selection samples of all available colors and finishes.
   3. Verification Color Samples: Submit two samples in appropriate size illustrating metal finish color.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Stack material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.

B. Prevent contact with materials that could cause discoloration or staining.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Sheet Metal Roofing Manufacturers:
   1. Berridge Manufacturing Company: Doublelock Zee-Lockwww.berridge.com/#sle
   2. Fabral Metal Wall and Roof Systems: Powerseam II www.fabral.com/#sle
   3. Petersen Aluminum Corporation; Tite-Loc Plus: www.pac-clad.com/#sle.
   4. Sheffield Metals International; SMI 2.0" Mechanicl Seam Panel: www.sheffieldmetals.com/#sle.
   5. Substitutions: See Section 016000 - Product Requirements.
      a. Available colors requirement: Manufacturer shall provide the range of color and finish options described in Subpart 2.04 below.

2.02 SHEET MATERIALS

A. Pre-Finished Galvanized Steel Sheet: ASTM A653/A653M, with G90/Z275 zinc coating; 24 gauge, 0.0239 inch (0.61 mm) minimum base metal thickness, shop pre-coated with PVDF (polyvinylidene fluoride) coating; color as selected.

2.03 FABRICATION OF SHEET METAL ROOFING

A. Form sections true to shape, accurate in size, square, and free from distortion or defects.

B. Fabricate cleats of same material as sheet, thickness to match roofing sheet, and at least 4 inch (101.6 mm) wide, interlockable with sheet.

C. Fabricate starter strips, interlockable with sheet.

D. Form pieces in longest practical lengths.

E. Hem exposed edges on underside 1/2 inch (13 mm); miter and seam corners.

F. Fabricate corners from single piece with minimum 18 inches (457 mm) long legs; seam for rigidity, seal with sealant.

G. Fabricate vertical faces with bottom edge formed outward 1/4 inch (6 mm) and hemmed to form drip.

2.04 FINISHES

A. Architect to select colors from the manufacturer's full range with the following systems:

B. Color: As selected by Architect from manufacturer's full colors.
   1. Manufacturer's full line of colors shall include at least 25 standard solid colors and four metallic colors.

2.05 ACCESSORIES

A. Fasteners: Stainless steel, with soft neoprene washers. All fasteners shall be concealed.

B. Underlayment: Self-adhering butyl-rubber sheet complying with ASTM D1970/D1970M; strippable release film.
   1. Top Sheet: Woven polypropylene top surface.
   2. Sheet Thickness: 40 mil (1 mm), minimum.
   3. Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
   4. Low Temperature Flexibility: Passing test specified in ASTM D1970/D1970M.
   5. Water Vapor Permeance: 0.05 perm (0.30 ng/(Pa s sq m)), maximum, when tested in accordance with ASTM E96/E96M, Procedure A (desiccant method).
   6. Functional Temperature Range: Minus 45 degrees F (42.8 C) to 250 degrees F (121 C).
   7. Ultraviolet (UV) Resistance and Weatherability: Approved in writing by manufacturer for exposure to weather for minimum of three months.
   8. Manufacturers:
      a. GCPT; grace ice and water shield HT: www.gcpt.com.
      b. Protecto Wrap Company; Jiffy Seal Ice and Water Guard HT: www.protectowrap.com/#sle.

C. Concealed Sealants: Non-curing butyl sealant.

D. Exposed Sealants: ASTM C920 elastomeric sealant, with minimum movement capability as recommended by manufacturer for sealed substrates; color to match adjacent material.

PART 3 EXECUTION

3.01 EXAMINATION

A. Inspect roof deck to verify deck is clean and smooth, free of depressions, waves, or projections, properly sloped to gutters.

B. Verify deck is dry and free of snow or ice. Verify joints in wood deck are solidly supported and fastened.

C. Verify roofing termination and base flashings are in place, sealed, and secure.

3.02 PREPARATION

A. Install starter and edge strips, and cleats before starting installation.

B. Back paint concealed metal surfaces and surfaces in contact with dissimilar metals with protective backing paint to a minimum dry film thickness of 15 mil (0.4 mm).

3.03 INSTALLATION - ROOFING

A. Apply underlayment over entire roof area.

B. Apply slip sheet in one layer, laid loose.

C. Cleat and seam all joints.

D. Use plastic cement for joints between metal and bitumen and for joints between metal and felts.

E. Provide gutters.

3.04 INSTALLATION - STANDING SEAM ROOFING

A. Lay sheets with long dimension perpendicular to eaves. Apply pans beginning at eaves.

B. Lock cleats into seams and flatten.

C. Stagger transverse joints of roofing sheets.

D. At eaves and gable ends, terminate roofing by hooking over edge strip.

E. Bend up one side edge 1-1/2 inches (38 mm) and other edge 1-3/4 inches (44 mm).

F. Make first fold 1/4 inch (6 mm) wide single fold and second fold 1/2 inch (13 mm) wide, providing locked portion of standing seam, 5 plies in thickness.

G. Fold lower ends of seams at eaves over at 45 degree angle.

3.05 INSTALLATION - BUILT-IN GUTTERS AND DOWNSPOUTS

A. Secure gutter lining to substrate with cleats spaced minimum 12 inches ([____] mm) on center along edges of gutters.

B. Longitudinal joints not acceptable.

C. At roof edges, extend gutter lining under metal roofing 6 inches (152 mm) minimum and terminate in 3/4 inch (19 mm) folded edge secured by cleats; hook lower end of roofing into lock strip to form 3/4 inch (19 mm) wide loose-lock seam.

D. Seal gutters watertight, and seal joint of gutter to drain.

3.06 INSTALLATION - FLASHINGS

A. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted.

B. Cleat and seam all joints.

C. Apply plastic cement compound between metal flashings and felt flashings.

D. Fit flashings tight in place, and make corners square, surfaces true and straight in planes, and lines accurate to profiles.

E. Seal metal joints watertight.

3.07 PROTECTION

A. Do not permit traffic over unprotected roof surface.

END OF SECTION

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SECTION 076200
SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Fabricated sheet metal items, including flashings, counterflashings, gutters, and downspouts.

B. Sealants for joints within sheet metal fabrications.

1.02 RELATED REQUIREMENTS

A. Section 042000 - Unit Masonry: Metal flashings embedded in masonry.

B. Section 061000 - Rough Carpentry: Wood nailers for sheet metal work.

1.03 REFERENCE STANDARDS

A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix) 2020.

B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.

C. ASTM C920 - Standard Specification for Elastomeric Joint Sealants 2018.

D. ASTM D4586/D4586M - Standard Specification for Asphalt Roof Cement, Asbestos-Free 2007 (Reapproved 2018).

E. CDA A4050 - Copper in Architecture - Handbook current edition.

F. SMACNA (ASMM) - Architectural Sheet Metal Manual 2012.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene one week before starting work of this section.

1.05 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

1.06 QUALITY ASSURANCE

A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.

B. Maintain one copy of each document on site.

C. Fabricator and Installer Qualifications: Company specializing in sheet metal work with 5 years of documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.

B. Prevent contact with materials that could cause discoloration or staining.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Sheet Metal Flashing and Trim Manufacturers:
   1. Petersen Aluminum Corporation: www.pac-clad.com/#sle.
   2. Substitutions: See Section 016000 - Product Requirements.

2.02 SHEET MATERIALS

A. Pre-Finished Galvanized Steel: ASTM A653/A653M, with G90/Z275 zinc coating; minimum 24 gage, (0.0239) inch (0.61 mm) thick base metal, shop pre-coated with PVDF coating.

1. PVDF (Polyvinylidene Fluoride) Coating: Superior Performance Organic Finish, AAMA 2605; multiple coat, thermally cured fluoropolymer finish system.
2. Color (for items concealed from public view): Selected from full range of manufacturers options..
3. Color (for items exposed to public view): Color as selected by the Design Team. Shall match the color of the standing seam metal roof.

2.03 FABRICATION

A. Form sections true to shape, accurate in size, square, and free from distortion or defects.

B. Fabricate cleats of continuous galvanized type sheet metal, interlocking with sheet.

C. Form pieces in longest possible lengths.

D. Hem exposed edges on underside 1/2 inch (13 mm); miter and seam corners.

E. Form material with flat lock seams, except where otherwise indicated; at moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.

F. Fabricate corners from one piece with minimum 18 inch (450 mm) long legs; seam for rigidity, seal with sealant.

G. Fabricate vertical faces with bottom edge formed outward 1/4 inch (6 mm) and hemmed to form drip.

H. Fabricate flashings to allow toe to extend 2 inches (50 mm) over roofing gravel. Return and brake edges.

2.04 GUTTER AND DOWNSPOUT FABRICATION

A. Gutters: Profile as indicated.

B. Downspouts: Rectangular profile.

C. Gutters and Downspouts: Size indicated.

D. Accessories: Profiled to suit gutters and downspouts.
   1. Anchorage Devices: In accordance with SMACNA (ASMM) requirements.
   2. Gutter Supports: Brackets.
   3. Downspout Supports: Brackets.

E. Downspout Extenders: Same material and finish as downspouts.

F. Seal metal joints.

2.05 ACCESSORIES

A. Fasteners: Galvanized steel, with soft neoprene washers.

B. Primer: Zinc chromate type.

C. Concealed Sealants: Non-curing butyl sealant.

D. Exposed Sealants: ASTM C920; elastomeric sealant, with minimum movement capability as recommended by manufacturer for substrates to be sealed; color to match adjacent material.

E. Plastic Cement: ASTM D4586/D4586M, Type I.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.

B. Verify roofing termination and base flashings are in place, sealed, and secure.

3.02 PREPARATION

A. Install starter and edge strips, and cleats before starting installation.

B. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil (0.4 mm).

3.03 INSTALLATION

A. Comply with drawing details.

B. Insert flashings into reglets to form tight fit; secure in place with lead wedges; pack remaining spaces with lead wool; seal flashings into reglets with sealant.

C. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted..

D. Apply plastic cement compound between metal flashings and felt flashings.

E. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.

F. Secure gutters and downspouts in place with concealed fasteners.

3.04 FIELD QUALITY CONTROL

A. See Section 014000 - Quality Requirements, for field inspection requirements.

B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

END OF SECTION

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SECTION 079200
JOINT SEALANTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Nonsag gunnable joint sealants.

B. Self-leveling pourable joint sealants.

C. Joint backings and accessories.

1.02 REFERENCE STANDARDS

A. ASTM C794 - Standard Test Method for Adhesion-In-Peel of Elastomeric Joint Sealants 2018.

B. ASTM C920 - Standard Specification for Elastomeric Joint Sealants 2018.

C. ASTM C1087 - Standard Test Method for Determining Compatibility of Liquid-Applied Sealants with Accessories Used in Structural Glazing Systems 2016.

D. ASTM C1193 - Standard Guide for Use of Joint Sealants 2016.

E. ASTM C1248 - Standard Test Method for Staining of Porous Substrate by Joint Sealants 2018.

F. ASTM C1330 - Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid-Applied Sealants 2018.

G. ASTM C1521 - Standard Practice for Evaluating Adhesion of Installed Weatherproofing Sealant Joints 2019 (Reapproved 2020).

1.03 SUBMITTALS

A. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
   1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
   2. List of backing materials approved for use with the specific product.
   3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
   4. Substrates the product should not be used on.
   5. Sample product warranty.

B. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended tools.

C. Samples for Verification: Where custom sealant color is specified, obtain directions from Architect and submit at least two physical samples for verification of color of each required sealant.

D. Preconstruction Laboratory Test Reports: Submit at least four weeks prior to start of installation.

E. Installation Plan: Submit at least four weeks prior to start of installation.

F. Preinstallation Field Adhesion Test Plan: Submit at least two weeks prior to start of installation.

G. Preinstallation Field Adhesion Test Reports: Submit filled out Preinstallation Field Adhesion Test Reports log within 10 days after completion of tests; include bagged test samples and photographic records.

H. Installation Log: Submit filled out log for each length or instance of sealant installed.

1.04 QUALITY ASSURANCE

A. Maintain one copy of each referenced document covering installation requirements on site.

B. Installer Qualifications: Company specializing in performing the work of this section and with at least three years of documented experience.

C. Preconstruction Laboratory Testing: Arrange for sealant manufacturer(s) to test each combination of sealant, substrate, backing, and accessories.

1. Adhesion Testing: In accordance with ASTM C794.
2. Compatibility Testing: In accordance with ASTM C1087.
3. Allow sufficient time for testing to avoid delaying the work.
4. Deliver to manufacturer sufficient samples for testing.
5. Report manufacturer's recommended corrective measures, if any, including primers or techniques not indicated in product data submittals.
6. Testing is not required if sealant manufacturer provides data showing previous testing, not older than 24 months, that shows satisfactory adhesion, lack of staining, and compatibility.

D. Installation Plan: Include schedule of sealed joints, including the following.
   1. Joint width indicated in Contract Documents.
   2. Joint depth indicated in Contract Documents; to face of backing material at centerline of joint.
   3. Method to be used to protect adjacent surfaces from sealant droppings and smears, with acknowledgement that some surfaces cannot be cleaned to like-new condition and therefore prevention is imperative.
   4. Installation Log Form: Include the following data fields, with known information filled out.
      a. Date of installation.
      b. Name of installer.
      c. Actual joint width; provide space to indicate maximum and minimum width.
      d. Actual joint depth to face of backing material at centerline of joint.
      e. Air temperature.

E. Preinstallation Field Adhesion Test Plan: Include destructive field adhesion testing of one sample of each combination of sealant type and substrate, except interior acrylic latex sealants, and include the following for each tested sample.
   1. Identification of testing agency.
   2. Preinstallation Field Adhesion Test Log Form: Include the following data fields, with known information filled out.
      a. Test date.
      b. Copy of test method documents.
      c. Age of sealant upon date of testing.
      d. Test results, modeled after the sample form in the test method document.
      e. Indicate use of photographic record of test.

F. Field Adhesion Test Procedures:
   1. Allow sealants to fully cure as recommended by manufacturer before testing.
   2. Have a copy of the test method document available during tests.
   3. Record the type of failure that occurred, other information required by test method, and the information required on the Field Quality Control Log.
   4. When performing destructive tests, also inspect the opened joint for proper installation characteristics recommended by manufacturer, and report any deficiencies.
   5. Deliver the samples removed during destructive tests in separate sealed plastic bags, identified with project, location, test date, and test results, to Owner.
   6. If any combination of sealant type and substrate does not show evidence of minimum adhesion or shows cohesion failure before minimum adhesion, report results to Architect.

G. Destructive Field Adhesion Test: Test for adhesion in accordance with ASTM C1521, using Destructive Tail Procedure.
   1. Sample: At least 18 inch (457 mm) long.
   2. Minimum Elongation Without Adhesive Failure: Consider the tail at rest, not under any elongation stress; multiply the stated movement capability of the sealant in percent by two; then multiply 1 inch (25 mm) by that percentage; if adhesion failure occurs before the "1 inch mark" is that distance from the substrate, the test has failed.
   3. If either adhesive or cohesive failure occurs prior to minimum elongation, take necessary measures to correct conditions and re-test; record each modification to products or installation procedures.

1.05 WARRANTY

A. Correct defective work within a five year period after Date of Substantial Completion.

B. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal , exhibit loss of adhesion or cohesion, or do not cure.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Non-Sag Sealants: Permits application in joints on vertical surfaces without sagging or slumping.
   1. Dow Chemical Company: consumer.dow.com/en-us/industry/ind-building-construction.html/#sle.
   2. Pecora Corporation: www.pecora.com/#sle.
   3. Sika Corporation: www.usa-sika.com/#sle.
   4. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com/#sle.

B. Self-Leveling Sealants: Pourable or self-leveling sealant that has sufficient flow to form a smooth, level surface when applied in a horizontal joint.
   1. Bostik Inc: www.bostik-us.com/#sle.
   2. Pecora Corporation: www.pecora.com/#sle.
   3. Sika Corporation: www.usa-sika.com/#sle.
   4. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com/#sle.

2.02 JOINT SEALANT APPLICATIONS

A. Scope:
   1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
      a. Wall expansion and control joints.
      b. Joints between door, window, and other frames and adjacent construction.
      c. Joints between different exposed materials.
      d. Openings below ledge angles in masonry.
      e. Other joints indicated below.
   2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
      a. Joints between door, window, and other frames and adjacent construction.
      b. Other joints indicated below.
   3. Do not seal the following types of joints.
      a. Intentional weepholes in masonry.
      b. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
      c. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
      d. Joints where installation of sealant is specified in another section.
      e. Joints between suspended panel ceilings/grid and walls.

B. Exterior Joints: Use non-sag non-staining silicone sealant, unless otherwise indicated.

C. Interior Joints: Use non-sag polyurethane sealant, unless otherwise indicated.
   1. Use mildew resistant silicone sealant adjacent to plumbing fixtures. Use type in compliance with adjacent materials.

2.03 JOINT SEALANTS - GENERAL

2.04 NONSAG JOINT SEALANTS

A. Type JS-1 - Non-Staining Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
   1. Movement Capability: Plus 100 percent, minus 50 percent, minimum.

2. Non-Staining To Porous Stone: Non-staining to light-colored natural stone when tested in accordance with ASTM C1248.
3. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
4. Color: Match adjacent finished surfaces.
5. Cure Type: Single-component, neutral moisture curing.
6. Service Temperature Range: Minus 65 to 180 degrees F (Minus 54 to 82 degrees C).
7. Manufacturers:
   a. Dow Chemical Company; DOWSIL 795: Silicone Building Sealant: consumer.dow.com/en-us/industry/ind-building-construction.html/#sle.

B. Type JS-2 - Mildew-Resistant Silicone Sealant: ASTM C920, Grade NS, Uses M and A; single component, mildew resistant; not expected to withstand continuous water immersion or traffic.
1. Color: Selected from Manufacturers full range.
2. Manufacturers:
   a. Pecora Corporation; 898: www.pecora.com/#sle.
   b. Sika Corporation; Sikasil GP: www.usa-sika.com/#sle.
   c. Substitutions: See Section 016000 - Product Requirements.

C. Type JS-3 - Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single or multi-component; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: Plus and minus 25 percent, minimum.
2. Color: Match adjacent finished surfaces.
3. Service Temperature Range: Minus 40 to 180 degrees F (Minus 40 to 82 degrees C).
4. Manufacturers:
   a. Pecora Corporation; Dynatred: www.pecora.com/#sle.
   b. Sika Corporation; Sikaflex-2c NS: www.usa-sika.com/#sle.
   c. Tremco Commercial Sealants & Waterproofing; Vulkem 116: www.tremcosealants.com/#sle.
   d. Substitutions: See Section 016000 - Product Requirements.

2.05 SELF-LEVELING SEALANTS

A. Type JS-4 - Self-Leveling Polyurethane Sealant: ASTM C920, Grade P, Uses M and A; single or multi-component; explicitly approved by manufacturer for traffic exposure; not expected to withstand continuous water immersion .
1. Movement Capability: Plus and minus 25 percent, minimum.
2. Color: To be selected by Architect from manufacturer's standard range.
3. Service Temperature Range: Minus 40 to 180 degrees F (Minus 40 to 82 degrees C).
4. Manufacturers:
   a. Pecora Corporation Urexpan NR-201: www.pecora.com/#sle.
   b. Sika Corporation; Sikaflex-1c SL: www.usa-sika.com/#sle.
   c. Tremco; Vulkem 45.

2.06 ACCESSORIES

A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
1. Type for Joints Not Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type O - Open Cell Polyurethane.
2. Type for Joints Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type B - Bi-Cellular Polyethylene.
3. Open Cell: 40 to 50 percent larger in diameter than joint width.
4. Closed Cell and Bi-Cellular: 25 to 33 percent larger in diameter than joint width.

B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.

C. Masking Tape: Self-adhesive, nonabsorbent, non-staining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.

D. Joint Cleaner: Non-corrosive and non-staining type, type recommended by sealant manufacturer; compatible with joint forming materials.

E. Primers: Type recommended by sealant manufacturer to suit application; non-staining.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that joints are ready to receive work.

B. Verify that backing materials are compatible with sealants.

C. Verify that backer rods are of the correct size.

D. Preinstallation Adhesion Testing: Install a sample for each test location indicated in the test plan.
   1. Test each sample as specified in PART 1 under QUALITY ASSURANCE article.
   2. Notify Architect of date and time that tests will be performed, at least 7 days in advance.
   3. Record each test on Preinstallation Adhesion Test Log as indicated.
   4. If any sample fails, review products and installation procedures, consult manufacturer, or take whatever other measures are necessary to ensure adhesion; re-test in a different location; if unable to obtain satisfactory adhesion, report to Architect.
   5. After completion of tests, remove remaining sample material and prepare joint for new sealant installation.

3.02 PREPARATION

A. Remove loose materials and foreign matter that could impair adhesion of sealant.

B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.

C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.

D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

E. Concrete Floor Joints That Will Be Exposed in Completed Work: Test joint filler in inconspicuous area to verify that it does not stain or discolor slab.

3.03 INSTALLATION

A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.

B. Perform installation in accordance with ASTM C1193.

C. Install bond breaker backing tape where backer rod cannot be used.

D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.

E. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.

F. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

3.04 FIELD QUALITY CONTROL

A. Perform field quality control inspection/testing as specified in PART 1 under QUALITY ASSURANCE article.

B. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.

END OF SECTION

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SECTION 081113
HOLLOW METAL DOORS AND FRAMES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Non-fire-rated hollow metal doors and frames.

B. Thermally insulated hollow metal doors with frames.

1.02 RELATED REQUIREMENTS

A. Section 087100 - Door Hardware.

B. Section 099113 - Exterior Painting: Field painting.

C. Section 099123 - Interior Painting: Field painting.

1.03 REFERENCE STANDARDS

A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design 2010.

B. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames and Frame Anchors 2018.

C. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100) 2017.

D. ANSI/SDI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames 2020.

E. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.

F. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Required Hardness, Solution Hardened, and Bake Hardenable 2021a.

G. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength 2018a.

H. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2021a.

I. BHMA A156.115 - Hardware Preparation In Steel Doors And Steel Frames 2016.

J. ICC A117.1 - Accessible and Usable Buildings and Facilities 2017.

K. NAAMM HMMA 830 - Hardware Selection for Hollow Metal Doors and Frames 2002.

L. NAAMM HMMA 831 - Hardware Locations for Hollow Metal Doors and Frames 2011.

M. NAAMM HMMA 840 - Guide Specifications For Receipt, Storage and Installation of Hollow Metal Doors and Frames 2017.

1.04 SUBMITTALS

A. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and any indicated finish requirements.
   1. Shop drawings shall designate shop preparation of all hardware. Construction Manager shall coordinate between door/frame supplier and hardware supplier prior to submission of shop drawings.

B. Installation Instructions: Manufacturer's published instructions, including any special installation instructions relating to this project.

C. Manufacturer's Certificate: Certification that products meet or exceed specified requirements.

D. Manufacturer's Qualification Statement.

E. Installer's Qualification Statement.

1.05 QUALITY ASSURANCE

A. Maintain at project site copies of reference standards relating to installation of products specified.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Comply with NAAMM HMMA 840 or ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.

B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion and adverse effects on factory applied painted finish.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Hollow Metal Doors and Frames:
   1. Ceco Door, an Assa Abloy Group company: www.assaabloydss.com/#sle.
   2. Curries, an Assa Abloy Group company: www.assaabloydss.com/#sle.
   3. Steelcraft, an Allegion brand: www.allegion.com/#sle.

2.02 PERFORMANCE REQUIREMENTS

A. Requirements for Hollow Metal Doors and Frames:
   1. Steel Sheet: Comply with one or more of the following requirements; galvannealed steel complying with ASTM A653/A653M, cold-rolled steel complying with ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel complying with ASTM A1011/A1011M, commercial steel (CS) Type B, for each.
   2. Accessibility: Comply with ICC A117.1 and ADA Standards.
   3. Exterior Door Top Closures: Flush end closure channel, with top and door faces aligned.
   4. Door Edge Profile: Manufacturers standard for application indicated.
   5. Typical Door Face Sheets: Flush.
   6. Hardware Preparations, Selections and Locations: Comply with NAAMM HMMA 830 and NAAMM HMMA 831 or BHMA A156.115 and ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.
      a. All hollow metal doors and frames shall be shop prepped for hardware.
   7. Zinc Coating for Typical Interior and/or Exterior Locations: Provide metal components zinc-coated (galvanized) and/or zinc-iron alloy-coated (galvannealed) by the hot-dip process in accordance with ASTM A653/A653M, with manufacturer's standard coating thickness, unless noted otherwise for specific hollow metal doors and frames.

B. All Metal Door Frames shall be provided with a wrought box, strike cover and hinge reinforcement cover.

C. All Metal Frames shall have hinge reinforcement fabricaed from plate stock, 1/4"x9" C1018 steel 160 scale Brinnel hardness. Reinforcement is to be securely attached to frame with minimum of four (4) contacts each side of the opening.Reinforcing for holders and closers shall be bow type or double channel of not less than ten gauge steel for three bolt attachment. Reinforcing for field attachment of corner brackets is to be not less than eight gauge steel.

D. All Door frames shall be anchored to the wall with a minimum of three anchors.

E. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent.

2.03 HOLLOW METAL DOORS

A. Door Finish: Factory primed and field finished.

B. Exterior Doors: Thermally insulated.
   1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
      a. Level 3 - Extra Heavy-duty.

b. Physical Performance Level A, 1,000,000 cycles; in accordance with ANSI/SDI A250.4.
c. Model 1 - Full Flush.
d. Door Face Metal Thickness: 16 gage, 0.053 inch (1.3 mm), minimum.
e. Zinc Coating: A60/ZF180 galvannealed coating; ASTM A653/A653M.

2. Door Core Material: Polyisocyanurate, 2 lbs/cu ft minimum density.
   a. Foam Plastic Insulation: Manufacturer's standard board insulation with maximum flame spread index (FSI) of 75, and maximum smoke developed index (SDI) of 450 in accordance with ASTM E84, and completely enclosed within interior of door.
3. Door Thermal Resistance: R-Value of 6.0 minimum, for installed thickness of polystyrene.
4. Door Thickness: 1-3/4 inch (44.5 mm), nominal.
5. Weatherstripping: Refer to Section 087100.

C. Interior Doors, Non-Fire-Rated:
   1. Door Thickness: 1-3/4 inch (44.5 mm), nominal.

2.04 HOLLOW METAL FRAMES

A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.

B. Frame Finish: Factory primed and field finished.

C. Exterior Door Frames: Full profile/continuously welded type.
   1. Weatherstripping: Separate, see Section 087100.

D. Interior Door Frames, Non-Fire Rated: Full profile/continuously welded type.
   1. Frame Metal Thickness: 18 gage, 0.042 inch (1.0 mm), minimum.

2.05 FINISHES

A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.

2.06 ACCESSORIES

A. Louvers: Roll formed steel with overlapping frame; finish same as door components ; factory-installed.
   1. Style: Standard straight slat blade.
   2. Fasteners: Concealed fasteners.
   3. Size: 18x18 minimum - coordinate with engineer of record prior to preparation of shop drawings.

B. Silencers: Resilient rubber, fitted into drilled hole; provide three on strike side of single door, three on center mullion of pairs, and two on head of pairs without center mullions.

C. Temporary Frame Spreaders: Provide for factory- or shop-assembled frames.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify that opening sizes and tolerances are acceptable.

C. Verify that finished walls are in plane to ensure proper door alignment.

3.02 PREPARATION

A. Coat inside of frames to be installed in masonry or to be grouted, with bituminous coating, prior to installation.

B. All hollow metal doors and frames shall be shop for hardware before delivery to the jobsite.

3.03 INSTALLATION

A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.

B. Coordinate frame anchor placement with wall construction.

C. Install door hardware as specified in Section 087100.

D. Coordinate installation of electrical connections to electrical hardware items.

E. Touch up damaged factory finishes.

3.04 TOLERANCES

A. Maximum Diagonal Distortion: 1/16 inch (1.6 mm) measured with straight edge, corner to corner.

3.05 ADJUSTING

A. Adjust for smooth and balanced door movement.

3.06 SCHEDULE

A. Refer to Door and Frame Schedule on the drawings.

END OF SECTION

SECTION 083100
ACCESS DOORS AND PANELS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Wall and ceiling mounted access units.

1.02 RELATED REQUIREMENTS

A. Section 042000: Openings in masonry.

B. Section 099123 - Interior Painting: Field paint finish.

1.03 SUBMITTALS

A. List of required access doors: Based on mechanical, plumbing, and electrical drawings and specifications, prepare a comprehensive list of all required access doors, with sizes and locations.

B. Product Data: Provide sizes, types, finishes, hardware, scheduled locations, and details of adjoining work.

C. Shop Drawings: Indicate exact position of each access door and/or panel unit.

PART 2 PRODUCTS

2.01 ACCESS DOORS AND PANELS ASSEMBLIES

A. Wall-Mounted Units in Wet Areas (including toilet rooms):
   1. Panel Material: Aluminum with gasketing.
   2. Size: 12 by 12 inches (305 by 305 mm), and other sizes as required.
   3. Door/Panel: Hinged, standard duty, with tool-operated spring or cam lock and no handle.
   4. Masonry Mounting Criteria: Provide surface-mounted frame with door surface flush with frame surface.

B. Ceiling-Mounted Units :
   1. Size - Other Ceilings: 12 by 12 inches (305 by 305 mm), or as required.
   2. Door/Panel: Hinged, standard duty, with tool-operated spring or cam lock and no handle.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that rough openings are correctly sized and located.

B. Begin installation only after substrates have been properly prepared, and if the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

A. Clean surfaces thoroughly prior to proceeding with this work.

B. Prepare surfaces using methods recommended by manufacturer for applicable substrates in accordance with project conditions.

3.03 INSTALLATION

A. Install units in accordance with manufacturer's instructions.

B. Install frames plumb and level in openings, and secure units rigidly in place.

C. Position units to provide convenient access to concealed equipment when necessary.

END OF SECTION

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SECTION 085113
ALUMINUM WINDOWS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Extruded aluminum windows with fixed sash, operating sash, and infill panels.

B. Factory glazing.

C. Operating hardware.

1.02 RELATED REQUIREMENTS

A. Section 055000 - Metal Fabrications: Steel lintels.

B. Section 072500 - Weather Barriers: Sealing frame to water-resistive barrier installed on adjacent construction.

C. Section 079200 - Joint Sealants: Sealing joints between window frames and adjacent construction.

D. Section 088000 - Glazing.

1.03 REFERENCE STANDARDS

A. AAMA/WDMA/CSA 101/I.S.2/A440 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights 2017.

B. AAMA CW-10 - Care and Handling of Architectural Aluminum from Shop to Site 2015.

C. AAMA 502 - Voluntary Specification for Field Testing of Newly Installed Fenestration Products 2021.

D. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum 2020.

E. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products 2017.

F. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate 2021a.

G. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes 2021.

H. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric) 2021.

I. ASTM E783 - Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors 2002 (Reapproved 2018).

J. ASTM E1105 - Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference 2015.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene one week before starting work of this section.

1.05 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Product Data: Include component dimensions, information on glass and glazing, internal drainage details, and descriptions of hardware and accessories.

C. Shop Drawings: Indicate opening dimensions, elevations of different types, framed opening tolerances, anchorage locations, and installation requirements.

D. Samples:

1. Framing: Two samples, 12 by 12 inch (300 by 300 mm) in size illustrating typical corner construction, accessories, and finishes.

2. Sashes: Two samples, 12 by 12 inch (300 by 300 mm) in size illustrating typical corner construction, accessories, and finishes.
3. Operating Hardware: Two samples of each type and finish.

E. Test Reports: Prior to submitting shop drawings or starting fabrication, submit test report(s) by independent testing agency showing compliance with performance requirements in excess of those prescribed by specified grade.

F. Manufacturer's Installation Instructions: Include complete preparation, installation, and cleaning requirements.

G. Field Quality Control Submittals: Report of field testing for water penetration and air leakage.

H. Manufacturer's qualification statement.

I. Installer's qualification statement.

1.06 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years of documented experience.

B. Installer Qualifications: Company specializing in performing work of type specified and with at least three years of documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Comply with requirements of AAMA CW-10.

B. Protect finished surfaces with wrapping paper or strippable coating during installation. Do not use adhesive papers or sprayed coatings that bond to substrate when exposed to sunlight or weather.

1.08 FIELD CONDITIONS

A. Do not install sealants when ambient temperature is less than 40 degrees F (5 degrees C).

B. Maintain this minimum temperature during and 24 hours after installation of sealants.

1.09 WARRANTY

A. See Section 017800 - Closeout Submittals for additional warranty requirements.

B. Correct defective work within a five year period after Date of Substantial Completion.

C. Manufacturer Warranty: Provide 5-year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units. Complete forms in Owner's name and register with manufacturer.

D. Manufacturer Warranty: Provide 20-year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking. Complete forms in Owner's name and register with manufacturer.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis of Design: .
1. Kawneer Company, Inc.: www.kawneer.com.
a. 8470TL Horizontal Slider.

B. Other Acceptable - Aluminum Windows Manufacturers:
1. Architect's Pre-Approved Equal.
2. Substitutions: See Section 016000 - Product Requirements.

2.02 ALUMINUM WINDOWS

A. Operating Aluminum Window Systems: Extruded aluminum frame and sash, factory fabricated, factory finished, with operating hardware, related flashings, and anchorage and attachment devices.

B. Basis of Design: 8470TL Horizontal Slider as manufactured by Kawneer Company, Inc.
1. Frame Depth: 4"

2. Operable Units: Double weatherstripped.
3. Provide factory-glazed units. Provide 1" low E coated glazing - basis of design shall be Solarban 70XL as manufactured by Vitro Architectural Glass.
4. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors; fasteners and attachments concealed from view; reinforced as required for operating hardware and imposed loads.
5. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.
6. Movement: Accommodate movement between window and perimeter framing and deflection of lintel, without damage to components or deterioration of seals.
7. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
8. Insect Screen: : Extruded aluminum frames, 6063-T6 alloy and temper, joined at corners: 18 x 16 mesh aluminum screen cloth; frames finished to match aluminum windows; splines shall be extruded vinyl, removable to permit rescreening. Install in extruded Aluminum top and bottom channel to allow operable sliding of insect screen.

C. Horizontal Sliding Type:
1. Construction: Thermally broken.
2. Glazing: Double; clear; low-e.
3. Exterior Finish: Class I natural anodized.
4. Interior Finish: Class I natural anodized.

2.03 MATERIALS

A. Extruded Aluminum: ASTM B221 (ASTM B221M), 6063 alloy, T6 temper.

B. Sheet Aluminum: ASTM B209/B209M, 5005 alloy, H12 or H14 temper.

C. Concealed Steel Items: Profiled to suit mullion sections; galvanized in accordance with ASTM A123/A123M.

2.04 HARDWARE

A. Provide complete manufacturers hardware package including but not limited to the following:
1. Steel Roller Assembly
2. Standard Sweep Lock
3. Aluminum Auto Lock

2.05 FINISHES

A. Class I Natural Anodized Finish: AAMA 611 AA-M12C22A41, clear anodic coating not less than 0.7 mil (0.018 mm) thick.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that wall openings are ready to receive aluminum windows.

3.02 PRIME WINDOW INSTALLATION

A. Install windows in accordance with manufacturer's instructions.

B. Attach window frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.

C. Align window plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work.

D. Install sill and sill end angles.

E. Provide thermal isolation where components penetrate or disrupt building insulation. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.

F. Install operating hardware not pre-installed by manufacturer.

G. Install glass and infill panels in accordance with requirements; see Section 088000.

3.03 TOLERANCES

A. Maximum Variation from Level or Plumb: 1/16 inches every 3 ft (1.5 mm/m) non-cumulative or 1/8 inches per 10 ft (3 mm/3 m), whichever is less.

3.04 FIELD QUALITY CONTROL

A. Provide services of aluminum window manufacturer's field representative to observe for proper installation of system and submit report.

B. See Section 014000 - Quality Requirements for independent field testing and inspection requirements, and requirements for monitoring quality of specified product installations.

C. Provide field testing of installed aluminum windows by independent laboratory in accordance with AAMA 502 and AAMA/WDMA/CSA 101/I.S.2/A440 during construction process and before installation of interior finishes.
   1. Field test for water penetration in accordance with ASTM E1105 using Procedure B - cyclic static air pressure difference; test pressure shall not be less than 1.9 psf (91 Pa).
   2. Field test for air leakage in accordance with ASTM E783 with uniform static air pressure difference of 1.57 psf (75 Pa).

D. Repair or replace fenestration components that have failed designated field testing, and retest to verify performance complies with specified requirements.

3.05 ADJUSTING

A. Adjust hardware for smooth operation and secure weathertight closure.

3.06 CLEANING

A. Remove protective material from factory finished aluminum surfaces.

END OF SECTION

SECTION 087100
DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.
2. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.

C. Related Sections:

1. Division 08 Section “Hollow Metal Doors and Frames”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 70 - National Electrical Code.
4. NFPA 80 - Fire Doors and Windows.
5. NFPA 101 - Life Safety Code.
6. NFPA 105 - Installation of Smoke Door Assemblies.
7. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards:

1. ANSI/BHMA Certified Product Standards - A156 Series
2. UL10C – Positive Pressure Fire Tests of Door Assemblies

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door

Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."

2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.

3. Content: Include the following information:

    a. Type, style, function, size, label, hand, and finish of each door hardware item.
    b. Manufacturer of each item.
    c. Fastenings and other pertinent information.
    d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    e. Explanation of abbreviations, symbols, and codes contained in schedule.
    f. Mounting locations for door hardware.
    g. Door and frame sizes and materials.
    h. Warranty information for each product.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

D. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

E. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Submittals.

1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

C. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

D. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

E. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.

F. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

G. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

H. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.

D. Special Warranty Periods:

1. Ten years for mortise locks and latches.
2. Five years for exit hardware.

1.8 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.

B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:

a. Two Hinges: For doors with heights up to 60 inches.
b. Three Hinges: For doors with heights 61 to 90 inches.
c. Four Hinges: For doors with heights 91 to 120 inches.
d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.

2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:

a. Widths up to 3’0”: 4-1/2” standard or heavy weight as specified.
b. Sizes from 3’1” to 4’0”: 5” standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:

a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.

b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.

4. Hinge Options: Comply with the following:

a. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.

5. Manufacturers:

a. Hager Companies (HA).
b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).

B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge. with minimum 0.120-inch thick extruded 6060 T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.

1. Manufacturers:

a. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).

2.3 DOOR OPERATING TRIM

A. Door Push Plates and Pulls: ANSI/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
2. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.

3. Manufacturers:

a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

2.4 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.

1. Manufacturers:

a. Stanley Best (BE). Peaks

b. No Substitution.

C. Cylinders: Original manufacturer cylinders complying with the following:

1. Mortise Type: Threaded cylinders with rings and cams to suit hardware application.
2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
5. Keyway: Match Facility Restricted Keyway.

D. Permanent Cores: Manufacturer's standard; finish face to match lockset; complying with the following:

1. Interchangeable Cores: Core insert, removable by use of a special key; usable with other manufacturers' cylinders.

E. Keying System: Each type of lock and cylinders to be factory keyed.

1. Conduct specified "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. Existing System: Key locks to Owner's existing system.

F. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).
3. Final key quantity to be determined between the owner and Best.

G. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

H. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.

1. Manufacturers:

a. Lund Equipment (LU).
b. Telkee (TK).

2.5 MECHANICAL LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 certified. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.

1. Manufacturers:

    a. Corbin Russwin Hardware (RU) – ML2000 Series.
    b. No Substitution.

2.6 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.7 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.

2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer’s catalog and template book for specific requirements.

3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.

4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.

5. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.

    a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
    b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.

6. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.

7. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2” wide stiles.

8. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.

9. Rail Sizing: Provide exit device rails factory sized for proper door width application.

10. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 certified panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.

1. Manufacturers:

    a. Von Duprin (VD) - 35A/98 XP Series.
    b. No Substitution.

2.8 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers including installation and adjusting information on inside of cover.

2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.

3. Cycle Testing: Provide closers which have surpassed 15 million cycles in a test witnessed and verified by UL.

4. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of

use. Where closers are indicated for doors required to be accessible to the physically handicapped, provide units complying with ANSI ICC/A117.1.

5. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.

6. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.

7. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Large Body Cast Iron): ANSI/BHMA A156.4, Grade 1 surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control.

1. Manufacturers:

a. LCN Closers (LC) - 4040XP Series. Exterior Openings
b. No Substitution.

C. Door Closers, Surface Mounted (Commercial Duty): ANSI/BHMA 156.4, Grade 1 certified surface mounted, institutional grade door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck, closing sweep, and latch speed control valves. Provide non-handed units standard.

1. Manufacturers:

a. Sargent Manufacturing (SA) - 1461 Series. Interior Openings

2.9 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.

2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1” LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.

3. Where plates are applied to fire rated doors with the top of the plate more than 16” above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer’s catalog and template book for specific requirements for size and applications.

4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:

    a. Stainless Steel: 300 grade, 050-inch thick.

5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.

6. Manufacturers:

    a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

2.10 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:

    a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

C. Overhead Door Stops and Holders: ANSI/BHMA A156.6, Grade 1 certified overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.

1. Manufacturers:

    a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

2.11 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:

1. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).

2.12 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.13 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

A. Field Inspection: Supplier will perform a final inspection of installed door hardware and state in report whether work complies with or deviates from requirements, including whether door hardware is properly installed, operating and adjusted.

3.5 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

B. The supplier is responsible for handing and sizing all products and providing the correct option for the appropriate door type and material where more than one is presented in the hardware sets. Quantities listed are for each pair of doors, or for each single door.

C. Manufacturer’s Abbreviations:

1. MK - McKinney
2. PE - Pemko
3. VD - Von Duprin
4. RU - Corbin Russwin
5. BE - dormakaba Best
6. RO - Rockwood
7. RF - Rixson
8. LC - LCN Closers

9. OT - OTHER

Hardware Sets

Set: 1.0

Doors: 101A, 101B

1 Continuous Hinge	CFM83HD1		PE
1 Storeroom Lock	ML2057 NSN CLS7	626	RU
1 7 Pin Small Format Core	Best Peaks		BE
1 Door Closer	4040XP SCUSH TBSRT	AL	LC
1 Threshold	2009APK		PE
1 Gasketing	312CR		PE
1 Rain Guard	346C		PE
1 Sweep	315CN		PE

Set: 2.0

Doors: 100A, 100B, 102A, 102B

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK
1 Cylindrical Deadbolt	CR DL3200	US26D	CR
1 Push Plate	70C-RKW	US32D	RO
1 Pull Plate	107x70C	US32D	RO
1 Surface Closer w/ Stop	1461 SCUSH TBSRT	AL	LC
1 Kick Plate	K1050 10" x Width Req'd CSK	US32D	RO
3 Silencer	608-RKW		RO

Set: 3.0
Doors: 200

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK
1 Storeroom Lock	ML2057 NSN CLS7	626	RU
1 7 Pin Small Format Core	Best Peaks		BE
1 Surface Closer	1461 Rw/PA TBSRT	AL	LC
1 Threshold	2009APK		PE
1 Gasketing	312CR		PE
1 Rain Guard	346C		PE
1 Sweep	315CN		PE

END OF SECTION 087100

SECTION 088300
MIRRORS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Polished stainless steel mirrors.

1.02 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data on Mirror Types: Submit structural, physical and environmental characteristics, size limitations, special handling and installation requirements.

C. Samples: Submit two samples, illustrating mirrors design, edging, coloration, and [_____].

D. Manufacturer's Certificate: Certify that mirrors, meets or exceeds specified requirements.

E. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 016000 - Product Requirements, for additional provisions.

1.03 QUALITY ASSURANCE

A. Fabricate, store, transport, receive, install, and clean mirrors in accordance with manufacturer's recommendations.

1.04 FIELD CONDITIONS

A. Do not install polished stainless steel mirrors when ambient temperature is less than 50 degrees F (10 degrees C).

B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.05 WARRANTY

A. See Section 017800 - Closeout Submittals, for additional warranty requirements.

B. Provide five year manufacturer warranty for reflective coating on mirrors and replacement of same.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Polished Stainless Steel Mirrors:
   1. Vandal Stop Products (530) 894-7867.
   2. Size: 24x48 - refer drawings for additional information.

2.02 MATERIALS

A. Polished stainless steel Mirror:
   1. #8 non directional mirror polished stainless steel.
   2. Type 304 Stainless Steel
   3. 16 ga material (.0595 inches)

2.03 ACCESSORIES

A. Glazing Clips: Provide in conjunction with mirror adhesive.
   1. Stainless J Trim:
      a. Manufacturers: Stainless J Trim

B. Stainless Steel Mirror Adhesive: Manufacturers recommended highest performing mirror adhesive - provided in conjunction with mirror glazing clips/trim.
   1. Install in strict accordance with manufacturers written instructions.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that surfaces of mirror frames or recesses are clean, free of obstructions, and ready for installation of polished stainless steel mirrors.

