

FOR USE WITH THE 2014 CPCS

LAST REVISED OCTOBER 13, 2015

SUPPLEMENTARY CONDITIONS – CONTRACT ***** A

SC-1 SCOPE. These Supplementary Conditions amend or supplement the General Conditions and other provisions of the Contract Documents. All provisions not so amended or modified remain in full force and effect.

If Professional Liability Insurance is NOT required for your Project leave the following SC in the template

SC-** ARTICLE 5--BONDS AND INSURANCE. Delete Paragraph 5.3.4. Professional liability insurance is not required for this Contract.

Add the following SC if the professional liability requirement falls on a Subcontractor for the GC and not the GC directly.

SC-** ARTICLE 5--BONDS AND INSURANCE. Add Paragraph 5.3.4.1.
5.3.4.1 Insurance requirements for the CONTRACTOR will be waived contingent upon furnishing the professional liability insurance certificate from the Subcontractor who will perform the delegated-design component of the Contract.

Add the following SC if the CONTRACTOR may have access to and use of the Board's computer or telecommunications resources.

SC-** ARTICLE 6—CONTRACTOR RESPONSIBILITIES. Add Paragraph 6.36.

Computer and Telecommunications Resources

6.36 The CONTRACTOR and its employees and agents may have access to and use of the OWNER's computer or telecommunications resources to fulfill the terms of this Contract. As a condition of this access and use, the CONTRACTOR agrees to abide by all applicable laws and OWNER policies, including Personnel Policies, Executive Guidelines, and all other policies, procedures, guidelines and standards that relate to the use and security of the OWNER's computer and telecommunications resources.

The CONTRACTOR will not knowingly use or permit the use of the OWNER's resources for any purposes other than those necessary to perform the Work required under this Contract. The CONTRACTOR will not use any access mechanism that the OWNER has not expressly assigned to the CONTRACTOR or its employees, and the CONTRACTOR will not disclose information concerning access to these resources unless properly authorized to do so by the OWNER. The CONTRACTOR will treat all information maintained on OWNER computer systems, networks and telecommunications resources as strictly confidential and will not release information to any unauthorized person.

The OWNER reserves the right without notice to limit or restrict the CONTRACTOR's access and to inspect, remove or otherwise alter any data, file or system resource that may undermine or expand the limited scope of CONTRACTOR's authorized use of the OWNER's network computing facilities. Should the CONTRACTOR fail to abide by these terms, the OWNER may immediately terminate this Contract for cause.

This Change must stay in all Contracts.

SC-** ARTICLE 16—CLAIMS AND DISPUTES. Replace the second paragraph of Paragraph 16.3 with the following.

(The CONTRACTOR will have an extension of time to submit the Claim, if, and only if, within 15 days of submitting a Notice of Intent to Submit Claim, the CONTRACTOR submits, in writing, to the Director of Engineering at the address above a Request for Extension to Submit Claim. This Request shall indicate the requested duration of and CONTRACTOR's good cause for the extension; good cause shall include only extraordinary circumstances and not ordinary business matters such as scheduling and staffing. The Director may, in his sole discretion, allow the requested extension but only in writing prior to the expiration of the time for submitting the Claim.)

SUPPLEMENTARY TECHNICAL SPECIFICATIONS - CONTRACT *****A

DIVISION 1

This Section will stay in every contract, do not remove.

SECTION 01 29 00 – PAYMENT PROCEDURES, PART 1, SUBPARAGRAPH 1.4.B

ADD:

3. Description of Items: The Construction Schedule of Values indicates major categories of Work for the purpose of comparative proposal analysis, the payment breakdown for monthly progress payments, and additions or deductions. Items are not intended to be inclusive descriptions of Work categories.
- a. []:
 - 1) This item consists of []
 - 2) Measurement: []
 - b. []:
 - 1) This item consists of []
 - 2) Measurement: []
 - c. []:
 - 1) This item consists of []
 - 2) Measurement: []
 - d. Mobilization (not to exceed []% of Total Bid):
 - 1) Perform operations in connection with preparatory work for the execution of Contract Work
 - 2) Payment will be based on a lump sum price bid not to exceed the value stated on the Bid Form
 - 3) Progress payments for mobilization will be made as work progresses as follows:
 - a) When 10% of the Contract amount is earned, 25% of the mobilization bid item will be paid
 - b) When 25% of the Contract amount is earned, 50% of the mobilization bid item less previous payments will be paid
 - c) When 50% of the Contract amount is earned, 75% of the mobilization bid item less previous payments will be paid
 - d) When 75% of the Contract amount is earned, 100% of the mobilization bid item less previous payments will be paid
 - 4) Retainage as described in the Agreement also applies to progress payments for mobilization.

Engineer: If SECTION 01 29.00 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 01 29 00 – PAYMENT PROCEDURES, PART 1, SUBPARAGRAPH 1.4.C.4

DELETE:

- a. Round values to the nearest dollar.

If the Project is not in the City and County of Denver, delete text.

SECTION 01 31 00 – PROJECT MANAGEMENT AND COORDINATION, PART 1, SUBPARAGRAPH 1.2

DELETE:

- D. City and County of Denver (City) Street Cut Occupancy Permits Requirements: *(in its entirety)*

For Projects with Work in the City and County of Denver rights-of-way: Edit the following to suit the Project requirements – The DPM/PE shall meet with an authorized representative of the City and County of Denver and provide the City with the documents describing the Project scope and a good faith estimate of the time period that the Work will impact the rights-of-way. The DPM/PE and the City representative will review the Project scope/impacts and will mutually determine Reasonable Construction Time Periods. The DPM/PE will include these Reasonable Construction Time Periods in the chart below.

SECTION 01 31 00 – PROJECT MANAGEMENT AND COORDINATION, PART 1, SUBPARAGRAPH 1.2.D.4.a

ADD:

STATIONS(?)	LOCATION	TIME

SECTION 01 31 00 – PROJECT MANAGEMENT AND COORDINATION, PART 1, SUBPARAGRAPH 1.2.E

ADD:

- 4. Facility outage dates:
 - a. .

SECTION 01 31 00 – PROJECT MANAGEMENT AND COORDINATION, PART 1, SUBPARAGRAPH 1.4.A

ADD:

- 1. Project Milestone dates:

MILESTONE	DESCRIPTION	COMPLETION DATE

SECTION 01 32 16.01 – COST LOADED SCHEDULE

DELETE: SECTION IN ITS ENTIRETY, REPLACE WITH SECTION 01 32 16.02.

SECTION 01 32 16.02 – COST LOADED SCHEDULE

DELETE: SECTION IN ITS ENTIRETY, REPLACE WITH SECTION 01 32 16.01.

Add 'F' if required for the project.

SECTION 01 41 19 – REGULATORY REQUIREMENTS AT TREATMENT PLANTS, PART 1, SUBPARAGRAPH 1.4

ADD:

- F. Work under this Contract is on or near chlorine or aqua ammonia systems.

ENGINEER's Field Office as defined in 2.1 – Evaluate with the CPM Section the need for a construction trailer. Remove the requirement for the trailer if it is unnecessary. Otherwise, adjust the trailer size for Project site requirements/limitations. In addition, remove the requirement for bottle water service for Projects at water treatment plants, at the West Side complex, and for any Project site that has reasonable access to potable water. (Check with the Chief of Construction Management prior to inclusion.)

SECTION 01 50 00 – CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

DELETE:

PART 2 PRODUCTS *(in its entirety)*

SUBSTITUTE:

PART 2 PRODUCTS (NOT USED)

ENGINEER's Field Office as defined in 2.1 – Evaluate with the CPM Section the need for a construction trailer. Remove the requirement for the trailer if it is unnecessary. Otherwise, adjust the trailer size for Project site requirements/limitations. In addition, remove the requirement for bottle water service for Projects at water treatment plants, at the West Side complex, and for any Project site that has reasonable access to potable water. (Check with the Chief of Construction Management prior to inclusion.)

SECTION 01 50 00 – CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS, PART 3, SUBPARAGRAPH 3.2

DELETE:

A. ENGINEER's Field Office: *(in its entirety)*

Select the following 3 substitutions if the OWNER is to perform construction surveys instead of the CONTRACTOR.

SECTION 01 71 23 – CONSTRUCTION SURVEYING, PART 1, SUBPARAGRAPH 1.2.A

DELETE:

3. Perform surveys necessary to lay out the structure and pipeline lines, alignments, grades, and elevations from the OWNER's provided control points.

SUBSTITUTE:

3. The OWNER will perform surveys necessary to lay out the structure and pipeline lines, alignments, grades, and elevations from the established control points.

SECTION 01 71 23 – CONSTRUCTION SURVEYING, PART 1, SUBPARAGRAPH 1.2.A

DELETE:

4. The ENGINEER may review and/or verify the CONTRACTOR-established lines, grades, and elevations by surveys. Provide access to Work for these surveys.

