

CITY OF ST. CHARLES, ILLINOIS
300,000 GALLON SPHEROID
EXTERIOR REPAINT WITH CONTAINMENT
WET INTERIOR REPAINT
DRY INTERIOR PARTIAL REPAINT
AND MISCELLANEOUS REPAIRS

BID DATE: JULY 8, 2019
BID TIME: 2:00 P.M.

CONTRACT NO. 99-45-14-01-19

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SECTION 00 00 30
NOTICE to BIDDERS

City of St. Charles
Two East Main Street
St. Charles, IL 60174

Separate sealed Bids are solicited for the following project:

Project Name: **300,000 Gallon Spheroid**
 Exterior Repaint with Containment
 Wet Interior Repaint
 Dry Interior Partial Repaint
 And Miscellaneous Repairs

Note: This project name shall be understood to include the entire scope of project as defined and detailed by these specifications.

Separate sealed bids will be received by the Owner and then publicly opened and read aloud at:

Bid Opening Site: **Two East Main Street St. Charles, IL 60174.**

Bid Opening Date: **July 8, 2019**

Bid Opening Time: **2:00P.M. (local time)**

The SPECIFICATIONS/PLANS may be examined at the following locations:

Contractors Exchange	Construction Association	Central Michigan Plan Room
233 N. Springfield Ave.	43636 Woodward Ave.	2026 Independence Dr.
Joliet, IL 60435	Bloomfield Hills, MI 48302	Mt. Pleasant, MI 48858

At the OFFICE of the ENGINEER and at the OFFICE of Tim Wilson.

Copies of the SPECIFICATIONS/PLANS and PROPOSAL FORMS may be obtained at the office of DIXON ENGINEERING, INC., 1104 Third Avenue, Lake Odessa, Michigan, 48849 upon payment of **\$60.00** (handling charge for each set). Payment for SPECIFICATIONS should be made to Dixon Engineering, Incorporated. **There will be no refund of handling charge for return of specification packages.** Each BIDDER must deposit with their BID, Security in the amount, form, and subject to the conditions provided in the INFORMATION FOR BIDDERS. The OWNER reserves the right to accept any PROPOSAL, to reject any or all PROPOSALS, and to waive any irregularities in any PROPOSAL. No BIDDER may withdraw their BID within sixty (60) days after the actual date of the opening thereof.

Note 1: The Engineer assumes no responsibility to supply Builders Exchanges and similar plan review rooms with all addenda issued. An attempt will be made to do so; however, only

registered plan holders will be notified by fax or email of expected addendum with short preparation times.

Note 2: Prequalification of BIDDERS - Dixon Engineering will review qualifications of all Contractors and determine their status. Contractors will be prequalified for different sized tanks and towers based on experience, workmanship, and financial data. Any Contractor who has any projects in dispute or unfinished because of Contract problems will be considered NOT prequalified. CONTRACTORS wishing to be prequalified must submit their latest financial statement and a list of ten (10) similar sized projects using similar coating systems. Failure to submit may result in rejection of bid. A prequalification status may be upgraded or downgraded during the course of the season as a result of new data submitted, resolution or origination of project conflicts.

BIDDERS who are not prequalified shall submit the following notarized form with their bid:

BIDDER's Sworn Work History Statement:

Not less than the prevailing rate of wages as found by the City of St. Charles, or the Department of Labor, or determined by the court on review shall be paid to all laborers, workmen, and mechanics performing work under this contract.

BIDDER'S SWORN WORK HISTORY STATEMENT

_____, ("Deponent"), being first duly sworn on oath, deposes and states that all statements made in this Sworn Work History Statement are made on behalf of the undersigned Bidder in support of its Bidder's Proposal for the above Contract and that Deponent is authorized to make them.

Deponent also deposes and states that Bidder has carefully prepared, reviewed, and checked this Sworn Work History Statement and that the statements contained in this Sworn Work History Statement are true and correct.

IF NECESSARY FOR FULL DISCLOSURE, ADD SEPARATE SHEETS

JOINT VENTURES MUST SUBMIT SEPARATE SWORN WORK HISTORY STATEMENTS FOR THE JOINT VENTURE AND FOR EACH SIGNATORY TO THE JOINT VENTURE AGREEMENT

1. **Nature of Business:**

State the nature of Bidder's business: _____

2. **Composition of Work:**

During the past three years, Bidder's work has consisted of:

_____ % Federal	_____ % As Contractor	_____ % Bidder's Forces
_____ % Other Public	_____ % As Subcontractor	_____ % Subcontractors
_____ % Private		_____ % Materials

3. **Years in Business:**

State the number of years that Bidder, under its current name and organization, has been continuously engaged in the aforesaid business: _____ years.

4. **Predecessor Organizations:**

If Bidder has been in business under its current name and organization for less than five years, list any predecessor organizations:

<u>NAME</u>	<u>ADDRESS</u>	<u>YEARS</u>
_____	_____	_____
_____	_____	_____

5. **Business Licenses:**

List all business licenses currently held by Bidder:

<u>ISSUING AGENCY</u>	<u>TYPE</u>	<u>NUMBER</u>	<u>EXPIRATION</u>
_____	_____	_____	_____
_____	_____	_____	_____

6. **Related Experience:**

Attach separate list of previous experience on not less than five (5) tanks of like size and painting requirements completed by Bidder, or its predecessors, within the past three (3) years in the State of Illinois. Include the following information: Owner Name, Owner Address, reference, telephone number, type of work performed, Contractor (if Bidder was Subcontractor, amount of contract and date completed).

DATED this _____ day of _____, 20__.

Attest/Witness: _____ Bidder: _____

By: _____ By: _____

Title: _____ Title: _____

Subscribed and Sworn to before me this the _____ day of _____, 20__

Notary Public

My Commission Expires: _____

SECTION 00 00 40

PROJECT SUMMARY

PART 1 – GENERAL

Nothing stated in this Project Summary shall influence or override any of the conditions in the Instruction to Bidders, General Conditions, or Technical Specifications. It is included as a service to Bidders for explanation only.

1.01 SCHEDULE and LIQUIDATED DAMAGES

The Contractor shall abide by the following schedule:

Commence work on or after September 1, 2019.

Substantial Completion by November 1, 2019 including cure and disinfection time.

The contractor has the option to complete the work in Spring of 2020.

Alternate Spring schedule

Commence work on or after April 20, 2020.

Substantial Completion by June 30, 2020 including cure and disinfection time.

The tank may be out-of-service a maximum of 50 days.

Work hours are limited between 7:00 A.M. and 5:00 P.M. Monday through Friday. No weekend work will be permitted.

For liquidated damages, 50 days out-of-service establishes Substantial Completion date.

Liquidated damages at \$750/calendar day shall apply after this date. Ready for Final Payment

Date shall be thirty (30) days after date Substantial Completion was scheduled or adjusted by

Change Order, or earlier if actual date. Liquidated damages after Ready for Final Payment Date

of \$250/day shall apply. Liquidated damages are cumulative if damages from Substantial

Completion and Ready for Final Payment overlap.

1.02 SCOPE of WORK

Tank Information:

The structure is a 300,000 gallon spheroid with an estimated high-water line of 110 feet located at the corner of S. 10th Street and Illinois Street in St. Charles, Illinois.

The work includes:

Exterior: Abrasive blast clean to a SSPC-SP6 commercial standard within containment and apply a four (4) coat zinc epoxy urethane system. The bowl is to be topcoated with a fluorourethane. The containment is to remain in-place for all four full coats and for the lettering and logo. Rigging points to be touched-up after the containment is removed.

Wet Interior: Abrasive blast clean to a SSPC-SP10 near-white metal standard and apply a three (3) coat zinc epoxy system. Apply a polyurethane caulk to the roof lap seams.

Dry Interior: Abrasive blast clean the entire tops of the platforms (including 1 ft. up the riser wall), the access tube, transition cone, and spot failures throughout to a SSPC-SP6 commercial standard. Apply a three (3) coat epoxy system to the access tube and transition cone and a spot two (2) coat epoxy system to the rest of the prepared surfaces.

Pit Piping: Abrasive blast clean to a SSPC-SP6 commercial standard and apply a two (2) coat epoxy system.

Foundation: Repair grout, abrasive blast clean, and apply a two (2) coat epoxy system.

Repairs:

- 1) Replace manway gasket.
- 2) Replace wet interior roof hatch.
- 3) Replace condensate platform hatch.
- 4) Install a cover over the top platform opening.
- 5) Install fill/draw pipe deflector plate.
- 6) Replace expansion joint.
- 7) Replace condensate drain line.
- 8) Install mud valve.
- 9) Install fall prevention device on the wet interior ladder.
- 10) Replace the basebell ladder.
- 11) Install a frost-free roof vent.
- 12) Install access tube air gap seal.
- 13) Install cathodic clips and coupling.
- 14) Weld cathodic covers.
- 15) Remove abandoned cathodic protection system.
- 16) Install roof handrail with painter's rail.
- 17) Replace dry interior and aviation light bulbs.
- 18) Rewire the access tube.
- 19) Weld patch plates on the roof.
- 20) Install antenna cable brackets on the roof and roof handrail.
- 21) Remove the antenna pod on the roof and rebuild the access tube cover.

1.03 HOLD POINTS

- A. Stop work and schedule inspections (see GC Article 13) for the following hold points as a minimum.
- B. Schedule of Hold Points – Preliminary:
 - 1. Preconstruction Meeting: Until five (5) days after all required submittals are received and reviewed by the engineer and no exceptions are taken to the shop drawings.
 - 2. Prior to draining tank:
 - a. To ensure all Sections of 01 50 00 and 01 53 43 environmental requirements are met.
 - b. To ensure all containment, ventilation, decontamination, and blasting equipment are on-site and in working order.
- C. Scheduling of Hold Points – Section 03 01 00.01 – Concrete Foundation Repairs:
 - 1. Repairs:
 - a. To locate or quantify repairs as necessary.
 - b. To review surface preparation prior to concrete or grout installation, and review all products prior to installation.
 - c. After concrete or grout application is complete for quality assurance.
- D. Scheduling of Hold Points – Section 05 00 00 – Metal Repairs:
 - 1. Repairs:
 - a. To locate or quantify repairs as necessary.
 - b. To review surface preparation prior to welding and review all products prior to installation.
 - c. After welding is complete for quality assurance.
- E. Scheduling of Hold Points – Sections 09 97 13 – Steel Coating and 09 97 13.10 Steel Coating Surface Preparation:
 - 1. Surface preparation and coating:
 - a. After completed erection of containment if applicable.
 - b. Prior to surface preparation to set the standard.
 - c. Prior to primer application to verify cleanliness, profile, thoroughness, and ambient conditions for coating application.
 - d. Prior to application of each successive coat for quality assurance and ambient conditions for the next coat.
 - e. Prior to final coat to verify all non-conformance issues have been resolved.
 - f. Scheduled pre-final inspection: Allow engineer access to all locations so a complete punch list can be prepared. Final coat on ladders or other access points can be delayed until after this inspection and included as a punch list item.
 - g. Scheduled final inspection: After ALL punch list items have been completed (including painting ladders), provide access to all items on the punch list.

2. Additional hold points scheduled at the preconstruction meeting or defined elsewhere in the specifications.
- F. Failure to Schedule:
1. If the contractor fails to schedule hold point inspections, all work not inspected will be considered in non-conformance.
- G. Non-Conformance Work:
1. Before applying a cover coat, remove failed work. Correct all non-conformance work and request an additional inspection before painting.
 2. Insure that all work meets contract specifications and does not fail the initial inspection. Contractor shall reimburse the owner for all additional engineering expenses resulting from extra inspection visits from failure to cancel inspections, delays from inspections scheduled before work completion, or additional time necessary to inspect failed work or work performed in non-compliance with the specifications, which causes an increase in the contract price between the engineer and owner.
 3. Each hold point requires an inspection. If the contractor coats over or otherwise makes the work inaccessible for inspection, paragraph GC/SC 13.04 shall apply.

1.04 MISCELLANEOUS

- A. The owner will remove fence/fence section prior to the set-up of containment.
- B. Trees that may interfere with containment will be trimmed or removed by the City.
- C. The City electrical utility will remove all overhead electrical wires and main power line prior to the project.
- D. Coordinate with antenna companies any work to be done.
- E. The antenna owners will temporarily remove the antennas and cables prior to the start of the project.
- F. Prevailing wages are required.
- G. Contractor is to comply with any IL-EPA required training and apprentice programs.

SECTION 00 02 00
INSTRUCTION to BIDDERS

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ARTICLE 1 - DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

- A. *Issuing Office*--The office from which the Bidding Documents are to be issued.
- B. *Owner Office*—The office where the bidding procedures are to be administered.

ARTICLE 2 - COPIES OF BIDDING DOCUMENTS

2.01 Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Notice to Bidders may be obtained from the Issuing Office.

2.02 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 sets of Bidding Documents. Review Bid documents for completeness; no future claims for damages will be considered based on missing pages, or incomplete documents.

2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

2.04 Owner and Engineer, in making copies of Bidding Documents available to Plan Services, do so for the purpose of advertising. Engineer and Owner make no assertions and take no responsibility that copies made by Plan Services or provided to Plan Services are complete. Plans electronically downloaded by Bidder also are responsibility of Bidder to verify accuracy and completeness.

ARTICLE 3 - QUALIFICATIONS

3.01 *Prequalification of Bidders:*

- A. Coating projects require competent, financially solvent Contractors who complete projects on time. These projects deal with the health and safety of the public, have a short availability time, and include dangerous work; therefore, the Owner will only consider prequalified Contractors. Bidders not prequalified may be considered non-responsive and bids may be returned unopened. Bidders who are not prequalified may not be awarded the project if there is insufficient time (30 days) to complete a thorough review.
- B. Requirements for prequalification are:
 - 1. On tanks of 1,000,000 gallons or smaller, successful completion of at least ten projects of like or larger size in the last five years. On tanks larger than 1,000,000 gallons, five projects of like size shall have been successfully completed in the last five years.
 - 2. Bidders shall furnish proof that they are bondable for the size of the project they are bidding and furnish proof of their bonding company's rating.
 - 3. All projects listed by a Bidder shall have been completed by that bidder under the company name in which they will be bidding this project. If the Bidder has completed the project(s) under a different company name, then the name under which the project(s) was completed shall be noted.
- C. Engineer will review submitted data to determine if Bidder meets prequalification requirements. QP1 or QP2 certification by Society of Protective Coatings (SSPC) is an alternate method of prequalification, except for the experience list. Any information found to be false or incorrect may be ample reason for disqualification. QP1 or QP2 certified companies must submit "Bidder's Sworn Work History Statement."
- D. New Bidders can apply for prequalification; however, they must be able to prove that they are bondable, provide a certified financial statement (most recent fiscal quarter), provide a complete equipment list; and a list of manpower, including work experience and the contractor(s) for whom they have worked. From this information, an evaluation and recommendation will be made by Engineer using economic ratios and comparisons regarding project size, equipment, manpower available, and foreman's experience. A

determination will then be made by the Owner as to whether or not the Bidder is qualified to perform the Project. Submit "Bidder's Sworn Work History Statement" found in the Notice to Bidders.

- E. Any prequalified Contractor (by Engineer or SSPC) who has pending litigation against him for work not completed on a project or for failed work on a project may be subject to disqualification.
- F. In addition, the Owner may make further investigations into the Bidder's prequalification, including compliance with human resource programs, as well as OSHA and environmental histories. The Owner also may review elements of the prequalification and determine if experience is generic to and specific to the project. Furnish the Owner information, data, or certifications requested.

3.02 *Disqualification:*

- A. Prequalification status may be nullified if a Bidder is disqualified or by other means rejected from bidding in a state or subdivision of a state, or by the federal government.
- B. By submitting their bid, the Bidder certifies that he is not currently disqualified or rejected from submitting bids in the state or political subdivision of the state where the project is located.

ARTICLE 4 - EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

4.01 *Subsurface and Physical Conditions*

- A. The Supplementary Conditions (SC) identify:
 - 1. Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Bidding Documents.
 - 2. Those drawings of physical conditions in or relating to existing surface and subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Bidding Documents.
- B. Copies of reports and drawings referenced in Paragraph 4.01.A, if any, will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.02 of the General Conditions has been identified and established in Paragraph 4.02 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions or information contained in such reports or shown or indicated in such drawings.

4.02 *Underground Facilities (N/A unless identified further in S.C.)*

4.03 *Hazardous Environmental Condition (N/A unless identified further in S.C.)*

4.04 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated conditions appear in Paragraphs 4.02, 4.03, and 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work appear in Paragraph 4.06 of the General Conditions.

4.05 On request, Owner will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.

- A. The Owner will allow exterior inspection of the facility. Access to raised ladders, etc. is the responsibility of the Bidder. Availability and time restrictions will be detailed in the Project Explanation. If not detailed,

inspection is by appointment only. For security concerns, do not access the site without notice to the Owner. Do not climb the structure without authorization.

- B. If the interior is available for inspection, availability and time restrictions will be detailed in the Project Explanation.
- C. If the Bidder wishes to inspect the structure with anymore than ground observation, then Bidder shall provide Owner with Certificate of Insurance meeting requirements of G.C.5.03, G.C.5.04, S.C..5.03 and S.C.5.04.

4.06 Reference is made to Article 7 of the Supplementary Conditions for the identification of the general nature of other work that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request, Owner will provide to each Bidder for examination access to or copies of Contract Documents (other than portions thereof related to price) for such other work.

4.07 It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, the other related data identified in the Bidding Documents, and any Addenda;
- B. visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work;
- D. where existing, obtain and carefully study (or accept consequences of not doing so) all examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto;
- E. agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents;
- F. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- G. correlate the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder; and
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

- A. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has reviewed S.C. 4.03 Differing Physical Conditions, and acknowledges that provision.

ARTICLE 5 - PRE-BID CONFERENCE

5.01 If a Pre-Bid conference is scheduled and whether the meeting is mandatory or non-mandatory will be identified in the Project Summary – Section 00 00 40. Representatives of Owner and Engineer will be present to discuss the Project. If Pre-Bid conference is non-mandatory, Bidders are encouraged to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 6 - SITE AND OTHER AREAS

6.01 The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

ARTICLE 7 - INTERPRETATIONS AND ADDENDA

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received less than ten days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

7.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

7.03 Addenda may be electronically issued within five days of opening of Bids if Addenda is considered clarification only.

7.04 The only Addenda issued within three days of the bid will be a notice to reschedule opening of Bids, or to cancel opening of Bids. Bids already in transit will be returned unopened or held unopened if requested by Bidder until new date for opening of Bids.

7.05 If a Bidder does not or claims he has not received any Addenda the Bid may be withdrawn per Paragraph 16.02.

ARTICLE 8 - BID SECURITY

8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 10 percent of Bidder's maximum Bid price and in the form of a certified check or bank money order or a Bid bond (on the form attached), or if no form is attached, on AIA Document A310 issued by a surety meeting the requirements of Paragraphs 5.01 and 5.02 of the General Conditions.

8.02 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 10 days after the Notice of Award, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Agreement or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned.

- A. Bid security will be held on three lowest Bidders.

- B. Bid Bonds will not be returned, but allowed to expire sixty-one days after Bid opening, unless notified by Owner.

8.03 Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

- A. Bid Bonds of responsive Bidders beyond the third lowest Bids will not be returned, but will be considered expired after fourteen days, unless notified by Owner.
- B. Bid Bonds of non-responsive Bidders will be considered expired upon determination by Engineer that Bid was non-responsive.

ARTICLE 9 - CONTRACT TIMES

9.01 The number of days within which, or the dates by which, the Work is to be substantially completed and ready for final payment are set forth in the Bid/Agreement and Project Summary 00 00 40.

ARTICLE 10 - LIQUIDATED DAMAGES

10.01 Provisions for liquidated damages, if any, are set forth in the Bid/Agreement and Project Summary 00 00 40.

ARTICLE 11 - SUBSTITUTE AND “OR-EQUAL” ITEMS

11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or “or-equal” items. Whenever it is specified or described in the Bidding Documents that a substitute or “or-equal” item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Agreement.

ARTICLE 12 - SUBCONTRACTORS, SUPPLIERS, AND OTHERS

12.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by Owner. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, without an increase in the Bid.

12.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the General Conditions.

12.03 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.

ARTICLE 13 - PREPARATION OF BID

13.01 The Bid/Agreement Form is included with the Bidding Documents. Additional copies may be obtained from Issuing Office.

13.02 All blanks on the Bid Form shall be completed by printing in ink or by typewriter and the Bid signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternative, adjustment unit price item, and unit price item listed therein, or the words "No Bid," "No Change," or "Not Applicable" entered.

13.03 A Bid by a corporation 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. 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.

13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.

13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown below the signature.

13.06 A Bid by an individual shall show the Bidder's name and official address.

13.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown below the signature.

13.08 All names shall be typed or printed in ink below the signatures.

13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.

13.10 The address and telephone number for communications regarding the Bid shall be shown.

13.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the Contract. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

13.12 All Bid preparation expenses, including site visits, prebid meetings, etc. are the responsibility of the Bidder, whether successful or not.

ARTICLE 14 - BASIS OF BID; COMPARISON OF BIDS

14.01

- A. Bidders shall submit a Bid on a unit price basis for each line item of Work listed in the Bid schedule.
- B. The total of all estimated prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and Contract Price will be determined in accordance with Paragraph 11.03 of the General Conditions. Where a quantity is not specified (i.e. exterior paint), consider the quantity as one, or a lump sum line item.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

14.02 The Bid price shall include such amounts as the Bidder deems proper for overhead and profit on account of cash allowances, if any, named in the Contract Documents as provided in Paragraph 11.02 of the General Conditions.

ARTICLE 15 - SUBMITTAL OF BID

15.01 With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid/Agreement Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security:

15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the Advertisement or Invitation to Bid and shall be enclosed in an opaque sealed envelope plainly marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed as directed in the Bid/Agreement Form.

15.03 If additional material is required to be submitted with the Bid, that material will be defined in the Project Summary – Section 00 00 40, or elsewhere in these Bid Documents.

15.04 Required Submittals with Bid Form: The bid may be rejected if the Bidder fails to submit the following submittals with the Bid/Agreement Form in the sealed, identified envelope.

- A. A signed Bond for ten percent (10%) of the bid amount total, meeting requirements of the State of Illinois codes, or a certified check payable to Owner for ten percent (10%) of the full amount of the bid.
- B. Power of Attorney for agent signing the Surety.
- C. Notarized "Bidder's Sworn Work History Statement" if Bidder is not prequalified.

ARTICLE 16 - MODIFICATION AND WITHDRAWAL OF BID

16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.

16.02 If within 24 hours after Bids are opened, any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 - OPENING OF BIDS

17.01 Bids will be opened at the time and place indicated in the Advertisement or Invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, non-responsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.

19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.

19.03 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

19.04 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.

19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the Work in accordance with the Contract Documents.

19.06 If the Contract is to be awarded, Owner will award the Contract to the Bidder whose Bid is in the best interests of the Project.

ARTICLE 20 - CONTRACT SECURITY AND INSURANCE

20.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance, payment, and maintenance bonds and insurance. When the Successful Bidder delivers the executed Notice of Award to Engineer, it shall be accompanied by such bonds.

ARTICLE 21 - SIGNING OF AGREEMENT/TIMEFRAME

21.01 When Owner gives a Notice of Award to the Successful Bidder, within ten days thereafter, Successful Bidder shall sign and deliver the required number of Notice of Award attached documents to Engineer. Within twenty days after receipt of bonds, etc. from the Engineer, Owner will deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

21.02 The executed copy will be accompanied by three copies of signed Notice to Proceed. Within five days of the date on the Notice to Proceed, the Bidder will sign the Notice to Proceed and return a copy to the Engineer. If the Engineer does not receive the accepted Notice to Proceed in five days, then the Notice to Proceed will be considered accepted by default. The Notice to Proceed will be dated on or around the contract date. The actual contract start date, completion date, etc. will be the same as the Effective Agreement Date.

21.03 Notice of Award; Effective Date of Award (Effective Date of Agreement): If the Contract is awarded by Owner, such award shall be effective when the Notice of Award has been delivered to the successful Bidder ("Effective Date of Award"). Owner will prepare three (3) copies of the Contract after return of Conditions Precedent. The Effective Date of Agreement is the date the Agreement is signed by the Owner.

- 21.04
- A. Closing Date: Unless otherwise stated in the Notice of Award, the successful Bidder shall satisfactorily complete all Conditions Precedent to Closing before, and the Contract and all related documents shall be executed, submitted and exchanged by Owner and Bidder ("Closing") on, the tenth day following the Effective Date of Award or within such extended period as Owner may, in the exercise of its sole discretion, authorize in writing after issuance of the Notice of Award ("Closing Date").
 - B. The execution of Agreement, Notice of Award, the submittal of additional requested materials, the Contractor's Certifications, and acceptable certificate(s) of insurance and Performance and Payment Bonds shall be considered Conditions Precedent to closing of the Contract.
 - C. Failure to timely execute or submit any of the aforesaid documents shall be grounds for the imposition of liquidated damages as more specifically set forth in 21.04.B above. If the submitted documents or any of them fail to comply with these General Instructions to Bidders or the Contract or are not timely executed and submitted, Owner may, in its sole discretion, annul the award or allow the successful Bidder an opportunity to correct the deficiencies.

- D. In no event will Owner execute the Contract until any and all such deficiencies have been cured or Owner has received adequate assurances, as determined by Owner, of complete and prompt performance.
 - E. Closing: At the Closing, and provided that all documents required to be submitted prior to or at the Closing have been reviewed and determined by Owner to be in compliance with these General Instructions to Bidders and the Agreement, or assurances of complete and prompt performance satisfactory to Owner have been received, Owner shall execute all copies of the Contract, retain one (1) copy of the completed Contract, and tender one (1) copy to the successful Bidder at the Closing.
- 21.05 A. Annulment of Award; Liquidated Damages: The failure or refusal of a successful Bidder to comply with the Conditions Precedent to Closing or to Close shall be just cause for the annulment of the award and the imposition of liquidated damages.
- B. Subsequent Awards: Upon annulment of an award, Owner may accept, and award a Contract based on, any other Bidder's Proposal as Owner, in its sole judgment, deems to be the best or may invite new Proposals or may abandon the bidding process or the Work.

ARTICLE 22 – NON-DISCRIMINATION

22.01 Non-Discrimination: Do not discriminate in employment practices.

22.02 Bidders shall, if requested, submit a compliance report concerning their employment practices and policies in order to maintain their eligibility to receive the award of the contract.

22.03 Successful Bidders shall, if requested, submit a list of all subcontractors who will perform work on the project and written signed statements from authorized agents of the labor pools with which they will or may deal for employees on the work, together with supporting information to the effect that said labor pools' practices and policies are in conformity with Equal Employment Opportunity, including latest federal and local policies. Labor pools will affirmatively cooperate in or offer no hindrance to the recruitment, employment, and equal treatment of employees seeking employment and performing work under the contract, or a certification as to what efforts have been made to secure such statements when such agents or labor pools have failed or refused to furnish same prior to award of the project.

22.04 Successful Bidders shall comply in all respects with the Labor Standards Contract Provisions regarding non-discrimination on this Project.

22.05 Bidder agrees that in the hiring of employees for the performance of work under this Agreement or any subagreement, neither the Contractor, nor any Subcontractor, nor any person acting on behalf of either, shall by reason of race, creed, or color, discriminate against any citizen in the employment of labor or workers who are qualified and available to perform the work to which the employment relates; nor shall the Contractor, or any Subcontractor, or any person acting on behalf of either, in any manner discriminate against or intimidate any employee hired for the performance of work under this Agreement on account of race, creed, or color.

ARTICLE 23 – NON-COLLUSION

23.01 Collusion between Bidders will be cause for rejection of affected bids and may be cause for rejection of all bids. Multiple bids submitted by one bidder under the same or different names, whether as individual, firm, partnership, corporation, profit or non-profit, affiliate, or association will be cause for rejection of bids. A subcontractor is not a Bidder and he may submit prices to multiple Bidders.

ARTICLE 24 – ALTERNATE BIDS OR RESTRICTIONS ON BIDS

- A. Items that affect the scope of the project and not addressed by addenda will not be accepted as an alternate bid.
- B. Alternate bids will automatically be considered non-responsive.
- C. Such bids may be examined prior to project award and may result in bid cancellation, followed by new bids, including the alternate.

- D. Discounts to the Owner for payment within a stipulated period of time will not be considered conditional or qualified bids. Discounts will be accepted, but not considered in bid price evaluation for bid award.
- E. Interest clauses will be considered a qualified bid.

ARTICLE 25 – STATE of ILLINOIS PROVISIONS

25.01 Sales and Use Taxes: Owner is exempt from Illinois State sales and use taxes on materials and equipment to be incorporated in the Work. Said taxes shall not be included in the Bid.

25.02 Wage Rate Requirements: No less than the prevailing rate of wages as found by Owner, or Department of Labor, or determined by the court on review shall be paid to all laborers, workmen and mechanics performing work under this Contract. Contractor and all Subcontractors engaged in any part of the Project will be required to comply with the prevailing wage rate requirements and the cost of doing so must be included in the Bid as no extra payment on account of this provision of law will be allowed.

25.03 Steel Products Procurement: Comply with the provisions of the Illinois Steel Products Procurement Act (30 ILCS 565/).

SECTION 00 04 10

BID/AGREEMENT FORM

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ARTICLE 1 – BID RECIPIENT

- 1.01 This Bid is submitted to:

City of St. Charles
Two East Main Street
St. Charles, IL 60174

(hereinafter called Owner)

- 1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner using this combined Bid/Agreement form to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

- 2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security and all State of Illinois provisions. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.
- 2.02 Bidder accepts all the terms and conditions of the combined Bid/Agreement form. (The Bid/Agreement form is an attempt to shorten the time period between submittal and award.) Bidder's signature is an acceptance of all terms of the Agreement section and this Bid, if successful, will become an Agreement after it has been signed by an authorized representative of the Owner.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

- 3.01 In submitting this Bid, Bidder represents that:

- A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged.

Addendum No.

Addendum Date

_____	_____
_____	_____
_____	_____

- B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of the Work.
- D. Bidder has carefully studied all: (1) reports, if available.
- E. Bidder has obtained and carefully studied (or accepts the consequences for not doing so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.
- F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

- H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- I. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.
- J. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
- K. Bidder will submit written evidence of its authority to do business in the state where the Project is located not later than the date of its execution of the Agreement.
- L. All references to Bidder in this affirmation will change to the term Contractor if this Bid becomes an Agreement.

ARTICLE 4 – FURTHER REPRESENTATIONS

4.01 Bidder further represents that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
- E. Contractor hereby represents that the only persons, firms, or corporations interested in this Contract as principals are those disclosed to Owner prior to the execution of this Contract, and that this Contract is made without collusion with any other person, firm, or corporation. If at any time it shall be found that Contractor has, in procuring this Contract, colluded with any other person, firm, or corporation, then Contractor shall be liable to Owner for all loss or damage that Owner may suffer thereby, and this Contract shall, at Owner's option, be null and void.

4.02 Bidder further represents that:

- A. Bidder has been prequalified for projects of this design, size, and complexity, or submits a "Bidder's Sworn Work History Statement."
- B. Bidder is not barred from contracting with the Owner as a result of a violation of 720ILCS 5/33 et seq. Contractor shall certify that it is not barred from bidding the Work or executing this Agreement as a result of conviction for violation of 720 ILCS 5/33 et seq. prohibiting bid rigging or bid rotating.

4.03 Bidder agrees that no less than the prevailing rate of wages as found by Owner or the Department of Labor or determined by the court on review, shall be paid to all laborers, workmen, and mechanics performing work under this Contract.

4.04 Compliance with Laws and Grants: Contractor shall give all notices, pay all fees, and take all other action that may be necessary to ensure that the Work is provided, performed, and completed in accordance with all required governmental permits, licenses, or other approvals and authorizations that may be required in connection with providing, performing, and completing the Work, and with all applicable statutes, ordinances, rules, and regulations, including without limitation the Prevailing Wage Act, 820 ILCS 130/0.01 et seq. (in furtherance of which, a copy of Owner's "Ordinance Ascertaining the Prevailing Rate of Wages" in effect as of the date of this Contract has been attached as an Appendix to this Contract; if the Illinois Department of Labor revises the prevailing rate of hourly wages to be paid, the revised rate shall apply to this Contract); any other prevailing wage laws; the Fair Labor Standards Act; any statutes regarding qualification to do business, any statutes requiring preference to laborers of specified classes; the Illinois Steel Products Procurement Act, 30 ILCS 565/1; any statutes prohibiting discrimination because of, or requiring affirmative action based on race, creed, color, national origin, age, sex, or other prohibited classification, including, without limitation, the Americans with Disabilities Act, the Illinois Human Rights Act, 775 ILCS 5/1-101 et seq. and the Discrimination in Public Contracts Act, 775 ILCS 10/1 et seq.; and any statutes regarding safety or the performance of the Work,

including the Illinois Structural Work Act, the Illinois Underground Utility Facilities Damage Prevention Act, and the Occupational Safety and Health Act. Contractor shall also comply with all the conditions of any federal, state, or local grant received by Owner or Contractor with respect to this Contract or the Work.

Contractor shall be solely liable for any fines or civil penalties that are imposed by any governmental or quasi-governmental agency or body that may arise, or be alleged to have arisen, out of or in connection with Contractor's, or its Subcontractors' or suppliers', performance of, or failure to perform, the Work or any part thereof.

Every provision of law required by law to be inserted into this Contract shall be deemed to be inserted herein.

ARTICLE 5 – BASIS OF BID

- 5.01 Bidder will complete the Work in accordance with the Contract Documents, including all labor and material, for the following price:

Base Bid price based on the Schedule of Values:

_____ \$ _____

Unit Prices have been computed in accordance with the General Conditions.

Bidder acknowledges that estimated quantities are not guaranteed and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 14.07.B of the General Conditions on or before the dates or within the number of calendar days indicated in the Project Summary – Section 00 00 40.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the Contract Times, or within Milestone dates.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are to be attached to and made a condition of this Bid:
- A. Required 10% Bid security in the form of a bond or cash surety. Include AM Best rating of bond company.
 - B. List of Proposed Subcontractors
 - C. Bidder Qualification Statement with Supporting Data – If Required
 - D. Affidavit of Non-Collusion
 - E. Certification for Contract.
 - F. Contractor Certification that he is not disbarred.
 - G. Certification of Compliance with Section 11-42-.1 of Illinois Municipal Code (taxes).

ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and/or the Supplementary Conditions.
- 8.02 *Time Framework for Award Execution:* The Owner will open bids on the bid date. After opening, no bid may be withdrawn or altered for sixty days, unless specifically stated elsewhere. The Owner may negotiate with the low Bidder and mutually both parties may alter bid (i.e. partial award of project).

The Bidder will be notified of award within sixty days of bid date, unless stated elsewhere or mutually extended. Notice of Award form will be sent by fax or mail. Within ten business days of Notice of Award, supply the Engineer with three original sets of separate Payment and Performance Bonds. Supply three original sets of Certificates of Insurance meeting requirements of General Conditions and Supplementary Conditions 5.01 and 5.02. Insurance companies and insurance forms must be standard to the industry and acceptable to the Owner. Failure to submit bonds and/or insurance within the time frame will be considered a default, a failure to perform as required by the Bid Bond. The Owner, at his option, may waive default, delay default, or proceed with capture of the Bid Bond which will become the Owner's property.

Bonds and insurances are to be submitted to the Engineer for review. The Owner will within twenty days of receipt of approved bonds and insurances from the Engineer execute the Agreement and send a signed copy to the Contractor.

The executed copy will be accompanied by three copies of the Notice to Proceed. Within five days of the date on the Notice to Proceed, the Bidder will sign the Notice to Proceed and return a copy to the Engineer. If the Engineer does not receive the accepted Notice to Proceed in five days, then the Notice to Proceed will be considered accepted by default.

The Notice to Proceed will be dated on or around the Effective Date of Agreement.

ARTICLE 9 – BID SUBMITTAL

- 9.01 This Bid submitted by:

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____ (SEAL)
(Individual's signature)

Doing business as: _____

A Partnership

Partnership Name: _____ (SEAL)

By: _____
(Signature of general partner – attach evidence of authority to sign)

Name (typed or printed): _____

A Corporation

Corporation Name: _____ (SEAL)

State of Incorporation: _____
Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(CORPORATE SEAL)

Attest: _____

(Signature of Corporate Secretary)

All Business Entities

Date of Qualification to do business in _____ *[State Where Project is Located]* is ____ \ ____ \ ____.

Agent for service or process: _____

Address for giving Notices: _____

ARTICLE 10 – BID ACCEPTANCE

10.01 Bid Acceptance:

- A. The above Bid is accepted by the Owner and shall become a Contract Agreement binding on all parties after signing by an authorized representative of the owner.
- B. All references in the second portion of this form are Agreement terminology. Bidder is now referred to as Contractor. Where appropriate, the term Bidder in the Bid form is changed to Contractor.

ARTICLE 11 - CONTRACT TIMES

11.01 Time is of the Essence

A. All time limits for Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

11.02 Dates for, or Days to Achieve (see paragraph 6.01) Substantial Completion and Final Payment

- A. Substantial Completion and Ready for Final Payment Dates are defined in the Project Summary – Section 00 00 40.

11.03 Liquidated Damages

A. Contractor and Owner recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 6.01 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed 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 \$750 for each day that expires after the time specified in Paragraph 6.01 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner \$250 for each day that expires after the time specified in Paragraph 6.01 for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 12 - CONTRACT PRICE

12.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Article 5 Bid above.

12.02 As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.07 of the General Conditions. Unit prices have been computed as provided in Paragraph 11.03 of the General Conditions.

