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## ADDENDUM NO. 1

**Date:** 9/23/2021  
**Project Name:** Addison Surveyor Chloramine Booster Station  
**Owner:** Town of Addison  
**Owner Project No.:** 2021-05-C  
**Garver Project No.** 17088170

This addendum shall be a part of the Plans, Contract Documents and Specifications to the same extent as though it were originally included therein, and it shall supersede anything contained in the Plans, Contract Documents, and Specifications with which it might conflict. This addendum, including all attachments, shall become part of the Contract and all provisions of the Contract shall apply thereto. The time provided for completion of the Contract has not been changed as noted in this addendum. Acknowledgement of receipt of this addendum must be noted in the appropriate section of the Bid Form and included with the Contract Documents.

### A. FRONT ENDS – Volume 1

1. Revise Section ToC – TABLE OF CONTENTS as follows:
  - a. Under DIVISION 8, delete 08 11 13 – STEEL DOORS and replace with 08 16 13 – FIBERGLASS REINFORCED PLASTIC DOORS AND FRAMES
  - b. Under DIVISION 40, add 40 42 00 – PROCESS MECHANICAL INSULATION

### B. SPECIFICATIONS – Volume 2

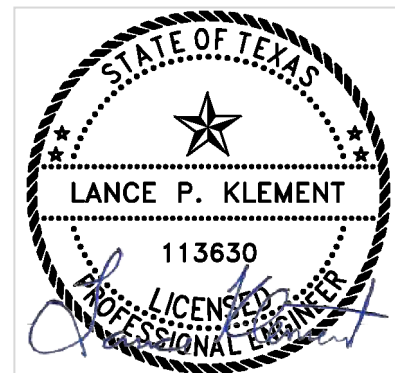
1. Remove the following specifications sections in their entirety, and replace with the same, attached hereto:
  - a. 40 23 39.1 – PROCESS PIPING SCHEDULE
2. Add the following specification section in its entirety, attached hereto:
  - a. 40 42 00 – PROCESS MECHANICAL INSULATION
3. Revise Section 09 90 00 – PAINTING AND PROTECTIVE COATINGS as follows:
  - a. Delete paragraph 1.2.A.5 a, 1.2.A.5 b, 1.2.A.10 a, and 1.2.A.10 b. The requirements of the Society of Protective Coating (SSPC) QP1 and QP2 are not required for this project.

C. DRAWINGS - Volume 3

1. Remove the following drawings in their entirety, and replace with the same, attached hereto:
  - a. 20-C102 – SURVEYOR PUMP STATION PROPOSED SITE PLAN
  - b. 99-C104 – CIVIL STANDARD DETAILS IV
2. Revise Drawing 20-C301 as follows: Update piping key notes A, B, and I to remove reference to SCH 40 PVC and replace with SCH 80 PVC.
3. Revise Drawing 20-M101 as follows: Update callout notes to remove references to SCHED 40 PVC and replace with SCHED 80 PVC.

By: 

Lance Klement, P.E.  
Project Manager



Digitally Signed 9/24/2021

Attachments:

- A. Specifications
  1. 40 23 39.1 – PROCESS PIPING SCHEDULE
  2. 40 42 00 – PROCESS MECHANICAL INSULATION
- B. Drawings
  1. 20-C102 – SURVEYOR PUMP STATION PROPOSED SITE PLAN
  2. 99-C104 – CIVIL STANDARD DETAILS IV

END OF ADDENDUM NO. 1

**SECTION 40 23 39.1 SUPPLEMENT  
PROCESS PIPING SCHEDULE**

Service	Flow Stream Identifier	Installation (Note 1)	Pipe Size (Note 2)	Material (Note 3)	Spec / Data Sheet No.	Max Operating Temp (°F)	Max Operating Pressure (psig)	Test Pressure (psig) & Method (Note 4)	Pipe Color (Note 5)	Remarks
Water, Potable	W, WL	Buried Exposed	ALL	PVC	40 23 39.43	Ambient	125	200, H	Blue	2,4
Liquid Ammonium Sulfate	LAS	Exposed Buried	ALL	PE Tubing PE Tubing (PVC Encased)	40 23 39.60	Ambient	100	115, H	Yellow with Orange Bands	2,5,6
Sodium Hypochlorite	SHP	Exposed Buried	ALL	PVC Tubing PVC Tubing (PVC Encased)	40 23 39.60	Ambient	100	115, H	Yellow	2,5,6

<p><b>Notes:</b></p> <p>1 Exposed - Inside/Outside Exposed Submerged Buried - Directly into Soil Encased</p> <p>2 &gt; Greater Than &lt; Less Than &lt;= Less Than or Equal To &gt;= Greater Than or Equal To</p> <p>3 CLDI - Cement Lined Ductile Iron CPVC - Chlorinated Polyvinyl Chloride CU - Copper DWCP - Double Wall Containment Pipe FRP - Fiberglass Reinforced Plastic Pipe GALV - Galvanized Pipe SST - Stainless Steel WS - Welded Steel</p>	<p>4 H - Hydrostatic Test P - Pneumatic Test G - Gravity Piping See Section 33 11 11 for Piping Leakage Testing for requirements. Pipe testing required as specified above</p> <p>5 See Section 09 90 00 for required painting. For buried piping, no color shall be required; coordinate for proper coatings, as necessary. Where no color is indicated, color to be selected by Owner. For exposed piping not coated, provide colored banding and identification.</p> <p>6 General - Deviations from this schedule are indicated directly by note on Drawings where deviation is required.</p> <p>7 General - The piping material shall conform to the requirements for the service listed being drained or vented</p>
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<p><b>Remarks:</b></p> <p>1 See 40 41 13 for Heat Tracing requirements.</p> <p>2 Insulate piping, fittings, valve bodies, flanges, and pipe couplings (do not insulate flexible pipe couplings and expansion joints). Also, insulate vapor seal hangers, supports, anchors, and other piping appurtenances that are secured directly to cold surfaces.</p> <p>3 Insulation shall meet the requirements of materials specified in Section 23 07 13.</p> <p>4 Heat tracing and insulation required as specified on the drawings and specifications above.</p> <p>5 All buried LAS and SHP shall be in PVC encased.</p> <p>6 Where buried PVC piping transitions to exposed PVC/PE tubing, the buried PVC piping shall be extended at least six (6) inches above the finished floor/grade before transitioning to exposed PVC/PE tubing.</p> <p>7 See Section 40 23 39 for additional requirements.</p>
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END OF SECTION