3.02 PREPARATION

A. Clean contact surfaces with solvent and wipe dry.

B. Seal porous polished stainless steel mirrors frames or recesses with substrate compatible primer or sealer. Prime surfaces scheduled to receive sealant.

C. Prepare installation in accordance with ASTM C1193 for solvent release sealants, and install sealant in accordance with manufacturer's instructions.

3.03 INSTALLATION

A. Install polished stainless steel mirrors in accordance with manufacturer's recommendations.

B. Set polished stainless steel mirrors plumb and level, and free of optical distortion.

C. Set polished stainless steel mirrors with edge clearance free of surrounding construction including countertops or backsplashes.

D. Installation in Frames:
   1. Install in strict accordance with manufacturers written recommendations, including both mechanical fasteners and adhesive installation systems.

3.04 CLEANING

A. Remove labels after work is complete.

B. Clean polished stainless steel mirrors and adjacent surfaces.

END OF SECTION

SECTION 092116
GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Metal channel ceiling framing.

B. Gypsum wallboard.

C. Joint treatment and accessories.

D. Textured finish system.

1.02 REFERENCE STANDARDS

A. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board 2017.

B. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members 2018.

C. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing 2017.

D. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products 2020.

E. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board 2020.

F. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs 2020.

G. ASTM C1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base 2019.

H. ASTM C1396/C1396M - Standard Specification for Gypsum Board 2017.

I. GA-216 - Application and Finishing of Gypsum Panel Products 2016, with Errata.

1.03 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing gypsum board installation and finishing, with minimum five (5) years of experience.

PART 2 PRODUCTS

2.01 GYPSUM BOARD ASSEMBLIES

A. Provide completed assemblies complying with ASTM C840 and GA-216.

2.02 METAL FRAMING MATERIALS

A. Non-Loadbearing Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 5 psf (L/120 at 240 Pa).
   1. Studs: "C" shaped with flat or formed webs with knurled faces.
   2. Runners: U shaped, sized to match studs.
   3. Ceiling Channels: C-shaped.

2.03 BOARD MATERIALS

A. Manufacturers - Gypsum-Based Board:
   1. CertainTeed Corporation: www.certainteed.com/#sle.
   2. Georgia-Pacific Gypsum: www.gpgypsum.com/#sle.
   3. USG Corporation: www.usg.com/#sle.

B. Gypsum Wallboard: Glass Mat-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
   1. Application: Use for ceilings, unless otherwise indicated.
   2. Thickness:
      a. Ceilings: 1/2 inch (13 mm).

3. Glass Mat Faced Products:
    a. Georgia-Pacific Gypsum; DensArmor Plus
        1) Ceilings in exterior locations and toilet areas.

2.04 GYPSUM WALLBOARD ACCESSORIES

A. Acoustic Insulation: ASTM C665; preformed glass fiber, friction fit type, unfaced. Thickness: 3 inch (77 mm).

B. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.

C. Beads, Joint Accessories, and Other Trim: ASTM C1047, rigid plastic, galvanized steel, or rolled zinc, unless noted otherwise.
1. Edge Trim:
    a. Products: USG No. 200A Edge Trim.
2. Expansion Joints:
    a. Type: V-shaped metal with factory-installed protective tape.
    b. Products:
        1) Phillips Manufacturing Co; 093 Expansion Control Joint: www.phillipsmfg.com/#sle.

D. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
1. Paper Tape: 2 inch (50 mm) wide, creased paper tape for joints and corners, except as otherwise indicated.
2. Joint Compound: Drying type, vinyl-based, ready-mixed.
    a. Products:
        1) CertainTeed Corporation; Extreme All-Purpose Joint Compound: www.certainteed.com/#sle.
        2) Substitutions: See Section 016000 - Product Requirements.

E. Finishing Compound: Surface coat and primer, takes the place of skim coating.
1. Products:
    a. CertainTeed Corporation; Quick Prep Plus Interior Prep Coat: www.certainteed.com/#sle.

F. High Build Drywall Surfacer: Vinyl acrylic latex-based coating for spray application, designed to take the place of skim coating and separate paint primer in achieving Level 5 finish.

G. Textured Finish Materials: Latex-based compound; plain.

H. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inch (0.84 mm) in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion resistant.

I. Screws for Fastening of Gypsum Panel Products to Steel Members from 0.033 to 0.112 inch (0.84 to 2.84 mm) in Thickness: ASTM C954; steel drill screws, corrosion resistant.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that project conditions are appropriate for work of this section to commence.

3.02 FRAMING INSTALLATION

A. Metal Framing: Install in accordance with ASTM C754 and manufacturer's instructions.

B. Suspended Ceilings: Space framing and furring members as indicated.
1. Level ceiling system to a tolerance of 1/1200.
2. Laterally brace entire suspension system.
3. Install bracing as required at exterior locations to resist wind uplift.

C. Basis of Design System: 6' DGS Cross Tee Drywall Grid System.

D. Studs: Space studs at 16 inches on center (at 406 mm on center).

1. Extend partition framing to structure where indicated and to ceiling in other locations.
2. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.

3.03 ACOUSTIC ACCESSORIES INSTALLATION

A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.

B. Acoustic Sealant: Install in accordance with manufacturer's instructions.
   1. Place one bead continuously on substrate before installation of perimeter framing members.
   2. Place continuous bead at perimeter of each layer of gypsum board.
   3. Seal around all penetrations by conduit, pipe, ducts, and rough-in boxes, except where firestopping is provided.

3.04 BOARD INSTALLATION

A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.

B. Single-Layer Non-Rated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.
   1. Exception: Tapered edges to receive joint treatment at right angles to framing.

C. Exposed Gypsum Board in Interior Wet Areas: Seal joints, cut edges, and holes with water-resistant sealant.

3.05 INSTALLATION OF TRIM AND ACCESSORIES

A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.
   1. Not more than 30 feet (10 meters) apart on walls and ceilings over 50 feet (16 meters) long.
   2. At exterior soffits, not more than 30 feet (10 meters) apart in both directions.

B. Corner Beads: Install at external corners, using longest practical lengths.

C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials.

3.06 JOINT TREATMENT

A. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
   1. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
   2. Level 1: Wall areas above finished ceilings, whether or not accessible in the completed construction.

B. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
   1. Feather coats of joint compound so that camber is maximum 1/32 inch (0.8 mm).
   2. Taping, filling, and sanding is not required at surfaces behind adhesive applied ceramic tile and fixed cabinetry.

C. Where Level 5 finish is indicated, spray apply high build drywall surfacer over entire surface after joints have been properly treated; achieve a flat and tool mark-free finish.

3.07 TEXTURE FINISH

A. Apply finish texture coating by means of spraying apparatus in accordance with manufacturer's instructions and to match approved sample.

3.08 TOLERANCES

A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet (3 mm in 3 m) in any direction.

END OF SECTION

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SECTION 096700
FLUID-APPLIED FLOORING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Fluid-applied flooring and base.

1.02 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns and colors available.

C. Samples: Submit two samples, 12"x12" in size illustrating color and pattern for each floor material for each color specified.
   1. Sample shall show overall system thickness and slip-resistant system for both flooring and cove base.

1.03 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

B. Applicator Qualifications: Company specializing in performing the work of this section.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Store resin materials in a dry, secure area.

PART 2 PRODUCTS

2.01 FLUID-APPLIED FLOORING SYSTEMS

A. Fluid-Applied Flooring: Epoxy, two component, thermosetting, colored with mineral filler, with aggregate broadcast on base coat.
   1. Base Coat: Thickness as specified by manufacturer; color as selected by the Owner and Architect.
   2. Aggregate: Small quartz chips, multiple colors as selected. Aggregate shall be a combination of 1/8" and 1/16" chips in percentages as selected by Owner and Architect.
   3. Top Coat: Epoxy, two component, thermosetting; 1/16" thick; clear. Total system shall be 1/8" thick.
   4. Color: Selected by Owner and Architect.
   5. Basis of Design Product: FloroChip Epoxy Flake Flooring as manufactured by Florock, system documented as follows:..
      a. Floropoxy Primer
      b. Floropoxy Pigmented epoxy system
      c. 1st Broadcast Florochips
      d. Floropoxy Clear epoxy system
      e. High Performance Topcoat Clear
      f. Additional Slip Resistance
      g. Provide integral 4" base with same material as floor system.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that sub-floor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive flooring.

B. Verify that sub-floor surfaces are dust-free and free of substances that could impair bonding of materials to sub-floor surfaces.

C. Verify that concrete sub-floor surfaces are ready for flooring installation by testing for moisture emission rate and alkalinity; obtain instructions if test results are not within limits recommended by flooring materials manufacturer.

D. Verify that required floor-mounted utilities are in correct location.

3.02 INSTALLATION - FLOORING

A. Apply in accordance with manufacturer's instructions.

B. Apply each coat to minimum thickness required by manufacturer.

C. Finish to smooth level surface with Owner provided slip resistance.

3.03 PROTECTION

A. Barricade area to protect flooring until fully cured.

END OF SECTION

SECTION 099113
EXTERIOR PAINTING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface preparation.

B. Field application of paints.

C. Scope: Finish exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
   1. Exposed surfaces of steel lintels and ledge angles.

D. Do Not Paint or Finish the Following Items:
   1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
   2. Items indicated to receive other finishes.
   3. Items indicated to remain unfinished.
   4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
   5. Floors, unless specifically indicated.
   6. Brick, glass unit masonry, architectural concrete, cast stone, integrally colored plaster and stucco.
   7. Glass.
   8. Concealed pipes, ducts, and conduits.

1.02 RELATED REQUIREMENTS

A. Section 055000 - Metal Fabrications: Shop-primed items.

B. Section 099123 - Interior Painting.

1.03 REFERENCE STANDARDS

A. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual Current Edition.

B. SSPC-SP 1 - Solvent Cleaning 2015, with Editorial Revision (2016).

C. SSPC-SP 2 - Hand Tool Cleaning 2018.

D. SSPC-SP 6 - Commercial Blast Cleaning 2007.

1.04 SUBMITTALS

A. Product Data: Provide complete list of products to be used, with the following information for each:
   1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
   2. MPI product number (e.g. MPI #47).
   3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
   4. Manufacturer's installation instructions.
   5. If proposal of substitutions is allowed under submittal procedures, explanation of substitutions proposed.

B. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches (216 by 279 mm) in size, illustrating range of colors available for each finishing product specified.
   1. Where sheen is specified, submit samples in only that sheen.
   2. Paint color submittals will not be considered until color submittals for major materials not to be painted, such as masonry, have been approved.

C. Certification: By manufacturer that paints and finishes comply with VOC limits specified.

D. Manufacturer's Instructions: Indicate special surface preparation procedures.

E. Maintenance Data: Submit data including finish schedule showing where each product/color/finish was used, product technical data sheets, material safety data sheets (MSDS), care and cleaning instructions, touch-up procedures, repair of painted and finished surfaces, and color samples of each color and finish used.

F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 016000 - Product Requirements, for additional provisions.
   2. Extra Paint and Finish Materials: 5 gallons (20 L) of each color; from the same product run, store where directed.
   3. Label each container with color in addition to the manufacturer's label.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum three years documented experience.

B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 5 years experience and approved by manufacturer.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.

B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

C. Paint Materials: Store at minimum ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.

1.07 FIELD CONDITIONS

A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.

B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.

C. Do not apply exterior paint and finishes during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.

D. Provide lighting level of 80 ft candles (860 lx) measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Provide paints and finishes used in any individual system from the same manufacturer; no exceptions.

B. Paints:
   1. Tnemec Company: www.tnemec.com.

C. Primer Sealers: Same manufacturer as top coats.

D. Substitutions: See Section 016000 - Product Requirements.

2.02 PAINTS AND FINISHES - GENERAL

A. Paints and Finishes: Ready mixed, unless required to be a field-catalyzed paint.
   1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
   2. Supply each paint material in quantity required to complete entire project's work from a single production run.
   3. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.

2.03 PAINT SYSTEMS - EXTERIOR

A. Paint E-OP - Exterior Surfaces to be Painted, Unless Otherwise Indicated: Including primed metal.
   1. Two top coats and one coat primer.
      a. Top coats: HDP Acrylic Polymer. Basis of Design: Series 1029 Enduratone as manufactured by Tnemec.
      b. Primer: Manufacturers recommended high performance primer for specific application and top coat material.

2.04 ACCESSORY MATERIALS

A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.

B. Patching Material: Latex filler.

C. Fastener Head Cover Material: Latex filler.

PART 3 EXECUTION

3.01 EXAMINATION

A. Do not begin application of paints and finishes until substrates have been properly prepared.

B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.

C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.

D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

E. Test shop-applied primer for compatibility with subsequent cover materials.

3.02 PREPARATION

A. Clean surfaces thoroughly and correct defects prior to application.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces for finishing.

D. Seal surfaces that might cause bleed through or staining of topcoat.

E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

F. Galvanized Surfaces:
   1. Remove surface contamination and oils and wash with solvent according to SSPC-SP 1.
   2. Prepare surface according to SSPC-SP 2.

G. Ferrous Metal:
   1. Solvent clean according to SSPC-SP 1.
   2. Shop-Primed Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.
   3. Remove rust, loose mill scale, and other foreign substances using using methods recommended in writing by paint manufacturer and blast cleaning according to SSPC-SP 6 "Commercial Blast Cleaning". Protect from corrosion until coated.

H. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.

3.03 APPLICATION

A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.

B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".

C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.

D. Apply each coat to uniform appearance.

E. Dark Colors and Deep Clear Colors: Regardless of number of coats specified, apply additional coats until complete hide is achieved.

F. Sand metal surfaces lightly between coats to achieve required finish.

G. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

H. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

I. All metal doors and door frames shall be spray painted. Brushed on paint shall not be allowed. Repairs or corrections to paint on Metal Doors and Door Frames shall be spray painted.

J. All Electrical disconnects supplying fire alarm power shall be painted red (final color to be selected by the Architect).

3.04 CLEANING

A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.05 PROTECTION

A. Protect finishes until completion of project.

B. Touch-up damaged finishes after Substantial Completion.

3.06 COLOR SCHEDULE

A. Provide Custom Color:

END OF SECTION

SECTION 099123
INTERIOR PAINTING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface preparation.

B. Field application of paints.

C. Scope: Finish interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
   1. Mechanical and Electrical:
      a. In finished areas, paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, mechanical equipment, and electrical equipment, unless otherwise indicated.

D. Do Not Paint or Finish the Following Items:
   1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
   2. Items indicated to receive other finishes.
   3. Items indicated to remain unfinished.
   4. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
   5. Floors, unless specifically indicated.
   6. Glass.
   7. Concealed pipes, ducts, and conduits.
   8. Do not paint aluminum, brass, bronze, stainless steel and chrome plated steel.
   9. Do not paint code required labels, UL and FM and equipment identification, performance rating, name and nomenclature plates.

1.02 REFERENCE STANDARDS

A. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual Current Edition.

1.03 SUBMITTALS

A. Product Data: Provide complete list of products to be used, with the following information for each:
   1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
   2. MPI product number (e.g. MPI #47).
   3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
   4. Manufacturer's installation instructions.
   5. If proposal of substitutions is allowed under submittal procedures, explanation of substitutions proposed.

B. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches (216 by 279 mm) in size, illustrating range of colors available for each finishing product specified.
   1. Where sheen is specified, submit samples in only that sheen.
   2. Paint color submittals will not be considered until color submittals for major materials not to be painted, such as masonry, have been approved.

C. Certification: By manufacturer that paints and finishes comply with VOC limits specified.

D. Manufacturer's Instructions: Indicate special surface preparation procedures.

E. Maintenance Data: Submit data including finish schedule showing where each product/color/finish was used, product technical data sheets, material safety data sheets (MSDS), care and cleaning instructions, touch-up procedures, repair of painted and finished surfaces, and color samples of each color and finish used.

1.04 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum three years documented experience.

B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 5 years experience and approved by manufacturer.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.

B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

C. Paint Materials: Store at minimum ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.

1.06 FIELD CONDITIONS

A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.

B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.

C. Do not apply materials when relative humidity exceeds 85 percent; at temperatures less than 5 degrees F (3 degrees C) above the dew point; or to damp or wet surfaces.

D. Minimum Application Temperatures for Paints: 50 degrees F (10 degrees C) for interiors unless required otherwise by manufacturer's instructions.

E. Provide lighting level of 80 ft candles (860 lx) measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Provide paints and finishes used in any individual system from the same manufacturer; no exceptions.

B. Paints:
   1. PPG Paints: www.ppgpaints.com/#sle.
   2. Benjamin Moore: www.benjaminmoore.com

C. Substitutions: See Section 016000 - Product Requirements.

2.02 PAINTS AND FINISHES - GENERAL

A. Paints and Finishes: Ready mixed, unless intended to be a field-catalyzed paint.
   1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
   2. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
   3. For opaque finishes, tint each coat including primer coat and intermediate coats, one-half shade lighter than succeeding coat, with final finish coat as base color.
   4. Supply each paint material in quantity required to complete entire project's work from a single production run.
   5. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.

B. Colors: full range of colors including custom color.
   1. Allow for minimum of five colors for each system, unless otherwise indicated, without additional cost to Owner.
   2. Extend colors to surface edges; colors may change at any edge as directed by Architect.

3. In finished areas, finish pipes, ducts, conduit, and equipment the same color as the wall/ceiling they are mounted on/under.

2.03 PAINT SYSTEMS - INTERIOR

A. Paint I-OP - Interior Ceiling Surfaces to be Painted, Unless Otherwise Indicated: Including high performance gypsum board.
   1. Two top coats and one coat manufacturer recommended primer.
   2. Top Coat(s): High Performance Architectural Interior Latex; MPI #138, 139, 140, or 141.
      a. Products:
         1) Benjamin Moore Ultra Spec 500 Interior Paint
         2) Substitutions: Section 016000 - Product Requirements.
   3. Primer: As recommended by top coat manufacturer for specific substrate.

B. Paint I-OP-MD-DT - Medium Duty Door/Trim: For surfaces subject to frequent contact by occupants, including metals:
   1. Medium duty applications include doors and door frames.
   2. Two top coats and one coat manufacturer recommended primer.
   3. Top Coat(s): High Performance Architectural Interior Latex; MPI #139, 140, or 141.
      a. Products:
         1) PPG Paints Pitt-Glaze WB1 Pre-Catalyzed Water-Borne Acrylic Epoxy, 16-510 Series, Semi-Gloss.
   4. Primer: As recommended by top coat manufacturer for specific substrate.

C. Paint I-OP-MD-WC - Medium Duty Vertical and Overhead: Including concrete masonry units.
   1. Two top coats and one coat manufacturer recommeded primer.
   2. Top Coat(s): High Performance Architectural Interior Latex; MPI #138, 139, 140, or 141.
      a. Products:
         1) PPG Paints Pitt-Glaze WB1 Pre-Catalyzed Water-Borne Acrylic Epoxy, 16-310 Series, Eggshell.
   3. Primer: As recommended by top coat manufacturer for specific substrate.

2.04 ACCESSORY MATERIALS

A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.

B. Patching Material: Latex filler.

C. Fastener Head Cover Material: Latex filler.

PART 3 EXECUTION

3.01 EXAMINATION

A. Do not begin application of paints and finishes until substrates have been properly prepared.

B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.

C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.

D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

E. Test shop-applied primer for compatibility with subsequent cover materials.

F. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
   1. Gypsum Wallboard: 12 percent.
   2. Masonry, Concrete, and Concrete Masonry Units: 12 percent.

3.02 PREPARATION

A. Clean surfaces thoroughly and correct defects prior to application.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.

D. Seal surfaces that might cause bleed through or staining of topcoat.

E. Masonry:

F. Gypsum Board: Fill minor defects with filler compound. Spot prime defects after repair.

G. Wood Doors to be Field-Finished: Seal wood door top and bottom edge surfaces with clear sealer.

H. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.
   1. Metal Doors and Frames shall be spray painted. Brushed on paint shall not be allowed. Repairs or corrections to paint on Metal Doors and Door Frames shall be spray painted.

3.03 APPLICATION

A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.

B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".

C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.

D. Apply each coat to uniform appearance in thicknesses specified by manufacturer.

E. Sand wood and metal surfaces lightly between coats to achieve required finish.

F. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

G. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.04 FIELD QUALITY CONTROL

A. See Section 014000 - Quality Requirements, for general requirements for field inspection.

3.05 CLEANING

A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.06 PROTECTION

A. Protect finishes until completion of project.

B. Touch-up damaged finishes after Substantial Completion.

END OF SECTION

SECTION 101400
SIGNAGE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Room and door signs.

B. Each door visible to the public shall be provided with signage.

1.02 RELATED REQUIREMENTS

A. Division 26: Exit signs required by code.

1.03 REFERENCE STANDARDS

A. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines current edition.

B. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design 2010.

C. ICC A117.1 - Accessible and Usable Buildings and Facilities 2017.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Manufacturer's printed product literature for each type of sign, indicating sign styles, font, foreground and background colors, locations, overall dimensions of each sign.

C. Signage Schedule: Provide information sufficient to completely define each sign for fabrication, including room number, room name, other text to be applied, sign and letter sizes, fonts, and colors.
   1. When room numbers to appear on signs differ from those on drawings, include the drawing room number on schedule.
   2. When content of signs is indicated to be determined later, request such information from Owner through Architect at least 2 months prior to start of fabrication; upon request, submit preliminary schedule.
   3. Submit for approval by Owner through Architect prior to fabrication.

D. Samples: Submit two samples of each type of sign, of size similar to that required for project, illustrating sign style, font, and method of attachment.

E. Selection Samples: Where colors are not specified, submit two sets of color selection charts or chips.

F. Verification Samples: Submit samples showing colors specified.

G. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 016000 - Product Requirements, for additional provisions.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Package signs as required to prevent damage before installation.

B. Package room and door signs in sequential order of installation, labeled by floor or building.

C. Store tape adhesive at normal room temperature.

1.07 FIELD CONDITIONS

A. Do not install tape adhesive when ambient temperature is lower than recommended by manufacturer.

B. Maintain this minimum temperature during and after installation of signs.

PART 2 PRODUCTS

2.01 SIGNAGE APPLICATIONS

A. Accessibility Compliance: Signs are required to comply with ADA Standards and ICC A117.1, unless otherwise indicated; in the event of conflicting requirements, comply with the most comprehensive and specific requirements.

B. Room and Door Signs: Provide a sign for every doorway, whether it has a door or not, not including corridors, lobbies, and similar open areas.
   1. Sign Type: Flat signs with injection molded panel media as specified .
   2. Provide "tactile" signage, with letters raised minimum 1/32 inch (0.8 mm) and Grade II braille.
   3. Character Height: 1 inch (25 mm).
   4. Sign Height: 3 inches (75 mm), unless otherwise indicated. .
   5. Service Rooms: Identify with the room names and numbers indicated on drawings.
   6. Rest Rooms: Identify with pictograms, the names "MEN" and "WOMEN", and braille.

2.02 SIGN TYPES

1. Wall Mounting of One-Sided Signs: Tape adhesive.

B. Color and Font: Unless otherwise indicated:
   1. Character Font: Helvetica, Arial, or other sans serif font.
   2. Character Case: Upper case only.
   3. Background Color: As scheduled.
   4. Character Color: Contrasting color selected by the architect.

2.03 TACTILE SIGNAGE MEDIA

A. Engraved Panels: Laminated colored plastic; engraved through face to expose core as background color:

B. Injection Molded Panels: One-piece acrylic plastic, with raised letters and braille.
   1. Total Thickness: 1/8 inch.

2.04 ACCESSORIES

A. Concealed Screws: Stainless steel, galvanized steel, chrome plated, or other non-corroding metal.

B. Tape Adhesive: Double sided tape, permanent adhesive.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that substrate surfaces are ready to receive work.

3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install neatly, with horizontal edges level.

C. Locate signs and mount at heights indicated on drawings and in accordance with ADA Standards and ICC A117.1.

D. Protect from damage until Date of Substantial Completion; repair or replace damaged items.

END OF SECTION

SECTION 102113.13
METAL TOILET COMPARTMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Stainless Steel toilet compartments.

1.02 RELATED REQUIREMENTS

A. Section 102800 - Toilet, Bath, and Laundry Accessories.

1.03 REFERENCE STANDARDS

A. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.

B. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar 2015.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination: Coordinate the work with placement of support framing and anchors in walls.

1.05 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Indicate partition plan, elevation views, dimensions, details of wall, floor, and ceiling supports, door swings.

C. Product Data: Provide data on panel construction, hardware, and accessories.

D. Manufacturer's Installation Instructions: Indicate special procedures.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Stainless Steel Toilet Compartments:
   1. Basis of Design: Subject to compliance with the requirements, provide products, Sentinel, Series 400, of The Mills Company, Marion, OH 43302
   2. Contact Information: 1(800) 272-3539; www.bradleycorp.com

B. Accepted alternate manufacturers.
   1. ASI Accurate Partitions; Stainless Steel: www.asi-accuratepartitions.com/#sle.
   2. ASI Global Partitions; Stainless Steel: www.asi-globalpartitions.com/#sle.
   3. Substitutions: Section 016000 - Product Requirements.

2.02 MATERIALS

A. Steel Sheet: Hot-dipped galvanized steel sheet, ASTM A653/A653M, with G90/Z275 coating.

B. Stainless Steel Sheet: ASTM A666, Type 304.

2.03 COMPONENTS

A. Toilet Compartments: Powder coated steel, floor-mounted unbraced.

B. Doors, Panels, and Pilasters: Sheet steel faces, pressure bonded to sound deadening core, formed and closed edges; corners made with corner clips or mitered, welded, and ground smooth.
   1. Panel Faces: 20 gauge, 0.0359 inch (0.91 mm).
   2. Door Faces: 22 gauge, 0.0299 inch (0.76 mm).
   3. Pilaster Faces: 20 gauge, 0.0359 inch (0.91 mm).
   4. Reinforcement: 12 gauge, 0.1046 inch (2.66 mm).
   5. Internal Reinforcement: Provide in areas of attached hardware and fittings. Mark locations of reinforcement for partition mounted washroom accessories.

C. Door and Panel Dimensions:
   1. Thickness: 1 inch (25 mm).

2. Door Width: 24 inch (610 mm).
3. Door Width for Handicapped Use: 36 inch (915 mm) , out-swinging.
4. Height: 58 inch (1473 mm).

D. Pilasters: 1-1/4 inch (32 mm) thick, of sizes required to suit compartment width and spacing.

2.04 ACCESSORIES

A. Pilaster Shoes: Formed ASTM A666 Type 304 stainless steel with No. 4 finish, 3 inch (175 mm) high, concealing floor fastenings.
1. Provide adjustment for floor variations with screw jack through steel saddles integral with pilaster.

B. Head Rails: Hollow anodized aluminum tube, 1 by 1-5/8 inch (25 by 41 mm) size, with anti-grip strips and cast socket wall brackets.

C. Brackets: Full height Satin stainless steel.

D. Attachments, Screws, and Bolts: Stainless steel , tamper proof type.

E. Hardware: Polished stainless steel:
1. Self closing continuous spring loaded type adjustable to hold doors copen at any angle up to 90 degrees..
2. Thumb turn or sliding door latch with exterior emergency access feature.
3. Door strike and keeper with rubber bumper; mounted on pilaster in alignment with door latch.
4. Coat hook with rubber bumper; one per compartment, mounted on door.
5. Provide door pull on both sides of outswinging doors. Provide pulls on outside of inswinging doors.

F. Note: All fasteners shall be tamper resistant and stainless steel.

2.05 FINISHING

A. Stainless Steel Compartments: No. 4 finish or textured finish at Owners option.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify that field measurements are as indicated.

C. Verify correct spacing of and between plumbing fixtures.

D. Verify correct location of built-in framing, anchorage, and bracing.

3.02 INSTALLATION

A. Install partitions secure, rigid, plumb, and level in accordance with manufacturer's instructions.

B. Maintain 3/8 to 1/2 inch (9 to 13 mm) space between wall and panels and between wall and end pilasters.

C. Attach panel brackets securely to walls using anchor devices.

D. Attach panels and pilasters to brackets. Locate head rail joints at pilaster center lines.

3.03 TOLERANCES

A. Maximum Variation From True Position: 1/4 inch (6 mm).

B. Maximum Variation From Plumb: 1/8 inch (3 mm).

3.04 ADJUSTING

A. Adjust and align hardware to uniform clearance at vertical edge of doors, not exceeding 3/16 inch (5 mm).

B. Adjust hinges to position doors in partial opening position when unlatched. Return out swinging doors to closed position.

C. Adjust adjacent components for consistency of line or plane.

END OF SECTION

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SECTION 102800
TOILET, BATH, AND LAUNDRY ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Commercial toilet accessories.

B. Under-lavatory pipe supply covers.

C. Utility room accessories.

1.02 RELATED REQUIREMENTS

A. Section 102113.13 Metal Toilet Compartments

1.03 REFERENCE STANDARDS

A. ASTM C1036 - Standard Specification for Flat Glass 2021.

B. ASTM C1503 - Standard Specification for Silvered Flat Glass Mirror 2018.

C. ASTM G21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi 2015, with Editorial Revision (2021).

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordinate the work with the placement of internal wall reinforcement, concealed ceiling supports, and reinforcement of toilet partitions to receive anchor attachments.

1.05 SUBMITTALS

A. Product Data: Submit data on accessories describing size, finish, details of function, and attachment methods.

B. Manufacturer's Installation Instructions: Indicate special procedures and conditions requiring special attention.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Commercial Toilet, Shower, and Bath Accessories:
   1. Bradley Corporation: www.bradleycorp.com/#sle.

B. Under-Lavatory Pipe Supply Covers:
   1. Truebro LAV GUARD2.

2.02 MATERIALS

A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.

B. Mirror Glass: Annealed float glass, ASTM C1036 Type I, Class 1, Quality Q2, with silvering, protective and physical characteristics complying with ASTM C1503.

2.03 FINISHES

A. Stainless Steel: Satin finish, unless otherwise noted.

2.04 COMMERCIAL TOILET ACCESSORIES

A. Toilet Paper Dispenser: Dual Jumbo Roll Stainless Steel Toilet Paper Dispenser:
   1. Basis of Design: Georgia Pacific 12" Sr. Jumbo Bath Tissue Dispenser
   2. Architect's pre-apprroved equal.

B. Paper Towel Dispenser: Electric, roll paper type.
   1. Cover: Stainless steel.
   2. Paper Discharge: Touchless automatic.
   3. Capacity: 6 inch diameter roll.
   4. Mounting: Semi recessed.
   5. Power: Battery operated.

6. Refill Indicator: Illuminated refill indicator.
7. Products:
    a. Basis of Design: Georgia Pacific model #59460, enMotion Automated Touchless Dispenser.

C. Waste Receptacle: Shall be Owner provided and Contractor Installed.

D. Soap Dispenser: Shall be Owner provided and Contractor Installed.

E. Mirrors: Stainless steel framed, 1/4 inch (6 mm) thick annealed float glass; ASTM C1036.
1. Annealed Float Glass: Silvering, protective and physical characteristics in compliance with ASTM C1503.
2. Size: As shown on the Drawings.
3. Frame: 0.05 inch (1.3 mm)angle shapes, with mitered and welded and ground corners, and tamperproof hanging system; satin finish.

F. Seat Cover Dispenser
1. Basis of Design: Bobrick Model No. B-4221
2. Architect's Pre-Approved Equal

G. Grab Bars: Stainless steel, smooth surface.
1. Standard Duty Grab Bars:
    a. Push/Pull Point Load: 250 pound-force (1112 N), minimum.
    b. Dimensions: 1-1/2 inch (38 mm) outside diameter, minimum 0.05 inch (1.3 mm) wall thickness, exposed flange mounting, 1-1/2 inch (38 mm) clearance between wall and inside of grab bar.
    c. Length and Configuration: As indicated on drawings.

H. Combination Sanitary Napkin/Tampon Dispenser: Stainless steel, surface-mounted.
1. Door: Seamless 0.05 inch (1.3 mm) door with returned edges and tumbler lock.
2. Cabinet: Fully welded, 0.03 inch (0.8 mm) thick sheet.
3. Operation: 25 cent coin required to operate dispenser. Provide locked coin box, separately keyed.
4. Identify dispensers slots without using brand names.
5. Minimum capacity: 15 napkins and 20 tampons.
6. Approved Manufacturers:
    a. Bobrick Washroom Equipment.

I. Sanitary Napkin Disposal Unit: Stainless steel, surface-mounted, self-closing door, locking bottom panel with full-length stainless steel piano-type hinge, removable receptacle.
1. Products:
    a. Basis of Design:Rubbermaid 6140.
    b. Architect's Pre-Approved Equal

2.05 UNDER-LAVATORY PIPE AND SUPPLY COVERS

A. Under-Lavatory Pipe and Supply Covers:
1. Insulate exposed drainage piping including hot, cold, and tempered water supplies under lavatories or sinks to comply with ADA Standards.
2. Exterior Surfaces: Smooth non-absorbent, non-abrasive surfaces.
3. Construction: 1/8 inch (3.2 mm) flexible PVC.
    a. Microbial and Fungal Resistance: Comply with ASTM G21.
4. Color: White.
5. Fasteners: Reusable, snap-locking fasteners with no sharp or abrasive external surfaces.
6. Products:
    a. Plumberex Specialty Products, Inc; Plumberex Pro-Extreme: www.plumberex.com/#sle.
    b. Substitutions: Section 016000 - Product Requirements.

2.06 UTILITY ROOM ACCESSORIES

A. Combination Utility Shelf/Mop and Broom Holder: 0.05 inch (1.3 mm) thick stainless steel, Type 304, with 1/2 inch (12 mm) returned edges, 0.06 inch (1.6 mm) steel wall brackets.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify exact location of accessories for installation.

C. For electrically-operated accessories, verify that electrical power connections are ready and in the correct locations.

D. Verify that field measurements are as indicated on drawings.

3.02 PREPARATION

A. Deliver inserts and rough-in frames to site for timely installation.

B. Provide templates and rough-in measurements as required.

3.03 INSTALLATION

A. Install accessories in accordance with manufacturers' instructions in locations indicated on drawings.

B. Install plumb and level, securely and rigidly anchored to substrate.

C. Mounting Heights: As required by accessibility regulations, unless otherwise indicated.
   1. Grab Bars: As indicated on drawings.
   2. Electric Hand Dryers: Measured from floor to bottom of nozzle:
      a. Handicap: 36 inches (910 mm).
   3. Other Accessories: As indicated on drawings.

3.04 PROTECTION

A. Protect installed accessories from damage due to subsequent construction operations.

END OF SECTION

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SECTION 313116
TERMITE CONTROL

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Chemical soil treatment.

1.02 RELATED REQUIREMENTS

A. Section 033000 - Cast-in-Place Concrete: Vapor barrier placement under concrete slab-on-grade.

1.03 PRICE AND PAYMENT PROCEDURES

A. See Section 012200 - Unit Prices, for additional unit price requirements.

1.04 REFERENCE STANDARDS

A. Title 7, United States Code, 136 through 136y - Federal Insecticide, Fungicide and Rodenticide Act 2019.

1.05 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Indicate toxicants to be used, composition by percentage, dilution schedule, intended application rate.

C. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements.

D. Test Reports: Indicate regulatory agency approval reports when required.

E. Certificate of compliance from authority having jurisdiction indicating approval of toxicants.

F. Manufacturer's Instructions: Indicate caution requirement.

G. Record and document moisture content of soil before application.

H. Installer Qualifications: Company specializing in performing work of the type specified and with minimum three (3) years of documented experience.

I. Warranty: Submit warranty and ensure that forms have been completed in Owner's name.

1.06 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing this type of work and:
   1. Having minimum of three (3) years documented experience.
   2. Approved by manufacturer of treatment materials.
   3. Licensed in the State in which the Project is located.

1.07 WARRANTY

A. See Section 017800 - Closeout Submittals, for additional warranty requirements.

B. Provide five year installer's warranty against damage to building caused by termites.

PART 2 PRODUCTS

2.01 CHEMICAL SOIL TREATMENT

A. Toxicant Chemical: EPA Title 7, United States Code, 136 through 136y approved; synthetically color dyed to permit visual identification of treated soil.

B. Diluent: Recommended by toxicant manufacturer.

C. Manufacturers:
   1. Bayer Environmental Science Corp; [____]: www.backedbybayer.com/pest-management/#sle.Bayer Environmental Science Corp; [____]: www.backedbybayer.com/pest-management/#sle.Bayer Environmental Science Corp; [____]: www.backedbybayer.com/pest-management/#sle.
   2. Substitutions: See Section 016000 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that soil surfaces are unfrozen, sufficiently dry to absorb toxicant, and ready to receive treatment.

B. Verify final grading is complete.

3.02 APPLICATION - CHEMICAL TREATMENT

A. Comply with requirements of U.S. EPA and applicable state and local codes.

B. Spray apply toxicant in accordance with manufacturer's instructions.

C. Apply toxicant at following locations:
   1. Under Slabs-on-Grade.
   2. At Both Sides of Foundation Surface.
   3. Soil Within 10 feet (3 m) of Building Perimeter For a Depth of [____] feet ([____] m).

D. Under slabs, apply toxicant immediately prior to installation of vapor barrier.

E. At foundation walls, apply toxicant immediately prior to finish grading work outside foundations.

F. Apply extra treatment to structure penetration surfaces such as pipe or ducts, and soil penetrations such as grounding rods or posts.

G. Re-treat disturbed treated soil with same toxicant as original treatment.

H. If inspection or testing identifies the presence of termites, re-treat soil and re-test.

3.03 PROTECTION

A. Do not permit soil grading over treated work.

END OF SECTION

ADDENDUM NUMBER FOUR
TO
CONTRACT DOCUMENTS AND SPECIFICATIONS
FOR
WOODLAND VETERANS PARK IMPROVEMENTS

Dated: June 30, 2022

The following changes, clarifications and/or additions are hereby made a part of the contract documents for the construction of this project, as fully and completely as if the same were originally included therein, and shall supersede anything contained in the plans and specifications with which it might conflict.

GENERAL ITEMS

1. **BID ITEM # 61 – TREEHOUSE PLATFORM-CIP:**
   Below is additional information pertaining to this element:
   - The drawings call for the awarded contractor to provide detailed shop drawings for the Treehouse Platform utilizing Trex (Or Equal) material. This is to be constructed per Trex (Or Equal) recommendations. This is to include the following materials…..
     - Trex Select Decking – Color to be determined during submittal process
     - Trex 36" High Transcend Railing – Rail and Round Aluminum Baluster Kit - Railing with Vertical Rods – Color to be determined during submittal process
     - ADA Handrail is to be added to Railing on Ramp. This is a Trex (Or Equal) Product as well. Mount at 34" Height to Top of Rail from Finish Grade.