ARTICLE 13 - PAYMENT PROCEDURES

13.01 Submittal and Processing of Payments

A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

13.02 Progress Payments; Retainage

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment once each month during performance of the Work as provided in Paragraphs 13.02.A.1 through 13.02.A.7 below. All such payments will be measured by the schedule of values (or Article 5 above) established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements:

1. On the wet interior, surface preparation by abrasive blast cleaning will be considered equal to 40 percent of the line item work and cost and each coat of paint 20 percent.
2. On the exterior, surface preparation by abrasive blast cleaning inside containment will be considered equal to 40 percent of the line item work and cost and each coat of paint 10 percent, with another 10 percent for lettering and demobilization, and 10 percent for waste disposal.
3. Dry interior painting, pit piping repainting, and repairs will not be broken down. 100 percent completion is required before they will be considered for payment.
4. Mobilization is included in the surface preparation allotment for items 1 and 2 above.
5. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions:

Retainage to be held as follows: 10% of the dollar value through 50% completion; 5% of the dollar value through 100% completion.

6. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 90 percent of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 100 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

13.03 Final Payment

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer.

ARTICLE 14 - CONTRACT DOCUMENTS

14.01 Contents

- A. The Contract Documents consist of the following:

1. This Bid/Agreement.
2. Performance bond.
3. Payment bond.
4. General Conditions, Supplementary Conditions, Specifications and Drawings as listed in the table of contents of the Project Manual.

5. Addenda (numbers _____ to _____, inclusive).
 6. Exhibits to this Agreement (enumerated as follows):
 - a. Documentation submitted by Contractor prior to Notice of Award (pages _____ to _____, inclusive).
 - b. _____.
 7. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Notice to Proceed (pages _____ to _____, inclusive).
 - b. Work Change Directives.
 - c. Change Order(s).
- B. The documents listed in Paragraph 14.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 14.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 15 - MISCELLANEOUS

15.01 Assignment of Contract

A. No assignment by a party hereto of any rights under or interests in the Contract 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.

15.02 Successors and Assigns

A. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

15.03 Severability

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

15.04 Other Provisions

- A. Contractor to provide Maintenance Bond as specified, prior to receipt of final payment.
- B. IN WITNESS WHEREOF, Contractor has signed this Agreement as Bidder. Owner has signed Agreement in duplicate and one counterpart each has been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or identified by Owner and Contractor or on their behalf.

This Agreement will be effective on, _____, _____ (which is the Effective Date of the Agreement).

OWNER:

By: _____

Title: _____

NON-COLLUSION AFFIDAVIT

The Bidder is required to execute and submit with his Bid, the Non-Collusion Affidavit:

State of: _____

County of: _____

Bid Identification: _____

CONTRACTOR _____, being first duly sworn, deposes and says that he is (sole owner, a partner, president, secretary, etc.) of the party making the foregoing BID; that such BID is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization, or corporation; that such BID is genuine and not collusive or sham; that said BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham BID, and has not directly or indirectly colluded, conspired, connived, or agreed with any BIDDER or anyone else to put in a sham BID, or that anyone shall refrain from bidding; that said BIDDER has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the BID price of said BIDDER or of any other BIDDER, or to fix any overhead, profit, or cost element of such BID price, or that of any other BIDDER, or to secure any advantage against the OWNER awarding the CONTRACT or anyone interested in the proposed CONTRACT; that all statements contained in such BID are true; and, further, that said BIDDER has not, directly or indirectly, submitted his BID price or any breakdown thereof, or the contents thereof, of divulged information or data relative thereto, or paid and will not pay any fee in connection therewith, to any corporation, partnership, company, association, organization, BID depository, or to any member or agent thereof, or to any other individual except to such person or persons as have a partnership or other financial interest with said BIDDER in his general business.

Signed:

Subscribed and sworn to before me this the day of:

Seal of Notary:

CONTRACTOR CERTIFICATION

_____, being first duly sworn on oath, deposes and states that all statements herein made are made on behalf of Contractor, that this deponent is authorized to make them, and that the statements contained herein are true and correct.

Contractor deposes, states, and certifies that Contractor is not barred from bidding and/or contracting with a unit of state or local government as a result of (i) a delinquency in the payment of any tax administered by the Illinois Department of Revenue unless Contractor is contesting in accordance with the procedures established by the appropriate Revenue Act, its liability for the tax or the amount of tax, as set forth in 65 ILCS 5/11-42.1-1; or (ii) a violation of 720 ILCS 5/33E-1 et seq.

Dated this _____ day of _____, 20____.

Attest/Witness:

By: _____

By: _____

Title: _____

Title: _____

Subscribed and sworn to before me this the _____ day of _____, 20____.

My Commission Expires:

Notary Public

Seal

CERTIFICATION FOR CONTRACT

The undersigned, as a duly authorized representative of the Contractor, hereby certified to the (Client)
_____ Illinois, that the Contractor is fully aware of and able to comply with all Local, State, and
Federal Safety Laws and Regulations applicable for the construction of the Project known as (Project):

Name

Company

Date

CERTIFICATE OF COMPLIANCE WITH SECTION 11-42-.1
OF THE ILLINOIS MUNICIPAL CODE

The undersigned, upon being first duly sworn, hereby certifies to the (Client) _____, that
_____ (Contractor) is not currently delinquent in the payment of any tax administered by or owed
to the Illinois Department of Revenue, or otherwise in default upon any such tax as defined under Chapter 24, Section 11-42-.1
Illinois Revised Statutes.

Name of Contractor

By

Title

Subscribed and sworn to before me this _____ day of _____, 20____.

Notary Public

SECTION 00 43 73
SCHEDULE of VALUES

1.01 PART 1

A. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 05 00 00:

1. <u>WET INTERIOR ROOF HATCH</u>	
	\$
2. <u>CONDENSATE PLATFORM HATCH</u>	
	\$
3. <u>TOP PLATFORM OPENING COVER</u>	
	\$
4. <u>FILL/DRAW PIPE DEFLECTOR PLATE</u>	
	\$
5. <u>EXPANSION JOINT REPLACEMENT</u>	
	\$
6. <u>CONDENSATE DRAIN LINE</u>	
	\$
7. <u>MUD VALVE</u>	
	\$
8. <u>FALL PREVENTION DEVICE</u>	
	\$
9. <u>REPLACE BASEBELL LADDER</u>	
	\$
10. <u>ROOF VENT</u>	
	\$

11. <u>ACCESS TUBE AIR GAP SEAL</u>	
	\$
12. <u>CATHODIC CLIPS AND COUPLING</u>	
	\$
13. <u>CATHODIC COVERS</u>	
	\$
14. <u>ROOF HANDRAIL AND PAINTER'S RAILING</u>	
	\$
15. <u>ELECTRICAL WIRING</u>	
	\$
16. <u>ROOF PATCH PLATES</u>	
	\$
17. <u>ROOF ANTENNA CABLE BRACKETS</u>	
	\$
18. <u>POD REMOVAL AND ACCESS TUBE COVER</u>	
	\$

TOTAL PRICE SECTION 05 00 00 INCLUDING #1 THROUGH #18:

\$

B. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 09 97 13:

1. <u>EXTERIOR REPAINT WITH CONTAINMENT</u>	
	\$
2. <u>WET INTERIOR REPAINT</u>	
	\$
3. <u>SEAM SEALER</u>	
	\$

4. DRY INTERIOR PARTIAL REPAINT

\$

5. LOGO

\$

6. LOGO - ALTERNATE

\$

TOTAL PRICE SECTION 09 97 13 INCLUDING #1 THROUGH #5:

\$

TOTAL PRICE SECTION 05 00 00 and 09 97 13:

SECTION 05 00 00: \$ _____

SECTION 09 97 13: \$ _____

PROJECT TOTAL: \$ _____

1.02 TOTALS

A. Total Base Bid is to match total Base Bid price supplied in Bid/Agreement form.

1.03 BID BOND

A. Bid Bond shall be based on 10% of the total.

1.04 MISTAKES

- A. Total of Schedule of Values should equal lump sum bid total. If addition of individual items does not match total, then each individual items will be proportionately changed to reflect total of values to match lump sum bid.
- B. A mistake in addition for schedule items cannot be used to increase lump sum bid. Individual items will be proportionately changed downward to reflect lump sum price.
- C. A mistake in Schedule of Values may be used as evidence of error in any request to withdraw bids because of error. Approval of request to withdraw bids is covered in the prebid information. This section is not intended to conflict any portion of the bid package. This section is only to reflect one of the reasons to withdraw bids. Approval of bid withdrawal will be based solely on the owner's interpretation of the severity of the mistake.

1.05 CHANGES in SCHEDULE of VALUES by OWNER

- A. The owner reserves the right to delete any line item except for base bid painting work, at their sole discretion for any reason, budgetary or other. All contract general costs

- should be evenly distributed over these items (mobilization, demobilization, bonds, etc.)
- B. The bidder/contractor is advised not to overload any specific deletable line item. It could result in loss of profit if the overload item is deleted.
 - C. This deletion of items or not including alternates is an expressly stated reservation (a contractually agreed automatic negotiation. Any deletion of specific line items will be completed before selection of the lowest acceptable bidder. Change will be reflected in the Notice of Award.

1.06 NON-DELETABLE WORK

- A. Bidders are advised that all line items except for base bid painting work may be deleted from the project prior to award.
- B. Any deletion of line items, or increase or decrease in unit cost items deemed necessary after the Notice of Award will be completed through the Change Order procedure. Prices used in the Schedule of Values will be used in the Change Order adjustment. If work has begun on an item after the contract is executed, but before being deleted by Change Order, the contractor is entitled to costs incurred.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



Issued and Published Jointly by



THESE DOCUMENTS WERE MODIFIED BY DIXON ENGINEERING INC. TO
COMBINE GENERAL AND STANDARD SUPPLEMENTAL CONDITIONS.
SUPPLEMENTAL CONDITIONS ARE PROJECT SPECIFIC.
06/06/201505/26/2018

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 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), perfluoroalkyl and polyfluoroalkyl (PFAS), 1,4-dioxane, 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. [Lead, chrome, and other by-products of paint removal, as well as strippers, new coatings, and thinners, are to be included in this definition.](#)
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.
- 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. *Ready for Final Payment* – This term is used to define a time when Liquidated Damages begin, separate from but possibly in addition to Liquidated damages for failure to meet Substantial Completion Date. Ready for Final Payment Date is generally listed 30 days after Substantial Date. All punchlist items are to be completed, Site cleaned and restored, and equipment removed.
- 33. *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.

- 34. *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.
- 35. *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.
- 36. *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. *The Schedule of Value Form is supplied in these Bidding Documents as Section 00 43 73. This Schedule is to be submitted with the Bid. Adjustment of Schedule of Values by Engineer will not change the total Bid as calculated by completing the Schedule of Values.*
- 37. *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.
- 38. *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.
- 39. *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.
- 40. *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.
- 41. *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. *On tank projects, date of substantial completion is the date the tank is, or would have been returned to service, except for voluntary delay by Owner. Date of Substantial Completion is after complete cure, disinfection, and testing.*
- 42. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
- 43. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions. *These EJCDC Documents have been rewritten to merge Standard Supplemental and General Conditions and are now a product of Dixon Engineering Inc. and not an EJCDC product. The terms*

Supplemental Conditions used in these General Conditions and the term Project Specific Supplemental Conditions are to be used interchangeable.

- 44. *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.
- 45. *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.
- 46. *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.
- 47. *Unit Price Work*—Work to be paid for on the basis of unit prices.
- 48. *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.
- 49. *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.
- 50. *Performance Specifications*—Specifications that require the manufacturer or supplier of equipment, materials, or systems to design, manufacture, deliver, and install products to achieve specific results under stipulated conditions of operation and in environments described in applicable Specification Sections.
- 51. *Hold Point*—A point in the construction sequence when the Contractor is required to stop work on that portion of the project until an inspection has been completed.
- 52. *Non-Conformance Report*—A report written by the Engineer or Resident Project Representative, to document the Contractor's Work that does not meet requirements of the specifications or contract.

53. *Bulletin*—If time permits, a Bulletin is issued prior to a Change Order. A Bulletin is an inquiry of the Contractor of the cost to complete the work described in the Bulletin. It is intended as the basis of a Change Order if all parties reach agreement. A Bulletin may be considered as the same as a Change Proposal except that a Bulletin is generated by the Engineer because it generally requires specifications to be addressed.

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).
 - d. All work completed that is rejected by an unresolved non-conformance report.
- 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.
 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. Within ten (10) business days of Notice of Award, supply the Owner with three (3) original sets of separate Payment, and Performance Bonds. Maintenance Bonds may be submitted with other Bonds or prior to Final Payment. Supply three (3) original sets of Certificates of Insurance meeting requirements found herein and with the limits of insurance to be found in the Supplemental General Conditions. Failure to submit bonds and/or insurance within time frame will be considered a default, a failure to perform as required by the Bid Bond. The Owner, at his option, may waive default, delay default, or proceed with capture of the Bid Bond which will become the Owner’s property.
- B. Bonds and insurances are to be submitted to the Engineer for review. The Owner will within twenty (20) days of receipt of approved bonds and insurances from the Engineer execute the agreement and send a signed copy to the Contractor.
- C. *Evidence of Contractor’s Insurance* See Insurance Information for required limits in the Project Specific Supplemental Conditions. See General Provisions.
- D. *Evidence of Owner’s Insurance* The Owner will not provide Certificate of Insurance to the Contractor. The Owner will not name Contractor additional insured.
- E. *Correction Requirements of Bonds and Insurance:* Bonds and Certificate of Insurances that fail the initial review by a DIXON contract administrator will be returned to Contractor. All subsequent returns for insufficient material will be cause for Owner to offset DIXON recurring fees. Also failure of Bonds and Certificate of Insurance during review by Owner’s insurance consultant will be cause for offset.

2.02 *Copies of Documents*

- A. Owner shall furnish the Contractor one signed copy of the Contract Documents. 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. One copy of the Contract Document will be sent to Owner in a sealed envelope. This set of Contract Documents will be the standard if a dispute occurs. 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. . This is the copy, designated to be the true original for all construction or legal disputes. This copy is to be printed at time of bidding and sealed in an envelope and retained by Owner.

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
 3. Submitted with Bid- 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. The Engineer may schedule a Preconstruction Conference to be attended by Owner, Engineer, and Contractor(s). When no organizational meeting is scheduled, the Contractor, prior to beginning any work, shall meet with the Engineer and arrange a Project Schedule and if submitted review Project Schedule for the work. Once the Work has started, the Contractor shall carry the Progress Schedule to completion without delay.
- B. Attend a preconstruction meeting that may be scheduled by the Owner at a mutually agreeable time after all contract preconditions and other requirements have been met.
- C. A corporate officer or someone with legal authority to obligate the company/corporation, project manager (if different from officer), and the intended foreman shall attend. If project foreman does not attend the meeting, it shall be the Contractor's responsibility to supply the information discussed at the meeting to the field foreman.
- D. The Owner will be represented by the project contact person, and the Engineer by the project manager, or his principal.
- E. Submit all required materials prior to the preconstruction meeting.
- F. The Preconstruction Conference will discuss all containment, personal hygiene, and lead control issues required in this contract and review. Be prepared to commit designated "competent person(s)" to responsibilities of confined space, scaffold rigging, lead, etc.

- G. At the Preconstruction 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.
- H. The Engineer may prepare and distribute Preconstruction Conference minutes to all attendees. All parties to the Preconstruction Conference will have five days from the postmarked, or email dated delivery of the minutes to protest any item of the minutes in writing. After five days the minutes will be considered not protested and will become part of the Contract documents. per established Electronic Transmittal Protocol (See Article 2.06).
- I. Preconstruction Conference minutes may serve to meet some of the “writing” requirements of this Article.

2.05 *Initial Acceptance of Schedules*

- A. All schedules are to be submitted prior to the preconstruction meeting. 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. Failure to meet Milestone or significant Progress Schedule dates may be cause for rejection of prior accepted Progress schedule, and require an additional Progress meeting and new Progress Schedule to put Project back on an acceptable schedule. Cost of meeting, Owner’s and Engineer’s time will be considered the responsibility of the Contractor, subject to Setoff.
 - 2. Contractor’s Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals. All Submittals shall be included with the first submittal package and shall only be submitted by the Contractor and not by Suppliers or Subcontractors. If certain items cannot be submitted with the package, an acceptable Schedule of Submittals must be supplied to the Engineer.
 - 3. Contractor’s Schedule of Values_ (Section 00 43 73 to be completed and submitted with Bidding Documents) *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. If the Engineer determines the Schedule of Values is not acceptable, the Engineer will use the Contractor’s Schedule to reallocate values. The Engineer’s reallocation will be to maintain sufficient funds for work completed toward the end of the project to avoid frontloading values. The Engineer will assign values high enough to bring in another Contractor to finish work in case of default. The Contractor has five (5) days to appeal this reallocated Schedule of Values. Pay Requests shall be made based on the prices in the Schedule of Values as submitted unless adjusted by the Engineer and in that case the adjusted Schedule of Values.*

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 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. In resolving any conflict among Contract Documents: The Documents shall be given the following preference in order:

- 1. Agreement.
- 2. Addenda.
- 3. Special Conditions.
- 4. Supplemental Conditions.
- 5. Technical Specifications.
- 6. Drawings. Figure dimensions shall govern over scaled drawings.
- ~~B.7.~~ General Conditions.

~~C.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.

~~D.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. If there is a conflict between written copies see Article 2.02 B above.

~~E.D.~~ The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

~~F.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, 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. Contractor as Bidder was required to visit the site. Visible errors in the specifications, such as number of manholes, pits, will be the responsibility of the Bidder to report.

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.

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*

- A. The contract times are defined in the Project Summary in Section 00 00 40. A Notice to Proceed will be issued thirty (30) days prior to the start date if time permits. An email or verbal notice may be used to give thirty (30) days notice until all parties can sign the Notice to Proceed.
- B. The effective start date will be indicated in the Notice to Proceed. The start date may exceed sixty (60) days after bid opening. The Contract Dates will be maximum out-of-service time AND/OR the Project Completion Date. The start date may float to give the Contractor more flexibility with scheduling. Out of Service Date starts the maximum out of service time. If the Contractor delays start so that the out of service date exceeds the Project Completion Date, the Project Completion Date becomes Primary and Out of Service Date is no longer applicable.

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 except as recommended immediately following. Contract time is governed by out-of-service time. The Contractor is encouraged to deliver equipment to the site prior to Contract Start. The site will be available up to two (2) weeks prior to agreed drainage date.
- B. Contractor is also encouraged to rig the structure, complete containment installation, and complete weld repairs that do not affect the wet interior prior to draining of the tank. The amount of work completed shall have been approved at the preconstruction conference. Since the tank is not out of service these dates do not apply against Out of Service time.
- C. Delaying Work start until the next coating system for the convenience of the Contractor will require Owner to setoff inflation increased Engineering expenses against Contractor's Request for Payment.

4.03 *Reference Points* N/A

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.
 - 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.

- C. Notify the Owner of expected arrival a minimum of two weeks (14 days) in advance.
- D. Direct all requests for inspection to the Owner for notification of the Engineer. Forty-eight (48) hours notice of all inspection requests is required.
- E. A written schedule (strictly followed) will substitute for the forty-eight (48) hours inspection notice. However, twelve (12) hours notice is still required if rain or weather interferes with the schedule.
- F. If the inspection visit is canceled, notify the Owner to notify the Engineer to eliminate unnecessary travel time and expense. Twelve (12) hours notice is required.
- G. Be at the job site at the scheduled time of inspection if cancellation of the inspection visit is not possible.
- H. The Engineer and Owner will establish an inspection schedule with the Contractor at the Preconstruction Meeting.

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; Abnormal weather conditions are simply defined as weather conditions that are at variance with the routine or normal weather conditions. An example of the evaluation procedure and of the required Change Proposal follows.
 - a. Project length: 45 days
 - b. Substantial completion date: June 30th.

- c. Start date: May 16th.
- d. Three (3) years of data* ~~2015~~, 2016, 2017, 2018
- e. Average number of rain/wind days: 9
- f. Actual number rain/wind days**: 12
- g. Claim for time extension: 3 days.

*Submit weather history from nearest weather reporting station for three (3) previous years from the same time period. Submit same data for current year. Submit formal, but simple Change Proposal (use format above).

**Rain/wind day is a rain or wind day where either rain and/or wind conditions exceeded safe work conditions or were outside the parameters of good paint practices. Wind days are winds in excess of 20 mph for over four (4) hours during normal work hours, and rain days having measurable precipitation.

- h. Change Proposal Evaluation: Engineer will evaluate Change Proposal and make sole determination as to whether days meet criteria. Engineer will disallow dates where work could have been completed on the interior; dates that result from the Contractor's work practices (i.e. complete wet interior first and then move to outside). Good weather days not used will count against Change Proposal.
- i. Claimed rain/wind days that extend beyond the scheduled Substantial Completion date or the extended Substantial Completion date will not be awarded. Days past substantial completion and good weather days that were not used because of sequencing of project work by Contractor will be considered "days within the control of the Contractor."

- 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.

~~D.~~ 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.

~~E.~~ 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.

- f. H. The termination of Work during the winter season ~~on account~~because of cold weather shall not be taken as entitling Contractor to any extension of Contract Time. If approved by Owner, Liquidated Damages being applied will cease through the winter and will begin again when the tank is removed from service. New Liquidated Damages are cumulative with any Liquidated Damages applied for Fall work.

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. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.
- C. Because of the potential of damage from airborne debris and paint drift, in regard to site clean-up, the term adjacent land or areas will be interpreted to include any property affected by the Project, whether fixed or transient. If it is necessary or desirable to protect adjacent private or public property, work with the Owner and neighbor(s) to move or cover vehicles and permanent structures.

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; including car/paint damage claims, 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 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. Failure to continually maintain site or to immediately clean the Site after a complaint or at project completion may result in the Owner completing the cleaning by hire or by the Owner's forces. All cleaning costs are the responsibility of the Contractor.
- E. *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. Bent rails, ladder rungs, etc. occurring as a result of construction loading, shall be restored, or negotiated with Owner.
- F. 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 signal from sunset-to-sunrise. Barricades shall be of suitable construction and shall be painted to increase their visibility at night. Suitable warning signs shall be so placed and illuminated at night as to show in advance where construction, barricades, or detours exist.
- G. The Contractor shall at all times so conduct his work to insure the least obstruction to traffic and inconvenience to the general public and the residences 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 authorities. The Contractor shall confer with and keep police and fire departments of the municipality fully informed as to streets or alleys which are to be closed to traffic for construction purposes. Fire hydrants on or adjacent to the work shall be kept accessible to fire fighting equipment at all times. Temporary provisions shall be made by the Contractor to insure the usability of sidewalks and the proper functioning of all gutters, sewer inlets and drainage ditches.

The Contractor shall have full charge of the premises and work under construction until completion and final acceptance of the Work under the Contract except as noted

in the Special Conditions. The Engineer and Owner shall have full access to the Site and Contractor's personnel and equipment shall be available to the Owner and Engineer/~~RPR~~ to expedite inspections. The Contractor shall be responsible for all injury to work in process of construction, and for all property or materials stored at the premises that may be damaged or stolen while the work is in his care, and ~~he~~ shall make good all such damage or loss without expense to the Owner. The Contractor shall confine the apparatus, the storage of materials, and the operations of his ~~workmen~~workers to limits indicated by law, ordinance, permits, or direction of the Engineer, and shall not unreasonably encumber the premises with his materials.

5.03 *Physical Conditions*

~~A. Because of the nature of painting projects, delete all references to underground work or underground conditions.~~

~~B.A.~~ *Reports and Drawings:* The Supplementary Conditions identify:

1. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
2. Technical Data contained in such reports and drawings.

~~3. Whenever practical, a physical inspection of the Project was completed prior to preparation of the specifications. During that inspection, a Field Inspection Report (FIR) was prepared. The FIR was used to produce an Engineering Report on the condition of the structure. The FIR shall not be considered Technical Data~~

~~C.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.
- ~~4. If available, the FIR is included in these Bidding Documents. The FIR contains a statement that the author of the FIR was to conduct his investigation and report as if he was a Contractor. This approach helps with the preparation of the Engineer's report. It is included as a courtesy to the Contractor. The Contractor is not an intended third party beneficiary. The report is not intended to be technical data. See Information for Bidders, Section 00 02 00, Site Visit and Site~~

Inspection/Comparison with Bid Documents. It is the Contractor's responsibility to visit the Site and to be responsible to know actual Site conditions.

5.04 *Differing Physical Conditions*

~~A. Because of the nature of painting projects, delete all references to underground work or underground conditions.~~

~~B.~~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 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.

~~C.~~B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the 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.B 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.

~~D.~~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 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.

~~E.~~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,
 - 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 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.
 - d. Rough Surfaces in the Wet Interior: The wet interiors of steel structures are subject to corrosion. Based on the age of the tank, maintenance history of the tank, and other factors, the inside of the tank may be pitted. The degree or severity or extent of this pitting will not be considered a hidden condition. No claim of extra for blasting or coating application will be accepted or reviewed. If pit welding or pit filling is completed, that will be done at the bid unit price or a negotiated price. The Owner and Engineer will determine and authorize the extent of pit filling. There will likely be as many or more, unfilled pits than the number authorized for repair. Contractor cannot rely on pit filling to eliminate some of the application techniques needed for pitted tanks. Back rolling of a spray application may be necessary and will be considered Good Painting Practice and not a Differing Physical Condition.
 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: Underground facilities primarily will be pipe pits which are accessible at Prebid Inspection, or facilities encountered when drilling anchors for containment.

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 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 will 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:* The location of any particular utility cannot be certified as being correct. In general, location and elevation are approximate only.

Contractor shall notify each utility before digging for anchors or for any reason. Before starting, call in advance as required by the individual agencies:

Indiana: Indiana Underground 800-382-5544

Illinois: J.U.L.I.E. 800-892-0123

Michigan: Miss Dig 800-482-7171

Ohio: Ohio Utilities Protection Service 800-362-2764; outside Ohio 216-744-5191

Wisconsin: Digger's Hotline 800-242-8511; Milwaukee 414-259-1181

Virginia: Miss Utility 800-552-7001

Other States: Locate and notify appropriate agency.

5.06 *Hazardous Environmental Conditions at Site*

A. There are no known hazardous environmental conditions on-site. No reports or drawings related to Hazardous Environmental Conditions are known to the Owner or Engineer. There is the possibility of lead in soils or other Constituents of Concern related to the coating industry from past projects. The Contractor is not responsible for cleanup of existing conditions unless their actions result in cleanup of a new waste discharge, spilt fuels, solvents, materials on equipment from another project.

~~B. 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.~~

~~C.~~B. 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.

~~D.~~C. 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); Engineer or RPR has full authority to STOP Work until the Owner and PM are contacted, 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. Authority to STOP Work in this instance is expanded to include potential environmental contamination.

~~F.D.~~ 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.

~~F.E.~~ 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. If Contractor caused the delay or reason for stoppage as a result of a discharge or potential discharge then Owner may present a Setoff, but the Contractor may not submit a Change Proposal.

~~G.F.~~ 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.

~~H.G.~~ 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.~~JG~~ shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

~~I. 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.~~

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. Supply a Maintenance Bond for two (2) years at 100% contract price to ensure any repair work required after the one (1) year warranty inspection within thirteen (13) months (unless stated elsewhere). The repair scheduling may be delayed several months for Contractor's schedule or Owner's operational requirements. This bond is to remain in effect until repairs have been completed. Per ~~contract~~Technical Specifications, if repairs exceed 10% of any area, then the warranty and bond ~~are~~shall be extended another year.
- C. 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. Use forms acceptable to AIA Industry Standards, or use forms specifically required by the Owner. Supply three (3) original signed and properly executed bonds for each type of bond.
- D. 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. Surety Companies must, in addition to State license, be incorporated and originating from within the United States. Offshore companies or internet companies are not acceptable. Supply bonds and insurance from companies with a Class A- VII rating or better (rating listed in latest edition and by A.M. Best Co.).
- E. 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. No Pay Requests will be accepted until new Bonding is approved as acceptable per Bond Requirements and Owner's satisfaction.
- F. 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.
- G. Upon written request, Owner will 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. 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. Insurance Companies must, in addition to State license, be incorporated and originating from within the United States. Offshore companies or internet companies are not acceptable.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured, minimum three (3) copies (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is 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. Failure of Owner to demand such certificates or other evidence of the Contractor's full compliance with these insurance requirements, or failure of Owner 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.
- E. If Contractor does not purchase or maintain all of the insurance at the specified level by the Contract, Contractor shall notify Owner 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.
- F. 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/or exercise Owner's termination rights under Article 16.
- G. Without prejudice to any other right or remedy, if Contractor has failed to obtain required insurance, Owner may elect to obtain equivalent insurance to protect Owner's interests at the expense of the Contractor who was required to provide such coverage, and the Contract Price shall be adjusted accordingly with a set off.
- H. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- I. 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).
 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. Insurance shall remain in place as specified but delivery of Certificates of Insurance submittal for three years will be specified in the Supplemental Conditions if required.
 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. *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.

~~G. *Contractor's professional liability insurance*: (If Specified) 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.~~

H.G. *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.

H. 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.

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).
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.

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. Contractor waives all rights against Owner 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. 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 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.
- C. Resident Superintendent shall be fluent in English to the level of competency to complete requirements of ~~6~~7.01, Paragraph B. Superintendent shall also be fluent or have access to a translator for the primary language of the majority of workers. Degree of fluency to be sufficient so that Superintendent can adequately complete his duties under ~~6~~7.01.A.

7.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to 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.
- C. Minimum crew size is two (2) personnel and one (1) foreman for confined space work (on tanks up to 300,000 gallons, and three [3] personnel, plus one (1) foreman over 300,000 gallons).

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 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. The majority of material or equipment furnished under these contracts are coating related, or fabricated. Engineer maintains a coating program developed and maintained by Engineer. Coatings which have met or exceeded quality and ASTM parameters are listed in the Technical Specifications. No "or equal " coating products will be reviewed as "or equal." The product manufacturer may begin submittal procedures to be included in the specifications , but that will be for projects about a year into the future, time to complete tests required to be approved.

A.B. 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.~~

D.C. *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.D. *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 (excludes coating) 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
 - 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.

- e. Additional information may consist of completing Engineer's vendor checklist, field mock-ups, special samples, pilot testing, or other special requirements that Engineer determines necessary to assess —if the item of material or equipment proposed is an acceptable substitute to that named.
- 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. By requesting substitute material, the Contractor acknowledges the extra costs to review submittals and agrees to reimbursement of Engineer. Engineer will invoice Owner and amount will be an offset from Contractor's payment.~~
- ~~F. Engineer has reviewed coatings for performance equivalency using ASTM Standards and approved systems are listed in the specifications. Systems not specified without this letter will be considered substitutes and subject to review charge.~~
- ~~G. Prior to Engineer's review of a substitute, Engineer will prepare an Estimate of Engineer's review time and anticipated costs in reviewing Contractor's substitute. The estimate will include Engineer's opinion of the probable hours required to review the substitute. Engineer will notify Contractor if the hours listed on the Estimate are to be exceeded.~~
 - 1. Engineer's minimum cost for reviewing a substitute will be \$240350* (2 hrs. equivalent).
 - 2. Engineer's hourly rate for reviewing a substitute will be \$120175* per hour.

* Actual hourly rate on Schedule C-1 of Engineer/Owner contract.
- H.E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.

4F. *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. *This project requires prequalification. This precondition extends to Subcontractors.*
- 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.
- 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. 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.
- G. *"Subcontracting" – This project requires prequalification. This pre-qualification requirement extends to Subcontractors.*
- H. *The Contractor agrees not to sublet or assign this work without the written consent of the Owner. Violation of this condition shall be grounds for immediate dismissal of the Subcontractor or Contractor to which the work was sublet or assigned and if a satisfactory (Engineer's opinion) replacement is not on the site working within forty-eight (48) hours, the violations shall then be grounds for Contract termination and Performance Bond forfeiture.*

- I. Lump sum payments to employees instead of hourly wage will be prima facie evidence of subcontracting. The Owner reserves the right to review payroll records and pay stubs. If subcontracting is approved, no more than 30% of the project may be subcontracted.
- J. 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.
- K. 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.
- L. 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.
- M. 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.
- N. 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.
- O. 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.
- P. 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.
- Q. 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, 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 will 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
- B. The only permits not included are environmental air quality, and permits from health agencies for interior painting, which the Owner will procure if needed.
- C. Display all wage requirements and other permits on a temporary board.
- D. Attach to the Resident Superintendent's copy of the specifications, copies of other permits which do not require display.

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.
- D. Claims or Change Proposals made for extra costs resulting from laws and regulations that become effective after the opening of Bids or (EDA), will be reviewed based on the exposure and publication of the law or regulation in advance. There will be no adjustment in Contract Price or Contract Time for environmental or safety regulations, or other laws and regulations with similar public notice and public hearing/review procedures. It is the Contractor's responsibility to be aware of industry specific changes in OSHA or environmental issues.
- E. Regulations dealing with labor rates have a known expiration date. Everyone can safely assume there will be a cost increase with each new issue. If these rates are scheduled to expire during Contract Time, then increase labor costs in Bid for the expected manhours by local cost-of-living factor. If rates increase more than cost-of-living, a Change Order will be reviewed for exact increase of new rate above the adjusted old rate. Copy of payroll will be used to determine increase in wage only, not associated taxes, insurance, and benefits. The Contractor is responsible for requesting extra Change Proposal and supplying documentation establishing extra. All consideration for an increase ends on Substantial Completion, either original or Change Order extended date.

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, approved Shop Drawings, and Non-Conformance Reports. 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;

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 [may](#) identify any Owner's safety programs that are applicable to the Work. [Failure to identify specific program does not relieve the Contractor from safety program adherence requirement. If safety requirement is for a program not identified in the Supplemental Condition and is more restrictive than OSHA and it interferes with Contractor's Methods of Operation then Contractor may submit a Change Proposal for Contract Time and/or Contract Price.](#)
- 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.

- H. Conform to the Occupational Safety and Health Standards of the United States Department of Labor and local safety agencies. This shall be made a condition of each subcontract as entered into pursuant to this contract.
- I. Lead/chrome paint removal, and painting of structures are recognized as very hazardous work, and it is further recognized that the painting industry has extensive safety training programs available.
- J. Monitor and be responsible for all safety on job site. The Engineer and Owner will not monitor safety practices, and will not assume any responsibility for safety.
- K. Contractor shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under the Contract. The Contractor alone shall be responsible for the safety, efficiency, and adequacy of his plans, appliances, and methods, and for any damage which may result from their failure or their improper construction, maintenance, or operations. Submit a copy of all OSHA reportable or recordable injuries, and all OSHA citations relative to this project at project completion.
- L. The Owner and Engineer have historically followed the Contractor's safety plan when on the site. There have been occasions where the Contractor's safety plan has proven inadequate. The specifications now require safety features for the Owner and Engineer which are now the Contractor's contractual obligation to provide. These include such items as safety cables suspended from the roof for inspection of the interior roof, and safety clips on the bottom of the bowl for fall protection cables. (Legged tanks only) We encourage the Contractor to modify his fall protection plan and to provide additional cables and fall protection grabs for his personnel. Items such as roof railings are provided for the Owner's safety. Do not rig from the railings – a separate painter's rail is provided for rigging.

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. ~~(See Paragraph 2.04.F)~~(See Paragraph 2.04.F) Contractor's Safety Representative shall have the authority to supersede Contractor's foreman and shall stop work if the Work being completed is in violation of Contractor's or Owner's safety program, or OSHA.

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 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 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.
 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 **two** submittals. Engineer will record Engineer's time for reviewing a **third** 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.
4. All submittals shall be sent to the Engineer as one package (unless a separate Schedule of Submittals is included and approved by the Engineer). All required resubmittals are also to be resubmitted as one package and any delinquent resubmittal must be identified by a new Schedule of Submittals. Failure to include a Schedule of Submittals for delinquent items will be justification by Engineer to consider submittal complete. Delinquent items will be considered reviewed and rejected.
5. The Engineer's minimum cost for issuing a second request will be ~~\$240~~**350*** (2 hours equivalent).
6. Engineer's hourly rate after the second hour will be ~~\$120~~**175.* Or rate on Exhibit C-1 of Engineer/Owner contract if higher.**
7. Submit all material to Engineer's office in Lake Odessa, MI to allow fastest review time.

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.

3. Normal wear and tear does not apply to wet interior coating below the high water line Warranty Rework. After one (1) year, zero (0) failure or deterioration is acceptable.
- 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.
- D. Except where noted in the Contract Documents, the Contractor guarantees all material and equipment furnished and all work performed for a period of one (1) year from the date of substantial completion of the Contract. This warranty will automatically be extended until weather permits the Owner to perform the warranty inspection. If the amount of rework exceeds ten percent (10%) of a portion of the project (i.e. interior painting), then the Owner reserves the right to have the warranty period extended one year for the entire portion of the work.
- E. 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, 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 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 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.
- E. If overhead power lines present an unsafe work conditions as determined by OSHA, Owner or Utility, Contractor at his expense and coordination, shall have the Utility temporarily relocate, move, or cover lines, eliminating the hazard. Experienced Contractors will determine problems with utility lines during its prebid site visit and include anticipated costs in his bid.
- F. Unless stated differently in Contract Documents, protect all antennas, controls, cables, and associated property of Owner's equipment or material on, in, or near the structure during work. Design construction procedures to maintain operation of antenna system.

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 may 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.
- 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 Resident Project Representative*

- A. Owner may at its discretion replace an [Engineer’s Resident Project Representative with another of Engineer’s Resident Project Representative](#), provided Contractor makes no reasonable objection to the replacement representative. [The replacement RPR status under the Contract Documents shall be that of the former RPR.](#)

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 will make payments to Contractor when they are due as provided in the Agreement per procedure discussed at Preconstruction Meeting. Payment turn around time is per Owner’s Standard Procedure.