## SECTION 40 42 00 – PROCESS MECHANICAL INSULATION

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes: Insulation, jackets, and accessories for piping and related systems. Refer to 23 07 13 Mechanical Insulation for HVAC related piping insulation requirements.
- B. Related sections:
  - 1. Section 01 33 00 – Submittal Procedures.
  - 2. Section 09 90 00 – Painting and Protective Coatings.
  - 3. Section 22 05 29 – Process Supports and Anchors.
  - 4. Section 22 05 53 – Mechanical Identification.
  - 5. Section 40 23 39 – Process Piping General.

#### 1.2 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
  - 1. American Society for Testing and Materials (ASTM):
    - a. A53 – Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded, and Seamless.
    - b. C168 – Standard Terminology Relating to Thermal Insulation.
    - c. C177 – Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
    - d. C335 – Standard Test Method for Steady-State Heat Transfer Properties of Pipe Insulation.
    - e. C518 – Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
    - f. C533 – Standard Specification for Calcium Silicate Block and Pipe Thermal Insulation.
    - g. C534 – Standard Specification for Preformed Flexible Elastomeric Cellular Thermal Insulation in Sheet and Tubular Form.
    - h. C547 – Standard Specification for Mineral Fiber Pipe Insulation.
    - i. C552 – Standard Specification for Cellular Glass Thermal Insulation.
    - j. C585 – Standard Practice for Inner and Outer Diameters of Thermal Insulation for Nominal Sizes of Pipe and Tubing.
    - k. C591 – Standard Specification for Unfaced Preformed Rigid Cellular Polyisocyanurate Thermal Insulation.
    - l. C795 – Standard Specification for Thermal Insulation for Use in Contact with Austenitic Stainless Steel.
    - m. C929 – Standard Practice for Handling, Transporting, Shipping, Storage, Receiving, and Application of Thermal Insulation materials for Use in Contact with Austenitic Stainless Steel.
    - n. C1136 – Standard Specification for Flexible, Low Permeance Vapor Retarders for Thermal Insulation.
    - o. D2310 – Classification of Machine-Made “Fiberglass” (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe.
    - p. E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
    - q. E96 – Standard Test Methods for Water Vapor Transmission of Materials.

#### 1.3 DEFINITIONS

- A. Buried: Piping that is installed below buildings, foundations or finish grade, either in soil or encased in concrete in soil.

- B. Concealed: Piping above suspended ceilings and within walls, partitions, shafts, or service spaces and spaces not normally exposed to view but not buried.
- C. Exterior: Piping that is installed outside a building or within a pipe trench or tunnel.
- D. Flame Spread and Smoke Density: Burning characteristics determined in accordance with ASTM E84. No units apply to value.
- E. Interior: Piping that is installed inside a building.
- F. K Factor: Thermal conductivity determined in accordance with ASTM C177 or C518 and expressed in units of Btu-inch/hour-foot<sup>2</sup>– deg F.
- G. Mineral Fiber: Fibers manufactured of glass, rock, or slag processed from a molten state, with or without a binder.
- H. Water Vapor Permeance: Water vapor transmission determined in accordance with ASTM E96 and expressed in units of perm-inch.

#### 1.4 SUBMITTALS

- A. Submittals shall be made in accordance with Section 01 33 00.
- B. Product Data:
  1. Insulation Properties: Include K factor, thickness, density, operating temperature limits, tensile strength, compressive strength, moisture absorption, flame spread, and smoke developed in accordance with ASTM E84 and corrosivity to stainless steel piping in accordance with ASTM C795.
  2. Jacket Properties: Include covering material, cover thickness, tensile strength, tear strength, permeability per ASTM E96, flame spread, and smoke developed in accordance with ASTM E84, closure type or devices, and accessories.
  3. Insulating Blankets: Include materials, performance characteristics, method of attaching to equipment, listing of locations where insulating blankets will be installed.
- C. Manufacturer's Application Instructions: Include assembly and application drawings and detailed instructions.
- D. Laboratory Report: Provide certified laboratory report stating that insulation is not manufactured using chlorinated polymers and does not contain chlorides, bromides, sulfates, or fire-rated materials.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store insulation materials and accessories under cover and protected from moisture.
- B. Handle and store insulation for use on stainless steel in accordance with ASTM C929.

#### 1.6 SEQUENCING AND SCHEDULING

- A. Pressure test piping and complete application of coating system before applying insulation.
- B. When piping is to be heat traced, install and functionally test heat tracing before installation of insulation.

- C. Before beginning installation of piping insulation, verify that the ENGINEER has accepted piping tests, pipe coating applications, and heat tracing tests.

1.7 WARRANTY

- A. Furnish one – year minimum warranty.
- B. Furnish five – year manufacturer warranty.

PART 2 - PRODUCTS

2.1 PIPE INSULATION, GENERAL REQUIREMENTS

- A. Insulation Thicknesses: Provide insulation thickness in inches in accordance with the following table. Insulation thickness shown is nominal manufacturing tolerance of 15 percent variation is permissible.