Receipt of this Addendum will be confirmed by Planning Design Groups via email read receipt.
This Addendum forms a part of the Contract Documents and modifies the original
Bidding Documents advertised on May 18, 2022, in accordance with
PROJECT AND BID SPECIFICATIONS and as noted below.
Acknowledge receipt of this Addendum on the Proposal Form.
Failure to do so may subject the Bidder to disqualification.
End of Addendum #4

WOODLAND VETERANS PARK - BID TABULATION

CITY OF SHAWNEE, OKLAHOMA

DATE: JULY 11, 2022

BASE BID PAY ITEMS				ARCHITECT'S ESTIMATE		DOWNEY		LAMBERT		JENCO		MACHILL		WYNN		WL MCNATT	
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
1	General Conditions/Bonds/Insurance	LS	1	$ 300,000.00	$ 300,000.00	$ 248,000.00	$ 248,000.00	$ -	$ 235,652.00	$ 210,000.00	$ 210,000.00	$ 670,000.00	$ 670,000.00	$ 350,000.00	$ 350,000.00	$ 66,000.00	$ 66,000.00
2	Earthwork-Excavation/Embankment/Compaction/Grading - CIP	LS	1	$ 150,000.00	$ 150,000.00	$ 121,400.00	$ 121,400.00	$ -	$ 180,026.00	$ 162,800.00	$ 162,800.00	$ 140,000.00	$ 140,000.00	$ 145,000.00	$ 145,000.00	$ 176,791.00	$ 176,791.00
3	Demolition - CIP	LS	1	$ 75,000.00	$ 75,000.00	$ 31,500.00	$ 31,500.00	$ -	$ 34,056.00	$ 35,000.00	$ 35,000.00	$ 32,000.00	$ 32,000.00	$ 35,000.00	$ 35,000.00	$ 50,000.00	$ 50,000.00
4	Erosion Control - CIP	LS	1	$ 7,500.00	$ 7,500.00	$ 3,800.00	$ 3,800.00	$ -	$ 5,294.00	$ 12,000.00	$ 12,000.00	$ 10,000.00	$ 10,000.00	$ 8,300.00	$ 8,300.00	$ 14,541.00	$ 14,541.00
5	Electric Service, Lighiting & Distribution - CIP	LS	1	$ 225,000.00	$ 225,000.00	$ 166,000.00	$ 166,000.00	$ -	$ 160,920.00	$ 165,000.00	$ 165,000.00	$ 164,000.00	$ 164,000.00	$ 170,000.00	$ 170,000.00	$ 184,000.00	$ 184,000.00
6	Water Service for Irrigation - CIP	EA	1	$ 5,000.00	$ 5,000.00	$ 6,088.00	$ 6,088.00	$ 3,706.00	$ 3,706.00	$ 10,000.00	$ 10,000.00	$ 2,000.00	$ 2,000.00	$ 5,500.00	$ 5,500.00	$ 4,373.00	$ 4,373.00
7	6" Water and Fire Line - CIP	LF	298	$ 45.00	$ 13,410.00	$ 68.00	$ 20,264.00	$ 127.93	$ 38,123.14	$ 106.00	$ 31,588.00	$ 55.00	$ 16,390.00	$ 60.00	$ 17,880.00	$ 114.00	$ 33,972.00
8	6" Tapping Valve & Box - CIP	EA	2	$ 1,000.00	$ 2,000.00	$ 1,500.00	$ 3,000.00	$ 5,577.65	$ 11,155.30	$ 5,000.00	$ 10,000.00	$ 4,500.00	$ 9,000.00	$ 13,000.00	$ 26,000.00	$ 5,759.00	$ 11,518.00
9	6"x6" Tee - CIP	EA	1	$ 750.00	$ 750.00	$ 415.00	$ 415.00	$ 887.43	$ 887.43	$ 2,000.00	$ 2,000.00	$ 1,400.00	$ 1,400.00	$ 1,500.00	$ 1,500.00	$ 949.00	$ 949.00
10	6" Gate Valve & Box - CIP	EA	2	$ 1,000.00	$ 2,000.00	$ 1,700.00	$ 3,400.00	$ 5,577.65	$ 11,155.30	$ 1,000.00	$ 2,000.00	$ 2,500.00	$ 5,000.00	$ 3,000.00	$ 6,000.00	$ 5,759.00	$ 11,518.00
11	6"x45º Bend - CIP	EA	5	$ 500.00	$ 2,500.00	$ 307.00	$ 1,535.00	$ -	$ 2,359.00	$ 500.00	$ 2,500.00	$ 1,200.00	$ 6,000.00	$ 1,200.00	$ 6,000.00	$ 488.00	$ 2,440.00
12	6"x90º Bend - CIP	EA	1	$ 500.00	$ 500.00	$ 331.00	$ 331.00	$ -	$ 517.00	$ 500.00	$ 500.00	$ 1,000.00	$ 1,000.00	$ 1,200.00	$ 1,200.00	$ 535.00	$ 535.00
13	Fire Hydrant - CIP	EA	1	$ 4,000.00	$ 4,000.00	$ 5,526.00	$ 5,526.00	$ -	$ 3,894.00	$ 6,000.00	$ 6,000.00	$ 8,000.00	$ 8,000.00	$ 8,000.00	$ 8,000.00	$ 4,021.00	$ 4,021.00
14	Water Tap & Valve (1") - CIP	EA	1	$ 750.00	$ 750.00	$ 726.00	$ 726.00	$ -	$ 3,620.00	$ 2,500.00	$ 2,500.00	$ 2,000.00	$ 2,000.00	$ 1,800.00	$ 1,800.00	$ 3,739.00	$ 3,739.00
15	Water Tap & Valve (1.5") - CIP	EA	2	$ 850.00	$ 1,700.00	$ 911.00	$ 1,822.00	$ -	$ 6,762.00	$ 2,500.00	$ 5,000.00	$ 4,500.00	$ 9,000.00	$ 2,000.00	$ 4,000.00	$ 3,491.00	$ 6,982.00
16	Water Service Line (1") - CIP	LF	17	$ 35.00	$ 595.00	$ 85.00	$ 1,445.00	$ -	$ 2,822.00	$ 200.00	$ 3,400.00	$ 60.00	$ 1,020.00	$ 22.00	$ 374.00	$ 172.00	$ 2,924.00
17	Water Service Line (1.5") - CIP	LF	317	$ 40.00	$ 12,680.00	$ 19.00	$ 6,023.00	$ -	$ 14,182.00	$ 64.00	$ 20,288.00	$ 20.00	$ 6,340.00	$ 28.00	$ 8,876.00	$ 46.00	$ 14,582.00
18	Water Meter (1") - CIP	EA	1	$ 3,500.00	$ 3,500.00	$ 2,400.00	$ 2,400.00	$ -	$ 1,217.00	$ 4,000.00	$ 4,000.00	$ 3,300.00	$ 3,300.00	$ 5,000.00	$ 5,000.00	$ 1,257.00	$ 1,257.00
19	Sanitary Sewer Service Line (4") - CIP	LF	523	$ 50.00	$ 26,150.00	$ 60.00	$ 31,380.00	$ -	$ 42,478.00	$ 75.00	$ 39,225.00	$ 23.00	$ 12,029.00	$ 50.00	$ 26,150.00	$ 73.00	$ 38,179.00
20	Cleanouts (4") - CIP	EA	8	$ 500.00	$ 4,000.00	$ 323.00	$ 2,584.00	$ -	$ 696.00	$ 375.00	$ 3,000.00	$ 450.00	$ 3,600.00	$ 1,000.00	$ 8,000.00	$ 90.00	$ 720.00
21	4"x4" Wye - CIP	EA	1	$ 500.00	$ 500.00	$ 42.00	$ 42.00	$ -	$ 78.00	$ 3,000.00	$ 3,000.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 81.00	$ 81.00
22	Sewer Tap (4") - CIP	EA	2	$ 1,000.00	$ 2,000.00	$ 500.00	$ 1,000.00	$ -	$ 8,298.00	$ 1,800.00	$ 3,600.00	$ 5,000.00	$ 10,000.00	$ 1,000.00	$ 2,000.00	$ 4,285.00	$ 8,570.00
23	HDPE Storm Pipe (18") - CIP	LF	38	$ 75.00	$ 2,850.00	$ 93.00	$ 3,534.00	$ -	$ 6,591.00	$ 128.00	$ 4,864.00	$ 120.00	$ 4,560.00	$ 60.00	$ 2,280.00	$ 179.00	$ 6,802.00
24	HDPE Storm Pipe (6") - CIP	LF	400	$ 40.00	$ 16,000.00	$ 41.00	$ 16,400.00	$ -	$ 30,732.00	$ 64.75	$ 25,900.00	$ 35.00	$ 14,000.00	$ 35.00	$ 14,000.00	$ 67.00	$ 26,800.00
25	HDPE Perforated French Drain w/sleeve - CIP	LF	321	$ 50.00	$ 16,050.00	$ 56.00	$ 17,976.00	$ -	$ 19,295.00	$ 64.75	$ 20,784.75	$ 35.00	$ 11,235.00	$ 33.00	$ 10,593.00	$ 62.00	$ 19,902.00
26	5" Channel Drain and Grate - CIP	LF	40	$ 125.00	$ 5,000.00	$ 98.00	$ 3,920.00	$ -	$ 9,692.00	$ 388.00	$ 15,520.00	$ 50.00	$ 2,000.00	$ 110.00	$ 4,400.00	$ 250.00	$ 10,000.00
27	ADS Inlet (30"-1 grated, 1 solid) - CIP	EA	2	$ 3,000.00	$ 6,000.00	$ 5,000.00	$ 10,000.00	$ -	$ 10,101.00	$ 7,700.00	$ 15,400.00	$ 6,500.00	$ 13,000.00	$ 6,000.00	$ 12,000.00	$ 5,215.00	$ 10,430.00
28	RipRap 12" Median Dia - CIP	SF	40	$ 150.00	$ 6,000.00	$ 20.00	$ 800.00	$ -	$ 3,706.00	$ 100.00	$ 4,000.00	$ 10.00	$ 400.00	$ 30.00	$ 1,200.00	$ 11.00	$ 440.00
29	Imported Select Fill - CIP	CY	500	$ 30.00	$ 15,000.00	$ 23.00	$ 11,500.00	$ -	$ 15,000.00	$ 33.00	$ 16,500.00	$ 71.00	$ 35,500.00	$ 33.00	$ 16,500.00	$ 33.00	$ 16,500.00
30	Imported Topsoil - CIP	CY	1,500	$ 30.00	$ 45,000.00	$ 65.00	$ 97,500.00	$ -	$ 94,500.00	$ 55.00	$ 82,500.00	$ 60.00	$ 90,000.00	$ 67.00	$ 100,500.00	$ 64.00	$ 96,000.00
31	Asphalt Type S4 1.5" Thick - CIP	TONS	243	$ 150.00	$ 36,450.00	$ 113.00	$ 27,459.00	$ -	$ 28,917.00	$ 200.00	$ 48,600.00	$ 175.00	$ 42,525.00	$ 140.00	$ 34,020.00	$ 137.00	$ 33,291.00
32	Asphalt Type S3 2.5" Thick - CIP	TONS	405	$ 125.00	$ 50,625.00	$ 129.00	$ 52,245.00	$ -	$ 39,285.00	$ 175.00	$ 70,875.00	$ 170.00	$ 68,850.00	$ 140.00	$ 56,700.00	$ 164.00	$ 66,420.00
33	Asphalt Tack Coat - CIP	GAL	135	$ 150.00	$ 20,250.00	$ 8.00	$ 1,080.00	$ -	$ 1,215.00	$ 5.50	$ 742.50	$ 20.00	$ 2,700.00	$ 38.00	$ 5,130.00	$ 5.00	$ 675.00
34	Asphalt Removal and Repair	SY	26	$ 75.00	$ 1,950.00	$ 160.00	$ 4,160.00	$ -	$ 8,450.00	$ 10.00	$ 260.00	$ 70.00	$ 1,820.00	$ 99.00	$ 2,574.00	$ 60.00	$ 1,560.00
35	Concrete 7" Thick Heavy Duty - CIP	CY	72	$ 100.00	$ 7,200.00	$ 400.00	$ 28,800.00	$ -	$ 18,360.00	$ 368.00	$ 26,496.00	$ 500.00	$ 36,000.00	$ 550.00	$ 39,600.00	$ 400.00	$ 28,800.00
36	Concrete Curb & Gutter (6" tall) - CIP	LF	1,721	$ 20.00	$ 34,420.00	$ 24.00	$ 41,304.00	$ -	$ 44,746.00	$ 25.00	$ 43,025.00	$ 35.00	$ 60,235.00	$ 28.00	$ 48,188.00	$ 30.00	$ 51,630.00
37	Concrete Curb & Gutter (Trasition 6" to 12" tall) - CIP	LF	20	$ 25.00	$ 500.00	$ 38.00	$ 760.00	$ -	$ 640.00	$ 27.00	$ 540.00	$ 35.00	$ 700.00	$ 33.00	$ 660.00	$ 35.00	$ 700.00
38	Concrete Curb & Gutter (12" tall) - CIP	LF	86	$ 30.00	$ 2,580.00	$ 34.00	$ 2,924.00	$ -	$ 3,096.00	$ 30.00	$ 2,580.00	$ 40.00	$ 3,440.00	$ 39.00	$ 3,354.00	$ 40.00	$ 3,440.00
39	ODOT Type A 6" thick (for parking and roads) - CIP	CY	513	$ 85.00	$ 43,605.00	$ 65.00	$ 33,345.00	$ -	$ 32,319.00	$ 60.00	$ 30,780.00	$ 90.00	$ 46,170.00	$ 72.00	$ 36,936.00	$ 100.00	$ 51,300.00
40	Parking Striping - CIP	LS	1	$ 5,000.00	$ 5,000.00	$ 3,500.00	$ 3,500.00	$ -	$ 3,200.00	$ 5,000.00	$ 5,000.00	$ 3,000.00	$ 3,000.00	$ 8,300.00	$ 8,300.00	$ 4,000.00	$ 4,000.00
41	4" Thick Concrete Pavement - CIP	SF	23,717	$ 6.50	$ 154,160.50	$ 8.50	$ 201,594.50	$ -	$ 166,019.00	$ 6.65	$ 157,718.05	$ 11.00	$ 260,887.00	$ 6.00	$ 142,302.00	$ 7.50	$ 177,877.50
42	4" Thick Integral Color Concrete Pavement - CIP	SF	10,483	$ 12.00	$ 125,796.00	$ 20.00	$ 209,660.00	$ -	$ 167,728.00	$ 8.65	$ 90,677.95	$ 15.00	$ 157,245.00	$ 11.00	$ 115,313.00	$ 9.00	$ 94,347.00
43	Concrete ADA Ramps - CIP	EA	11	$ 2,500.00	$ 27,500.00	$ 1,300.00	$ 14,300.00	$ -	$ 6,050.00	$ 500.00	$ 5,500.00	$ 1,500.00	$ 16,500.00	$ 2,000.00	$ 22,000.00	$ 1,100.00	$ 12,100.00
44	Decomposed Granite - CIP	SF	2,669	$ 7.00	$ 18,683.00	$ 6.50	$ 17,348.50	$ -	$ 16,948.00	$ 6.00	$ 16,014.00	$ 6.00	$ 16,014.00	$ 6.00	$ 16,014.00	$ 4.37	$ 11,663.53
45	10" Retaining Wall - CIP	LF	131	$ 125.00	$ 16,375.00	$ 305.00	$ 39,955.00	$ -	$ 16,943.00	$ 165.00	$ 21,615.00	$ 250.00	$ 32,750.00	$ 500.00	$ 65,500.00	$ 510.00	$ 66,810.00
46	Step and Ramp Handrails - CIP	LF	120	$ 110.00	$ 13,200.00	$ 178.00	$ 21,360.00	$ -	$ 3,812.00	$ 150.00	$ 18,000.00	$ 50.00	$ 6,000.00	$ 165.00	$ 19,800.00	$ 135.00	$ 16,200.00
47	1' W Extended Curb - CIP	LF	197	$ 25.00	$ 4,925.00	$ 30.00	$ 5,910.00	$ -	$ 2,754.00	$ 25.00	$ 4,925.00	$ 30.00	$ 5,910.00	$ 33.00	$ 6,501.00	$ 22.00	$ 4,334.00
48	Stage Structure/Restroom at Ampitheater - CIP	LS	1	$ 750,000.00	$ 750,000.00	$ 978,000.00	$ 978,000.00	$ 1,038,900.00	$ 1,038,900.00	$ 1,375,000.00	$ 1,375,000.00	$ 842,000.00	$ 842,000.00	$ 975,000.00	$ 975,000.00	$ 1,110,000.00	$ 1,110,000.00
49	5' L Retaining Seat Stones at Ampitheater - CIP	EA	24	$ 1,500.00	$ 36,000.00	$ 1,050.00	$ 25,200.00	$ -	$ 24,960.00	$ 860.00	$ 20,640.00	$ 1,300.00	$ 31,200.00	$ 1,500.00	$ 36,000.00	$ 1,859.00	$ 44,616.00
50	Park Entry I-Beam Structure - CIP	EA	7	$ 15,000.00	$ 105,000.00	$ 11,200.00	$ 78,400.00	$ -	$ 88,697.00	$ 14,142.85	$ 98,999.95	$ 17,000.00	$ 119,000.00	$ 30,000.00	$ 210,000.00	$ 20,100.00	$ 140,700.00
51	Restroom Building - CIP	EA	1	$ 250,000.00	$ 250,000.00	$ 272,000.00	$ 272,000.00	$ -	$ 328,786.00	$ 223,000.00	$ 223,000.00	$ 248,000.00	$ 248,000.00	$ 380,000.00	$ 380,000.00	$ 280,000.00	$ 280,000.00
52	Snow Cone Structure - CIP	LS	1	$ 85,000.00	$ 85,000.00	$ 150,000.00	$ 150,000.00	$ -	$ 204,800.00	$ 162,000.00	$ 162,000.00	$ 154,000.00	$ 154,000.00	$ 100,000.00	$ 100,000.00	$ 175,000.00	$ 175,000.00
53	Water Park Fence Removal & Modifications - CIP	LS	1	$ 5,000.00	$ 5,000.00	$ 5,800.00	$ 5,800.00	$ -	$ 800.00	$ 6,600.00	$ 6,600.00	$ 5,000.00	$ 5,000.00	$ 5,500.00	$ 5,500.00	$ 6,013.00	$ 6,013.00
54	Existing Sculpture Relocation - CIP	EA	2	$ 5,000.00	$ 10,000.00	$ 4,900.00	$ 9,800.00	$ -	$ 6,565.00	$ 3,000.00	$ 6,000.00	$ 2,500.00	$ 5,000.00	$ 4,000.00	$ 8,000.00	$ 2,187.00	$ 4,374.00
55	12'x12' Fabric Shade Structure - CIP	EA	4	$ 6,500.00	$ 26,000.00	$ 7,000.00	$ 28,000.00	$ -	$ 22,637.00	$ 7,000.00	$ 28,000.00	$ 10,000.00	$ 40,000.00	$ 5,000.00	$ 20,000.00	$ 7,763.00	$ 31,052.00
56	Pickleball Court (2 Total) - CIP	LS	1	$ 50,000.00	$ 50,000.00	$ 88,000.00	$ 88,000.00	$ -	$ 62,903.00	$ 62,000.00	$ 62,000.00	$ 120,000.00	$ 120,000.00	$ 72,000.00	$ 72,000.00	$ 121,000.00	$ 121,000.00
57	Pickleball 6' Black Vinyl Chain Link Fence - CIP	LF	188	$ 40.00	$ 7,520.00	$ 43.00	$ 8,084.00	$ -	$ 7,963.00	$ 85.10	$ 15,998.80	$ 40.00	$ 7,520.00	$ 44.00	$ 8,272.00	$ 44.00	$ 8,272.00
58	1' W. Concrete Curb at Pickleball Court - CIP	LF	190	$ 20.00	$ 3,800.00	$ 30.00	$ 5,700.00	$ -	$ 1,520.00	$ 26.00	$ 4,940.00	$ 40.00	$ 7,600.00	$ 33.00	$ 6,270.00	$ 30.00	$ 5,700.00
59	Pickleball Court Equipment - CIP	EA	2	$ 2,000.00	$ 4,000.00	$ 3,760.00	$ 7,520.00	$ -	$ 6,777.00	$ 3,600.00	$ 7,200.00	$ 2,000.00	$ 4,000.00	$ 2,800.00	$ 5,600.00	$ 4,568.00	$ 9,136.00
60	Play Equipment with Installation	LS	1	$ 325,000.00	$ 325,000.00	$ 267,300.00	$ 267,300.00	$ -	$ 236,769.00	$ 274,600.00	$ 274,600.00	$ 200,000.00	$ 200,000.00	$ 300,000.00	$ 300,000.00	$ 233,000.00	$ 233,000.00
61	Treehouse Platform - CIP	EA	1	$ 25,000.00	$ 25,000.00	$ 87,700.00	$ 87,700.00	$ -	$ 44,000.00	$ 30,000.00	$ 30,000.00	$ 25,000.00	$ 25,000.00	$ 32,000.00	$ 32,000.00	$ 26,000.00	$ 26,000.00
62	Rubberized Safety Surface w/ Concrete Base-CIP	SF	7,386	$ 25.00	$ 184,650.00	$ 28.00	$ 206,808.00	$ -	$ 142,771.00	$ 27.00	$ 199,422.00	$ 20.00	$ 147,720.00	$ 26.00	$ 192,036.00	$ 32.50	$ 240,045.00
63	Synthetic Turf (berm) - CIP	SF	2,720	$ 18.00	$ 48,960.00	$ 55.00	$ 149,600.00	$ -	$ 144,024.00	$ 61.60	$ 167,552.00	$ 50.00	$ 136,000.00	$ 62.00	$ 168,640.00	$ 60.00	$ 163,200.00
64	Playground Curb (8" W.) - CIP	LF	1,085	$ 20.00	$ 21,700.00	$ 15.00	$ 16,275.00	$ -	$ 9,765.00	$ 20.00	$ 21,700.00	$ 40.00	$ 43,400.00	$ 28.00	$ 30,380.00	$ 61.50	$ 66,727.50
65	Playground Drainage - CIP	LS	1	$ 15,000.00	$ 15,000.00	$ 12,900.00	$ 12,900.00	$ -	$ 14,279.00	$ 12,000.00	$ 12,000.00	$ 10,000.00	$ 10,000.00	$ 14,000.00	$ 14,000.00	$ 14,100.00	$ 14,100.00

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
66	Picnic Tables - CIP	EA	8	$ 5,250.00	$ 42,000.00	$ 6,400.00	$ 51,200.00	$ -	$ 55,988.00	$ 6,300.00	$ 50,400.00	$ 7,000.00	$ 56,000.00	$ 7,000.00	$ 56,000.00	$ 6,873.00	$ 54,984.00
67	Picnic Tables with Umbrella hole - CIP	EA	8	$ 5,250.00	$ 42,000.00	$ 6,400.00	$ 51,200.00	$ -	$ 55,988.00	$ 6,300.00	$ 50,400.00	$ 7,000.00	$ 56,000.00	$ 7,000.00	$ 56,000.00	$ 6,873.00	$ 54,984.00
68	Picnic Table Umbrella - CIP	EA	8	$ 4,450.00	$ 35,600.00	$ 5,300.00	$ 42,400.00	$ -	$ 52,949.00	$ 5,400.00	$ 43,200.00	$ 6,000.00	$ 48,000.00	$ 6,500.00	$ 52,000.00	$ 6,500.00	$ 52,000.00
69	Benches - CIP	EA	28	$ 3,000.00	$ 84,000.00	$ 3,500.00	$ 98,000.00	$ -	$ 110,597.00	$ 3,710.00	$ 103,880.00	$ 3,500.00	$ 98,000.00	$ 4,000.00	$ 112,000.00	$ 3,900.00	$ 109,200.00
70	Trash Receptacles - CIP	EA	11	$ 2,250.00	$ 24,750.00	$ 2,800.00	$ 30,800.00	$ -	$ 35,390.00	$ 2,920.00	$ 32,120.00	$ 3,132.00	$ 34,452.00	$ 3,000.00	$ 33,000.00	$ 3,720.00	$ 40,920.00
71	Bike Racks - CIP	EA	6	$ 500.00	$ 3,000.00	$ 600.00	$ 3,600.00	$ -	$ 5,728.00	$ 940.00	$ 5,640.00	$ 600.00	$ 3,600.00	$ 1,000.00	$ 6,000.00	$ 1,000.00	$ 6,000.00
72	Standard Bollards - CIP	EA	16	$ 1,000.00	$ 16,000.00	$ 870.00	$ 13,920.00	$ -	$ 2,960.00	$ 800.00	$ 12,800.00	$ 1,000.00	$ 16,000.00	$ 800.00	$ 12,800.00	$ 1,000.00	$ 16,000.00
73	5' L Retaining Seat Stones - CIP	EA	50	$ 1,500.00	$ 75,000.00	$ 1,050.00	$ 52,500.00	$ -	$ 52,000.00	$ 860.00	$ 43,000.00	$ 1,300.00	$ 65,000.00	$ 1,500.00	$ 75,000.00	$ 1,700.00	$ 85,000.00
74	5' L Free Standing Seat Stones - CIP	EA	23	$ 1,500.00	$ 34,500.00	$ 1,050.00	$ 24,150.00	$ -	$ 23,920.00	$ 860.00	$ 19,780.00	$ 1,300.00	$ 29,900.00	$ 1,400.00	$ 32,200.00	$ 1,700.00	$ 39,100.00
75	Landscaping - CIP	LS	1	$ 75,000.00	$ 75,000.00	$ 70,000.00	$ 70,000.00	$ -	$ 69,314.00	$ 70,600.00	$ 70,600.00	$ 70,000.00	$ 70,000.00	$ 72,000.00	$ 72,000.00	$ 40,302.00	$ 40,302.00
76	Trees - CIP	EA	66	$ 750.00	$ 49,500.00	$ 600.00	$ 39,600.00	$ -	$ 38,720.00	$ 600.00	$ 39,600.00	$ 600.00	$ 39,600.00	$ 610.00	$ 40,260.00	$ 1,000.00	$ 66,000.00
77	U-3 Bermuda Solid Sod - CIP	SF	100,000	$ 0.45	$ 45,000.00	$ 0.43	$ 43,000.00	$ -	$ 42,000.00	$ 0.435	$ 43,500.00	$ 0.40	$ 40,000.00	$ 0.50	$ 50,000.00	$ 0.28	$ 28,000.00
78	Irrigation - CIP	LS	1	$ 75,000.00	$ 75,000.00	$ 113,300.00	$ 113,300.00	$ -	$ 111,521.00	$ 115,000.00	$ 115,000.00	$ 105,000.00	$ 105,000.00	$ 115,000.00	$ 115,000.00	$ 175,000.00	$ 175,000.00
79	Construction Allowance	LS	1	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00	$ 50,000.00
80	12' Square Umbrella Shade Structure - CIP	EA	1	$ 10,000.00	$ 10,000.00	$ 9,700.00	$ 9,700.00	$ -	$ 12,102.00	$ 9,000.00	$ 9,000.00	$ 9,000.00	$ 9,000.00	$ 6,600.00	$ 6,600.00	$ 7,800.00	$ 7,800.00
81	Stamped Concrete Band at Curb - CIP	SF	1,588	$ 15.00	$ 23,820.00	$ 20.00	$ 31,760.00	$ -	$ 40,406.00	$ 15.00	$ 23,820.00	$ 20.00	$ 31,760.00	$ 13.00	$ 20,644.00	$ 40.00	$ 63,520.00
TOTAL BASE BID ITEMS					**$4,152,454.50**		**$4,648,233.00**		**$4,664,496.17**		**$4,890,611.00**		**$4,941,772.00**		**$4,974,647.00**		**$5,017,459.53**

ALTERNATE BID PAY ITEMS

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
A-1	Pickleball Lighting - CIP	LS	1	$ 27,500.00	$ 27,500.00	$ 13,000.00	$ 13,000.00	$ -	$ 32,270.00	$ 33,000.00	$ 33,000.00	$ 13,400.00	$ 13,400.00	$ 20,000.00	$ 20,000.00	$ 43,733.00	$ 43,733.00
A-2a	Demo & Removal of Exsting Chain-Link Fence	LS	1	$ 7,500.00	$ 7,500.00	$ 6,900.00	$ 6,900.00	$ -	$ 3,706.00	$ 5,000.00	$ 5,000.00	$ 3,200.00	$ 3,200.00	$ 11,000.00	$ 11,000.00	$ 11,000.00	$ 11,000.00
A-2b	Tennis 10' Black Vinyl Chain Link Fence - CIP	LF	520	$ 110.00	$ 57,200.00	$ 113.00	$ 58,760.00	$ -	$ 55,068.00	$ 116.00	$ 60,320.00	$ 100.00	$ 52,000.00	$ 110.00	$ 57,200.00	$ 110.00	$ 57,200.00
A-2c	1' W. Concrete Curb (for Tennis Fence_ - CIP	LF	492	$ 20.00	$ 9,840.00	$ 30.00	$ 14,760.00	$ -	$ 3,936.00	$ 26.00	$ 12,792.00	$ 40.00	$ 19,680.00	$ 33.00	$ 16,236.00	$ 31.00	$ 15,252.00
A-3	Resurfacing - CIP	SF	12000	$ 3.00	$ 36,000.00	$ 1.50	$ 18,000.00	$ -	$ 26,640.00	$ 2.30	$ 27,600.00	$ 3.00	$ 36,000.00	$ 1.50	$ 18,000.00	$ 2.70	$ 32,400.00
A-4	Tennis Court Equipment - CIP	EA	2	$ 2,000.00	$ 4,000.00	$ 4,250.00	$ 8,500.00	$ -	$ 6,778.00	$ 3,600.00	$ 7,200.00	$ 3,000.00	$ 6,000.00	$ 5,500.00	$ 11,000.00	$ 6,000.00	$ 12,000.00
TOTAL ALTERNATE BID ITEMS					**$142,040.00**		**$119,920.00**		**$128,398.00**		**$145,912.00**		**$130,280.00**		**$133,436.00**		**$171,585.00**
TOTAL BASE & ALTERNATE BID					**$4,294,494.50**		**$4,768,153.00**		**$4,792,894.17**		**$5,036,523.00**		**$5,072,052.00**		**$5,108,083.00**		**$5,189,044.53**

Math Error
Differing Overall Base Bid Totals, Alternate Totals, and Combined Totals
Unit Cost was left blank and only Extended Cost was provided

This Bid Tabulation Sheet reflects corrected bid prices according to Bidder's Unit Cost Pricing times the estimated quantities listed in the Bid Form. Total numbers may vary from the total cost submitted by the Contractor in their Bid Form.

I, the undersigned, do hereby certify that all bids on this Bid Tabulation Sheet were reviewed and there were no irregularities in the bids not otherwise noted and that said sums are true and correct to the best of my knowledge.

Submitted By:
Geoffery Evans, Planning Design Group

Planning Design Group ● 5314 South Yale Ave., Suite 510 ● Tulsa, Oklahoma 74135 ● 918/628-1255

Regular Board of Commissioners 12. b.
Meeting Date: 07/18/2022
Bis Open
Submitted By: Kacie Eck, City Clerk
Department: City Clerk

Information
Title of Item for Agenda
Cammack Street Gravity Relief Line (Open)

Attachments
Advertisement
Specifications
Plans
Plan Holders List

PUBLISHED IN THE SHAWNEE NEWS-STAR ON
June 26, 2022 AND July 3, 2022

CAMMACK STREET GRAVITY RELIEF LINE
CITY OF SHAWNEE, OKLAHOMA

* * * * * * * * *

ADVERTISEMENT FOR BIDDERS

Notice is hereby given that the City of Shawnee will receive sealed bids at the City Hall, 16 West 9th, Shawnee, Oklahoma 74801, **"Attn: City Clerk"** up to 3:00 p.m. on Monday, July 18, 2022 and publicly read aloud at the Board Meeting being held at 6:00 p.m. on Monday, July 18, 2022 or furnishing all labor and materials and performing all work necessary for:

The project consists of complete demolition of a package lift station and installation of approximately 1,725 LF of 8" gravity sewer and other appurtenances.

Bidders must bid on all items of the contract. The whole work under this contract will be awarded as a single contract to the lowest responsible bidder for the work.

No bid may be withdrawn for at least sixty (60) days after the scheduled closing time for receipt of bids.

Plans and Specifications are on file and can be seen and obtained online at http://www.hubengineers.com or at the Broken Arrow Office of Holloway, Updike & Bellen Inc., 2001 N Willow Avenue, Broken Arrow, OK 74012; (918) 251-0717. **Payment Options: Online Download $30.00 or ½ size Paper Set $80.00,** ***none*** of which are refundable. All checks shall be made payable to Holloway, Updike & Bellen, Inc. Each proposal must be accompanied by a Bidder's Bond, or Cashier's Check upon any solvent Bank or Trust Company, payable without reserve to the City of Shawnee in an amount not less than five percent (5%) of the total amount of the bid. Bid security of the two low bidders will be retained until approval of contract and execution of satisfactory bonds by the successful bidder, or until other disposition on the bids is made. BIDDER must purchase plans and specifications from Holloway, Updike and Bellen, Inc. either directly for paper plans and specifications or through our website for download. BIDDER must be on plan holders list at Holloway, Updike and Bellen, Inc. in order to submit a bid.

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The bonds required will be a Performance Bond, a Payment Bond, and a Maintenance Bond, each in the full amount of the contract. The Authority will not accept letters of credit in lieu of any bond required herein.

A MANDATORY pre-bid conference is scheduled for 10:00 a.m. on July 7, 2022 in the Shawnee City Hall, 16 W 9th Street, Shawnee, OK 74801.

Contract to be awarded to low responsive responsible bidder.

The Owner reserves the right to waive any informalities in the bidding.

Conditional bids will not be accepted.

No bid may be withdrawn after the scheduled closing time for receipt of bids for at least Thirty (30) days. The bid may be extended for a period of 30 days by mutual agreement of the bidder and the Owner.

The attention of all bidders is called to the fact that they must meet the requirements and bid in accordance with the laws of the State of Oklahoma governing public works contracts.

This project is to be locally funded.

The bidder (Proposer) must supply all the information required by the bid and proposal form including completion of affidavits or his bid will be considered incomplete and therefore rejected.

The Owner may request of any bidder, before his bid is considered for award, that he submit a statement of facts as to his previous experience in performing work of the same character and magnitude, as to his business and technical organization, and financial resources and plant available and to be use in performing the contemplated work. Each bidder must have such information, together with a recent financial statement, available upon request.

The City of Shawnee reserves the right to evaluate bids, to reject any or all bids, and to waive any informality in any bid.

City Manager
City of Shawnee
Shawnee, Oklahoma

Specifications

For

CAMMACK STREET GRAVITY RELIEF LINE

City of Shawnee
Shawnee, Oklahoma

City of Shawnee
OKLAHOMA

Prepared by:

Holloway, Updike and Bellen
Consulting Engineers
Muskogee · Broken Arrow

REGISTERED PROFESSIONAL ENGINEER
DALE SEATON
27288
6/1/22
OKLAHOMA

Dale Seaton, P.E.
OK 27288

June, 2022
21SHAWLSDEMO

CA 219
Expires 6/30/23

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PUBLISHED IN THE SHAWNEE NEWS-STAR ON
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City Manager
City of Shawnee
Shawnee, Oklahoma

INFORMATION FOR BIDDERS

1. DEFINED TERMS.

Terms used in this Information for Bidders which are defined in the General Conditions of the Construction Contract have the meanings assigned to them in the General Conditions. The term "Successful Bidder" means the lowest, qualified, responsible Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award.

2. COPIES OF BIDDING DOCUMENTS.

2.1 Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Advertisement may be obtained from Engineer (unless another issuing office is designated in the Advertisement).

2.2 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete Bidding Documents.

2.3 Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

3. EXAMINATION OF CONTRACT DOCUMENTS AND SITE.

3.1 Before submitting a Bid, each Bidder shall (a) examine the Contract Documents thoroughly, (b) visit the site to familiarize himself with local conditions that may in any manner affect cost, progress or performance of the Work, (c) familiarize himself with federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work; and (d) study and carefully correlate Bidder's observations with the Contract Documents.

3.2 Reference is made to the Contract documents for the identification of those reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which have been relied upon by Engineer in preparing the Drawing and Specifications. Owner will make copies of such reports available to any Bidder requesting them. These reports are not guaranteed as to accuracy or completeness, nor are they part of the Contract Documents. Before submitting his Bid each Bidder will, at his own expense, make such additional investigation and tests as the Bidder may deem necessary to determine his Bid for performance of the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

3.3 On request, Owner will provide each Bidder access to the site to conduct such investigations and tests as each Bidder deems necessary for submission of his Bid.

3.4 The lands upon which the Work is to be performed, rights-of-way for access thereto and other lands designated for use by Contractor in performing the Work are identified in the General Requirements or Drawings.

3.5 The submission of a Bid will constitute an incontrovertible representation of the Bidder that he has complied with every requirement of this Article 4 and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

3.6 Information obtained from an officer, agent, or employees of the Owner, Engineer, or any other person shall not affect the risks or obligations assumed by the Contractor or relieve him from fulfilling any of the conditions of the Contract.

4. INTERPRETATIONS.

All questions about the meaning or intent of the Contract documents shall be submitted to Engineer in writing no later than four days prior to the time set for receipt of bids. Replies will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

In the event of a conflict between the specifications and the Supplemental Conditions for CWSRF Projects (Pink Sheets), the latter shall govern.

In the event of a conflict between the plans and specifications, the specifications shall govern.

5. BID SECURITY.

5.1 Bid Security shall be made payable to Owner, in an amount of five percent of the Bidder's maximum Bid price and in the form of a certified check or a Bid Bond issued by a Surety meeting the requirements of paragraph 5.1 of the General Conditions. A Bid Bond form for this purpose is provided in the Project Manual.

5.2 The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required Contract Security, whereupon it will be returned; if the Successful Bidder fails to execute and deliver the Agreement and furnish the required Contract Security with 15 days of the Notice of Award, Owner may annul the Notice of Award and the Bid Security of that Bidder will be forfeited. Attorneys-in-fact who sign Bid Bonds shall file with each bond a certified and effective dated copy of their power of attorney. The Bid Security of any Bidder whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the seventh day

after the "effective date of the Agreement" (which term is defined in the General Conditions) by Owner to Contractor and the required Contract Security is furnished or the sixty-first day after the Bid opening. Bid Security of other Bidders will be returned within seven days of the Bid opening.

6. CONTRACT TIME.

The Work shall be fully completed within ninety (90) consecutive calendar days after the date of the Notice to Proceed. Refer to the General Requirements section of the project specifications for other Project Milestone requirements.

7. LIQUIDATED DAMAGES.

Provisions for liquidated damages, if any, are set forth in the Agreement.

8. SUBSTITUTE MATERIAL AND EQUIPMENT.

The Contract, if awarded, will be on the basis of material and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or equal" items. Application for acceptance of substitute items will not be considered by Engineer until after the "Effective Date of the Agreement." The procedure for submittal of any such application by Contractor and consideration by Engineer is set forth in paragraph 6.7 of the General Conditions which may be supplemented in the General Requirements.

9. SUBCONTRACTORS AND MANUFACTURERS.

9.1 Article 6.8 of the General Conditions requires the identity of certain Subcontractors and other persons and organizations to be submitted to Owner. Bidders shall submit to Owner a list of all Subcontractors and other persons and organizations (including those who are to furnish the principal items of material and equipment) proposed for the Work. Such list shall be accompanied by evidence stating qualification for each such Subcontractor, person and organization. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, other person or organization, either may request the apparent Successful Bidder to submit an acceptable substitute. Any Subcontractor, other person or organization so listed and to whom Owner or Engineer does not make written objection prior to the giving of the Notice of Award will be considered acceptable to Owner and Engineer.

9.2 In contracts where the Contract Price is on the basis of the Cost-of-the-Work Plus a Fee, the apparent Successful Bidder, prior to the Notice of Award, shall identify in writing to Owner those portions of the Work that such Bidder proposes to subcontract and after the Notice to Award may only subcontract other portions of the Work with Owner's written Consent.

9.3 No Contractor shall be required to employ any Subcontractor, other person or organization against whom he has reasonable objection.

10. BID FORM.

10.1 The Bid Form shall be executed when submitted. Only one copy of the Bid Form is required. All bids shall be made only on the Bid Form furnished with the Specifications. All blank spaces for bid prices on each Bid Form furnished with the Specifications. All blank spaces for bid prices on each Bid Schedule upon which the Bidder is submitting a bid shall be filled in or it will be presumed that any such omitted entry is intentional, and the corresponding item is bid at no cost.

10.2 Bid Forms shall be completed in ink or by computer/typewriter.

10.3 Bids by corporations shall be executed in the corporate name by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.11.4 Bids by partnerships shall be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.

10.4 All names shall be typed or printed below the signature.

10.5 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form).

10.6 The address to which communications regarding the Bid are to be directed shall be shown.

11. SUBMISSION OF BIDS.

11.1 Bids shall be accepted at the Shawnee City Hall located at 16 West 9th, Shawnee, OK 74801 until 3:00 p.m. on July 18, 2022, and shall be included in an opaque sealed envelope, addressed to the Owner and marked on the outside as Bid for "Cammack Street Gravity Relief Line." Bids shall also be marked with the name and address of the Bidder and accompanied by the Bid Security and other required documents. The envelope shall also bear the name of the Bidder, his address and his license number, if such license is required by applicable law. If the Bid is sent through the mail or other delivery system the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face thereof. Any bid received after the time and specified will not be considered.

11.2 The following shall be submitted with and included as a part of the Bid on the forms provided or as otherwise described herein:

Bid Form
Bid Bond
ORF-413 - Business Relationships Affidavit
ORF-412 - Non Collusion Affidavit

11.3 Bidder must be on the plan holders list at Holloway, Updike and Bellen, Inc. in order to submit a bid.

12. OPENING OF BIDS.

12.1 Bids will be opened publicly unless stated otherwise in the Advertisement for Bids. When Bids are opened, they will be read aloud, and an abstract of the amounts of the base Bids and major alternates (if any) will be made available within ten days after the opening of Bids.

13. BIDS TO REMAIN OPEN.

All bids shall remain open for sixty days after the day of the Bid opening, but Owner may, in his sole discretion, release any Bid and return the Bid Security prior to that date.

14. AWARD OF CONTRACT.

14.1 Owner reserves the right to reject any and all Bids, to waive any and all informalities and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, non-responsive, conditional or unbalance Bids. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

14.2 In evaluating Bids, Owner will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements and alternates and unit prices if requested in the Bid forms. It is Owner's intent to accept alternates (if any are accepted) in the order in which they are listed in the Bid form but Owner may accept them in any order or combination.

14.3 Owner may conduct such investigations as he deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of the Bidders, proposed Subcontractors and other persons and organizations to do the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.

14.4 Owner reserves the right to reject the Bid of any Bidder who does not pass any such evaluation to Owner's satisfaction; such rejection shall not give rise to a cause of action against the Owner or Engineer, or impose a requirement upon the Owner or Engineer to divulge the information upon which such rejection is based.

14.5 If the contract is to be awarded, it will be awarded to the lowest Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of the Project. The award will be subject to Oklahoma Department of Environmental Quality approval.

14.6 If the contract is to be awarded, Owner will give the Successful Bidder a Notice of Award within forty-five days after the day of the Bid opening unless extended by mutual agreement between Owner and the Successful Bidder.

- Contractor shall submit executed Agreement and bonds within 10 days after its receipt from the Owner.
- Owner shall return executed copy of the Agreement within 15 days after its receipt from the contractor.
- Owner shall issue a Notice to Proceed within 15 days after the Owner executes the Agreement.
- Contractor shall begin construction within 10 days of the date shown on the Notice to Proceed.

14.7 Tied bids are non-restrictive: In order for a tied bid proposal to be accepted it must be lower than the sum of low separate bids.

15. PERFORMANCE AND OTHER BONDS.

Paragraph 5.1 of the General Conditions set forth Owner's requirements as to performance and other bonds. When the Successful Bidder delivers the executed Agreement to Owner it shall be accompanied by the required Contract Security. Attorneys-in-fact who sign Payment Bonds, Performance Bonds and Maintenance Bonds shall file with each bond a certified and effective dated copy of their power of attorney. The City will not accept letters of credit in lieu of any bonds required herein. The maintenance bond shall be in force one year from the completion of the work.

16. SIGNING OF AGREEMENT.

When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by at least three unsigned counterparts of the Agreement and all other Contract Documents. Within fifteen days thereafter Contractor shall sign and deliver at least three counterparts of the Agreement to Owner with all other Contract Documents attached. Within ten days thereafter Owner will deliver all fully signed counterparts to Contractor. Engineer will identify those portions of the Contract Documents not fully signed by Owner and Contractor and such identification shall be binding on all parties.

17. FEDERALLY FUNDED PROJECT REQUIREMENTS

This project is to be paid with local funds.

18. PLANS AND SPECIFICATIONS

BIDDER must purchase plans and specifications from Holloway, Updike and Bellen, Inc. either directly for paper plans and specifications or through Quest CDN for download. BIDDER must be on plan holders list at Holloway, Updike and Bellen, Inc. in order to submit a bid.

19. DESCRIPTION OF WORK

The project consists of complete demolition of a package lift station and installation of approximately 1,725 LF of 8" gravity sewer and other appurtenances.

20. PROJECT REQUIREMENTS

Work to be scheduled to avoid bypassing of raw sewage during construction.

BID FORM

OWNER: City of Shawnee
16 West 9th
Shawnee, OK 74801

PROJECT: Cammack Street Gravity Relief Line

PROJECT NO.: 21SHAWLSDEMO

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Contract Documents to complete all Work as specified or indicated in the Contact Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the Contract Documents.

2. BIDDER accepts all of the terms and conditions of the Information for Bidders, including without limitation those dealing with the disposition of Bid Security. This Bid will remain open for 60 days after the day of Bid opening. BIDDER shall sign the Agreement and submit the Contract Security and other documents required by the Contract Documents within fifteen days after the date of OWNER'S Notice of Award.

3. In submitting this Bid, the BIDDER represents, as more fully set forth in the Agreement, that:

   (a) BIDDER has examined copies of all the Contract Documents and Bidding Documents and of the following addenda:

Date	Number
_____	_____
_____	_____
_____	_____

   (Receipt of all of which is hereby acknowledged) and also copies of the Advertisement and the Information for Bidders;

   (b) BIDDER has examined the site and locality where the Work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as BIDDER deems necessary.

   (c) This Bid is genuine and not made in the interest or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or a corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for himself any advantage over any other Bidder or over OWNER.

4. In submitting this Bid, BIDDER represents that:

(a) The total bid for each Bid Schedule includes all work necessary to complete that portion of the project described in each Bid Schedule, and the total of all Bid Schedules represents the entire scope of work covered by the Contract Documents. If a particular item of work is not specifically separated as a bid item, the cost therefore is to be considered included in the bid item most nearly related.

(b) The total bid for each Bid Schedule is based on the quantities shown on the Bid Form and on the dimensions shown on the drawings where specific quantities are not itemized. When Bid Schedules are based upon unit prices, the Contract Amount will be adjusted by change order at the corresponding unit prices according to the actual quantities and measurement of the finished construction as determined by the Engineer upon completion of construction.

(c) BIDDER will complete the work for the following price(s):

BID SCHEDULE CAMMACK STREET GRAVITY RELIEF LINE CITY OF SHAWNEE				
Item No.	**Qty. & Unit**	**Description**	**Unit Cost**	**Total Cost**
1.	1 LS	Right-of-Way Clearing and Restoration _____ Dollars – per lump sum	$_____	$_____
2.	750 CY	Excavation and Backfill, Unclassified _____ Dollars – per cubic yard	$_____	$_____
3.	275 SY	Solid Slab Sod (Like Kind) _____ Dollars – per square yard	$_____	$_____
4.	800 CY	Aggregate Base Type “A” _____ Dollars – per cubic yard	$_____	$_____
5.	1,724 LF	8” PVC, SDR-35 _____ Dollars – per linear foot	$_____	$_____

BID SCHEDULE CAMMACK STREET GRAVITY RELIEF LINE CITY OF SHAWNEE				
Item No.	**Qty. & Unit**	**Description**	**Unit Cost**	**Total Cost**
6.	7 EA	4’ ID Manhole _____ Dollars – per each	$_____	$_____
7.	30 VF	4’ ID Manhole – Extra Depth _____ Dollars – per vertical foot	$_____	$_____
8.	210 LF	14” Bore with Steel Casing _____ Dollars – per linear foot	$_____	$_____
9.	8 EA	Service Connection _____ Dollars – per each	$_____	$_____
10.	1,090 SY	Concrete Pavement, Removal and Replacement _____ Dollars – per square yard	$_____	$_____
11.	1 LS	Mobilization _____ Dollars – per lump sum	$_____	$_____
12.	1 LS	Construction Staking _____ Dollars – per lump sum	$_____	$_____
13.	1 LS	Traffic Control _____ Dollars – per lump sum	$_____	$_____

BID SCHEDULE CAMMACK STREET GRAVITY RELIEF LINE CITY OF SHAWNEE				
Item No.	**Qty. & Unit**	**Description**	**Unit Cost**	**Total Cost**
14.	1 LS	Stormwater Management Plan _____ Dollars – per lump sum	$_____	$_____
15.	1 LS	Leakage Testing _____ Dollars – per lump sum	$_____	$_____
16.	1 LS	Deflection Test _____ Dollars – per lump sum	$_____	$_____
17.	1 LS	Manhole Test _____ Dollars – per lump sum	$_____	$_____
18.	1 ALLOW	Allowance Fifteen Thousand Dollars and NO/100 Dollars – Lump Sum	$ 15,000.00	$ 15,000.00
TOTAL BID: CAMMACK STREET GRAVITY RELIEF LINE _____ (in words)			$_____ (in figures)	

The Basis of Award shall be determined by the total of the Base Bid. The Owner reserves the right to award the bid to the lowest and best bid.

5. BIDDER agrees that the Work will be substantially completed within 90 consecutive calendar days after the date when the Contract Time commences to run. Refer to the General Requirements section of the project specifications for other Project Milestone requirements.

   BIDDER accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work on time.

6. The following documents are attached to and made a condition of this Bid:
   (a) Required Bid Security (5%) in the form of (Bid Bond) (Certified Check).
   (b) Other forms required by the Information to Bidders.

7. Communications from Owner to Bidder will be sent to the address below.

8. The terms used in this Bid which are defined in the General Conditions of the Construction Contract are included as part of the Contract Documents and have the meaning assigned to them in the General Conditions.

9. The following forms must be completed and submitted with the bid:

   A. Bid Form
   B. Bid Bond
   C. ORF-413 – Business Relationships Affidavit
   D. ORF-412 – Non Collusion Affidavit

10. By submitting a bid under this solicitation, the Bidder understands that the bid is subjected to the Davis-Bacon Act including prevailing wage rates and the Contract Work hours and Safety Standards Act.

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THE BIDDER SHALL COMPLETE THE FOLLOWING AS APPLICABLE:

AN INDIVIDUAL

By_____ (Individual's Name)

doing business as _____

A PARTNERSHIP

By _____ (Firm Name)

A CORPORATION

By _____ (Corporation Name)

_____ Business address: _____
(State of Incorporation) _____
_____

By _____
(Name) Phone No.: _____

_____
(Title) FAX No.: _____

Attest _____ SUBMITTED on _____, _____.
(Secretary)

(Corporate Seal)

Notes: 1. See Information for Bidders for list of items to be submitted with the bid.