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. 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 *Change Orders*

- A. Owner’s responsibilities with respect to Change Orders are set forth in Article 11.

9.07 *Inspections, Tests, and Approvals*

- A. Owner’s responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.08 *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.

9.09 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.10 *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 to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the 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 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.
- B. Engineer/RPR shall have the authority to stop work in the event continuation of Work is under a noncompliance situation, such as incomplete containment, which may result in the violation of environmental laws; or if continuation of Work may result in the covering of defective or unaccepted work product. Authority transfer back to the Owner after the Owner has been notified and returns to the Site or issues directives.

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.

- 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. *Any plan or method of accomplishing the work suggested to the Contractor by the Engineer or other representative of the Owner, but not specified or required, may be used but shall be used at the Contractor's own risk and responsibility. The Owner and Engineer assume no responsibility.*
- 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 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. A Field Order is written by the Engineer and issued to the Contractor. Field Orders may be added to the Contract Documents if the Contractor does not object to the Field Order within three days of issuance and delivery.

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. Owner authorized changes in the Work that do not require review of the Engineer may be things like forgiveness of some ground level punchlist item (reseeding etc.). The Owner shall advise the Engineer of such changes, the Contractor's notification alone, is not sufficient.

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 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 10 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.
- C. The termination of Work during the winter season because of cold weather shall not be taken as entitling Contractor to any extension of Contract Time.

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 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.
- C. If Owner and Contractor are unable to agree on a price for Change Order work, do not proceed with Work unless ordered in writing by the Engineer or Owner as a Work Change Directive.
- D. If work involved is not essential to the scope of the project and/or there is sufficient time, a Bulletin will be issued and recommended by the Engineer. The Bulletin will request a price for proposed work-, and/or any adjustment in Contract Times. If the price as offered or as later negotiated is acceptable, the Bulletin will become the basis of the Change Order. By Owner acceptance and signing, the Bulletin offered by the Contractor may become a combined document: Bulletin #___/Change Order #___, or a new separate Change Order may be prepared.

11.07 *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.

- 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.
- B. Acceptance of Bonds tendered by Contractor to Owner neither creates nor does Owner accept any and all obligations that the Bonding Company may try to transfer to Owner even if specified by Bonding Company as a Condition of the Bond.

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 and fair 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 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 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.
 - a. Rentals of all construction equipment and machinery, and the parts thereof 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.
 - b. Costs for equipment and machinery owned by Contractor will be paid at a rate shown for such equipment. (Use rate book appropriate for the Project.) An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs. Costs will include the time the equipment or machinery is in use on the changed work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed work. The cost of any such equipment or machinery, or parts thereof, shall cease to accrue when the use thereof is no longer necessary for the changed work. Equipment or machinery with a value of less than \$1,000 will be considered small tools.
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 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, expeditors, 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.
- 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.

1. 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. The Schedule of Values may refer to unknown quantities as “Dummy Figures.”
 - a. Claims made because of reduction of over 25% of estimated quantity of pit filling, or pit sealing, or roof seam sealing will be limited to reasonable (<25% cost of material) material restocking charge.
 - b. Claims made because of reduction of over 25% of estimated quantity of pit welding, seam welding, or repairs will not be accepted if mobilization of welder for other repairs was required. Claims for reduction where repair was limited to reduced item will be limited to remaining percentage of mobilization costs.
- B. 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.
- C. 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.
- D. 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.

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 the **Owner and Engineer and**

Resident Project Representative, proper and safe conditions and equipment for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable. Reasonable times means at times that would not burden the Contractor with an entire workforce, waiting to go back to work. Between job functions, at scheduled times, or Contractor breaks are reasonable times.

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. *Correction of Failed Inspections, Non-Conformance Reports*

- 1. *Non-Conformance Reports: The Engineer/RPR will issue a non-conformance report for every performance item, material, or equipment supplied, and/or environmental situation that fails to meet requirements of the specifications.*
- 2. *Correct all work in non-conformance before proceeding.*
- 3. *Immediately correct all environmental non-conformance to prevent accidents. If an incident has already occurred, contact the proper governmental environmental agency and conduct an immediate clean-up per their direction. Notify*

Engineer/RPR of environmental release and of the environmental agencies requirements for cleanup.

4. If issued non-conformance reports are not corrected, the failure will be considered a breach of contract by the Contractor entitling the Owner to damages as follows:

a.—Work in non-conformance: If the Contractor refuses to correct, the bonding company will be notified to finish the project. At that point, payment to the Contractor for all completed work will stop until the bonding company authorizes payment, or payment may be made to the bonding company after they have proven assumption of the contract. This clause does not give either party rights to a greater payment than detailed elsewhere in these documents.

b-a.

b. Equipment specified but never supplied, or broken equipment not repaired or replaced: 125% of the rental value of equipment in non-conformance (i.e. non-working decontamination trailer, hand wash facilities, air filtration units, etc.). Environmental issues: 125% of the estimate of compliance. *The cost of items 4.a. above is calculated by damage estimates. The cost of equipment will be the rental charge from a reputable local dealer with 25% extra, being for operation cost. Cost of environmental compliance is the estimated cost of compliance. The extra 25% is potential risk to the Owner for non-conformance. In no situation will the Owner assume liability.

e-F. Costs of failed inspections as defined in the Technical Specifications, are the responsibility of the Contractor. Owner will recover costs by setoff to the Contractor.

F-G. 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.

G-H. 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. (See Hold Points in Specifications.)

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. With coatings it is recognized that removing topcoat will damage underlying coats. Repair and recoat per written directive of Engineer.

- 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.
- G. *Failed Inspections*: Work completed without waiting for inspections detailed as Hold Points shall be determined automatically defective.

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.
- B. If any Work is covered contrary to the request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the ~~covering~~coating, 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.

D. Article 14.05 will be used only where applicable, such as insulation over fill pipe, work that can be viewed after it is uncovered. These paragraphs do not apply to coating because "uncovering" the topcoat will subsequently damage the underlying coatings. With coating removal, all work will be considered defective and Paragraph Article 14.05.C.1 shall apply. Article 14.05.C.2 shall not be used with coating removal.

14.06 Owner, Engineer/RPR 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.

B. Engineer/RPR may stop work if continued Work would result in the Contractor covering defective Work, or if continued operations may result in an environmental release. Engineer/RPR's authority to stop Work ceases after notification of Owner and sufficient time for Owner to issue directives or to appear on site. (See 14.06 A) If possible Work may continue on nonaffected portions of the Project.

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 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 [Engineer's fees and Owner's expenses.](#) [\(Setoff\)](#)
- 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.
 - 2. [Engineer will consider that material stored on-site has no value until properly applied. Engineer will not recommend payment for materials in storage.](#)
 - 3. 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.
 - 4. If Contractor fails to submit required documentation material with application for payment, Engineer will notify Contractor of missing documents. If after second submittal material is still missing, Engineer may submit pay application to Owner withholding all moneys relative to missing data, or to contact Contractor again. Contractor is responsible for all increased engineering costs to the Owner [as a setoff](#) after second submittal.
- 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:
 - 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
- 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.
- f. Reasonable evidence that the work cannot be completed for the unpaid balance of the contract sum;
- g. Reasonable evidence that the work cannot be completed within the contract time, or;
- h. Damage to the Owner or another Contractor;
- i. Persistent failure to carry out the work in accordance with the Contract Documents;
- j. Anticipated liquidated damages;
- k. Anticipated withholding by Owner to cover additional Contractor related engineering costs;
- l. Amount withheld to complete work calculated at cost of hiring another Contractor to complete work in case of default;
- m. Retainage.
- n. Legal claims have been made, or Engineer has reasonable knowledge of;

D. *Payment Becomes Due:*

- 1. Thirty days, or Owner's normal check processing schedule, 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 complete field inspections that were determined to be a failed inspection;
 - f. the Work is defective, requiring correction or replacement including additional inspection costs;
 - 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 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 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..

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. On tank projects, date of substantial completion is the date the tank is, or would have been returned to service, except for voluntary delay by Owner. Date of Substantial Completion is after complete cure, disinfection, and testing. A voluntary delay by Owner in filling the tank does not extend the Ready for Final Payment Date.
- C. 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.
- D. 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.

- 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. Note: If an item on the punchlist interferes with return of structure to service then the structure cannot be considered Substantially Complete.
 - 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 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 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.
 - f. A complete Submittal of Application for Final Payment fulfills all requirements and terminates the Liquidated Damages that ~~May~~ be assessed against Ready for Final Payment ~~Dated~~.

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 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 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. Contractor is responsible for security, safety, etc. on the site until all his equipment is removed and all keys are returned.

E. *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, 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. (Payment schedule is subject to all payment schedules set at Preconstruction meeting.)

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 and latent defects 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.
- ~~C. Because of the nature of the coating industry, Owner retains all legal remedies, as well as any negotiated or contracted warranties.~~

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.

- 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.
 5. When, in the opinion of the Engineer, the non-conformance reports and daily reports indicate the Contractor is unable or unwilling to complete the contract within the terms of the contract.
- 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, 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.
- H. ~~Because of health, safety, and security concerns, this contract requires prequalification of Contractors. Termination procedures in this General Conditions are part of this contract and supersedes any requirements of bonding companies. The Owner has no direct contractual relationship with the bonding company. The bond is a contract with the Contractor guaranteeing its performance or payment.~~ The bonding surety when taking over this ~~contract~~Contract is required to complete work with another prequalified Contractor.

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 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.
- ~~C. All questions or controversies which may arise between the Contractor and the Owner, under or in reference to this contract, should be resolved to the fullest extent possible at a meeting, shall be carefully documented, and shall become final and binding on all parties concerned. However, should the Owner and Contractor be unable to agree, the interpretation of the Engineer shall be considered binding as per contract requirements. If the matter in controversy cannot be resolved at the project meeting or after the interpretation of the Engineer, then the matter shall be resolved in a Local 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.
 - 3. e-mail notices are sufficient means of notice once it is determined the line of communication is open (i.e. responses to earlier letters). Formal failure to perform or termination or bond notice letters require notice by Paragraphs 1 or 2 after e-mail. Date of Notice is date of e-mail transmittal ~~verified by receipt of delivery.~~

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.

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.

SECTION 00 73 00

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SECTION 00 73 00

SUPPLEMENTAL CONDITIONS

ARTICLE 1: SUPPLEMENTAL CONDITIONS

SC 1.00 Supplemental Conditions:
These Supplemental Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC C-700, 2013 Edition) and other provisions of the Contract Documents as indicated below. All 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 these Supplemental Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplemental Conditions have the meaning stated below, which are applicable to both the singular and plural thereof.

SC 1.01 Definitions:
A.15 Contractor: Successful bidder awarded project.
A.19 Engineer: Dixon Engineering, Inc.
A.29 Owner: City of St. Charles, Illinois.
A.37 Resident Project Representative: Dixon Engineering, Inc.
A.57 Tank Terminology: See Section 09 97 13

ARTICLE 6: BONDS and Insurance

SC 6.03 Contractor's Insurance:
Add the following new paragraphs immediately after Paragraph 6.03B:
C. The Contractor shall purchase and maintain, during the Contract Time, in accordance with the provisions of the laws of the state in which the work is performed, Workers' Compensation Insurance, including occupational disease provisions, for all his employees at the site of the Project and in case any work is sublet, the Contractor shall require such Subcontractor similarly to provide Workers' Compensation Insurance, including occupational disease provisions, for all the latter's employees unless such employees are covered by the protection afforded by the Contractor. In case any class of employees engaged in hazardous work under this contract at the site of the project is not protected under Workers' Compensation statute, the Contractor shall provide, and shall cause each Subcontractor to provide adequate and suitable insurance for the protection of his employees not otherwise protected.

D. Insurance Requirements found at the end of the Supplemental General Conditions

ARTICLE 7 Contractor's Responsibility

7.02 Labor, Working Hours

- C. The Contractor shall pay all workers on the project the current prevailing wage rates for the various trades for the county which the work is being performed in as determined time-to-time by the Illinois Department of Labor pursuant to the Illinois Prevailing Wage Act (820 ILCS 130/1 et seq.). The wage rate information is available from the Illinois Department of Labor (217-782-1710). The prevailing wage rates may also be available on the Illinois Department of Labor web site.
- D. Contractor shall comply with the Provisions of Illinois Steel Products Procurement Act (30 ILCS 5652), as it may be amended from time-to-time.
- E. Equal Employment Opportunity – Affirmative Action Notice:
Contractor shall comply with the following Equal Employment Opportunity – Affirmative Action Clause required by the Illinois Department of Human Rights:
 - a. In the event the Contractor's non-compliance with any provision of this Equal Employment Opportunity – Affirmative Action Clause, the Illinois Human Rights Act or the Department of Human Rights Rules and Regulations for Public Contracts, the Contractor may be declared non-responsible and therefore ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation. During the performance of the Work under this Agreement, the Contractor agrees as follows:
 - 1) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, ancestry, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service; and further, that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
 - 2) That, if it hires additional employees in order to perform the Work under this Agreement, or any portion hereof, it will determine the availability (in accordance with the Department's Rules and Regulations for Public Contracts) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for

each job classification for which employees are hired in such a way that minorities and women are not underutilized.

- 3) That is will have written sexual harassment policies that shall include, at a minimum, the following information: the illegality of sexual harassment; the definition of sexual harassment under State law; a description of sexual harassment, utilizing examples; the Contractor's internal complaint process including penalties; the legal recourse, investigative and complaint process available through the Department of Human Rights and the Illinois Human Rights Commission; directions on how to contact these State agencies; and protection against retaliation as provided in Section 6-101 of the Illinois Human Rights Act.
- 4) That, in all solicitations or advertisement for employees placed by it or in its behalf, it will state all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, national origin, ancestry, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service.
- 5) That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations for Public Contracts. If any such labor organization or representative fails or refuses to cooperate with the contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.
- 6) That is will submit reports as required by the Illinois Department of Human Rights' Rules and Regulations, furnish all relevant information as may from time-to-time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.
- 7) That is will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Illinois Department of Human Rights for purposes of investigation

to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.

- 8) That it will include verbatim or by reference the provisions of Paragraphs 1 through 8 of this clause in every performance subcontract as defined in Section 1.1(17)(b) of the Department's Rules and Regulations so that such provisions will be binding upon every such Contractor; and that it will also so include the provisions of Paragraphs 1, 6, 7 and 8 in every supply subcontract as defined in Section 1.1 (17)(a) of the Department's Rules and Regulations so that such provisioned will be binding upon every such Subcontractor. In the same manner as with other provisions of this agreement, the Contractor will be liable for compliance with applicable provisions of the clause by all its Subcontractors, and further, it will promptly notify the contracting agency and the Illinois Department of Human Rights in the event any Subcontractor fails or refuses to comply therewith. In addition, no Contractor will utilize any Subcontractor declared by the Department to be non-responsible and therefore ineligible for contracts or subcontracts the State of Illinois or any of its political subdivisions or municipal corporations.
- b. Contractor and Subcontractor shall in turn include this Equal Employment Opportunity – Affirmative Action Clause in each of its subcontracts verbatim or by reference so that the provisions of Paragraphs 1 through 8 of said Clause will be binding upon Subcontractors of every tier; provided, however, that only Paragraphs 1, 6, 7 and 8 need be included in every subcontract as defined in Section 2.10(a) of the Rules and Regulations of the Illinois Department of Human Rights.

SC 7.09 B. Owner is exempt from Illinois sales and use taxes on materials and equipment to be incorporated in the Work. Taxes shall not be included in the Cost.

ARTICLE 18: MISCELLANEOUS

SC 18.07 (No reference to General Conditions)

A. Following are:

1. Insurance requirements
2. Prevailing wages

These items are requirements of this contract. While they may be inserted directly as received from a website or the Owner, it is explicit that all items are required to be completed.

See attached insurance requirements.



City of St. Charles Certificate of Insurance Requirements

All Contractors, Manufacturers/Distributors, and Suppliers shall be required to carry and evidence insurance coverage with a standard Acord Certificate of Insurance with minimum limits applicable. Sample attached.

1. Minimum Insurance Requirements and Limits

	<i>Coverage</i>		<i>Limits</i>
A.	Automobile Liability	\$1,000,000	Combined single limit
B.	Commercial General Liability	\$1,000,000	Per occurrence
		\$2,000,000	General aggregate

All Commercial General Liability policies must include Blanket Contractual coverage and Broad Form Vendors' Liability coverage.

C.	Workers' Compensation	\$500,000	Per accident
	(Employers' Liability)	\$500,000	Disease limit
		\$500,000	Each Disease
D.	Umbrella Liability	\$5,000,000	Limit

2. Cancellation or Alteration

The policies of insurance required by this exhibit shall provide that they cannot be cancelled or altered in any way changing coverage except after 30 days' prior written notice by certified mail to owner.

3. Workers' Compensation and General Liability Waiver of Subrogation in favor of the City.

4. Insurance Certificates

- A. Must be submitted ten (10) days prior to any work being performed to allow review of certificates.
- B. Certificates not meeting requirements must be revised and resubmitted within fifteen (15) days or the subcontractor will not be allowed on the jobsite.

5. Additional Insured and Broad Form Vendors' Liability in favor of the City.

The City must be named as an Additional Insured with the following wording appearing on the Certificate of Insurance: "The City of St. Charles and any official, trustee, director, officer, or employee of the City (plus any holder or mortgage as designated by the City) as to any and all projects, as an Additional Insured for the Commercial General Liability as respects any and all projects for any work being performed and this coverage will be primary and noncontributory."

6. Minimum Insurance Carrier

All contractors, manufacturers/distributors, and suppliers' insurance carriers must comply with the minimum A.M Best rating of A-VI for all insurance carriers.

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY)

PRODUCER

Arthur J. Gallagher & Co.
The Gallagher Centre
Two Pierce Place
Itasca, IL 60143-3141

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND, OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE**INSURED**

ABC Subcontractors
739 High Street
Small Town, IL 48970

INSURER A:

INSURER B:

INSURER C:

INSURER D:

INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
	GENERAL LIABILITY				EACH OCCURRENCE	\$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY				FIRE DAMAGE (Any one fire)	\$ 50,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR				MED EXP (Any one person)	\$ 5,000
	<input type="checkbox"/> BROAD FORM VENDORS				PERSONAL & ADV INJURY	\$ 1,000,000
	<input checked="" type="checkbox"/> UNDERGROUND EXPLOSION AND				GENERAL AGGREGATE	\$ 2,000,000
	<input type="checkbox"/> COLLAPSE HAZARD				PRODUCTS - COMP/OP AGG	\$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:					\$
	<input type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC					\$
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO				BODILY INJURY (Per person)	\$
	<input type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (Per accident)	\$
	<input type="checkbox"/> SCHEDULED AUTOS				PROPERTY DAMAGE (Per accident)	\$
	<input checked="" type="checkbox"/> HIRED AUTOS					
	<input checked="" type="checkbox"/> NONOWNED AUTOS					
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	\$
	<input type="checkbox"/> ANY AUTO				EA ACCT	\$
					OTHER THAN AUTO ONLY: AGG	\$
	EXCESS LIABILITY				EACH OCCURRENCE	\$ 5,000,000
	<input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE				AGGREGATE	\$ 5,000,000
	<input type="checkbox"/> DEDUCTIBLE					\$
	RETENTION \$					\$
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY				WC STATUTORY LIMITS	OTHER
					E.L. EACH ACCIDENT	\$ 500,000
					E.L. DISEASE - EA EMPLOYEE	\$ 500,000
					E.L. DISEASE - POLICY LIMIT	\$ 500,000
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

The City of St. Charles and any official, trustee, director, officer, or employee of the City (plus any holder or mortgage as designated by the City) as to any and all projects, as an Additional Insured for the Commercial General Liability as respects any and all projects for any work being performed and this coverage will be primary and noncontributory.

CERTIFICATE HOLDER

ADDITIONAL INSURED; INSURER LETTER:

CANCELLATION

City of St. Charles
2 E. Main St.
St. Charles, IL 60174

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Prevailing Wage rates for DuPage County effective Sept. 1, 2017												
Trade Title	Region	Type	Class	Base Wage	Fore-man Wage	M-F OT	OSA	OSH	H/W	Pension	Vacation	Training
ASBESTOS ABT-GEN	ALL	ALL		41.20	42.20	1.5	1.5	2	14.65	12.32	0.00	0.50
ASBESTOS ABT-MEC	ALL	BLD		37.46	39.96	1.5	1.5	2	11.62	11.06	0.00	0.72
BOILERMAKER	ALL	BLD		48.49	52.86	2	2	2	6.97	19.61	0.00	0.90
BRICK MASON	ALL	BLD		45.38	49.92	1.5	1.5	2	10.45	16.68	0.00	0.90
CARPENTER	ALL	ALL		46.35	48.35	1.5	1.5	2	11.79	18.87	0.00	0.63
CEMENT MASON	ALL	ALL		44.25	46.25	2	1.5	2	14.00	17.16	0.00	0.92
CERAMIC TILE FNSHER	ALL	BLD		38.56	38.56	1.5	1.5	2	10.65	11.18	0.00	0.68
COMMUNICATION TECH	ALL	BLD		33.38	36.18	1.5	1.5	2	12.35	19.21	1.45	0.61
ELECTRIC PWR EQMT OP	ALL	ALL		37.89	51.48	1.5	1.5	2	5.00	11.75	0.00	0.38
ELECTRIC PWR EQMT OP	ALL	HWY		41.45	56.38	1.5	1.5	2	5.50	12.87	0.00	0.73
ELECTRIC PWR GRNDMAN	ALL	ALL		29.30	51.48	1.5	1.5	2	5.00	9.09	0.00	0.29
ELECTRIC PWR GRNDMAN	ALL	HWY		32.00	56.38	1.5	1.5	2	5.50	9.92	0.00	0.66
ELECTRIC PWR LINEMAN	ALL	ALL		45.36	51.48	1.5	1.5	2	5.00	14.06	0.00	0.45
ELECTRIC PWR LINEMAN	ALL	HWY		49.67	56.38	1.5	1.5	2	5.50	15.40	0.00	0.88
ELECTRIC PWR TRK DRV	ALL	ALL		30.34	51.48	1.5	1.5	2	5.00	9.40	0.00	0.30
ELECTRIC PWR TRK DRV	ALL	HWY		33.14	56.38	1.5	1.5	2	5.50	10.29	0.00	0.59
ELECTRICIAN	ALL	BLD		39.26	43.26	1.5	1.5	2	12.35	22.08	4.93	0.68
ELEVATOR CONSTRUCTOR	ALL	BLD		51.94	58.43	2	2	2	14.43	14.96	4.16	0.90
FENCE ERECTOR	NE	ALL		39.58	41.58	1.5	1.5	2	13.40	13.90	0.00	0.40
FENCE ERECTOR	W	ALL		45.06	48.66	2	2	2	10.52	20.76	0.00	0.70
GLAZIER	ALL	BLD		42.45	43.95	1.5	1.5	2	14.04	20.14	0.00	0.94
HT/FROST INSULATOR	ALL	BLD		50.50	53.00	1.5	1.5	2	12.12	12.96	0.00	0.72
IRON WORKER	E	ALL		47.33	49.33	2	2	2	14.15	22.39	0.00	0.35
IRON WORKER	W	ALL		45.61	49.25	2	2	2	11.52	22.65	0.00	0.81
LABORER	ALL	ALL		41.20	41.95	1.5	1.5	2	14.65	12.32	0.00	0.50

LATHER	ALL	ALL		46.35	48.35	1.5	1.5	2	11.79	18.87	0.00	0.63
MACHINIST	ALL	BLD		47.56	50.06	1.5	1.5	2	7.05	8.95	1.85	1.47
MARBLE FINISHERS	ALL	ALL		33.95	33.95	1.5	1.5	2	10.45	15.52	0.00	0.47
MARBLE MASON	ALL	BLD		44.63	49.09	1.5	1.5	2	10.45	16.28	0.00	0.59
MATERIAL TESTER I	ALL	ALL		31.20	31.20	1.5	1.5	2	14.65	12.32	0.00	0.50
MATERIALS TESTER II	ALL	ALL		36.20	36.20	1.5	1.5	2	14.65	12.32	0.00	0.50
MILLWRIGHT	ALL	ALL		46.35	48.35	1.5	1.5	2	11.79	18.87	0.00	0.63
OPERATING ENGINEER	ALL	BLD	1	50.10	54.10	2	2	2	18.80	14.35	2.00	1.30
OPERATING ENGINEER	ALL	BLD	2	48.80	54.10	2	2	2	18.80	14.35	2.00	1.30
OPERATING ENGINEER	ALL	BLD	3	46.25	54.10	2	2	2	18.80	14.35	2.00	1.30
OPERATING ENGINEER	ALL	BLD	4	44.50	54.10	2	2	2	18.80	14.35	2.00	1.30
OPERATING ENGINEER	ALL	BLD	5	53.85	54.10	2	2	2	18.80	14.35	2.00	1.30
OPERATING ENGINEER	ALL	BLD	6	51.10	54.10	2	2	2	18.80	14.35	2.00	1.30
OPERATING ENGINEER	ALL	BLD	7	53.10	54.10	2	2	2	18.80	14.35	2.00	1.30
OPERATING ENGINEER	ALL	FLT		38.00	38.00	1.5	1.5	2	18.05	13.60	1.90	1.30
OPERATING ENGINEER	ALL	HWY	1	48.30	52.30	1.5	1.5	2	18.80	14.35	2.00	1.30
OPERATING ENGINEER	ALL	HWY	2	47.75	52.30	1.5	1.5	2	18.80	14.35	2.00	1.30
OPERATING ENGINEER	ALL	HWY	3	45.70	52.30	1.5	1.5	2	18.80	14.35	2.00	1.30
OPERATING ENGINEER	ALL	HWY	4	44.30	52.30	1.5	1.5	2	18.80	14.35	2.00	1.30
OPERATING ENGINEER	ALL	HWY	5	43.10	52.30	1.5	1.5	2	18.80	14.35	2.00	1.30
OPERATING ENGINEER	ALL	HWY	6	51.30	52.30	1.5	1.5	2	18.80	14.35	2.00	1.30
OPERATING ENGINEER	ALL	HWY	7	49.30	52.30	1.5	1.5	2	18.80	14.35	2.00	1.30
ORNAMNTL IRON WORKER	E	ALL		46.75	49.25	2	2	2	13.90	19.79	0.00	0.75
ORNAMNTL IRON WORKER	W	ALL		45.06	48.66	2	2	2	10.52	20.76	0.00	0.70
PAINTER	ALL	ALL		44.18	46.18	1.5	1.5	1.5	10.30	8.20	0.00	1.35
PAINTER SIGNS	ALL	BLD		37.45	42.05	1.5	1.5	2	2.60	3.18	0.00	0.00
PILEDRIIVER	ALL	ALL		46.35	48.35	1.5	1.5	2	11.79	18.87	0.00	0.63
PIPEFITTER	ALL	BLD		47.50	50.50	1.5	1.5	2	10.05	17.85	0.00	2.12
PLASTERER	ALL	BLD		42.75	45.31	1.5	1.5	2	14.00	15.71	0.00	0.89
PLUMBER	ALL	BLD		49.25	52.20	1.5	1.5	2	14.34	13.35	0.00	1.28

ROOFER	ALL	BLD		42.30	45.30	1.5	1.5	2	9.08	12.14	0.00	0.58
SHEETMETAL WORKER	ALL	BLD		45.77	47.77	1.5	1.5	2	10.65	14.10	0.00	0.82
SPRINKLER FITTER	ALL	BLD		47.20	49.20	1.5	1.5	2	12.25	11.55	0.00	0.55
STEEL ERECTOR	E	ALL		42.07	44.07	2	2	2	13.45	19.59	0.00	0.35
STEEL ERECTOR	W	ALL		45.06	48.66	2	2	2	10.52	20.76	0.00	0.70
STONE MASON	ALL	BLD		45.38	49.92	1.5	1.5	2	10.45	16.68	0.00	0.90
TERRAZZO FINISHER	ALL	BLD		40.54	40.54	1.5	1.5	2	10.65	12.76	0.00	0.73
TERRAZZO MASON	ALL	BLD		44.38	47.88	1.5	1.5	2	10.65	14.15	0.00	0.82
TILE MASON	ALL	BLD		45.49	49.49	1.5	1.5	2	10.65	13.88	0.00	0.86
TRAFFIC SAFETY WRKR	ALL	HWY		33.50	35.10	1.5	1.5	2	8.10	7.62	0.00	0.25
TRUCK DRIVER	ALL	ALL	1	36.30	36.85	1.5	1.5	2	8.10	9.76	0.00	0.15
TRUCK DRIVER	ALL	ALL	2	36.45	36.85	1.5	1.5	2	8.10	9.76	0.00	0.15
TRUCK DRIVER	ALL	ALL	3	36.65	36.85	1.5	1.5	2	8.10	9.76	0.00	0.15
TRUCK DRIVER	ALL	ALL	4	36.85	36.85	1.5	1.5	2	8.10	9.76	0.00	0.15
TUCKPOINTER	ALL	BLD		44.17	45.17	1.5	1.5	2	10.45	15.04	0.00	0.88

Legend

M-F OT Unless otherwise noted, OT pay is required for any hour greater than 8 worked each day, Mon through Fri. The number listed is the multiple of the base wage.

OSA Overtime pay required for every hour worked on Saturdays

OSH Overtime pay required for every hour worked on Sundays and Holidays

H/W Health/Welfare benefit

Explanations DUPAGE COUNTY

IRON WORKERS AND FENCE ERECTOR (WEST) - West of Route 53.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

TRAFFIC SAFETY

Effective November 30, 2018, the description of the traffic safety worker trade in this County is as follows: Work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary, non-temporary or permanent lane, pavement or roadway markings, and the installation and removal of temporary road signs.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS TECHNICIAN

Low voltage installation, maintenance and removal of telecommunication facilities (voice, sound, data and video) including telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN

(wide area networks), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines; ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

OPERATING ENGINEER - FLOATING

Diver. Diver Wet Tender, Diver Tender, ROV Pilot, ROV Tender

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet;

Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".

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SECTION 01 50 00

TEMPORARY CONSTRUCTION FACILITIES and UTILITIES

PART 1 – GENERAL

1.01 SUMMARY

- A. The Contractor is fully responsible to provide and maintain temporary facilities and utilities required for construction as described herein, and to remove the same upon completion of work.

1.02 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. National Fire Protection Association (NFPA): NFPA No. 70-93.
 - 2. National Electrical Code (NEC) and local amendments thereto.
 - 3. Comply with any and all federal, state, and local codes and regulations, and utility company requirements.

PART 2 – PRODUCTS

2.01 TEMPORARY ELECTRICITY and LIGHTING

- A. Supply temporary lighting sufficient to enable contractor to safely access all work areas.
- B. Electrical requirements shall be the responsibility of the contractor. No service available to contractor.
- C. Provide, maintain, and remove temporary electric service facilities.
- D. Facilities exposed to weather shall be weatherproof-type and electrical equipment enclosure locked to prevent access by unauthorized personnel.
- E. Contractor is to pay for and arrange for the installation of temporary services.
- F. Patch affected surfaces and structures after temporary services have been removed.
- G. Provide explosion-proof lamps, wiring, switches, sockets, and similar equipment required for temporary lighting and small power tools.

2.02 WATER for CONSTRUCTION

- A. Owner will provide water required for cleaning and other purposes.
- B. Water use shall not exceed usage that might endanger the owner's water system's integrity.

2.03 SANITARY FACILITIES

- A. Provide temporary sanitary toilet facilities conforming to state and local health and sanitation regulations, in sufficient number for use by contractor's employees.

- B. Maintain in sanitary condition and properly supply with toilet paper.
- C. Remove from site before final acceptance of work.

2.04 TEMPORARY FIRE PROTECTION

- A. Provide and maintain in working order a minimum of two (2) fire extinguishers and such other fire protective equipment and devices as would be reasonably effective in extinguishing fires.

2.05 DAMAGE to EXISTING PROPERTY

- A. Contractor is responsible for replacing or repairing damage to existing buildings, sidewalks, roads, parking lot surfacing, and other existing assets.
- B. Owner has the option of contracting for such work and having cost deducted from contract amount if the contractor is not qualified to complete repairs, or fails to act in a timely manner.

2.06 SECURITY

- A. Security is not provided by owner.
- B. Contractor shall be responsible for loss or injury to persons or property where work is involved, and shall provide security and take precautionary measures to protect contractor's and owner's interests.

2.07 TEMPORARY PARKING

- A. Parking for equipment and Contractor employees shall be designated and approved by owner.
- B. Make arrangements for parking area for employees' vehicles.
- C. Any costs involved in obtaining parking area shall be borne by the contractor.

PART 3 – EXECUTION

3.01 GENERAL

- A. Contractor shall maintain and operate all temporary systems to ensure continuous service.
- B. Contractor shall modify and extend systems as work progress requires.

3.02 REMOVAL

- A. Completely remove temporary material and equipment when no longer required.
- B. Clean and repair damage caused by temporary installation or use of temporary facilities.
- C. Restore existing or permanent facilities used for temporary services to specified, or original condition.

3.03 BARRIERS and ENCLOSURES

- A. The contractor shall furnish, install, and maintain as long as necessary, adequate barriers, warning signs or lights at all dangerous points throughout the work for protection of property, workers, and the public. The contractor shall hold the owner harmless from damage or claims arising out of any injury or damage that may be sustained by any person or persons as a result of the work under the contract.

SECTION 01 53 43

PROTECTION of ENVIRONMENT

PART 1 - GENERAL

1.01 SUMMARY

- A. Contractor in executing work shall maintain work areas, on-and-off site, free from environmental pollution that would be in violation of federal, state, or local regulations.
- B. The Contractor is responsible for any and all clean-up that may be necessary and all applicable costs for the same.

1.02 LAWS and REGULATIONS –

- A. Environmental regulations may be met with different available technologies. It is the Contractor's sole responsibility to comply with these and all applicable environmental regulations.
- B. If a contamination occurs work will stop until cleanup is complete.

1.03 PROTECTION of SEWERS

- A. Take adequate measures to prevent impairment of operation of existing sewer system. Prevent construction material, pavement, concrete, earth, or other debris from entering sewer or sewer structure.

1.04 PROTECTION of WATERWAYS

- A. Observe rules and regulations of local and state agencies, and agencies of U.S. government prohibiting pollution of any lake, stream, river, or wetland by dumping of refuse, rubbish, dredge material, or debris therein.
- B. Provide containment that will divert flows, including storm flows and flows created by construction activity, to prevent loss of residues and excessive silting of waterways or flooding damage to property.
- C. Comply with procedures outlined in U.S. EPA manuals entitled "Guidelines for Erosion and Sedimentation Control Planning and Implementation," Manual EPA-72-015 and "Processes, Procedures, and Methods to Control Pollution Resulting from all Construction Activity," Manual EPA 43019-73-007.

1.05 DISPOSAL of EXCESS EXCAVATED and OTHER WASTE MATERIALS

- A. Dispose waste material in accordance with federal and state codes, and local zoning ordinances.

- B. Unacceptable disposal sites include, but are not limited to, sites within wetland or critical habitat, and sites where disposal will have detrimental effect on surface water or groundwater quality.
- C. Make arrangements for disposal subject to submission of proof to engineer that owner(s) of proposed site(s) has valid fill permit issued by appropriate government agency and submission of haul route plan, including map of proposed route(s).
- D. Provide watertight conveyance for liquid, semi-liquid, or saturated solids that have potential to leak during transport. Liquid loss from transported materials is not permitted, whether being delivered to construction site or hauled away for disposal. Fluid materials hauled for disposal must be specifically acceptable at selected disposal site.
- E. Waste generated by abrasive blast cleaning is detailed in Section 09 97 13.

1.06 PROTECTION of AIR QUALITY

- A. Contain paint aerosols and VOCs by acceptable work practices.
- B. Minimize air pollution by requiring use of properly operating combustion emission control devices on construction vehicles and equipment used by contractor, and encouraging shutdown of motorized equipment not actually in use.
- C. Trash burning not permitted on construction site.
- D. If temporary heating devices are necessary for protection of work, they shall not cause air pollution.

1.07 PROTECTION from FUEL and SOLVENTS

- A. Protect the ground from spills of fuel, oils, petroleum distillates, or solvents by use of containment system.
- B. Total paint, thinner, oils, and fuel delivered to and stored on-site cannot exceed supplied capacity of spill containment provided (i.e. fuel and oil to be sized to exceed possible spill).
- C. Provide proper containment unit under fuel tank and oil reservoirs for all equipment and fuel storage tanks.
- D. Barrels of solvents, even for cleaning, are prohibited. Do not deliver paint thinners in containers greater than five (5) gallons.
- E. Disposal of waste fluids shall be in conformance with federal, state, and local laws and regulations.

1.08 USE of CHEMICALS

- A. Chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant, or of other classification, must show approval of U.S. EPA, U.S. Department of Agriculture, state, or other applicable regulatory agency.

- B. Use of such chemicals and disposal of residues shall be in conformance with manufacturer's written instructions and applicable regulatory requirements.

1.09 NOISE CONTROL

- A. Conduct operations to cause least annoyance to residents in vicinity of work, and comply with applicable local ordinances.
- B. Equip compressors, hoists, and other apparatus with mechanical devices necessary to minimize noise and dust. Equip compressors with silencers on intake lines.
- C. Equip gasoline or oil-operated equipment with silencers or mufflers on intake and exhaust lines.
- D. Route vehicles carrying materials over such streets as will cause least annoyance to public and do not operate on public streets between hours of 6:00 P.M. and 7:00 A.M., or on Saturdays, Sundays, or legal holidays unless approved by owner.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

3.01 HAZARDOUS MATERIALS PROJECT PROCEDURES

- A. Applicable Regulations:
 - 1. RCRA, 1976 – Resource Conservation and Recovery Act: This federal statute regulates generation, transportation, treatment, storage and disposal of hazardous wastes nationally.
- B. Use the Uniform Hazardous Waste Manifest (shipping paper) to use an off-site hazardous waste disposal facility.
- C. Federal, State and local laws and regulations may apply to the storage, handling and disposal of hazardous materials and waste.