<b>Required Insulation Thicknesses (inches)</b>					
<b>SERVICE TEMPERATURE RANGE AS DESIGNATED IN INSULATION SCHEDULE AT END OF THIS SECTION</b>	<b>Nominal Pipe Diameters</b>				
	<b>1 inch &amp; less</b>	<b>1.25 to 2 inch</b>	<b>2.5 to 4 Inch</b>	<b>5 to 10 Inch</b>	<b>Over 10 inch</b>
Above 200 deg F	2.0	2.5	3.0	3.5	3.5
100 to 200 deg F	1.5	1.5	1.5	2.0	2.5
40 to 100 deg F	0.5	1.0	1.0	1.5	2.0
Below 40 deg F	1.0	1.0	1.5	2.0	2.0
Heat Traced Pipes	1.0	1.0	1.0	1.5	2.0
Aeration Air Pipes	0.5	0.5	1.0	1.0	1.0

2.2 PIPE INSULATION

- A. Insulation Types: Provide in accordance with the insulation types listed and scheduled.
- B. Insulation, Type 1:
  1. Insulation Material: Closed cell elastomeric insulation
  2. Minimum Temperature Range: Minus 40 deg F to plus 220 deg F.
  3. K Factor at 75 deg F: Not more than 0.27 BTU-in/hr-sq ft-deg F.
  4. Fire Ratings:
    - a. Flame Spread: 25 or less.
    - b. Smoke Density: 50 or less for insulation thicknesses up to 1.5 inches.
  5. Joints: Seal with manufacturer’s recommended contact adhesive to form continuous water barrier.
  6. Manufacturers: One of the following or equal:
    - a. Armacell Engineered Systems, AP/Armaflex
- C. Insulation, Type 2:
  1. Insulation Material: Preformed mineral fiberglass insulation made from glass fibers bonded with a thermosetting resin.
    - a. Conform to ASTM C547, Class 1.
    - b. Provide with factory installed vapor barrier.

- 1) Material: White kraft paper bound to aluminum foil meeting ASTM C1136, Type I.
  - 2) Longitudinal Lap Seals: Pressure-sensitive, self-sealing longitudinal lap strip with factory applied adhesive.
  - 3) Circumferential Butt Seals: 4-inch wide tape or similar properties or 4-inch wide overlap with adhesive seal.
  - 4) Vapor Barrier Permeability: 0.02 perms or lower.
  - 5) Vapor Barrier Flame Spread Rating: 25 or less.
2. Minimum Temperature Range: Minus 0 deg F to plus 850 deg F.
  3. K Factor at 75 deg F: Not more than 0.23 BTU-in/hr-sq ft-deg F.
  4. Average Insulation Density: 3.3 pounds per cubic foot.
  5. Maximum Moisture Absorption, Volume Percent: 0.2.
  6. Manufacturers: One of the following or equal:
    - a. Owens-Corning Fiberglass Corp.
    - b. Johns Manville
    - c. Knauf Insulation

D. Insulation, Type 3:

1. Insulation Material: Rigid polyisocyanurate foam in accordance with ASTM C591, Type IV.
2. Temperature Range: Minus 297 deg F to plus 300 deg F.
3. K Factor at 75 deg F: Not more than 0.19 BTU-in/hr-sq ft-deg F.
4. Minimum Average Density: 4.0 pounds per cubic foot.
5. Maximum Moisture Absorption, Volume Percent: 0.7.
6. Minimum Compressive Strength: 25 pounds per square inch.
7. Moisture Permeability: 4.00 perm-inch.
8. Manufacturers: One of the following or equal:
  - a. ITW.
  - b. Dyplast.
  - c. or Equal.

E. Insulation, Type 4:

1. Insulation Material: Rigid cellular glass in accordance with ASTM C553, Type II.
2. Temperature Range: Minus 450 deg F to plus 900 deg F.
3. K Factor at 75 deg F: Not more than 0.32 BTU-in/hr-sq ft-deg F.
4. Minimum Average Density: 7.5 pounds per cubic foot.
5. Maximum Moisture Absorption, Volume Percent: 0.2.
6. Minimum Compressive Strength: 87 pounds per square inch.
7. Moisture Permeability: 0.00 perm-inch.
8. Manufacturers: One of the following or equal:
  - a. Pittsburgh Corning Corporation, Foamglas.
  - b. Cell-U-Foam Corporation, Ultra-CUF.

F. Insulation, Type 5:

1. Insulation Material: Asbestos free, rigid calcium silicate in accordance with ASTM C533; Type 1 for process temperatures up to 1,200 deg F.
2. K Factor at 500 deg F: 0.55 for Type 1.
3. Maximum Average (Dry) Density: 14.5 pounds per cubic foot.
4. Compressive Strength: 100 pounds per square inch, to produce a 5 percent compression.
5. Manufacturers: One of the following or equal: In accordance with ASTM C533 Type I:
  - a. Industrial Insulation Group, LLC, Thermo-12 Gold.

## 2.3 INSULATION JACKETS

A. Jacket, Type 1:

1. Material, 28 ounces per square yard polyvinyl chloride on polyester fabric; total thickness 0.028 inches minimum.

2. Fire Rating: 25 maximum flame spread, smoke developed 50 or less.
3. Color: As selected by the Engineer from manufacturer's standard colors.
4. Overlap: One-inch minimum at joints and fittings.
5. Joint Seal: Self-sealing lap tape.
6. Fittings: Factory made with full thickness insulation.
7. Manufacturers: One of the following or equal:
  - a. Accessible Products Company

B. Jacket, Type 2:

1. Material: Ultraviolet resistant polyvinyl chloride jacketing, 20 mil minimum thickness.
2. Fire Rating: 25 maximum flame spread, smoke developed 50 or less.
3. Color: White.
4. Overlap: One-inch minimum at joints and fittings.
5. Joint Seal: PVC solvent welded or adhesive as recommended by the manufacturer.
6. Fittings: Factory made with full thickness insulation.
7. Manufacturers: One of the following or equal:
  - a. Johns Manville, Zeston 2000 PVC.
  - b. Proto Corp., LoSMOKE PVC.
  - c. Speedline Smoke Safe PVC Jacketing System.
  - d. Knauf Covering System.

C. Jacket, Type 3:

1. Material: Aluminum, Allow 5005; 0.016-inch (26 gauge) minimum thickness.
2. Overlap: Overlap circumferential joints 4 inches minimum; overlap longitudinal joints 1-inch minimum; longitudinal joints oriented to minimize water entry.
3. Bands: 0.5 inch wide, 0.0508 inch (16 gauge) thick aluminum, same alloy as jacket or 0.0179-inch thick Type 304 stainless steel; install on 18-inch centers, uniformly spaced and at all fitting joints.
4. Joint Seal: Apply waterproof adhesive at joints and overlaps.
5. Fittings: Custom fit of same materials.
6. Manufacturers: One of the following or equal:
  - a. Childers Products.