SECTION 01 71 23 – CONSTRUCTION SURVEYING, PART 1, SUBPARAGRAPH 1.2

DELETE:

B. Construction Layout: *(in its entirety)*

Make the following 2 deletions if the CONTRACTOR is to perform construction surveys:

SECTION 01 71 23 – CONSTRUCTION SURVEYING, PART 3, SUBPARAGRAPH 3.1.A.1

DELETE:

- c. Preserve line and grade stakes and markers set by the ENGINEER until otherwise authorized.
- d. Submit a Survey Work Request Form to the ENGINEER a minimum of 3 days prior to the date the survey is needed.

SECTION 01 71 23 – CONSTRUCTION SURVEYING, PART 3, SUBPARAGRAPH 3.1.A

DELETE:

- 2. OWNER: *(in its entirety)*

DIVISION 2

Complete the following:

SECTION 02 24 19 – SELECTIVE DEMOLITION, PART 3

ADD:

3.2 DEMOLITION SCHEDULE

- A. Demolish:
 - 1. [].
 - 2. [].
- B. Remove and Salvage:
 - 1. [].
 - 2. [].
- C. Relocate:
 - 1. [].
 - 2. [].
- D. Lead [was][was not] detected in the samples.
- E. Transformer Oil:
 - 1. Test results indicate a PCB level [less than 50 ppm] [greater than 50 ppm].

Coordinate with Denver Water's electrical engineering staff and environmental compliance staff to determine if this text is necessary and, if so, complete text.

SECTION 02 24 19 – SELECTIVE DEMOLITION, PART 3

ADD:

3.3 QUALITY CONTROL

- A. Other Hazardous Materials (Mercury Switches and Fluorescent Lighting):
 - 1. Testing: [].
- B. PCB Oil and PCB Electrical Equipment:
 - 1. Testing: [].

Add the following if supplements are required:

SECTION 02 24 19 – SELECTIVE DEMOLITION, PART 3

ADD:

3.4 SUPPLEMENTS

- A. [Supplement A – Lead Paint Sample Results].
- B. [Supplement C – Asbestos sample results].
- C. [Supplement B – Transformer Oil and PCB Content List].

DIVISION 3

In the following paragraph, if another Type of cement is desired, consult with the Materials Lab Manager and specify below.

SECTION 03 30 00 – CAST-IN-PLACE CONCRETE, PART 2, SUBPARAGRAPH 2.1.A

DELETE:

1. Cement: Type II portland cement in accordance with ASTM C 150.

SUBSTITUTE:

1. [] portland cement in accordance with ASTM [].

The following paragraph includes a low alkali content cement which is more expensive and sometimes not available, and not needed unless aggregate is found to be reactive. Consult with the Materials Lab Manager before including this paragraph.

SECTION 03 30 00 – CAST-IN-PLACE CONCRETE, PART 2, SUBPARAGRAPH 2.1.A.1

ADD:

- a. Maximum alkali content of 0.60%.

In the following paragraphs, select appropriate mixes for the particular Project.

SECTION 03 30 00 – CAST-IN-PLACE CONCRETE, PART 2, SUBPARAGRAPH 2.1.E.2

DELETE:

- a. Structural concrete (Class A): *(in its entirety)*

SECTION 03 30 00 – CAST-IN-PLACE CONCRETE, PART 2, SUBPARAGRAPH 2.1.E.2

DELETE:

- b. Concrete Fill (Class B): *(in its entirety)*

SECTION 03 30 00 – CAST-IN-PLACE CONCRETE, PART 2, SUBPARAGRAPH 2.1.E.2

DELETE:

- c. Structural Concrete (CDOT Class D): *(in its entirety)*

SECTION 03 30 00 – CAST-IN-PLACE CONCRETE, PART 2, SUBPARAGRAPH 2.1.E.2

DELETE:

- d. Mass concrete (Class M): *(in its entirety)*

SECTION 03 30 00 – CAST-IN-PLACE CONCRETE, PART 2, SUBPARAGRAPH 2.1.E.2

DELETE:

- e. Pavement concrete (Modified Class P): *(in its entirety)*

In the following paragraphs, if other mix designs are required other than provided in the specification, contact the Materials Lab Manager.

SECTION 03 30 00 – CAST-IN-PLACE CONCRETE, PART 2, SUBPARAGRAPH 2.1.E.2

ADD:

- f. [REDACTED].

Delete the following information unless there are very large, flat areas in the Project.

SECTION 03 30 00 – CAST-IN-PLACE CONCRETE, PART 2, SUBPARAGRAPH 2.3.B.2.h

DELETE:

- 3) Do the first steel troweling by hand.

Consult with the Materials Lab Manager for more complex projects that may need additional Specifications regarding pourback times for 3.1.A.2.

SECTION 03 30 00 – CAST-IN-PLACE CONCRETE, PART 3, SUBPARAGRAPH 3.1.A.2

DELETE:

- a. Do not place adjacent concrete until previously placed concrete has attained 100% of the approved submitted 28 day compressive strength as determined by field cylinders, or 7 days, whichever is shorter.
- b. Notify the ENGINEER in writing if adjacent placements are planned for earlier than the 7 day interval so that field cylinders can be taken from a previous placement for verification of the strength requirements.

SUBSTITUTE:

- a. [REDACTED].

Add the following paragraph if vapor retarders are required.

SECTION 03 30 00 – CAST-IN-PLACE CONCRETE, PART 3, SUBPARAGRAPH 3.3.A.2.b

ADD:

- 3) Dampen sand where vapor retarder is specified.

Engineer: If SECTION 03 30 00 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 03 30 00 – CAST-IN-PLACE CONCRETE, PART 3

DELETE:

- 3.3 INSTALLATION *(in its entirety)*

SUBSTITUTE:

3.3 INSTALLATION

A. Concrete Placement:

1. Discharge time and temperature:

- a. Do not exceed 90 minutes, or 300 revolutions of the mixing drum, after adding cementitious materials to the water unless approved time delay admixtures are used.
- b. Coordinate information with the admixture Manufacturer and the ENGINEER prior to placing concrete.

2. Placement into formwork:
 - a. Concrete shall not be placed on frozen subgrade or into forms with temperatures less than 34°F.
 - b. Prior to the placement of concrete:
 - 1) Dampen and densify subgrade under the concrete to be placed on granular soils.
 - 2) Dampen wood forms.
 - c. Place concrete as soon as possible after leaving the mixer.
 - d. Place concrete without segregation or loss of ingredients.
 - e. Place concrete without splashing forms or the steel above.
 - f. Place concrete in layers that are not over 24 inches in depth, except place slabs full depth.
 - g. Place and consolidate successive layers of concrete prior to the initial set of the first layer to prevent cold joints.
 - h. Place concrete so that plastic concrete flows readily between reinforcing steel and other embedded items.
 - i. Do not place concrete that has partially hardened or is contaminated by foreign materials.
 - j. Use placement devices including chutes, pouring spouts, and pumps.
 - k. Vertical free fall drop to final placement:
 - 1) Five feet in forms.
 - 2) Self-consolidating mixes: Up to 15 feet if slump is over 6 inches.
 - 3) For placements where drops are greater than the specified distance, use a placement device so that free fall below the placement device conforms to the required value.
 - 4) Limit free fall to prevent segregation caused by aggregates hitting reinforcing steel or other embedded items.
 - l. Do not use aluminum conveying devices.
 - m. Provide illumination of the interior of the forms so that the interior spaces of the forms are visible.
 - n. Waterstop:
 - 1) Ensure the space beneath the plastic waterstop completely fills with concrete.
 - 2) During concrete placement, make visual inspection of the entire waterstop area.
 - 3) Limit concrete placement to the elevation of the waterstop in the first pass, vibrate concrete under the waterstop, and lift the waterstop to confirm full consolidation without voids; place remaining concrete to the full height of the slab.
 - 4) Apply procedure to the full length of waterstops.
 - o. Prevent the accumulation of water on the surface of concrete due to water gain or other causes during placement and consolidation by making adjustments in the mix design.
 - p. Round off the top exposed edges of walls with a 1/4-inch radius steel edging tool.
3. Conveyor belts and chutes:
 - a. Design and arrange the ends of chutes, hopper gates, and other points of concrete discharge throughout the conveyance, the hoisting, and the placing system to allow for concrete to pass without becoming segregated.
 - b. Do not use chutes longer than 50 feet.
 - c. Angle chutes to allow concrete to readily flow without segregation with as little slope as possible.
 - d. Conveyor belts:
 - 1) Approved by the ENGINEER.
 - 2) Wipe clean with a device that prevents mortar from adhering to the belt.
 - 3) Cover conveyor belts and chutes.
4. Addition of water at the site:
 - a. Permitted only once and within 60 minutes of the initial batching, before any concrete is dispensed.
 - b. Do not exceed w/cm ratio of mix.