SECTION 03 01 00.01

FOUNDATION REPAIRS

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Repair of grout.

1.02 REFERENCES

- A. Codes, specifications, and standards referred to by number or title shall form a part of this specification to the extent required by the references thereto. Latest revisions shall apply in all cases.
 - 1. “Building Code Requirements for Structural Concrete (ACI 318) and Commentary (ACI 318R),” American Concrete Institute.

1.03 PRODUCT DELIVERY, STORAGE and HANDLING

- A. The contractor shall be responsible for the delivery, storage, and handling of products.
- B. Deliver in accordance with ASTM C94.
- C. Promptly remove damaged or unsuitable products from the job site. Replace products with undamaged, suitable products.

1.04 WORK INCLUDED

- A. Application of grout.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. Apply all repair material within manufacturer’s guidelines.

1.06 COORDINATION and SCHEDULING

- A. Contractor shall notify engineer a minimum of twenty-four hours before placing concrete or grout repair material.
- B. Do not place any repair material until surface preparation has been reviewed and approved by engineer.

1.07 SUBMITTALS

- A. Submit the following ten (10) days prior to the preconstruction meeting:
 - 1. Safety Data Sheets (SDS) and Product Data Sheets:
 - a. Furnish from all suppliers Safety Data Sheets and product data sheets for all applicable materials including, but not limited to, concrete, grouts admixtures, sealers.

- b. Provide for employees one (1) copy of all data sheets at the job site for employee access.
- c. Provide one (1) hard copy and an electronic copy to the engineer.
- d. No work may commence without the complete filing. All SDS shall conform to requirements of SARA (EPCRA) Right-to-Know Act.

PART 2 – PRODUCTS

2.01 GROUT REPAIR

- A. The standard to fill holes is a grout Sika 212 Grout as manufactured by Sika Corporation.
- B. Where backer rod is required, use ITP standard closed cell polyethylene foam manufactured by Industrial Thero Polymers, Ltd., 2316 Delaware Ave., Suite 216, Buffalo, NY 14216, 1-800-387-3847.

PART 3 – EXECUTION

3.01 GROUT REPAIR

- A. Remove all loose, soft, or mottled grout from the between the baseplate(s) and tops of the foundations. Removal of grout shall be hand, hammer, or chisel.
- B. Pressure wash the grout using a minimum nozzle tip pressure of 2,000 psi. All surfaces shall be free of all standing water or frost in accordance with the manufacturer's recommendations. Surface to be Saturated Surface Dry (SSD)
- C. Properly and thoroughly mix the grout in accordance with the manufacturer's recommendations as a dry mix.
- D. Place and tamp the grouting material between the baseplate and the foundation to ensure there are no voids. Make vertically flush with the baseplate.
- E. Cost is incidental to exterior painting, total amount of repair is estimated to be less than 3 lineal ft.

SECTION 05 00 00

METAL REPAIRS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Steel Repair.
- B. Surface Preparation of Lead Paint before Welding.

1.02 REFERENCES

- A. AWWA D100 Weld Standard
- B. AWS Weld Standard
- C. API 650 Standard

1.03 OMISSIONS

- A. The specifications include all work and materials necessary for completion of the work. Any incidental item(s) of material, labor, or detail(s) required for the proper execution and completion of the work are included.

1.04 DEFINITIONS

- A. Ground Flush: Ground even with adjacent metal with no transition. This preparation is intended for all removed items.
- B. Ground Smooth: Ground welds to the point that no cuts or scratches occur when rubbing your hand over the weld. Rebuild with weld any concavity discovered during grinding. This preparation is intended for all newly added steel.

1.05 WORK INCLUDED

- A. Replace manway gasket.
- B. Replace wet interior roof hatch.
- C. Replace condensate platform hatch.
- D. Install a cover over the top platform opening.
- E. Install fill/draw pipe deflector plate.
- F. Replace expansion joint.
- G. Replace condensate drain line.
- H. Install mud valve.
- I. Install fall prevention device on the wet interior ladder.
- J. Replace the basebell ladder.
- K. Install a frost-free roof vent.
- L. Install access tube air gap seal.
- M. Install cathodic clips and coupling.

- N. Weld cathodic covers.
- O. Remove abandoned cathodic protection system.
- P. Install roof handrail with painter's rail.
- Q. Replace dry interior and aviation light bulbs.
- R. Rewire the access tube.
- S. Weld patch plates on the roof.
- T. Install antenna cable brackets on the roof and roof handrail.
- U. Remove the antenna pod on the roof and rebuild the access tube cover.

1.06 WORKMANSHIP

- A. Provide material and workmanship necessary to produce a first-class job.
- B. All weld spatter is to be removed.
- C. All removed items are to be ground flush with surrounding surface. All new welds are to be ground smooth.

1.07 WELDER QUALIFICATIONS

- A. Certified for type and position of weld specified.
- B. The welder shall be specialized in industrial or heavy commercial welding and experienced in rigging and elevated work.

1.08 SUBMITTALS

- A. Safety Data Sheets (SDS) – for all items as required by law.
- B. Welder's certification.
- C. Submit materials at least one (1) week prior to preconstruction meeting.

1.09 DESIGN SUBMITTALS

- A. All modifications that may be considered structural, as determined by the Board of Professional Engineers, State of Illinois, shall be designed and sealed by a Structural Engineer registered in the State of Illinois. This includes replacement of existing steel, but not limited to all roof designs and appurtenances, girders, balconies, ladders, and sidewall manways.
- B. Drawings included with the specifications for Section 05 00 00 work are included for conceptual design and/or to establish minimal dimensions only.

1.10 WORK SEQUENCING

- A. The following is NOT a ways-and-means decision of the contractor. It is accepted and good painting practice and shall be completed by the contractor in this specified fashion:
 - 1. Complete ahead of all cutting and welding all surface preparation, such as removal of heavy metal bearing coating in the immediate area.

2. Complete all welding repairs prior to commencement of any power washing or abrasive blast cleaning.
3. Do not install non-painted items (i.e. vents, fall prevention devices, etc.) or store on or in the tank until after painting has been completed.
4. Remove existing items that are not to be painted after water cleaning, store in a secure location.
5. Disassemble appurtenances with mating surfaces (i.e. overflow discharge check valve, etc.), surface prepare and coat mating surfaces and reassemble after topcoat is dry.
6. Remove fall prevention devices in areas to be coated before painting and reinstall after completion. Supply temporary fall prevention devices with steel cables during blasting and painting.

PART 2 – PRODUCTS

2.01 STEEL PLATING and OTHER STRUCTURAL SHAPES

- A. General: ASTM – A36.
- B. Rebar for ladder rungs: A706 Weldable Rebar.

2.02 BOLTS and NUTS

- A. Stainless Steel
 1. ASTM F594G – 316 Stainless Steel Bolts.
 2. ASTM F594G – 316 Stainless Steel Nuts.
- B. Galvanized Steel
 1. ASTM A307 Grade A zinc coated Steel Bolts.
 2. ASTM A307 Grade A zinc coated Nuts.

2.03 WELDS

- A. Final – E70XX Electrodes.
- B. Root – E60XX Electrodes.
- C. Wire – ER70S Electrodes.

2.04 VENT SCREEN

- A. Heavy duty 18 x 14 fiberglass mesh with minimum diameter of 0.013 inches.

2.05 EXPANSION JOINT

- A. Flanged Bellows-Type/Unaflex Style 44 with a pressure rating of 150 psi, flanged ends, stainless bellows, minimum axial movement of 1 in. and minimum lateral movement of 0.1 in. Flanges are to be AWWA Class D C207. Unaflex Inc. Pompano Beach, FL. 1-800-327-1286.

2.06 MUD VALVE

- A. Babco-NFW 3 in. x 2.5 in. No Freeze Valve with a wrench as manufactured by Superior Sales & Service, Inc. 2311 Plattsmouth, NE 68048, (402) 296-1010.
- B. Hose material to be Goodyear Engineered Products NutriFlo suction and discharge hose supplied by Veyance Technologies Fairlawn, OH 888-899-6354 or approved equal.

2.07 FALL PREVENTION DEVICE

- A. T-Rail-Type as manufactured by Miller/Honeywell (800) 430-5490.
 - 1. Fall prevention system: Suretrack system Model 8630-1 and all required connecting clips, etc.

2.08 CATHODIC CLIPS and COUPLING

- A. Corrpro clips and coupling for interior, buoyant-type cathodic protection system 1-866-CORRPRO.

PART 3 - EXECUTION

3.01 SURFACE PREPARATION – PREWELDING – LEAD PAINT

- A. The existing exterior, dry interior, and wet interior coating is known to contain lead.
- B. Remove all coating 6-in. on both sides of welding area by abrasive blast cleaning or vacuum shrouded power tool cleaning prior to any cutting or welding.
- C. Chemical stripping or other method may be approved by the engineer.
- D. Absolutely do not begin any repair work until all adjacent coating is properly removed.

3.02 MANWAY GASKET

- A. Replace the transition cone manway gasket with new $\frac{3}{8}$ in. flat neoprene gasket material.
- B. Gaskets to meet ASTM D2000-86E, Type BC with a 70A durometer rating and black color.
- C. Cost is incidental to wet interior painting.

3.03 WET INTERIOR ROOF HATCH

- A. Remove the existing wet interior hatch. Hatch to become property of the contractor for proper disposal.
- B. Furnish and install a 30 in. diameter hinged hatch.
- C. Weld a 16 in. x 3 in. x $\frac{3}{4}$ in. diameter rung on the roof for a hand-hold. Location to be determined by the engineer.

- D. Owner to supply lock or contractor to supply nut and bolt to install on the roof hatch hasp.
- E. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- F. See Drawing 01.
- G. Payment is a separate line item “Wet Interior Roof Hatch” which the owner reserves the right to delete.

3.04 CONDENSATE PLATFORM HATCH

- A. Remove the existing platform hatch. Hatch to become property of the contractor for proper disposal.
- B. Furnish and install a 30 in. diameter hinged hatch.
- C. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- D. See Drawing 02.
- E. Payment is a separate line item “Condensate Platform Hatch” which the owner reserves the right to delete.

3.05 TOP PLATFORM OPENING COVER

- A. Furnish and install a hinged hatch on the top platform.
- B. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- C. See Drawing 03.
- D. Payment is a separate line item “Top Platform Opening Cover” which the owner reserves the right to delete.

3.06 FILL/DRAW PIPE DEFLECTOR PLATE

- A. Furnish and install a deflector plate over the fill/draw pipe.
- B. Deflector to be constructed of ¼ inch steel plate. Attach plate to the pipe with a minimum of three stand-offs.
- C. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- D. See Drawing 04.
- E. Payment is a separate line item “Fill/Draw Pipe Deflector Plate” which the owner reserves the right to delete.

3.07 EXPANSION JOINT REPLACEMENT

- A. Furnish and install a bellows-type expansion joint and weld new bolted flanges on the pipe per AWWA C207.
- B. Remove the existing expansion joint. Expansion joint to become property of the contractor for proper disposal. Install a flanged spool section where the existing expansion joint was in the pit.
- C. Install the new joint above the top platform.

- D. Expansion joint will have flanged ends with stainless steel bellows that is to be bolted into the existing opening.
- E. Field verify fill pipe size and opening required for new expansion joint, contractor is responsible for any existing pipe alterations required for new joint fitting.
- F. Install gasket between the existing flanges and the new expansion joint per AWWA C207 with a full face and a minimal thickness of 1/16 inch.
- G. Use galvanized bolts, size to fit flange holes.
- H. Surface prepare the carbon steel flanges and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- I. Reinstall or replace existing insulation over the entire joint.
- J. See Drawing 05a-05b.
- K. Payment is a separate line item "Expansion Joint Replacement" which the owner reserves the right to delete.

3.08 CONDENSATE DRAIN LINE

- A. Remove the condensate drain line from the condensate ceiling to the point of discharge outside of the basebell wall. Properly dispose of the removed items.
- B. Install a new 2 in. diameter line. Weld pipe all around with ¼ in. fillet weld. Pipe to have a hose connection or unions for easy removal.
- C. Weld ¼ in. plate over the hole in the basebell; overlap hole by 2 in. all around. Weld using ¼ in. full fillet welds on both sides.
- D. Pipe to discharge into the overflow pipe. Cut hole in overflow (or use the existing opening, enlarge as needed) and weld pipe using ¼ in. full fillet weld.
- E. Furnish and install a bronze seating check valve approximately 1½ in. diameter to the condensate line to prevent back-up of water in the condensate line when the overflow pipe is used.
- F. The check valve must normally be open and capable of operating vertically or diagonally.
- G. All threaded fittings to be covered with Teflon tape.
- H. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- I. See Drawing 06.
- J. Payment is a separate line item "Condensate Drain Line" which the owner reserves the right to delete.

3.09 MUD VALVE

- A. Remove the existing drain line from the bowl to the overflow pipe, reuse the existing openings if possible. Properly dispose of the removed items.
- B. Install a frost-free mud valve in the lowest section of the mud settling area. Coupling shall be a heavy or extra heavy coupling and shall not extend more than ¾ in. into wet interior surfaces.

- C. For the discharge, use hose attached to barbed fittings with band clamp and Schedule 40 pipe for connection to the overflow pipe. All threaded fittings to be coated with pipe joint compound.
- D. Pipe to discharge into the overflow pipe. Cut a hole in the overflow (or use the existing opening, enlarge as needed) and weld the pipe using ¼ in. full fillet.
- E. Attach a wrench on a chain to the valve for operating the valve. Chain to have a clip or clasp for easy removal and use.
- F. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- G. Weld one – 4 in. x 4 in. x ⅜ in. angle iron (height – top of valve entry into tank, plus 2 in.) to act as ice shield.
- H. See Drawing 07.
- I. Payment is a separate line item “Mud Valve” which the owner reserves the right to delete.

3.10 FALL PREVENTION DEVICE

- A. Furnish and install a rail-type fall prevention device on the wet interior ladder. Device to be installed after topcoat is dry to the touch. Use temporary safety lines during construction.
- B. Begin installation of the wet interior device 3 ft. above the bowl and extend to the roof, end 12 in. below the roof so the glide can be attached and detached.
- C. Payment is a separate line item “Fall Prevention Device” which the owner reserves the right to delete.

3.11 BASEBELL LADDER

- A. Furnish and install new basebell ladder.
- B. Remove the existing ladder. Ladder to become property of the contractor for proper disposal. In the event the base metal is gouged during ladder removal, the affected areas are to be built-up to original steel thickness. Grind built-up areas flush with adjacent surfaces.
- C. Ladder to be 16 in. wide with ¾ in. diameter non-skid rungs, spaced every 12 in. on center, and provide a minimum of 7 in. toe clearance.
- D. Construct side rails of 2 in. x ⅜ in. flat bar stock. Spacing on ladder brackets is 10 ft. maximum with brackets 8 in. from each end.
- E. Ladder shall meet or exceed all OSHA requirements. Equip with T- rail-type fall prevention device.
- F. Furnish and install a ladder section on the top of the condensate and top platform.
- G. Ladders to extend 5 rungs above the platform, keep spacing 12 inches between the existing ladder and new section.
- H. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- I. See Drawing 08a-08c.

- J. Payment is a separate line item “Replace Basebell Ladder” which the owner reserves the right to delete.

3.12 FROST FREE ROOF VENT

- A. Furnish and install a new, frost free roof vent on a bolted flange that has been cut and constructed as shown on the drawings.
- B. Location to be verified by the engineer.
- C. See Drawings 09a-09d.
- D. Payment is a separate line item “Roof Vent” which the owner reserves the right to delete.

3.13 ACCESS TUBE AIR GAP SEAL

- A. Weld a curb extension on the existing access tube cover plate. Furnish a 3/8 in. neoprene sheet to cover the air gap at the access tube.
- B. Remove the existing screen, contractor to properly dispose of removed items.
- C. Curb to extend 1-2 inches above the roof plate.
- D. Attach neoprene sheet to the curb using two (2) ½” wide stainless steel banding clamps using a make-a-clamp kit.
- E. Work to be performed after the surface is surface prepared and coated per Sections 09 97 13 and 09 97 13.10.
- F. See Drawing 10.
- G. Payment is a separate line item “Access Tube Air Gap Seal” which the owner reserves the right to delete.

3.14 CATHODIC CLIPS and COUPLING

- A. Weld clips and pressure fitting for a cathodic protection system (future installation by others).
- B. Supply recommended quantity of clips and locate as directed by the supplier.
- C. Weld clips with ¼ in. fillet welds all around. No area may be left that may be susceptible to crevice corrosion.
- D. Weld a 3,000 psi coupling inside and outside with a ¼ in. fillet weld all around, and cap fitting as directed by supplier.
- E. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- F. Payment is a separate line item “Cathodic Clips and Coupling” which the owner reserves the right to delete.

3.15 CATHODIC COVERS

- A. Remove and cap all existing cathodic caps and bolts from the roof. There are 5 openings, contractor to field verify.

- B. Weld ¼ in. plates over all openings, including hole(s) from probe removal using ³/₁₆ in. continuous fillet weld on the exterior.
- C. Plates to overlap all holes by a minimum of ½ in. on all sides, including bolt holes.
- D. Caulk the underside of the cover.
- E. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- F. See Drawing 11.
- G. Payment is a separate line item “Cathodic Covers” which the owner reserves the right to delete.

3.16 REMOVE EXISTING CATHODIC PROTECTION SYSTEM

- A. Remove the abandoned/non-operational hanging cathodic protection system.
- B. Cut and remove from the tank all wiring, conduits, brackets, pulleys, and associated paraphernalia for the existing cathodic protection system. This includes the control panel.
- C. Cap and plug remaining conduits and wiring per local, state, and federal electrical codes and regulations.
- D. The control box and system are to be removed but shall remain property of the owner.
- E. Cost is incidental to wet interior repainting.

3.17 ROOF HANDRAIL and PAINTER’S RAILING

- A. Install a 20 ft. diameter handrail, and a 23 ft. diameter painter’s railing on the roof. Field verify dimensions prior to fabrication. The intention is that the painter’s railing diameter be 3-4 ft. larger than the handrail around the entire circumference.
- B. All butt weld sections on the painters railing to be at a brace.
- C. Install 2 ½ in. diameter couplings with brass plugs for safety lines during wet interior work. Threading to be per NPT standard. Locate at every other painter’s railing brace. Caulk the underside of the coupling. All threaded fittings to be coated with pipe joint compound.
- D. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- E. See Drawing 12a-12b.
- F. Payment is a separate line item “Roof Handrail and Painter’s Railing” which the owner reserves the right to delete.

3.18 REPLACE LIGHT BULBS

- A. Replace all dry interior and aviation light bulbs with LED light bulbs
- B. Dry interior bulbs to be bright white LED bulbs with a minimum brightness of 800 lumens and a color of light at a minimum of 5,000K and a minimum rated life of 25,000 hours., size 19A.
- C. The aviation light bulbs to be LED with a minimum brightness of 1600 lumens and a color of light at a minimum of 5,000K, and a minimum rated life of 25,000 hours.

- D. Change bulbs after all blast and paint equipment has been removed from the tank.
- E. All bulbs to have the same color and brightness throughout the dry interior.
- F. Cost is incidental to the project.

3.19 REWIRE THE ACCESS TUBE

- A. There are exposed wires in the access tube.
- B. Furnish and install conduit and junction box covers as needed so all wiring is inside conduit and properly sealed.
- C. Work to be performed by a licensed electrician.
- D. Payment is a separate line item "Electrical Wiring" which the owner reserves the right to delete.

3.20 PATCH PLATES

- A. Weld patch plates over the openings in the roof. There are 3 holes.
- B. Weld ¼ in. plates over all openings using 3/16 in. continuous fillet weld on the exterior.
- C. Plates to overlap all holes by a minimum of ½ in. on all sides.
- D. Caulk the underside of the cover for the roof plates using Sikaflex 1a.
- E. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- F. Payment is a separate line item "Roof Patch Plates" which the owner reserves the right to delete.

3.21 RELOCATE ANTENNAS to RAILING

- A. Install brackets to relocate the 11 antennas from the existing mounting poles on the roof podmount to the new handrail. Cables, antennas and mounting poles will be installed by others.
- B. Cables to be routed from the access tube to the handrail on one set of 1/8 inch bent plates in one straight line, spacing to be every 36 inches. Each bent plate is to have holes to accept Andrews snap-in hangers.
- C. Once to the railing the coax is to route along the handrail on bent plates welded between the mid rail and the kick plate.
- D. All welding for the coax plates are to be 1/8 inch full fillet welds.
- E. See Drawing 13.
- F. Payment is a separate line item "Roof Antenna Cable Brackets" which the owner reserves the right to delete.

3.22 ACCESS TUBE COVER

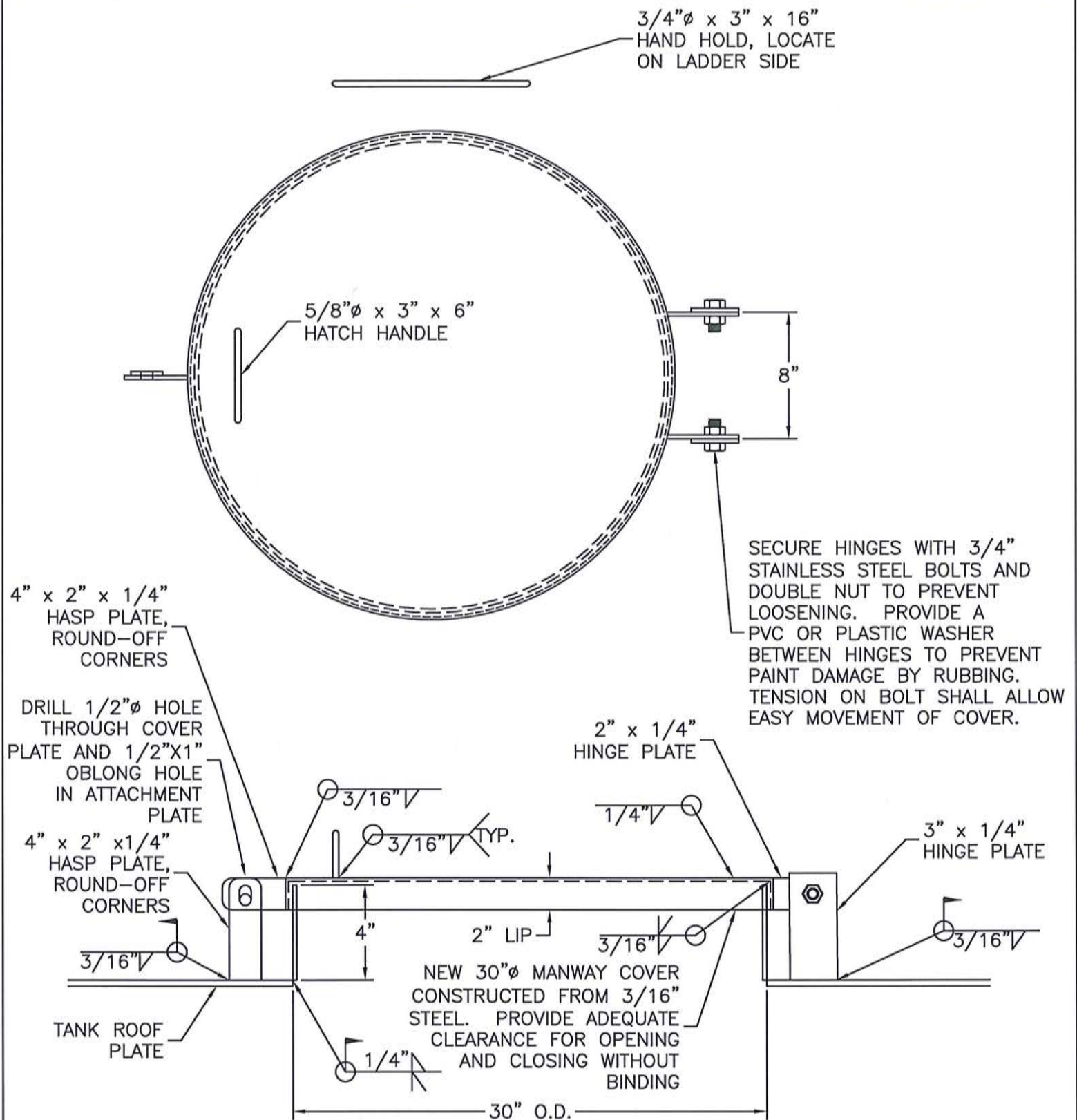
- A. Remove the podmount from the roof and rebuild the cover plate.
- B. Furnish and install a 30 in. diameter hinged hatch.

- C. Weld a 16 in. x 3 in. x $\frac{3}{4}$ in. diameter rung on the roof for a hand-hold. Location to be determined by the engineer.
- D. Install antenna cable penetrations through the cover plate and a coupling to reinstall the aviation light. The coupling for the aviation light to be $\frac{3}{4}$ inch, weld with a $\frac{1}{4}$ inch full fillet.
- E. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- F. See Drawing 14a-14d.
- G. Payment is a separate line item "Pod Removal and Access Tube Cover" which the owner reserves the right to delete.

PART 4 – SPECIAL PROVISIONS

4.01 WELD PREPARATION PRIOR to COATING

- A. Prepare all new welds per NACE RPO 0178 prior to coating application. Grind welds to category D.



Note: Drawing Not to Scale.

NOTES:
LOCATION OF MANWAY TO BE
DETERMINED BY THE ENGINEER.



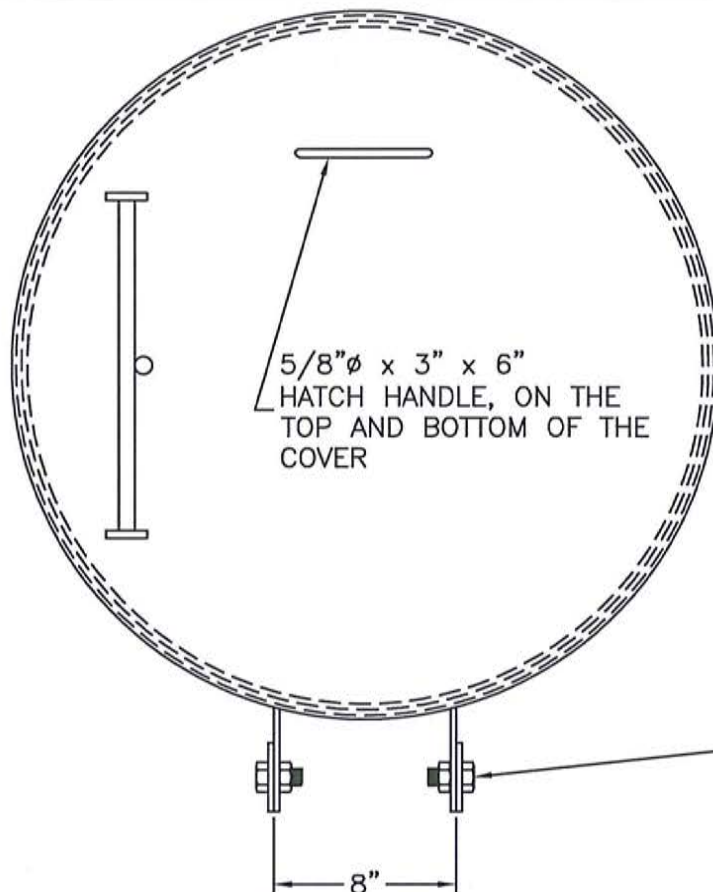
St. Charles, IL 300,000 Spheroid

30" Roof Hatch

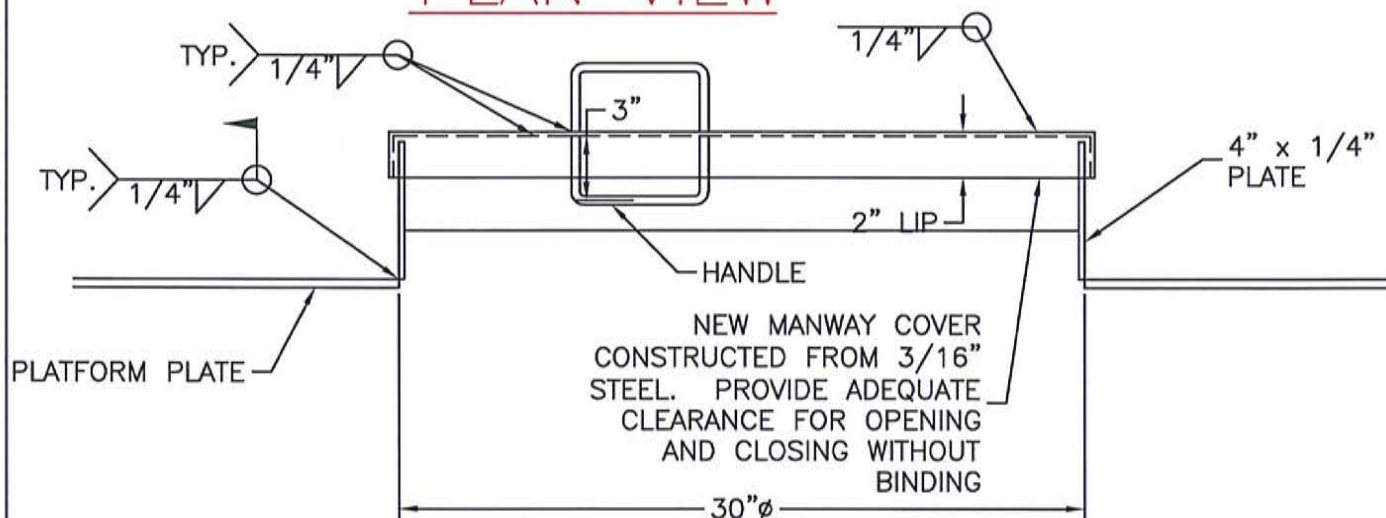
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Drawn By: TMF Date: 04/18/19

Checked By: WJD DWG: 01

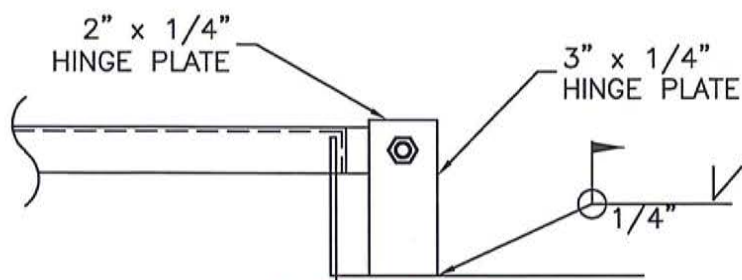


PLAN VIEW



SIDE VIEW

HINGES NOT SHOWN FOR CLARITY



HINGE DETAIL

SECURE HINGES WITH 3/4" STAINLESS STEEL BOLTS AND DOUBLE NUT TO PREVENT LOOSENING. PROVIDE A PVC OR PLASTIC WASHER BETWEEN HINGES TO PREVENT PAINT DAMAGE BY RUBBING. TENSION ON BOLT SHALL ALLOW EASY MOVEMENT OF COVER.

Note: Drawing Not to Scale.



St. Charles, IL 300,000 Spheroid

30" Condensate Platform Hatch

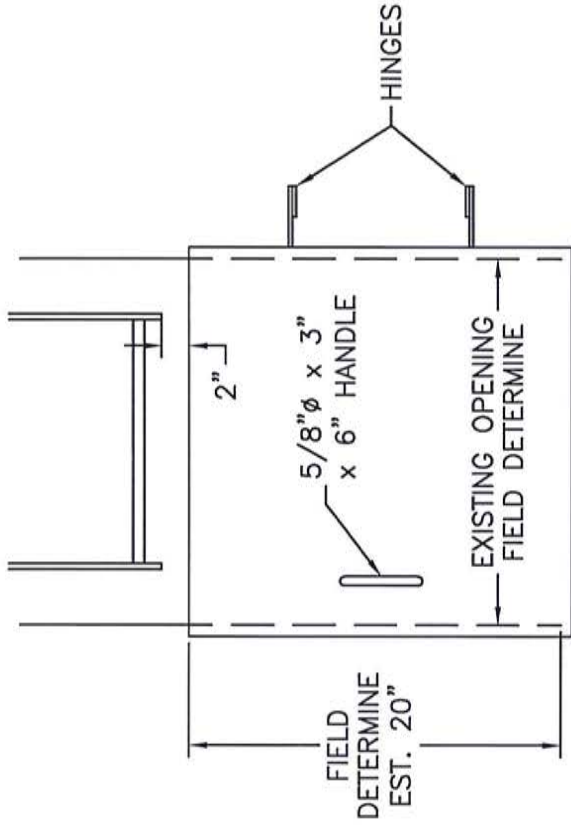
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Date: 04/18/19

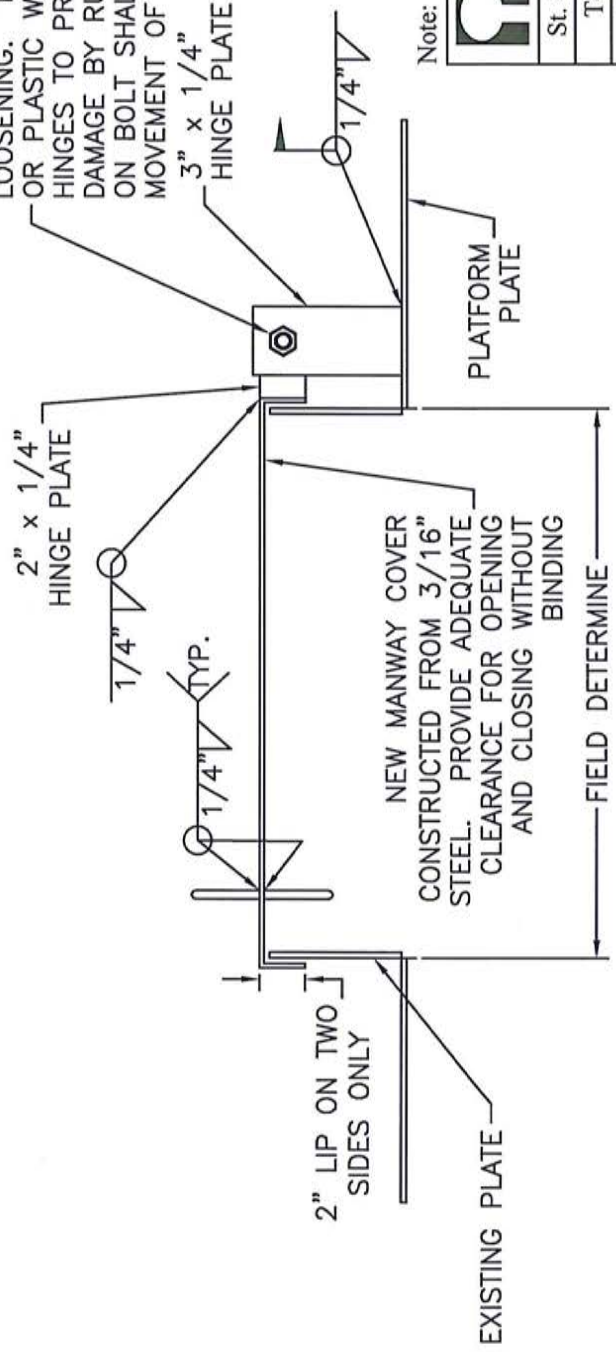
Checked By: WJD

DWG: 02



PLATFORM HATCH

SECURE HINGES WITH 3/4\" STAINLESS STEEL BOLTS AND DOUBLE NUT TO PREVENT LOOSENING. PROVIDE A PVC OR PLASTIC WASHER BETWEEN HINGES TO PREVENT PAINT DAMAGE BY RUBBING. TENSION ON BOLT SHALL ALLOW EASY MOVEMENT OF COVER.



Note: Drawing Not to Scale.



St. Charles, IL 300,000 Spheroid

Top Platform Opening Cover

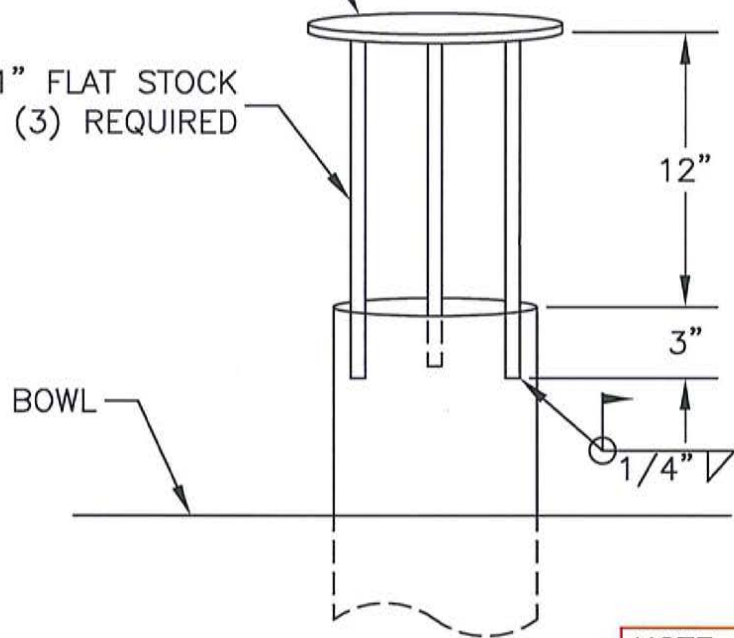
File Name: platform cover.dwg

Drawn By: TMF Date: 04/18/19

Checked By: WJD DWG: 03

1/4" x 16"Ø DEFLECTOR PLATE
FOR 12"Ø INLET PIPE

1/4" x 1" FLAT STOCK
(3) REQUIRED



NOTE:
CONTRACTOR TO FIELD VERIFY
DIAMETER OF INLET PIPE PRIOR
TO FABRICATION. THE DEFLECTOR
PLATE IS TO HAVE A DIAMETER 4
INCHES LARGER THAN THE FILL
PIPE.