## 2.4 VAPOR BARRIERS

A. Vapor Barrier, Type 1:

1. Material: White kraft paper bound to aluminum foil and meeting requirements of ASTM C1136, Type 1.
2. Permeability: 0.02 perms or lower.
3. Maximum Flame Spread Rating: 25.
4. Edge Seal: Pressure sensitive tape lap seal.
5. Circumferential Joints: 4-inch wide tape or 4-inch overlap with adhesive seal.
6. Manufacturers: One of the following or equal:
  - a. Owens-Corning Fiberglass Corp., all service jackets with double sure adhesive lap seal.
  - b. Schuller, Micro-Lok AP-T plus.

B. Vapor Barrier, Type 2:

1. Material: Mastic.
2. Manufacturers: One of the following or equal:
  - a. Foster Products, 36-10/46-10 Weatherite.
  - b. Childers Products CP10/11 Vi-Acryl.



## 2.5 RELATED MATERIALS

- A. Cover Adhesive: Premium adhesive as recommended by the insulation cover supplier for heavy-duty service in corrosive, wet environments. Standard duty adhesives are not permitted.

## 2.6 REMOVABLE INSULATING BLANKETS

- A. In piping systems specified to be insulated, use removable insulating blankets for valves, meters, strainers, filters, catalytic converters, engine exhaust silencers, and other in-line piping appurtenances and equipment requiring periodic servicing.
- B. Size Limits: Use removable insulating blankets for equipment and piping appurtenances 3-inch in nominal size and larger. Insulate equipment and piping appurtenances less than 3-inch with molded sections of insulation or by field cutting insulation to conform to the shape of the component and to fit tightly around the component.
- C. Manufacturers: One of the following or equal:
  - 1. Pittsburgh Corning, Temp-Mat.
  - 2. Accessible Products.
  - 3. Thermal Energy Products, Inc., Energy Wrap.
- D. Low temperature insulating blankets rated up to 800 deg F:
  - 1. Use: For service temperatures up to 800 deg F.
  - 2. Insulation: Fiberglass fiber, K factor 0.27 at 75 deg F.
  - 3. Cover: 17-ounce fabric with both sides covered with silicone impregnated glass cloth suitable for temperatures up to 800 deg F.
  - 4. Dover Fasteners: Use one of the following systems:
    - a. Grommets in the blanket and stainless steel wire; or
    - b. 1-inch wide straps with stainless steel rectangular ring buckles and Velcro on strap tail.
- E. High temperature insulating blankets rated up to 1,400 deg F:
  - 1. Rated for sustained service temperatures up to 1,400 deg F.
  - 2. Insulation: Ceramic fiber, K factor 0.50 at 600 deg F, insulation material suitable for up to 2,300 deg F, thickness to match adjacent piping insulation specified thickness.
  - 3. Cover: 17-ounce silicone impregnated fiberglass cloth suitable for temperatures up to 1,400 deg F.
  - 4. Cover Fasteners: Use one of the following systems:
    - a. Grommets in the blanket and stainless steel wire; or
    - b. 1-inch wide straps with stainless steel rectangular ring buckles and Velcro on strap tail.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Verification of Conditions: Before installing insulation, verify satisfactory completion of pressure tests of piping systems and functional tests of heat tracing equipment.
- B. Examine piping surfaces and verify that surfaces are dry and free of loose scale, rust, dirt, oil, or water before applying insulation. When specified, paint or coat pipe surfaces as specified in Section 09 90 00.
- C. Examine insulation materials and accessories before installation. Do not install insulation and jackets that have been damaged or insulation that has become wet due to exposure to water.

### 3.2 INSTALLATION

- A. Install insulation and jacket materials in accordance with manufacturer's written instructions.
- B. Apply insulation in smooth, clean manner with tight and finished smooth joints. Fits insulation tightly against surfaces. Insulate each continuous run of pipe with full-length sections of insulation with a single piece cut to length to complete the run of pipe. Do not use cut pieces or scraps to complete the installation.
- C. Butt longitudinal and circumferential insulation joints firmly together.
- D. Maintain the integrity of vapor barrier jacketing. Do not use staples to hold vapor barrier overlaps in place.
- E. Apply sealant or cement when previous applications of adhesives and cement have thoroughly dried.
- F. Apply insulation to permit expansion or contraction of pipelines without damage to insulation or jacketing.
- G. Fittings:
  - 1. Insulate fittings by covering with mitered sections of insulation or utilize factory-made prefabricated fitting shapes.
  - 2. Terminate preformed pipe jackets or covering at sufficient distance from flanges to permit removal of bolts.
  - 3. Overlap flange and flanged fitting insulation on adjacent pipe covering by at least 2 inches.
- H. Valves:
  - 1. Insulate valves 3-inch in nominal size and larger with removable insulating blankets.
  - 2. Size blanket to extend up to packing gland only so that replacement of packing does not require removal of insulating blanket.
- I. Provide continuous insulation through and over pipe supports and provide protection saddles at supports.
- J. Extend insulation against insulation end protection shields or covers so that insulation voids do not exist and provide water tight end seals and covers where insulation terminates.
- K. Insulate pipeline strainers to permit removal of strainer basket without disturbing insulation on strainer body.
- L. Provide continuous pipe insulation and covering through sleeves or openings in walls and floors. When buried pipe enters a building through a below grade wall or slab penetration, begin insulation system on interior side of penetration.
- M. Apply pre-molded pipe insulation with extended legs when used on pipe traced with either tubing or electric cable type.
- N. For Type 1 or 2 jacket installation on piping with potential reach temperatures greater than 150 degrees F shall be thermally isolated from piping at all insulation closure locations (end caps, transitions, etc.).
- O. Apply piping identification on jackets as specified in Section 22 05 53.