- c. If hydration stabilizing admixtures are used, submit the brand, type, and anticipated dosage rates to the ENGINEER prior to placement.
 - d. Provide an accurate means to determine and measure the volume of water added to the mix.
5. Pumping of concrete for single placements larger than 500 yards:
- a. Provide a standby pump, conveyor system, crane, and concrete bucket, or other system on-site during pumping, for adequate redundancy to ensure the completion of concrete placement without cold joints in the event of a primary placing equipment breakdown.
 - b. Minimum pump hose (conduit) diameter: 4-inches.
 - c. When needed, a tremie pipe may be used at the end of the pumphose. The tremie may be smaller than 4-inches to get through the reinforcing steel.
 - d. Replace non-functioning and improperly functioning pumping equipment and hoses (conduits).
 - e. Limit the pumping distance to 300 feet maximum.
6. Consolidation and visual observation:
- a. Consolidate concrete in accordance with ACI 309R.
 - b. Provide the proper size, type, and number of vibrators to be used for each concrete placement.
 - c. Consolidate concrete with internal vibrators with a minimum frequency of 8,000 cycles per minute and amplitude required to consolidate concrete in the section being placed.
 - d. Provide a minimum of one standby vibrator for every 2 vibrators in operable condition at the placement site prior to placing concrete.
 - e. Provide windows in forms or limit the form height to allow for concrete placement through windows and for the visual observation of concrete.
 - f. Do not use vibration (consolidation) to move concrete laterally within forms.
 - g. Vibrate concrete in the vicinity of joints to obtain impervious concrete.
 - h. Thoroughly work concrete around reinforcing steel and other embedded items and into the corners of forms.
 - i. Supplement vibrators by spading, rodding, or forking to eliminate honeycombing at the form face and voids around embedded items.
 - j. Penetrate vibrator a minimum 6 inches into previous lift.
7. Curing: As specified in SECTION 03 39 00.
- B. Construction Joints:
1. Surface preparation:
- a. Mechanically roughen concrete to produce a minimum roughness profile of 1/4-inch.
 - b. Hydrophilic waterstops shall be as specified in SECTION 03 15 13.02.
 - c. Clean the surface of concrete construction joints and remove materials that inhibit bonding.
 - d. Wet existing concrete surfaces with clean potable water and saturate for one day prior to placing new concrete.
 - e. Remove standing water immediately before new concrete is placed.
 - f. Expose clean aggregate by abrasive blast cleaning; wire brushing and air water jets may be used while concrete is fresh provided the results are equal to abrasive blast cleaning.
2. Wall horizontal construction joints: Prior to placing concrete, apply grout for horizontal construction joints as specified in SECTION 03 62 00.
3. Construction review:
- a. The ENGINEER will review the preparation of construction joints prior to concrete placement.
 - b. Provide a minimum of one day's notice to the ENGINEER for review.
 - c. If joint placement is performed without the ENGINEER present, Work will be deemed unacceptable and non conforming.
 - d. If the ENGINEER determines that the construction review of a particular activity is unnecessary, the ENGINEER will provide written direction to the CONTRACTOR to proceed with that particular activity without construction review.

- C. Pipe penetrations: Unless otherwise detailed on the Drawings, completely remove coatings, such as tape coating or paint and other materials that can inhibit bonding from the portion of pipe that is to be in contact with concrete.
- D. Patching:
 - 1. General:
 - a. Where shown on the Drawings, inject cracks with crack repair epoxy as specified in SECTION 03 68 00.
 - b. Prior to beginning patching Work, obtain quantities of color-matched patching material and the Manufacturer's instructions for use.
 - c. Provide a structural patch with a finish to match the adjacent surface.
 - d. Dress the surface of patches that will remain exposed to view to match the color and texture of adjacent surfaces by using supplemental materials furnished by the Manufacturer for such purposes or by rubbing the area until a match is obtained.
 - e. Patch concrete to provide a structurally sound surface finish that is uniform in appearance.
 - f. Repair surface defects including fins, tie holes, and honeycombed areas down to solid concrete in accordance with ACI 301.
 - 2. Tie holes:
 - a. Fill with Category I or II grout as specified in SECTION 03 62 00, except where sealant is shown on the Drawings; use only enough water to dry pack.
 - b. For areas exposed to view and not receiving a sack-rubbed finish, blend to the color and texture of the adjacent concrete.
 - c. Compact grout using a steel hammer and a steel tool to drive grout to high density.
 - d. Cure grout for 7 days at a minimum.
 - 3. Alternate form ties-through-bolts:
 - a. Seal through-bolt hole by sand blasting or mechanically cleaning and roughening the entire interior surface of hole.
 - b. Epoxy coat the roughened surface.
 - c. Drive elastic vinyl plug and then dry pack the entire hole on each side of plug with Category II grout as specified in SECTION 03 62 00. Use only enough water to dry pack the grout.
 - d. Dry pack while the epoxy is still tacky or remove the epoxy by mechanical means and reapply new epoxy.
 - e. Compact grout using a steel hammer and a steel tool to drive grout to high density.
 - f. Cure grout for 7 days at a minimum.
 - 4. Defective areas:
 - a. Remove defective concrete to a depth of sound concrete.
 - b. Small infrequent shallow holes caused by air entrapment at the surface of forms will not be considered defective.
 - c. If chipping is required, make edges perpendicular or undercut to the surface with a minimum of 1/2 inch in depth. Do not feather edges. Obtain the ENGINEER's approval of chipping Work.
 - d. Patch the defective area to match the appearance of adjacent concrete surfaces after cracks are filled.
 - 5. Blockouts at penetrations:
 - a. Conform to the details shown on the Drawings or submit proposed blockouts for the review and approval of the ENGINEER.
 - b. Use nonshrink, nonmetallic grout, Category I or II as specified in SECTION 03 62 00.
- E. Backfill Against Walls:
 - 1. Do not backfill against walls until concrete has attained 100% of the approved submitted 28 day compressive strength as determined by field cylinders.
 - 2. Notify the ENGINEER in writing when field cylinders are needed to determine when backfilling is allowed.
 - 3. Place backfill simultaneously on both sides of the wall, where required, to prevent differential pressures.

Engineer: If SECTION 03 30 00 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 03 30 00 – CAST-IN-PLACE CONCRETE, PART 3, SUBPARAGRAPH 3.6.B

DELETE:

2. Typically, a total of 4 specimens will be fabricated for each set. Specimens will be fabricated, cured, and tested in accordance with ASTM C 192.

SUBSTITUTE:

2. Typically, a total of 5 specimens will be fabricated for each set. Specimens will be fabricated, cured, and tested in accordance with ASTM C 192.

Engineer: If SECTION 03 62.00 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 03 62 00 – NONSHRINK GROUTING, PART 2, SUBPARAGRAPH 2.1.A.1

ADD:

- d. Sika Corporation, SikaGrout 212

Engineer: If SECTION 03 62.00 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 03 62 00 – NONSHRINK GROUTING, PART 2, SUBPARAGRAPH 2.1.A.2

ADD:

- d. Sika Corporation, SikaGrout 328

Engineer: If SECTION 03 62.00 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 03 62 00 – NONSHRINK GROUTING, PART 2, SUBPARAGRAPH 2.1.A

DELETE:

3. Category III: *(in its entirety)*

SUBSTITUTE:

3. Category III:
 - a. Escoweld Industrial Grouts and Polymers, Escoweld 7505E/7530
 - b. Sika Corporation, Sikadur 42, Grout Pak; or Sikadur 42 LE, Grout Pak
 - c. Symons by Dayton Superior, Symons ResCon Epoxy Grout

Specify Category I for general use as filler for tie holes in concrete formwork. Specify Category II for equipment bases with a motor less than 26 hp, wall patch, bolt holes, etc. Specify Category III for large equipment bases, motors over 26 hp, etc.

SECTION 03 62 00 – NONSHRINK GROUTING, PART 2, SUBPARAGRAPH 2.2.A

DELETE:

1. Category I: *(in its entirety)*

SECTION 03 62 00 – NONSHRINK GROUTING, PART 2, SUBPARAGRAPH 2.2.A

DELETE:

2. Category II: *(in its entirety)*

SECTION 03 62 00 – NONSHRINK GROUTING, PART 2, SUBPARAGRAPH 2.2.A

DELETE:

3. Category III: *(in its entirety)*

Include the following if you want the grout tested. Typically, DW only tests grout when used on large mechanical installations.

SECTION 03 62 00 – NONSHRINK GROUTING, PART 3, SUBPARAGRAPH 3.2.A

ADD:

3. Testing:
 - a. Mix grout to fluid consistency and conduct flow cone and 2 bleed tests.
 - b. Make a minimum of 6 cubes for testing of 2 cubes at one day, 3 days, and 28 days.
 - c. ENGINEER will transport cubes for storage and testing.

Engineer: If SECTION 03 63 00 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 03 63 00 – EPOXY GROUTING, PART 2, SUBPARAGRAPH 2.1.B

DELETE:

2. Sika Corporation, Sikadur 42, Grout Pak

SUBSTITUTE:

2. Sika Corporation, Sikadur 42, Grout Pak; or Sikadur 42 LE, Grout Pak

SECTION 23 09 00 – HVAC CONTROLS, PART 1, SUBPARAGRAPH 1.4.A.2

ADD:

- f. Design system and equipment to perform under the following conditions:
 - 1) Outside design ambient temperature conditions:
 - a) Summer: [] DB/[] WB°F.
 - b) Winter: -[] DB°F.
 - 2) Indoor temperature:
 - a) Summer maximum: []°F.
 - b) Winter minimum: []°F.
 - 3) Altitude: [] feet above mean sea level.
 - 4) Seismic: UBC Zone 1.