FILL PIPE DEFLECTOR PLATE

Note: Drawing not to scale.

DIXON ENGINEERING, INC.	
St. Charles, IL 300,000 Spheroid	
Fill Pipe Deflector Plate	
File Name: 12in.fillpipe.dwg	
Drawn By: TMF	Date: 04/18/19
Checked By: WJD	DWG: 04

NEW EXPANSION
JOINT TO BE INSTALLED
ON FILL PIPE ABOVE
THE TOP PLATFORM,
SEE DWG. 05b

AWWA C207 12" CLASS D RING FLANGE
TYP. OF 2, HOLE SIZE AND PATTERN TO
MATCH EXISTING PIPE FLANGES
BOLTS TO BE GALVANIZED, NUT AND BOLT
SIZE TO MATCH THE EXISTING

NEW SCH 20 SPOOL
SECTION TO
REPLACE THE REMOVED
EXPANSION JOINT

Note: Drawing Not to Scale.



St. Charles, IL 300,000 Spheroid

Expansion Joint Replacement

File Name: replacement.dwg

Drawn By: TMF

Date: 04/18/19

Checked By: WJD

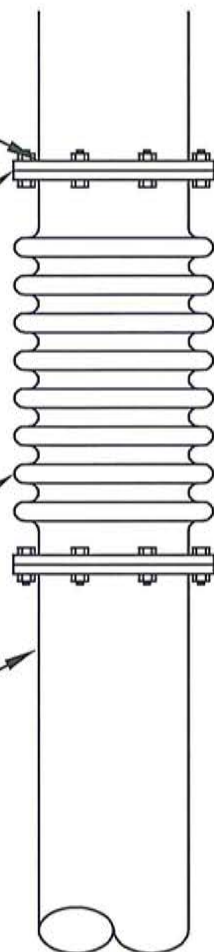
DWG: 05a

AWWA C207 12" CLASS D RING FLANGE
TYP. OF 2, HOLE SIZE AND PATTERN TO
MATCH NEW BELLOWS EXPANSION JOINT
BOLTS TO BE GALVANIZED 0.875"Ø

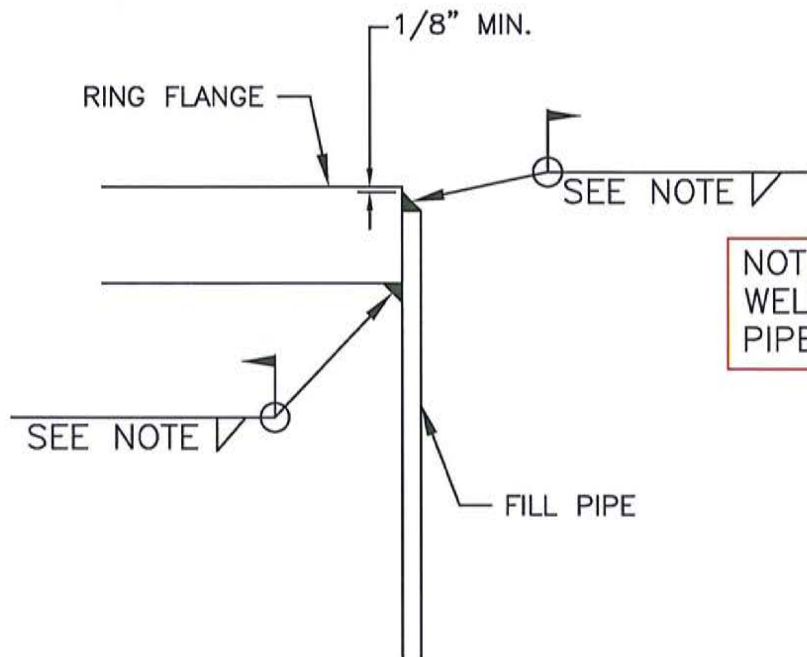
INSTALL 1/8" RUBBER GASKET
MATERIAL BETWEEN STAINLESS
STEEL FLANGE AND STEEL FLANGE,
TYPICAL OF 2

STAINLESS STEEL BELLOWS
WITH FLANGED ENDS

TRIM FILL PIPE AS NEEDED TO
FIT THE NEW JOINT, FLANGE AND
GASKET MATERIAL



EXPANSION JOINT REPLACEMENT



NOTE:
WELD SIZE TO MATCH EXISTING
PIPE THICKNESS

FLANGE WELD DETAIL

Note: Drawing Not to Scale.



DIXON
ENGINEERING, INC.

St. Charles, IL 300,000 Spheroid

Expansion Joint

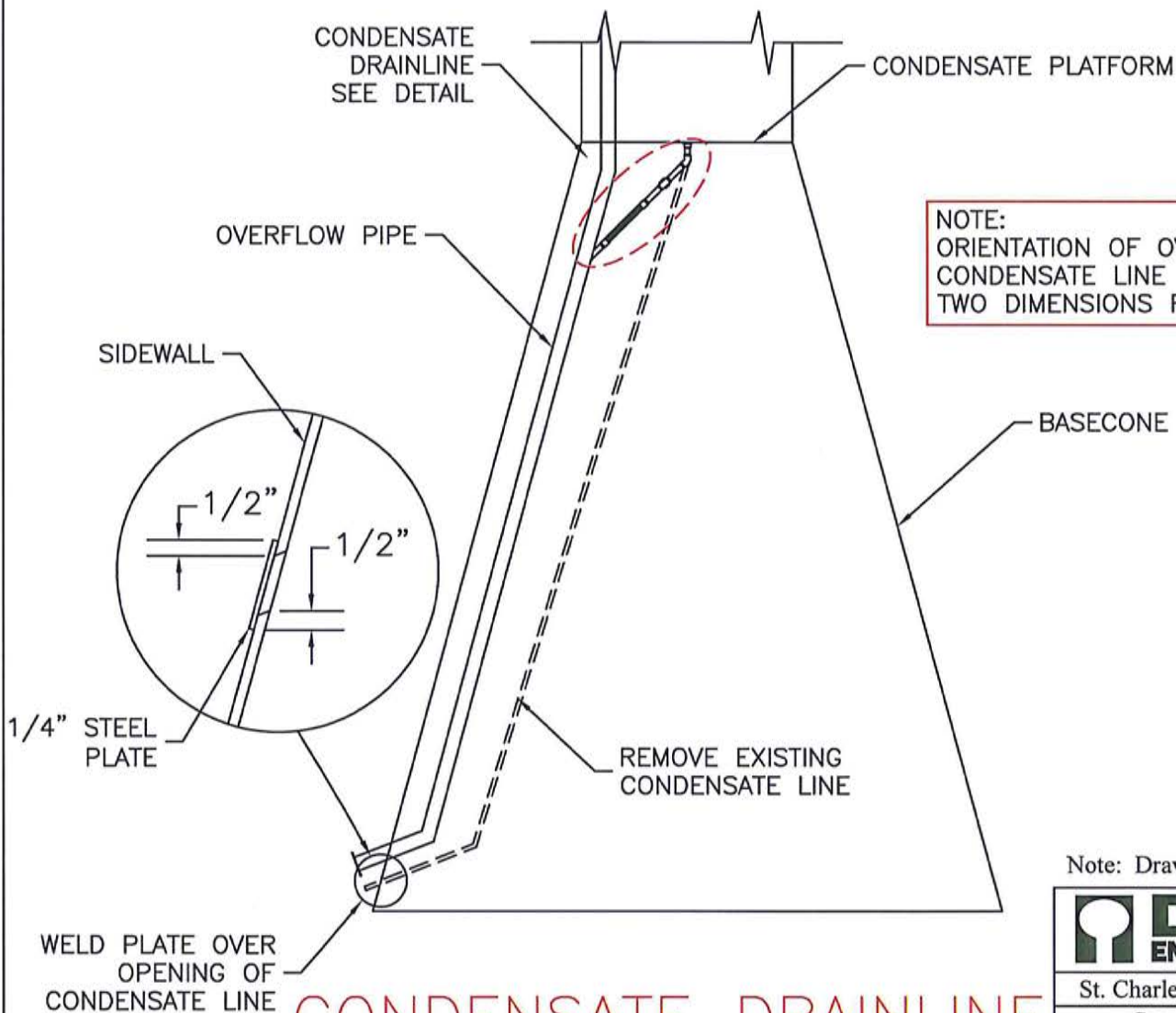
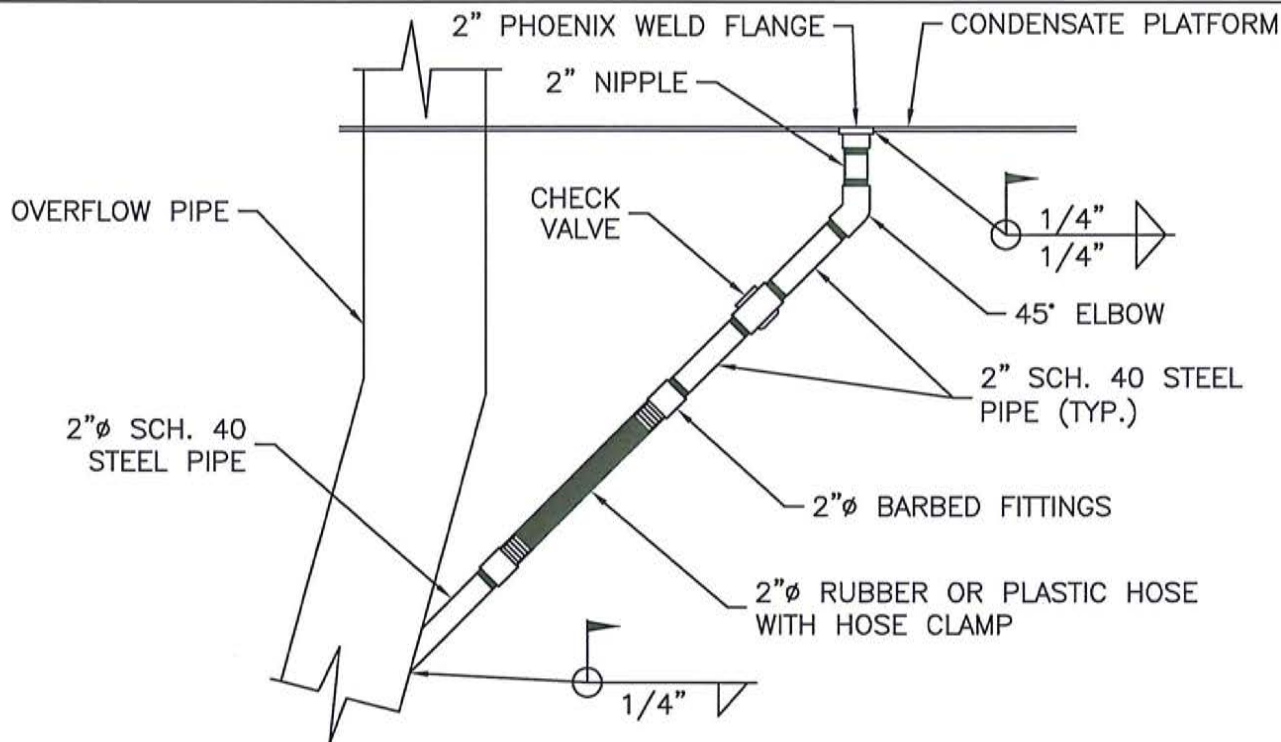
File Name: expansion joint.dwg

Drawn By: TMF

Date: 04/18/19

Checked By: WJD

DWG: 05b



Note: Drawing not to scale.



St. Charles, IL 300,000 Spheroid

Condensate Drainline

File Name: hosedrainline.dwg

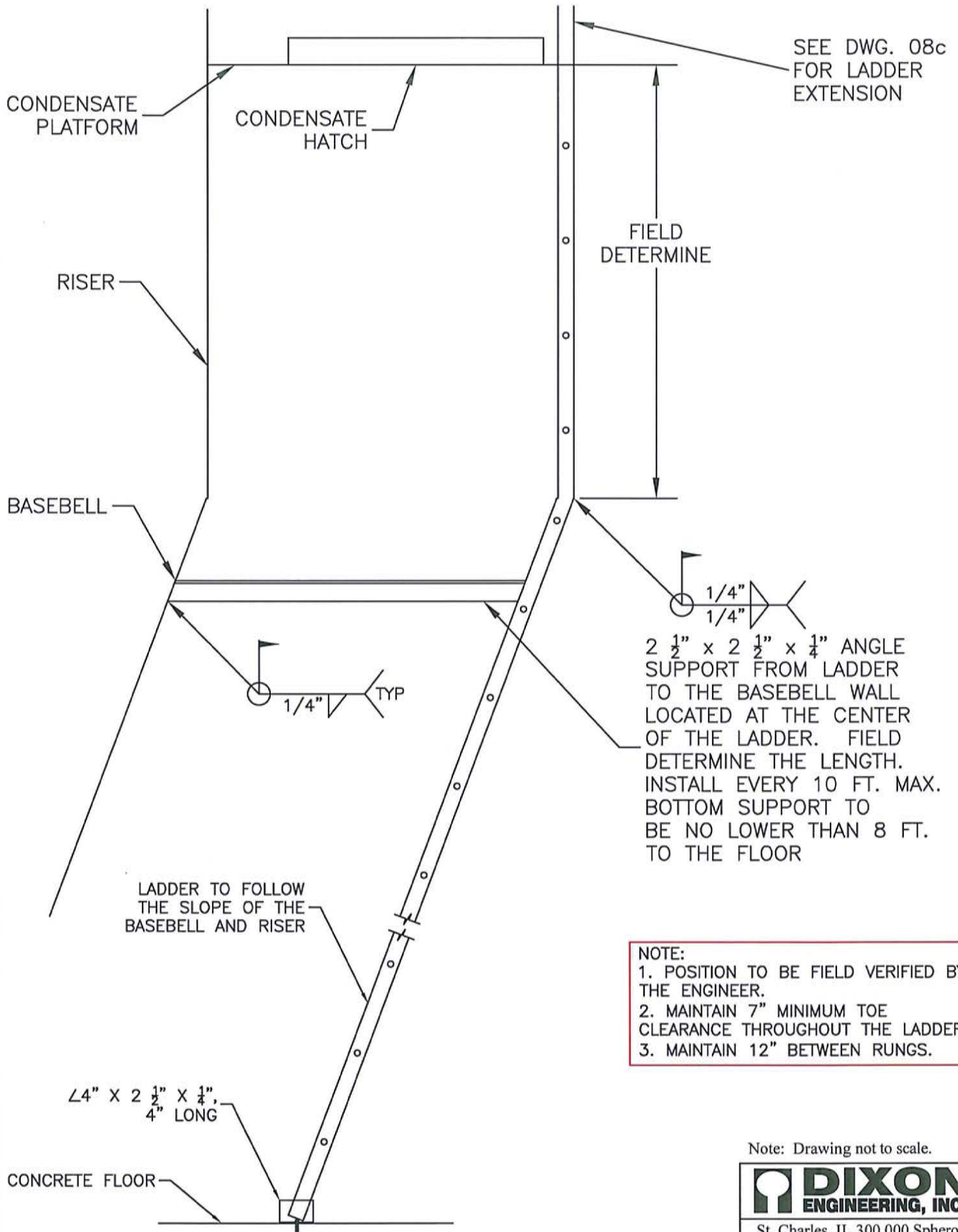
Drawn By: TMF

Date: 04/18/19

Checked By: WJD

DWG: 06

CONDENSATE DRAINLINE

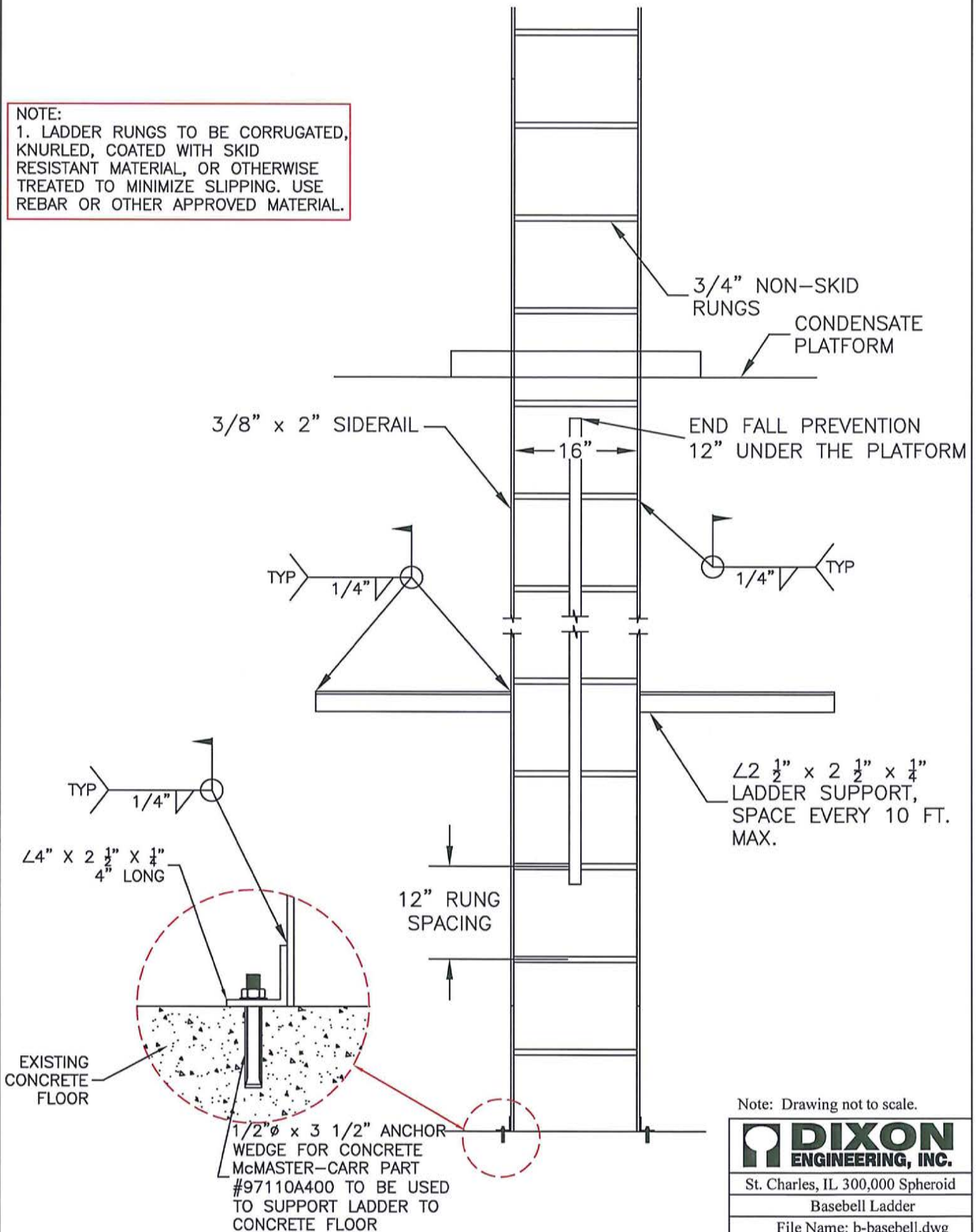


Note: Drawing not to scale.

DIXON ENGINEERING, INC.	
St. Charles, IL 300,000 Spheroid	
Basebell Ladder	
File Name: a-basebell.dwg	
Drawn By: TMF	Date: 04/18/19
Checked By: WJD	DWG: 08a

NOTE:

1. LADDER RUNGS TO BE CORRUGATED, KNURLED, COATED WITH SKID RESISTANT MATERIAL, OR OTHERWISE TREATED TO MINIMIZE SLIPPING. USE REBAR OR OTHER APPROVED MATERIAL.



Note: Drawing not to scale.

DIXON
ENGINEERING, INC.

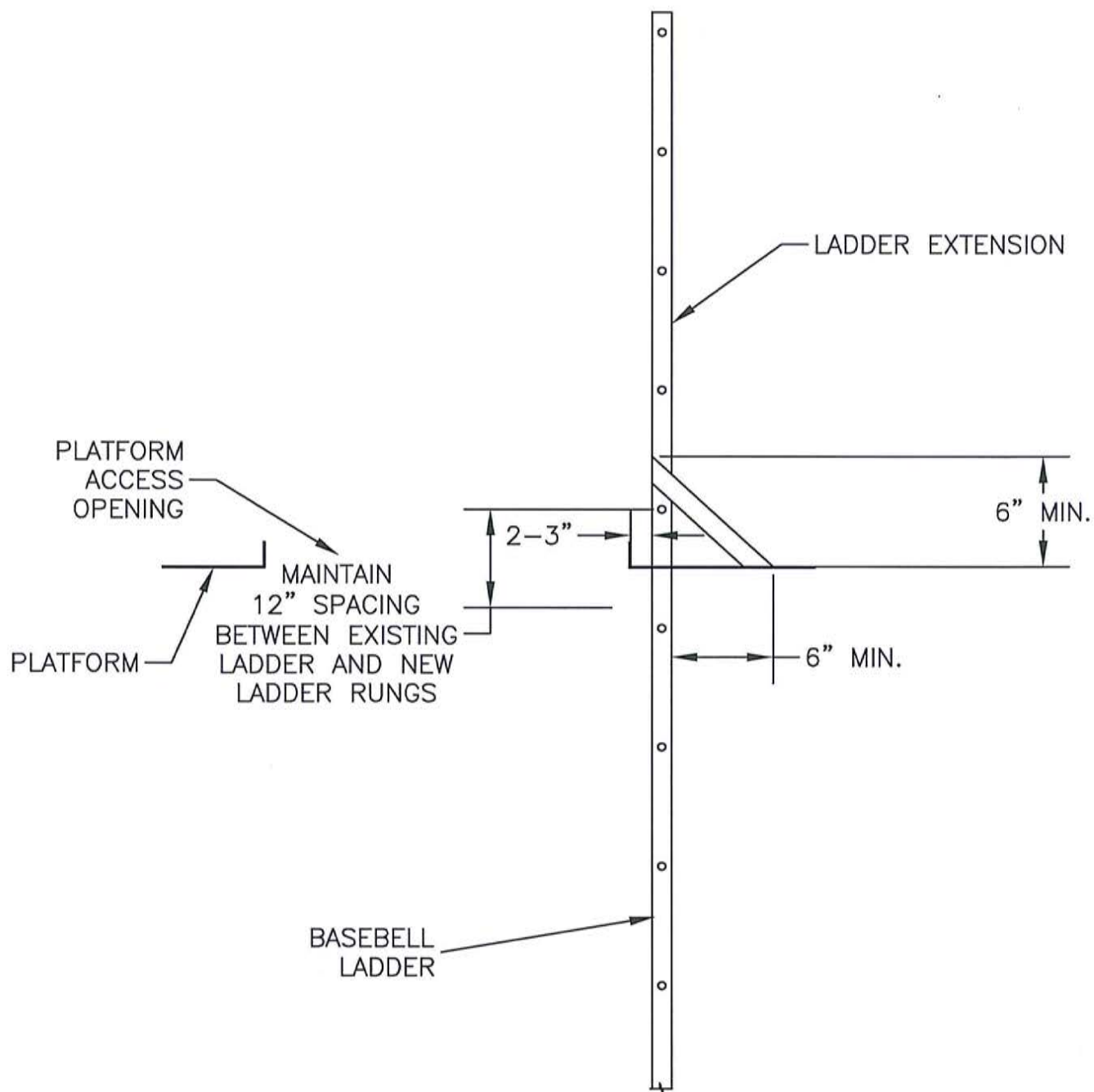
St. Charles, IL 300,000 Spheroid

Basebell Ladder

File Name: b-basebell.dwg

Drawn By: TMF Date: 04/18/19

Checked By: WJD DWG: 08b



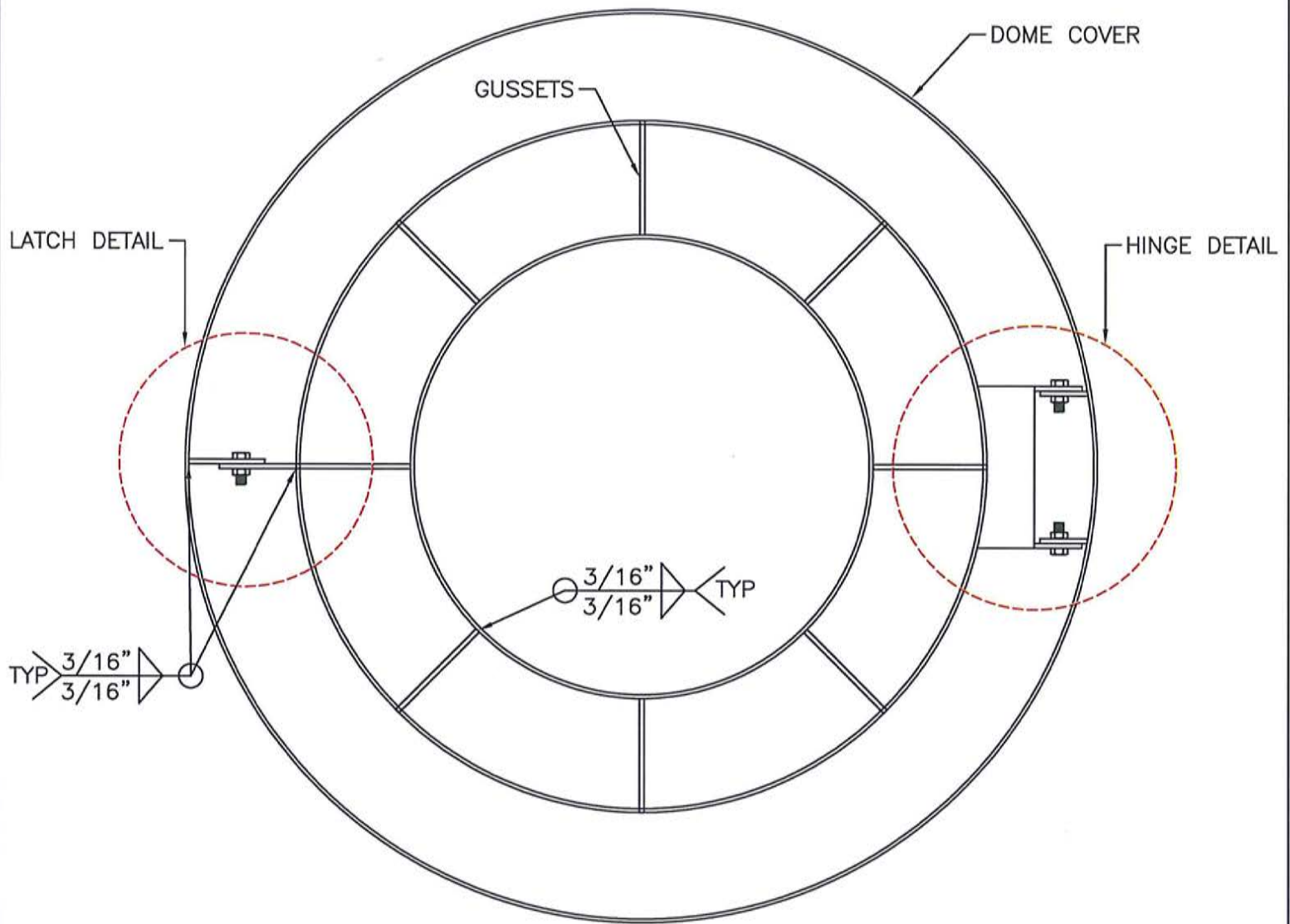
SIDE VIEW

Note: Drawing not to scale.

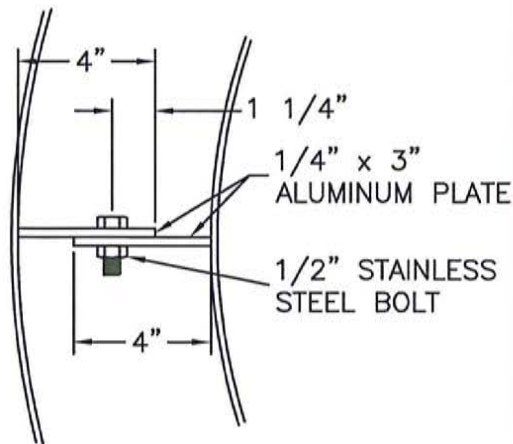
DIXON ENGINEERING, INC.	
St. Charles, IL 300,000 Spheroid	
Ladder Extension at Platform	
File Name: ladderextension.dwg	
Drawn By: TMF	Date: 04/15/19
Checked By: WJD	DWG: 08c



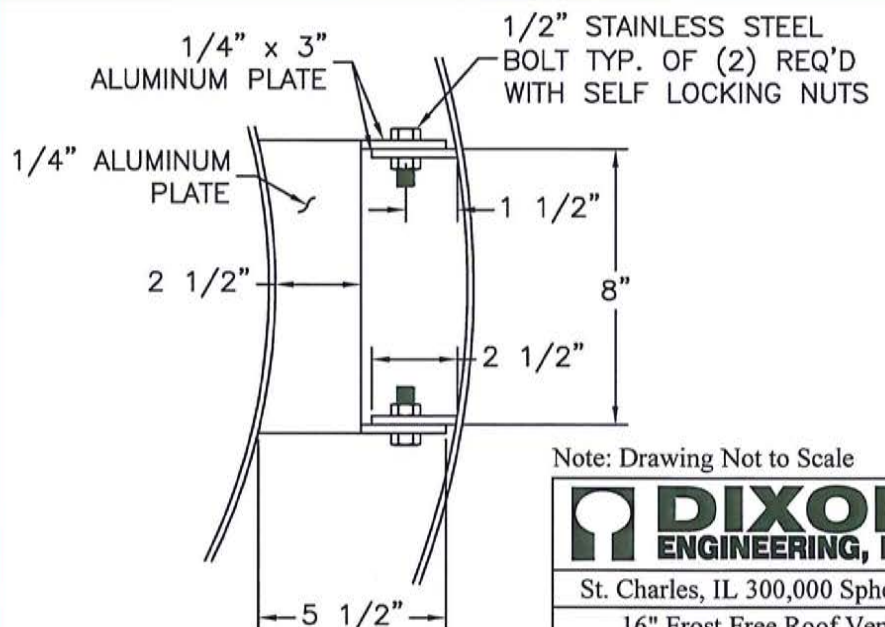
Checked By: WJD	DWG: 09a
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PLAN VIEW



LATCH DETAIL



HINGE DETAIL

Note: Drawing Not to Scale



St. Charles, IL 300,000 Spheroid

16" Frost Free Roof Vent

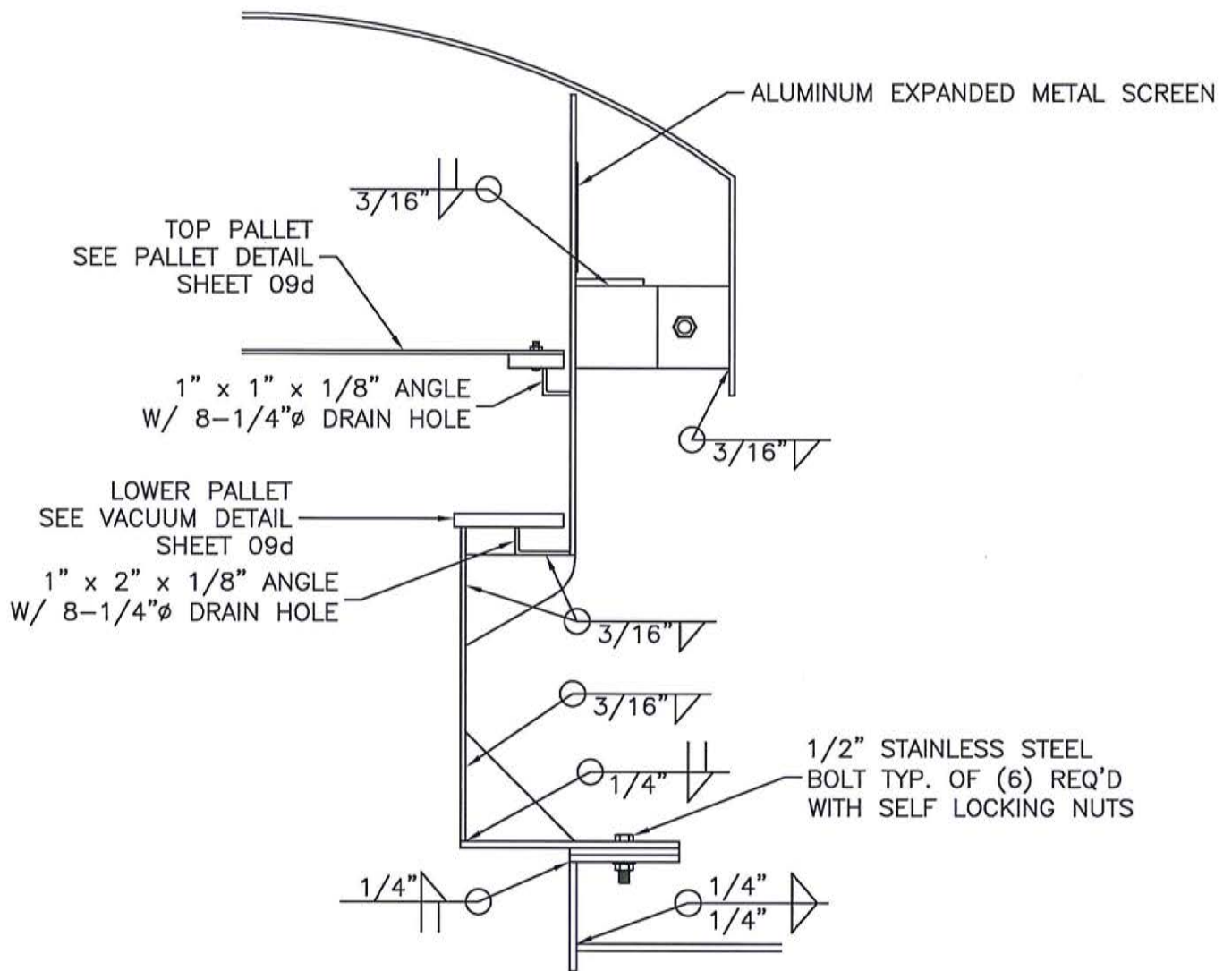
File Name: b_vent.dwg

Drawn By: TMF

Date: 04/18/19

Checked By: WJD

DWG: 09b



WELDING DETAIL

Note: Drawing Not to Scale



St. Charles, IL 300,000 Spheroid

16" Frost Free Roof Vent

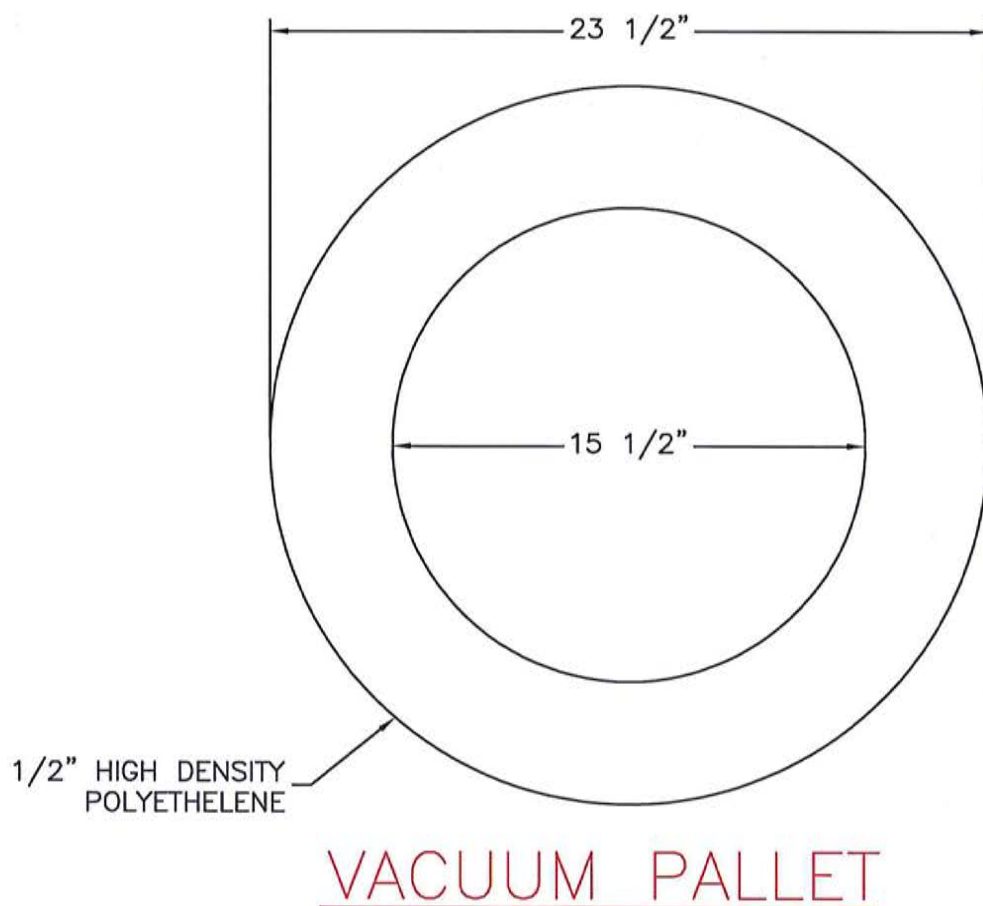
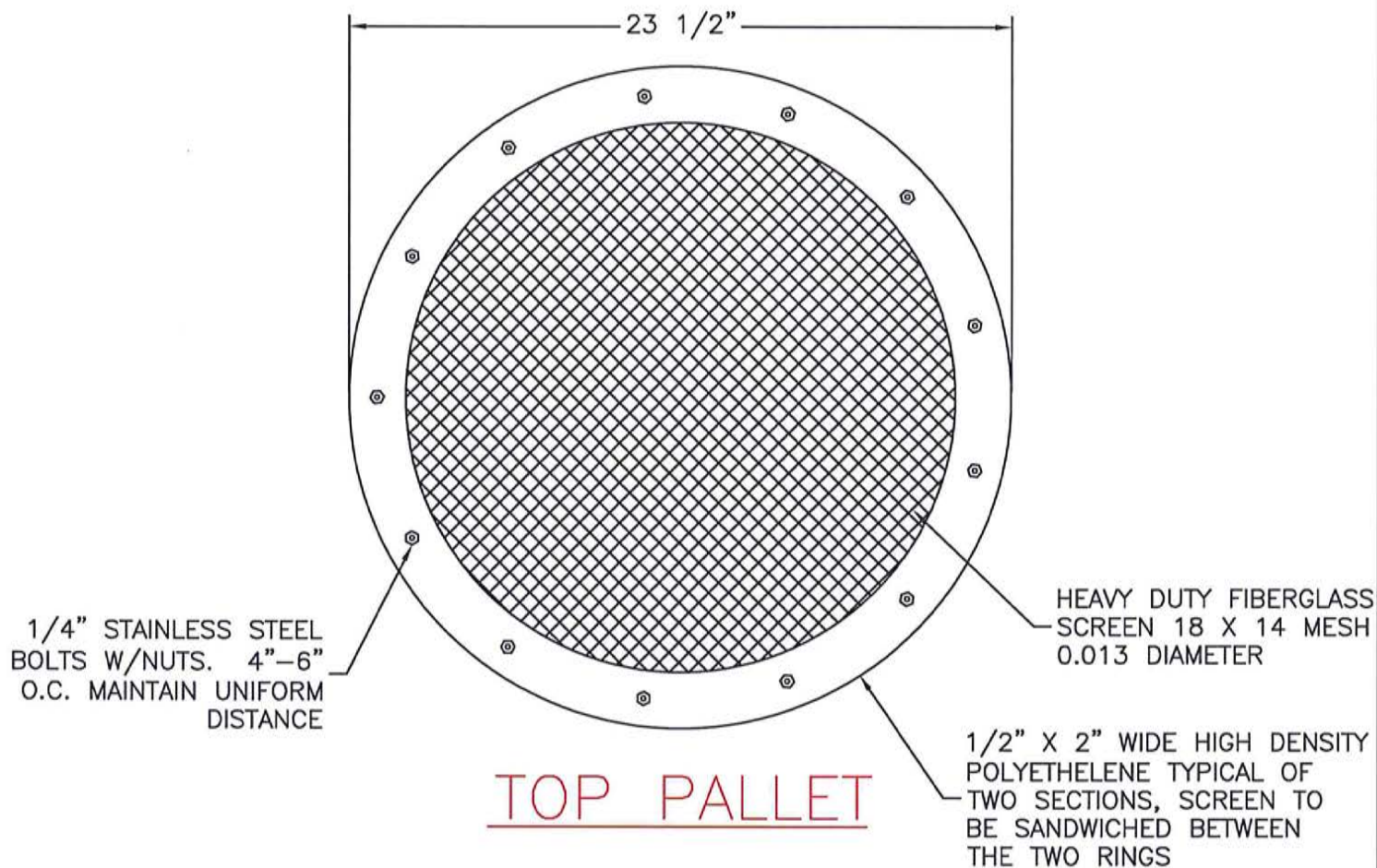
File Name: c_vent.dwg