3.3 INSULATION SCHEDULE

Service Designation(1)	Location(2)	Insulation Type(3)	Jacket Type(3)	Service Temp. °F(4)	Vapor Barrier
Heat Traced Pipes (5)	Exterior	1 or 2	2	Use thickness established in Table in paragraph 2.1	Install on Type 2 insulation
<p>Notes:</p> <ol style="list-style-type: none"> <li>1. Refer to Process Piping Schedule in Section 40 23 39 for service designations.</li> <li>2. Insulation jackets are not required for interior installations that are concealed. See definitions for description of concealed locations.</li> <li>3. Contractor may select from options listed.</li> <li>4. Unless noted otherwise, use service temperature range provided in this table to establish insulation thickness as required by Table in paragraph 2.1 A.</li> <li>5. Insulate all piping systems that are specified to be heat traced.</li> </ol>					

END OF SECTION



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REGISTRATION NO. F-5713



Digitally Signed 9/23/2021

REV.	DATE	DESCRIPTION	BY
1	09/21/2021	ADDENDUM 1	ALH

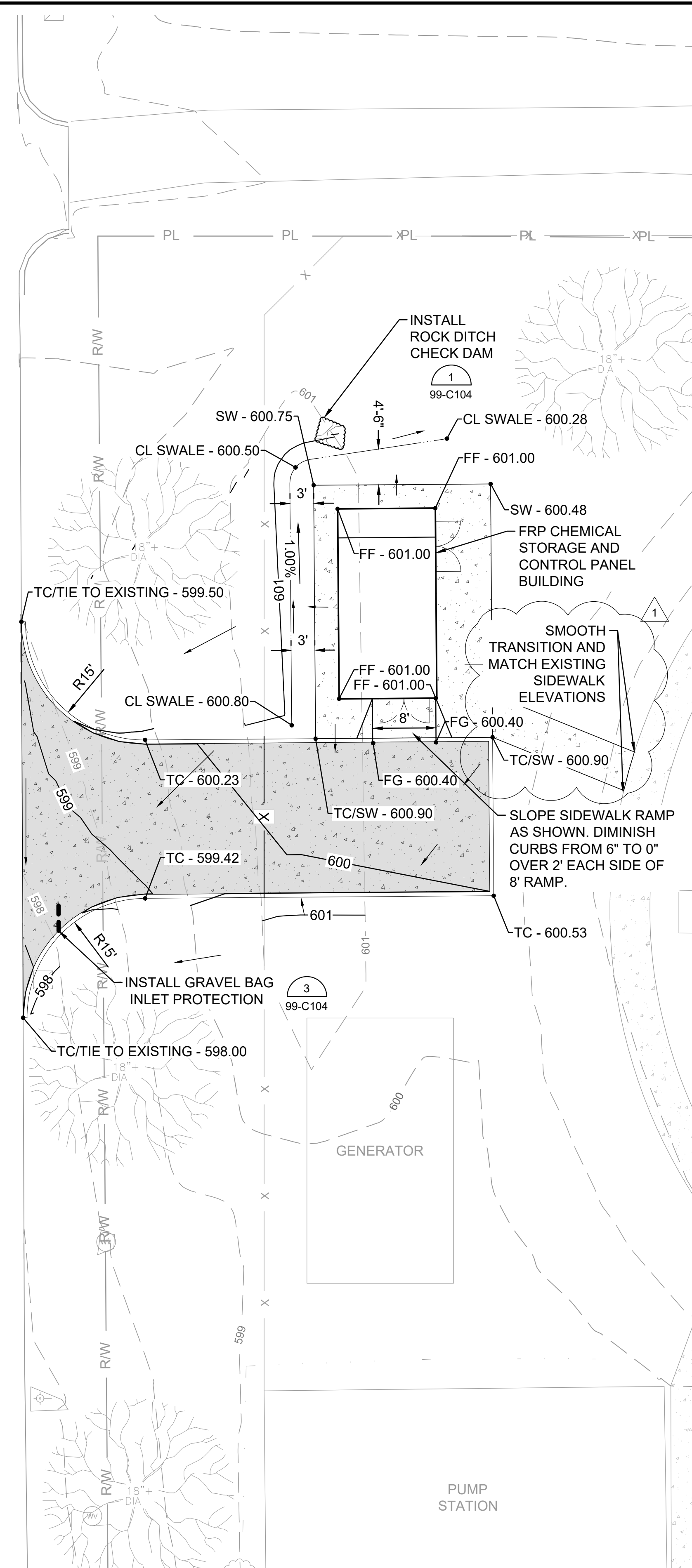
TOWN OF ADDISON  
 ADDISON, TEXAS  
 ADDISON CHLORAMINE BOOSTER STATION IMPROVEMENTS

SURVEYOR PUMP STATION PROPOSED SITE PLAN

JOB NO.: 17088170  
 DATE: SEPT. 2021  
 DESIGNED BY: CDG  
 DRAWN BY: O.C.