DIVISION 26

Engineer: If SECTION 26 00 10 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 00 10 – COMMON WORK RESULTS FOR ELECTRICAL, PART 1, SUBPARAGRAPH 1.5.Q

ADD:

2. CONTRACTOR-provided EI&C As-Built Drawings shall be on a DW standard title block and have Drawing numbers in the format **E- # and EI- #**, starting with **E-X and EI-X**. Drawing **E-X and EI-X** shall be drawing indexes of the CONTRACTOR-provided EI&C As-Built Drawings. Drawing numbers shall be unique and approved by the ENGINEER.

Specify the Project Elevation.

SECTION 26 00 10 – COMMON WORK RESULTS FOR ELECTRICAL, PART 1, SUBPARAGRAPH 1.7

DELETE:

- A. Materials and equipment shall be designed and constructed for continuous operation, at rated current and voltage, at the Project elevation, 104°F ambient and 95% relative humidity. The equipment Manufacturer shall submit a certified letter in the Shop Drawing submittal stating the equipment provided meets this requirement.

SUBSTITUTE:

- A. Materials and equipment shall be designed and constructed for continuous operation, at rated current and voltage, at [], 104°F ambient and 95% relative humidity. The equipment Manufacturer shall submit a certified letter in the Shop Drawing submittal stating the equipment provided meets this requirement.

Specify the Project Elevation.

SECTION 26 05 13 – MEDIUM-VOLTAGE CABLES, PART 1, SUBPARAGRAPH 1.7

DELETE:

- A. Materials and equipment shall be designed and manufactured for continuous operation, at rated current, at Project elevation, 104°F ambient and 95% relative humidity.

SUBSTITUTE:

- A. Materials and equipment shall be designed and manufactured for continuous operation, at rated current, at [], 104°F ambient and 95% relative humidity.

Engineer: If SECTION 26 05 13 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 05 13 – MEDIUM-VOLTAGE CABLES, PART 2, SUBPARAGRAPH 2.1.A

DELETE:

2.1 APPROVED MANUFACTURERS (*in its entirety*)

SUBSTITUTE:

2.1 APPROVED MANUFACTURERS

- A. Cable:
 - 1. General Cable
 - 2. Okonite
- B. Cable Termination Boot and Lightning Arrestor (LA) Connection Boot:
 - 1. Plastic Dip Moldings, Inc., Insulboot Cable Termination Boot and Lightning Arrestors Connection
- C. Cable Termination:
 - 1. Interior (5 kV):
 - a. 3M Corp. Quick Term II, 5620K Series
 - b. Raychem Corp., HVT Series
 - 2. Exterior:
 - a. 3M Corp. Quick Term II, 5630K Series
- D. Pulling Compounds:
 - 1. Cable Grip Co.
 - 2. Ideal Company
 - 3. Polywater, Inc.
- E. Cable-To-Bus Bar Connection Kits:
 - 1. Raychem Corp., Type HVBC
- F. Cable End Caps – Heat-Shrinkable Polyolefin:
 - 1. 3M Corp., Type ICEC
- G. Electrical Grounding Braid:
 - 1. 3M Corp.
 - 2. Scotchbrand 25
- H. Cable Phase Identification:
 - 1. 3M Corp.
 - 2. Scotch 35 Tape
- I. Cable Ties:
 - 1. Thomas & Betts, Ty-Rap UV-Resistant Nylon 6.6

Engineer: If SECTION 26 05 13 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 05 13 – MEDIUM-VOLTAGE CABLES, PART 2, SUBPARAGRAPH 2.1

ADD:

- I. Cable Termination Boot and Lightning Arrestor (LA) Connection Boot:
 - 1. Plastic Dip Moldings, Inc., Insulboot Cable Termination Boot and Lightning Arrestors Connection

Engineer: If SECTION 26 05 13 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 05 13 – MEDIUM-VOLTAGE CABLES, PART 2, SUBPARAGRAPH 2.3

DELETE:

- B. Heat-Shrinkable Bus Connection Kits: *(in its entirety)*

SUBSTITUTE:

- B. Cable Termination Boot and Lightning Arrestor (LA) Connection Boot:
1. Boots shall be capable of insulating bus bars 2-inches to 6-inches wide and for connection of one to 4 cables. Boots shall electrically insulate and environmentally seal the connection and be easily re-enterable.
 2. Boots shall be rated 15 kV class with a nominal thickness of 0.090-inch and tested in accordance with ANSI C37.20c, Section 5.2.1.4 and ANSI C37.20c, Section 5.2.9.

Engineer: If SECTION 26 05 13 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 05 13 – MEDIUM-VOLTAGE CABLES, PART 2, SUBPARAGRAPH 2.3.C

DELETE:

- C. Cable Termination: *(in its entirety)*

SUBSTITUTE:

- C. Cable Termination:
1. Interior (5 kV):
 - a. Single conductor shielded cable terminations for indoor applications shall be one piece, track-resistant EPDM rubber with top seal and ground strap assemblies.
 - b. Termination shall have a current rating equal to, or greater than, the cable ampacity.
 - c. Termination shall accommodate any form of cable shielding or construction without the need for special adapters.
 2. Exterior:
 - a. Single conductor shielded cable terminations for indoor applications shall be one piece, track resistant EPDM rubber with top seal and ground strap assemblies.
 - b. Termination shall have a current rating equal to, or greater than, the cable ampacity.
 - c. Termination shall accommodate any form of cable shielding or construction without the need for special adapters.
 - d. Exterior stress cones, not inside the pump station, shall be four-skirt type.

Engineer: If SECTION 26 05 13 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 05 13 – MEDIUM-VOLTAGE CABLES, PART 2, SUBPARAGRAPH 2.3.F

DELETE:

2. Secured by PP, plenum rated, UV-resistant cable ties.

SUBSTITUTE:

2. Laser-engraved, 2-ply, 1.6 mm microsurfaced impact acrylic tags, secured by PP, plenum rated, UV-resistant cable ties.

Engineer: If SECTION 26 05 13 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 05 13 – MEDIUM-VOLTAGE CABLES, PART 2, SUBPARAGRAPH 3.2.B

ADD:

7. Exterior stress cones shall be 4-skirt type.
-

Specify the Project Elevation.

SECTION 26 05 19 – LOW-VOLTAGE CONDUCTORS, PART 1, SUBPARAGRAPH 1.6

DELETE:

- A. Materials and equipment shall be designed and constructed for continuous operation, at rated current, at Project elevation, 104°F ambient and 95% relative humidity.

SUBSTITUTE:

- A. Materials and equipment shall be designed and constructed for continuous operation, at rated current, at [], 104°F ambient and 95% relative humidity.
-

Specify the Project Elevation.

SECTION 26 05 26 – GROUNDING AND BONDING, PART 1, SUBPARAGRAPH 1.6

DELETE:

- A. Materials and equipment shall be designed and constructed for continuous operation, at rated current, at Project elevation, 104°F ambient and 95% relative humidity.

SUBSTITUTE:

- A. Materials and equipment shall be designed and constructed for continuous operation, at rated current, at [], 104°F ambient and 95% relative humidity.
-

Engineer: If SECTION 26 42 00 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 42 00 – COMMON WORK RESULTS FOR CATHODIC PROTECTION

DELETE:

CPCS SECTION 26 42 00 *(in its entirety)*

SUBSTITUTE:

SECTION 26 42 00 *(located in the Project Specific Technical Specifications)*

Specify the Project Elevation.

SECTION 26 42 13.01 – IMPRESSED CURRENT CATHODIC PROTECTION FOR BURIED AND SUBMERGED PIPING, STRUCTURES, AND APPURTENANCES, PART 1, SUBPARAGRAPH 1.7.A

DELETE:

2. Materials and equipment shall be designed and constructed for continuous operation at rated current, at Project elevation, 104°F ambient, and 95% relative humidity.

SUBSTITUTE:

2. Materials and equipment shall be designed and constructed for continuous operation at rated current, at [REDACTED], 104°F ambient, and 95% relative humidity.

SECTION 26 42 13.01 – IMPRESSED CURRENT CATHODIC PROTECTION FOR BURIED AND SUBMERGED PIPING, STRUCTURES, AND APPURTENANCES, PART 2, SUBPARAGRAPH 2.2.A.4

DELETE:

- a. Dual AC input of 208/480 V, single-phase, 60 Hz and a suitably sized thermal magnetic type circuit breaker on the front of the panel.

SUBSTITUTE:

- a. Dual AC input of [REDACTED], [3-phase], 60 Hz and a suitably sized thermal magnetic type circuit breaker on the front of the panel.

Select junction box type.

SECTION 26 42 13.01 – IMPRESSED CURRENT CATHODIC PROTECTION FOR BURIED AND SUBMERGED PIPING, STRUCTURES, AND APPURTENANCES, PART 2, SUBPARAGRAPH 2.2.D.9

DELETE:

- a. In accordance with NEMA 3, 3X, 4, or 4X type junction box, standard product of the recognized Manufacturer.

SUBSTITUTE:

- a. [REDACTED].

Select casing type.