Drawn By: TMF

Date: 04/18/19

Checked By: WJD

DWG: 09c



Note: Drawing Not to Scale



St. Charles, IL 300,000 Spheroid

16" Frost Free Roof Vent

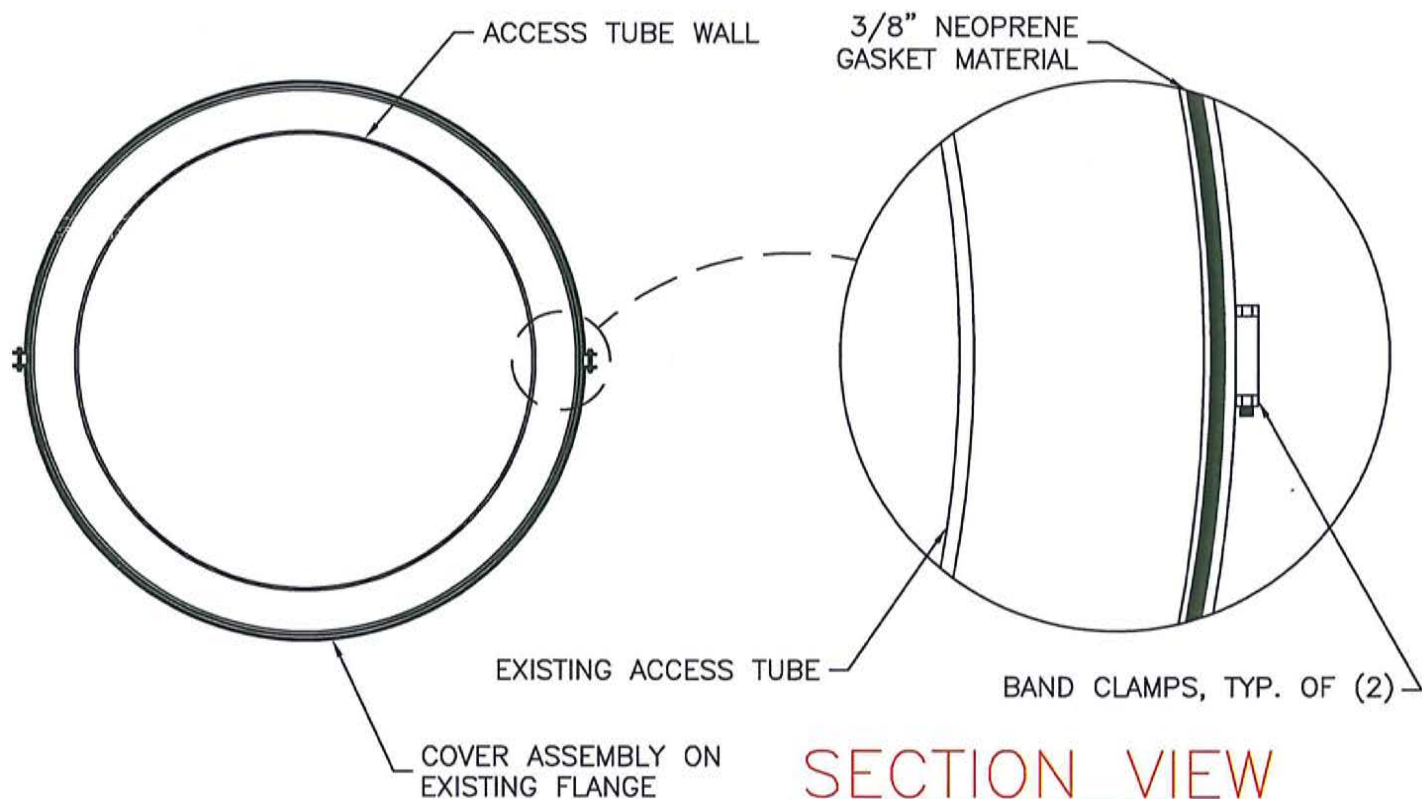
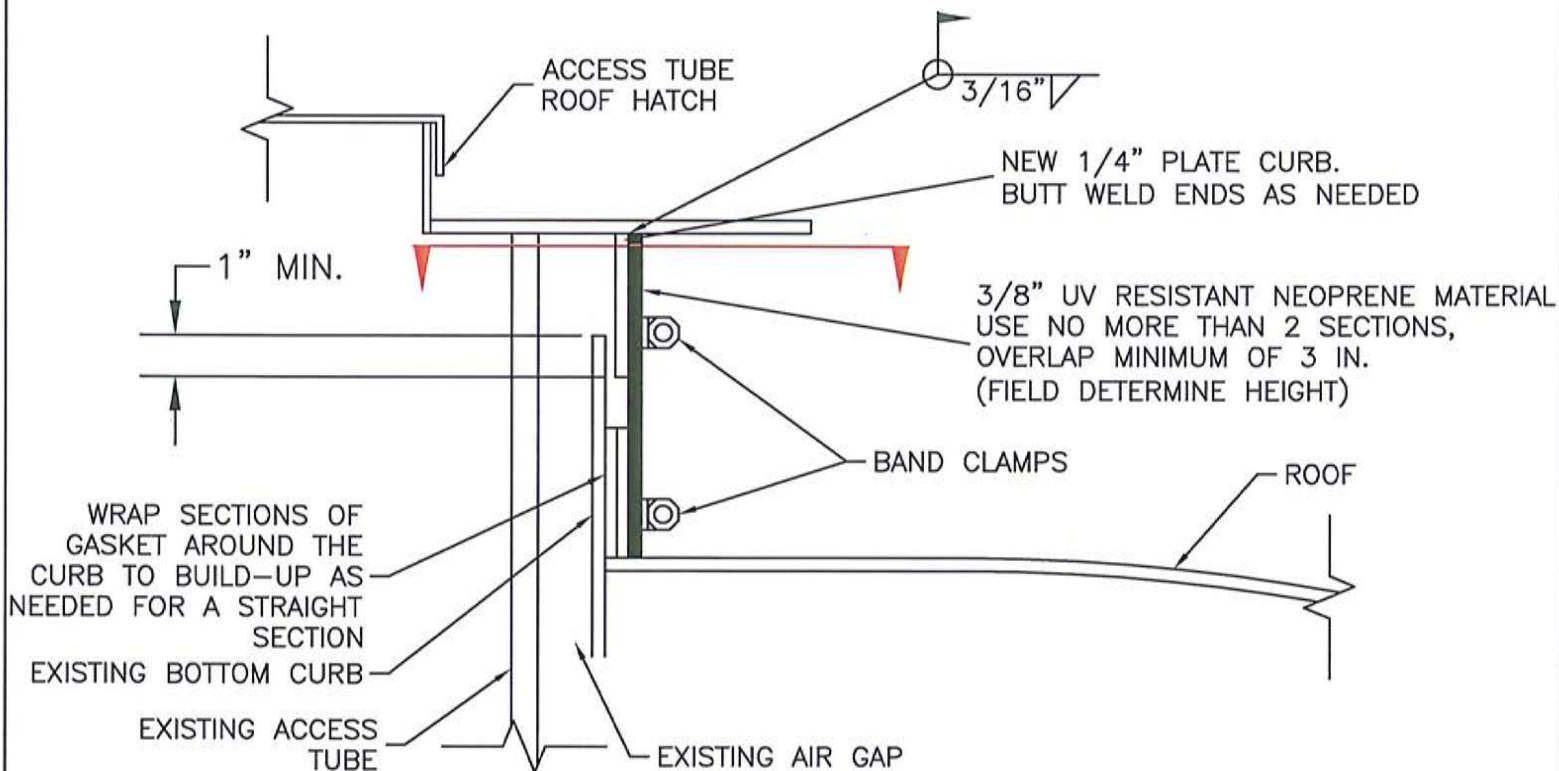
File Name: d_vent.dwg

Drawn By: TMF

Date: 04/18/19

Checked By: WJD

DWG: 09d



SECTION VIEW

ACCESS TUBE SEAL

Note: Drawing not to scale.



St. Charles, IL 300,000 Spheroid

Access Tube Gap Seal

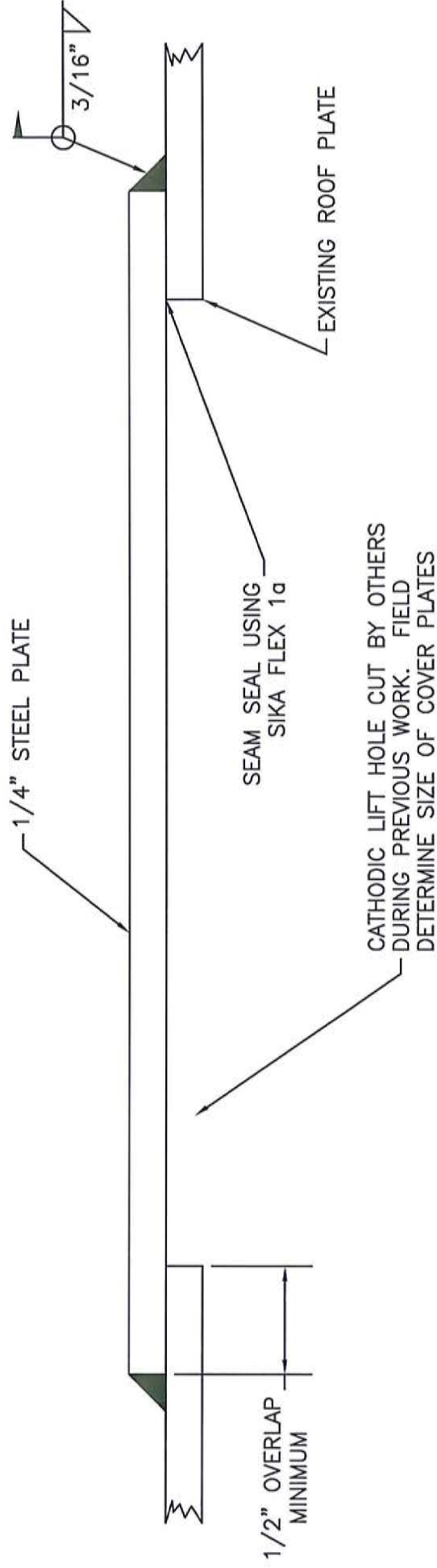
File Name: ATgapseal.dwg

Drawn By: TMF

Date: 04/18/19

Checked By: WJD

DWG: 10



CATHODIC COVER

Note: Drawing not to scale.



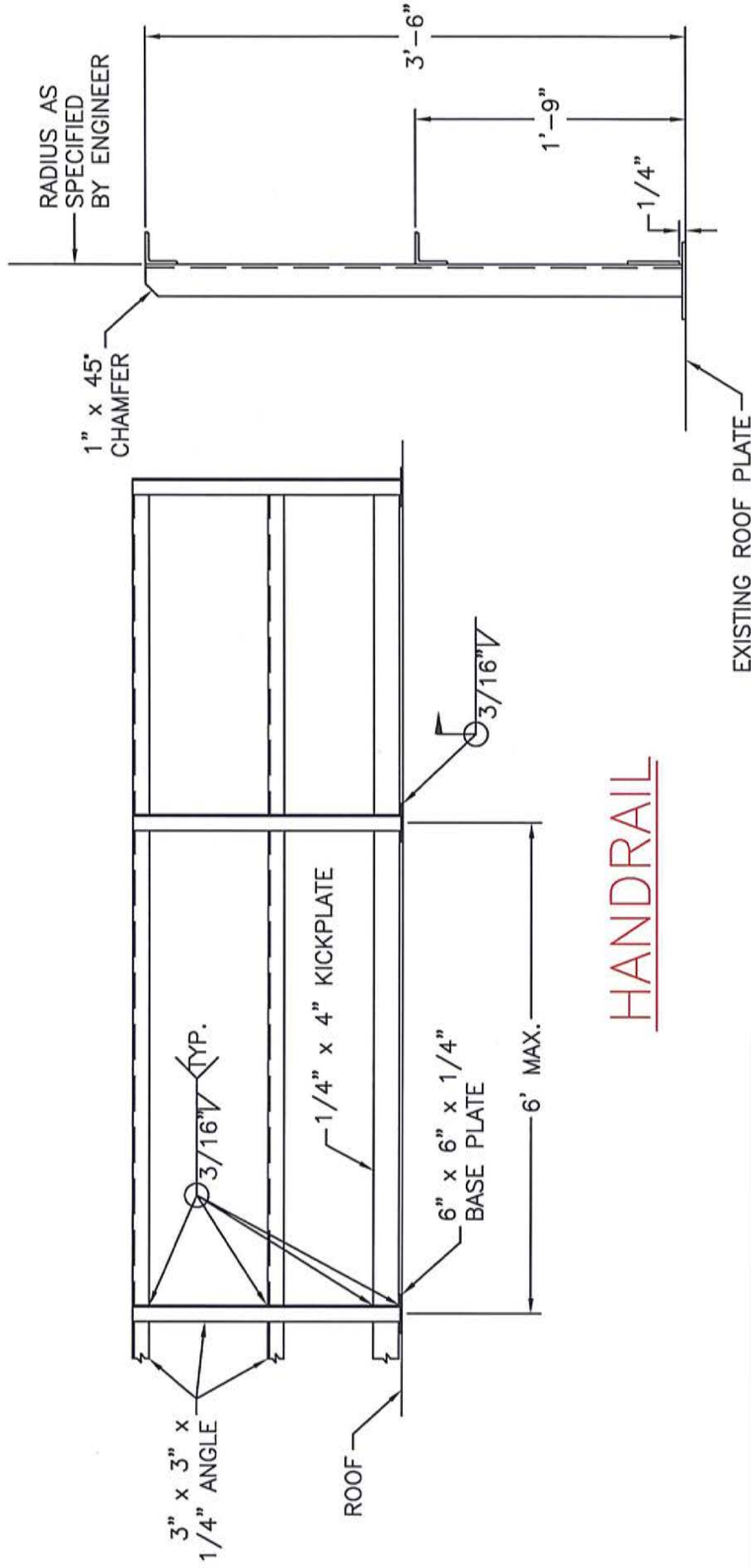
St. Charles, IL 300,000 Spheroid

Cathodic Cover

File Name: cathodiccover.dwg

Drawn By: TMF Date: 04/18/19

Checked By: WJD DWG: 11



HANDRAIL

NOTES:

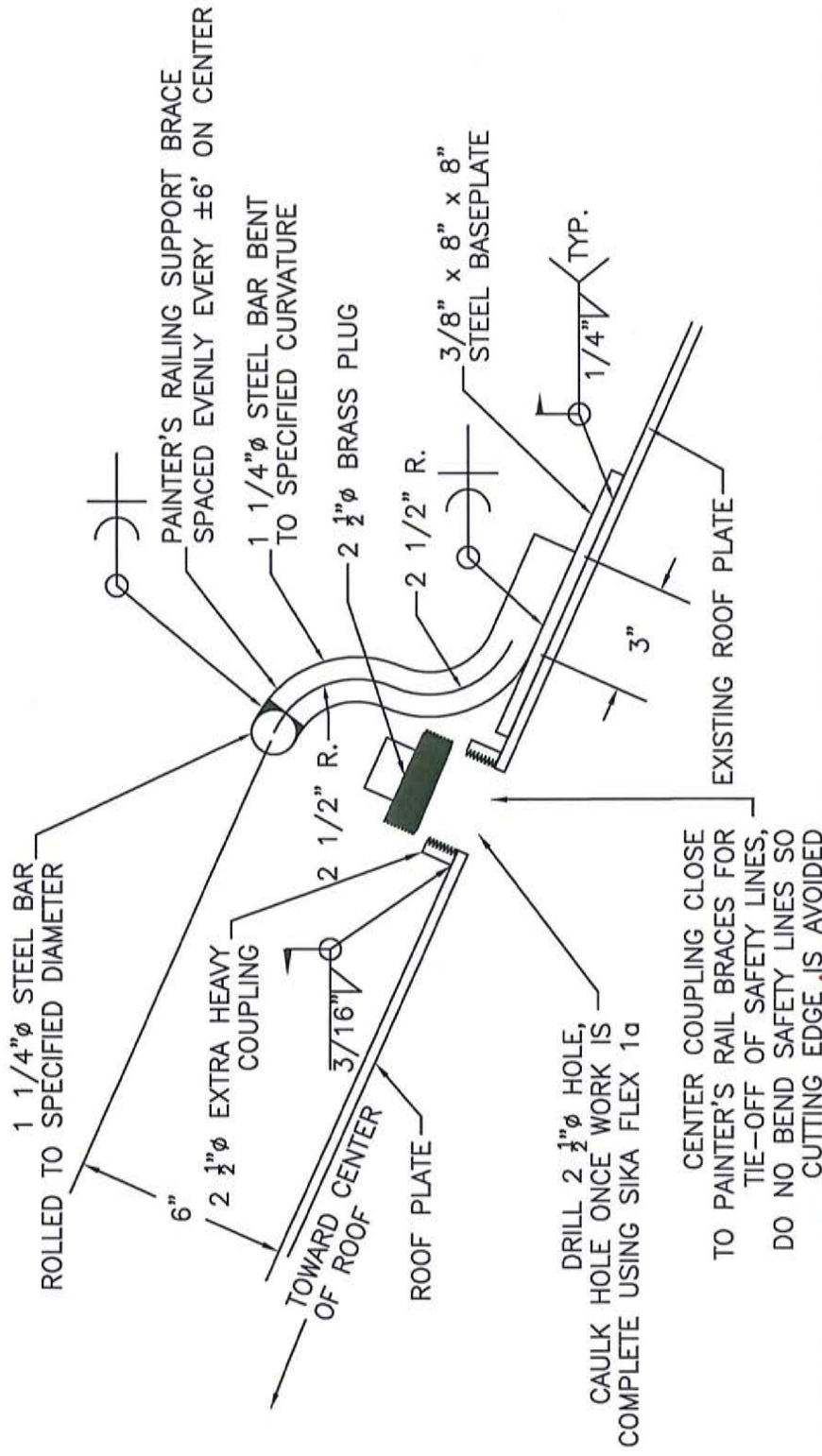
1. HANDRAIL AND POST ARE TO BE CONSTRUCTED OF 3" x 3" x 1/4" STRUCTURAL STEEL ANGLE. POST BASE PLATES SHALL BE 6" x 6" x 1/4" STEEL PLATE. MIDRAIL SHALL BE 3" x 3" x 1/4" STRUCTURAL STEEL ANGLE. ALL WELDS SHALL BE 3/16" CONTINUOUS FILLET WELDS; ALL AROUND.
2. SPACING BETWEEN MOUNTING PADS SHALL NOT EXCEED 6'. IT MAY BE NECESSARY TO USE MORE THAN THE NUMBER OF PADS SHOWN.
3. CONSTRUCT THE HANDRAIL IN THE SHOP THEN MODIFY IN THE FIELD.

CONCEPTUAL DESIGN ONLY

NOTE:
PROVIDE STRUCTURAL DRAWINGS AND CALCULATIONS SEALED BY A STRUCTURAL ENGINEER IN THE STATE OF ILLINOIS.

Note: Drawing Not to Scale.

DIXON ENGINEERING, INC.	
St. Charles, IL 300,000 Spheroid	
Roof Handrail	
File Name: handrail.dwg	
Drawn By: TMF	Date: 04/18/19
Checked By: WJD	DWG: 12a



ROOF PAINTER'S RAIL WITH RIGGING COUPLINGS

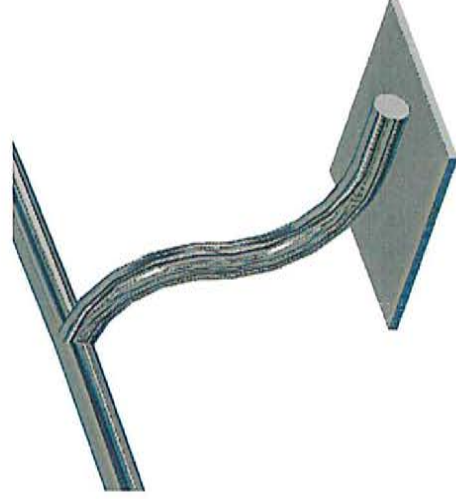
NOTE:

1. PROVIDE COUPLING AT PAINTER'S RAIL BRACES (ONE AT EVERY OTHER BRACE).
2. ALL WELDED CONNECTION POINTS FOR THE 1 1/4" ROLLED STEEL BAR MUST BE COMPLETED AT A PAINTER'S RAIL BRACE.
3. THREADED CONNECTIONS ARE TO BE SEALED WITH PIPE JOINT COMPOUND (OATEY GREAT WHITE OR APPROVED EQUAL).

CONCEPTUAL DESIGN ONLY

NOTE:

PROVIDE STRUCTURAL DRAWINGS AND CALCULATIONS SEALED BY A STRUCTURAL ENGINEER IN THE STATE OF ILLINOIS.



ISO VIEW

Note: Drawing Not to Scale.



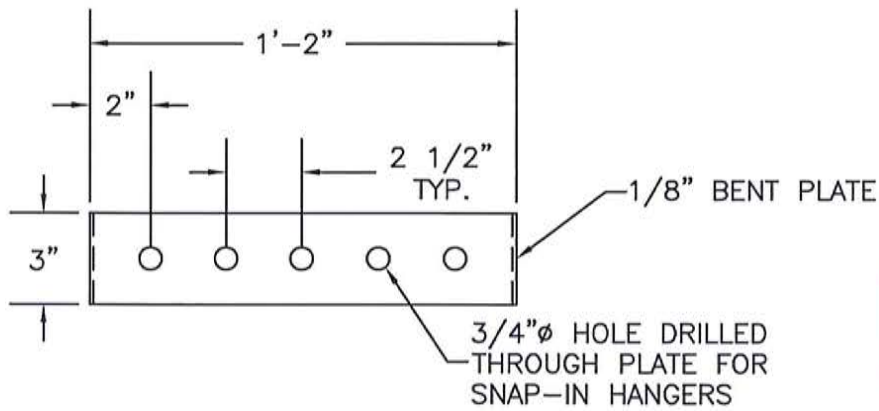
St. Charles, IL 300,000 Spheroid

Painter's Rail

File Name: painter_rail.dwg

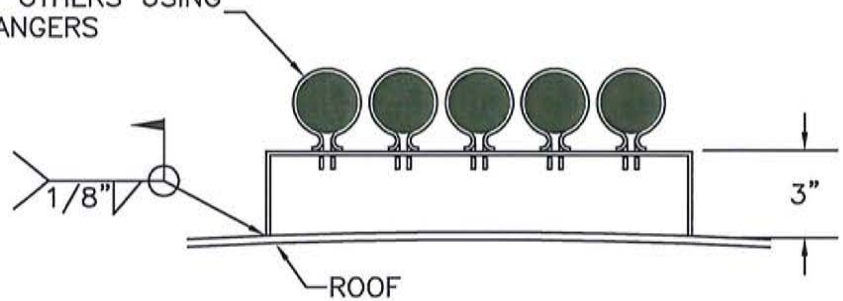
Drawn By: TMF Date: 04/18/19

Checked By: WJD DWG: 12b

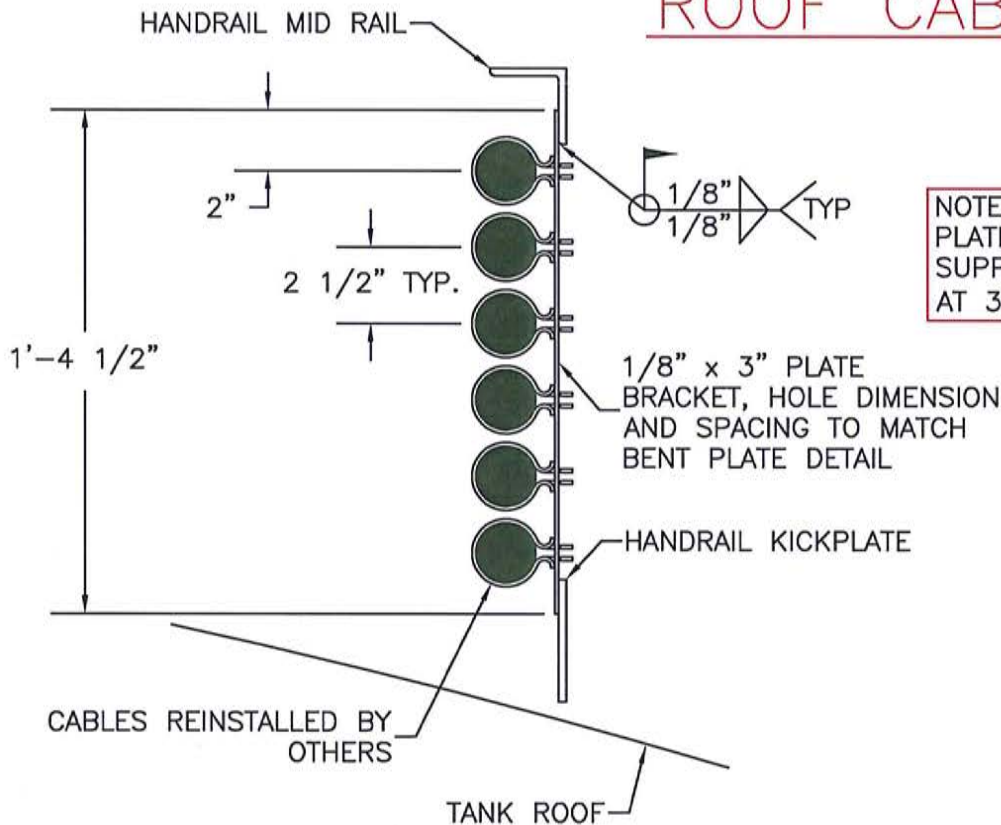


ROOF COAX PLAN VIEW

CABLES INSTALLED BY OTHERS USING ANDREWS SNAP-IN HANGERS



ROOF CABLE SUPPORT



CABLE ROUTING ON HANDRAIL

Note: Drawing not to scale.



St. Charles, IL 300,000 Spheroid

Antenna Cable Routing

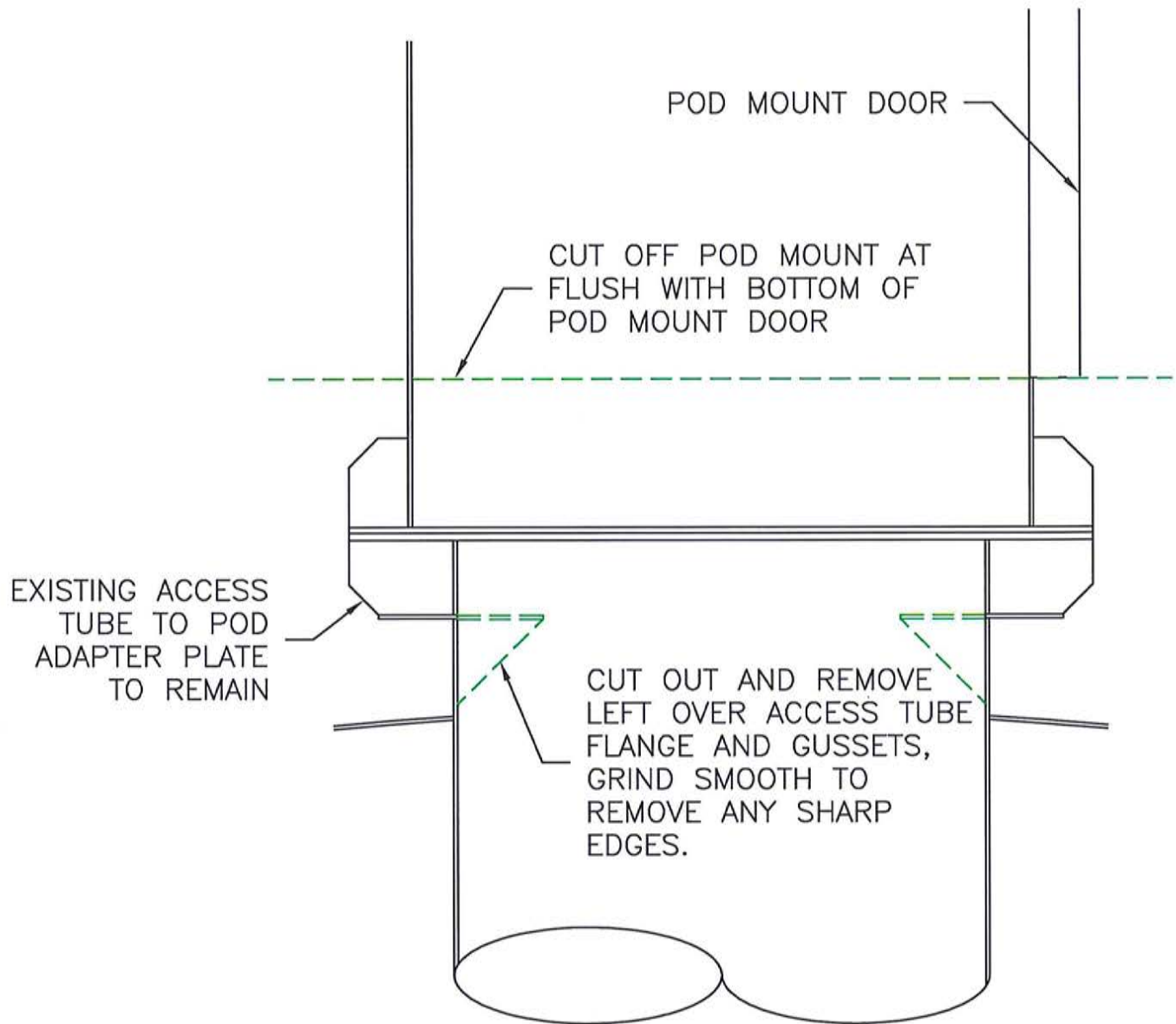
File Name: resroofrail.dwg

Drawn By: TMF

Date: 04/18/19

Checked By: WJD

DWG: 13



POD MOUNT CUT LINES

Note: Drawing not to scale.



St. Charles, IL 300,000 Spheroid

Pod Mount Removal

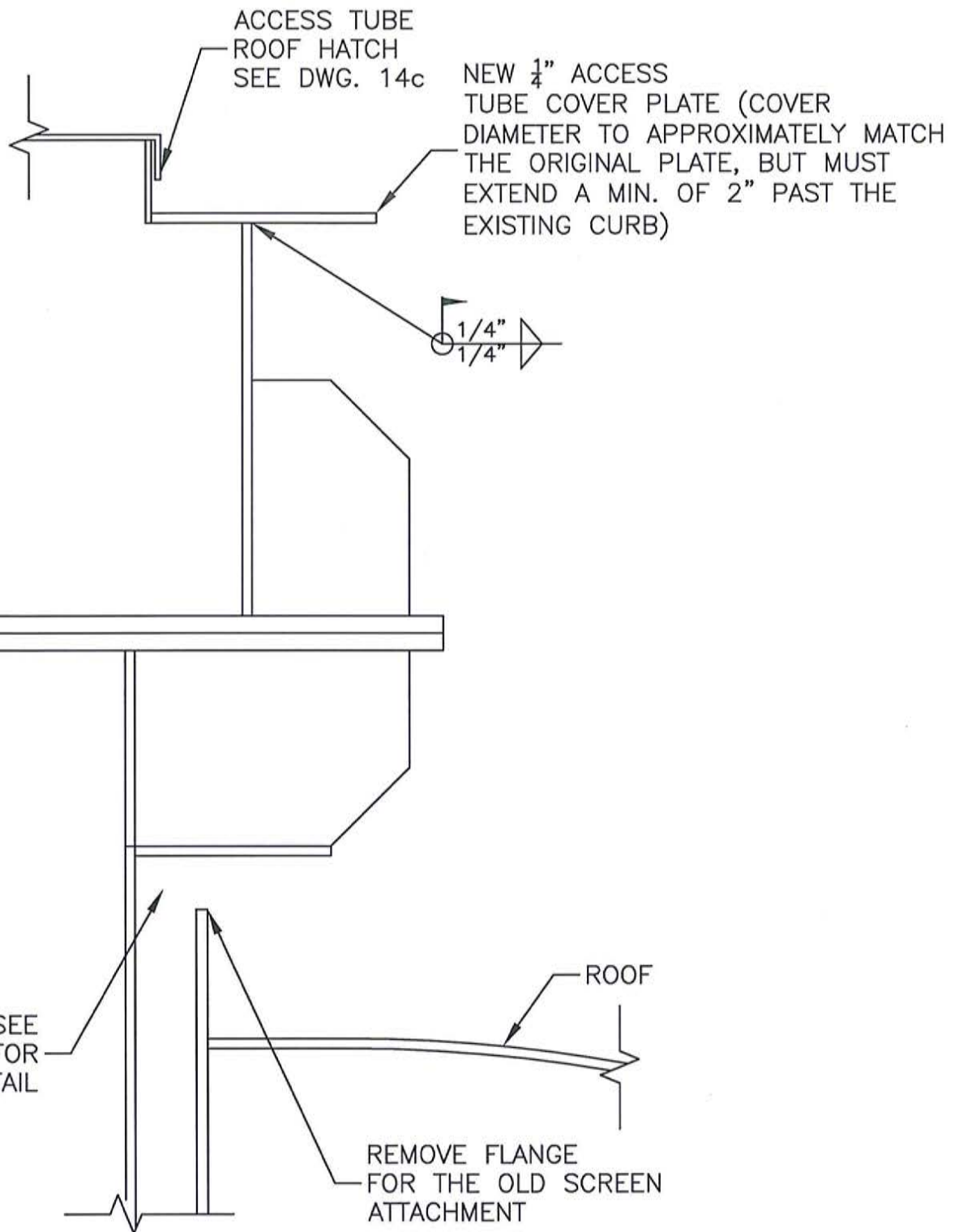
File Name: accesstube.dwg

Drawn By: CMK

Date: 04/25/19

Checked By: WJD

DWG: 14a

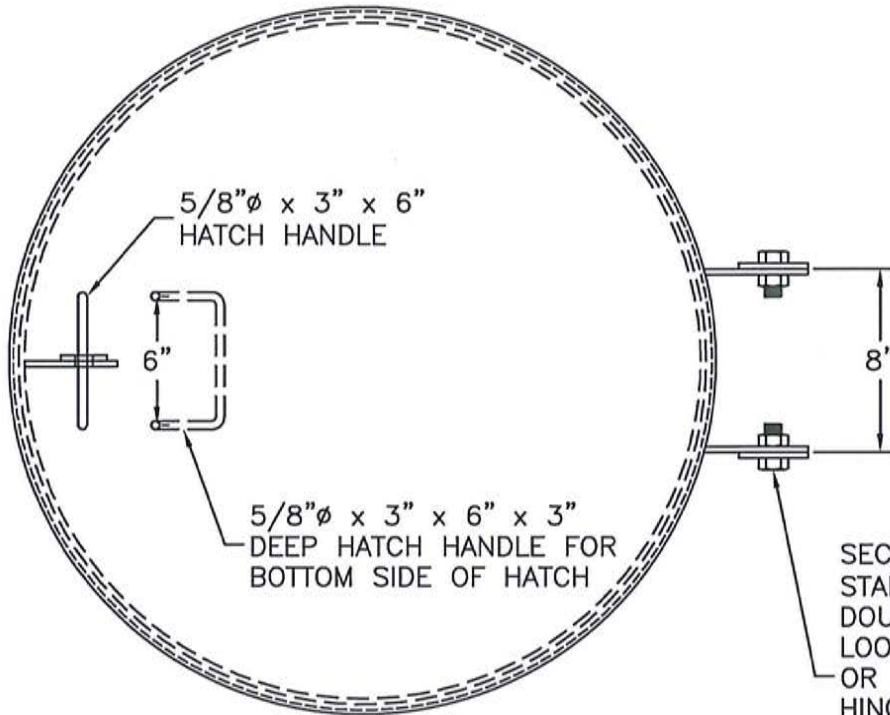


NEW ACCESS TUBE COVER

Note: Drawing not to scale.