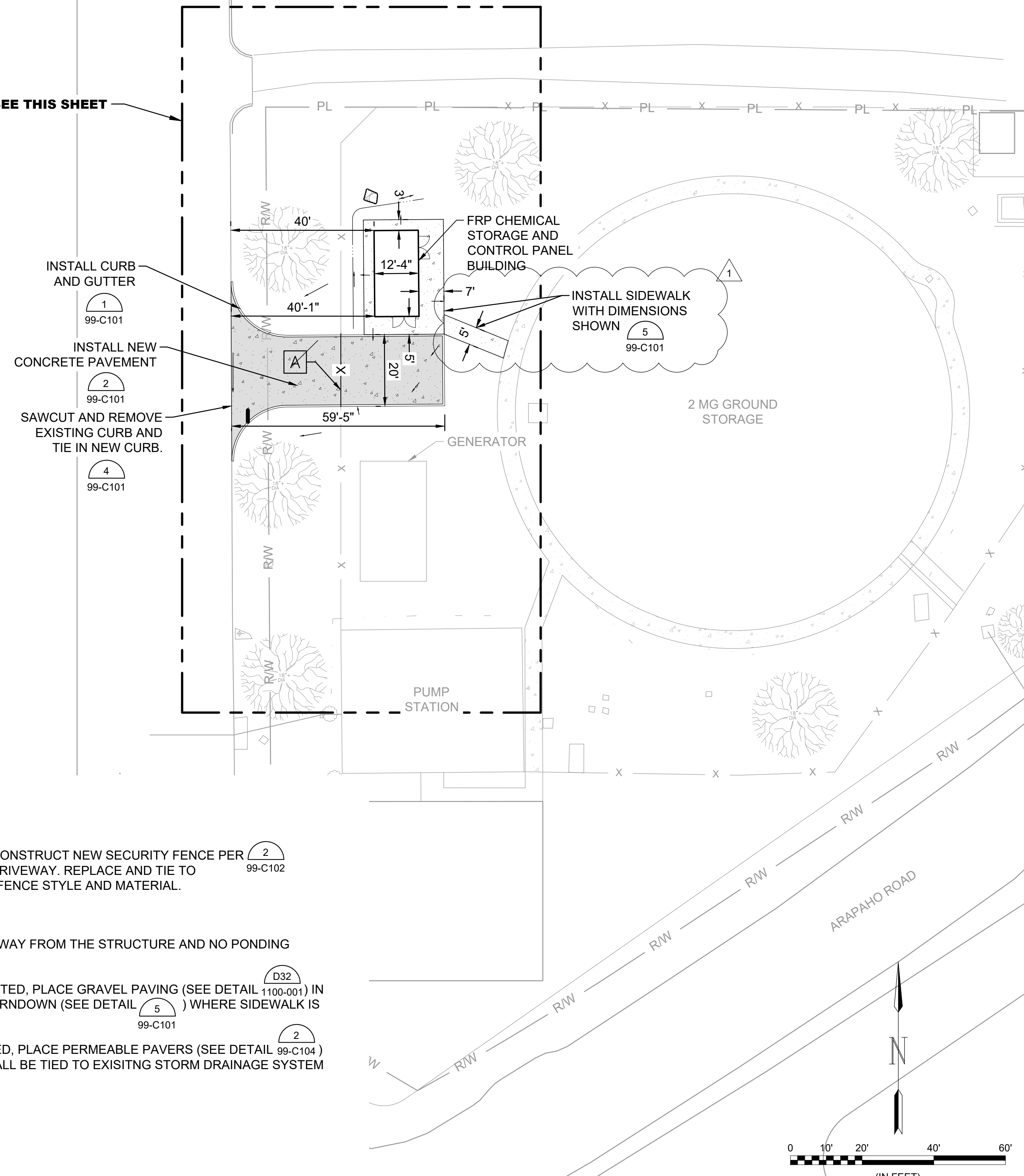
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 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER  
**20-C102**  
 SHEET NUMBER  
**11**



**INSET A**  
 20-C102 20-C102 SCALE: 1" = 10'

INSET A - SEE THIS SHEET



- EXISTING CONCRETE PAVEMENT
- NEW CONCRETE PAVEMENT (D32 1313-002)
- EXISTING CONCRETE SIDEWALK
- NEW CONCRETE SIDEWALK (D32 1000-001)

**A** SITE KEY NOTES

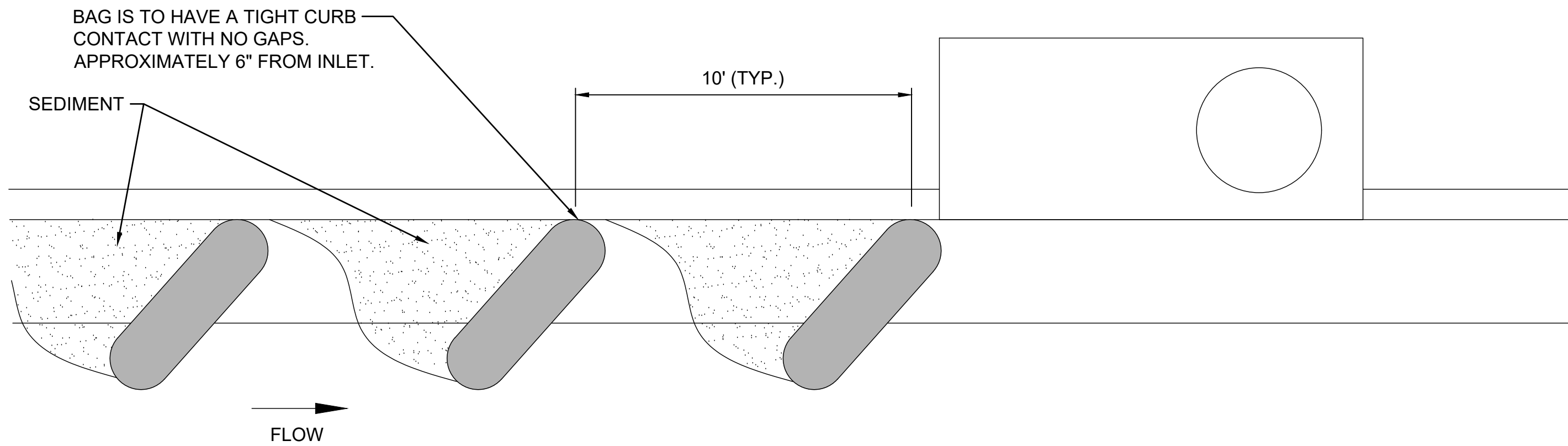
SITE KEY NOTES:  
 A. REMOVE EXISTING FENCE PANELS AS NECESSARY. CONSTRUCT NEW SECURITY FENCE PER (2) 99-C102 AND INSTALL 16' WIDE DOUBLE GATE CENTERED IN DRIVEWAY. REPLACE AND TIE TO EXISTING FENCING AS NECESSARY WITH MATCHING FENCE STYLE AND MATERIAL.