SECTION 26 42 13.01 – IMPRESSED CURRENT CATHODIC PROTECTION FOR BURIED AND SUBMERGED PIPING, STRUCTURES, AND APPURTENANCES, PART 2, SUBPARAGRAPH 2.2.D

DELETE:

22. Well casing: *(in its entirety)*

SUBSTITUTE:

22. Well casing:
 - a. [REDACTED]:

Specify the Project Elevation.

**SECTION 26 43 00 – TRANSIENT VOLTAGE SURGE SUPPRESSORS, PART 1,
SUBPARAGRAPH 1.6**

DELETE:

- A. Materials and equipment shall be designed and constructed for continuous operation, at rated current and voltage, at Project elevation, 104°F ambient and 95% relative humidity.

SUBSTITUTE:

- A. Materials and equipment shall be designed and constructed for continuous operation, at rated current and voltage, at [REDACTED], 104°F ambient and 95% relative humidity.

Engineer: If SECTION 26 50 10 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 50 10 – LIGHTING, PART 1, SUBPARAGRAPH 1.2

DELETE:

- D. Underwriters Laboratories, Inc. (UL): *(in its entirety)*

SUBSTITUTE:

- D. Underwriters Laboratories, Inc. (UL):
1. 924 – Emergency Lighting and Power Equipment
2. 935 – Standard for Fluorescent-Lamp Ballasts

Engineer: If SECTION 26 50 10 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 50 10 – LIGHTING, PART 1, SUBPARAGRAPH 1.4.A.3.b

DELETE:

- 9) Ballast: *(in its entirety)*
10) Lamp: *(in its entirety)*

SUBSTITUTE:

- 9) Ballast and LED driver:
a) Type.
b) Protection.
c) Wiring diagram.
d) Nominal wattage, input wattage, and lamp wattage.
e) Input voltage and power factor.
f) Starting current, operating line current, and restrike current.
g) Sound rating.
h) BF.
i) Starting temperature and temperature rating.
j) Efficiency ratings.
- 10) Lamp and LED:
a) Type.
b) Wattage.
c) Voltage.
d) Approximate life, in hours.
e) Lumen output:
(1) Initial.
(2) Mean.
(3) CCT.
(4) Lamp lumen depreciation.

- (5) Efficacy.
- (6) Base.

Engineer: If SECTION 26 50 10 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 50 10 – LIGHTING, PART 1, SUBPARAGRAPH 1.4.D

DELETE:

1. Furnish 10% of the quantity provided, but not less than 5 ballasts for every ballast type and size used.
2. Furnish 10% of the quantity provided, but not less than 5 new lamps for every lamp type and size used.

SUBSTITUTE:

1. 10% of the quantity provided, but not fewer than 5 ballasts for every ballast type and size used.
2. 10% of the quantity provided, but not fewer than 5 new lamps for every lamp type and size used.
3. Two LED driver assemblies for each driver type.
4. Two LED engine assemblies for each LED luminaire type.

Specify the Project Elevation.

SECTION 26 50 10 – LIGHTING, PART 1, SUBPARAGRAPH 1.6

DELETE:

- A. Materials and equipment shall be designed and constructed for continuous operation, at rated current, at Project elevation, 104°F ambient and 95% relative humidity.

SUBSTITUTE:

- A. Materials and equipment shall be designed and constructed for continuous operation, at rated current, at [], 104°F ambient and 95% relative humidity.

Engineer: If SECTION 26 50 10 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 50 10 – LIGHTING, PART 1, SUBPARAGRAPH 1.7

ADD:

- C. Warranty for 5 years from the Substantial Completion date for the satisfactory performance and installation of the LED lighting system and associated appurtenances.

Engineer: If SECTION 26 50 10 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 50 10 – LIGHTING, PART 2, SUBPARAGRAPH 2.1

ADD:

- E. LED Light Engines:
 1. Columbia Lighting
 2. Hubbell Industrial Lighting
 3. Lithonia/Acuity Brands
- F. LED Drivers:
 1. Columbia Lighting
 2. Hubbell Industrial Lighting
 3. Lithonia/Acuity Brands
- G. LED Standby Light Unit:
 1. Barron Exitronix
 2. Lithonia

- H. Illuminated Exit Sign:
 - 1. Dual-Lite
 - 2. Lithonia
- I. Fluorescent Emergency Ballast:
 - 1. The Bodine Co., Inc.
 - 2. Lithonia
 - 3. MagneTek Lighting Products

Engineer: If SECTION 26 50 10 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 50 10 – LIGHTING, PART 2, SUBPARAGRAPH 2.2

DELETE:

- B. Lamps:
 - 1. Provide as indicated in the Luminaire Schedule shown on the Drawings.
 - 2. Shall meet or exceed the requirements of the Energy Policy Act of 1992.
 - 3. Fluorescent lamps: F32T8 rapid start type, cool white.
 - 4. HID:
 - a. Type: Metal Halide.
 - b. Color: Clear.
 - 5. Incandescent: Standard filaments, Halogen PAR, or linear quartz as applicable, rough service type, 125 V, of the type and wattage indicated in the Luminaire Schedule shown on the Drawings.
 - 6. Metal halide: Suitable for burning position as required for the light fixture, in accordance with ANSI C78.389. Average rated life in the vertical burning position shall be 10,000 hours minimum for 250 W and smaller lamps and 20,000 hours minimum for 400 W and larger lamps. Mean lumens shall be 75% of initial lumens minimum; color temperatures shall be 3600K minimum; re-strike time after momentary interruption shall not be more than 4 minutes; warm-up time to full brightness shall be within 15 minutes. Pulse start unless otherwise indicated in the Luminaire Schedule shown on the Drawings.

SUBSTITUTE:

- B. Lamp and LED:
 - 1. Provide as indicated in the Luminaire Schedule shown on the Drawings.
 - 2. Shall meet or exceed the requirements of the Energy Policy Act of 1992.
 - 3. Fluorescent lamps: F32T8 rapid start type, cool white.
 - 4. HID:
 - a. Type: Metal Halide.
 - b. Color: Clear.
 - 5. Incandescent: Standard filaments, Halogen PAR, or linear quartz as applicable, rough service type, 125 V, of the type and wattage indicated in the Luminaire Schedule shown on the Drawings.
 - 6. Metal halide: Suitable for burning position as required for the light fixture, in accordance with ANSI C78.389. Average rated life in the vertical burning position shall be 10,000 hours minimum for 250 W and smaller lamps and 20,000 hours minimum for 400 W and larger lamps. Mean lumens shall be 75% of initial lumens minimum; color temperatures shall be 3600K minimum; re-strike time after momentary interruption shall not be more than 4 minutes; warm-up time to full brightness shall be within 15 minutes. Pulse start unless otherwise indicated in the Luminaire Schedule shown on the Drawings.

Engineer: If SECTION 26 50 10 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 50 10 – LIGHTING, PART 2, SUBPARAGRAPH 2.2

ADD:

- D. LED Light Engines:
 - 1. Solid state, high output light emitting diode arrays.
 - 2. Field removable and replaceable using pre-wired plug wiring harness.
- E. LED Drivers:
 - 1. Drive current: 350 mA or 700 mA as indicated in the Luminaire Schedule.
 - 2. Field removable and replaceable using pre-wired plug wiring harness.
 - 3. Integrated surge protection.
 - 4. Projected lumen maintenance: Minimum L80 at 50,000 hours.
- F. LED Fixtures:
 - 1. Optics: As indicated in the Luminaire Schedule
 - 2. Thermal management: Aluminum alloy heat sink integrated into luminaire housing.
 - 3. Finish: Polyester baked power coat or baked enamel paint.
- F. LED Standby Light Unit:
 - 1. Power pack: Self-contained, 120 V/277 V, dual voltage transformer, inverter/charger, sealed nickel cadmium battery, and indicator switch in accordance with UL 924.
 - 2. Lighted, push-to-test indicator.
 - 3. Capable of providing illumination for 1 1/2 hours in emergency mode.
 - 4. Capable of full recharge in one day, automatically upon resumption of normal line voltage.
 - 5. Capable of protecting against excess charging and discharging.
 - 6. Self-diagnostics:
 - a. Continuous monitoring operating conditions of the source power, battery supply voltage, emergency lamp continuity, and charging circuit.
 - b. Charger and battery fault indicating LEDs. Indicators to remain illuminated until the fault condition is corrected.
 - c. Automatic, monthly 30-second discharge and self-test.
 - c. Automatic, bi-annually 90-minute discharge and self-test.
- F. Illuminated Exit Sign:
 - 1. Power pack: Self-contained, 120 V/277 V, dual voltage transformer, transient/surge protection, solid-state inverter/charger, sealed nickel cadmium battery, and indicator switch in accordance with UL 924.
 - 2. Single or dual face, LED illuminated green lettering with snap-in directional chevrons.
 - 3. Impact and scratch resistant, white thermoplastic housing.
 - 4. Push-to-test switch and AC-ON indicator.
 - 5. Universal mounting to standard octagon or square electrical outlet boxes.
 - 6. Capable of providing illumination for 2 hours in emergency mode.
 - 7. Capable of full recharge in one day, automatically upon resumption of normal line voltage.
 - 8. Capable of protecting against excess charging and discharging.
 - 9. Self-diagnostics: Continuous monitoring of operating conditions of the source power, battery supply voltage, emergency lamp continuity, and charging circuit.
- F. Fluorescent Emergency Ballast:
 - 1. In accordance with UL 924.
 - 2. Nickel cadmium battery, charger, and electronic circuitry in metal case plus AC ballast.
 - 3. Solid state charging indicator for monitoring lighting and double-pole test switch.
 - 4. Capable of operating one fluorescent lamp for a period of 90 minutes with output of 1,100 to 1,200 lumens.