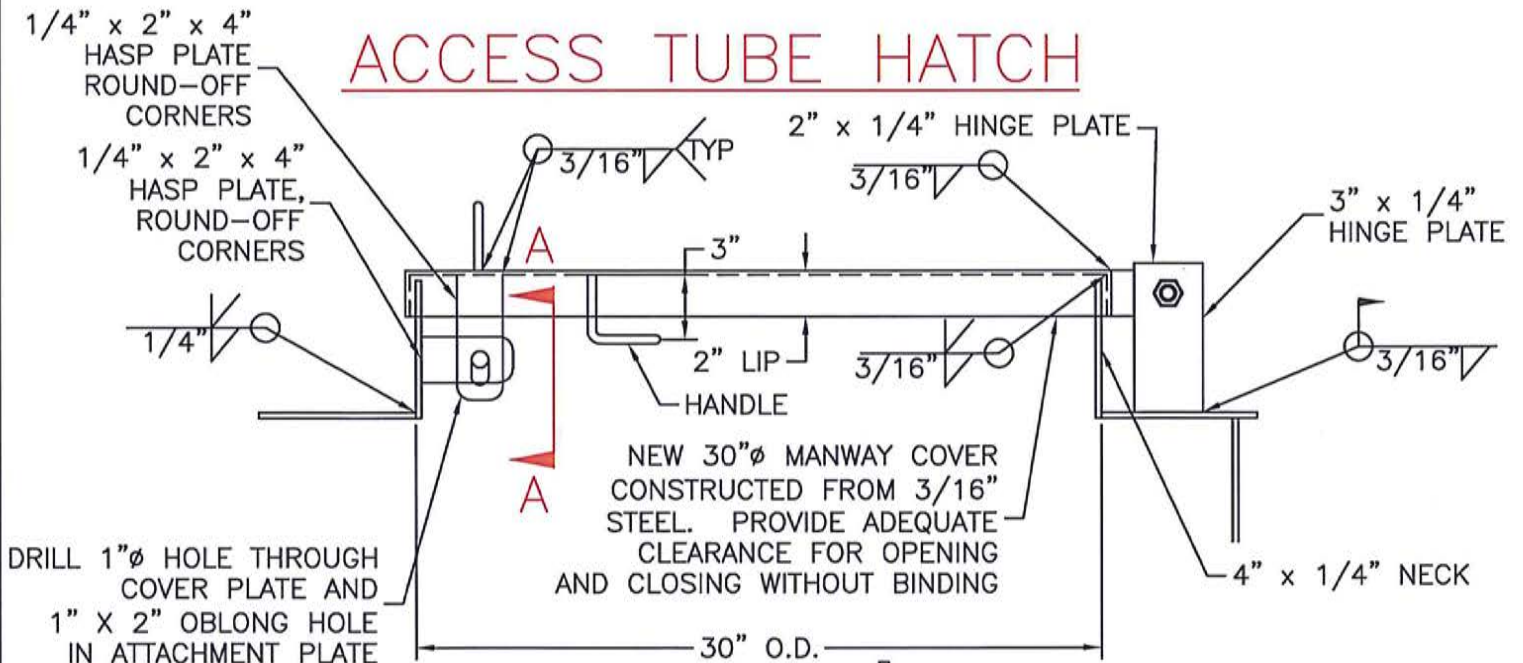
DIXON ENGINEERING, INC.	
St. Charles, IL 300,000 Spheroid	
Access Tube Cover Plate	
File Name: ATcoverplate.dwg	
Drawn By: TMF	Date: 04/18/19
Checked By: WJD	DWG: 14b

3/4"ø x 3" x 16"
HAND HOLD, LOCATE
ON LADDER SIDE



SECURE HINGES WITH 3/4"
STAINLESS STEEL BOLTS AND
DOUBLE NUT TO PREVENT
LOOSENING. PROVIDE A PVC
OR PLASTIC WASHER BETWEEN
HINGES TO PREVENT PAINT
DAMAGE BY RUBBING. TENSION
ON BOLT SHALL ALLOW EASY
MOVEMENT OF COVER

ACCESS TUBE HATCH



DRILL 1"ø HOLE THROUGH
COVER PLATE AND
1" X 2" OBLONG HOLE
IN ATTACHMENT PLATE

NOTES:
LOCATION OF MANWAY TO BE
DETERMINED BY THE ENGINEER

CHAIN WELDED TO ACCESS TUBE,
LEAVE SLACK FOR EASY ATTACHMENT

3/8"ø EYE BOLT
WITH NUT

HASP PLATE

SECTION A-A

Note: Drawing Not to Scale.

DIXON
ENGINEERING, INC.

St. Charles, IL 300,000 Spheroid

30" Access Tube Hatch

File Name: 30AThatch.dwg

Drawn By: TMF

Date: 04/18/19

Checked By: WJD

DWG: 14c

EXISTING GUSSET PLATES

NEW ACCESS TUBE HATCH
SEE DWG. 14c

NEW ACCESS TUBE FLANGE PLATE
1/4" THICK. FIELD VERIFY DIAMETER
REQUIRED TO OVERLAP EXISTING POD
WALL PLATE BY 1" ALL AROUND

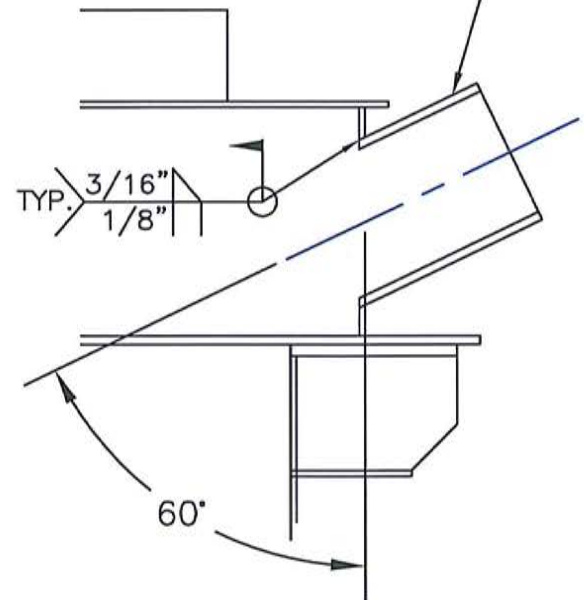
NEW PENETRATIONS TYP. OF (5)
THROUGH SIDE OF EXISTING POD
WALL PLATE BETWEEN EXISTING
GUSSET PLATES SEE PENETRATION
DETAIL

6"Ø SCH. 40 x 9" LG. STEEL PIPE,
TYP. OF (5), PIPE TO BE CUT FLUSH
ON INSIDE OF THE ACCESS TUBE,
REMOVE SHARP EDGES WITH GRINDER

NEW ACCESS TUBE FLANGE PLATE
1/4" THICK. FIELD VERIFY DIAMETER
REQUIRED TO OVERLAP EXISTING POD
WALL PLATE BY 1" ALL AROUND

NEW ACCESS TUBE
HATCH SEE DWG. 14c

1/4"
1/4"



PENETRATION DETAIL

ACCESS TUBE PENETRATIONS

Note: Drawing not to scale.



St. Charles, IL 300,000 Spheroid

Antenna Cable Penetrations

File Name: accesstube.dwg

Drawn By: CMK

Date: 04/25/19

Checked By: WJD

DWG: 14d

SECTION 09 97 13

STEEL COATING

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Painting of steel structures.
- B. Interior cleaning and disinfection.

1.02 REFERENCES

- A. AWWA Standards:
 - 1. D102 – 17 Painting Steel Water Storage Tanks.
 - 2. C652 – Disinfection of Water Storage Facilities.
 - 3. C655 – Field Dechlorination.
- B. NSF/ANSI
 - 1. NSF/ANSI 61

1.03 WORK INCLUDED

- A. Exterior: Apply a four (4) coat zinc epoxy urethane system. The bowl is to be topcoated with a fluorourethane.
- B. Wet Interior: Apply a three (3) coat zinc epoxy system, apply a polyurethane caulk to the roof lap seams.
- C. Dry Interior: Apply a three (3) coat epoxy system to the access tube and a spot two (2) coat epoxy system to the rest of the prepared surfaces.
- D. Pit Piping: Apply a two (2) coat epoxy system.

1.04 EXISTING CONDITIONS

- A. Exterior: Urethane system tested for lead at 0.06% and chromium at 0.0054% by weight.
- B. Wet Interior: Presumed to be an epoxy system. The system tested for lead at 0.31% and chromium at 0.0090% by weight.
- C. Dry Interior: Presumed to be an epoxy system. The system tested for lead at 0.48% and chromium at 0.0025% by weight.
- D. Pit Piping: Unknown coating system, should be treated as lead bearing.

1.05 TERMINOLOGY

- A. Wet Interior: Internal surfaces, excluding inaccessible areas, to the roof, shell, bottom, accessories, and appurtenances that are exposed to the stored water or its vapor. Examples are the interior of the roof, sidewall, bowl, and exterior of the access tube within the tank.

- B. Dry Interior: Surfaces of the finished structure, excluding inaccessible areas that are not exposed to the elemental atmosphere or the stored water or its vapor. Examples are the interior of the access tube, interior of the riser, and underside of the bowl above the riser.
- C. Exterior: External surfaces, excluding inaccessible areas, of the roof, sidewall, riser, accessories, and appurtenances that are exposed to the elemental atmosphere.
- D. Inaccessible Areas: Areas of the finished structure that, by virtue of the configuration of the completed structure, cannot be accessed to perform surface preparation or coating application (with or without the use of scaffolding, rigging, or staging). Inaccessible areas include such areas as the contact surfaces of roof plate lap joints, underside of roof plates where they cross supporting members, top surface of rafters directly supporting roof plates, contact surfaces of bolted connections, underside of column baseplates, contact surfaces of mating parts not intended to be removed or disassembled during routine operation or maintenance of the structure and inside of risers less than a nominal 36 in. diameter.
- E. Sidewall: Vertical walls to the weld seam of the roof.
- F. Access Tube: Cylindrical tube extending from top of the riser to the roof through the tank, including all steel appurtenances (i.e. ladder, overflow pipe, brackets, etc.)
- G. Condensate Platform: Platform that covers entire area of the dry riser, and used to collect and stop condensation from entering the base-bell area or bottom of the riser.
- H. Top Platform: Landing area directly under tank's access tube.
- I. Basebell: Conic surfaces supporting the riser.
- J. Roof: Very top of the structure, including top seam of sidewall.
- K. Bottom: Lower area of the tank proper shaped like a bowl.
- L. Riser: Center support.

1.06 OMISSIONS or INCIDENTAL ITEMS

- A. It is the intent of these specifications to coat the structure for the purpose of corrosion protection on wet interior surfaces. It is the intent to coat the exterior for corrosion protection and aesthetics.
- B. Any small or incidental items not specifically detailed in the schedule, but obviously a part of the work are included in the work at no additional cost to the owner.
- C. Engineer, as interpreter of the specifications, will determine if disputed items fall under this category. Prevailing custom and trade practices will be considered in this determination.

1.07 SUBMITTALS

- B. Submit the following with your annual prequalification:
 - 1. Occupational Safety and Health Programs and certification that all site personnel have been trained as required by law.

- C. Submit the following ten (10) days prior to the preconstruction meeting:
 - 1. Safety Data Sheets (SDS) and Product Data Sheets:
 - a. Furnish from all suppliers Safety Data Sheets and product data sheets for all applicable materials including, but not limited to, paints, thinners, cleaners, degreasers, and abrasive materials.
 - b. Provide for employees one (1) copy of all data sheets at the job site for employee access.
 - c. Provide one (1) hard copy and an electronic copy to the engineer.
 - d. No work may commence without the complete filing. All SDS shall conform to requirements of SARA (EPCRA) Right-to-Know Act.
 - 2. Ventilation Design Plan. Include airflow calculations and model, and number of fans.
 - 3. Dehumidification/Heat Design Plan. Include airflow calculations, model, number of units used, connection details, and power source.
 - 4. Fall Prevention Plan and Site Specific Fall Hazard Evaluation:
 - a. Site specific plan to contain a generic drawing of the existing structure and appurtenances of this structure and reflect safety changes specified for this project.
 - b. Certifications for all spiders, scaffolding, stages, etc. to be used on the project. All certifications to be current, less than one year old.
- D. Submit the following at the preconstruction meeting:
 - 1. Designated OSHA Competent Person and qualifications, if not previously submitted.
- E. Submit the following within two (2) weeks of project completion with final pay request:
 - 1. Waste manifest, waste hauler and disposal facility. Required only if waste is hazardous.
 - 2. Waivers of lien.
 - 3. Copies of any formal worker safety or environmental citations received on the project.

1.08 OWNER RESPONSIBILITY

- A. Drain the structure with seven (7) days notice, after contractor meets all precedent conditions of the contract.
- B. Fill the tank and draw samples and test after chlorination; responsibility of good results remains with the contractor. Poor test results could result in added costs to contractor, including rechlorination, cost of water, plus possible liquidated damages.

1.09 WARRANTY

- A. Within thirteen (13) months from the date of substantial completion, the structure will be inspected by the owner and/or their representative.
- B. The inspection will be performed in accordance with the applicable portions of AWWA D-102-17 Standard for Painting Steel Water Storage Tanks and industry standards.
- C. The owner will establish a date of inspection and shall notify the contractor ten (10) days in advance. The contractor's attendance will not be required.
- D. The owner will select a third party inspection firm (either engineer or project representative) to document inspection. Contractor shall be notified in advance by the Engineer, the contractor waives all rights to dispute findings if not present for the inspection.
- E. Any failed work will be documented and the contractor will be notified of necessary repair (method and extent). The owner reserves the right to require inspection of the repair work and a second warranty inspection, dependent on degree of failure.
- F. This warranty will automatically be extended until the tank is ice-free (if applicable) and the warranty inspection can be performed. The contractor guarantees that the system is free from defects due to faulty materials or workmanship and the contractor shall make the necessary correction to correct these defects. If the amount of repair work exceeds ten percent (10%) of the quantity of any individual line item, then the owner reserves the right to have the warranty period extended one (1) year for the entire line item.
- G. Cost for the one (1) year warranty inspection will be the responsibility of the owner.
- H. Cost for a second warranty inspection and repair inspections will be the responsibility of the contractor and guaranteed by Contractor's Performance Bond and Maintenance Bond.
- I. The owner retains all contractual remedies. The warranty shall not be considered an exclusive remedy.

1.10 DELIVERY and STORAGE of MATERIAL

- A. Submit manufacturer's invoice, with or without paint cost, to the engineer for review. This submittal will be used to identify the quantity of paint recommended by the manufacturer for a job of this size and design, and will be used to check the quantity actually delivered to the project.
- B. Cover bulk materials subject to deterioration because of dampness, weather, or contamination, and protect while in storage.
- C. Maintain materials in original, sealed containers, unopened and with labels plainly indicating the manufacturer's name, brand, type, grade of material, and batch numbers.

- D. Remove from the work site containers that are broken, opened, water marked, and/or contain caked, lumpy, or otherwise damaged materials. They are unacceptable.
- E. Store the material in a climate controlled designated area where the temperature will not exceed the manufacturer's storage recommendations. Heat the storage area to the manufacturer's recommended minimum mixing temperature.
- F. Keep equipment stored outdoors from contact with the ground, away from areas subject to flooding, and covered with weatherproof plastic sheeting or tarpaulins.
- G. Store all painting materials in a location outside the structure.
- H. Do not store or have on-site unapproved material, material from different manufacturers, or materials from different projects.

1.11 ACCESS and INSPECTOR SAFETY

- A. Provide access to all portions of the project where work is being completed. Access must be close enough and secure enough to allow inspector to use inspection equipment without extensions.
- B. Provide personnel to assist with access and to ensure contractor's access equipment is safely used.
- C. Provide separate fall protection devices and safety lines for the owner and inspectors. Limit fall to 5 ft. vertically.
- D. New safety tie-off points have been added as part of this project, see Section 05 00 00 Metal Repairs. Tie-off points are located on the roof for interior safety. Do not rig equipment from these points. Provide separate fall protection cables and safety grabs for each tie-off point.
- E. These specifications require the contractor to supply a separate fall protection cable and safety grab for each tie-off point for the inspector's use. The contractor is encouraged to provide a separate cable and tie-off for each worker. The cables may be connected to the same tie-off point as the inspector's, but a separate cable and safety grab are required for each user.

1.12 INSPECTION and TESTING

- A. Prior to the scheduled inspection, remove all dust, spent abrasive, and foreign material from the surface to be coated.
- B. The contractor is to furnish an instrument for measuring the wet film thickness, and also a calibrated instrument for measuring dry film thickness of each field coat of paint. The dry film thickness testing gauge shall be the magnetic type as manufactured by Elcometer Co., or the Nordson Gauge Co.; spring loaded model with two percent (2%) accuracy margin over a range of one-to-twenty-one (1-21) mils or equal.
- C. The engineer will furnish and operate inspection equipment for their own use as quality assurance.

- D. Certify to the owner that the specified paint has been applied at the paint manufacturer's recommended coverage, and to the specified thickness required. Also, certify that the paint has been applied in accordance with this contract.
- E. Take all necessary steps, including dry striping by brush or roller, to ensure a holiday-free coating system.
- F. The owner reserves the right to perform low voltage holiday tests on all areas including the pit piping, and exterior. The wet interior and dry interior coatings are subject to low voltage holiday testing.
- G. The owner and engineer reserve the right to perform destructive testing under conditions deemed necessary. Testing may include, but is not limited to, the Tooke thickness test and adhesion testing. Any damage caused by these tests will be corrected to specifications at the contractor's expense.

1.13 CLIMATIC CONDITIONS

- A. Do not apply paint when the temperature, as measured in the shade, is below the manufacturer's required ambient and surface temperatures.
- B. Do not apply paint to wet or damp surfaces, or during rain, snow, or fog.
- C. Do not apply paint when it is expected the relative humidity will exceed 85%, or the surface temperature is less than 5° above dew point, or the air temperature will drop below the manufacturer's requirements for proper cure. Anticipate dew or moisture condensation, and if such conditions are prevalent, delay painting until the inspector is satisfied the surfaces are dry.

1.14 APPLICATION

- A. Complete all painting and surface preparation in strict accordance with these specifications, approved paint manufacturer's specifications, and good painting practices per SSPC.
- B. Apply each coating at the rate and in the manner specified by the manufacturer. Check the wet film thickness every 200 sq. ft. to ensure each coat applied meets the dry film thickness range requirements.
- C. Allow sufficient time for each coat of paint to dry and cure. Allow a minimum of twenty-four (24) hours between coats, unless product requirements have a maximum time less than 24 hours.
- D. Apply exterior coating by brush and roller only. Spray application is not permitted without prior approval of the engineer. Even with prior approval, responsibility for damage still remains with the contractor.
- E. Painting may be delayed because of poor coverage or the potential damage from overspray and/or dry spray. In all cases, responsibility for damages rests with the contractor.

- F. The contractor is responsible for the appearance of the finished project, and is warned to prevent contact with any freshly applied coating. Removal of rigging shall be completed so not to mar or damage the coating.
- G. Coatings shall be applied using methods to eliminate roller or spray marks in the finished product on the exterior.
- H. Stripe the wet interior, the dry interior platforms at the outer edge, the access tube, and the bowl/transition cone, in the dry interior prior to application of final coat.
- I. Additional coats required for coverage or to eliminate roller marks, spray marks and to repair dry spray and overspray are the responsibility of the contractor at no additional cost to the owner.
- J. Use of pole extension on spray guns is prohibited for all paint application.
- K. Mixing of partial kits is not permitted. All partial cans of coating must be removed from the site.
- L. Mixing blades to be clean. The engineer has the right to reject mixing blades based on cleanliness or paint build-up. Do not use the same mixing blade for different coatings (i.e. epoxy and urethane coatings).

1.15 PRESSURE RELIEF VALVES

- A. Furnish two (2) pressure relief valves.
- B. The valves shall be Aquatrol series 69F1 or approved equal.
- C. Valves will need to be fitted with hydrant thread adaptor. Valves to be adjustable with range a minimum of 30 to 90 psi. Set valve at 60 psi.
- D. Supply three (3) days prior to draining of the structure.
- E. After work to the structure and successful disinfection have been completed, the owner will return the valves to the possession of the contractor.
- F. Cost shall be incidental to project cost.

PART 2 – PRODUCTS

2.01 COLOR

- A. Exterior Coatings:
 - 1. Supply the engineer with a color chart to allow the owner ample time for the exterior topcoat color selection.
 - 2. Factory tint the intermediate coat(s) for all areas of the structure if similar to the finish coat. Tinting shall be sufficient to allow visibility of the dissimilar color from 1 ft., and from 100 ft.
 - 3. After evaluating the bids, the owner shall select the color. All bids shall be based on Tnemec color “Tnemec White.”
- B. Wet Interior and Dry Interior Coatings:

1. The color is to be a different tint between coats. Tinting to be performed in the factory.

2.02 SUBSTITUTIONS

- A. All coatings specified and approved herein have met or exceeded a specified list of ASTM standards. The materials specified are the standard to which all others shall be compared.
- B. The purpose is to establish a standard of design and quality, and not to limit competition.
- C. Other manufacturers wishing to have their products approved have also had their coatings tested using the same representative of Dixon Engineering, Inc., and the same test methods.
- D. Approval by ANSI/NSF Standard 61 is also a requirement for potable water contact coatings.
- E. The selection of coatings also has taken into consideration the manufacturer's current and past performance on availability, stocking, and shipping capabilities, ability to resolve disputes, and any applicable warranties.

2.03 DEHUMIDIFICATION and HEATING – WET INTERIOR

- A. Supply dehumidification/heating units capable of maintaining dew point temperature lower than 15° below surface temperature during blasting and lower than 5° during coating application and cure, and steel temperature maintained above the manufacturer's printed requirements.
- B. Supply a dehumidifier designed with a solid desiccant having a single rotary desiccant bed capable of continuous operation, with full automatic operation. Do not use liquid desiccant, granular, or loose lithium chloride drying systems. Refrigerant systems may be used in conjunction with desiccant units.
- C. Plumbing, noise control, insulation, venting, and all incidental items needed to provide proper ambient conditions shall be included as one package.
- D. Supply and maintain a power source for the dehumidifier and heater, unless otherwise specified.

2.04 DUST COLLECTORS – AIR FILTRATION UNITS

- A. Furnish and use a dust collector during all interior blasting work.
- B. Units to be equal in filtration capacity to Eagle Industries dust collectors. Other units may be used, but their substitution will be evaluated on efficiency at 0.5 micron size and airflow movement.
- C. Use 20,000 CFM minimum for wet interior and dry interior work.

- D. Substitution of steel grit blasting may decrease the requirements above. New requirements will be defined by the engineer based on the efficiency of the contractor's equipment.
- E. Furnish HEPA filters for dust collection.
- F. Number of dust collectors shall be sufficient to supply a 50 ft./minute downward draft at most areas. An average may be considered. Determination of actual containment plan will be the deciding factor. Calculations of airflow shall be included in the containment submittal.
- G. Use only new filters or filters certified clean.

2.05 GROUND TARPS

- A. Use impermeable ground tarps, 20 mils thick.
- B. Use ground tarps able to withstand the anticipated construction traffic without tearing or separating.

2.06 EQUIPMENT COVERING

- A. Use material that is 8 – 10 mils thick, and 100% impermeable to all vulnerable equipment.
- B. Use material resistant to tear and/or rip by mechanical action from abrasive blasting during blasting operations.
- C. Make coverings airtight by use of duct tape at the openings, or other suitable measures.
- D. Meet with representative of equipment owner to verify covering will not damage equipment. Damage is the contractor's responsibility. This includes not only the owner's equipment, but also telecommunication antennas, cables, buildings, controls, etc.

2.07 AIR DRYER for COMPRESSOR

- A. Use air dryers sufficient to remove 98% of the moisture from the compressed air. Size the dryers on total cfm using manufacturer supplied charts. Upon request, supply charts to engineer for verification.
- B. If the dryer fan is not operable, cease all blasting until the dryer is replaced or repaired.
- C. Supply air dryer with an air draw-off valve to check air for dryness, oil contamination, and cleanliness on the outlet side of the air dryer.
- D. For cleaning operations, draw clean air from the outlet side of the air dryer.

PART 3 – EXECUTION

3.01 DISINFECTION

- A. Disinfect the completely painted structure in accordance with AWWA Standard C652 Chlorination Method No. 3.
- B. Furnish the material and labor necessary to disinfect the structure in the required manner. Assist owner during filling.
- C. Do not allow water to enter the distribution system until satisfactory bacteriological test results are received.
- D. Owner is responsible to collect two consecutive bacteriological samples, 24 hours apart, following disinfection. Satisfactory results are required before the tank can be returned to service.
- E. Water drained to waste may not contain any substances in concentrations that can adversely affect the natural environment. No total residual chlorine may be measured in water discharged to surface water. It is recommended that the water be dechlorinated per AWWA C655F Field Dechlorination.
- F. Pay all additional expenses if it is necessary to repeat the testing and disinfection procedure as a result of defective work.

3.02 PROTECTION of NON-WORK AREAS

- A. Protect all non-blasted/painted surfaces prior to all abrasive blast cleaning/painting.
- B. Thoroughly cover the fill/drain pipe, overflow pipe, and all other openings. Do not permit abrasive or paint chips to enter into the piping or distribution system. Use watertight seals on the pipes.
- C. Protect and seal all controls and electrical components (even if they are not in the immediate work area) that are in danger from the project. Coordinate with the owner so all controls are shut down and/or vented if necessary.

3.03 ANTENNA REMOVAL

- A. There are 11 antennas mounted on the roof. The number of antennas listed are from the last known condition.
- B. The antennas and cables are to be removed by the owner prior to the start of the project and reinstalled after coating is completed.
- C. All welded brackets will remain in place for the contractor to surface prepare and paint.
- D. Any galvanized or stainless steel materials are to be removed by the antenna carrier prior to tank surface preparation and reinstalled by the antenna carrier after the topcoat is dry to the touch.
- E. All previously coated items are to be removed surface prepared, coated and reinstalled with the original brackets after the topcoat is dry to the touch.
- F. Cost is incidental to the project.

3.04 DEHUMIDIFICATION/HEATING

- A. Control the environment with dehumidification equipment twenty-four (24) hours a day during blast cleaning, coating operations, and 48 hours after the topcoat (including holiday touch-ups and repairs are performed) as a minimum to maintain ambient conditions until cure completion.
- B. Supply sufficient dry air to assure the air adjacent to surfaces to be abrasive blast cleaned or coated does not exceed minimum required humidity at any time during the blasting, coating, or curing cycle.
- C. Monitor and record ambient conditions twenty-four (24) hours a day throughout abrasive blast cleaning and painting work (use Polygon Exact Aire, DRYCO ClimaTrack, DH Tech HOB0U30 data logger, or approved equal). Monitor to be capable of being programmed with condition parameters and of alerting contractor, engineer and owner via phone or e-mail of condition or equipment failures.
- D. Contractor to manually test interior ambient conditions three (3) times a day, or more often with rapid weather changes. Record daily readings. Adjust or add equipment as required to maintain steel temperatures, dew point, and humidity. (This is in addition to the monitor with recorder noted above).
- E. Use a minimum 2,000 CFM dehumidification capacity for all wet interior work.
- F. Surround the units with noise suppressant enclosures, unless units are sound attenuated or have noise suppressants. More extensive enclosure requirements are required in residential areas where the machines must run all night. Noise suppressant level needed will depend on the size of the dehumidification units, their efficiency, and their locations. Provide noise suppressant enclosures of sufficient height and thickness to lower noise to an acceptable level for neighbors. Also provide noise suppressant enclosures for generators.
- G. Auxiliary heaters may be necessary to maintain the surface temperature at a level acceptable to the coating manufacturer's application parameters. The auxiliary equipment must be approved for use by the manufacturer of the dehumidification equipment and shall meet the following requirements. Auxiliary ventilation equipment and/or dust collection equipment can affect the exchange rate.
 - 1. Heaters shall be installed in the process air supply duct between the dehumidifier and the work, as close to the work as possible. Air heaters are not acceptable as a substitute for dehumidification without approval.
 - 2. Use only electric or indirect gas fired auxiliary heaters. No direct fired space heaters will be allowed during blasting, coating, or curing phase.
- H. Seal off the work, allowing air to escape at the bottom of the space away from the point where the dehumidified air is being introduced. Maintain a slight positive pressure in the work unless the dust from the blasting operation is hazardous.
- I. Where necessary to filter the air escaping the space, design the filtration system to match the air volume of the dehumidification equipment in such a way that it will not

interfere with the dehumidification equipment's capacity to control the space as described herein. Do not re-circulate the air from the work or from filtration equipment back through the dehumidifier when coating or solvent vapors are present. Outside air is to be used during those periods.

- J. Securely attach duct work to the equipment and work to minimize air loss. Design hoses with sufficient capacity and minimal bends to reduce friction loss.
- K. Dehumidification and its operating power source are incidental to the respective painting project (wet or dry interior).
- L. Set-up and operate equipment twenty-four (24) hours (or earlier) prior to start of blasting.

3.05 DUST CONTAINMENT – INTERIOR

- A. Do everything within the contractor's power to minimize dust as a nuisance.
- B. No visible dust release is allowed from roof openings and other access openings. Seal or close all openings prior to blasting (see ventilation requirements).
- C. Connect the air filtration unit directly to a manhole extension.
- D. Design the manhole extension to allow access of hoses through a side exit that is sealable after hoses are in-place. Install the air filtration unit directly to the end of the extension.
- E. Seal of the side exit will be tested by holding a smoke agent 6 in. outside the seal with the air filtration unit operating. If smoke is drawn to the seal area, additional sealing will be necessary.
- F. The contractor may reverse this operation by connecting the air filtration unit to the roof manhole and sealing around the hose. Also seal the roof vent. A sealed semi-rigid structure also may be used where employees have access through a side door. 90% of the air draw must be from the tank proper.
- G. Construct the semi-rigid structure from 8 ft. x 8 ft. x 6 ft. high scaffold framing and cover with tarps, with all edges lapped 2 ft. minimum and an overlapped entranceway.

3.06 VENTILATION REQUIREMENTS

- A. Supply mechanical ventilation sufficient to change air in the tank six (6) times each hour.
- B. In calculating air exchange, the dust collector air capacity can be considered a part of the air being changed up to 50% of ventilation requirements.
- C. Use the roof and transition cone manways with fans to move the required air.
- D. Ventilate wet interior areas a minimum of seven (7) days after completion of painting, or longer until the wet interior coating has fully cured. Maintain ventilation at the rate of two (2) complete air changes per hour. The owner reserves the right to

- perform a MEK Solvent Double Rub Test per ASTM D 4752 to verify the cure of the coating film prior to returning the tank to service.
- E. Cost of ventilation is incidental to the project.
 - F. Additional ventilation openings may have to be installed by the contractor. Submit size, details, and location(s) for approval by the owner prior to cutting any opening. All costs associated with repairs by a certified welder are incidental
 - G. Connect the air filtration unit per Section, Dust Containment – Interior. All fans at the bottom wet interior manhole may blow out into the dry interior, forcing the dust down. Zero release to the atmosphere will be permitted.

3.07 HAND WASH FACILITY

- A. Provide OSHA approved hand wash facility with running water. Hot water is not required.
- B. Stock facility with soap and towels, and keep supply replenished.
- C. Test water and dispose of properly after job is completed.

3.08 GROUND COVER during WATER CLEANING

- A. Protect the ground from contamination. Tarp at least 10 ft. from the structure's base.
- B. Lap all ground tarps a minimum of 2 ft.

3.09 LIGHTING of WORK SPACE

- A. Provide durable lighting fixtures designed for the intended work environment for use during blasting, painting, and during all inspections.
- B. Encase portable lamps in a non-conductive, shatterproof material. Use only heavily insulated cable with an abrasive resistant casing.
- C. Install all temporary electrical items in accordance with all local, state, and federal codes, including OSHA.
- D. Protect from paint overspray and damage from abrasive materials.
- E. Measure required illumination during surface preparation and coating application at the work surface. Supply 20 ft. candles minimum illumination during blasting and painting, and 30 ft. candles minimum prior to and during inspection, per SSPC-Guide 12. Inspect the prepared surface at the higher illumination prior to calling for inspection. All work must conform to specification requirements prior to the scheduled inspection.
- F. Measure the illumination at the work surface in the plane of the work.

PART 4 – SPECIAL PROVISIONS

4.01 NAMEPLATE

- A. Remove the existing nameplate, clean the area behind, and paint the same as the exterior system.
- B. Remove the existing coating from the nameplate without destroying lettering on the nameplate. Apply a clear coat to the nameplate using Rust-Oleum Automotive Clear Enamel Spray Paint or approved equal.
- C. Reattach with stainless steel fasteners or using the existing fasteners after painting has been completed.
- D. Cost is incidental to exterior coating.

4.02 SCHEDULING

- A. Complete all welding and any other work that damages the coating before paint operations begin, including surface preparation. The exception is paint removal in the weld area.
- B. If contractor wants a variance in this schedule, request the change and give reason in writing to the owner. The project manager will reply with a written Field Order if change is approved. Engineer reserves the right to put further restrictions in Field Order. If contractor objects to restrictions, he may revert to the original specifications.

4.03 GRASS RESTORATION

- A. The contractor is to report any damaged ground at the construction site in writing prior to mobilization of equipment, otherwise all repairs to the damaged ground will be the responsibility of the contractor.
- B. Refill all holes, ruts etc. with clean topsoil, and level area around the construction site to the original grade.
- C. Fill material to be clean soil, no gravel, rocks or construction debris is to be used as fill material without the owners consent.
- D. Bring soil to a friable condition by disking, harrowing, or otherwise loosening and mixing to a depth of 3 in. – 4 in. Thoroughly break all lumps and clods.
- E. Rake area to be seeded. Sow seed at a minimum rate of 220 lbs/acre. Use seed intended for the climate.
- F. Work to be completed to the owner's satisfaction.
- G. Cost is incidental to exterior painting.

SECTION 09 97 13.10

STEEL COATING SURFACE PREPARATION

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Spot/Full Field Abrasive Blasting.

1.02 REFERENCES

- A. AWWA Standards:
 - 1. D102-17 Painting Steel Water Storage Tanks.
- B. SSPC and NACE Standards:
 - 1. SP6/NACE No. 3 – Commercial Abrasive Blast.
 - 2. SP10/NACE No. 2 – Near-White Metal Abrasive Blast.
 - 3. SP11 – Power Tool Cleaning to Bare Metal.
 - 4. VIS 1 (Visual standard for abrasive blasted metal).

1.03 WORK INCLUDED – SURFACE PREPARATION

- A. Exterior: Abrasive blast clean to a SSPC-SP6 commercial standard with containment. Containment to remain on the tank during all four coats. Remove the containment and spot power tool clean to a SSPC-SP11 all rigging points and repair coating per this specification with all four coats.
- B. Wet Interior: Abrasive blast clean to a SSPC-SP10 near-white metal standard.
- C. Dry Interior: Abrasive blast clean the entire tops of the platforms (including 1 ft. up the riser wall), the access tube, transition cone and spot failures throughout to a SSPC-SP6 commercial standard.
- D. Pit Piping: Abrasive blast clean to a SSPC-SP6 commercial standard.
- E. Lead/Chrome Paint: For additional requirements see Section 09 97 13.12 Lead/Chrome Disposal.
- F. Containment: For additional requirements see Section 09 97 13.11.01.

1.04 WASTE SAMPLING

- A. Sample waste from each portion of the project and keep waste segregated. Send to a NLLAP certified lab and test for TCLP for eight (8) metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium and Silver).
- B. The owner reserves the right to collect samples and to send them to their selected lab. This will be determined at the preconstruction meeting.
- C. Pay all lab fees for eight (8) metals TCLP analysis on waste samples, total lead, chrome and cadmium on soil samples, and any subsequent testing if clean-up is warranted.