- NOTES:
- CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM THE STRUCTURE AND NO PONDING WATER ON SITE.
  - IF THE APPLICABLE DEDUCTIVE ALTERNATE IS SELECTED, PLACE GRAVEL PAVING (SEE DETAIL (D32) 1100-001) IN LIEU OF CONCRETE PAVEMENT. PLACE SIDEWALK TURNDOWN (SEE DETAIL (5) 99-C101) WHERE SIDEWALK IS ADJACENT TO GRAVEL OUTSIDE THE SLOPED RAMP.
  - IF THE APPLICABLE ADDITIVE ALTERNATE IS SELECTED, PLACE PERMEABLE PAVERS (SEE DETAIL (2) 99-C104) IN LIEU OF CONCRETE PAVEMENT. UNDER-DRAIN SHALL BE TIED TO EXISTING STORM DRAINAGE SYSTEM IF SELECTED.

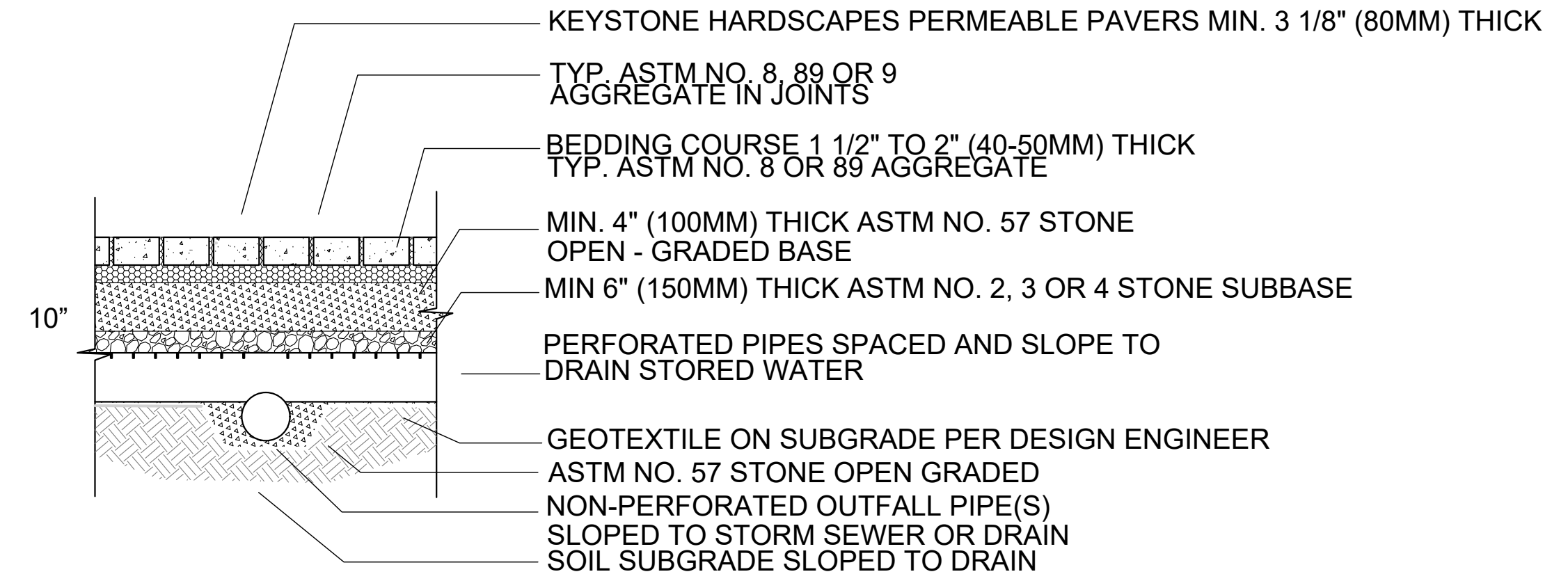
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 Last plotted by: Hughes, Angela L Plot Style: AECmono.ctb Plot Date: 9/21/2021 10:07 AM Plotter used: None



NOTE:  
GRAVEL FILTER BAGS TO BE PLACED ALONG CURB AS NEEDED AT APPROXIMATELY 10' INTERVALS.