Engineer: If SECTION 26 50 10 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 50 10 – LIGHTING, PART 3, SUBPARAGRAPH 3.1.A

ADD:

- 7. Illuminated Exit Sign:
 - a. Install in accordance with Manufacturer's recommendations.

- b. Provide separate, un-switched circuit wiring to luminaire.
 - c. Mount at 8 feet above finished floor.
8. LED Standby Light Unit:
- a. Install in accordance with Manufacturer's recommendations.
 - b. Provide separate, un-switched circuit wiring to luminaire.
 - c. Mount at 8 feet, 6 inches above finished floor.

Engineer: If SECTION 26 50 10 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 26 50 10 – LIGHTING, PART 3, SUBPARAGRAPH 3.1

DELETE:

- B. Lamps: For each fixture, provide the number and type for which the fixture is designed.

SUBSTITUTE:

- B. Lamps and LEDs: For each fixture, provide the number and type for which the fixture is designed.

DIVISION 27

Specify the Project Elevation.

SECTION 27 00 00 – COMMUNICATIONS SYSTEMS, PART 1, SUBPARAGRAPH 1.6

DELETE:

- A. Materials and equipment shall be designed and constructed for continuous operation, at rated current, at Project elevation, 104°F ambient and 95% relative humidity.

SUBSTITUTE:

- A. Materials and equipment shall be designed and constructed for continuous operation, at rated current, at , 104°F ambient and 95% relative humidity.

DIVISION 31

For pipelines in agricultural or grassland (rural) areas confirm with property owner and through testhole if necessary to actual depth of viable topsoil and specify for bidding and add appropriate note here. Delete text if not required.

SECTION 31 10 00 – SITE CLEARING, PART 3, SUBPARAGRAPH 3.1.C

DELETE:

2. Strip material containing roots, grasses, and other deleterious or organic matter generally found in the top 6 inches of undisturbed natural terrain from areas requiring excavation, grading, trenching, and subgrade preparation for foundations and embankment Work.

SUBSTITUTE:

2. [REDACTED].

Check to ensure that the language shown matches the geotech report or any other design criteria.

SECTION 31 23 13 – SUBGRADE PREPARATION, PART 3, SUBPARAGRAPH 3.3

DELETE:

- A. Compaction: *(in its entirety)*

SUBSTITUTE:

- A. Compaction:
 1. [REDACTED].

Engineer: If SECTION 31 23 24 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 31 23 24 – TRENCH BACKFILL, PART 2, SUBPARAGRAPH 2.1

DELETE:

- D. CLSM – Flow Fill: *(in its entirety)*

SUBSTITUTE:

- D. CLSM – Flow Fill:
 1. General:
 - a. Compressive strength between 50 psi and 150 psi at 28 days when tested in accordance with ASTM D 4832.
 - b. Air-entrained to total air content: Maximum of 8%, unless otherwise requested by the ENGINEER in writing.
 - c. CLSM placed in pipe zone or in areas that may require future excavation shall have a RE less than 1.5, as calculated below.
 - d. The maximum lift thickness shall be 24-inches unless otherwise approved by the ENGINEER.
 - e. Provide adequate cure time for flow fill lifts before placing subsequent lifts above.
 - f. Any damage to pipes, structures, or soil failures caused by too thick of lifts or inadequate cure times shall be repaired at the CONTRACTOR's expense.
 2. Cementitious materials:
 - a. Cement: Type II portland cement in accordance with ASTM C 150.

- b. Fly ash: Class C or Class F, in accordance with ASTM C 618.
- 3. Aggregates:
 - a. Grading and quality requirements in accordance with ASTM C 33.
- 4. Water: In accordance with ASTM C 94.
- 5. Admixtures:
 - a. Chemical admixtures that do not contain calcium chloride and are in accordance with ASTM C 494 for concrete may be used in CLSM mix.
 - b. Compatible with cement and other admixtures in batch.

DIVISION 32

Engineer: If SECTION 32 12 16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 32 12 16 – ASPHALT PAVING

DELETE:

CPCS SECTION 32 12 16 *(in its entirety)*

SUBSTITUTE:

SECTION 32 12 16 *(located in the Project Specific Technical Specifications)*

SECTION 32 31 13 – CHAIN LINK FENCES AND GATES, PART 2, SUBPARAGRAPH 2.3

DELETE:

- C. If color coating is required, the manufactured components shall be subjected to the Ameristar thermal stratification coating process (high-temperature, in-line, multi-stage, and multi-layer) including, at a minimum, a 6-stage pretreatment/wash and an electrostatic spray application of a polyester finish. The topcoat shall be a no-mar TGIC polyester powder coat finish with a minimum thickness of 2 mils. The color shall be black. The stratification-coated framework shall be capable of meeting the performance requirements for each quality characteristic shown in Table 1.

SUBSTITUTE:

- C. If color coating is required, the manufactured components shall be subjected to the Ameristar thermal stratification coating process (high-temperature, in-line, multi-stage, and multi-layer) including, at a minimum, a 6-stage pretreatment/wash and an electrostatic spray application of a polyester finish. The topcoat shall be a no-mar TGIC polyester powder coat finish with a minimum thickness of 2 mils. The color shall be [bronze] [white] [desert sand]. The stratification-coated framework shall be capable of meeting the performance requirements for each quality characteristic shown in Table 1.

DIVISION 33

Engineer: If SECTION 33 05 13 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 05 13 – PRECAST MANHOLES AND STRUCTURES, PART 2, SUBPARAGRAPH 2.1.A

DELETE:

4. Firebaugh Precast

SUBSTITUTE:

4. Lindsay Precast

Engineer: If SECTION 33 05 13 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 05 13 – PRECAST MANHOLES AND STRUCTURES, PART 2, SUBPARAGRAPH 2.2.C.3.b

DELETE:

- 8) Locate horizontal wall joints at an 18 inch minimum distance from the horizontal centerline of wall openings.

SUBSTITUTE:

- 8) Locate horizontal wall joints through the centerline of any wall openings or at a 12 inch minimum clear distance from the closest outside edge of wall openings.

SECTION 33 05 23.16 – UTILITY PIPE TUNNELS, PART 1, SUBPARAGRAPH 1.7

DELETE:

- A. The anticipated geologic conditions are described in the GBR. Methods may include, but are not limited to, tunnel boring machine, microtunneling, auger boring, or open face manual excavation.

SUBSTITUTE:

- A. The anticipated geologic conditions are described in the GBR located [redacted]. Methods may include, but are not limited to, tunnel boring machine, microtunneling, auger boring, or open face manual excavation.

Engineer: If SECTION 33 05 23.16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 05 23.16 – UTILITY PIPE TUNNELS

DELETE:

- 1.5 QUALITY ASSURANCE *(in its entirety)*

SUBSTITUTE:

- 1.5 QUALITY ASSURANCE
 - A. System Description: The completed installation shall be suitable for transporting water without affecting the stability and integrity of the overlying roadway, railway, runway, or waterway.

- B. Composite Sleeve Casing Spacer Installer Requirements:
 - 1. Installers shall be Manufacturer-certified. Manufacturer certification shall be current as of the actual date of installation of casing spacer.
- C. Steel casing pipe shall be the product of a single domestic Manufacturer; it shall be tested and inspected at the Manufacturer's site as required by the manufactured material specifications. Submit sworn certificates of tests, results, and satisfactory approvals as specified in SECTION 01 33 00.
- D. Pipe may be inspected by an independent laboratory selected by the OWNER; the Manufacturer's cooperation is required. The cost of any inspection of approved pipe requested by the OWNER will be paid for by the OWNER. The cost of inspection of any disapproved pipe shall be paid for by the CONTRACTOR.
- E. Welders shall be certified in accordance with AWS. Submit current certifications prior to the start of field work as specified in SECTION 05 05 26.
- F. Project Requirements:
 - 1. Discharge from dewatering operations shall be directed into approved receiving basins as specified in SECTION 31 23 19.
 - 2. Provide maintenance of traffic; establish and maintain safety procedures in road, railway, and ditch right-of-ways during the operation.
 - 3. Inspect locations where operations are to be conducted and casing pipe is to be installed. Verify conditions under which Work is performed. Provide necessary details for the orderly installation of Work whether or not shown or specified in the Contract Documents. Verify the number, type, and location of existing utilities prior to beginning Work.
 - 4. Work nights and weekends, if required, to complete Work. Request and obtain written authorization in accordance with the General Conditions prior to working nights and weekends.
 - 5. The method of installation used shall not result in measurable settlement, movement, or cracking of existing structures, buried facilities, irrigation channels, or adjacent roadways and railways. If movement or settlement occurs that causes or may cause damage to these structures over, along, or adjacent to Work, operations shall stop immediately except for activities that assist in making Work secure. Operations may resume only after necessary precautions are taken to prevent further movement, settlement, or damage.
 - 6. Existing structures, buried facilities, irrigation channels, railways, and roadways damaged by operations shall be repaired or replaced as necessary to restore them to a proper condition, at the CONTRACTOR's expense.
- G. The use of a Manufacturer's name and model or catalog number is for the purpose of establishing the standard of quality and general configuration desired.