BID BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, the undersigned _____ as Principal, and _____ _____ as Surety, are hereby held and firmly bound unto **City of Shawnee** as Owner in the penal sum of _____ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors, and assigns.

Signed, this _____ day of _____, _____.

The condition of the above obligation is such that whereas the principal has submitted to the **City of Shawnee** a certain Bid, attached hereto and hereby made a part hereof to enter into a contract in writing, for the _____

NOW, THEREFORE,

(a) If said Bid shall be rejected, or in the alternate,

(b) If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid,

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claim hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by an extension of the time within which the Owner may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of these are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by proper officers, the day and year first set forth above.

(SEAL)
ATTEST:

_____
Principal

_____

_____
By:
Title:

(SEAL)
ATTEST:

_____
Surety

Port

_____

_____
By:
Attorney-in-Fact

ORF-413
Business Relationships Affidavit
Revised 11/27/02

BUSINESS RELATIONSHIPS AFFIDAVIT

STATE OF _____) ss.

COUNTY OF _____)

_____, of lawful age, being first duly sworn, on oath says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any partnership, joint venture, or other business relationship presently in effect or which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

_____

_____

Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

_____

_____

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

_____

_____

(If none of the business relationships herein above mentioned exists, affiant should so state.)

_____

Affiant's Signature: _____

Subscribed and sworn to before me this _____ day of _____, 20__.

_____
Notary Public

My Commission Expires:

_____

21SHAWLSDEMO

ORF-412
Noncollusion Affidavit
Rev. 11/27/02

NONCOLLUSION AFFIDAVIT

STATE OF_____) ss.
COUNTY OF_____)

_____, of lawful age, being first duly sworn, on oath says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any government official or employee as to quantity, quality, or price in the prospective contract, or any other terms of said prospective contract; or in any discussions between bidders and any government official concerning exchange of money or other value for special consideration in the letting of a contract; that the bidder/contractor had not paid, given or donated or agreed to pay, give or donate to any officer or employee of the _____ (or other entity) any money or other thing of value, either directly or indirectly in the procurement of a contract or pursuant to this bid.

_____

Subscribed and sworn to before me this _____ day of _____,20____.

_____
Notary Public

My Commission Expires: _____

CLAIM OR INVOICE AFFIDAVIT

STATE OF_____)
)ss.
COUNTY OF_____)

The undersigned (engineer or supervisory official), of lawful age, being first duly sworn, on oath says that this (invoice, claim, or contract) is true and correct. Affiant further states that the (work, services or materials) as shown by this invoice or claim have been (completed or supplied) in accordance with the plans, specifications, orders, or requests furnished to the affiant. Affiant further states that (s)he has made no payment, given, or donated or agreed to pay, give, or donate, either directly or indirectly, to any elected official, officer, or employee of the State of Oklahoma, of money or any other thing of value to obtain payment or the award of this contract.

_____
Engineer or Other Supervisory Official

Subscribed and sworn to before me this _____ day of _____, 20___.

_____
Notary Public

My Commission Expires:

_____

APPOINTMENT OF AGENT

The City of Shawnee, hereinafter referred to as the "City" has entered into a contract with _____ _____ a Corporation, on the _____ day of _____, _____, for the sole purpose of completing Cammack Street Gravity Relief Line Project No. 21SHAWLSDEMO hereinafter referred to as the "Project". The City does hereby appoint _____ and the following:

which are subcontractors of _____, to act as "Agents" of the City. The company agrees to act as "Agent" for the City subject to the provisions of this Appointment.

Legal title to all tangible personal property purchased, and the right to direct the use of all tangible personal property rented, by the agent pursuant to this Appointment shall pass directly from vendor to the City. Agent shall designate on its purchase orders and elsewhere as appropriate when it is making purchases pursuant to this Appointment, the following legend:

_____ has been appointed agent to the City of Shawnee for the purpose of the property described herein. Upon passage of title, all of such property will be included in the project owned by the City. Title to all such property shall pass to said City from the vendor F.O.B. place specified in this purchase order. All such property is exempt from Oklahoma sales and use taxes and/or City sales taxes."

Rental agreements relating to such property shall contain suitable provisions which disclose the agent's agency and indicate that no Oklahoma sales or use tax or City sales tax is payable.

Agent agrees not to purchase or rent any tangible personal property pursuant to this Appointment unless such property is authorized for inclusion in or exclusive use in the construction of the project described above.

Agent shall be responsible in a separate capacity for payment of the purchase price or other consideration for the property purchased or rented as agent and shall not have the power to bind the City to any financial or other commitments or obligations. Agent shall hold the City harmless from any liability for, or arising out of, the purchase, rental or use of the property purchased or rented hereunder.

This Appointment shall be effective upon execution by the City acting through the City's Mayor and the agent, and shall be binding upon the successors of the parties hereto.

Executed by the undersigned Mayor, on behalf of the City, on this _____ day of _____, 20__.

CITY OF SHAWNEE

SEAL

_____ _____

(Mayor) (City Clerk)

(Revised 07/2014)

OKLAHOMA WATER RESOURCES BOARD

Supplemental Conditions

for

Projects funded from the

Clean Water State Revolving Loan Fund

RULES AND REGULATIONS

TITLE 41 - PUBLIC CONTRACT AND PROPERTY MANAGEMENT

CHAPTER 60 - OFFICE OF FEDERAL CONTRACT COMPLIANCE PROGRAMS, EQUAL EMPLOYMENT OPPORTUNITY, DEPARTMENT OF LABOR
COMPLIANCE RESPONSIBILITY FOR EQUAL EMPLOYMENT OPPORTUNITY
FINAL RULE

60–1.4 Equal opportunity clause.

(b) Federally assisted construction contracts. (1) Except as otherwise provided, each administering agency shall require the inclusion of the following language as a condition of any grant, contract, loan, insurance, or guarantee involving federally assisted construction which is not exempt from the requirements of the equal opportunity clause:

The applicant hereby agrees that it will incorporate or cause to be incorporated into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the following equal opportunity clause:

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contrator will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless

exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

(c) Subcontracts. Each nonexempt prime contractor or subcontractor shall include the equal opportunity clause in each of its nonexempt subcontracts.

(d) Incorporation by reference. The equal opportunity clause may be incorporated by reference in all Government contracts and subcontracts, including Government bills of lading, transportation requests, contracts for deposit of Government funds, and contracts for issuing and paying U.S. savings bonds and notes, and such other contracts and subcontracts as the Deputy Assistant Secretary may designate.

(e) Incorporation by operation of the order. By operation of the order, the equal opportunity clause shall be considered to be a part of every contract and subcontract required by the order and the regulations in this part to include such a clause whether or not it is physically incorporated in such contracts and whether or not the contract between the agency and the contractor is written.

(f) Adaptation of language. Such necessary changes in language may be made in the equal opportunity clause as shall be appropriate to identify properly the parties and their undertakings.

[43 FR 49240, Oct. 20, 1978, as amended at 62 FR 66971, Dec. 22, 1997]

60-4.2 Solicitations.

(a) All Federal contracting officers and all applicants shall include the notice set forth in paragraph (d) of this section and the Standard Federal Equal Employment Opportunity Construction Contract Specifications set forth in § 60-4.3 of this part in all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts to be performed in geographical areas designated by the Director pursuant to § 60-4.6 of the part. Administering agencies shall require the inclusion of the notice set forth in paragraph (d) of this section and the specifications set forth in § 60-4.3 of this part as a condition of any grant, contract, subcontract, loan, insurance or guarantee involving federally assisted construction covered by this Part 60-4.

(b) All nonconstruction contractors covered by Executive Order 11246 and the implementing regulations shall include the notice in paragraph (d) of this section in all construction agreements which are necessary in whole or in part to the performance of the covered nonconstruction

contract.

(c) Contracting officers, applicants and nonconstruction contractors shall given written notice to the Director within 10 working days of award of a contract subject to these provisions. The notification shall include the name, address and telephone number of the contractor; employer identification number; dollar amount of the contract, estimated starting and completion dates of the contract; the contract number; and geographical area in which the contract is to be performed.

(d) The following notice shall be included in, and shall be a part of, all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts in excess of $10,000 to be performed in geographical areas designated by the Director pursuant to § 60-4.6 of this part (see 41 CFR 60-4.2(a)):

Notice of Requirement for Affirmative Action To Ensure Equal Employment Opportunity (Executive Order 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority Time-tables Participation in each trade	Goals for female participation in each trade
Insert goals for each year.	Insert goals for each year.

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any).

[43 FR 49254, Oct. 20, 1978; 43 FR 51401, Nov. 3, 1978, as amended at 45 FR 65977, Oct. 3, 1980]

60-4.3 Equal opportunity clauses.

(a) The equal opportunity clause published at 41 CFR 60-1.4(a) of this chapter is required to be included in, and is part of, all nonexempt Federal contracts and subcontracts, including construction contracts and subcontracts. The equal opportunity clause published at 41 CFR 60-1.4(b) is required to be included in, and is a part of, all nonexempt federally assisted construction contracts and subcontracts. In addition to the clauses described above, all Federal contracting officers, all applicants and all nonconstruction contractors, as applicable, shall include the specifications set forth in this section in all Federal and federally assisted construction contracts in excess of $10,000 to be performed in geographical areas designated by the Director pursuant to § 60-4.6 of this part and in construction subcontracts in excess of $10,000 necessary in whole or in part to the performance of nonconstruction Federal contracts and subcontracts covered under the Executive order.

Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)

1. As used in these specifications:
   a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
   b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
   c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
   d. "Minority" includes:
      (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
      (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
      (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
      (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the

completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
    a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
    b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
    c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
    d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
    e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
    f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newpaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
    g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
    h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other

Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such

sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

(b) The notice set forth in 41 CFR 60-4.2 and the specifications set forth in 41 CFR 60-4.3 replace the New Form for Federal Equal Employment Opportunity Bid Conditions for Federal and Federally Assisted Construction published at 41 FR 32482 and commonly known as the Model Federal EEO Bid Conditions, and the New Form shall not be used after the regulations in 41 CFR Part 60-4 become effective.

[43 FR 49254, Oct. 20, 1978; 43 FR 51401, Nov. 3, 1978, as amended at 45 FR 65978, Oct. 3, 1980]

DAVIS BACON ACT REQUIREMENTS (29 CFR 5.5) (PLEASE SEE COMPLETE WAGE RATE REQUIREMENT ATTACHED)

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this contract pursuant to the provisions applicable to such assistance.

(a) Any contract in excess of $2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in Sec. 5.1.

(1) Minimum wages. (i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage

rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in Sec. 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate)determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The ***OWRB SRF*** or the ***Owner*** shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records. (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages

paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the ***Owner for transmission to the OWRB SRF***. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the ***OWRB SRF*** if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit them to the ***Owner***, as the case may be, for transmission to the ***OWRB SRF***, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the Owner.

(B) Each payroll submitted shall be accompanied by a ``Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under Sec. 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under Sec. 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the ``Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the ***CWSRF*** or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees--(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor,

Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the (write in the name of the Federal agency) may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as

a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility. (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(b) **Contract Work Hours and Safety Standards Act.** The following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Sec. 5.5(a) or 4.6 of part 4 of this title. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The ***Owner or the OWRB SRF*** shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in Sec. 5.1, the Agency Head shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Agency Head shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor

or subcontractor for inspection, copying, or transcription by authorized representatives of the ***Owner or OWRB SRF*** and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

WAGE RATE REQUIREMENTS

Notwithstanding any other provision of law and in a manner consistent with other provisions, all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part with CWSRF funds shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code. With respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code.

See attached Addendum

OTHER SUPPLEMENTAL CONDITIONS

Disadvantaged Business Enterprises (DBE)

40 CFR 33.301 Contracting with disadvantaged business enterprises and labor surplus area firms.

The SRF loan recipient and subcontractors will take all necessary affirmative steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used when possible.

DBE participation requirements apply to projects constructed with funds directly made available by the federal capitalization grant (equivalency projects).

(1) EPA and the State will negotiate a "Fair Share Objective" (which shall represent a percentage of DBE participation).

(2) When soliciting for a subcontractor (A/E or construction contractor), the loan recipient shall take the following six good faith efforts:

(A) Include qualified Small, DBE businesses on solicitation lists.

(B) Assure that Small, DBE businesses are solicited whenever they are potential sources.

(C) When economically feasible, divide total requirements into smaller tasks or quantities so as to permit maximum Small, DBE business participation.

(D) Where the requirements of the work permits, establish delivery schedules which will encourage participation by Small, DBE businesses.

(E) Use the services and assistance of the Small Business Administration, the Office of Minority Business Enterprise of the United States Department of Commerce, as appropriate.

(F) If any subcontracts are to be let, require the prime contractor or A/E to take the good faith efforts in (A) through (E) of this paragraph (2).

2. Affirmative Steps shall include:

(i) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

(ii) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

(iii) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises;

(iv) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises;

(v) Using the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce; and

(vi) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (e)(2)(i) through (v) of this section.

Completion Date

If not stated elsewhere in these specifications, the contractor shall complete work under this contract within _____ working days or calendar days. Time for completion shall begin on the 10th day after issuance of the work order, which shall consist of a written request by the engineer for the contractor to proceed with the construction of the project.

Contractor's Liability and Builders All Risk Insurance

The contractor shall furnish the following insurance when the contract is awarded:

(A) Workmen's Compensation: The contractor shall carry on his work in accordance with the requirements of the Workmen's Compensation Law of the State of Oklahoma, and shall not reject the provisions thereof during the life of the

contract. A certificate of coverage must be returned with the contract.

(B) Public Liability and Property Damage: He shall also protect himself by liability reinsurance against any and all claims for damages to persons or property which may arise out of operations under this contract, whether such operations be by himself or a subcontractor or by anyone directly employed by either of them. Certificates of such insurance shall be file with the Owner and shall be subject to its approval as to adequacy of protection. The public liability insurance shall have limits of not less than $100,000/$300,000 or an amount to be determined by OWRB and Property Damage insurance of not less than $50,000/$100,000 or an amount to be determined by OWRB shall be carried by the contractor during the life of the contract. A certificate of such coverage must be returned with the contract.

(C) Builder's Risk: Provide Builders Risk Insurance only if called for in other sections of the specifications.

Bonds

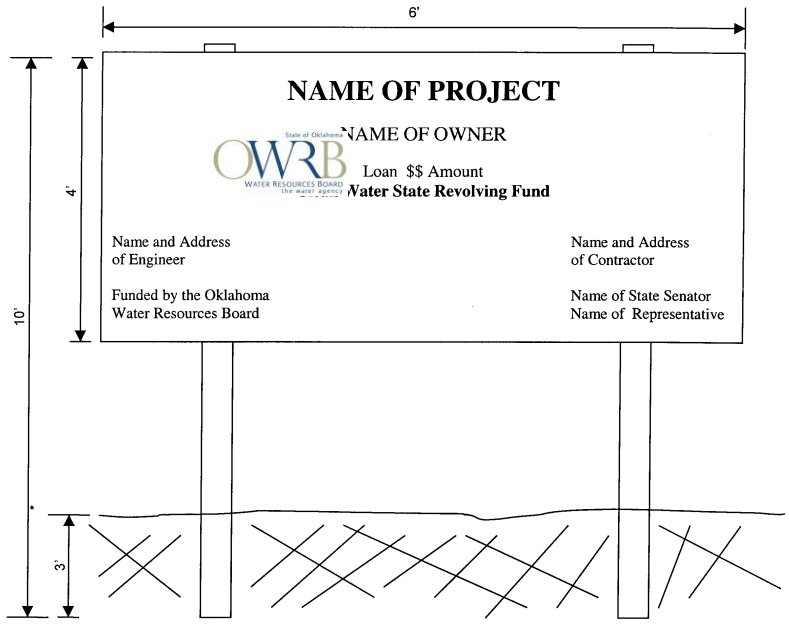
All bonds are for the full value of the contract and must be issued by a surety company authorized by the Oklahoma Insurance Commission to do business in the State of Oklahoma. They will be required after the award of the contact.

Three bonds are required for all contracts with a value exceeding Fifty Thousand Dollars ($50,000.00) They are: (1.) Performance Bond to insure the completion of the work in accordance with the contract documents in the time stipulated; (2.) Maintenance Bond to provide for defects in construction or materials for a period of one (1) year from the date of acceptance of the completed work; and (3.) Statutory Bond to assure the Owner is protected from the action of subcontractors, suppliers and employees for unpaid debts of the contractor.

Irrevocable Letters of Credit may be used as a substitute for bonds on contracts exceeding Fifty Thousand Dollars ($50,000.00). The letters of credit must be issued by a financial institution insured by the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation on forms obtained from the Owner.

PROJECT SIGN

- The general contractor shall erect and maintain for the life of the construction contract a suitable sign, 4' x 6' in size, and detailed hereon, lettered black on white background. Sign shall be professionally painted. Lettering to be appropriate size. No separate bid item. Sign shall be the general obligation of the Contractor.
- The OWRB logo is required on the project sign if the project is funded in part with CWSRF funds.
- Redwood Posts shall be 4" x 4" x 10' buried securely a minimum of 3 feet below ground.
- Sign face shall be constructed of ¾" x 4' x 6' – 5 ply Dura-plywood board & mounted to Posts with four (4) 5/8" x 6" Carriage Bolts.



Wage Rate Requirements

I. Requirements Under The Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6)
For Subrecipients That Are Governmental Entities:

The following terms and conditions specify how recipients will assist EPA in meeting its Davis-Bacon (DB) responsibilities when DB applies to EPA awards of financial assistance under the FY 2013 Continuing Resolution with respect to State recipients and subrecipients that are governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or

compliance monitoring, it may contact the State recipient. If a State recipient needs guidance, the recipient may contact Dannell Brown at brown.dannell@epa.gov or at 214-665-7279 of EPA, Region VI Grants and Audit Management Branch for guidance. The recipient or subrecipient may also obtain additional guidance from DOL's web site at http://www.dol.gov/whd/

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Continuing Resolution, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor www.wdol.gov weekly to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor www.wdol.gov on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(b) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage

determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of $2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2013 Continuing Resolution, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.dol.gov.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the

full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA , the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees--

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the

journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may by appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. **Contract Provision for Contracts in Excess of $100,000.**

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient**,** upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same

prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing hat the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicated that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence."

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor’s submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract . Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments there under by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at http://www.dol.gov/contacts/whd/america2.htm.

II. Requirements Under The Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6) For Subrecipients That Are Not Governmental Entities:

The following terms and conditions specify how recipients will assist EPA in meeting its DB responsibilities when DB applies to EPA awards of financial assistance under the FY2013 Continuing Resolution with respect to subrecipients that are not governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient for guidance. If a State recipient needs guidance, the recipient may contact Dannell Brown at brown.danell@epa.gov or at 214-665-7279, EPA Grants Management Office for guidance. The recipient or subrecipient may also obtain additional guidance from DOL's web site at http://www.dol.gov/whd/

Under these terms and conditions, the subrecipient must submit its proposed DB wage determinations to the State recipient for approval prior to including the wage determination in any solicitation, contract task orders, work assignments, or similar instruments to existing contractors.

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Continuing Resolution, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients must obtain proposed wage determinations for specific localities at www.wdol.gov. After the Subrecipient obtains its proposed wage determination, it must submit the wage determination to **INSERT STATE CONTACT NAME, EMAIL, and TELEPHONE NUMBER** for approval prior to inserting the wage determination into a solicitation, contract or issuing task orders, work assignments or similar instruments to existing contractors (ordering instruments unless subsequently directed otherwise by the State recipient Award Official.

(b) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor www.wdol.gov. on a weekly basis to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor www.wdol.gov on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(c) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of $2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2013 Continuing Resolution, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland

Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.dol.gov.
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(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient(s) to the State award official. The State award official will transmit the report, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the and the subrecipient(s) do not agree on the proposed classification and wage rate

(including the amount designated for fringe benefits, where appropriate), the award official shall refer the request, and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s) shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of

the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the

Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees--

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee

listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may by appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. **Contract Provision for Contracts in Excess of $100,000.**

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient shall upon the request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (a)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the EPA, the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification

(a). The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicated that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence."

(c). The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments there under by contractors and subcontractors who claim credit for fringe benefit contributions.

(d). The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e). Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at http://www.dol.gov/whd/america2.htm.

NOTICE OF AWARD

TO: _____
_____
_____

PROJECT DESCRIPTION: Cammack Street Gravity Relief Line

PROJECT NO.: 21SHAWLSDEMO

The OWNER has considered the bid submitted by you for the above described WORK in response to its Advertisement for Bids dated the _____ day of _____, _____.

You are hereby notified that your BID has been accepted for items in the amount of $_____.

You are required by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR'S PERFORMANCE BOND, PAYMENT BOND, AND CERTIFICATES OF INSURANCE within fifteen (15) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said BONDS within fifteen (15) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER. Dated this___ day of_____, 20__.

OWNER: CITY OF SHAWNEE, SHAWNEE, OKLAHOMA

By: _____
Andrea Weckmueller-Behringer
City Manager

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged.

By: _____

Title:_____

this the _____ day of_____, ____.

AGREEMENT

OWNER: City of Shawnee
16 W 9th
Shawnee, OK 74801

PROJECT: Cammack Street
Gravity Relief Line

CONTRACTOR:

PROJECT NO: 21SHAWLSDEMO

THIS AGREEMENT is dated as of the _____day of _____, _____ by and between the OWNER and CONTRACTOR each above identified and collectively referred to as the Parties.

WITNESSETH: That for and in consideration of the payments, covenants and agreements stated herein, the Parties agree as follows:

Article 1. WORK.

CONTRACTOR shall complete all work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Article 2. CONTRACT TIME.

2.1 The Work shall be fully completed within 90 consecutive calendar days after the date of the Notice to Proceed. Refer to the General Requirements section of the project specifications for other Project Milestone requirements.

2.2 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that the OWNER will suffer financial loss if the Work is not substantially complete within the time specified in Paragraph 2.1 above, plus any extensions thereof allowed in accordance with the General Conditions. They also recognize the delays, expense and difficulties involved with a legal or arbitration preceding the actual loss suffered by the OWNER if the Work is not substantially complete on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER **Two Thousand Dollars ($2,000.00)** for each calendar day that expires after the time specified in paragraph 2.1 for substantial completion until the Work is fully complete.

Article 3. CONTRACT PRICE.

3.1 OWNER shall pay CONTRACTOR for performance of the Work in accordance with the Contract Documents in the amount of $_____.

Article 4. PAYMENT PROCEDURES.

CONTRACTOR shall submit Applications for Payment in accordance with the General Conditions. Applications for payment will be processed by the OWNER as provided in the General Conditions.

4.1 PROGRESS PAYMENTS: OWNER will make progress payments on the basis of the CONTRACTOR'S Applications for Payment as recommended by the CITY ENGINEER, on or about the first day of each month during construction as provided below. All progress payments will be on the basis of the progress of the Work measured by the schedule of values.

4.1.1 Progress payments will be in an amount equal to 95 percent of the Work completed and 95 percent of materials and equipment not incorporated in the Work but delivered and suitably stored, less the aggregate of payments previously made.

4.2 Final Payment. Upon final completion and acceptance of the Work in accordance with paragraph 19.5 of the General Conditions, OWNER will pay the remainder of the Contract Price as recommended by the CITY ENGINEER.

Article 5. CONTRACTOR'S REPRESENTATIONS.

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations.

5.1 CONTRACTOR has familiarized himself with the nature and extent of the Contract Documents, Work locality, and with all local conditions and federal, state and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Work.

5.2 CONTRACTOR has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which were relied upon by the ENGINEER in the preparation of the Drawings and Specifications and which have been identified in the Contract Documents.

5.3 CONTRACTOR has made or caused to be made examinations, investigations and tests and studies of such reports and related data as he deems necessary for the performance of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports or similar data are or will be required by CONTRACTOR for such purposes.

5.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.

Article 6. CONTRACT DOCUMENTS.

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR are attached to this Agreement, made a part hereof and consist of the following:

6.1 This Agreement

6.2 Exhibits to this Agreement.

6.3 Performance, Maintenance and Payment Bonds.

6.4 Notice of Award and Notice to Proceed.

6.5 General Conditions

6.6 Supplemental General Conditions

6.7 ODEQ Supplemental Conditions (Pink Sheets)

6.8 Technical Specifications bearing the title Cammack Street Gravity Relief Line and consisting of divisions and pages as listed in table of contents thereof.

6.9 Drawings bearing the title Cammack Street Gravity Relief Line or as elsewhere described in the Contract Documents.

6.10 Addenda numbers _____ to _____, inclusive.

6.11 CONTRACTOR'S Bid

6.12 Any Written Amendment or Work Directive Change, including Change Orders, duly delivered after execution of Agreement.

The Contract Documents may only be altered, amended or repealed by a Written Amendment or Work Directive Change.

Article 7. MISCELLANEOUS.

7.1 Terms used in this Agreement which are defined in the General Conditions shall have the meanings indicated in the General Conditions.

7.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless

specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

7.3 OWNER and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

7.4 The Contractor has reviewed and understands the Davis Bacon Act and prevailing wage rate requirements and will provide any further verified information, certification or assurance of compliance as may be required by the Owner.

7.5 Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner to recover as damages against the Contractor any loss, expense or cost (including without limitation attorney's fees) incurred by the Owner resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Owner). While the Contractor has no direct contractual privity with the State, as a lender to the Owner for the funding of its project, the Owner and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

7.6 The Contractor hereby represents and warrants to and for the benefit of the Owner that: The Contractor has reviewed and understands the Davis Bacon Act and prevailing wage rate requirements and will provide any further verified information, certification or assurance of compliance as may be required by the Owner.

The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement in 6 counterparts each of which shall be deemed an original on the date first above written. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR.

OWNER: **CITY OF SHAWNEE**

By_____
(Chairman)

(SEAL)

ATTEST_____
(Secretary)

Address for giving notices:

City of Shawnee
16 W 9th
Shawnee, Oklahoma 74801

CONTRACTOR:

_____
By:
Title:

(SEAL)

ATTEST:_____
Secretary

Address for giving notices:

_____
_____
_____
( )____-_____, FAX ( )_____-_____

ORF-417

CERTIFICATE OF APPROVAL

I, the undersigned _____ the duly authorized and acting legal representative of _____, _____ County Oklahoma, do hereby certify as follows:

I have examined the construction contract between the contractor, _____ _____ _____ and the above named entity, and the surety bonds given by the contractor in connection with the performance of said contract, and the manner of execution of the contract and surety bonds; and I am of the opinion that each of the aforesaid agreements has been duly executed by the proper parties thereto, acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named therein; and that the foregoing contract and surety bonds constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

Dated this _____ day of _____, 20__.

_____
Attorney

_____County, Oklahoma

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That we,_____, hereinafter called "Principal" and the_____ a Corporation authorized to do business in the State of Oklahoma, hereinafter called "Surety", are held and firmly bound unto the City of Shawnee, Shawnee, Oklahoma, in the penal sum of _____ in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of the Forgoing Obligation is Such That Whereas, the said Principal has on the _____ day of _____, ____ entered into a written CONTRACT with the City of Shawnee, Shawnee, Oklahoma, for the construction of Cammack Street Gravity Relief Line according to the PLANS and SPECIFICATIONS attached to said CONTRACT, which are by reference thereto made a part of this BOND.

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertaking, covenants, terms conditions, and Contracts of said Contract during the original term thereof, and any extensions thereof which may be granted by Owner, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under such Contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void: otherwise to remain in full force and effect.

PROVIDED FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder of the SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the CONTRACT or to the WORK or to the SPECIFICATIONS.

PROVIDED FURTHER, that no final settlement between the Owners and the Principal shall abridge the right of any other claimant hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in 6 counterparts, each of which shall be deemed an original, this the _____ day of _____, _____.

(SEAL)
ATTEST:

_____
Company Name

_____ _____
Secretary By:
Title:

(SEAL)
ATTEST:

_____
Surety

_____ _____
Witness By:
Attorney-in-Fact

Bond Number: _____

Surety Name: _____
Address: _____
City, State, Zip _____
Phone Number: _____
FAX Number: _____

NOTE: Date of Bond must not be prior to date of the Contract for which it is given.

STATUTORY BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, hereinafter called "Principal" and the_____ a Corporation authorized to do business in the State of Oklahoma, hereinafter called "Surety", are held and firmly bound unto the City of Shawnee of Shawnee, Oklahoma, in the penal sum of _____ in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of the Forgoing Obligation is Such That Whereas, the said Principal has on the _____ day of _____,_____ entered into a written CONTRACT with the City of Shawnee, Shawnee, Oklahoma, for the construction of Cammack Street Gravity Relief Line, according to the PLANS and SPECIFICATIONS attached to said CONTRACT, which are by reference thereto made a part of this BOND.

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firm subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for material, lubricants, oil, gasoline, coal, coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such works, and all insurance premiums on said work, and all labor, performed in such works whether by subcontractor or otherwise then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder of the SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the CONTRACT or to the WORK or to the SPECIFICATIONS.

PROVIDED FURTHER, that no final settlement between the Owners and the Principal shall abridge the right of any other claimant hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in 6 counterparts, each of which shall be deemed an original, this the _____ day of _____, _____.

(SEAL)
ATTEST:

_____
Company Name

_____ _____
Secretary By:
Title:

(SEAL)
ATTEST:

_____
Surety

_____ _____
Witness By:
Attorney-in-Fact

Bond Number: _____

Surety Name: _____
Address: _____
City, State, Zip _____
Phone Number: _____
FAX Number: _____

NOTE: Date of Bond must not be prior to date of the Contract for which it is given.

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That we_____ as Principal, and _____ _____ as Surety, are held and firmly bound unto THE CITY OF SHAWNEE of Shawnee, Oklahoma, in the full and just sum of _____ Dollars ($____ _____), for the payment of which, will and truly to be made, we, and each of us, bind ourselves, our heirs, executors and assigns, themselves, and its successors and assigns, jointly and severally, firmly by these presents.

Dated this _____day of_____A.D., 20__.

The conditions of the obligation is for the maintenance of Wastewater System Improvements in the City of Shawnee described as Cammack Street Gravity Relief Line.

The conditions of this obligation are such that, whereas, said Principal has by certain CONTRACT between _____ and the CITY OF SHAWNEE, dated the _____day of_____ 20___, agreed to construct in the City of Shawnee, said_____in exact accordance with the BID of such principal and according to certain PLANS and SPECIFICATIONS heretofore made, adopted, and placed on file in the office of the Secretary of the City of Shawnee of Shawnee, Oklahoma, and to maintain the said Improvement in good condition for a period of one (1) year from and after the completion and acceptance of said improvements, then this obligation to be void; otherwise to remain in full force and effect.

It is further agreed that if the said Principal or Surety herein shall fail to maintain said Improvements in good condition for the said period of one (1) year, and at any time repairs shall be necessary, that the cost of making said repairs shall be determined by the City of Shawnee, or some person or persons designated by them to ascertain the same, and if, upon thirty (30) days notice, the said amount ascertained, shall not be paid by the Principal or Surety herein, or if necessary repairs are not made, that said amount shall become due upon the expiration of the thirty (30) days, and suit may be maintained to recover the amount so determined in any Court of competent jurisdiction. And that the amount so determined shall be conclusive upon the parties as to the amount due on this Bond for the repair or repairs included therein, and that the cost of all repairs shall be so determined from time to time during the life of this Bond, as the condition of the Improvements may require.

IN WITNESS WHEREOF, this instrument is executed in 6 counterparts, each of which shall be deemed an original, this the _____ day of _____, _____.

(SEAL)
ATTEST:

_____
Company Name

_____
Secretary

_____
By:
Title:

(SEAL)
ATTEST:

_____
Surety's Name

_____
Witness

_____
By:
Attorney-in-Fact

Bond Number: _____

Surety Name: _____
Address: _____
City, State, Zip _____
Phone Number: _____
FAX Number: _____

NOTE: Date of Bond must not be prior to date of the Contract for which it is given.

NOTICE TO PROCEED

DATE:

PROJECT: Cammack Street Gravity Relief Line
Shawnee, Oklahoma

OWRB PROJECT NO: 21SHAWLSDEMO

TO:

You are hereby notified to commence work on the _____ day of _____, 20__ in accordance with the Agreement dated _____, 20___.

The work shall be substantially completed within 90 consecutive calendar days. The date of completion is therefore the ____ day of _____, 20__.

CITY OF SHAWNEE (Owner)

BY: _____
Andrea Weckmueller-Behringer
City Manager

Receipt of the above NOTICE TO PROCEED is hereby acknowledged

BY: _____

_____,
(Title)

This the _____ day of _____, 20__.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

EJCDC®
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

Issued and Published Jointly by

ACEC
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ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

National Society of Professional Engineers®

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.

3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

5. *Bidder*—An individual or entity that submits a Bid to Owner.

6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.

7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.

8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.

9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer

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has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5101 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.

13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.

14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .

15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.

16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.

17. *Cost of the Work*—See Paragraph 13.01 for definition.

18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.

19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.

20. *Engineer*—The individual or entity named as such in the Agreement.

21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.

22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.

23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

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24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.

26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.

27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.

28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.

29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.

32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.

33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.

34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.

35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

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37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.

38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.

39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.

40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.

42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.

43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.

44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.

45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

46. *Unit Price Work*—Work to be paid for on the basis of unit prices.

47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

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48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 *Terminology*

A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives*:

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.

C. *Day*:

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*:

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents; or

b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).

E. *Furnish, Install, Perform, Provide*:

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

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3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.

C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.

B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;

2. a preliminary Schedule of Submittals; and

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3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.

B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.

C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or

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computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.

C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.

D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

A. Standards Specifications, Codes, Laws and Regulations

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*:

1. *Contractor's Verification of Figures and Field Measurements*: Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict,

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error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents*: If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*:

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.

B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.

C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

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3.05 *Reuse of Documents*

A. Contractor and its Subcontractors and Suppliers shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or

2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

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2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.

B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;

2. abnormal weather conditions;

3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and

4. acts of war or terrorism.

D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.

E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

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G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*:

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part

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by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

B. *Removal of Debris During Performance of the Work*: During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning*: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;

2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and

3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

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5.04 *Differing Subsurface or Physical Conditions*

A. *Notice by Contractor*: If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or

2. is of such a nature as to require a change in the Drawings or Specifications; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. *Engineer's Review*: After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Possible Price and Times Adjustments*:

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;

b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

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c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:

a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or

b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or

c. Contractor failed to give the written notice as required by Paragraph 5.04.A.

3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

A. *Contractor's Responsibilities*: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;

b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;

c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and

d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.

B. *Notice by Contractor*: If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after

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becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

C. *Engineer's Review*: Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

D. *Owner's Statement to Contractor Regarding Underground Facility*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. *Possible Price and Times Adjustments*:

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

    a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;

    b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;

    c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and

    d. Contractor gave the notice required in Paragraph 5.05.B.

2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

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5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and

2. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

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F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.

H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

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ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.

B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.

D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.

E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.

F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.

B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is

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maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.

F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.

H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.

I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.

J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

A. *Workers' Compensation*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.

2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).

3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

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4. Foreign voluntary worker compensation (if applicable).

B. *Commercial General Liability—Claims Covered*: Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:

1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.

2. claims for damages insured by reasonably available personal injury liability coverage.

3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

C. *Commercial General Liability—Form and Content*: Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:

1. Products and completed operations coverage:

a. Such insurance shall be maintained for three years after final payment.

b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.

2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.

3. Broad form property damage coverage.

4. Severability of interest.

5. Underground, explosion, and collapse coverage.

6. Personal injury coverage.

7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.

8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.

D. *Automobile liability*: Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.

E. *Umbrella or excess liability*: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.

F. *Contractor's pollution liability insurance*: Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result

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of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.

H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.

I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:

1. include at least the specific coverages provided in this Article.

2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.

3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.

4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.

5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.

J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

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6.04 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."

2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.

3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.

4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

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5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).

6. extend to cover damage or loss to insured property while in transit.

7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.

8. allow for the waiver of the insurer's subrogation rights, as set forth below.

9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.

10. not include a co-insurance clause.

11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.

12. include performance/hot testing and start-up.

13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.

B. *Notice of Cancellation or Change*: All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.

C. *Deductibles*: The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.

D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.

E. *Additional Insurance*: If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.

F. *Insurance of Other Property*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

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6.06 *Waiver of Rights*

A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.

D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the

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policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.

C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and

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guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 *"Or Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;

3) it has a proven record of performance and availability of responsive service; and

4) it is not objectionable to Owner.

b. Contractor certifies that, if approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times; and

2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.

C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

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D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.

E. *Treatment as a Substitution Request*: If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 *Substitutes*

A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

a. shall certify that the proposed substitute item will:

1) perform adequately the functions and achieve the results called for by the general design,

2) be similar in substance to that specified, and

3) be suited to the same use as that specified.

b. will state:

1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,

2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.

c. will identify:

1) all variations of the proposed substitute item from that specified, and

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2) available engineering, sales, maintenance, repair, and replacement services.

d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.

C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.

F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.

B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.

C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.

D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

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E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.

F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.

G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.

I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.

J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.

K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.

L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.

N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

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O. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor

2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

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7.09 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. all persons on the Site or who may be affected by the Work;

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2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.

D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or

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exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements*:

1. Before submitting a Shop Drawing or Sample, Contractor shall have:

a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

B. *Submittal Procedures for Shop Drawings and Samples*: Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings*:

a. Contractor shall submit the number of copies required in the Specifications.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to

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provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples*:

   a. Contractor shall submit the number of Samples required in the Specifications.

   b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Other Submittals*: Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.

D. *Engineer's Review*:

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.

3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.

5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.

6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.

7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

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8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures*:

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal;

6. the issuance of a notice of acceptability by Engineer;

7. any inspection, test, or approval by others; or

8. any correction of defective Work by Owner.

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D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.

B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.

B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop

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Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.

C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

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8.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:

1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;

2. an itemization of the specific matters to be covered by such authority and responsibility; and

3. the extent of such authority and responsibilities.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner for whom the Owner is responsible causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.

C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

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D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.

B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.

C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

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9.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.

B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during

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or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.

B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.

C. Engineer's authority as to Change Orders is set forth in Article 11.

D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

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B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

1. *Change Orders*:

a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.

b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.

2. *Work Change Directives*: A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an

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adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.

B. An adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on

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the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.04.C.2.a and 11.04.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.

B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

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the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures*: Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.

2. *Engineer's Action*: Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

3. *Binding Decision*: Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

B. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders covering:

1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;

3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and

4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

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B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12 – CLAIMS

12.01 *Claims*

A. *Claims Process*: The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:

1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;

2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and

3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.

B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.

D. *Mediation*:

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.

2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim

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submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.

E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.

F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:

1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable

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thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

    a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

    b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

    c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

    d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

    e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

    f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes

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other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded*: The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*: When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

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B. *Cash Allowances*: Contractor agrees that:

1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.

E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;

2. there is no corresponding adjustment with respect to any other item of Work; and

3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

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ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.

B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:

1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;

2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;

3. by manufacturers of equipment furnished under the Contract Documents;

4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and

5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.

F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

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cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

A. *Contractor's Obligation*: It is Contractor's obligation to assure that the Work is not defective.

B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.

C. *Notice of Defects*: Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.

D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.

E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

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B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.

C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.

1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.

2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will

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include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

A. *Basis for Progress Payments*: The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. *Applications for Payments*:

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications*:

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

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a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or

b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

a. to supervise, direct, or control the Work, or

b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or

e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:

a. the Work is defective, requiring correction or replacement;

b. the Contract Price has been reduced by Change Orders;

c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

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e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*:

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner*:

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;

c. Contractor has failed to provide and maintain required bonds or insurance;

d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;

f. the Work is defective, requiring correction or replacement;

g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

h. the Contract Price has been reduced by Change Orders;

i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;

j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;

k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

l. there are other items entitling Owner to a set off against the amount recommended.

2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount

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remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

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E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.

2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*:

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of

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inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

   a. all documentation called for in the Contract Documents;

   b. consent of the surety, if any, to final payment;

   c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

   d. a list of all disputes that Contractor believes are unsettled; and

   e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance*:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work*: The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due*: Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation,

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including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.

B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such other adjacent areas;

2. correct such defective Work;

3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

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E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);

2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;

3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or

4. Contractor's repeated disregard of the authority of Owner or Engineer.

B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:

1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and

2. enforce the rights available to Owner under any applicable performance bond.

C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.

D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses,

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and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.

G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and

3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for

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expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

A. *Disputes Subject to Final Resolution*: The following disputed matters are subject to final resolution under the provisions of this Article:

1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and

2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.

B. *Final Resolution of Disputes*: For any dispute subject to resolution under this Article, Owner or Contractor may:

1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or

2. agree with the other party to submit the dispute to another dispute resolution process; or

3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

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18.04 *Limitation of Damages*

A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

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SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Contract (EJCDC C-700) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in the Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract have the meanings assigned to them in the General Conditions.

SC-1.19 Engineer – The person, firm or corporation with whom the OWNER has entered into an Agreement to provide engineering related services such as design of certain public improvements.

SC-2.02 Amend the first sentence of paragraph 2.02 A to read as follows: "Owner shall furnish to Contractor up to three (3) copies of the Contract Documents,----"

SC-5.01 Performance and Other Bonds

Amend the first sentence of paragraph 5.01 of the General Conditions to read as follows:

> "CONTRACTOR shall furnish Performance, Payment and Maintenance Bonds,--" and as so amended paragraph 5.01 remains in effect.

SC-5.04 Add the following new paragraph immediately after paragraph 5.034.B:

C. The limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide the following coverage's for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, etc.-The Contractor shall also secure, pay for, and maintain in full force and effect for the duration of the contract, complete Worker's Compensation Insurance and shall furnish a Certificate of Insurance to the Engineer before execution of the Contract.

   All compensation insurance policies shall bear an endorsement or shall have attached a rider whereby it is provided that, in the event of expiration or proposed cancellation of such policies for any reason, the OWNER shall be notified by registered mail not less than 30 days before expiration or cancellation is effective.

2. Contractor's General Liability under paragraph 5.04.A.3 through A.6 of the General Conditions, which shall include completed operations and product liability coverage's and eliminate the exclusion with respect to property under the care, custody and control of Contractor:

a.	General Aggregate (except products – completed operations)	$1,000,000
b.	Products – Completed Operation Aggregate	$-0-
c.	Personal and Advertising Injury (per person/organization)	$1,000,000
d.	Each Occurrence (bodily injury and property damage)	$1,000,000
e.	Excess Liability	
	General Aggregate	$1,000,000
	Each Occurrence	$1,000,000

3. Automobile Liability under paragraph 5.04.A.6 of the General Conditions

a.	Bodily Injury	
	Each Person	$1,000,000
	Each Accident	$1,000,000
b.	Property Damage	
	Each Accident	$ 500,000
	Or	
c.	Combined Single Limit (bodily injury and property damage):	$1,000,000

4. The Contractual Liability coverage required by paragraph 5.04.B.4 of the General Conditions shall provide coverage for not less than the following amounts.

a.	Bodily Injury:	
	Each Accident	$1,000,000
	Annual Aggregate	$1,000,000
b.	Property Damage:	
	Each Accident	$1,000,000
	Annual Aggregate	$1,000,000

SC-5.06 Property Insurance – Delete paragraph 5.06, 5.07 and 5.08 in its entirety.

SC-6.08 Permits – Add the following language to the end of paragraph 6.08 of the General Conditions: The Contractor is required to obtain a Building Permit from the City of Muskogee for this project. There will be no charge for obtaining this "Permit".

SC-6.10 Amend the first sentence in paragraph 6.10.A to read as follows: "The OWNER qualifies for state and local sales tax exemption in the purchase of certain materials and equipment. The City will appoint the Contractor and his subcontractors as a special purchasing agent of the City. Refer to the "Appointment of Agent" form in the Specifications for limitations and exclusions".

SC-12.03 Time Extensions – The General Conditions refer to abnormal weather conditions in Section 12.03.

"12.03 Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work

as contemplated by Article 7, fires, floods, epidemics, **abnormal weather conditions** or acts of God. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR."

The determination and extension of the contract time with regard to weather conditions shall be made in accordance with Section 108.07 of the Supplement to 1988 Standard for Highway Construction, 1999 Edition.

Abnormal Weather Conditions – Shall be defined as wet or cold weather condition that exceed the normal adverse weather days. A normal adverse weather day means adverse weather which, regardless of its severity is to be reasonability expected for that particular place at the particular time of the year. These days have been established in ODOT's 1999 Standard Specifications in section 108.07. The adverse weather days for Division I Headquarters for a given month is shown in the following table:

NORMAL ADVERSE WEATHER DAYS – DIVISION ONE, 1999

Month	Avg. Weather Days	Month	Avg. Weather Days
January	8	July	2
February	6	August	2
March	6	September	3
April	4	October	3
May	4	November	5
June	3	December	7

ODOT defines adverse weather days as follows:

"Actual adverse weather days are those days meetings one or more of the criteria in "A", "B", "C" and "D" below. Time extension for days meeting more than one criterion will take into consideration only that criterion having the greatest impact.