PART 2 – PRODUCTS

2.01 EXTERIOR TANK CLEANER

- A. United 727 Weather-Zyme as manufactured by United Laboratories, 320 37th Ave., St. Charles, IL 60174 1-800-323-2594.

PART 3 – EXECUTION

3.01 PRE-SURFACE PREPARATION – WET INTERIOR

- A. Low pressure water clean at 4,000 psi all surfaces and appurtenances to remove sediment, minerals, soot, and other contaminants.
- B. Staining may remain in place prior to abrasive blast cleaning, engineer to approve cleanliness.

3.02 PRE-SURFACE PREPARATION – EXTERIOR

- A. Low pressure water clean at 4,000 psi all surfaces and appurtenances to remove mildew, soot, and other contaminants.
- B. Use a biodegradable algicide for the exterior approved by the engineer.
- C. Hand wash with a higher concentration of algicide any mildew not removed by power washing.
- D. Mix algicide at level recommended by the manufacturer, but not at a level that could result in an environmental problem.
- E. Hold water jet nozzle using a 0° or 15° tip perpendicular (90° to surface) at all times. Maintain a water jet nozzle distance of 2 in. – 10 in. from the surface.

3.03 NEAR-WHITE METAL (SSPC-SP10) DRY BLAST – WET INTERIOR

- A. Abrasive blast clean all surfaces and appurtenances to a near-white metal finish (SSPC-SP10), latest edition thereof.
- B. Maintain a profile of 2.0 – 3.0 mils on abrasive blast cleaned surfaces.
- C. All interior abrasive blast cleaning is to be completed and all spent abrasive removed, and surfaces thoroughly cleaned prior to any primer application.
- D. Once an area is acceptable for painting, apply all coats and allow coating to cure to touch prior to resumption of blasting or blast the entire tank before painting, use dehumidification to hold the blast. It is the contractor's discretion and responsibility to determine if the entire tank is to be blasted, or what size is to be blasted and coated (all coats).
- E. The contractor is responsible for supplying heat and dehumidification to maintain blast conditions.

3.04 COMMERCIAL BLAST (SSPC-SP6) – EXTERIOR – PIT PIPING

- A. Abrasive blast clean all surfaces and appurtenances to a commercial finish (SSPC-SP6), latest edition thereof.
- B. Maintain a profile of 1.0 – 2.0 mils on abrasive blast cleaned surfaces.

3.05 COMMERCIAL BLAST (SSPC-SP6) SPOT – DRY INTERIOR

- A. Abrasive blast clean the entire tops of the platforms (including 1 ft. up the riser wall), the access tube, transition cone and spot failures throughout where steel is exposed or rusted, or where coating is abraded as specified to a commercial finish (SSPC-SP6), latest edition thereof.
- B. Maintain a profile of 1.0 – 2.0 mils on abrasive blast cleaned surfaces.
- C. Feather all edges of adjacent coating a minimum of ½ in. from the exposed steel with 3M Scotch-Brite Clean'n Strip discs.

3.06 HAZARDOUS WASTE DISPOSAL

- A. Contract directly with a licensed hazardous waste hauler who is properly licensed in the State of Illinois to haul hazardous material.
- B. Transport the debris for treatment to a licensed hazardous waste disposal site.
- C. The contractor will not be paid any retainage until paperwork has been submitted, including submittal of the hazardous waste manifest. Any original of the hazardous waste manifest shall be returned to the owner.
- D. Remove all hazardous waste from the site within thirty (30) days of completion of the blasting portion of the project.
- E. Payment for disposal of hazardous waste is incidental to the project.

3.07 WASTE DISPOSAL – NON-HAZARDOUS

- A. If after testing of the spent abrasive material the TCLP tests indicate the abrasive is not a hazardous waste, dispose the abrasive in a waste disposal facility.
- B. All waste shall be handled by a licensed hauler. Supply the owner with all proper documentation of the final disposal site. The actual bill of lading and all manifests will be required prior to any payment.
- C. Payment for non-hazardous waste disposal is incidental to interior or exterior painting.

3.08 WASTE DOCUMENTATION

- A. Supply proper documentation of storage, transportation, and treatment, or disposal of the waste to the owner. The owner will retain sufficient funds from the contractor to pay for hazardous waste transportation, treatment, and any possible fines until all documentation has been received. This retainage will be held, even if the waste has tested non-hazardous.

3.09 TESTING and CLEAN-UP of WASTE

- A. Daily collect all spent abrasive from the ground tarps and dispose in the required receptacles. Prior to receiving test results, spent abrasive shall be stored on ground tarps. The spent abrasive is to be covered and weighted down so no dust can be released.
- B. Furnish containers with proper labels for storage of the spent debris. Containers shall meet requirements of the EPA (or their local counterpart) for hazardous waste disposal. The spent abrasive will be moved directly from the tank into the waste containers. The containers will remain until final test results have been received. Furnishing containers with covers will be incidental to respective repaint, and will not be affected by the owner's final selection of respective interior or exterior disposal.
- C. Waste to remain on-site in covered receptacles until waste test results are received.

SECTION 09 97 13.11.01

CONTAINMENT – FLEXIBLE FRAME SYSTEM

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Flexible Frame Containment System Requirements.

1.02 REFERENCES

- A. SSPC Guides:
 - 1. Guide 6 – Containing Debris Generated During Paint Removal Operations.

1.03 SUBMITTALS

- A. Containment Plan.

1.04 ENVIRONMENTAL SAMPLING for EXTERIOR CONTAINMENT

- A. Collect four (4) pre-project soil samples, compile a map, and collect four (4) post-project soil samples. Send samples to a NLLAP certified lab and test for total lead, chrome and cadmium.
- B. Sample waste from each portion of the project, and keep waste segregated. Send to a NLLAP certified lab and test for TCLP 8 metals.
- C. The owner reserves the right to collect samples and to send them to their selected lab. This will be determined at the preconstruction meeting.
- D. Pay all lab fees for 8 metals TCLP analysis on waste samples, total lead, chrome and cadmium on soil samples, and any subsequent testing fees if clean-up is warranted.
- E. Complete all sampling in accordance with EPA protocol.

1.05 PAYMENT

- A. Payment for Section 09 97 13.11.01 Containment is incidental to exterior painting unless otherwise stated in these specifications.

PART 2 – PRODUCTS

2.01 DUST COLLECTORS – AIR FILTRATION UNITS

- A. Furnish and use a dust collector during all blasting work.
- B. Units to be equal in filtration capacity to Eagle Industries dust collectors. Other units may be used, but their substitution will be evaluated on efficiency at 0.5 micron size and airflow movement.
- C. Use 30,000 CFM minimum for containment work.

- D. Substitution of steel grit blasting may decrease the requirements of above. New requirements will be defined by the engineer based on the efficiency of the contractor's equipment.
- E. Furnish HEPA filters for dust collection.
- F. Number of dust collectors shall be sufficient to supply a 50 ft./minute downward draft at most areas. An average may be considered. Determination of actual containment plan will be the deciding factor. Calculations of airflow shall be included in the containment submittal.
- G. Use only new filters or filters certified clean.

2.02 GROUND TARPS

- A. Use impermeable ground tarps, 20 mils thick.
- B. Use ground tarps able to withstand the anticipated construction traffic without tearing or separating.

2.03 CONTAINMENT SHROUDS

- A. All shroud material and superstructure shall be non-penetrating, nylon rip-stop material manufactured by Eagle Industries, or approved equal. Approval of alternate material will be based on density, weight, support strength, stitching, reinforcement, home office experience, and staff assistance.

2.04 CONTAINMENT CONNECTIONS to TANK

- A. Steel plating and other Structural Shapes – ASTM A36.
- B. Bolts – ASTM A307.
- C. Welds – E70XX Electrodes.

PART 3 – EXECUTION

3.01 DUST CONTAINMENT – EXTERIOR

- A. Do everything within industry standards to minimize dust as a nuisance. Required procedures include: angle of abrasive impact, direction of nozzle spray, orifice pressure, and work stoppage due to wind speed or direction.
- B. Complete any additional measures required in these specifications. There will be no negotiations for extra compensation for nuisance complaints and corrective measures.
- C. Fully inspect the area, land use, and other pertinent local conditions prior to bidding exterior work.
- D. Do not permit dust, abrasive, or paint chips to fall outside the containment system perimeter or ground cover.

- E. Do not permit any visual dust release when transferring abrasive from either the interior or exterior of the structure to the dumpsters. Suppress dust with tarps or water, or other preapproved method.

3.02 CONTAINMENT during ABRASIVE BLAST CLEANING – EXTERIOR – SSPC-GUIDE 6 – CLASS 1A

- A. Furnish and install a total containment system to be used during all dust generating work and during all four full coats and lettering and logo application.
- B. This specification is intended to be performance based. Alternative procedures to accomplish the same purpose of dust or lead elimination may be submitted for review. The final determination if the alternate performs as well as total containment will rest solely with the engineer. Printed material and test results by independent firms will be considered, but not govern. Rejection of an alternative after bid opening will not relieve the contractor of any responsibility to complete the work as bid, unless his bid states that his bid is to be withdrawn if the alternate is rejected. Submit a sketch of the alternate containment procedures with bid.
- C. Contain waste abrasive and paint chips to the area immediately under the structure. No release outside the containment system will be permitted. The shrouds will be erected on all sides of the tank for 360°.
- D. Cover the roof with containment shrouds. Separate vertical tarps from the roof or sidewalls to allow waste from the roof to slip down the inside of the shields. The vertical shrouds are to be sandwiched between two separate sections of the roof bonnet when lifted to its highest position. Overlap to be a minimum of 36 inches between the bonnet and vertical shroud.
- E. Support the containment shields by temporary braces attached to the roof and ground. Leave space to allow rigging and equipment to be used within the shields. Extend the bracing out from the structure, and secure cables to the ground by use of deadmen. Design system, bracing, deadmen, shields, etc. depending on the size of the structure, availability of space, prevailing wind forces, and local restrictions.
- F. Immediately replace/repair any damaged shrouds. Discontinue blast operations until the damaged shrouds are repaired or replaced.
- G. Use air impenetrable walls and roof with either rigid or flexible framing.
- H. Overlap all seams by 2 ft. Completely seal all seams by stitching, taping, caulking, or other sealing measures.
- I. Any holes cut in steel platforms or the tank are to be rewelded, top and bottom, with 3/16 in. full fillet welds. Use reinforcements as required.
- J. Cost for structural reinforcement of the roof and/or any other part of the tank, to support the containment system, is incidental to exterior painting.

3.03 TANK CONNECTIONS

- A. In submittal, request approval of all welding and cutting on the structure. All attachment points used for containment are to be removed from the structure once the containment is removed. All attachment points are to be ground flush with the surrounding steel and any gouged areas rebuilt and ground flush.
- B. Cut all approved holes into the tank with rounded corners.
- C. Use a welder certified to complete the type and position weld necessary for attachment.
- D. All steel must be cleaned of lead paint by approved method before cutting or welding.

3.04 CONTAINMENT OPENINGS

- A. Design a means of ingress and egress of the containment structure. Access shall be through an overlapped door on each side of the chamber.
- B. Size of the structure shall be 8 ft. x 8 ft. x 6 ft. high. Fabricate the structure from scaffolding and cover with overlapping tarps secured in-place. Construct the chamber out of 6 ft. high scaffold sections. Install the scaffold so the majority of the scaffold is extended out from the containment. Minimum clear walking height shall be 54 in. Minimum width shall be 42 in.
- C. Fabricate the opening for exhaust air piping with a minimum 18 in. long tunnel firmly attached. Maintain the exhaust piping in as straight a line as possible to avoid restricting airflow. Exhaust air attachments may be elsewhere other than the entryway.
- D. Supply an operating HEPA vacuum in the entryway to vacuum off workers leaving the containment. Maintain the vacuum clean and serviced.

3.05 GROUND COVER

- A. Protect the ground from spent abrasive, paint chip and lead contamination. Include the area inside the containment, and a 10 ft. diameter around the outside of the containment.
- B. Lap all ground tarps a minimum of 2 ft. Lap the inside ground tarps up 2 ft. on the outside of the vertical shrouds. Lap the outside ground tarps 2 ft. under the inside tarps with slots for cables. This will prevent loss of abrasive material between the ground and vertical shrouds.

3.06 DAILY SHUTDOWN

- A. Clean all ground tarps daily. Collect all debris and store in barrels. Roll all tarps for storage, including all tarps inside containment. The purpose is to prevent the debris from being blown off the tarps.

- B. After blasting, clean all flat surfaces daily before the containment structure is lowered. Also clean all rigging and equipment before lowering containment, or removing the roof cover.

PART 4 – SPECIAL PROVISIONS

4.01 FENCING

- A. It is unlikely that containment will fit within the fenced area. Remove fencing prior to the containment installation. Construct a temporary 4 ft. safety construction fencing around entire site.
- B. Hire a local professional fencing company to reinstall the fence at completion of the project. Any sections damaged during removal or storage are to be replaced to match existing fence.
- C. Cost is incidental to exterior repainting.

4.02 AVIATION LIGHTS

- A. Relocate the existing aviation lights or install temporary lights on the roof above the containment roof bonnet.
- B. Install before the roof bonnet is in place.
- C. The lights must be operational throughout the entire containment phase of the project.
- D. Cost is incidental to exterior repainting.

SECTION 09 97 13.12

LEAD/CHROME BASED PAINT REMOVAL and DISPOSAL

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Lead/Chrome Paint Removal and Disposal.

1.02 REFERENCES

- A. SSPC Guide-7 Disposal of Lead Contaminated Surface Preparation Debris.

1.03 PAINTER QUALIFICATIONS – LEAD/CHROMIUM PROJECTS

- A. Contractor shall complete all coating and surface preparation.
- B. Painter shall be specialized in industrial or heavy commercial painting, and experienced in removing lead based coatings.
- C. ALL CONTRACTORS SHALL BE PREQUALIFIED WITH Dixon Engineering.
- D. Submit five (5) successful paint projects of similar nature with the bid proposal if the engineer is not familiar with the contractor's work.

1.04 SUBMITTALS

- A. Lead, Health & Safety Plan (LH&SP).
- B. Site Specific LH&SP including:
 - 1. Work procedures for each job classification.
 - 2. Administration and engineering controls to be used during exposure assessment period and expected exposure.
 - 3. Personal hygiene procedure.
 - 4. Site personnel register (updated as needed).
 - 5. Qualifications of competent persons and responsibilities. At this point, multiple qualified people may be submitted.
 - 6. 24 hour job site contact person.
 - 7. Site map showing ingress/egress and locate all equipment.

PART 2 – PRODUCTS

2.01 LEAD REMOVAL PRETREATMENTS – WET INTERIOR

- A. PreTox 2000 FD, 4050 Westmark Drive, Dubuque, Iowa 52002, 1-800-338-8296.
- B. EnviroPrep Premium 33010 as manufactured by Hoffer's Coatings, Inc., Wausau, WI, 1-800-338-8296.

2.02 ABRASIVE – COAL SLAG – PRETREATED SURFACES – WET INTERIOR

- A. The coal slag shall be 20-40 grade, or 30-60 grade.

- B. The abrasive shall be free of moisture, water soluble contaminants, dust, and oil.
- C. The abrasive shall be stored and covered to prevent moisture contamination.
- D. All leaking or spilling bags shall be removed, and affected areas properly cleaned.
- E. All slag abrasive shall meet the requirements of SSPC-AB1 "Mineral and Slag Abrasive" June 1, 1991-Grade 3.
- F. The use of silica sand, flint sand, and glass beads is prohibited.
- G. All abrasive and grit material used, and all equipment supplied shall be subject to approval of the engineer. The abrasive or grit shall be sharp enough and hard enough to remove the mill scale, rust, and paint.

2.03 ABRASIVE with BLASTOX – EXTERIOR – DRY INTERIOR – PIT PIPING

- A. The abrasive shall be 20-40 grade, or 30-60 grade coal slag blended with Blastox. The mixture shall be proportioned by supplier, but not less than 15% Blastox.
- B. Other low dust abrasive may be used at the same proportion.
- C. The abrasive shall be free of moisture, water soluble contaminants, dust, and oil.
- D. The abrasive shall be stored and covered to prevent moisture contamination.
- E. All leaking or spilling bags shall be removed, and affected areas properly cleaned.
- F. All slag abrasive shall meet requirements of SSPC-AB1 Mineral and Slag Abrasive June 1, 1991-Grade 3.
- G. The use of silica sand, flint sand, and glass beads is prohibited.
- H. Blastox used for non-potable water tanks and structures only.

2.04 RECYCLABLE STEEL GRIT – ALTERNATE

- A. Use recyclable steel grit size G-25 or G-50.
- B. The abrasive is to be free of moisture, water soluble contaminants, dust, and oil.
- C. The abrasive is to be stored and covered to prevent moisture contamination.
- D. All leaking or spilling containers are to be removed, and affected areas properly cleaned.
- E. All recyclable steel grit shall meet requirements of SSPC-AB1 Metallic Abrasive June 1, 1991.

2.05 DECONTAMINATION FACILITY

- A. Provide a climatic controlled decontamination facility. The decontamination facility must include a minimum of three separate areas: a dirty area, a showering area, and a clean area. The unit shall be as manufactured by Eagle Industries of Louisiana, Inc.
- B. Entry and exit into the showering room must be through an approved airlock designed to prevent cross-contamination between any two areas.
- C. Equip the clean room with adequately sized lockers for each worker to secure and store clothing, valuables, and other personal belongings.

- D. Equip the decon facility with an onboard ion exchange lead filtration system capable of filtering all wastewater generated during hand washing operations, showering, laundering of towels and clothing, or from any other water used in cleaning.
- E. Recordkeeping log signed by each employee upon exiting that time was provided and decon procedures were followed.

PART 3 – EXECUTION

3.01 CLOTHING – CONTRACTOR

- A. Provide protective clothing for all personnel – disposal or laundered is acceptable.

3.02 NOTIFICATION of NEIGHBORS

- A. Enclose the entire project site, including the clean area, inside a yellow ribbon bearing the warning label of lead.
- B. Post signs around the project stating “**CAUTION – LEAD HAZARD – DO NOT ENTER**”
- C. If the neighbors are in close proximity, the contractor shall participate in any education notification program originated by the owner.

3.03 PERSONAL HYGIENE – LEAD/CHROMIUM PROJECTS

- A. Register all personnel on the site and try to maintain, as much as possible, the same crew.
- B. Any changes in crew size or personnel will require registration. Registration simply means notification to the owner or engineer of a new person on the job site.
- C. Inform all personnel of the dangers involved with lead from a health standpoint, and require use of washroom/decon facilities.
- D. Ensure proper use and compliance of personnel with health department and OSHA requirements.
- E. Complete contractor certification form that all employees complied with OSHA 1926.62 hygiene rules, and contractor, as employer, complied with their required OSHA housekeeping and compliance requirements.

SECTION 09 97 13.13.08

WET INTERIOR STEEL COATING – THREE COAT ZINC EPOXY

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Painting the wet interior.

1.02 REFERENCES

- A. SSPC and NACE Standards:

1. PA1 – Paint Application.
2. PA2 – Measurements and Calibration.
3. NACE RP 0178 Surface Finish Requirements.

1.03 WORK INCLUDED

- A. Application of a three (3) coat zinc epoxy system.
- B. Application of a polyurethane elastomeric seam sealer.

PART 2 – PRODUCTS

2.01 ZINC EPOXY – 3 COAT SYSTEM

- A. System to meet all National Sanitation Foundation 61 certification standards for potable water contact.

- B. Approved suppliers and systems:

<u>Manufacturer</u>	<u>System</u>
Tnemec	94H ₂ O/N140/N140(stripe)/N140
Induron	Indurazinc MC-67/PE-70/PE-70(stripe)/PE-70
Sherwin Williams	Corothane I galvacpac/646PW/646PW(stripe)/646PW

- C. Approved seam sealer:

Sika Corporation Sika Flex 1a

PART 3 – EXECUTION

3.01 ZINC EPOXY – 3 COAT SYSTEM

- A. Apply a three coat high build epoxy paint system with a zinc primer to all prepared surfaces and appurtenances.
- B. Abrasive blast cleaning and paint requirements have been previously defined in Section 09 97 13.10.

C. Apply each coat at the following rates:

<u>Coat</u>	<u>Minimum</u> <u>DFT (mils)</u>	<u>Maximum</u> <u>DFT (mils)</u>
Primer	2.5	3.5
Intermediate	4.0	6.0
Stripe Coat	1.5	2.5
Topcoat	<u>4.0</u>	<u>6.0</u>
Total	10.5*	15.5*

*Total does not include stripe coat.

- D. Stripe coat to be applied to all welds, angles, and sharp edges throughout the structure, including above the high water line and all roof beams, etc.
- E. Each full coat to be a different color from the previous coat and is to be approved by the engineer. No color bleedthrough should occur if proper application rates are observed.
- F. Apply all coats in uniform color and sheen without streaks, laps, runs, sags, cloudy, or missed areas. Correct all defects before application of the successive coat.
- G. Allow a minimum of twenty-four (24) hours between coats (including stripe coat). Additional time may be necessary if low temperatures require an increase in the necessary cure time.
- H. MAINTAIN FORCED VENTILATION A MINIMUM OF SEVEN (7) DAYS AFTER TOPCOAT APPLICATION, time required for cure is dependent on the coating manufacturer and temperature. Record variations of the standard procedures (roof hatch closure because of rain, etc.), and submit to the engineer. Heat is required if, in the opinion of the engineer, the integrity of the coating is endangered by cold weather, or if additional cure time will delay the project beyond the substantial completion date.

3.02 SEAM SEALING – ROOF

- A. Seam seal all roof lap seams on the interior after the topcoat is dry to the touch. Seal using a caulking gun filling all cracks less than 1 in. separation. Tool sealant as required.
- B. Payment will be on a lump sum basis.
- C. Payment will be a separate line item “Seam Sealer” which the owner reserves the right to delete.

3.03 SCHEDULE of WORK

- A. Complete all exterior and interior welding prior to surface preparation.

SECTION 09 97 13.19.06

DRY INTERIOR STEEL COATING – EPOXY SYSTEM

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Partial painting in the dry interior.

1.02 REFERENCES

- A. SSPC and NACE Standards:

1. PA1 – Paint Application
2. PA2 – Measurements and Calibration
3. NACE RP 0178 Surface Finish Requirements.

1.03 WORK INCLUDED

- A. Application of a two (2) coat or three (3) coat epoxy system.

PART 2 – PRODUCTS

2.01 EPOXY SYSTEM

- A. Two (2) coat or three (3) coat epoxy system.
- B. Approved suppliers and systems: Dry interior access tube and transition cone.

<u>Manufacturer</u>	<u>System</u>
Tnemec	N69/N69/N69(stripe)/N69
Induron	PE-70/PE-70/PE-70(stripe)/PE-70
Sherwin Williams	646PW/646PW/646PW(stripe)/646PW

- C. Approved suppliers and systems: (all other prepared surfaces).

<u>Manufacturer</u>	<u>System</u>
Tnemec	N69/N69(stripe)/N69
Induron	PE-70/PE-70(stripe)/PE-70
Sherwin Williams	646PW/646PW(stripe)/646PW

PART 3 – EXECUTION

3.01 EPOXY SYSTEM

- A. Apply to all prepared areas a two (2) or three (3) coat epoxy system.
- B. Surface preparation has been previously defined in Section 09 97 13.

- C. The access tube and transition cone is to receive a three (3) coat system as follows:

<u>Coat</u>	Minimum <u>D.F.T.(mils)</u>	Maximum <u>D.F.T. (mils)</u>
Primer	4.0	6.0
Intermediate	4.0	6.0
Stripe	1.5	2.5
Topcoat	<u>4.0</u>	<u>6.0</u>
Total	12.0*	18.0*

*Stripe coat is not included in the totals.

The coating in the access tube is to be brush and rolled.

- D. Apply each coat at the following rates for the dry interior:

<u>Coat</u>	Minimum <u>D.F.T. (mils)</u>	Maximum <u>D.F.T. (mils)</u>
Primer	4.0	6.0
Stripe	1.5	2.5
Topcoat	<u>4.0</u>	<u>6.0</u>
Total	8.0*	12.0*

*Stripe coat is not included in the totals.

- E. Stripe coat to be applied to all welds, angles, and sharp edges throughout the structure.
- F. Each full coat to be a different color from the previous coat and is to be approved by the engineer. No color bleedthrough should occur if proper application rates are observed.
- G. Apply all coats in uniform color and sheen without streaks, laps, runs, sags, cloudy, or missed areas. Correct all defects before application of the successive coat.
- H. Allow a minimum of twenty-four (24) hours between coats (including stripe coat). Additional time may be necessary if low temperatures require an increase in the necessary cure time.

3.02 SCHEDULE of WORK

- A. Complete all exterior and interior welding prior to surface preparation.

SECTION 09 97 13.21.06

PIT PIPING STEEL COATING – TWO COAT EPOXY

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Painting the pit piping.

1.02 REFERENCES

- A. SSPC and NACE Standards:

1. PA1 – Paint Application.
2. PA2 – Measurements and Calibration.
3. NACE RP 0178 Surface Finish Requirements.

1.03 WORK INCLUDED

- A. Application of a two (2) coat epoxy system.

PART 2 – PRODUCTS

2.01 EPOXY – 2 COAT SYSTEM

- A. Two (2) coat epoxy system.
- B. Approved suppliers and systems:

<u>Manufacturer</u>	<u>System</u>
Tnemec	N140/N140(stripe)/N140
Induron	PE70/PE70(stripe)/PE70
Sherwin Williams	646PW/646PW(stripe)/646PW

PART 3 – EXECUTION

3.01 EPOXY – 2 COAT SYSTEM

- A. Apply to all prepared surfaces a two (2) coat epoxy system.
- B. Surface preparation has been previously defined in Section 09 97 13.10.
- C. Apply each coat at the following rates:

<u>Coat</u>	<u>Minimum</u>	<u>Maximum</u>
	<u>D.F.T. (mils)</u>	<u>D.F.T. (mils)</u>
Primer	4.0	6.0
Stripe	1.5	2.5
Topcoat	<u>4.0</u>	<u>6.0</u>
Total	8.0*	12.0*

*Totals do not include stripe coat.

- D. Stripe coat to be applied to all welds, angles, and sharp edges throughout the structure.
- E. Each full coat to be a different color from the previous coat and is to be approved by the engineer. No color bleedthrough should occur if proper application rates are observed.
- F. Apply all coats in uniform color and sheen without streaks, laps, runs, sags, cloudy, or missed areas. Correct all defects before application of the successive coat.
- G. Allow a minimum of twenty-four (24) hours between coats (including stripe coat). Additional time may be necessary if low temperatures require an increase in the necessary cure time.

SECTION 09 97 13.23.08

EXTERIOR STEEL COATING – FOUR COAT ZINC EPOXY URETHANE REPAINT

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Painting on the exterior.

1.02 REFERENCES

A. SSPC and NACE Standards:

1. PA1 – Paint Application.
2. PA2 – Measurements and Calibration.
3. NACE RP 0178 Surface Finish Requirements.

1.03 WORK INCLUDED

- A. Application of a four (4) coat zinc epoxy urethane system.
- B. Application of a logo and lettering.

PART 2 – PRODUCTS

2.01 ZINC EPOXY URETHANE - 4 COAT SYSTEM

- A. The coating shall be an epoxy urethane system.
- B. The contractor is advised to follow all rules for safety while using isocyanates.
- C. Ultraviolet protection additives mixed at factory only. There will be no tinting or addition of any material other than the manufacturer's thinners.
- D. Approved suppliers and systems:

<u>Manufacturer</u>	<u>System</u>
Tnemec	90-97/N69/1074/1074UV
Induron	Indurazinc MC-67/PE-70/I-6600 Plus/I-6600 Plus
Sherwin Williams	Corothane I galvapak/646PW/Acrolon Ultra/Acrolon Ultra

PART 3 – EXECUTION

3.01 ZINC EPOXY URETHANE - 4 COAT SYSTEM

- A. Apply to all prepared surfaces and appurtenances a four (4) coat zinc epoxy urethane system.
- B. Surface preparation and paint requirements have been previously defined in Section 09 97 13.10. Apply all coatings by brush and roller. Spray application is prohibited.

- | | | |
|-----------------------|----------------------|----------------------|
| C. <u>Coat</u> | Minimum | Maximum |
| | <u>D.F.T. (mils)</u> | <u>D.F.T. (mils)</u> |
| Primer | 2.5 | 3.5 |
| Epoxy Intermediate | 2.0 | 3.0 |
| Urethane Intermediate | 2.0 | 3.0 |
| Topcoat | <u>2.0</u> | <u>3.0</u> |
| Total | 8.5 | 12.5 |
- D. Each full coat to be a different color from the previous coat and is to be approved by the engineer. No color bleedthrough should occur if proper application rates are observed.
- E. Apply all coats in uniform color and sheen without streaks, laps, runs, sags, cloudy, or missed areas. Correct all defects before application of the successive coat.
- F. Allow a minimum of twenty-four (24) hours between coats. Additional time may be necessary if low temperatures require an increase in the necessary cure time.
- G. The contractor should be advised that Dixon Engineering, Inc. will take mil readings on the exterior per SSPC-PA2 which requires gauge adjustment from magnetic plane to peak plane.

3.02 LETTERING AND LOGO

- A. Paint the name "ST. CHARLES" with fox logo in two (2) locations on the tank. Coat the bowl and a stripe above the lettering in a blue color.
- B. Paint the lettering and logos the same size and style as the existing lettering, and place the lettering in the same locations. Verify size and document locations for application purposes.
- C. Approved Fluorourethane coating system.
- | | |
|---------------------|---------------|
| <u>Manufacturer</u> | <u>System</u> |
| Tnemec | V700 |
| Induron | Perma-Gloss |
| Sherwin Williams | Fluorokem HS |
- D. Apply lettering coating at 2.0 to 3.0 mils. Colors are Tnemec color "21RD Crawford Red" and "78BL Old Glory."
- E. See the attached rendering for lettering logo, bowl and stripe.
- F. Payment is a separate line item with option #1 as "Logo" and option #2 as "Logo – Alternate."

3.03 SCHEDULE of WORK

- A. Complete all exterior and interior welding prior to surface preparation.



APRIL 2019

REHABILITATION
WATER TOWER
TANK LOGO

OPTION NO. 1
10th Street Tank
Staff's Recommendation



OPTION NO. 1

10th Street Tank

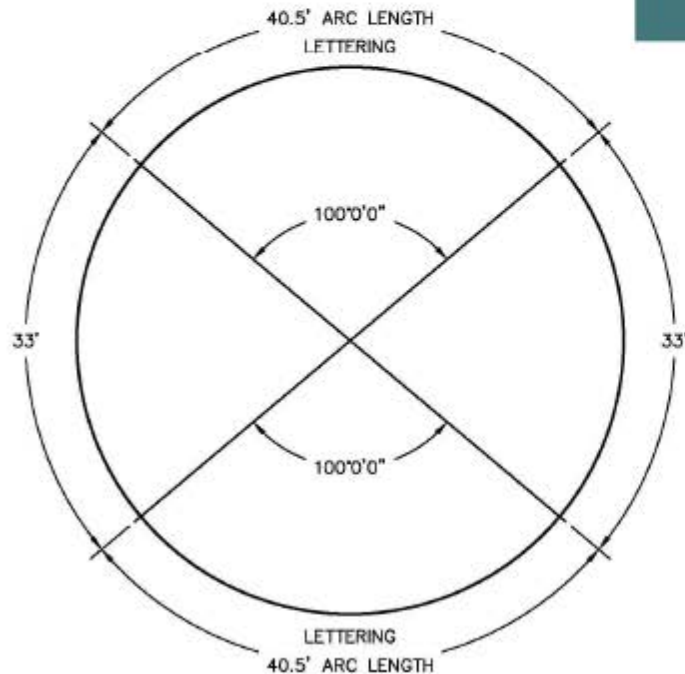
Staff's Recommendation



300,000 GALLON SPHEROIDAL TANK - ALTERNATE A

SCALE: 1" = 10'

BOTTOM BAND EXTENDS
TO THE BOTTOM OF
THE BOWL



PROPOSED 300,000 GALLON
SPHEROIDAL TANK
PLAN VIEW (TYPICAL)

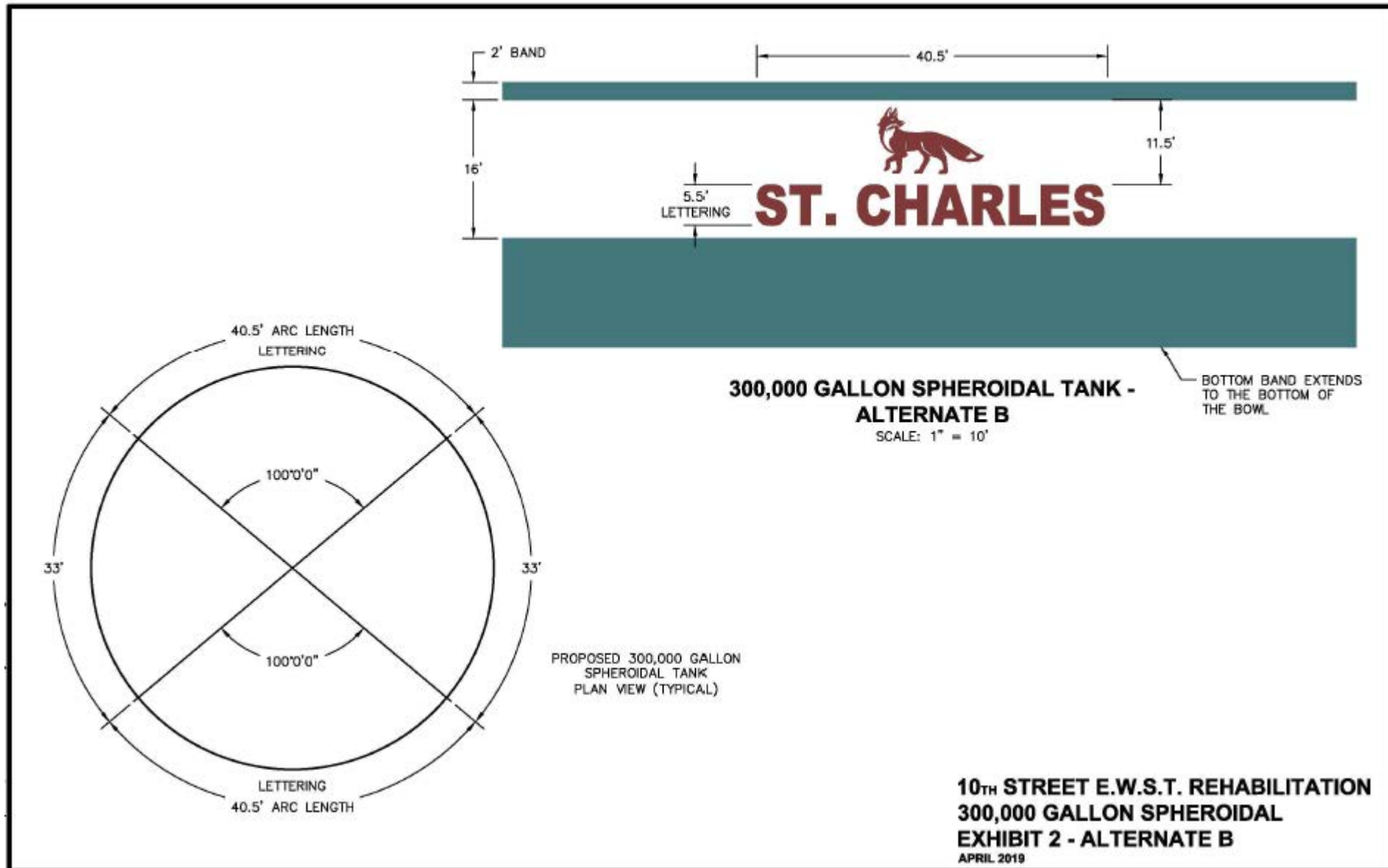
10TH STREET E.W.S.T. REHABILITATION
300,000 GALLON SPHEROIDAL
EXHIBIT 1 - ALTERNATE A
APRIL 2019

OPTION NO. 2
10th Street Tank



OPTION NO. 2

10th Street Tank



SECTION 09 97 23.23.03

CONCRETE FOUNDATION COATING – TWO COAT EPOXY

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Painting of the concrete foundation(s).

1.02 REFERENCES

- A. SSPC and NACE Standards:
 - 1. PA1 – Paint Application.
 - 2. PA2 – Measurements and Calibration.

1.03 WORK INCLUDED

- A. Application of a two (2) coat epoxy system.

PART 2 – PRODUCTS

2.01 EPOXY – 2 COAT SYSTEM

- A. Two (2) coat epoxy system.
- B. Approved suppliers and manufacturers:

<u>Manufacturer</u>	<u>System</u>
Tnemec	N69/N69
Induron	PE-70/PE-70
Sherwin Williams	646PW/646PW

PART 3 – EXECUTION

3.01 EPOXY – 2 COAT EPOXY

- A. Apply to all prepared areas a two (2) coat epoxy system.
- B. Remove dirt 3” below grade around the entire foundation prior to coating, backfill once topcoat is dry to the touch.
- C. Abrasive blast clean to a SSPC-SP13/NACE 6 Standard to create a profile per ICRI – CSP3.

- D. Apply each coat at the following rates:

<u>Coat</u>	<u>Min. D.F.T. (mils)</u>	<u>Max. D.F.T. (mils)</u>
Primer	3.5	5.5
Topcoat	<u>3.5</u>	<u>5.5</u>
Total	7.0	10.0

- E. Allow the manufacturer’s minimum time between coatings.

F. Cost is incidental to exterior painting.