Engineer: If SECTION 33 05 23.16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 05 23.16 – UTILITY PIPE TUNNELS, PART 2, SUBPARAGRAPH 2.1

DELETE:

2.1. APPROVED MANUFACTURERS *(in its entirety)*

SUBSTITUTE:

2.1. APPROVED MANUFACTURERS

- A. Casing Spacers (Skids) and Insulators:
 - 1. Advanced Products & Systems, Inc.
 - 2. CCI Pipeline Systems
 - 3. Pipeline Seal and Insulator, Inc.
- B. Composite Sleeve Casing Spacer:
 - 1. Clock Spring Company, L.P.
- C. Casing Joints:
 - 1. Permlok Corporation, Permlok interlocking pipe system

- D. End Seals:
 - 1. Pipeline Seal and Insulator Company, Model C or W
 - 2. Advance Products and Systems, Inc., Model AC or AW

Engineer: If SECTION 33 05 23.16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 05 23.16 – UTILITY PIPE TUNNELS, PART 2, SUBPARAGRAPH 2.2

DELETE:

2.2 MATERIALS (in its entirety)

SUBSTITUTE:

2.2 MATERIALS

A. Steel Casing Pipe:

- 1. Steel casings shall be leak-proof and in accordance with ASTM A 139, Grade B. Steel casing pipe shall have a minimum yield strength of 35,000 psi and shall be designed to withstand Cooper E-80 live loading with diesel impact.
- 2. The inside diameter of casing pipe shall be large enough to allow carrier pipe to be installed with casing skids and joint restraint without disturbing casing pipe, adjacent subgrade, or adjacent facilities and structures.
- 3. Casing pipe shall have the minimum nominal diameter and wall thickness shown on the Drawings and listed below:

Casing Pipe Inside Diameter (Inches)	Casing Pipe Wall Thickness (Inches)
6 to 12	0.250
16 to 20	0.312
22 to 24	0.375
26 to 28	0.437
30 to 34	0.500
36 to 38	0.562
40 to 50	0.625
52 to 58	0.750
60 to 78	0.813
84 to 90	0.875
96 to 102	0.937
108 to 114	1.000
120	1.125

- 4. Joints:
 - a. Butt-welded.
 - b. Permalok.
- 5. Grout ports: 2-inch standard pipe IP threaded half couplings welded to the casing pipe, and fitted with threaded galvanized iron plugs.
- B. Casing Spacers (Skids) and Insulators:
 - 1. Type Stainless steel, bolt on with a shell made of at least 2 halves.
 - a. Band: 14 gauge hot-rolled and pickled mild steel coated with a 10 to 16 mil fusion-bonded PVC coating.
 - b. Non-conductive PVC liner:
 - 1) Thickness: 0.090-inches minimum.
 - 2) Hardness: Shore durometer A 85 to A 90.
 - 3) Dielectric strength: 60 kV minimum.
 - 4) Surge test, 1/8-inch: 58 kV minimum, step-by-step test.
 - 5) Water absorption: 1% maximum.
 - c. Risers: 10 gauge steel MIG welded to band.

- d. Ultra-high molecular weight polymer glass-reinforced runners with high abrasion resistance and low coefficient of friction meeting the following properties:
 - 1) Tensile strength in accordance with ASTM D 638: 17,600 psi, minimum.
 - 2) Flexural strength in accordance with ASTM D 790: 25,300 psi, minimum.
 - 3) Compression strength in accordance with ASTM D 648, 10% deformation: 18,000 psi, minimum.
 - 4) Deflection temperature at 264 psi in accordance with ASTM D 648: 405°F.
 - e. Studs, nuts, and washers:
 - 1) Studs: 5/16-inch, 18-inch by 2 1/2-inch 18-8 stainless steel.
 - 2) Hex nuts: 5/16-inch stainless steel.
 - 3) Washers: 5/16-inch SAE 2330 stainless steel.
 - f. Width: 12-inch.
- C. Composite Sleeve Casing Spacers:
- 1. Type: A composite sleeve consisting of a three-part system consisting of aN unidirectional fiberglass sleeve, high strength filler, and adhesive.
 - a. Unidirectional fiberglass sleeve:
 - 1) Material: Fiberglass and polyester/vinyl ester resin.
 - 2) Thickness:
 - a) Each layer: 0.065 inch.
 - b) Complete, 8-layer system: 0.500-inch non-conductive PVC liner.
 - 3) Width: 11.500-inch.
 - b. Filler:
 - 1) Compressive strength: Greater than 8,000 psi.
 - c. Adhesive:
 - 1) Lap shear strength: Greater than 1,200 psi.
- D. End Closure: Pull-on casing seal or wrap around casing seal.
- E. Liner Plate:
- 1. Plates: Accurately curved to conform to the tunnel cross-section and all dimensions of such size and accuracy so that plates of similar curvature will be interchangeable.
 - 2. Connections: Bolts on both the longitudinal and circumferential joints. Bolts and nuts shall not be less than 5/8 inch diameter and in accordance with ASTM A 307, Grade A, and hot-dip galvanized in accordance with ASTM A 153.
 - 3. Zinc coating: Minimum of 2 ounces per sf surface area on all sides in accordance with ASTM A 123.
 - 4. Grout ports: 2 standard pipe IP threaded half couplings welded into a hole in the center corrugation and fitted with threaded plugs. Locate grout ports at a minimum of every 4 feet along pipeline alternating top of pipe and pipe springline.
 - 5. Loading: Soil and HS-20 traffic loading or Cooper E-80 as applicable.

Standard Pipe Joints are specified as 250 psi. This needs to be increased as required based on requirements of the specific Project.

SECTION 33 11 01 – PIPING – GENERAL, PART 2, SUBPARAGRAPH 2.2.A

DELETE:

- 1. Standard pipe joints shall be suitable for at least 250 psi water service and, regardless of type, designed to be self-centering.

SUBSTITUTE:

- 1. Standard pipe joints shall be suitable for at least psi water service and, regardless of type, designed to be self-centering.

The ENGINEER is to determine with Operations if a hydrostatic test is required. If hydrostatic testing is not required use the following:

SECTION 33 11 01 – PIPING – GENERAL, PART 3, SUBPARAGRAPH 3.3

DELETE:

- A. Hydrostatic Test of Water Pipes: *(in its entirety)*

If hydrostatic testing is required specify the test pressure:

SECTION 33 11 01 – PIPING – GENERAL, PART 3, SUBPARAGRAPH 3.3.A.3

DELETE:

- a. Pipe shall be tested at 150 psi as measured at the lowest point in the test section.

SUBSTITUTE:

- a. Pipe shall be tested at [] psi as measured at the lowest point in the test section.

Engineer: If SECTION 33 11 01.01 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 11 01.01 – STEEL PIPING, PART 2

DELETE:

- 2.1 APPROVED MANUFACTURERS *(in its entirety)*

The ENGINEER needs to specify the correct flanges for the Project. AWWA C207, Class D is the standard, for 150 psi applications, but E or F Flanges shall be used where necessary. Flanges may be either ring type flanges or hub type flanges, but all flanges supplied must be of the same type and class.

SECTION 33 11 01.01 – STEEL PIPING, PART 2, SUBPARAGRAPH 2.2.A

DELETE:

1. Flanges shall be ring type, flat faced, and serrated in accordance with AWWA C207.

SUBSTITUTE:

1. Flanges shall be ring type, flat faced, and serrated in accordance with AWWA C207 Class [D], [E] [F].

Several linings and coating options are specified, the ENGINEER should confirm all are acceptable for the Project.

SECTION 33 11 01.01 – STEEL PIPING, PART 2, SUBPARAGRAPH 2.2.B

DELETE:

2. Linings and coatings: Specials and fittings that cannot be mechanically lined and coated shall be lined and coated by hand-application using the same materials used for the pipe. Lining and coating applied in this manner shall provide protection equal to that specified for the pipe.

SUBSTITUTE:

2. Linings and coatings: Specials and fittings that cannot be mechanically lined and coated shall be lined and coated by hand-application using the same materials used for the pipe and in accordance with [AWWA C205] [AWWA C222] [AWWA C210]. Lining and coating applied in this manner shall provide protection equal to that specified for the pipe.