Those actual adverse weather days covered by criterion "A", "B", or "C" when they occur (except prior to mobilization or during suspension for other reasons) or their impact or contract completion. However, those days covered by criterion "D" will be subject to the limitations as noted.

A. Days whose maximum temperature is 32°F or less – one full day allowed
B. Days whose minimum temperature is 32°F or less, but whose maximum temperature is over 32°F – one half day allowed.
C. Days when ½ inch or more precipitation (rain or snow equivalent) occurs – one full day allowed.

D. Days when weather related conditions existing which prohibit proper performance of work as specified – one full day allowed. Allowance for such days will be subject to the work which is being delayed, being critical to timely contract completion and the Contractor making every reasonable effort to minimize the adverse impact of the conditions."

SC14.10 – Add the following Article 14:

The OWNER will retain 5% of the work completed and materials stored until the completion of the work.

SECTION 01300
SUBMITTALS

PART 1 - GENERAL

1.1 CONSTRUCTION SCHEDULE

A. Submit an initial construction schedule for review by the Engineer. Submit periodic updates as necessary to reflect any deviations of actual progress from initial schedule.

B. Prepare schedule in format approved by the Engineer and compatible with complexity of Project to illustrate the relationship of major work activities.

C. Minimum requirements will be horizontal bar chart on monthly time scale, with separate activities conforming to major divisions of the Specifications. Projected percentage completion of each activity and cumulative total of all activities should be shown for the first day of each month throughout the projected Contract duration.

D. Progress Payments may be with held until the Contractor submits a schedule that truly represents the current status of the project.

1.2 INSURANCE CERTIFICATES

A. Submit updated certificates as necessary to verify current coverage.

1.3 PROJECT DATA SUBMITTAL SCHEDULE

A. List all anticipated submittals of project data as required by the Contract Documents and such additional data as considered necessary by the Contractor. Show proposed submittal dates for each so that Engineer may schedule timely review of submittals. Update monthly to reflect current status.

1.4 SCHEDULE OF VALUES

A. Where payment is to be based on unit bid prices, correlate schedule of values with bid items. Where payment is to be based on fixed price, correlate schedule of values with Divisions and Sections of Specifications. If separate payment is to be requested for materials suitably stored but not installed, segregate delivered costs, including taxes from installation costs including overhead and profit.

PART 2 - SHOP DRAWINGS, SAMPLES AND PRODUCT DATA

2.1 GENERAL - Submittals on component parts forming a system, or that are interrelated, shall be submitted at one time as a single submittal in order to demonstrate that the items have been properly coordinated and will function as a unit.

2.2 SHOP DRAWINGS - Identify details by reference to sheet and detail numbers shown on

Contract Drawings. Use same symbols wherever practicable. Reproductions of Contract Drawings are acceptable as shop drawings only when specifically authorized in writing by the Engineer.

2.3 SAMPLES - Includes all required physical examples to illustrate materials, equipment or workmanship, which establish standards by which completed work is judged. Must be of sufficient size and clarity, and in sufficient quantity to clearly illustrate functional characteristics and full range of colors, patterns, textures or other properties, which will be actually produced.

2.4 PRODUCT DATA - Includes manufacturer's schematic drawings, catalog sheets, brochures, diagrams, schedules, performance charts, illustrations, test reports, certificates of compliance, and other descriptive data not included on shop drawings. Modify standard descriptive data to delete information, which is not applicable, and clearly identify pertinent data.

2.5 SUBMISSION REQUIREMENTS - Submittals shall be made with a letter of transmittal to the Engineer by the Contractor, and **not** by subcontractors, suppliers or manufacturers.

A. Submit an electronic copy of each submittal, size not to exceed 11" x 17".

B. Identify all submittals with the following information, as applicable:

Project title and Engineer's project number.
Name of Contractor, Engineer, originating subcontractor or supplier.
Submittal date, and all revision dates.
Identify each product or material submittal by reference to specification section and page no., drawing no., or any other contract document reference applicable thereto.
Applicable conformance standards.

Include certification of Contractor review and conformity to contract requirements. Identify any deviations from Contract Documents. Provide 3" x 3" minimum space for Engineer's review stamp.

2.3 TAXES - Refer to Supplemental Conditions for responsibilities.

PART 3 - PROJECT RECORD DOCUMENTS

3.1 MAINTENANCE OF DOCUMENTS - Maintain at jobsite one record copy of Contract Drawings, Specifications, Addenda, approved Shop Drawings, Change Orders, other modifications to the Contract, field test records and other approved documents submitted by Contractor in compliance with specification requirements.

A. Maintain documents at the project apart from documents used for construction. Do not use record documents for construction purposes. Maintain documents in clean, legible condition. Make documents available at all times for inspection of the Engineer and Owner.

3.2 RECORDING - Label each document "PROJECT RECORD COPY" in 2" high printed letters. Keep record documents current. Do not permanently conceal any work until required information

has been recorded.

3.3 CONTRACT DRAWINGS - Legible mark most appropriate drawing to record, where applicable:

- Depths of various elements of foundation in relation to first floor level.
- Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
- Location of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of structure.
- Field changes of dimension and detail made during construction process.
- Changes made by Change Order or Field Order.
- Details not on original Contract Drawings.
- Any change in location of facilities.

3.4 SPECIFICATIONS AND ADDENDA - Legibly mark up each Section to record:

-Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
-Changes made by Change Order or Field Order.
-Other matters not originally specified.

3.5 SHOP DRAWINGS - Maintain as record drawings. Legibly annotate shop drawings to record changes made after review. Use red felt tip marking pen for all recording.

3.6 SUBMITTALS- At completion of project, deliver record documents to the Engineer. Accompany submittal with transmittal letter, in duplicate, containing:

-Date, project title and number.
-Contractor's name and address.
-Title and number of each record document.
-Certification that each document as submitted is complete and accurate.
-Signature of Contractor or his authorized representative.

END OF SECTION

SECTION 01400
QUALITY CONTROL BY CONTRACTOR

PART 1 - TESTS AND INSPECTIONS

1.1 GENERAL - Refer to General Conditions, Article 14

A. The Contractor will employ and pay for the services of a qualified independent testing consultant, approved by the Owner and Engineer, to perform specified testing services for the following:

Soils Compaction Control
Cast-In-Place Concrete
Concrete Pavement
Asphalt Paving

B. Refer to the sections above for specific requirements concerning compaction density, concrete strength and other in place strength requirements. Testing not specified herein will be done at the expense on the Owner.

C. The Contractor will arrange for the performance, and pay all costs in connection therewith, all other tests and inspections required by the Contract Documents. Independent consultants retained by the Contractor, not by the Contractor himself, will perform tests.

D. Other testing may be required by the contractor that is not covered in the section, such a paint thickness, pressure testing of water/sewer lines, etc. These tests are considered as incidental to the project. The contractor shall cover the cost associated with these testing requirements in the bid item that closest describes the work to be done.

PART 2 - REQUIREMENTS FOR INDEPENDENT TESTING CONSULTANTS

2.1 QUALIFICATIONS - Comply with "Recommended Requirements for Independent Laboratory Qualifications," latest edition, published by the American Council of Independent Laboratories, and basic requirements of ASTM E329, "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction," latest edition.

A. Submit to Engineer, for prior approval, name and address of a proposed testing consultant with description of personnel, facilities, equipment and other qualification data, including:

B. Report of inspection of facilities made by Materials Reference Laboratory of the National Bureau of Standard's during most recent tour of inspection, with a memorandum of remedies of any deficiencies reported by the inspection.

C. Certificates of calibrations of applicable testing equipment made by an accredited calibration agency within 12 months prior to a submittal date.

D. Testing agencies will be instructed to submit directly to Engineer, three (3) copies of all reports of tests or inspections made, showing compliance, irregularities or deficiencies, identifying project, date of test, location in project, applicable specification section, applicable standard(s) for compliance, observations relating to compliance, name and signature of an inspector.

PART 3 - CONTRACTOR RESPONSIBILITIES

3.1 RESPONSIBILITIES - Furnish above qualification data and expedite submittal when testing consultant is employed by the Contractor. Provide access to the work and furnish casual labor and facilities to accommodate inspections and tests. When tests fail to meet specified requirements, Contractor will arrange for retesting after conditions have been corrected. Conduct such retesting at no additional expense to the Owner.

3.2 NUMBER OF TEST – The number of requires test will be determined by dividing the "Quantity of Item Represented by one Test" into the quantity used on the project. Fractional numbers of tests shall be converted to the nearest whole number.

3.3 DENSITY TESTING - There will be a minimum of two (2) test per job for any category listed below. The following schedule will apply to all quality control testing.

A. If minimum compaction requirements are not met as determined by these tests, Contractor will recompact to the specified compaction. Such recompaction will extend to 1.5 times the area specified above surrounding the point of the failed test. Remedial compaction and retesting will be conducted at no additional expense to the Owner.

B. Additional Test – The Engineer may order tests in addition to the number provided for in the schedule if in his opinion, such additional tests are necessary. The cost of all tests ordered in addition to the number of satisfactory tests shall be paid for by the Contractor.

3.4 CONCRETE TESTING - The Contractor will be responsible for providing a slump cone at the site. This requirement will be for major pours on concrete pavements or foundation slabs.

A. Testing Schedule - Concrete Cylinders: A minimum of three (3) cylinders will be taken for a single representative sample of the product being furnished (this is considered as 1 test). The first sample will be broken seven (7) days from the date of the sample. The second cylinder will be broken twenty-eight (28) days from the date of the sample.

Testing Methods & Frequency

Description	Method of Test (Latest Version)	Quantity of Item represented by one test
Sub-grade (Soil Classification)		
A. Preparation of Soil Mechanical Analysis	AASHTO T-87	1,000 S.Y. of Sub-grade or Select Soil
B. Mechanical Soil Analysis	AASHTO T-88	Same
C. Liquid Limit of Soil	AASHTO T-89	
D. Plastic Limit and Plastic Index	AASHTO T-90	Only 1 Test for additive treated sub-grade design unless change in soil class
E. Soil Classification	Group Index Method	
Standard Proctor Density	AASHTO T-99	10,000 S.Y. of Sub-grade unless a change in soil class is noted.
Field Density		
A. Sub-grade	AASHTO T-191 or T-205	1,000 S.Y. of Sub-grade
B. Trench Under Paving	Same	200 L.F. of trench or at any transverse crossing
C. Embankment	Same	Each 9" Layer of 1,000 S.Y. of sub-grade
Asphalt Paving		
A. Sampling, Extraction and Gradation	ASSHTO T-168 ASSHTO T-30 ASSHTO T-164	650 S.Y. of paving surface for each course and change in type of mix
B. Field Density	ASSHTO T-166 ASTM D1556 ASTM D-188-71 ASTM D-2726-73 ASTM D2922 ASTM D-2950-81	650 S.Y. of paving surface for each course and change in type of mix
C. HVEEM Stability	ASTM D150 ODOT Lab Method	Only 1 test unless a change in AC Source or mix type

Description	Method of Test (Latest Version)	Quantity of Item represented by one test
Aggregate Base		
A. Sampling Gradation	ODOT Stds.	1,200 S.Y. of Aggregate Base or 200 C.Y. of Agg. Base
B. Field Density	ODOT Stds.	650 S.Y. of Agg. Base
Curb and Gutter		
A. Concrete Cylinders (Curb & Gutter)	ASSHTO T-23	200 L.F. of Curb
	ASTM C-173 or C-231	1 Test for entrained air content shall be made for each set of four concrete test cylinders or test beams cast.
B. Concrete Paving	ASSHTO T-23	1 Test for each 100 C.Y. of Concrete poured.
Structural Concrete for Structure		
A. Concrete Cylinders	AASHTO T-23	1 test for each curb inlet, Junction Box, Area Inlet, End sections or small structures less than 5 C.Y. in volume. For large structures use 1 test per 10-12 C.Y. poured.
B. Slump	ASTM C143-00	Same
C. Air Content	ASTM C231-97	Same
D. Temperature	ASTM C1064-99	Same

AASHTO – American Association of State Highway & Transportation Officials
ASTM – American Society for Testing Materials
ODOT – Oklahoma Department of Transportation

3.5 BASIS OF PAYMENT – Payment will be made on a Lump Sum basis. Refer to the bid schedule for the specific bid item. If a specific bid item is not identified, then the work is considered, as incidental and the cost of testing by the contractor shall be included in other bid items.

END OF SECTION

SECTION 02220
UTILITY TRENCHING AND BACKFILLING

PART 1 - GENERAL

1.1 WORK INCLUDED: Work under this section includes site preparation, earthwork and surface restoration for underground pipelines, conduits, cables and appurtenances as shown on the drawings and specified herein.

1.2 REFERENCE STANDARDS: - Standards listed hereunder and referenced elsewhere in these specifications shall become a part of this specification and are incorporated herein. The latest edition, amendment or supplement thereto in effect 30 days before date of invitation shall apply.

American Society for Testing and Materials (ASTM)

C33	Concrete Aggregates
D698	Moisture-Unit Weight Relations of Soils and Soil-Aggregate Mixtures, Using 5.5 lb. Rammer and 12 inch Drop
D1556	Density of Soil-In-Place by the Sand Cone Method
D2922	Density of Soil and Soil-Aggregate In-Place by Nuclear Methods (Shallow Depth)

American Association of State Highway and Transportation Officials (AASHTO)

T99	Moisture Density Relations of Soils Using a 5.5 lb. Rammer and a 12 inch drop

1.3 SUBMITTALS: Refer to Section 01300 - Submittals. Include the following:

A. Methods - Submit the proposed sheeting and shoring methods to be employed by the Contractor.

B. Samples - Test sample of granular bedding material.

1.4 SURFACE IMPROVEMENTS: Protect from damage or restore to their original condition all surface improvements encountered during trenching or construction. Improvements shall include but not be limited to surfacing, sidewalks, curbs, valley gutters, trees and shrubs, other surface vegetation, driveways, mailboxes, utilities, signs and fencing.

1.5 UNDERGROUND OBSTRUCTIONS: Protect from damage any underground pipes, utilities or structures encountered during construction. Restore any damaged underground utilities to their original condition at no additional expense to the Owner unless evidence of other arrangements satisfactory to all parties is presented to the Owner.

A. Before commencing work, obtain information concerning location, type, and extent of concealed existing utilities on the site and adjacent properties. Consult records and personnel of local utility companies, municipal utility departments, and Telephone

Company. File Notice of Excavation with these agencies at least 48 hours prior to commencing work.

B. Underground obstructions known to the Engineer, except service lines are shown on the drawings or otherwise referred to in the specifications. The locations shown may prove to be inaccurate and other obstructions not shown may be encountered. In any case, it shall be the responsibility of the Contractor to protect or restore all underground obstructions encountered.

1.6 SHEETING, SHORING AND BRACING: Except where trench banks are cut back on a stable slope, provide and maintain all sheeting and shoring necessary to protect adjoining grades and structures from caving, sliding, erosion or other damage. Protect against bodily injury in accordance with applicable codes and governing authorities.

A. Do not remove any sheeting unless the pipe strength is sufficient to support the trench loads based on trench width measured to the back of sheeting. Remove sheeting and shoring gradually as excavations are backfilled to protect the construction and other structures, utilities or property. Do not attempt removal of sheeting in one operation after backfilling is complete.

1.7 BLASTING: No blasting will be permitted without written consent by the Owner.

1.8 DRAINAGE: Maintain the excavations and site free from water throughout the work. Remove any water encountered in the trench to provide firm sub-grade, to permit joints to be made dry at the final grade and to prevent entrance of water into the pipeline. Excavation shall be kept dry during subgrade preparation and continually until thereafter until the structure or pipe line is installed and backfilled so that no damage from hydrostatic pressure or flotation will result. Backfill shall be placed to a height above the pipe or around a structure to ensure a safety factor of 2.5 against flotation before dewatering activities are terminated.

All excavations for structures or trenches, which extend to or below groundwater shall be dewatered by lowering and keeping the groundwater level to a minimum of 12” below the low point of the excavation.

The contractor shall divert surface water from entering the excavations or trenches, without causing damage to adjacent property.

Contractor shall be responsible for obtaining the approval of agencies and authorities by acquiring the necessary discharge permits to remove and dispose of groundwater or surface water.

Accomplish dewatering by the use of sumps and gravel blankets, well points, or drain lines.

1.9 INTERRUPTION OF SERVICE: Coordinate interruptions of utility services with the Owner through the Engineer. Make connections to the existing system requiring the interruption of service during the time (weekends, nights or holidays) designated by the Owner.

A. Obtain permission to cut and replace existing service lines to facilitate trenching. Notify affected users two hours in advance of, and restore service within four hours after any interruption. Repair all lines at no additional expense to the Owner.

B. No valve or other control on the existing system shall be operated for any purpose by the Contractor. The Owner will operate all valves, hydrants, blow-offs and curb stops.

1.10 SEQUENCING: Pipeline installation shall follow trench excavation within one city block. Trench backfill shall follow pipe installation within one city block. Cleanup shall follow trench excavation within 500 lineal feet.

1.11 CONSTRUCTION IN STREETS: When construction operations are located within streets, make provisions at cross streets and walks for free passage of vehicles and pedestrians by bridging or other approved methods. Do not block streets, walks or driveway without prior approval by the Owner.

1.12 CLASSIFICATION OF EXCAVATED MATERIALS: No classification of excavated materials will be made. Perform excavation of every description and of whatever substance encountered to the depths indicated or as otherwise specified. All excavated material, which is unsuitable or not needed for backfill, shall be wasted or disposed of. It shall be the Contractor's responsibility to provide areas to deposit waste material and rock. The cost of disposing of waste materials from Utility Trenching shall be included in the unit price for pipes.

1.13 TRENCH MAINTENANCE: Maintain all trench backfill and resurfacing thereon for a period of one year after final acceptance by the Owner.

1.14 STABILIZATION: Sub-grades for structures or trench bottoms shall be firm, dense and thoroughly compacted. The material shall be free of mud and muck. The workers shall be able to stand and walk without sinking into the subgrade.

Unstable sub-grade shall be reinforced by over-excavation and replacing the unstable material with crushed rock or gravel. The material shall be placed and compacted in lifts, with no voids. Backfill trench to proper grade with granular material and compact to 95% of maximum density.

PART 2 - PRODUCTS

2.1 BACKFILL MATERIALS:

A. Concrete - 3,000 psi concrete as specified in Section 03300 -Cast-In-Place Concrete.

B. Granular Material - 1½” Crusher Run

C. Fine Granular Material - Natural or manufactured sand meeting the requirements of ODOT Section 701.05, gradation for fine aggregate (3/8" to No. 200).

D. On Site Material – Excavated material may be used for compacted backfill when the material is finely graded, free from debris, organic material, cinders, corrosive material and stoned larger than 3” in any dimension. Each layer of material shall have the best moisture content for satisfactory compaction. Material that is wet or saturated shall be dried and thoroughly mixed to ensure uniform moisture content and adequate compaction before it is placed. Material that is unsuitable shall be disposed of by the contractor at no additional expense.

E. Select Backfill - Selected soil free from rocks, clods and stones greater than 1-1/2" in any dimension.

1. Upper Portion of Trench - Material placed within one foot of pavement sub-grade or the finished surface in unpaved areas shall be free from rocks and stones larger than 2-1/2" in any dimension.

2. Remainder of Trench - Soil may contain a limited number of stones smaller than 3" in any dimension, provided they are dispersed in the surrounding material in a manner to allow specified compaction.

F. Class ‘A’ bedding for pipe – Granular Material meeting the requirements of ODOT Section 701.06, Coarse Aggregate No. 57.

PART 3 - EXECUTION

3.1 PREPARATION:

A. Field Measurements - before commencing work, locate all initial base lines as required by the Contract Documents.

B. Pavement and Curb and Gutter Removal - before trenching begins remove any pavement, curbs, gutters, sidewalks, and driveways necessary to install the utility. All pavement, curbs, gutters, sidewalks and driveways shall be removed to the nearest construction joint using saw cutting methods with neat straight lines and edges.

C. Clearing - Remove all stumps, roots, brush, other vegetation and debris from areas that will be disturbed by the construction operations. Legally dispose of all cleared materials at public or private dumping areas, off the owner's property.

D Top soiling - Strip existing topsoil from areas to be disturbed by construction operations. Stockpile in areas designated by the Engineer. Keep topsoil segregated from non-organic trench excavation materials and debris.

3.2 EXCAVATING:

A. Trenching - Excavate trenches by open cut except where boring and jacking is indicated on

the drawings. Conform to sheeting, shoring and bracing requirements of regulating agency or ruling authority.

B. Stockpiling Excavated Material - Stockpile suitable material for backfilling a minimum of four feet from banks of the trench to avoid overloading and to prevent slides or cave-ins. Remove waste off the site. Excavated materials not suitable or not required for backfilling shall be removed and disposed of by the Contractor. The Contractor shall not place any waste material in a designated floodplain unless they receive a permit from the proper authority.

C. Excavation to Grade - Accurately grade trench bottoms to provide uniform bearing and support for each section of pipe on undisturbed soil at every point along its entire length, except portions of pipe sections where it is necessary to excavate for bell holes and for proper sealing of pipe joints.

D. Bell Holes - Dig bell holes and depressions for joints after trench bottom has been graded. Bell holes and depressions shall be only of such length, depth, and width as required for properly making the particular type of joint. No part of the bell or coupling shall come in contact with the trench wall or bottom.

E. Pipe Clearance in Rocks - Where rock excavation is necessary, over excavate the trench bottom a minimum of 6" below the bottom of the pipe for pipe 24" in diameter or less and 12" for pipe larger than 24". Backfill the over excavated area with concrete or granular material. Compact granular material to 98% of standard density under paving.

F. Limiting Trench Widths - Excavate trenches to provide adequate working space and pipe clearances for proper pipe installation, jointing and embedment. The maximum allowable trench width used in computing pipe-bedding quantities shall be as shown in Table 1 in the plans. Trench widths is excess of these widths shall be backfilled per the typical trench detail shown in the plans.

H. Excavation for Appurtenances - Make excavations for manholes, vaults and similar structures sufficient to leave at least 12" clear space between outer surface of structure and the bank shoring material that may be used to hold and protect the banks.

I. Unauthorized Excavation - If any areas are inadvertently over excavated, backfill such over excavation with concrete or granular material. Compact granular material to 95% of maximum density. If the maximum trench width is exceeded, provide concrete encasement or a higher strength of pipe at no additional expense to the Owner.

3.3 PLACING EMBEDMENT MATERIAL: Place granular pipe bedding and select material to a cover depth of one foot by hand to prevent damage or displacement of the pipe.

3.4 TRENCH BACKFILLING AND COMPACTING: Refer to the Standard Detail Sheet for pipe bedding requirements. Deposit material in layers of a thickness required to achieve the compaction specified below. Maintain moisture content of moisture content of material within ± 1-1/2% of

optimum condition.

A. State Highways - 100% of maximum density for paved areas and shoulder slopes, 95% of maximum density for all other areas.

B. Paved Roadways and Paved Driveways – Class 'A' backfill around pipe and 1 ½" crushed run from 4" above pipe to base of paving, compacted to 98% of modified proctor density.

C. Shoulders and Sidewalks : -Top foot: 98% of modified proctor density, remainder of trench: 95% of modified proctor density.

C. Unpaved Areas - Top Foot: 90% of maximum density; remainder of trench: 85% of modified proctor density.

3.5 METHOD OF COMPACTION:

A. Mechanically compact trench backfill by means of tamping rollers, sheep foot rollers, pneumatic tire rollers, vibrating rollers or other mechanical tampers.

B. Compaction by jetting will not be permitted for state highways, paved roadways, gravel roadways, structural foundations, or any other structures and improvements which sustain design loading relative to public health and safety.

3.6 FIELD QUALITY CONTROL:

A. Density Testing and Control - Refer to Division 1 - Quality Control, for responsibilities.

3.7 SURFACE RESTORATION:

A. Final Grading - Grade all areas disturbed by the construction operations after completion of backfilling and compacting. Areas that are to receive pavements, surfacing, topsoil, seeding or landscaping shall be graded as specified or shown on the drawings. Grade all other areas to match the existing ground line.

B. Top Soil - Replace suitable topsoil to depth of stripping over all areas disturbed by construction that do not receive other surface treatment. Do not compact topsoil during stripping, stockpiling or placing.

END OF SECTION

SECTION 02667
PIPELINE BORE AND CASING

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK: The CONTRACTOR shall furnish and install protective steel pipe casings and/or carrier pipe under streets, highways, railroads, creeks or other locations as shown on the plans in the pipe size, length and location shown. The Contractor's attention is directed to the requirements of the particular municipal or private owner or department of public works having jurisdiction over the street, highway or railroad (hereinafter referred to as highway) whether through permit, verbal or other directions. The construction shall not be started until the necessary permits have been obtained, and copies are at the Job Site, and proper notice and approval for construction has been obtained from the owner of the street, highway or railroad. All necessary materials, equipment, labor and traffic protection devices shall be on the Job Site before requesting permission to start the Work. The Contactor may also be required by street, highway or railroad owner to post bond or certified checks and/or provide additional insurance as described herein or elsewhere in the Contract Documents.

PART 2 – MATERIALS

2.1 CASINGS, JOINTS AND COATINGS

A. Pipe Material - Steel pipe intended for use as pipe casings to facilitate crossings under highways shall be not less than the diameter, wall thickness and necessary length shown, indicated or specified in the Contract Documents. The CONTRACTOR may utilize a larger size casing to suit the Contractor's own convenience and/or ease of construction, if permitted by the owner of the highway, including any additional requirements, which owner of the highway may impose, and such larger size casing shall be installed at no additional cost to the OWNER. The CONTRACTOR may elect to utilize a thicker-walled casing in accordance with the precautions outlined in the clause entitled "Casing Installation by Boring, Jacking or Drilling" in this section. Pipe shall conform to the following general requirements:

Pipe Diameter	**ASTM Standard**
4" to 92"	ASTM A-139 Electric-Fusion (Arc) Welded Steel Pipe
4" to 26"	ASTM A-53 Type E-Electric Resistance Welded
6" to 24"	ASTM A-252 Welded and Seamless Steel Pipe

All surfaces shall be smooth and uniform without bulges, dents or warping of lengths, and new or used pipe shall be used. Finished lengths of pipe shall be furnished with beveled-cut ends to facilitate proper welding of transverse joints.

B. Transverse Joints - Transverse (or circumferential) joints for connecting lengths of pipe, either in the shop or in the field, shall be accomplished by a continuous butt weld, performed in accordance with the procedures, required materials and equipment

specified by the American Welding Society. The welding shall be done by an experienced welder, qualified in accordance with the requirements of the latest edition of "Standard Qualification Procedure" issued by the American Welding Society.

2.2 CASING SPACERS: Casing spacers shall be used on all water and sewer line installations inside casing pipe. Wooden skids will NOT be allowed as an alternative.

The spacers shall be designed with risers and runners to support the carrier within the casing and maintain a minimum clearance of 1.00" between the casing ID and the spacer OD. On carrier pipes with a nominal OD of 16" or less, each spacer shall contain four riser and runner combinations - two on each half. On carrier pipes with a nominal OD of 18" through 24", each spacer shall contain either four riser and runner combinations – two on each half, or each spacer shall contain five riser and runner combinations – two on the top half and three on the bottom half. This is dependant on the annular space between the carrier pipe OD and casing pipe ID and shall be left up to the discretion of the manufacturer.

The band shall be manufactured of 8" wide, hot rolled, pickled, and oiled 14-gauge carbon steel. The risers (when applicable) shall be constructed of hot rolled, pickled, and oiled 10-gauge carbon steel having a minimum length of 6" and a height to be determined based on the annular space between the carrier OD and the casing ID.

Abrasion resistant runners, having a minimum length of 7" and a minimum width of 1", shall be attached to each band and/or riser (depending on design criteria) to minimize friction between the casing pipe and the carrier pipe as it is installed. Runner material shall be of glass filled polymer with a compression strength of 33,000 psi, flexural strength of 40,000 psi and tensile strength of 27,000 psi. The ends of all runners shall be beveled to facilitate installation over rough weld beads or the welded ends of misaligned or deformed casing pipe.

Interior surfaces of the circular carbon steel band shall be lined with EPDM, or PVC alternate, having a minimum thickness of .090" with a hardness of Durometer "A" 85-90.
Recommended positioning of the spacers is one placed 1 – 2 feet on each side of the bell joint and one placed every 7 - 9 feet apart thereafter.

BAND and RISERS Band – 14-Gauge, hot rolled, pickled & oiled Steel Riser – 10-Gauge, hot rolled, pickled & oiled Steel

LINER - EDPM (Polyvinyl Chloride Alternate) Thickness - .090" (2.29mm) minimum Hardness - Durometer "A" 85-90 Dielectric Strength - {1/8" (3.18 mm) thick} 60,000 VPM Water Absorption - 1% maximum
Overlaps edges

BOLTS, NUTS and WASHERS Up to nominal OD of 16" - Electro Plated – 1/4" – 20UNC x 2" long bolts, 1/4" hex nuts, 1/4" washers SAE 2330
Above nominal OD of 16" - Electro Plated – 5/16" – 18UNC x 2" long bolts, 5/16" hex nuts 5/16" washers SAE 2330
RUNNERS 1" wide or 2" wide glass filled polymer. Contractor shall use field-adjustable runners

when installing gravity sewer lines. Water line installation and sanitary sewer force mains will require restrained runners that hold the carrier pipe in position.

Sizes Available: Length - 7" (17.8 cm) Effective heights – 1", 1 1⁄2"

Material Specifications: Rockwell Hardness (M) – (ASTM D 785) = 100 Tensile Strength – (ASTM D 638) = 27,000 psi Flexural Strength – (ASTM D 790) = 40,000 psi Compression Strength – (ASTM D 695) = 33,000 psi Deflection Temperature @ 264 psi – (ASTM D 648) = 478 F (248 C) Deformation Under Load @ 122oF (50oC) (4000 lb. Load) – (ASTM D 648) = 1.2% Coefficient of friction – 0.1
FINISH
Copolymer-based Thermoplastic Specifications
Adhesion – (ASTM D 4541) = >800 psi Durometer - Shore D (ASTM D 2240) = 53
Maximum Operating Temperature (Constant) = 150oF (65oC)

WELDING All risers shall be welded to the band by MIG welding.

The spacers shall be manufactured by Advanced Products & Systems, Inc., Lafayette, LA, 337-233-6116 or approved equal.

2.2 CASING END SEALS: The contractor shall install a casing seal at each end of the casing. The seal shall be made from 1/8" thick neoprene rubber (60 durometer). The seal shall be secured to the casing and carrier pipe by 2 – ½" wide T304 stainless steel bands with 100% non-magnetic worm gear mechanism. A butyl mastic strip must secure a wrap-around seal. Pull on seals shall have vulcanized edges. Mechanical seals will also be allowed. The seals shall be manufactured by Link Seal, Furnco or Advanced Products & Systems, Inc., Lafayette, LA, 337-233-6116 or approved equal.

PART 3 - EXECUTION

3.1 CASING INSTALLATION BY BORING, JACKING OR DRILLING: The steel casing shall be bored, jacked or drilled under the road at the location shown, indicated or specified in the Contract Documents. The boring, jacking or drilling pits at the ends of the casing and the receiving pit shall be sheeted and braced. No excavation shall be closer than 5 feet from the edge of the pavement or closer than shown, indicated or specified in the Contract Documents, whichever is the greatest distance from the edge of the pavement.

3.2 CASING WALL THICKNESS: The minimal wall thickness for steel casing pipe shall be "Standard Wall Thickness" as identified in the Iron Pipe Sizes (IPS) Standard. The diameter and wall thickness of casing shown, indicated or specified in the Contract Documents are the minimum allowable. The CONTRACTOR shall be responsible for selecting a casing of wall thickness, which is adequate to permit jacking, drilling or boring operations without buckling or excessive deformations of the casing. The jacking, drilling or boring operation shall be prosecuted continuously, and at no time shall the excavation be advanced ahead of the end of the casing. When the method consists of pushing the casing into the soil with a boring auger or similar device rotating within the casing to remove the soil, then the front of the pipe shall be

provided with mechanical arrangements or devices that will positively prevent the auger and cutting head from leading the casing so that there will be no unsupported excavation ahead of the casing. The auger and cutting head arrangement shall be removable from within the casing in the event an obstruction is encountered. The over-cut by the cutting head shall not exceed the outside diameter of the casing by more than one-half inch. The face of the cutting head shall be arranged to provide reasonable obstruction to the free flow of soft or poor material. If voids should develop outside the casing or if the bored, jacked or drilled hole diameter is greater than the outside diameter of the casing pipe by more than 2 inches, pressure grouting shall be employed to fill such voids. Pressure grouting shall be carried out on a daily basis. Grouting holes to be spaced as needed to completely fill all voids, but not more than 3 feet on centers. Where casings are not large enough to permit entry, the pressure grouting is to be done by drilling and grouting from the road surface. Cement grout to be a uniform mixture of 1:6.

The use of water or other liquids to facilitate casing emplacement and spoil removal is prohibited.

The equipment and procedure used for installing the casing to the proper line and grade shall receive the prior approval of highway owner.

All pit openings for this installation under pavements or shoulders shall be backfilled with aggregate base completed to 93% standard proctor density.

Excavated materials shall be disposed of as surplus material.

3.3 BORING, JACKING AND DRILLING: Jacking, drilling and boring pits to be backfilled as described herein or as shown, indicated or specified in the Contract Documents. All pit excavations under pavements or road shoulders shall be backfilled and compacted as specified in 02220 Utility Trenching and Backfilling - Section 3.4.A.

3.4 CARRIER PIPE PREPARATION: The carrier pipe shall be of size, material, and class shown, indicated, or specified in the Contract Documents. The assembled pipe shall be positioned in the casing such that no part of the pipe touches the casing. The casing shall be installed in order to support the pipe at correct line and grade.

3.5 INSTALLATION OF PIPE IN THE CASING: The carrier pipe shall be installed by joining and sliding ahead length by length into the casing. The CONTRACTOR shall furnish all necessary shims, concrete leveling course, guide tracks, tools, and other equipment, which are required to place the pipe in the casing true to grade and line. The pipe shall be adequately supported, anchored and blocked within the casing to prevent any possible deflection or damage after installation. The interior of the pipe shall be inspected for alignment and grade.

All highway and county road crossings shall have 2 - inch diameter steel vent pipe (schedule 40) installed on both ends of the casing one (1) foot from each end of the casing. The vent pipes shall be located on the right of way line. Steel extension pipe will be required from the end of the casing to the right of way line. The extension pipe shall have a minimum of 36” of cover. Vents shall be installed plumb and extend three (3) feet above ground. Vents shall face

downward as shown in detail. Paint with Two (2) coats of aluminum paint. Wire brush and wipe clean as to remove all scale and rust prior to painting. Signs shall be placed on the vent pipe identifying the name of the utility company.

END OF SECTION

SECTION 02740
SANITARY SEWER FORCE MAINS

PART I - GENERAL

1.1 WORK INCLUDED - Work under this section includes furnishing, installing, and testing sanitary sewer force mains as shown on the drawings and as specified herein.

1.2 QUALITY ASSURANCE

A. Allowable Tolerances - Maximum deviation shall not exceed plus or minus five-tenths (0.5) of a foot from alignment shown on the drawings. Where the pipeline is to be laid to a specific grade shown on the drawings, vertical deviation shall not exceed three-tenths ($\pm$.3) of a foot.

B. Pipe and Fittings Marking - Mark pipe with the following information applied at intervals of not more than 5 feet:

Nominal size and O.D. base.
Material code designation.
Applicable dimension ratio, pressure class or schedule number.
Applicable standard designation number.
Manufacturer's name or trade mark.

C. Reference Standards - Standards listed hereunder and referenced elsewhere in these specifications shall become a part of this specification and are incorporated herein by reference. The latest edition, amendment or supplement thereto in effect 30 days before date of invitation shall apply.

American Water Works Association (AWWA)

AWWA C104	ANS for Cement-Mortar Lining for Ductile-Iron Pipe and Fittings
AWWA C105	Polyethylene Encasement for Ductile Iron Piping
AWWA C110	Gray Iron and Ductile Iron Fittings, 3 in. thru 48 in., for water and other liquids
AWWA C111	Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings
AWWA C151	Ductile-Iron Pipe, Centrifugally Cast
AWWA C509	Resilient-Seated Gate Valves
AWWA C512	Air Release, Air/Vacuum and Combination Air Valves
AWWA C600	Installation of Ductile-Iron Pipe and their Appurtenances
AWWA C601	Pressure and Leakage Testing
AWWA C605	Underground installation of Polyvinyl Chloride (PVC) Pressure Pipe & Fittings for Water

AWWA C900 Polyvinyl Chloride (PVC) Pressure Pipe, 4 in. thru 12 in., for Water

AWWA C906 Polyethylene Pressure Pipe and fittings, 4” thru 65”

1.3 SUBMITTALS - Refer to Section 01300 - Submittals. Include the following:

A. Product Data - Catalog sheets and descriptive literature on all materials and equipment specified herein.

B. Certificates of Compliance - Manufacturer's affidavit stating compliance with referenced published standards specified herein.

1.4 JOB CONDITIONS

A. Protection - Take every precaution to prevent foreign material from entering the pipe, fittings, and valves during installation. Apply a protective cover over each end of the pipe until the connection is made to the adjacent pipe.

B. Coordinate pipe delivery closely with installation to minimize the possibility of contamination. Place no debris, tools, clothing or other materials in the pipe.

C. Whenever pipe installation is interrupted, seal the open end of the pipe with a watertight plug to prevent trench water, debris or other material from entering the pipe. Follow procedures or techniques, which will prevent pipe flotation.

D. Under no circumstances shall trench water be allowed to enter the pipeline. If water is present in the trench, the seal shall remain in place until the trench is pumped dry.

E. Unsuitable conditions - No pipe shall be installed when trench or weather conditions prevent installation in accordance with standards specified herein.

F. Product Delivery, Storage and Handling - All pipe, fittings, valves and specials shall be handled, stored and protected to prevent damage to materials and protective coatings and linings. Under no circumstances shall such materials be dropped or dumped into the trench. Remove any broken or damaged materials from the construction site and do not use in any portion of the construction. Any broken, damaged, or otherwise defective materials, which are included in the construction, shall be removed and replaced at no additional expense to the Owner.

PART 2 - PRODUCTS

A. Refer to plans for allowable pipe products.

3.1 PREPARATION

A. Excavation - Perform excavation in accordance with the requirements of:

Section 02220 - Utility Trenching, Backfilling and Compacting

B. Verification - Verify dimensions and class of all existing and proposed pipe, valves, fittings and equipment prior to installation to insure a sound and continuous piping system.

C. Cleaning and Inspection - Clean all pipe, fittings, valves and related materials thoroughly of all foreign material and inspect for cracks, flaws or other defects prior to installation. Mark all defective, damaged or unsound materials with bright marking crayon or paint and remove from job site.

3.2 INSTALLATION

A. Connections to Existing Pipelines - Make connections between new work and existing piping using suitable fittings for the conditions encountered. Make each connection at a time authorized by the Owner that will least interfere with service to customers. Provide facilities for proper de-watering and disposal of all water from de-watered lines and excavations without damage to adjacent property.

B. Remove all dirt and foreign material form the spigot and bell end gasket and gasket groove. Apply lubricant furnished by the pipe manufacturer to the spigot end of the pipe. Insert the spigot to the reference mark. Take care during jointing to avoid disturbing previously installed joints.

C. Pipe Laying - Install pipe with bell ends facing the direction of laying. Where pipe is laid on a grade of 10 percent or greater, proceed uphill with the installation with the bell ends facing upgrade.

D. The pipe line shall be installed so that a positive or negative grade is maintained between high and low points to avoid air pockets. If a permanent air vents are not provided, record location of all high points so they may be readily located.

E. As each length of pipe is placed in the trench, the joint shall be completed in accordance with the applicable portions of the specifications and the pipe shall be brought to the correct line and grade. Secure the pipe in place with the specified bedding material tamped under and around the pipe except at the joints.

F. Depth of Pipeline - Unless otherwise shown on the drawings, minimum depth of cover from the finished grade to the top of the pipe shall be 3 feet.

G. Thrust Blocks - Construct thrust block in accordance with Engineer's Construction Standard, sized to accommodate the specified test pressure of the pipeline. Thrust blocks shall extend from the fitting to solid undisturbed earth and shall be constructed so the joints are accessible for repair. If adequate support against undisturbed earth cannot be obtained, provide joint harnesses.

H. A joint harness will be required in lieu of thrust blocks at all bends on all pipe 24” and larger

in diameter.

I. Protection of Metal Surfaces - Protect all ferrous metal rods, clamps, bolts, and other accessories in contact with earth or fill material and not encased in concrete with two coats of coal tar paint. Apply the first coat to clean, dry metal surfaces and allow drying before applying the second coat.

J. Water Line Crossings - Where force mains cross water lines, install the force main below the water line so that there is 24 inches clear distance vertically below the water main.

3.3 FIELD QUALITY CONTROL

A. Allowable Leakage - No pipe installation will be accepted if the leakage is greater than that determined by AWWA Standard C600.

$$L = (ND\sqrt{P})/7{,}400$$

L = Allowable Leakage, in gallons per hour
N = Number of joints in the length of pipeline tested
D = nominal diameter of the pipe, in inches
P = average test pressure during the leakage test, in psi

Leakage should not exceed ten gallons per inch diameter per mile of pipe per 24 hours at 150 psi testing pressure.

B. Repair of Leaks - If the test discloses leakage greater than the allowable leakage, the Contractor shall locate and repair the defective joints until leakage is with in the specified limit. The Contractor shall repair all visible leaks regardless of the test results.

3.4 BEDDING - All pipe shall be installed using Bedding as described in the Plan Detail Sheets.

3.5 TRACER WIRE & MARKING TAPE

A. All non-metallic force mains (6” and larger) shall have a tracer line attached to and buried with the pipe. The tracer line shall be a No. 12 solid, copper, insulated wire.

B. The tracer line shall be attached to the pipe at intervals not to exceed 10 feet with nylon self locking ties or 1 1/2" wide duct tape.

C. All splicing shall be made with copper compression tap connectors, as manufactured by Burndy, "Crimpit", Cat. No. YC10C10, or equal.

D. Tracer wire shall be terminated at the lift station in an above ground electrical box. An above ground electrical box shall be installed to also terminate the tracer wire at the receiving manhole or gravity line.

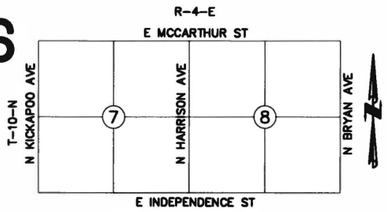
F. Marking Tape – The contractor shall install underground warning tape on all force mains (4”

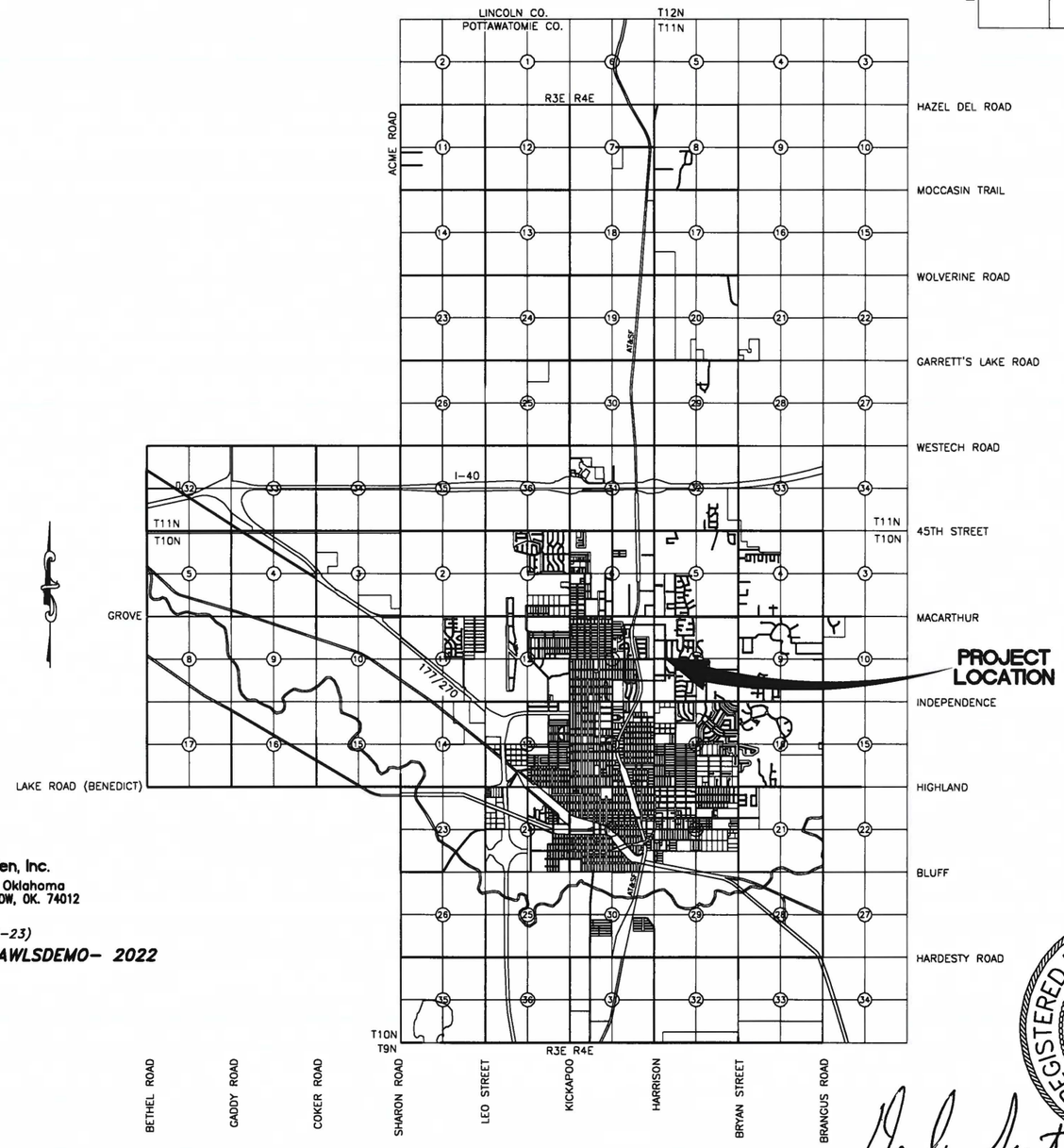
and larger). The tape shall be placed 12” to 18” above the top of the pipe. The tape shall be low density polyethylene (150 mm wide x 0.10 mm thick) with pre-printed wording identifying the product “SEWER LINE”.

3.6 BASIS OF PAYMENT - Where payment for piping is to be made at a unit price per lineal foot, measurement will be made along the centerline of the pipe through manholes, valves and fittings, to the centerline or ends of connecting lines and to limits of payment for other bid items.

END OF SECTION

CAMMACK STREET
GRAVITY RELIEF LINES
SHAWNEE, OK





Holloway, Updike and Bellen, Inc.
Muskogee – Broken Arrow, Oklahoma
2001 N WILLOW AVE, BROKEN ARROW, OK. 74012
918-251-0717, FAX 918-251-0754
ENGINEERS *(C.A. No. 219, EXP. 6-30-23)*

HUB PROJECT NO. 21SHAWLSDEMO– 2022

BEFORE YOU DIG
CALL OKIE
1-800-522-8543

REGISTERED PROFESSIONAL ENGINEER
DALE SEATON
27288
OKLAHOMA

Dale Seaton
P.E. No. OK 27288

6/1/22
Date

City of Shawnee
OKLAHOMA

ED BOLT
MAYOR

DANIEL MATTHEWS
COMMISSIONER - WARD 1

DARREN RUTHERFORD
COMMISSIONER - WARD 4

CAMI ENGLES
COMMISSIONER - WARD 2

MARK SEHORN
COMMISSIONER - WARD 5

TRAVIS FLOOD
COMMISSIONER - WARD 3

BEN SALTER
COMMISSIONER - WARD 6

ANDREA WECKMUELLER – BEHRINGER
CITY MANAGER

LISA LASYONE
CITY CLERK

JACOB BUSSELL
CITY TREASURER

SHEET INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUMMARY OF QUANTITIES & GENERAL NOTES
3	STORMWATER MANAGEMENT PLAN
4	RIGHT OF WAY DATA
5	KEY MAP & STRUCTURE TABLE
6–10	SANITARY SEWER PLAN AND PROFILE
11	LIFT STATION DEMOLITION PLAN
12	TRAFFIC CONTROL PLAN
S-100 & S-200	CITY OF SHAWNEE STANDARD SANITARY SEWER DETAILS

UTILITY LOCATION NUMBERS

STATE WIDE	1-800-522-6543
OUT OF STATE	1-800-654-8249
LOCAL	1-405-273-1250

CITY ENGINEER

DATE

Z:\Projects\2021\21SHAWLSDEMO\Design\PRODUCTION PLANS\Cover.dwg, 6/3/2022 9:57:18 AM

PAY ITEM KEYED NOTE:

1. THE COST OF SAW CUTTING AND ALL LABOR ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE PRICE OF THIS PAY ITEM.

2. CONTRACTOR SHALL TAKE PRECAUTIONS TO MINIMIZE DAMAGE TO TREES, SHRUBS, IRRIGATION SYSTEMS AND EXISTING LANDSCAPING DURING SIDEWALK, CURB AND GUTTER, DRIVEWAY AND SIDEWALK RAMP CONSTRUCTION AND SHALL REPAIR ALL DAMAGE CAUSED AT THE CONTRACTORS EXPENSE.

3. THIS ITEM INCLUDES QUANTITIES FOR PLACEMENT OF SOD (LIKE KIND), COMPACTION OF SUITABLE BACKFILL AND TOPSOIL AT EXISTING GRASS AREAS WHICH MAY BE DAMAGED DURING CONSTRUCTION OF CURBS, SIDEWALKS, DRIVEWAYS AND OTHER MISCELLANEOUS ITEMS. THE QUANTITIES ALLOW FOR A 3' WIDE STRIP DIRECTLY ADJACENT TO AND ABUTTING THESE ELEMENTS FOR THE LENGTH OF THE SCHEDULED REPAIRS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF DAMAGE TO EXISTING GRASS THAT EXCEEDS THESE LIMITS.

4. COST OF FERTILIZING AND WATERING SHALL BE INCLUDED IN THE COST OF PAY ITEM "SOLID SLAB SODDING." FERTILIZER SHALL BE 10–20–10 APPLIED AT THE RATE OF 1.5 POUNDS PER 10 SQUARE YARDS. FERTILIZER SHALL BE APPLIED PER ODOT SPECIFICATION 230.04(G). WATERING SHALL BE APPLIED AS NECESSARY UNTIL VEGETATION IS ESTABLISHED OR UNTIL THE WORK IS ACCEPTED AS COMPLETE.

5. REFLECTORIZED SHEETS ON SIGNS AND BARRICADES SHALL BE OF A CUBIC PRISMATIC TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956–01, TYPE IX RETROFLECTIVE SHEETING. REFLECTORIZED SHEETING ON ALL DRUMS SHALL BE OF A HIGH INTENSITY TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956–01, TYPE III RETROFLECTIVE SHEETING.

6. IF WARNING LIGHTS ARE TO BE USED ON TRAFFIC CONTROL DEVICES, TYPE "A" LIGHTS SHALL ONLY BE USED ON DEVICES WARNING OF UNEXPECTED HAZARDS, AND SHALL NOT BE USED FOR DELINEATION OF THE REVEALED WAY. TYPE "C" WARNING LIGHTS SHALL BE USED FOR DELINEATION OF THE TRAVELED WAY, AND SHALL NOT BE USED FOR ANY OTHER PURPOSE.

7. ALL DEMOLITION MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND ARE TO BE REMOVED FROM THE SITE, THE COST FOR REMOVAL TO BE INCLUDED IN BID PRICE, NO ADDITIONAL PAYMENT WILL BE MADE.

8. ALL STAKING AND SURVEYING NECESSARY TO COMPLETELY CONSTRUCT ALL OF THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PERFORMED BY A REGISTERED LICENSED SURVEYOR IN THE STATE OF OKLAHOMA WITH FINISHED GRADES TO BE APPROVED BY THE INSPECTOR.

9. CONTRACTOR SHALL COORDINATE THE BRACING OF UTILITY POLES AFFECTED BY TRENCHING CONDITIONS WITH THE UTILITY COMPANY, NO ADDITIONAL PAYMENT SHALL BE MADE.

10. CONTRACTOR SHALL FURNISH TEMPORARY FENCING WHERE REQUIRED, NO ADDITIONAL PAYMENT SHALL BE MADE.

11. CONTRACTOR TO EXCAVATE ALL UTILITY CROSSINGS AHEAD OF PIPE LAYING SO THE GRADES CAN BE ADJUSTED ON THE PROPOSED SEWER LINE TO AVOID UTILITY CONFLICTS, FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED SEWER LINE.

12. PAY ITEM SHALL INCLUDE THE COST OF REMOVING AND REPLACING VARIOUS STRUCTURES AND OBSTRUCTIONS, INCLUDING BUT NOT LIMITED TO , PLANTERS, MAILBOXES, SIGNS, TREES, IRRIGATIONS SYSTEMS, ROCK STEPS, ETC.

13. ALL ABANDONED SEWER LINES LEFT IN PLACE SHALL BE PLUGGED WITH CONCRETE AT EACH LINE BREAK ONCE SALVAGEABLE FITTINGS ARE REMOVED. COST OF CONCRETE PLUGGING TO BE INCLUDED IN COST OF PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE.

14. ALL CURB AND GUTTER ASSOCIATED WITH THE DRIVEWAY AND THROUGH THE DRIVEWAY IS INCLUDED IN THE COST OF THE DRIVEWAY.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE FROM THE CONSTRUCTION SITE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED. ALL COST ASSOCIATED WITH STORM WATER MANAGEMENT, AS WELL AS REMOVAL OF ALL SILT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, STORM SEWER PIPES AND APPURTENANCES WITHIN THE PROJECT LIMITS AT END OF PROJECT, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.

16. COST ASSOCIATED WITH REMOVAL AND REPLACEMENT OF RETAINING WALL TO BE INCLUDED IN RIGHT OF WAY RESTORATION.

17. INSTALL TWO INCH STEEL VENT PIPE AT ROW LINE OF ALL CASINGS. COST SHALL BE INCLUDED IN COST OF BORE.

18. NEW SERVICES SHALL BE EXTENDED TO THE ROW OR EASEMENT LINE. ALL SERVICE CLEANOUTS SHALL BE CAPPED.

19. HYDROSTATIC TESTS MUST USE A 2 FOOT TEST HEAD AND LEAKAGE INWARD OR OUTWARD MUST NOT EXCEED 10 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY. THE PROCEDURES LISTED IN THE HANDBOOK OF PVC PIPE, UNI–BELL PVC ASSOCIATION, 2001 MAY BE USED FOR PVC PIPE.

20. PIPE DEFLECTION TESTS: WHENEVER FLEXIBLE PIPE IS INSTALLED, EACH SECTION SHALL BE MEASURED FOR VERTICAL RING DEFLECTION AFTER INSTALLATION AND FINAL BACKFILL. CONDUCT TESTS NO EARLIER THAN 30 DAYS AFTER FINAL TRENCH BACKFILL TO GRADE. MAXIMUM ALLOWABLE RING DEFLECTION OF THE PIPELINE SHALL NOT EXCEED 5%. TEST MUST BE RUN USING A RIGID BALL OR MANDREL WITH A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE TAKING INTO ACCOUNT MANUFACTURING TOLERANCES. PIPE SHALL CONFORM TO ASTM D1784 AND ASTM F794.

21. SEE SECTION 02730, WASTEWATER COLLECTION SYSTEM.

22. PAY ITEM SHALL INCLUDE ALL COSTS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE AND REMOVAL OF REQUIRED TRAFFIC CONTROL ITEMS.

GENERAL CONSTRUCTION NOTES:

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH THE 2019 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARDS FOR HIGHWAY CONSTRUCTION, AND THE CURRENT SPECIFICATIONS AND STANDARD DRAWINGS FOR THE CITY OF SHAWNEE OF PUBLIC WORKS AND SPECIAL PROVISIONS INCLUDED HEREIN.

2. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS GOVERNING SAFETY, HEALTH AND SANITATION. THE CONTRACTOR SHALL PROVIDE ALL SAFEGUARDS, SAFETY DEVICES AND PROTECTIVE EQUIPMENT, AND TAKE ANY OTHER ACTION NEEDED, BEING HIS OWN RESPONSIBILITY OR AS THE ENGINEER MAY DETERMINE REASONABLY NECESSARY TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACT.

3. ALL EXCAVATED MATERIAL NOT REQUIRED IN OTHER AREAS OF THE PROJECT, INCLUDING CONCRETE AND CURB REMOVAL, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN A MANNER ACCEPTABLE TO THE ENGINEER WITHOUT COST TO THE CITY. THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN AN EARTH CHANGE PERMIT IF MATERIAL IS TO BE DISPOSED OF WITHIN THE CITY LIMITS OF SHAWNEE.

4. THE CONTRACTOR SHALL WORK IN COOPERATION WITH THE CITY OF SHAWNEE TO ESTABLISH, INSTALL, MAINTAIN AND OPERATE COMPLETE, ADEQUATE, AND SAFE TRAFFIC CONTROLS DURING THE ENTIRE CONSTRUCTION PERIOD. IF IT IS NECESSARY TO CLOSE ANY PORTION OF ANY STREET TO ACCOMMODATE ANY PHASE OF CONSTRUCTION, THE CONTRACTOR SHALL PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN TO PUBLIC WORKS FIELD ENGINEERING, AT LEAST 72 HOURS PRIOR TO COMMENCING THE PHASE OF WORK. ALL TRAFFIC CONTROL DEVICES SHALL BE APPROVED BY THE TRAFFIC ENGINEER OF THE CITY OF SHAWNEE. THE CONTRACTOR SHALL PLACE TRAFFIC CONTROL FLAGMEN, BARRICADES AND ALL OTHER DEVICES WITHIN THE VICINITY OF THE CONSTRUCTION AS REQUIRED. ALL CONSTRUCTION SIGNING WILL BE DONE ACCORDING TO STANDARDS SET FORTH IN THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.

5. WHERE MATERIALS ARE TRANSPORTED IN THE PROSECUTION OF WORK, VEHICLES SHALL NOT BE LOADED BEYOND CAPACITY RECOMMENDED BY THE MANUFACTURER OF THE VEHICLE OR PRESCRIBED BY ANY FEDERAL, STATE OR LOCAL LAW OR REGULATION.

6. WHERE IT IS NECESSARY TO CROSS CURBING, PROTECTION AGAINST DAMAGE SHALL BE PROVIDED BY THE CONTRACTOR AND ANY DAMAGE TO THE ROADWAY PAVEMENT, CURB, DRIVEWAYS OR SIDEWALKS CAUSED BY THE CONTRACTORS SOLE EXPENSE.

7. LOCAL AND THROUGH TRAFFIC SHALL BE MAINTAINED THROUGH PROJECT AT ALL TIMES, ALL PUBLIC AND PRIVATE STREETS AND DRIVES SHALL BE ACCESSIBLE FOR TRAFFIC AT ALL TIMES DURING CONSTRUCTION OF THIS PROJECT SOLELY AT THE EXPENSE OF THE CONTRACTOR. NO ADDITIONAL PAYMENTS SHALL BE MADE TO MAINTAIN LOCAL AND THROUGH TRAFFIC THROUGH STREETS OR DRIVES FOR ANY REASON, INCLUDING WASHOUT DUE TO WEATHER.

8. PHYSICAL TESTING FOR QUALITY ASSURANCE AS REQUIRED WILL BE FURNISHED BY THE CONTRACTOR. QUALITY CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

9. CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF OKLAHOMA ONE–CALL SYSTEM, INC. NOTICE OF ANY EXCAVATION NO SOONER THAN TEN DAYS NOR LATER THAN 48 HOURS, EXCLUDING SATURDAYS, SUNDAYS, LEGAL HOLIDAYS, PRIOR TO COMMENCEMENT OF WORK. PHONE 1–800–522–6543.

10. THE CONTRACTOR SHALL GIVE 72 HOURS NOTIFICATION PRIOR TO WORKING ON THE PROPERTY OWNER'S DRIVEWAY. TEMPORARY DRIVES SHALL BE CONSTRUCTED AND MAINTAINED AS NECESSARY TO PROVIDE ACCESS TO PROPERTY THROUGH OUT THE PROJECT. ALL DRIVEWAYS SHALL BE USABLE AND OPEN DURING NON–CONSTRUCTION PERIODS.

11. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE AREAS SURROUNDING AND ADJACENT TO THE PROJECT AREA, AS WELL AS COMPLETED PROJECT ELEMENTS, FROM DAMAGE CAUSED BY THE CONTRACTORS OPERATIONS. DAMAGED ITEMS SHALL BE REPAIRED AT THE CONTRACTOR'S SOLE EXPENSE.

12. THE LOCATIONS OF THE UTILITIES ARE SHOW ACCORDING TO AVAILABLE INFORMATION. THE CONTRACTOR SHALL DETERMINE THE EXACT TYPE, SIZE, LOCATION AND DEPTH OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK IN EACH AREA. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM HIS FAILURE TO LOCATE AND PRESERVE ANY AND ALL UTILITIES.

13. WHERE EXISTING FENCING IS USED FOR THE CONTAINMENT OF PETS AND THE FENCE MUST BE DISTURBED OR REMOVED IN THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN FENCING UNTIL THE PERMANENT FENCING HAS BEEN RESTORED. NO ADDITIONAL PAYMENT WILL BE MADE.

14. NO FLY ASH IS TO BE USED IN CONCRETE MIXTURES ON THIS PROJECT.

15. ALL ABANDONED LINES TO BE REMOVED.

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	PAY NOTE	UNIT	QUANTITY
1	ROW CLEARING AND RESTORATION	2,10,12,16	LS	1
2	EXCAVATION AND BACKFILL, UNCLASSIFIED	7,9,11	CY	750
3	SOLID SLAB SOD (LIKE KIND)	3,4	SY	275
4	AGGREGATE BASE TYPE "A"		CY	800
5	8" PVC, SDR-35	13	LF	1724
6	4' ID MANHOLE		EA	7
7	4' ID MANHOLE - EXTRA DEPTH		VF	30
8	14" BORE WITH STEEL CASING	17	LF	210
9	SERVICE CONNECTION	18	EA	8
10	CONCRETE PAVEMENT, REMOVAL AND REPLACEMENT	1,14	SY	1090
11	MOBILIZATION		LS	1
12	CONSTRUCTION STAKING	8	LS	1
13	TRAFFIC CONTROL	5,6,22	LS	1
14	STORMWATER MANAGEMENT PLAN	15	LS	1
15	LEAKAGE TESTING	19,21	LS	1
16	DEFLECTION TEST	20,21	LS	1
17	MANHOLE TEST	21	LS	1

REVISION	BY	DATE

SUMMARY OF QUANTITIES AND GENERAL NOTES

CAMMACK STREET GRAVITY RELIEF LINE

SHAWNEE MUNICIPAL AUTHORITY/ CITY OF SHAWNEE, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WILLOW AVE
BROKEN ARROW, OKLAHOMA 74012

PLAN SCALE:	DRAWN	PGM	
	DESIGNED	DAS	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
HORIZONTAL:	LEAD ENGR.		
	FIELD MGR.		
VERTICAL:	RECOMMENDED:		DATE: 2022
	DESIGN MANAGER		SHEET 2 OF 12 SHEETS

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STORMWATER MANAGEMENT PLAN

SITE DESCRIPTION

PROJECT LIMITS: NORTH, SOUTH, EAST AND WEST OF N HARRISON ST & E CAMMACK ST

PROJECT DESCRIPTION: EXCAVATION, GRADING, EMBANKMENT, CLEARING AND GRUBBING, AND SANITARY SEWER CONSTRUCTION

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES:

1. CLEAR AND GRUB AREA
2. STRIP, STOCKPILE AND STABILIZE TOPSOIL, INSTALL TEMP. EROSION CONTROLS
3. REPLACE SALVAGED TOPSOIL AND DEVICES PRIOR TO INSTALLATION OF PERMANENT SOD AND SEEDING, REMOVE TEMP. EROSION CONTROLS
4. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER
5. THE CONTRACTOR SHALL MAINTAIN A LOG OF DATES OF MAJOR SOIL DISTURBANCE ACTIVITIES, THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES, RAINFALL EVENTS, ECT. AS PER OKR10.

SOIL TYPE: AYDELOTTE AND ZANEIS LOAM

AREA TO BE DISTURBED: 0.25 AC

OFFSITE AREA TO BE DISTURBED: N/A
(FOR CONTRACTOR USE)

MAXIMUM ACRES TO BE DISTURBED AT ANY ONE TIME:
(FOR CONTRACTOR USE)

LATITUDE & LONGITUDE OF CENTER OF PROJECT: 36°21'06"N / 96°54'44"W

NAME OF RECEIVING WATERS: UNNAMED DRAINAGE DITCH

SENSITIVE WATER OR WATERSHED: YES ☐ NO ☒

303(D) IMPAIRED WATERS: YES ☐ NO ☒

NOTE: THIS SHEET SHOULD BE USED IN CONJUNCTION WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- ____ TEMPORARY SEEDING
- __X__ PERMANENT SODDING, SPRIGGING OR SEEDING
- ____ VEGETATIVE MULCHING
- ____ SOIL RETENTION BLANKET
- __X__ PRESERVATION OF EXISTING VEGETATION

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 21 DAYS. METHODS USED WILL BE AS SHOWN ON DRAWINGS, OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

- __X__ STABILIZED CONSTRUCTION EXIT
- __X__ TEMPORARY SILT FENCE
- __X__ TEMPORARY SILT DIKES
- __X__ TEMPORARY FIBER LOGS
- ____ DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- ____ DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- ____ ROCK FILTER DAMS
- ____ TEMPORARY SLOPE DRAIN
- ____ PAVED DITCH W/DITCH LINER PROTECTION
- ____ TEMPORARY DIVERSION CHANNELS
- ____ TEMPORARY SEDIMENT BASINS
- ____ TEMPORARY SEDIMENT TRAPS
- ____ TEMPORARY SEDIMENT FILTERS
- ____ TEMPORARY SEDIMENT REMOVAL
- ____ RIP RAP
- __X__ INLET SEDIMENT FILTER
- ____ TEMPORARY BRUSH SEDIMENT BARRIERS
- ____ SANDBAG BERMS
- ____ TEMPORARY STREAM CROSSINGS

OFFSITE VEHICLE TRACKING:

- __X__ HAUL ROADS DAMPENED FOR DUST CONTROL
- __X__ LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- __X__ EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

1. THERE ARE NO ENDANGERED OR THREATENED SPECIES OR CRITICAL HABITAT FOUND IN THE PROXIMITY OF THE PROJECT. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF SUCH SPECIES LISTED ON THE US FISH AND WILDLIFE'S LIST OF THREATENED OR ENDANGERED SPECIES ARE ENCOUNTERED.
2. THERE ARE NO PROTECTED PROPERTIES SUCH AS FEDERAL, STATE OR LOCAL HISTORIC PRESERVATION SITES IMPACTED BY THIS PROJECT.

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:
ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 IN (1.25 CM) AS RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT NEED TO BE INSPECTED.

WASTE MATERIALS:
PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING, SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

HAZARDOUS MATERIALS:
PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIALS IS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, STATE AND FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS, CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

GENERAL NOTES:
A STORMWATER POLLUTION PREVENTION PLAN (SW3P) IS REQUIRED TO COMPLY WITH THE OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (OPDES) REGULATIONS. THIS PLAN IS INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORMS THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING THE PROGRESSION OF THE PROJECT. THE BASIC GOAL OF STORMWATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUTION DUE TO EXPOSED SOILS AND THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORMWATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2009 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

103.05	BONDING REQUIREMENTS
104.10	FINAL CLEANUP
104.12	CONTRACTOR'S RESPONSIBILITY FOR WORK
104.13	ENVIRONMENTAL PROTECTION
106.08	STORING AND HANDLING OF MATERIALS
107.01	LAWS, RULES AND REGULATIONS TO BE OBSERVED
107.20	STORM WATER MANAGEMENT
220	MANAGEMENT OF EROSION, SEDIMENT AND STORM WATER POLLUTION PREVENTION AND CONTROL
221	TEMPORARY SEDIMENT CONTROL

IN ADDITION:

"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ WATER QUALITY DIVISION, OCTOBER 18, 2017.

REVISION	BY	DATE

STORMWATER MANAGEMENT PLAN

CAMMACK STREET GRAVITY RELIEF LINE

SHAWNEE MUNICIPAL AUTHORITY/ CITY OF SHAWNEE, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WILLOW AVE
BROKEN ARROW, OKLAHOMA 74012

PLAN SCALE:	DRAWN	PGM	
	DESIGNED	DAS	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
HORIZONTAL:	LEAD ENGR.		
	FIELD MGR.		
VERTICAL:	RECOMMENDED: DESIGN MANAGER		DATE: 2022

SHEET 3 OF 12 SHEETS

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S88° 38' 24"W
15.00'

KELLER ENT.

S1° 21' 36"E
168.19'

N1° 21' 36"W
168.19'

PARCEL NO. 6

FENG/ZHANG

S88° 38' 24"W
15.00'

S1° 21' 36"E
82.50'

N1° 21' 36"W
82.50'

HARMONY HOLDINGS, LLC

N88° 38' 24"E
15.00'

PARCEL NO. 5

S1° 21' 36"E
82.50'

PARCEL NO. 4

PEDRO DOMINGUEZ

N1° 21' 36"W
82.50'

CIMARRON TERRACE APTS

S1° 21' 36"E
115.00'

N88° 38' 24"E
15.00'

TOBE'S SUBDIVISION
BLOCK 1

BRIDGE
INVESTMENT
GROUP LLC
LOT 1

LOT 2

LOT 3

LOT 4

LOT 5

LOT 6

N1° 21' 36"W
115.00'

PARCEL NO. 3

N88° 38' 24"E
15.00'

E CAMMACK ST

S88° 38' 24"W
286.06'

N1° 21' 36"W
17.50'

N88° 38' 24"E
292.00'

S43° 38' 24"W
21.21'

S1° 21' 36"E
17.50'

N88° 38' 24"E
286.06'

S88° 38' 24"W
292.00'

S1° 21' 36"E
17.50'

PARCEL NO. 7

PARCEL NO. 8

BERGEN REAL ESTATE LLC

PARCEL NO. 2

BILL McCOIN

TRJANOWSKI

S1° 21' 36"E
82.00'

N1° 21' 36"W
97.00'

N88° 38' 24"E
15.00'

N1° 21' 36"W
97.86'

1803 N HARRISON LLC

DONG'S PROPERTY LLC

S1° 21' 36"E
97.86'

PARCEL NO. 1

N88° 38' 24"E
15.00'

GRACE HUNTER

N HARRISON ST

0 60' 120'
SCALE: 1" = 60'

REVISION	BY	DATE

RIGHT OF WAY DATA

CAMMACK STREET
GRAVITY RELIEF LINE

SHAWNEE MUNICIPAL AUTHORITY/
CITY OF SHAWNEE, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WILLOW AVE
BROKEN ARROW, OKLAHOMA 74012

PLAN SCALE: 1"=50'	DRAWN	PGM	
	DESIGNED	DAS	
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HORIZONTAL:	LEAD ENGR.		
	FIELD MGR.		
VERTICAL:	RECOMMENDED:		DATE: 2022
	DESIGN MANAGER		SHEET 4 OF 12 SHEETS

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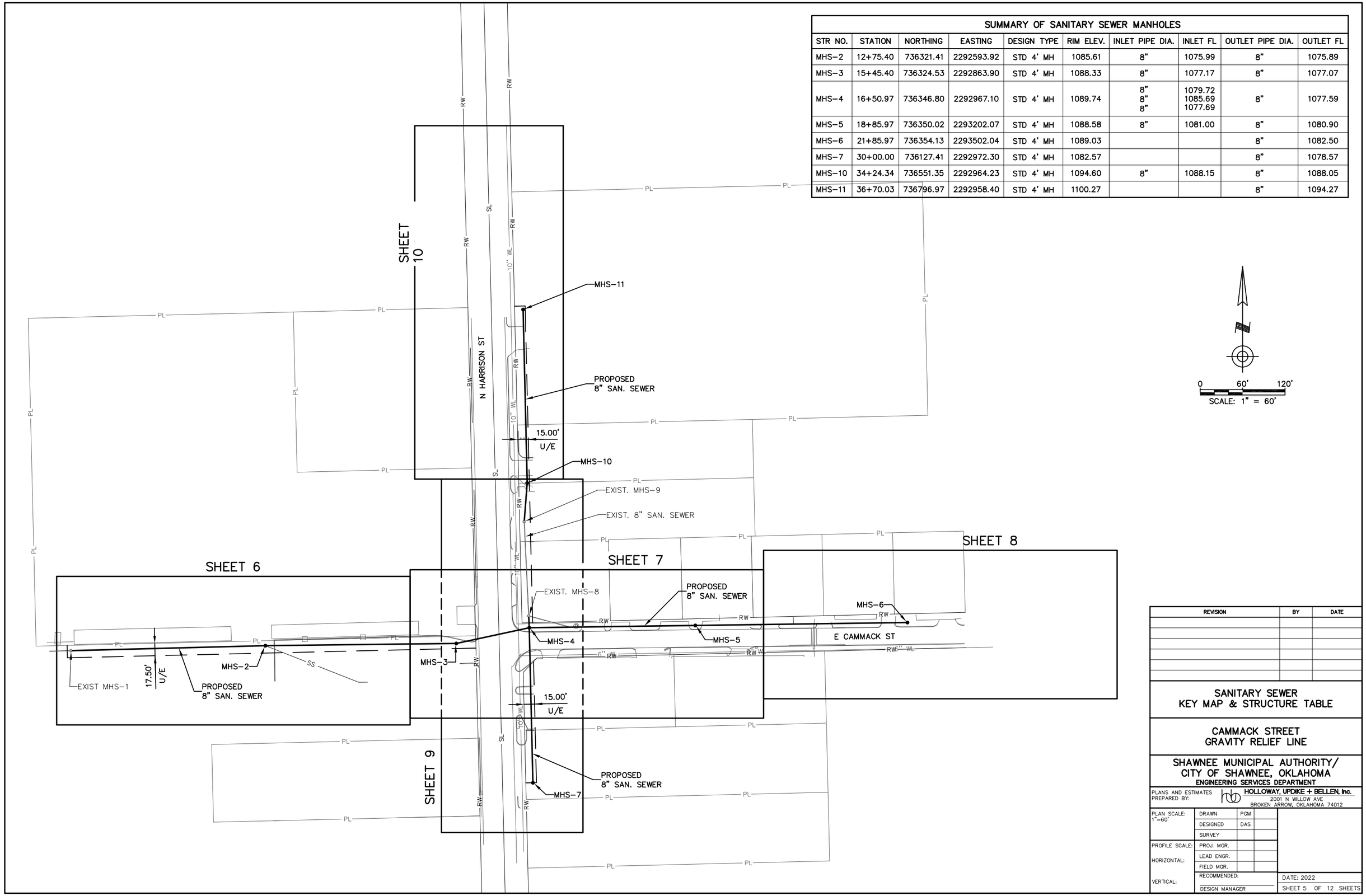
SUMMARY OF SANITARY SEWER MANHOLES									
STR NO.	STATION	NORTHING	EASTING	DESIGN TYPE	RIM ELEV.	INLET PIPE DIA.	INLET FL	OUTLET PIPE DIA.	OUTLET FL
MHS–2	12+75.40	736321.41	2292593.92	STD 4' MH	1085.61	8"	1075.99	8"	1075.89
MHS–3	15+45.40	736324.53	2292863.90	STD 4' MH	1088.33	8"	1077.17	8"	1077.07
MHS–4	16+50.97	736346.80	2292967.10	STD 4' MH	1089.74	8" 8" 8"	1079.72 1085.69 1077.69	8"	1077.59
MHS–5	18+85.97	736350.02	2293202.07	STD 4' MH	1088.58	8"	1081.00	8"	1080.90
MHS–6	21+85.97	736354.13	2293502.04	STD 4' MH	1089.03			8"	1082.50
MHS–7	30+00.00	736127.41	2292972.30	STD 4' MH	1082.57			8"	1078.57
MHS–10	34+24.34	736551.35	2292964.23	STD 4' MH	1094.60	8"	1088.15	8"	1088.05
MHS–11	36+70.03	736796.97	2292958.40	STD 4' MH	1100.27			8"	1094.27



REVISION	BY	DATE

SANITARY SEWER
KEY MAP & STRUCTURE TABLE

CAMMACK STREET
GRAVITY RELIEF LINE

SHAWNEE MUNICIPAL AUTHORITY/
CITY OF SHAWNEE, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
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VERTICAL:	RECOMMENDED: DESIGN MANAGER		DATE: 2022
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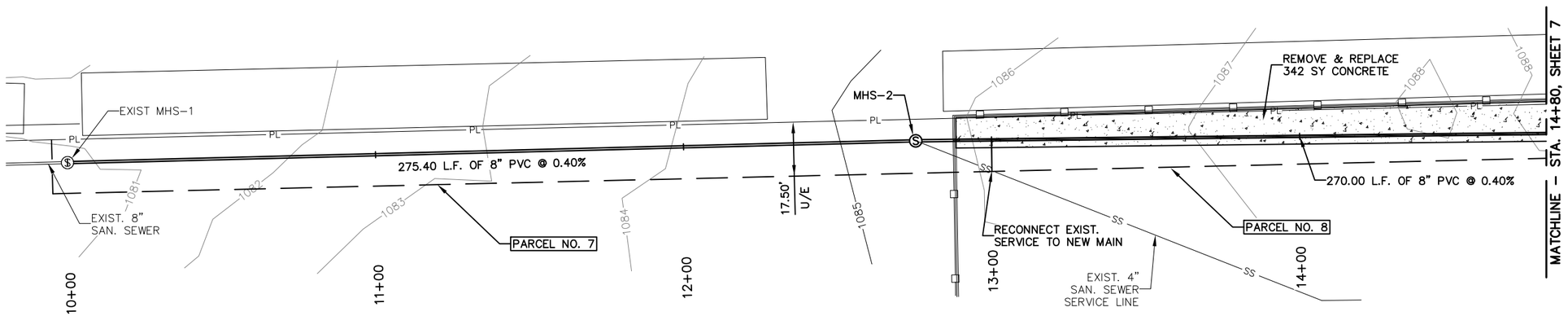
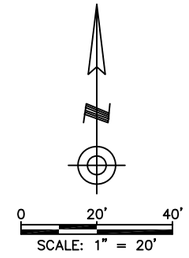
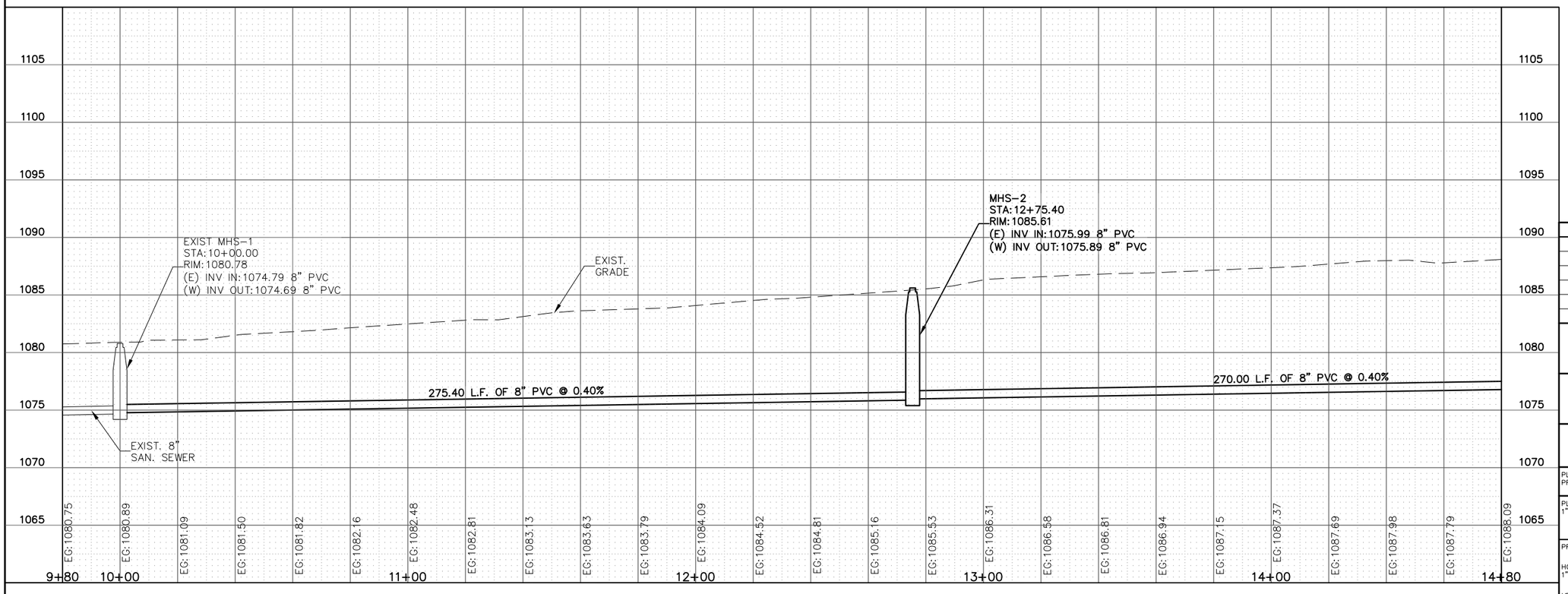
CIMARRON TERRACE APTS





BERGEN REAL ESTATE LLC



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SANITARY SEWER PLAN AND PROFILE

CAMMACK STREET GRAVITY RELIEF LINE

SHAWNEE MUNICIPAL AUTHORITY/ CITY OF SHAWNEE, OKLAHOMA
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PLANS AND ESTIMATES PREPARED BY:
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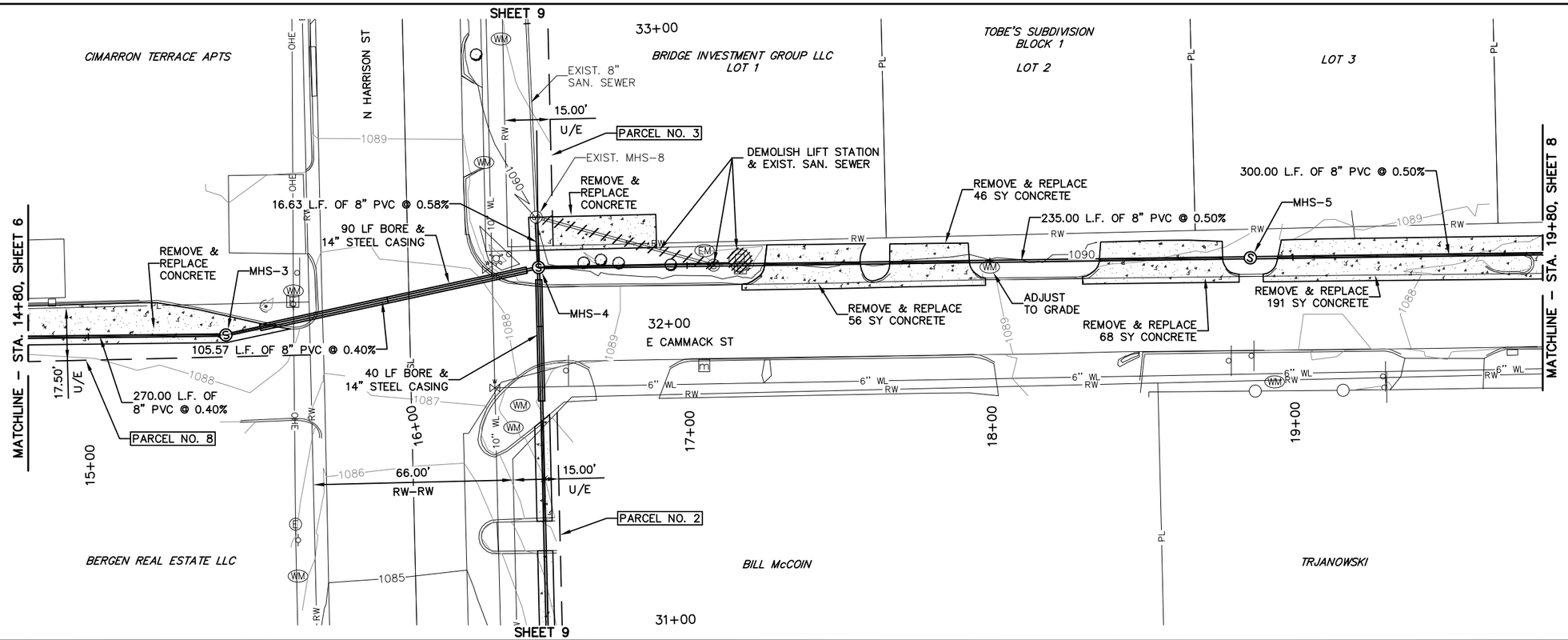

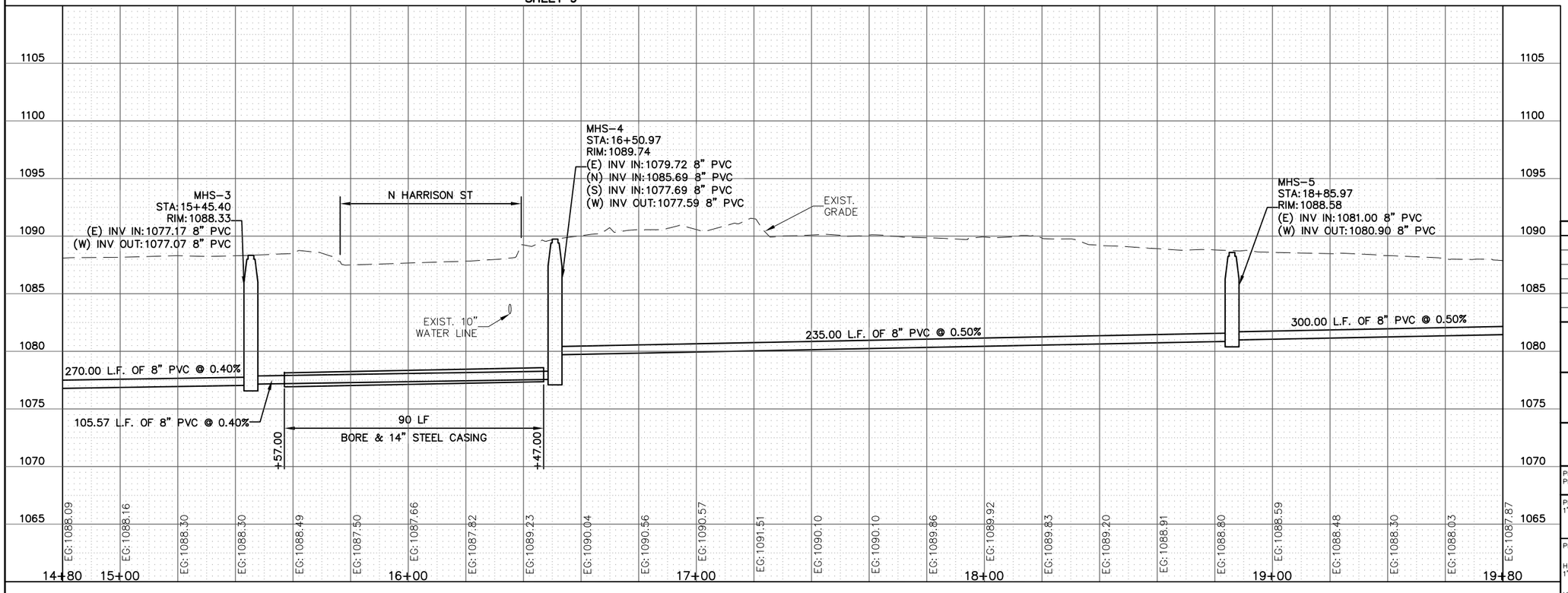

REVISION	BY	DATE

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SHEET 7 OF 12 SHEETS

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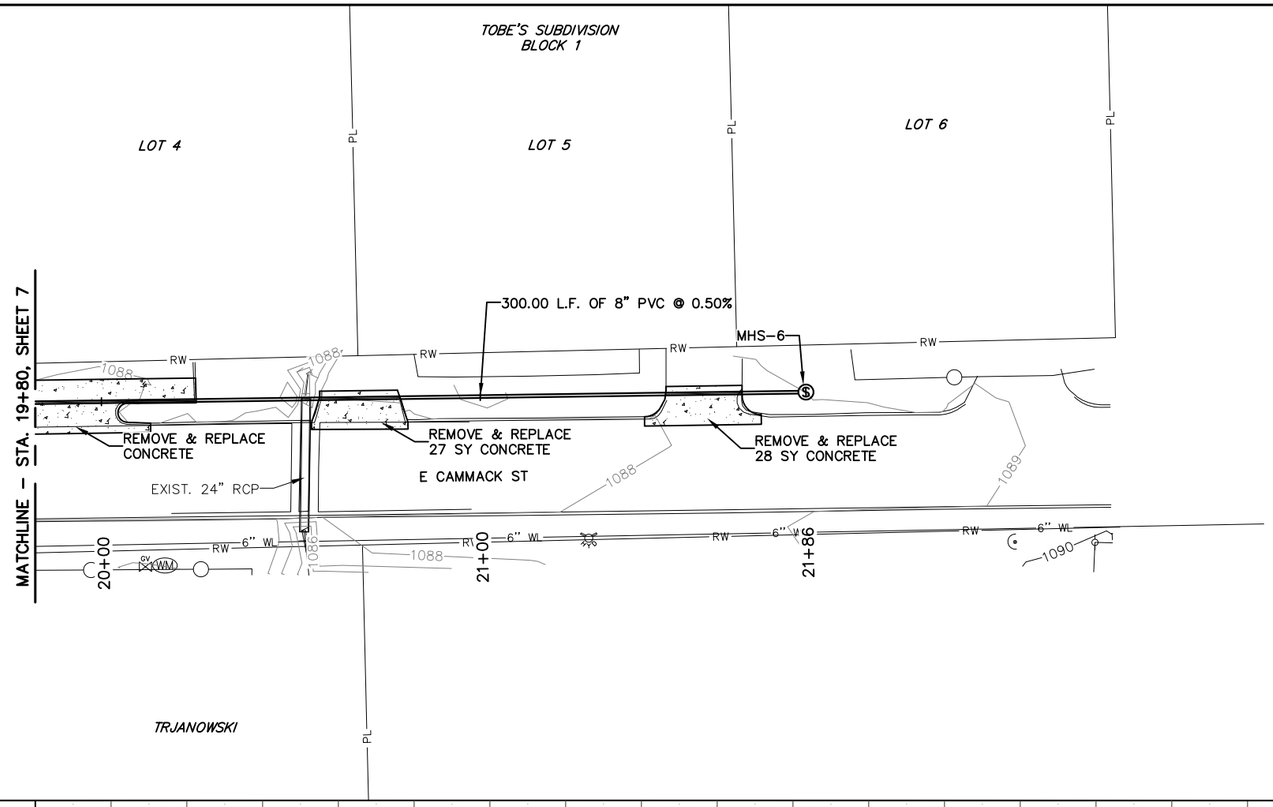