Engineer: If SECTION 33 11 01.02 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 11 01.02 – DUCTILE IRON PIPING, PART 2, SUBPARAGRAPH 2.1

DELETE:

F. Tapping Saddles: *(in its entirety)*

SUBSTITUTE:

- F. Tapping Saddles:
1. A.Y. McDonald, 73825
 2. The Ford Meter Box Company, 202B-NL
 3. Mueller Company, BR2B
- G. Tapping Sleeves:
1. Fabricated steel:
 - a. JCM Industries, 418
 - b. Romac Industries, FTS 420T, FTS 420
 - c. Smith Blair, 622
 2. Stainless steel:
 - a. JCM Industries, 438
 - b. Romac Industries, STS 420T, STS 420

SECTION 33 11 01.02 – DUCTILE IRON PIPING, PART 2, SUBPARAGRAPH 2.2.A

DELETE:

3. Flanges: In accordance with AWWA C115 suitable for the pressure specified.

SUBSTITUTE:

3. Flanges: In accordance with AWWA C115 suitable for [150] [] psi working pressure.

Engineer: If SECTION 33 12 16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 12 16 – WATER UTILITY DISTRIBUTION VALVES, PART 1, SUBPARAGRAPH 1.1.B

DELETE:

3. SECTION 40 27 95 – ELECTRIC VALVE ACTUATORS

Engineer: If SECTION 33 12 16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 12 16 – WATER UTILITY DISTRIBUTION VALVES, PART 2, SUBPARAGRAPH 2.1

DELETE:

A. Type V104 Gate Valve: *(in its entirety)*

SUBSTITUTE:

- A. Type V104 Gate Valve:
1. Potable water:
 - a. Apollo, 102T LF
 - b. Crane, LF 438

- c. Milwaukee, Gate UP 105
- d. Nibco, 113-LF
- e. Stockham, LFB-103
- 2. Non-Potable:
 - a. Apollo, 106T
 - b. Crane, 437
 - c. Milwaukee, Gate 1140
 - d. Nibco, T 133
 - e. Stockham, B-128

Engineer: If SECTION 33 12 16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 12 16 – WATER UTILITY DISTRIBUTION VALVES, PART 2, SUBPARAGRAPH 2.1

DELETE:

- G. Type V462 Gauge Cock: *(in its entirety)*

SUBSTITUTE:

- G. Type V462 Gauge Cock:
 - 1. Ernst Gage Co.
 - 2. Lunkenheimer
 - 3. United Brass Works, Figure 973

Engineer: If SECTION 33 12 16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 12 16 – WATER UTILITY DISTRIBUTION VALVES, PART 2, SUBPARAGRAPH 2.1

DELETE:

- I. Type V605 Check Valve: *(in its entirety)*

SUBSTITUTE:

- I. Type V605 Check Valve:
 - 1. Potable:
 - a. Apollo, 161T-LF, 161-S-LF
 - b. Crane, LF 37
 - c. Nibco, S-43-Y-LF, T-413-Y-LF
 - d. Stockham, LFB-319Y
 - 2. Non-Potable:
 - a. Apollo, 164T
 - b. Crane, 437
 - c. Milwaukee, Check 508
 - d. Nibco, T-413-B
 - e. Stockham, B-345

Engineer: If SECTION 33 12 16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 12 16 – WATER UTILITY DISTRIBUTION VALVES, PART 2, SUBPARAGRAPH 2.1

DELETE:

- U. Gauge Cock Values 1/8 inch to 3/8 inch: *(in its entirety)*

Engineer: If SECTION 33 12 16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 12 16 – WATER UTILITY DISTRIBUTION VALVES, PART 2, SUBPARAGRAPH 2.2

DELETE:

- A. Brass and bronze valve components and accessories that have surfaces in contact with potable water shall be alloys containing less than 16% zinc and 2% aluminum and shall be certified to comply with NSF/ANSI 61, NSF/ANSI 61 Annex G, and NSF/ANSI 372.
- B. Approved alloys are of the following ASTM designations:
 - 1. B 61, B 62, B 98 (Alloy No. C65100, C65500, or C66100), B 139 (Alloy No. C51000), B 584 (Alloy No. C90300 or C94700), B 164, B 194, B 127, and ASTM B 763 (Alloy No. C99500).
 - 2. Stainless steel Alloy 18-8 may be substituted for bronze.

SUBSTITUTE:

- A. Potable Water Applications:
 - 1. Brass and bronze valve components and accessories that have surfaces in contact with potable water shall be alloys containing less than 16% zinc and 2% aluminum and shall be certified to comply with NSF/ANSI 61, NSF 61 Annex G, and NSF/ANSI 372.
 - 2. Approved alloys are of the following ASTM designations:
 - a. B 61, B 62, B 98 (Alloy No. C65100, C65500, or C66100), B 139 (Alloy No. C51000), B 584 (Alloy No. B89520, B89833, C83600, C87850, C89836, C90300 or C94700), B 164, B 194, B 127, and ASTM B 763 (Alloy No. C99500).
 - b. Stainless steel Alloy 18-8 may be substituted for bronze.
- B. Non-Potable Water Applications:
 - 1. Brass and bronze goods that have surfaces not in contact with potable water shall be manufactured in accordance with AWWA C800 using alloy UNS No. C83600, commercially known as 85-5-5, in accordance with ASTM B 62.

Engineer: If SECTION 33 12 16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 12 16 – WATER UTILITY DISTRIBUTION VALVES, PART 2, SUBPARAGRAPH 2.2.C.1

DELETE:

- b. Type V104 gate valve smaller than 3-inches: All-bronze, screwed bonnet and ends, single solid wedge gate, non-rising stem, rated 300 psi SWP, 300 psi WOG.

SUBSTITUTE:

- b. Type V104 gate valve smaller than 3-inches:
 - 1) Potable: All-bronze, screwed bonnet and ends, single solid wedge gate, non-rising stem, rated 200 psi CWP, 125 psi SWP.
 - 2) Non-potable: All-bronze, screwed bonnet and ends, single solid wedge gate, non-rising stem, rated 150 psi SWP, 300 psi WOG.

Engineer: If SECTION 33 12 16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 12 16 – WATER UTILITY DISTRIBUTION VALVES, PART 2, SUBPARAGRAPH 2.2.C.4

DELETE:

- b. Type V462 gauge cock: 1/4-inch bronze body, hexagon end pattern, tee head, female ends, rated 125 psi SWP.

SUBSTITUTE:

- b. Type V462 gauge cock: 1/8-inch to 3/8-inch bronze body, hexagon end pattern, tee head, female ends, rated 125 psi SWP.

Engineer: If SECTION 33 12 16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 12 16 – WATER UTILITY DISTRIBUTION VALVES, PART 2, SUBPARAGRAPH 2.2.C.5

DELETE:

- a. Type V605 check valve 2-inches and smaller: All-bronze, screwed ends and cap, swing type replaceable Buna-N disc, rated 150 psi SWP, 200 psi WOG.

SUBSTITUTE:

- a. Type V605 check valve 2-inches and smaller:
 - 1) Potable: All-bronze, body and cap threaded or soldered ends and cap, Y-pattern, swing type disc, rated 200 psi CWP, 125 psi SWP.
 - 2) Non-potable: All-bronze, body and cap threaded or soldered ends and cap, Y-pattern, swing type disc, rated 300 psi CWP, 150 psi SWP.

SECTION 33 12 16 – WATER UTILITY DISTRIBUTION VALVES, PART 2, SUBPARAGRAPH 2.2.C.6.a

DELETE:

- 9) Maximum operating pressure: 150 psi.

SUBSTITUTE:

- 9) Maximum operating pressure: [] psi.

Engineer: If SECTION 33 12 16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 12 16 – WATER UTILITY DISTRIBUTION VALVES, PART 2, SUBPARAGRAPH 2.3.A

DELETE:

- 3. Electric actuators: As specified in SECTION 40 27 95.

Engineer: If SECTION 33 12 16 is applicable to your project, the following change MUST stay in the Supplementary Technical Specifications.

SECTION 33 12 16 – WATER UTILITY DISTRIBUTION VALVES, PART 2, SUBPARAGRAPH 2.3

DELETE:

- J. Gauge Cock Valves, 1/8-inch to 3/8 inch: (in its entirety)

SUPPLEMENTARY STANDARD DETAILS - CONTRACT

*****A

DIVISION 33

Engineer: If Detail 33060 is applicable to your project, the following change MUST stay in the Supplementary Standard Details

DETAIL 33060 – 2” PITOT MANHOLE (STEEL PIPE), TITLE

DELETE:

33060
2” PITOT MANHOLE
(STEEL PIPE)

SUBSTITUTE:

33060
1 1/2” PITOT MANHOLE
(STEEL PIPE)

DETAIL 33060 – 2” PITOT MANHOLE (STEEL PIPE), CORPORATION STOP

DELETE:

2” IP THD OUTLET
& 2” V464 MIP x MIP

SUBSTITUTE:

1 1/2” IP THD OUTLET
& 1 1/2” V464 MIP x MIP

Engineer: If Detail 33061 is applicable to your project, the following change MUST stay in the Supplementary Standard Details

DETAIL 33061 – 2” PITOT MANHOLE (DUCTILE IRON PIPE), TITLE

DELETE:

33061
2” PITOT MANHOLE
(DUCTILE IRON PIPE)

SUBSTITUTE:

33061
1 1/2” PITOT MANHOLE
(DUCTILE IRON PIPE)

DETAIL 33061 – 2” PITOT MANHOLE (DUCTILE IRON PIPE), CORPORATION STOP

DELETE:

2” IP THD OUTLET
& 2” V464 MIP x MIP

SUBSTITUTE:

1 1/2" IP THD OUTLET
& 1 1/2" V464 MIP x MIP