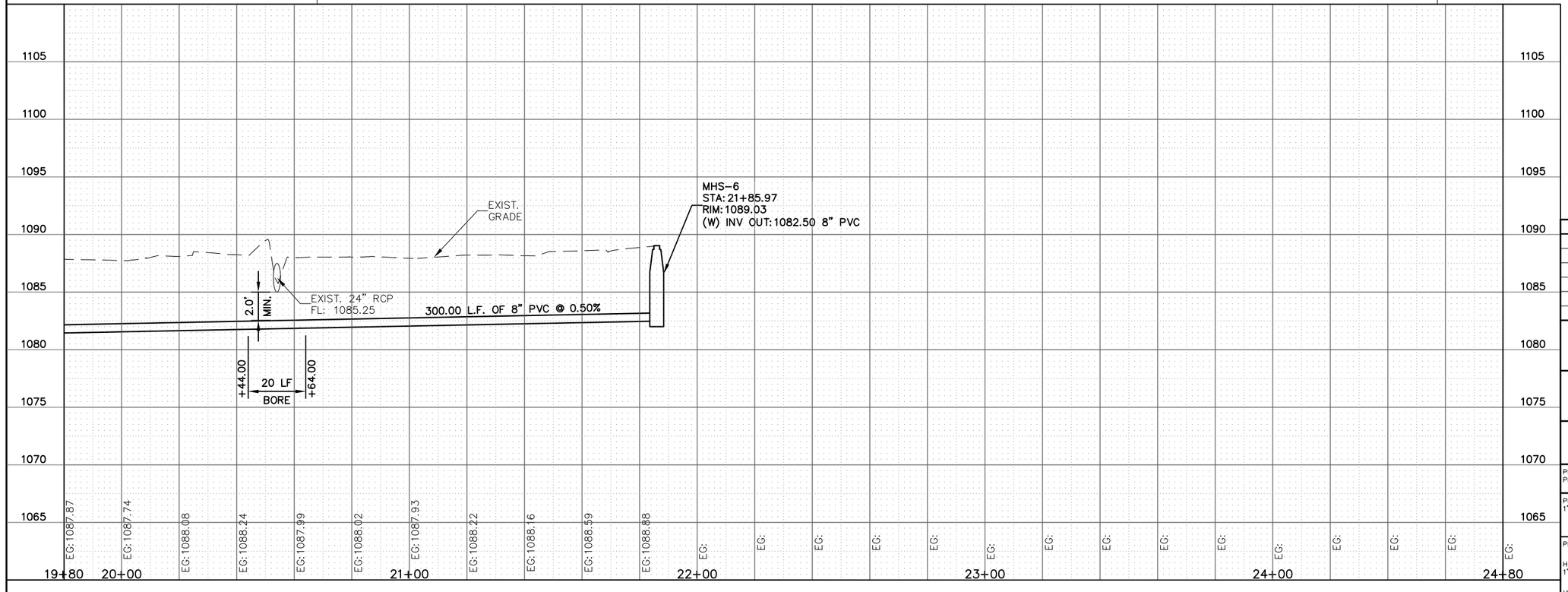

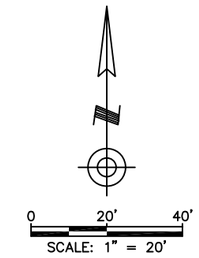

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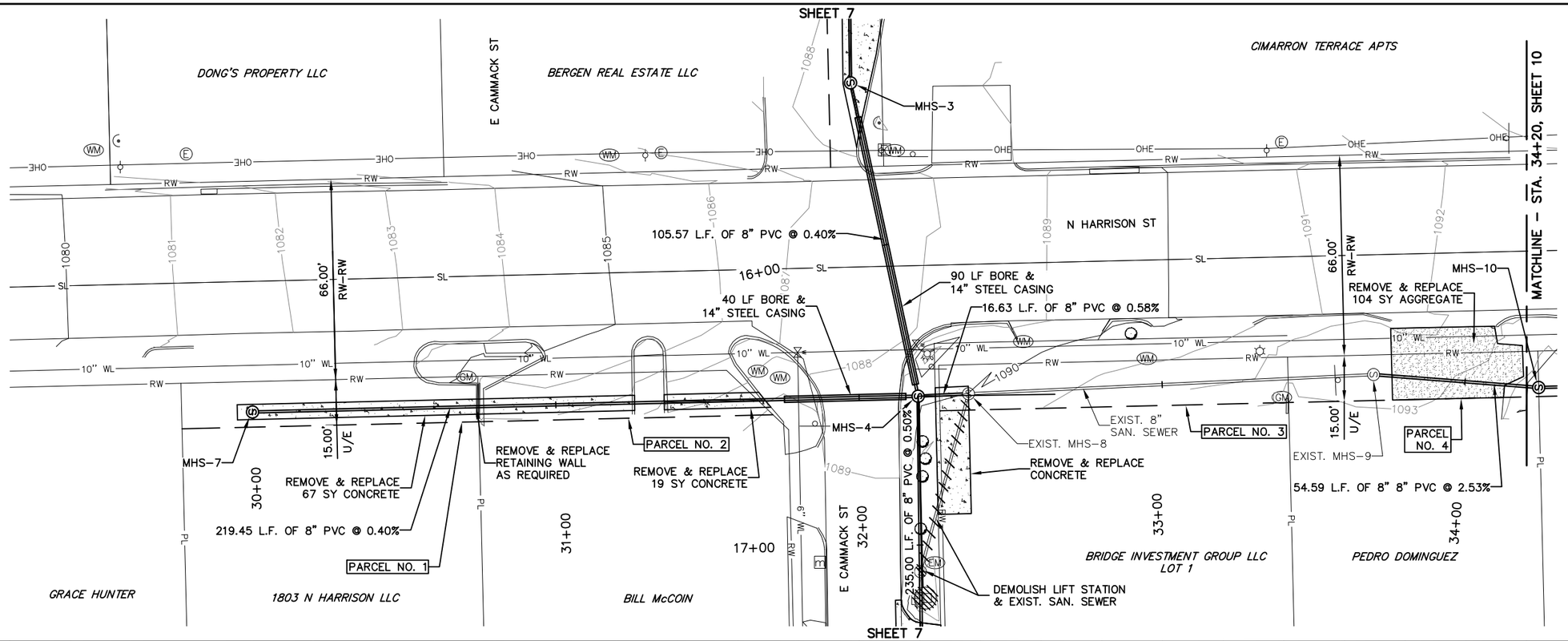

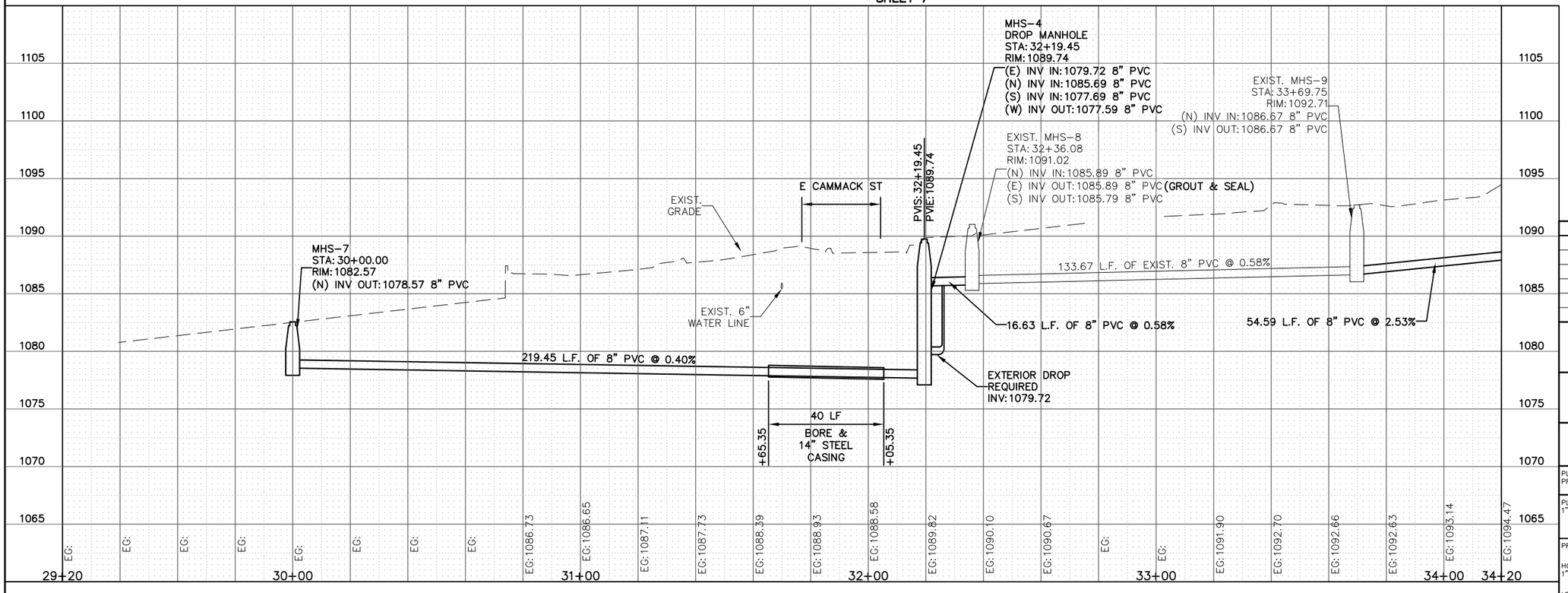

REVISION	BY	DATE

SANITARY SEWER PLAN AND PROFILE

CAMMACK STREET GRAVITY RELIEF LINE

SHAWNEE MUNICIPAL AUTHORITY/
CITY OF SHAWNEE, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

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VERTICAL: 1"=5'	RECOMMENDED: DESIGN MANAGER		DATE: 2022

SHEET 9 OF 12 SHEETS

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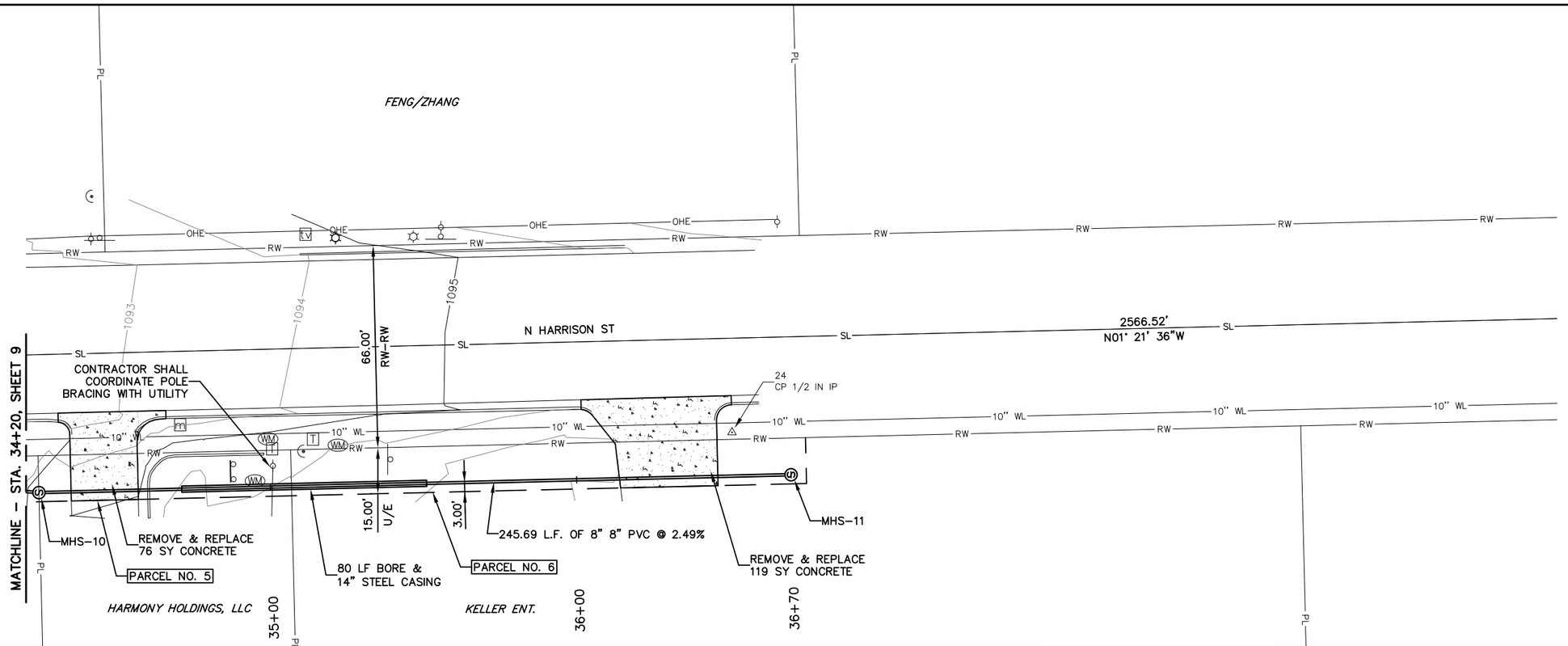

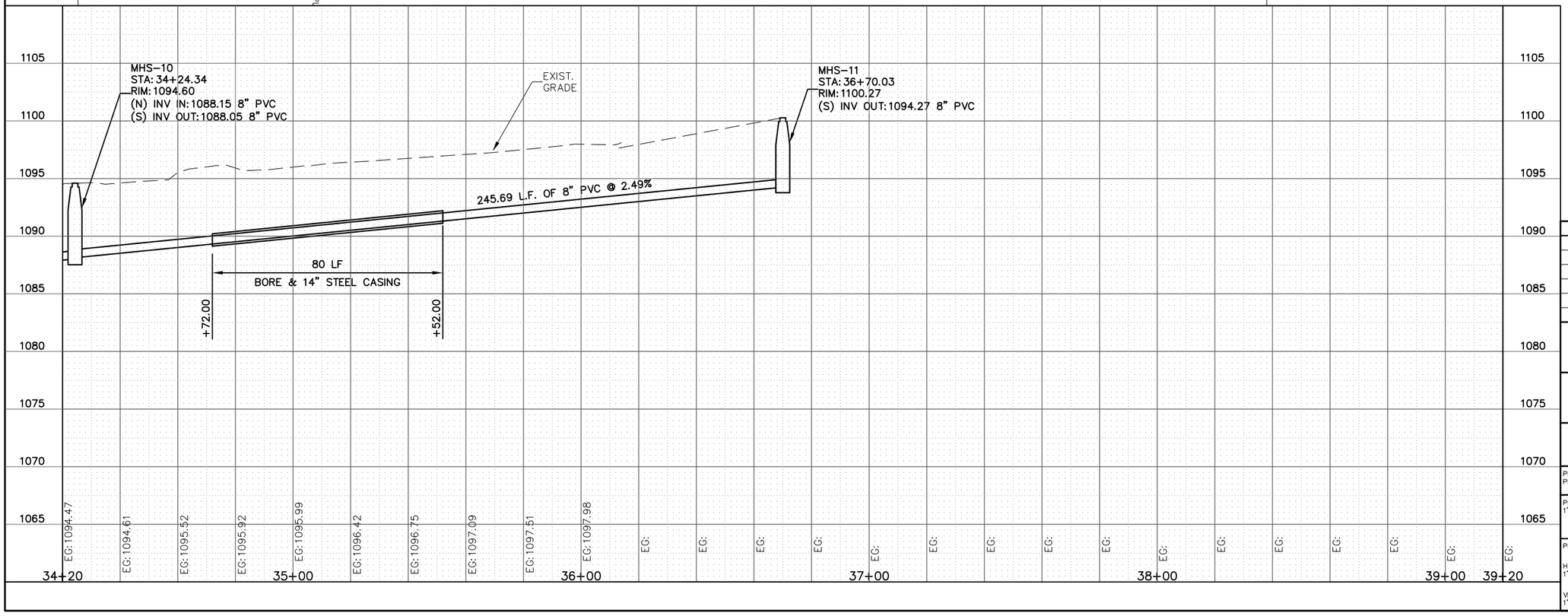

0 20' 40'
SCALE: 1" = 20'

REVISION	BY	DATE

SANITARY SEWER PLAN AND PROFILE

CAMMACK STREET GRAVITY RELIEF LINE

SHAWNEE MUNICIPAL AUTHORITY/
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HORIZONTAL: 1"=20'	LEAD ENGR.		
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VERTICAL: 1"=5'	RECOMMENDED: DESIGN MANAGER		DATE: 2022
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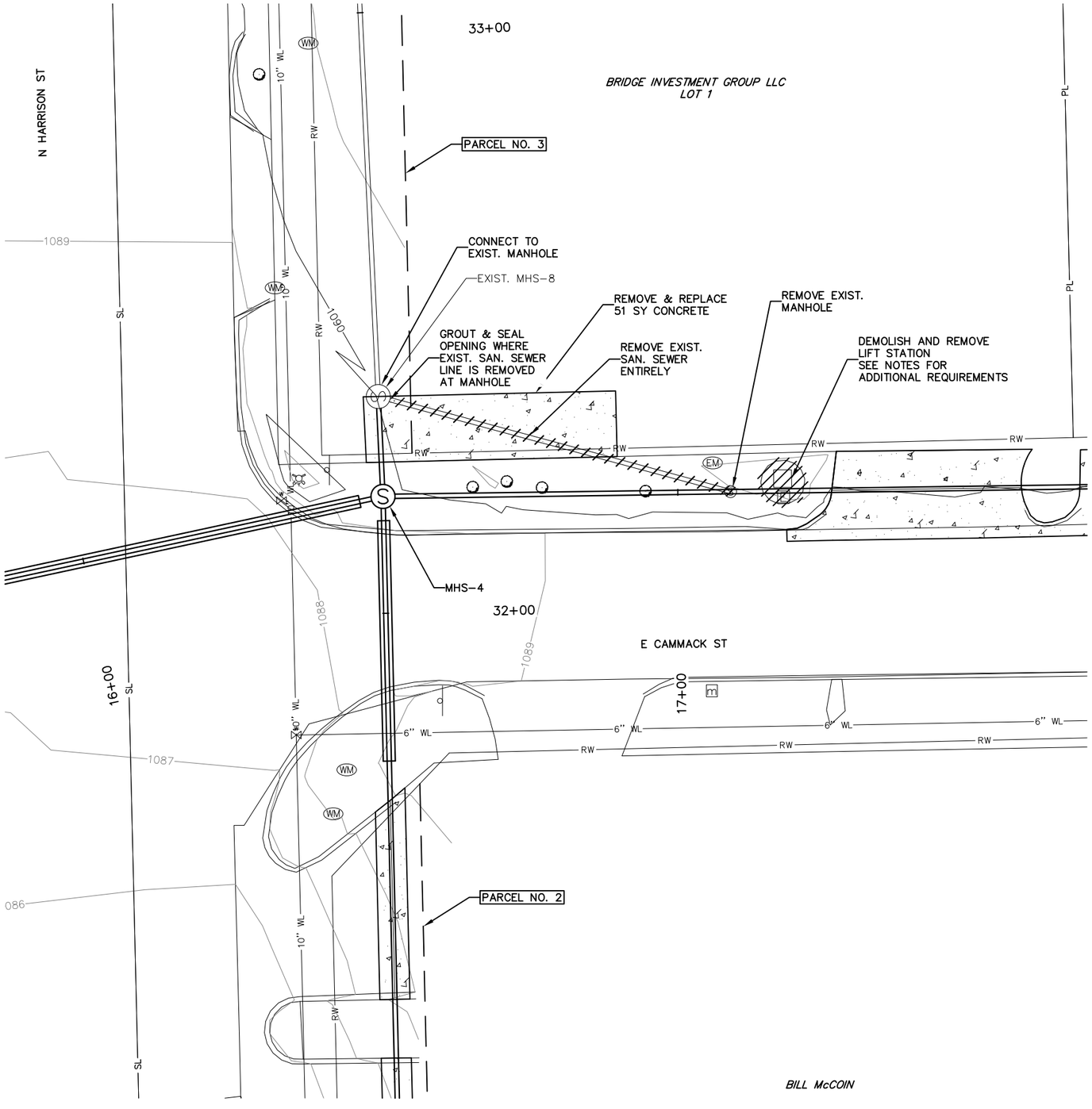

0 10' 20'

SCALE: 1" = 10'

LIFT STATION DEMOLITION NOTES

1. REMOVE EXISTING LIFT STATION AND EQUIPMENT ENTIRELY, INCLUDING THE WET WELL STRUCTURE.
2. ALL DEMOLISHED MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR AND DISPOSED OF IN A MANNER COMPLIANT WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS..
3. BACKFILL EXCAVATION WITH COMPACTED CLASS A AGGREGATE. INSTALL MINIMUM OF 2'-0" OF SELECT FILL AND 6" TOPSOIL
4. LEVEL AND UNIFORMLY GRADE ENTIRE DISTURBED AREA TO DRAIN.
5. SLAB SOD ENTIRE DISTURBED AREA AND ESTABLISH VIABLE VEGETATIVE COVER.
6. REMOVE EXISTING FORCE MAINS.
7. CONTRACTOR SHALL SUPPORT EXISTING UTILITIES DURING DEMOLITION.
8. DEMOLITION AND CONSTRUCTION ACTIVITIES MAY REQUIRE BYPASS PUMPING. BYPASS PUMPING SHALL BE SUPPLIED, INSTALLED, MAINTAINED AND OPERATED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.

REVISION	BY	DATE

LIFT STATION DEMOLITION PLAN

CAMMACK STREET GRAVITY RELIEF LINE

SHAWNEE MUNICIPAL AUTHORITY/
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	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
HORIZONTAL:	LEAD ENGR.		
	FIELD MGR.		
VERTICAL:	RECOMMENDED:		DATE: 2022
	DESIGN MANAGER		SHEET 11 OF 12 SHEETS

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ADVANCED WARNING
ODOT TCS7-1
CONSTRUCTION ZONE
AHEAD

ADVANCED WARNING
ODOT TCS7-1
LANE CLOSED AHEAD

CHANNELING
DEVICE

100.00'
TAPER

120.00'
BUFFER SPACE

WORK AREA
VARIES

120.00'
BUFFER SPACE

100.00'
TAPER

ADVANCED WARNING
ODOT TCS7-1
ONE LANE
ROAD AHEAD

WORK AREA VARIES

120.00'
BUFFER SPACE

100.00'
TAPER

FLAGGER

ADVANCED WARNING
ODOT TCS7-1
ONE LANE
ROAD AHEAD

FLAGGER

ADVANCED WARNING
ODOT TCS7-1
ONE LANE
ROAD AHEAD

ADVANCED WARNING
ODOT TCS7-1
CONSTRUCTION ZONE
AHEAD

N HARRISON ST

E CAMMACK ST

PL
SL
RW
WL
SS

0 60' 120'
SCALE: 1" = 60'

REVISION	BY	DATE

TRAFFIC CONTROL PLAN

CAMMACK STREET
GRAVITY RELIEF LINE

SHAWNEE MUNICIPAL AUTHORITY/
CITY OF SHAWNEE, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
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BROKEN ARROW, OKLAHOMA 74012

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	DESIGN MANAGER		SHEET 12 OF 12 SHEETS

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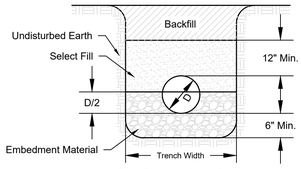
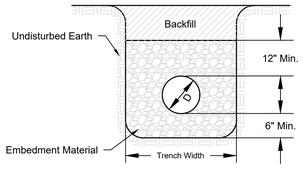


Rigid Pipe Installation Detail
(RCP)

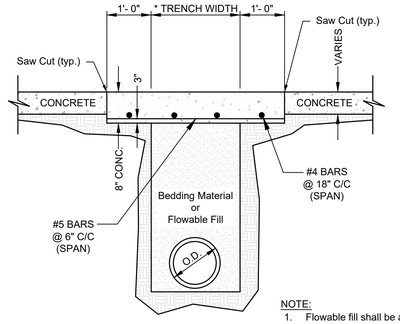


Flexible Pipe Installation Detail
(DIP, HDPE, & PVC)

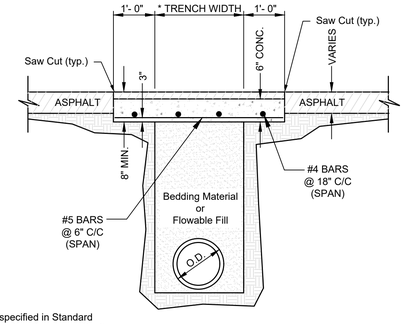
Pipe Size	Standard Trench Width
8"	24"
10"	30"
12"	30"
15"	36"
18"	36"
21"	42"
24"	42"
27"	48"
30"	48"
36"	54"
42"	60"
48"	66"

NOTE:
1. Embedment material shall consist of a graded or crushed stone conforming to ASTM D448 (ODOT 701.06). The following gradations are acceptable:
   1.1. Size No. 57: 1" to No. 4
   1.2. Size No. 67: 3/4" to No. 4
2. Select fill consists of excavated materials free of rock larger than 2-1/2 inches, organic material, rubbish debris, and all other objectionable material.
3. Compaction Requirements:
   A. Paved areas: 95% Standard Proctor Density
   B. Non-Paved Areas: 90% Standard Proctor Density if cover depth < 10'. 95% Standard proctor density if cover depth > 10'.

TYPICAL BEDDING & TRENCH DETAILS
S100-A



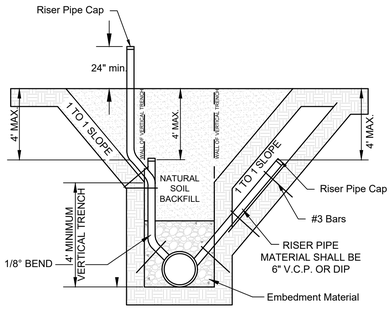
Rigid Pavement



Flexible Pavement

NOTE:
1. Flowable fill shall be as specified in Standard Specification and Construction Drawings. (Section 2402)
2. Reference detail S100-A for trench width table.

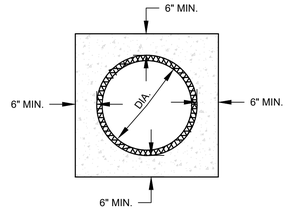
TYPICAL PAVING CUT AND PERMANENT REPAIR
S100-B



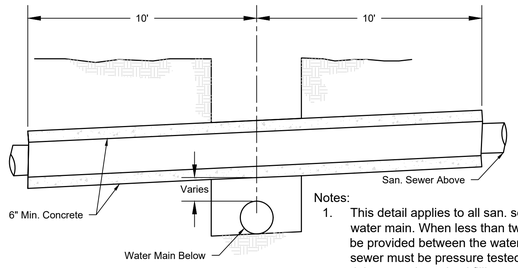
Notes:

1. EXTERNAL CONNECTIONS FOR NEW CONSTRUCTION WYE BRANCHES -- For new construction there shall be installed wye branches of size and type shown on the plans with six (6") inch openings at locations shown on the plans or as described by the Engineer.
2. EXTERNAL CONNECTION TO EXISTING MAIN -- Connections to existing main may be accomplished as follows:
   a. SADDLES -- Connections may be made by excavating the existing main and cutting a hole using approved equipment and installing a saddle. Sewer service connections constructed with saddles shall include straps, a one-eighth (1/8°) degree bend, and a closure piece. when existing main has been rehabilitated by trenchless method of construction, the saddle connection shall be made to the pipe/or liner.
   b. TEES -- Connections maybe made by removing a section of existing pipe and installing a wye branch. Fittings and closure assembly shall be used to make the connection and shall be supplied in a normal diameter or six (6") inches. The external connection shall be considered complete when backfilling and surface restoration is complete. Service connections constructed with wye branches shall include a on-eighth (1/8°) degree bend, elbow, and when required, a closure piece.
3. RISER
   a. INSTALLATION -- The pipe may be installed in one of three ways shown above.
   b. SIZE AND MATERIAL -- The riser pipe shall be six (6") inch PVC or DIP.
   c. CONCRETE ENCASEMENT -- Concrete encasement around riser shall meet the requirement established above.
4. LOCATOR TAPE -- A locator tape, green in color stating "CAUTION -- SANITARY SEWER RISER BURIED BELOW" shall be attached to the sanitary sewer riser and extended to a minimum of two (2') feet above the ground, the tape shall be three (3") inch wide DuraTac as manufactured by THOR Enterprises, Inc., of Sun Prairie, Wisconsin or approved equal.

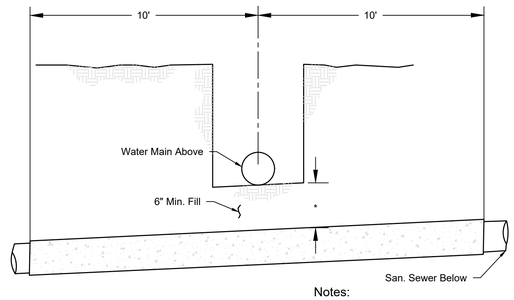
TYPICAL SERVICE CONNECTION INSTALLATION
S100-D



CONCRETE ENCASEMENT DETAIL	
PIPE SIZE	CU. YD. CONC. PER L.F. ENCASEMENT
8"	0.063
10"	0.075
12"	0.0875
15"	0.106
18"	0.127
21"	0.150
24"	0.175
27"	0.197
30"	0.221
33"	0.246
36"	0.271

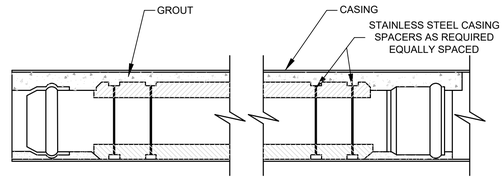


Notes:
1. This detail applies to all san. sewer crossings above the water main. When less than two feet of separation can be provided between the water main and sewer, the sewer must be pressure tested to assure water tightness prior to backfilling per ODEQ Chapeter 655.

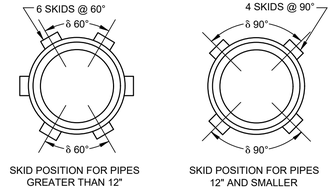


Notes:
1. This detail applies to all san. sewer crossings where vertical separation of water main and sewer is two feet or less and when san. sewer is below water main.

CONCRETE ENCASEMENT DETAIL
S100-E



Profile



SKID POSITION FOR PIPES GREATER THAN 12"

SKID POSITION FOR PIPES 12" AND SMALLER

Section

Notes:

1. PLUGGED PIPE ENDS -- both ends of the casing pipe shall be sealed with an ethylene propylene diene monomer (EPDM) rubber seal and stainless steel bindings.
2. FILLING ANNULAR SPACE -- The annular space between the sanitary sewer pipe and the steel casing shall be filled with a flowable fill consisting of a Portland cement grout having a minimum twenty-eight (28) day compressive strength of one-thousand (1,000 psi) pounds per square inch. the contractor shall install a vent pipe higher than the upper end of the pipe to ensure the annulus is completely filled with grout.
3. CASING PIPE SIZE -- Steel casing pipe shall have the following suggested minimum diameters:

PIPE NOMINAL SIZE (inches)	SUGGESTED CASING PIPE INSIDE DIAMETER (inches)
4	8 to 10
6	10 to 12
8	14 to 16
10	16 to 18
12	18 to 20
15	20 to 22
18	24 to 26
24	31 to 33
27	33 to 36
30	36 to 42
36	42 to 48
42	54 to 60
48	60 to 66

5. CASING PIPE THICKNESS -- Steel casing pipe shall have the following minimum thickness(es), in inches, for the indicated maximum depth of cover(s), in feet:

OUTSIDE DIAMETER (inches)	UNDER HIGHWAY		UNDER RAILROAD	
	WALL THICKNESS (inches)	Max. Depth	WALL THICKNESS (inches)	Max. Depth
< 12 3/4	0.531	30'	0.531	30'
16	0.531	30'	0.531	30'
18	0.531	30'	0.531	30'
20	0.531	30'	0.531	30'
24	0.531	30'	0.531	30'
30	0.531	30'	0.531	30'
36	0.531	30'	0.531	30'
42	0.531	25'	0.531	30'
48	0.531	25'	0.531	25'
54	0.531	25'	0.531	20'
60	0.531	25'	0.531	20'
66	0.531	20'	0.531	20'

6. CASING MATERIAL -- Steel casing pipe shall conform with ASTM A-139, Standard Specification for Electric-Fusion (ARC)-Welded Steel Pipe (NPS4 and over). The steel material shall be new, smooth wall, carbon steel, Grade B, with a minimum tensile strength, and minimum thrity-five-thousand (35,000 psi) pounds per square inch yield strength.

Boring and Casing Detail
S100-C

CITY OF SHAWNEE, OKLAHOMA
ENGINEERING DEPARTMENT

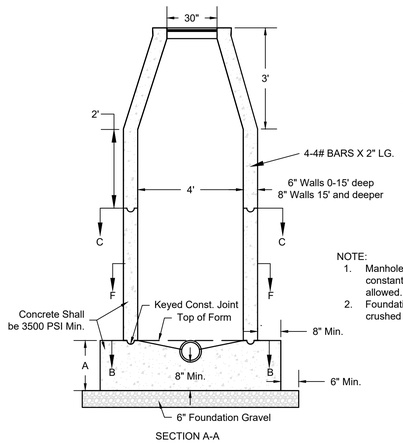
APPROVED BY: _____ DATE: _____
SETH BARKIMER, P.E.
CITY ENGINEER

DRAWN: SCB

DATE: 6/11/2021

STANDARD SANITARY SEWER

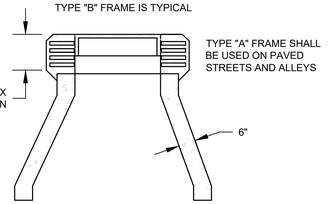
DRAWING NUMBER
S-100

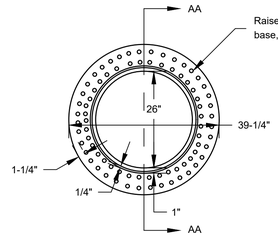


SECTION A-A

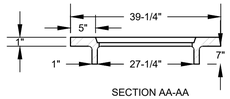
NOTE:
1. Manhole Wall thickness shall be constant. No transition shall be allowed.
2. Foundation gravel shall be crushed rock.

SCHEDULE OF THICKNESS	
PIPE DIA.	DIM. "A"
8"	1'6"
10"	1'8"
12"	1'11"
15"	2'2"
18"	2'6"
21"	2'10"
24"	3'1"



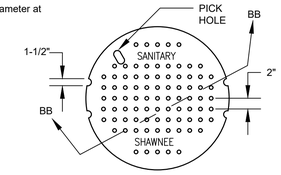


PLAN

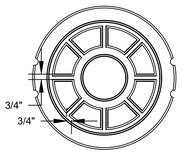


SECTION AA-AA

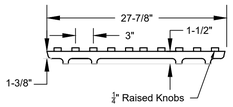
TYPE "A" FRAME



PLAN OF TOP



BOTTOM PLAN

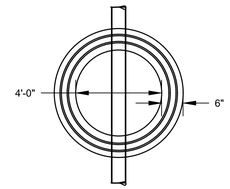


SECTION BB-BB

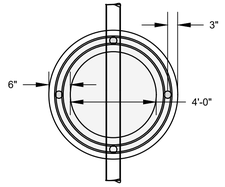
NOTE:
1. Furnished with machined horizontal bearing surface.
2. All lettering on top of cover is 1 $\frac{7}{16}$"
3. Raised knobs to be 1" diameter at base, $\frac{3}{4}$" at top and $\frac{1}{4}$" high.
4. Fillets shall be 1/4" unless otherwise specified.
5. Casting shall conform to the requirements of the standard specification for grey iron fittings ASTM A-48, Class "30 B" for rings and "35 B" for covers and approved standard details for manhole rings and covers .

MANHOLE COVER
(FITS FRAMES "A" & "B")

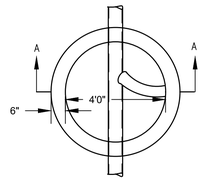
MANHOLE FRAME
S200-B



SECTION B-B

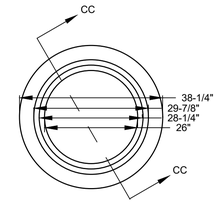


SECTION C-C



SECTION F-F

TYPICAL MANHOLE
S200-A



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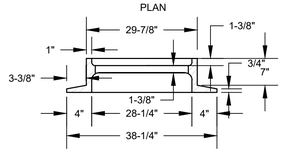
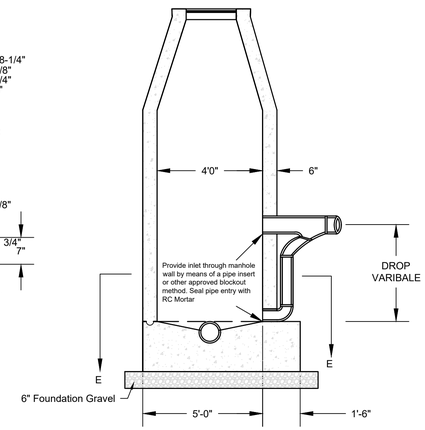


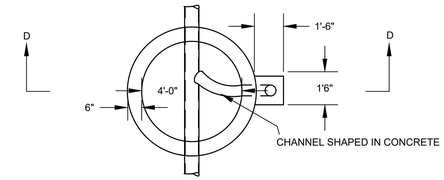
SECTION CC-CC

TYPE "B" FRAME



SECTION D-D

SCHEDULE OF THICKNESS	
PIPE DIA.	DIM. "A"
8"	1'6"
10"	1'8"
12"	1'11"
15"	2'2"
18"	2'6"
21"	2'10"
24"	3'1"



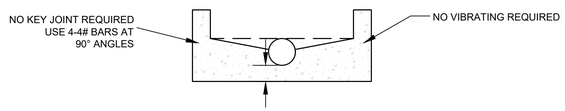
SECTION E-E

Written approval by the City Engineer is required.

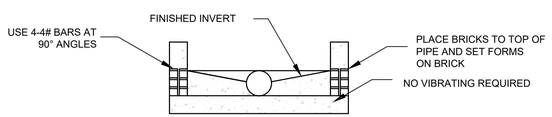
STANDARD POURED-IN-PLACE DROP MANHOLE
S200-C

S-200 - GENERAL NOTES:

1. This manhole is standard for sewers 36" in diameter or less. At junction points, special manholes may be required.
2. Interior surfaces of all manhole walls shall receive two coats of black sewer pipe type paint. A minimum interval of 24 hours shall elapse between coats.
3. Forms shall be provided for the shaping and finishing of the manhole bottom. A minimum interval of 24 hours shall elapse prior to pouring manhole walls.
4. Mortar for finishing and sealing shall be Class "C". Any honey-combing of concrete less than 2" deep in 6" manhole walls may be repaired using Class "D" Mortar.
5. Concrete pours (actual vertical drop of concrete) for height of manhole walls shall not exceed 10'. Concrete pours for heights exceeding 10' shall have a construction joint.
6. Monolithic pours of the manhole bottom and walls shall be permitted provided that all concrete is vibrated according to the specifications for the construction of sanitary sewers.
7. The following alternate concrete mix will be permitted:
   (No vibration required when placing this mix.)
   7.1. 3,000 lb. Pump mix
   7.2. 1,460 lb. of rock
   7.3. 1,700 lb. of sand
   7.4. 5-1/2 bags of cement or 517 lbs.
   7.5. Sufficient water to produce a 4" slump.
8. Manholes shall be tested, before acceptance, by either performing exfiltration or vacuum test.
   8.1. Exfiltration test - all incoming and outgoing lines (Including any possible services) shall be plugged and the manhole filled with water up to the bottom of the manhole ring. If the water loss exceeds the maximum allowable, the manhole shall be considered to have failed the test. The contractor shall drain, perform the necessary repairs, and then reset the manhole until it passes, all at no additional cost to the city. Maximum allowable water loss is 1/8" per vertical foot of manhole.
   8.2. Vacuum Testing - all incoming and outgoing sewer and service lines shall be plugged. The plugs restrained and the vacuum tester head placed on the manhole ring and sealed. A vacuum of ten (10") inches Hg (Mercury) Shall then be drawn on the manhole and the time measure for the vacuum to drop to (9") inches Hg. The measured shall not be less than that shown below.
   4-6' internal diameter manholes - 60 Seconds
   7'+ internal diameter manholes - 70 Seconds



ALTERNATE NO. 1



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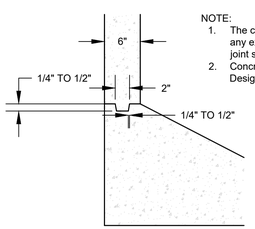
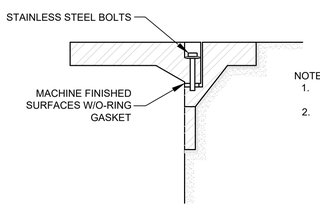


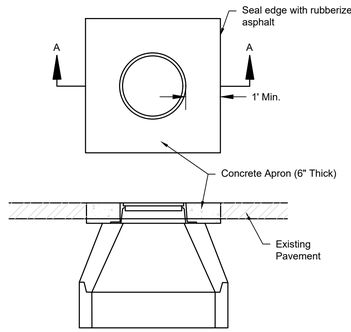
NOTE:
1. The construction joint shall be inspected and cleaned of any excess foreign matter prior to application of concrete joint sealer.
2. Concrete joint sealer shall comply with ASTM Designation D 1850-67.

DETAIL KEY CONSTRUCTION JOINT FOR BOTTOM & WALLS
S100-D



NOTE:
1. Manholes with bolted covers shall comply with the requirements of manhole and cover type "B"
2. Covers shall be furnished with six equally spaced stainless steel bolts.

DETAIL BOLTED COVER
S100-E



SECTION A-A

MANHOLE, AND VALVE BOXES IN STREETS
S100-F

CITY OF SHAWNEE, OKLAHOMA
ENGINEERING DEPARTMENT

APPROVED BY: _____ DATE: _____
SETH BARKIMER, P.E.
CITY ENGINEER

DRAWN: SCB

DATE: 6/11/2021

STANDARD SANITARY SEWER TYPICAL DETAILS

DRAWING NUMBER
S-200

Plan Holder Report as of 07/12/2022 10:32 AM CDT

Cammack Street Gravity Relief Line

Quest Quest Number: 8245445

Closing Date: Mon, 07/18/2022 03:00 PM CDT
Posting Type: Construction Project
Owner Name: City of Shawnee
Solicitor Name: Holloway, Updike & Bellen Inc
Contact: Dale Seaton, P.E. dseaton@hubengineers.com
Phone: 918-251-0717
Email: thilton@hubengineers.com

Company	Address	Contact	Email Address	Phone	Fax	Business Certification	Business Designation	Entry Date	Document Type	Comments
City of Shawnee	222 N Broadway Ave., Shawnee, OK - 74801	Seth Barkhimer	seth.barkhimer@shawneeok.org	405-878-1760			Project Owner	06/24/2022	Paper	
ConstructConnect	3825 Edwards Rd, Cincinnati, OH-45209	Eric Mills	content@constructconnect.com	800-364-2059	866-570-8187		Plan Room	06/28/2022	eBidDoc	
ePlan	1400 Forum Blvd Ste 7B, Columbia, MO-65203	Eplan Reporter	eplan@eplanbidding.com	5734477130	573-355-5404		Plan Room	06/28/2022	eBidDoc	
Orr Construction, Inc.	510 North Broadway, Davenport, OK-74026	Johnny Johnson	johnny@orrconstructionok.com	918-377-4362			Prime Bidder	06/30/2022	eBidDoc	
Downey Contracting, L.L.C.	3217 Northeast 63rd Stree, Oklahoma City, OK-73121	Brandon Downey	bids@downeycontracting.com	4054785277	405-478-5269		Prime Bidder	06/30/2022	eBidDoc	
Core and Main # 123	8401 SW 15th Street, Oklahoma City, OK-73128	Jeff Wilcox	jeffrey.wilcox@coreandmain.com	405-495-0699	405-495-2016		Supplier	07/06/2022	eBidDoc	
Krapff-Reynolds Construction Co.	2400 N.E. 4th Street, Oklahoma City, OK-73117	Jim King	jking@krapff-reynolds.com	405-733-9682	405-516-0081		Prime Bidder	07/07/2022	eBidDoc	
UTILITY TECHNOLOGY SERVICES	9636 west reno, oklahoma city, OK-73127	DAVID MOORE	domoore@utssupply.com	4054398549			Supplier	07/08/2022	eBidDoc	
Horizontal Boring & Tunneling Co.	505 S. River Ave., Exeter , NE-68351	Brent L. Moore	horizontalboring@hbttrenchless.com	402-266-5347	402-266-5591		Subcontractor	07/11/2022	eBidDoc	

Regular Board of Commissioners 13.
Meeting Date: 07/18/2022
Sales Tax & Budget Rrport
Submitted By: Kacie Eck, City Clerk
Department: City Clerk

Information
Title of Item for Agenda
Acknowledge monthly Sales Tax and Budget Reports.

Attachments
Sales Tax
Budget Report

Finance Department
16 W. 9th St.
Shawnee, OK 74801
ShawneeOK.org

Date: July 14, 2022

To: City Commission

From: Jacob Bussell, Assistant Finance Director

Subject: July Sales and Use Tax Deposit

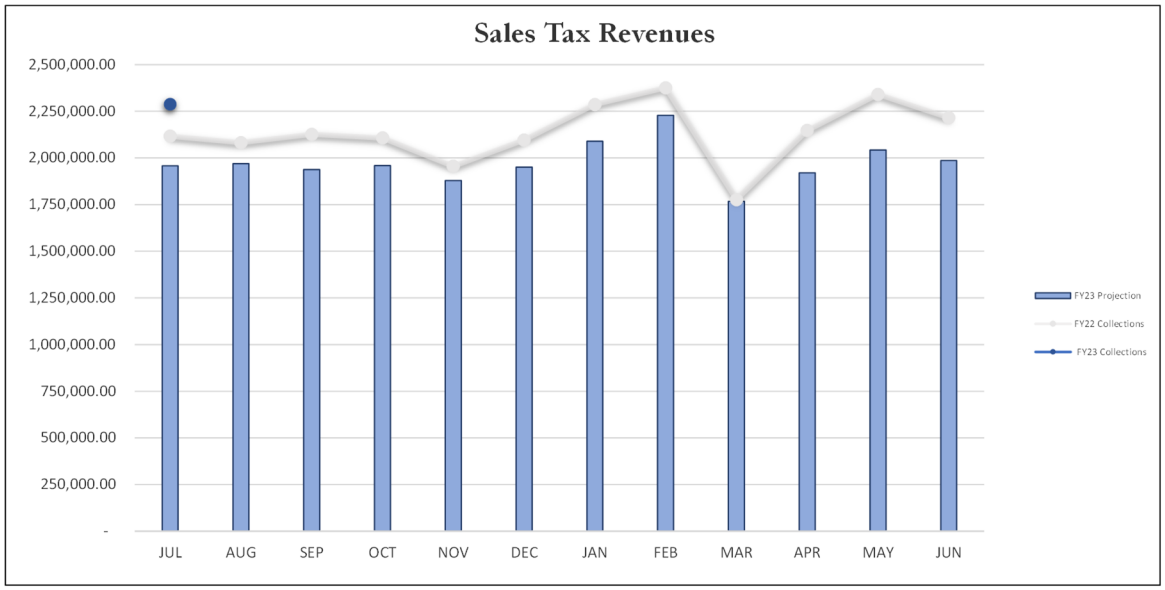
Background: The Oklahoma Tax Commission (the "OTC") collects and enforces collection of sales and use taxes, including special earmarked taxes such as alcohol and tobacco, for the entities responsible for remitting taxes to the City of Shawnee. Entities with monthly tax liabilities exceeding $2,500 are required to remit tax estimates each month by the 20th; in addition, entities are required to report their final tax collections for the previous month along with a final payment of taxes for the previous month on the 20th. To summarize, tax collections remitted to the City of Shawnee by the OTC in July consists of June estimates and May final reported collections. Any taxes collected for months prior to May will include accrued late penalties and interest.

- Sales Tax Collection Allocated by Fund - The July sales tax deposit was $2,287,626.20, including interest of $1,196.44, to be allocated as follows:

Fund	Allocation
General Fund	$ 1,307,215.00
2018 Capital Improvements Fund	326,803.74
Capital Improvements Fund	253,272.90
Street Improvements Fund	285,953.26
Economic Development Fund	32,680.38
Police Sales Tax Fund	40,850.46
Fire Sales Tax Fund	40,850.46
Total Sales Taxes Collected	$ 2,287,626.20

- Finance Department Report - Sales and use tax collections totaled $2,560,601.32 for July 2022. Sales tax projections are based on an average of the most recent three years of sales tax history. For the year, sales tax collections are up $329,674 or 16.84%, over the projected budget year-to-date. Use tax collections are up approximately $14,784, or 5.73%, over the projected budget year-to-date.

    - Fiscal Year 2023 Sales Tax Collections and Performance:

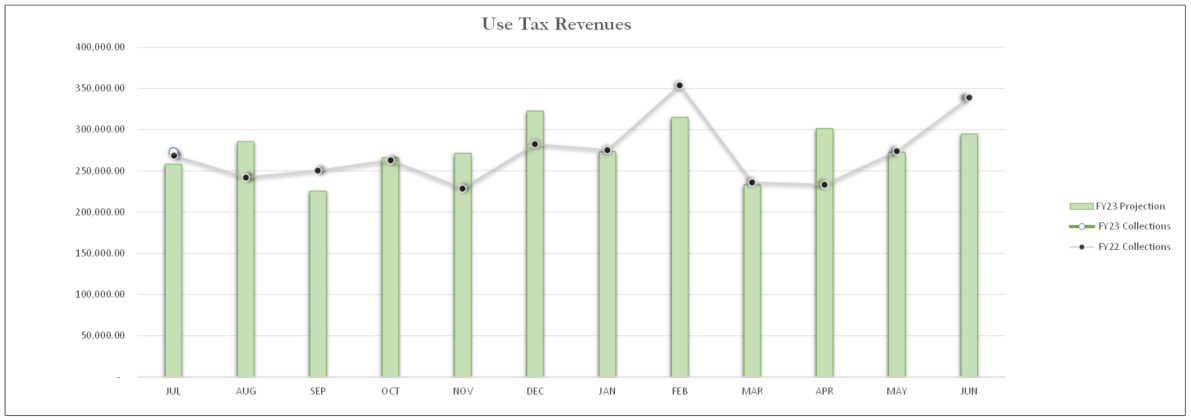


	Projected Budget	Actual	Amount Variance	Percentage Variance
Sales Tax Receipts (July 2022):	$ 1,957,952	$ 2,287,626	$ 329,674	16.84%
Sales Tax Receipts (year-to-date):	$ 1,957,952	$ 2,287,626	$ 329,674	16.84%

	July 2021	July 2022	Amount Variance	Percentage Variance
Sales Tax Receipts (vs Prior Year):	$ 2,116,058	$ 2,287,626	$ 171,568	8.11%

	Year To Date FY 2022	Year To Date FY 2023	Amount Variance	Percentage Variance
Sales Tax Receipts (vs Prior Year):	$ 2,116,058	$ 2,287,626	$ 171,568	8.11%

- Fiscal Year 2023 Use Tax Collections and Performance:



	Projected Budget	Actual	Amount Variance	Percentage Variance
Use Tax Receipts (July 2022):	$ 258,191	$ 272,975	$ 14,784	5.73%
Use Tax Receipts (year-to-date):	$ 258,191	$ 272,975	$ 14,784	5.73%

	July 2021	July 2022	Amount Variance	Percentage Variance
Use Tax Receipts (vs Prior Year):	$ 268,622	$ 272,975	$ 4,353	1.62%

	Year To Date FY 2022	Year To Date FY 2023	Amount Variance	Percentage Variance
Use Tax Receipts (vs Prior Year):	$ 268,622	$ 272,975	$ 4,353	1.62%

- Fiscal Year 2023 – Sales & Use Tax – Above Projections:

Sale & Use Tax - Above Projections (year to date):	$ 203,169
Appropriated:	
	$ -
Unappropriated:	$ 203,169

How to Navigate the City of Shawnee's Online Budget to Actuals

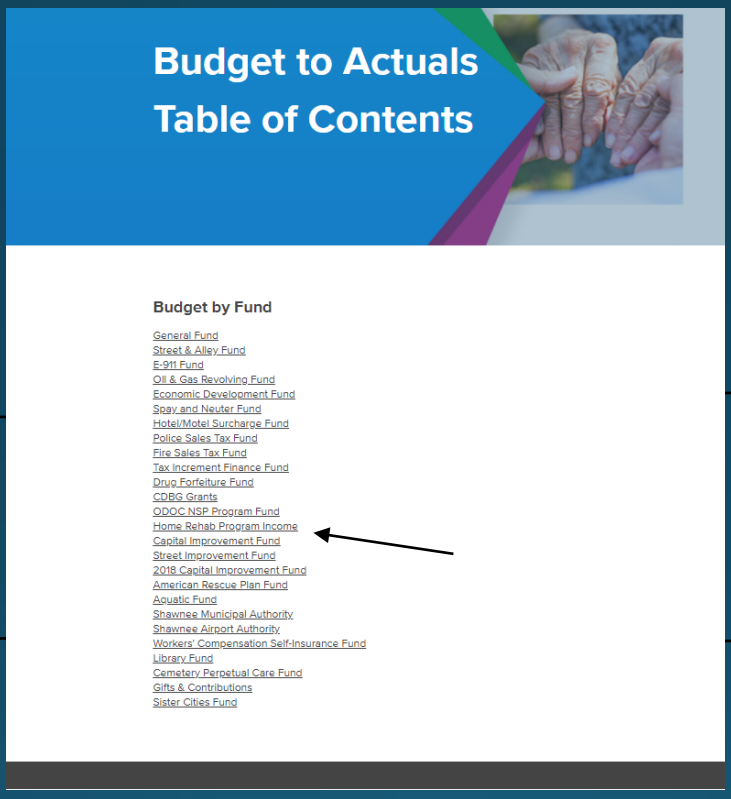
This year, the City of Shawnee implemented OpenGov which allows for an interactive experience with the city's budget. The Budget to Actuals report is laid out in four sections: Revenue vs Expenditure Summary YTD, Revenue by Source, Breakdown by Account Group, and Breakdown by Department.
Please Note: OpenGov works best with Google Chrome.

Table of Contents

The link below will take you to the City of Shawnee Online Budget to Actuals.

https://stories.opengov.com/shawneeok/published/u84NCy36R

The first thing which appears is the Table of Contents. This page contains links to each fund. You may look at the desired budget by clicking on the hyperlink.



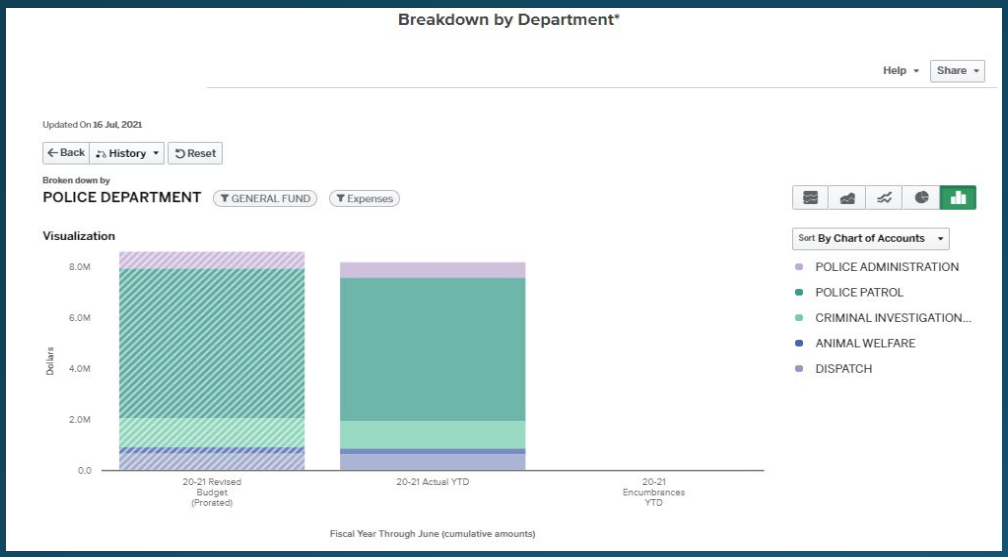
OpenGov comes with many features. The next two pages outline some of the basics of clicking through an OpenGov budget to actuals page.

Drill-Down Capabilities

Certain graphs are dynamic and can be used to drill-down. For example, the General Fund Breakdown by Department can be limited to certain divisions. This is done by clicking on the portion of the graph which is of interest.

Initial View

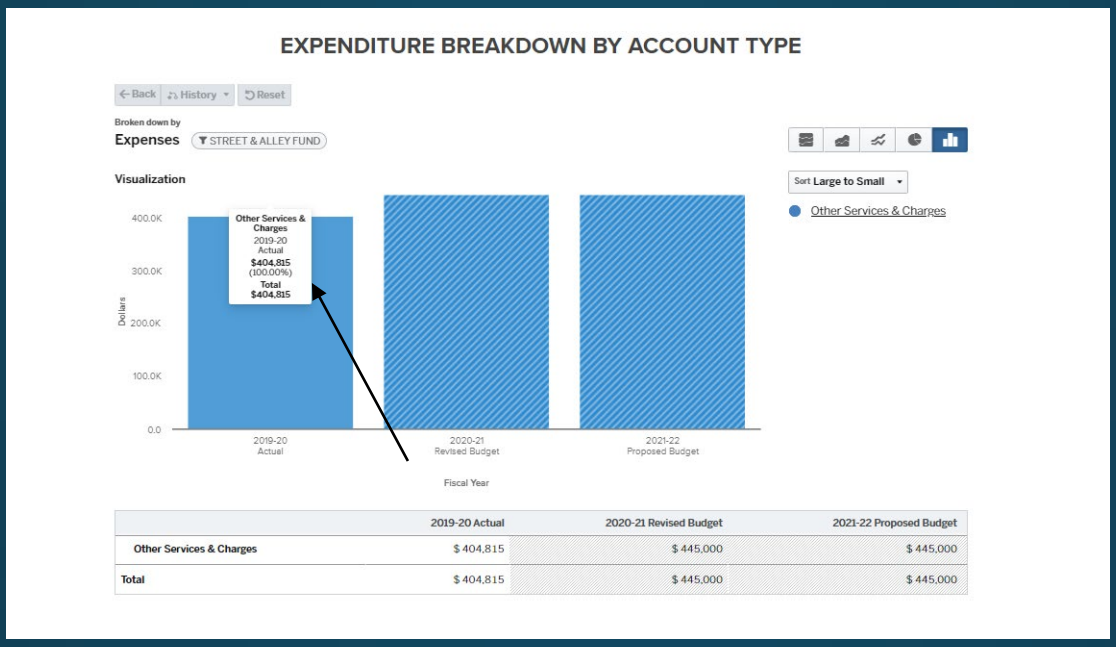
Department Level



Division Level

Hovering to View Numbers

Hovering over each portion of a bar graph will show you the amount of a particular item.



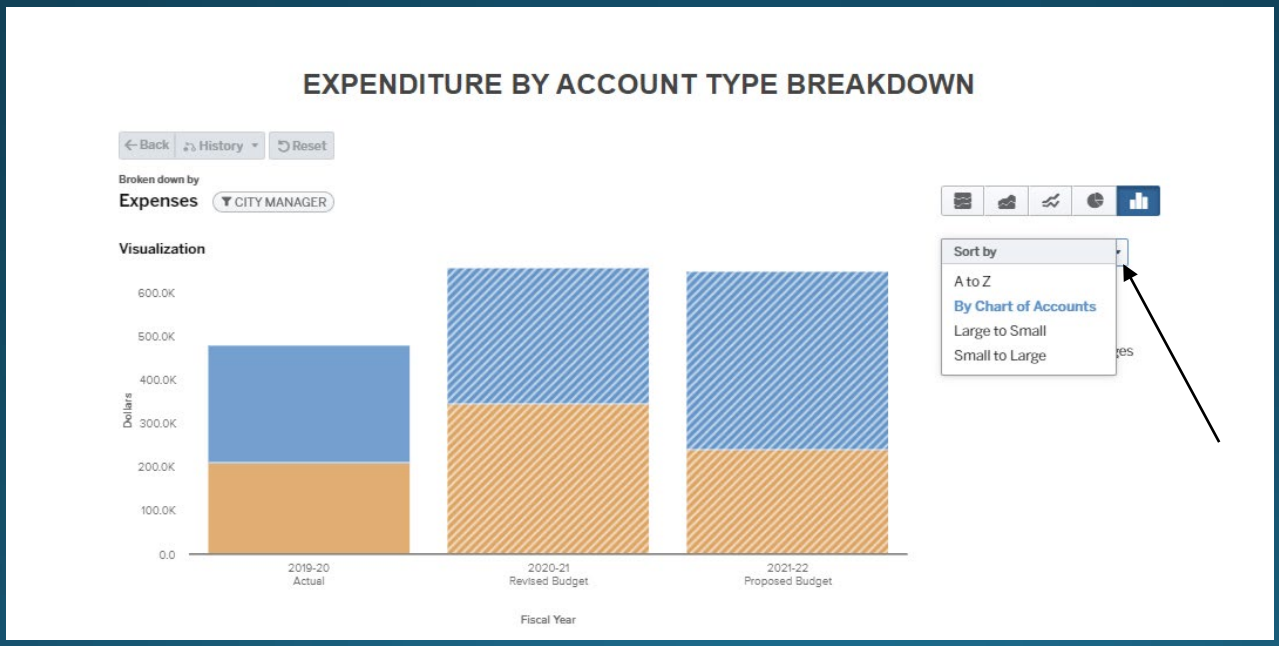
	2019-20 Actual	2020-21 Revised Budget	2021-22 Proposed Budget
Other Services & Charges	$ 404,815	$ 445,000	$ 445,000
Total	$ 404,815	$ 445,000	$ 445,000

Sorting

Graphs may be sorted four ways:

- A to Z
- Chart of Accounts
- Smallest to Largest
- Largest to Smallest

To use this feature, please use the Sort By dropdown on the top right-hand corner of the graph.



Please Note: OpenGov information updates daily with current accounting records, and therefore, is subject to change if viewed subsequent to the original presentation date.

Regular Board of Commissioners 14. a.

Meeting Date: 07/18/2022

Admin Report

Submitted By: Kacie Eck, City Clerk

Department: City Clerk

Information

Title of Item for Agenda

Quarterly One-Half Cent Sales Tax Overview – Jacob Foos, Assistant City Manager

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Attachments

Admin Report

City Manager's Office
16 W. 9th St.
Shawnee, OK 74801
ShawneeOK.org

Date: July 14, 2022

To: City Commission

From: Jacob Foos, Assistant City Manager

Subject: Quarterly One-Half Cent Sales Tax Overview

Background: On June 26, 2018, the Shawnee voters approved a ten-year dedicated sales tax of 0.5%. The revenue collected from the tax is divided as follows into three categories:

- Public Safety: 0.125% sales tax
- Streets/Roads: 0.125% sales tax
- Parks/Public Facilities: 0.25% sales tax

The key points of this quarterly update include:

- $1.36 million invested in community projects since the last quarterly update in March.
- Investment updates include:
  - Over $244,000 for Parks – Master Plan Implementation
  - Over $409,000 for Expo Enhancement and Remodel
  - Over $344,000 for Street Improvements – Master Plan Implementation
  - Over $144,000 for 45th Street Improvements
- Over $9.6 million has been invested to date in community projects.
- Over $12.3 million has been collected to date from the one-half cent sales tax.

Financial Impact: None.

Attachment: None.

Staff Recommendation: Informational item only.

Half-cent Sales Tax Update

July 18, 2022

Jacob Foos, Assistant City Manager

2018 Sales Tax Election

- "**Proposition #4**" passed on June 26, 2018
- **Added 0.50%** to existing sales tax
- Revenue allocated **for capital improvements**
  - Public Safety: 0.125% sales tax
  - Streets/Roads: 0.125% sales tax
  - Parks/Public Facilities: 0.25% sales tax

Investment Updates

$1.36+ Million Invested

in Community Projects since the last update in March 2022

Investment Updates

$244k+	Parks – Master Plan Implementation
$409k+	Expo Enhancement & Remodel
$334k+	Street Improvements – Master Plan Implementation
$144k+	45th Street Improvements

Total Investment To Date

$9.6+ Million Invested

in Community Projects

$12.3+ Million Collected

from ½ Cent Sales Tax

Project Progress

Public Safety	Allocation	Status
Police Department Headquarters	$3,200,000	**COMPLETE**
Police Patrol Vehicles	$1,250,000	**COMPLETE**
Fire Station #1 & #3	$1,750,000	Design Stage
Fire Engine	$750,000	Procurement Stage
Fire Training Structure	$300,000	Design Stage
Emergency Warning System	$250,000	**COMPLETE**

Project Progress (cont.)

Streets and Roads	Allocation	Status
45th Street – W of Kickapoo to E of Harrison	$3,500,000	Phase 1 – 65% Design
Pavement Overlays & Panel Replacements	$4,000,000	**Whittaker Street Complete** Other Locations - Ongoing Design and Construction

Project Progress (cont.)

Parks & Public Facilities	Allocation	Status
Implement Parks Master Plan	$7,000,000	Const. in Progress
EXPO Enhancement & Remodel	$3,500,000	**Roof & Fence Complete**
Sidewalks & Trails	$1,750,000	Const. in progress
Library Roof & Remodel	$1,000,000	Various Components Completed - Review in Progress
Senior Ctr Roof & Remodel	$1,000,000	
Community Ctr Roof & Remodel	$350,000	
Santa Fe Depot Roof & Remodel	$400,000	**Visioning Process Complete**

A special “**Thank You**” to the citizens of Shawnee for their support!

Regular Board of Commissioners 14. b.
Meeting Date: 07/18/2022
Admin Report
Submitted By: Kacie Eck, City Clerk
Department: City Clerk

Information
Title of Item for Agenda
Lions Club Park Ball Fields – Andrea Weckmueller-Behringer, City Manager

Attachments
Admin Report

City Manager's Office
16 W. 9th St.
Shawnee, OK 74801
ShawneeOK.org

Date: July 14, 2022

To: City Commission

From: Andrea Weckmueller-Behringer, City Manager

Subject: Lions Park – Fiduciary and Physical Responsibilities of the Parties to the Agreement

Background: During the July 5, 2022, regular meeting of the City of Shawnee Board of Commissioners, a public comment was made concerning responsibilities assigned to the City of Shawnee as part of the agreement that was authorized on May 17, 2021 and subsequently executed between the City of Shawnee and the Troy & Dollie Smith Family YMCA.

The attached agreement has been marked-up to show the fiduciary and physical responsibilities assigned to each party of the agreement. An overview of the responsibilities has also been captured here:

- YMCA
  - Pay $1 per year in lease payments.
  - Prepare fields for play and ensure playing fields are in good repair.
  - Maintain general liability insurance.
  - Engage and manage a third-party grounds maintenance contractor.
  - Provide maintenance to game fields, restrooms, and concession areas, including janitorial and sanitizing services.
  - Repair sprinkler heads and lightbulbs, and complete minor repairs to concession building, plumbing, sinks, toilets, and fencing.
  - Advise YMCA customers of parking regulations.

- City of Shawnee
  - Undertake major repairs such as painting buildings; replacing buildings, roofs, or fencing; and repairing sewer or water line breaks.
  - Provide up to two loads of topsoil for game fields per year.
  - Pay for all utilities, including electricity, solid waste, water, and sewer services.

- Joint Responsibilities
  - Share the cost of a third-party grounds maintenance contractor based on a mutually agreed-upon amount.

The City of Shawnee and the YMCA have long enjoyed a strong working relationship with a focus on improving the quality of life for our community. The City of Shawnee remains committed to this

partnership. In that spirit, the City Manager's Office is coordinating directly with the YMCA to better identify any concerns and work towards a resolution.

Financial Impact: (Not applicable.)

Attachment: Proposed Agreement – marked-up

Staff Recommendation: Informational item only.

DocuSign Envelope ID: 0A967077-C409-4243-B126-CA0D9EE7BD40

AGREEMENT

This Agreement ("Agreement") is entered into between the City of Shawnee, a municipal corporation ("City"), and Troy & Dollie Smith Family YMCA, a non-profit Oklahoma corporation ("YMCA"), collectively the ("Parties").

WHEREAS the City is the owner of public property and the facility known as Lions Club Park in the City of Shawnee, Pottawatomie County, State of Oklahoma; and

WHEREAS the City recognizes that the sports field and facility located at Lions Club Park shall be used for certain recreational purposes for the benefit of the health, safety, and welfare of the residents of the City of Shawnee; and

WHEREAS, it is the desire of the Parties to set out in detail the rights and responsibilities of the Parties regarding the operations of the youth sports program and the use of City Property.

NOW, THEREFORE, in consideration of the covenants, terms and conditions herein contained, the Cityand the YMCA agree as follows:

1. The City hereby grants the rights and privilege to the YMCA to use the facilities and property located generally at Lions Club Park, City of Shawnee, Pottawatomie County, State of Oklahoma, hereinafter jointly referred to as the "Property".

2. This Agreement shall commence on July 1, 2021 and end on June 30, 2022. It is agreed that the YMCA is given eight (8) consecutive options to renew this amended lease upon execution of the amended lease with the first renewal term beginning on July 1, 2021. The options to renew are for the purpose of future planning and development of the facilities unless sooner terminated in accordance with the express provisions of this agreement or renewed as provided in this section. Each option shall be for one (1) year unless revoked in writing by the City or the YMCA, by May 1 of the then-current renewal term. It is further agreed that either of the Parties shall have the right and privilege of terminating this Agreement at any time in the event of a material default by the other Party, upon giving sixty (60) days' notice, in writing, deliverable by certified mail, to the other Party of its intention to terminate provided the other party fails to cure, or commence the taking of actions designed to cure, such default within such sixty (60) day time period. In the event this agreement is terminated, all rights and interests of the Parties hereto shall thereupon cease. Upon termination of this Agreement, the YMCA shall retain all rights to maintenance equipment, concession equipment, and all other items not considered permanent structural improvements or not purchased by the City. Any, and all, structures which have been placed or constructed on the Property by the YMCA shall become the property of the City unless otherwise mutually agreed in writing by the City and the YMCA. The parties acknowledge that the YMCA shall pay to the City a sum of one dollar ($1.00) on the first day of July every calendar year as a lease payment for the use of the Property.

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3. Before any changes are made in the form of capital improvements and structures, and before the construction of any permanent building, the YMCA shall obtain approval from the City Manager for such changes or construction costing fifty-thousand dollars ($50,000.00) or less. All changes or construction costing in-excess of fifty-thousand dollars ($50,000.00) shall require the approval of the City Commission. All permanent improvements to the site must be listed by cost and description and dedicated to the City through City Commission action.

4. It is agreed that the Property area is to be used by the YMCA solely for the purposes of recreation and education, and development of sports skills, primarily for the purpose of playing, training and promoting various sports, and associated supportive services. Any other use of the Property area must be approved by the City. The YMCA shall provide the City with by-laws, league rules, league registration fees and schedules of all the YMCA activities. It is further agreed between the Parties that the YMCA shall make every effort to accommodate the Shawnee School System to facilitate shared use, at no cost to the school district. If the YMCA makes the property available for use by others, the YMCA shall prepare fields for play and determine costs and assess such costs against such entities using the property.

5. The YMCA shall not assign this Agreement, or any interest herein, or sublet any portion of the Property area without the consent of the City Manager, or designee. The YMCA may grant permission and authority to any entities to occupy and use the Property area for any supportive services necessary for YMCA or for the conduct of a sport not sponsored by YMCA. YMCA will be responsible for informing all other entities using the City fields of the rules and obligations for the use of the fields.

6. The YMCA will hold the City harmless and exempt from any damage or injury to persons or any damage to property of every kind arising from the management and use of the Property area by the YMCA, its invitees, employees, representatives and successors from the failure of the YMCA to keep the property and ball fields area and structures in good condition and repair or for any negligent or intentional act committed by YMCA, its employees, officers, successors and assigns resulting in injury of any kind.

7. The YMCA, at its expense, shall keep in force, during the term of this Agreement, general liability insurance issued by an insurance company authorized to conduct business in Oklahoma by the Oklahoma Insurance Commissioner. The insurance will be in a form acceptable to the City Attorney and City Manager, for the protection of the City and the YMCA against all liabilities, judgments, costs, damages and expenses which may accrue against, be charged to, or recovered from City, on account of any matter or thing which may occur on the Property, excluding Participants who will not be covered during the actual participation in an event, in a general liability policy or policies in the amount of one million dollars ($1,000,000.00).

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8. The Parties agree hiring a contractor to maintain the grounds, including, but not limited to, mowing, edging, weed control and dirt dragging is of best interest to the Property and Parties. The Parties agree the YMCA will be responsible for engaging, contracting, and managing the hired contractor. In addition, the Parties agree to split evenly the cost of the contractor, however; contractor selected, and cost must be mutually agreed-upon prior to engagement by the YMCA for purpose of proper budgeting. The YMCA will provide all maintenance to all game fields, including restrooms, the concession areas and the areas adjacent thereto; all janitorial and sanitizing service and supplies; refuse receptacles and liners to be disposed of on an as needed basis; field supplies and service including chalk, paint, and other equipment; turf and infield supplies. Major repairs to facilities such as replacing buildings, roofs, sewer lines, major water line breaks, parking lot repairs, painting of buildings, and fencing replacement, and other repairs traditionally within the responsibility of the "landlord", will be the responsibility of the City at no cost to the YMCA. The YMCA will be responsible for repair of sprinkler heads when necessary, minor repairs to the concession building; replacement of food preparation equipment; minor plumbing repairs such as clogged toilets , clogged sink drains, toilet and sink replacement; light bulb replacement and minor fence repair. The YMCA shall be responsible for ensuring that trash is picked up from dugouts, bleachers and grounds after games and deposited into containers provided by the City. The setting and purchase of bases, yardage markers, flags and such equipment as is necessary shall be the responsibility of the YMCA. Field maintenance equipment such as infield drags, motorized carts, shovels, rakes, mowers and the like, purchased by the YMCA, shall remain the property of the YMCA. The YMCA shall exercise a high degree of care in ensuring playing surfaces are continually in good repair during the term of this agreement. The City shall provide a maximum of two (2) loads, or amount agreed-upon by the City Manager, per year of topsoil for game fields at no charge to the YMCA. The City shall be charged for electric services, solid waste services, sewer and water for the Property, including, but not limited to, field lighting, concession building and field storage facilities. The YMCA will exercise reasonable efforts to conserve electric and water usage. The YMCA shall be responsible for turning on and off facility water. For night games, the YMCA will use lights for only those fields in which games will be played and for the safety of the participants.

9. The YMCA will exercise reasonable efforts to make its customers aware of parking regulations during YMCA activities to assist the City in an effort to insure that the ground and vegetation of the Property, and adjacent premises, is not damaged by vehicles being driven or parked in places other than those defined by signage or in the plan as road or parking areas.

10. The YMCA agrees to provide activities, primarily for Shawnee area without discrimination as to race, religion, color, creed, sex, or national origin. Said activities will include leagues for all levels of play to include open and recreational leagues. Under normal conditions, YMCA activities will not be scheduled to start after the hours of 10:30 p.m., on Sundays through Thursdays, and 11:00 p.m., Fridays through Saturdays.

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11. If any person believes that the YMCA has violated the provisions of this Agreement and has exhausted all appeal procedures through the YMCA Board, that person may file a written complaintwith the City Manager, or designee. The City Manager, or designee shall so advise the YMCA, provide it with a copy of the complaint, and give the YMCA ten (10) days to consult with counsel and file a written response with the City Manager, or designee. Thereafter, the City Manager may, if he/she deems prudent, conduct an investigation into the situation, and within thirty (30) days of the response by the YMCA, advise of a ruling on the matter by the City Manager, if possible. Failure of the YMCA to follow the directions so given by the City Manager may result in the termination of this Agreement (without further notice).

12. The City Manager may designate one (1) person to serve as a non-voting, advisory to the YMCA Board. Alternatively, the YMCA may designate one (1) person to serve as a liaison between the YMCA and the City to address issues regarding maintenance and program administration. The YMCA will provide the City, semi-annual financial statements and reports of business activities. The YMCA shall inform the City Manager of changes to league rules and By-Laws in its semiannual report after the change becomes effective. There shall be ultimate City Commission review for capital improvements in excess of fifty-thousand dollars ($50,000.00) The YMCA shall permit the City Manager, or designee to conduct a final review of its operations at any time per discretion of the City.

13. The YMCA shall maintain a local contact, accessible to the City and the public at reasonable hours and otherwise make arrangements to accommodate the working public to the extent necessary for registration and similar activities. The contact will be responsible for disseminating all administrative and operational functions to include management, registration, access to all records that are subject to disclosure pursuant to Title 51 O.S. §24A.1, et seq., known as the Oklahoma Open Records Act, and access to the operational staff.

14. This Agreement shall only be amended in writing by the mutual consent of the YMCA and the City. In the event that anyone or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, the other provisions of the Agreement shall not be affected. The Agreement shall be construed as if the valid, legal, or enforceable provisions for the Agreement were not affected, and the Agreement shall be construed as if the invalid, illegal, or unenforceable provisions had never been contained therein. No terms inconsistent with this Agreement shall be deemed binding on the parties. This Agreement contains all essential terms necessary to accomplish the purposes expressed by the parties and any other prior agreements, written or oral, consistent or inconsistent with the terms herein, are hereby rendered null and void. The parties also agree that this Agreement is fully integrated, embracing all essential terms necessary to carry out the purpose stated herein.

DS

IT WITNESS WHEREOF, we, the contracting parties, by our duly authorized agents, hereto affix our signatures and seals at Shawnee, Oklahoma, this 17th day of May, 2021.

THE CITY OF SHAWNEE SEAL OKLAHOMA

The City of Shawnee, Oklahoma
An Oklahoma Municipality

DocuSigned by:
Chance Allison
4E38375B7A8E4C9...
Chance Allison, City Manager

Attest:

DocuSigned by:
Lisa Lasyone
C3FE8965F5804F4...
Lisa Lasyone, City Clerk

Troy & Dollie Smith Family YMCA

DocuSigned by:
Tia Ashlin
F63F79B755CA43F...
Chairman/President

Attest:

_____
Clerk/ Secretary

5/24/2021

Approve as to form and legality this _____ day of _____, 2021.

DocuSigned by:
Joseph M. Vorndran
88F99D6715CB4EC...
Joseph M. Vorndran, City Attorney

Regular Board of Commissioners 14. c.
Meeting Date: 07/18/2022
Admin Report
Submitted By: Kacie Eck, City Clerk
Department: City Clerk

Information
Title of Item for Agenda
Santa Fe Depot Update – Rian Harkins, Community Development Director

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Attachments
Admin Report

Santa Fe Depot

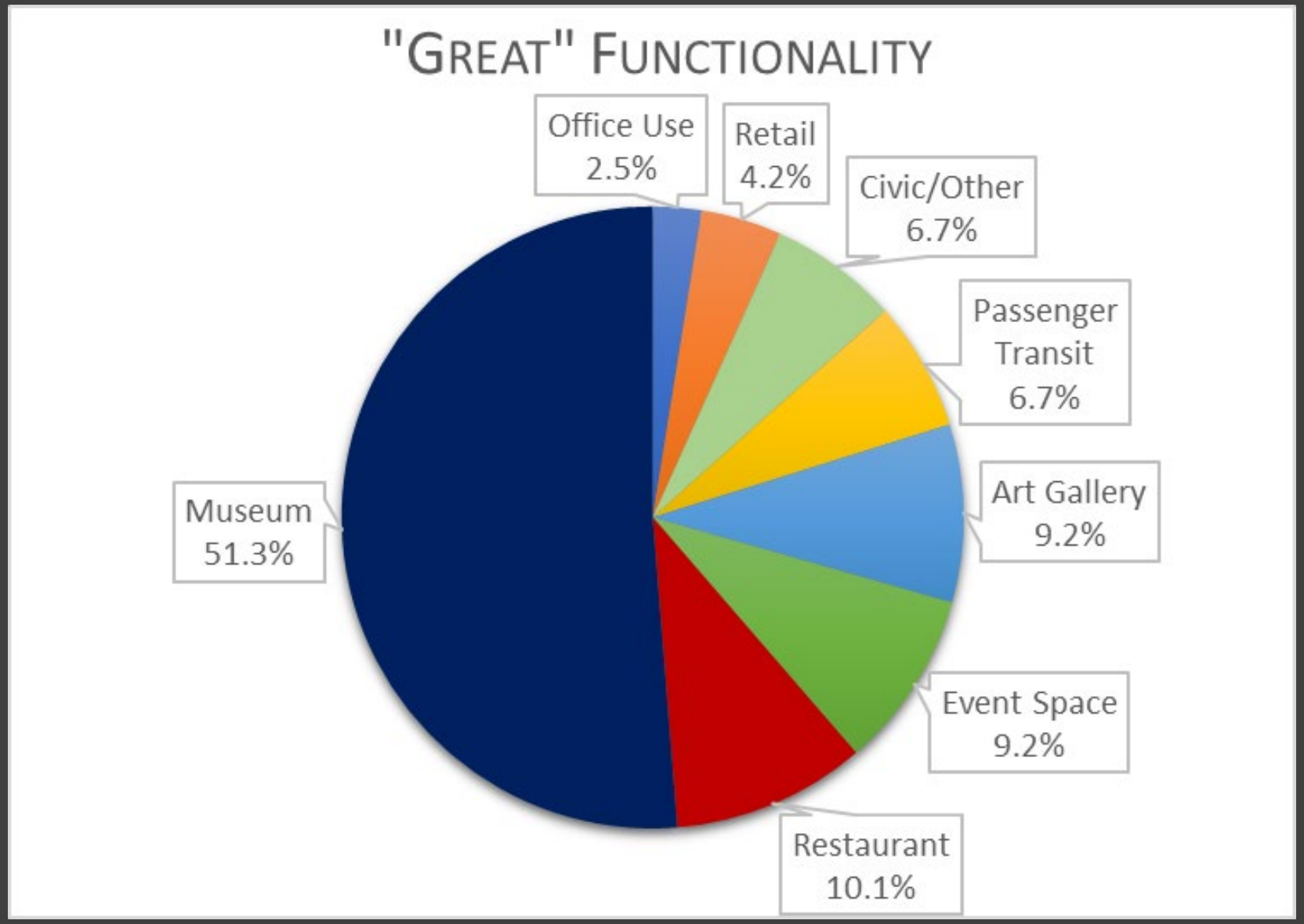
Rian Harkins, Community Development Director

July 18, 2022

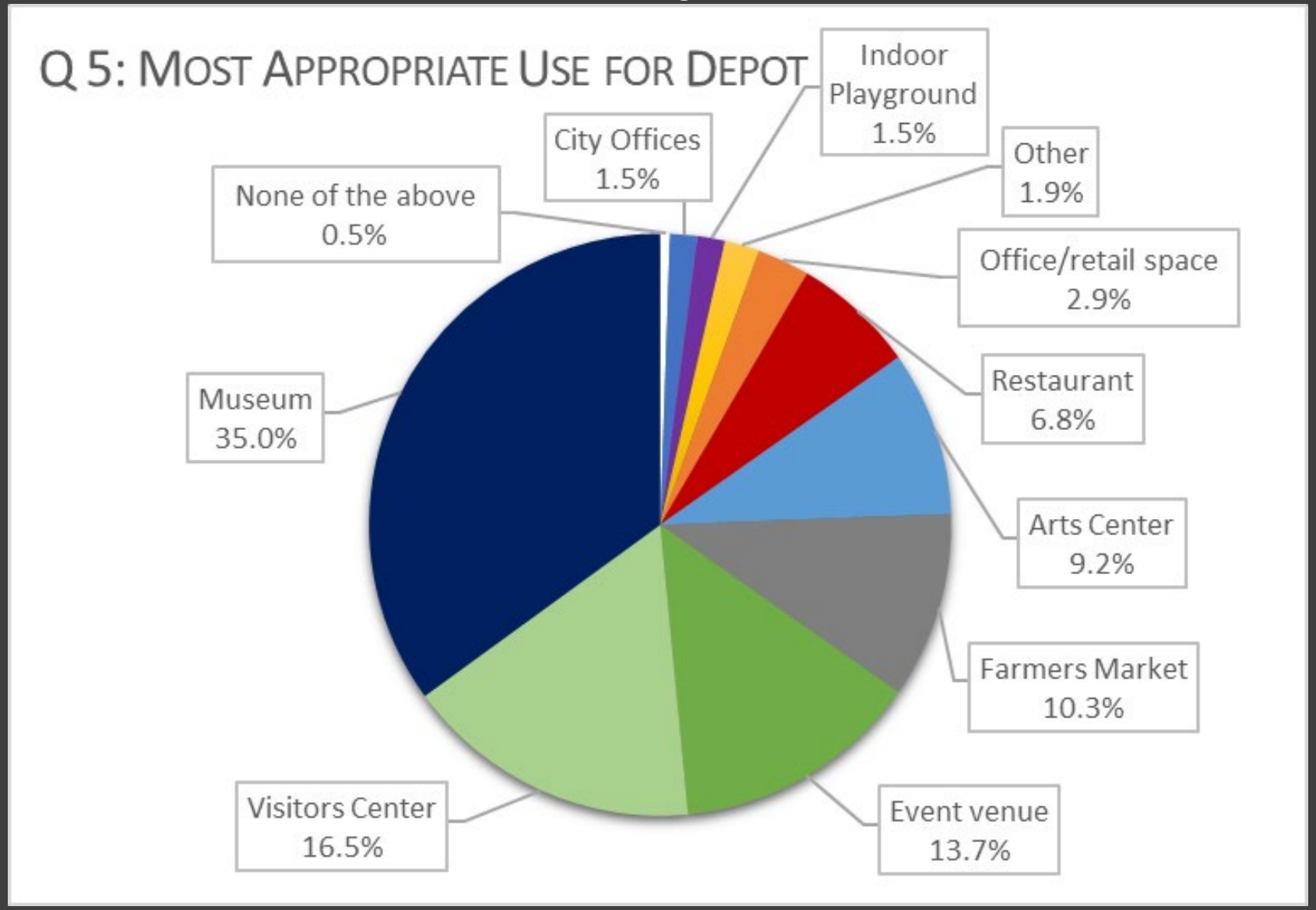
Visioning Process

- Process included –
  - Web page for project
  - Online Survey, completed by 638 people
  - Town Hall Meetings & Listening Session, attended by 133 people (some attended multiple meetings)
  - Meetings with Community Groups

Town Hall Preference Feedback



Online Survey Question 5



Top 5 Results

- Analyzed ALL feedback from Town Hall and Online Survey, *both Question 5 (ranked options) and Question 6 (write-in)*
- Five functions to consider in combination with rail museum

1) Visitor center (T=n/c, S=249, W=6)
2) Community / venue space (T=19, S=207, W=11)
3) Arts space / performing arts center (T=11, S=138, W=3)
4) Farmers market (T=n/c, S=156, W=4) and
5) Restaurant (T=12, S=103, W=1)

T = 79 town hall responses, S = 1,508 survey responses, W = 69 write-in responses to Survey Question #6
[16 write-in responses called for multiple uses and therefore the total of write-in uses is higher]

Peer Depots

- Strong City, Kansas (City Office/Rail Memorabilia)
- Norman, Oklahoma (Arts/Events)
- Grapevine, Texas (Events/Museum)
- Temple, Texas (Events/Museum)
- Santa Fe, New Mexico (Tourism/Rail/Retail)
- Waynoka, Oklahoma (Museum/Restaurant)

Current Activities

- Updating cost estimates for the roof and exterior rehabilitation
- Communicating with, and obtaining business plans for, Depots that have implemented the top five functions
- Researching additional funding sources

Meetings with PCHS

- City of Shawnee representatives and the Pottawatomie County Historical Society continue to explore opportunities for **collaboration** and **revenue generation**

City Commission
Q & A