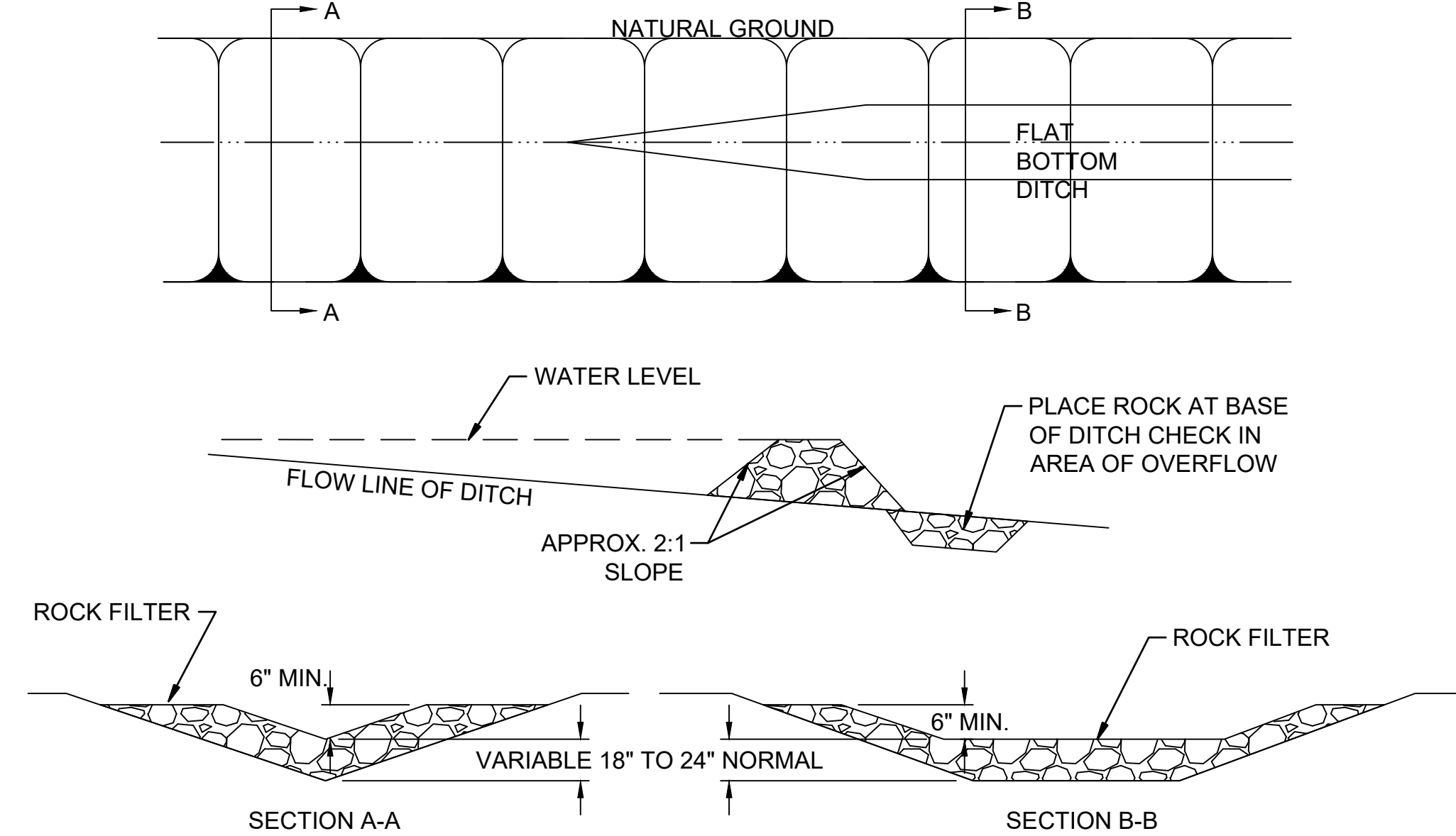


1 ON GRADE CURB INLET SEDIMENT FILTER  
99-C104 SCALE: NONE

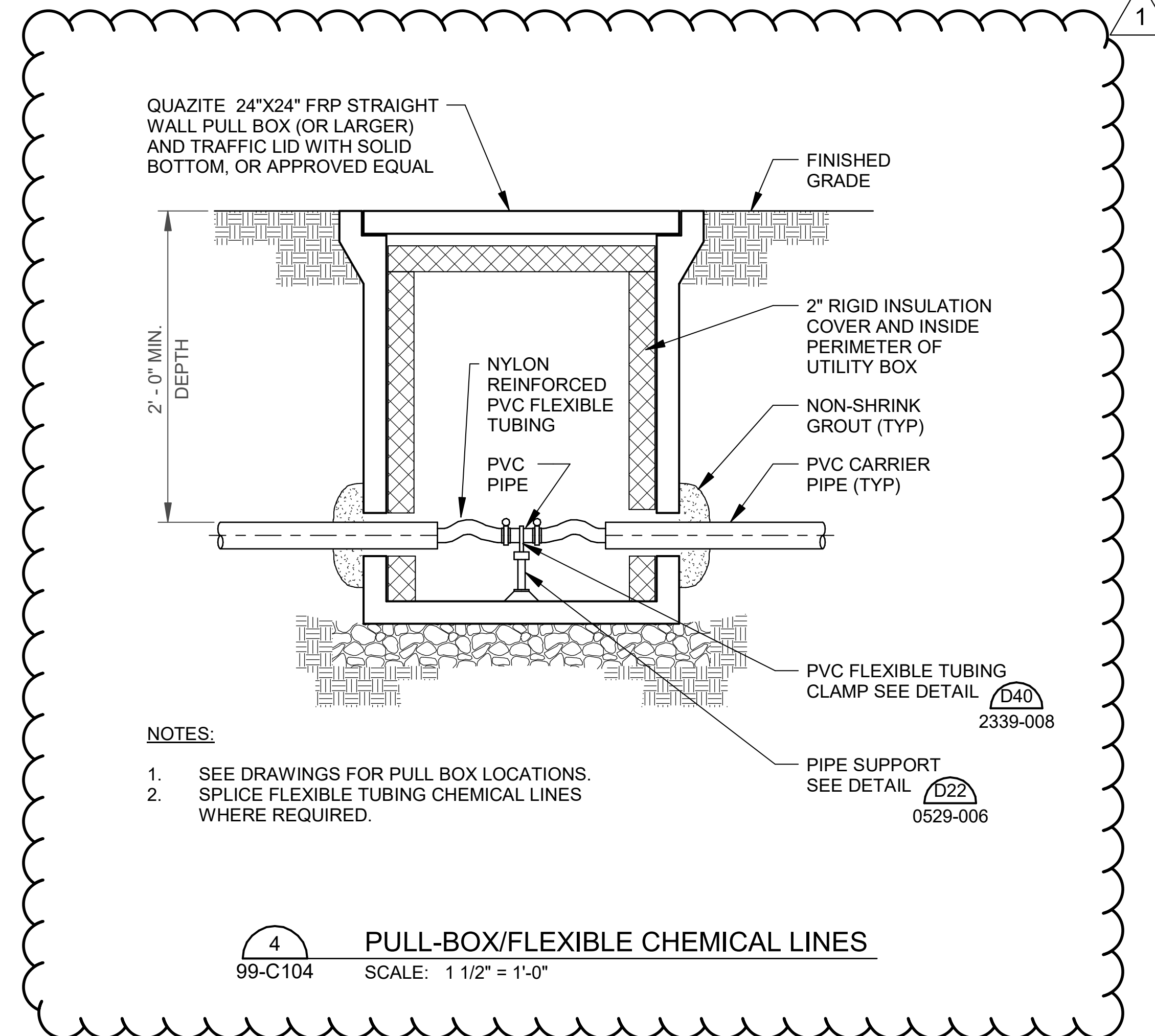


NOTES:  
1. CONTACT KEystone HARDSCAPES REPRESENTATIVE FOR DESIGN ASSISTANCE.  
2. 3/8" (60mm) THICK PAVERS MAY BE USED IN PEDESTRIAN APPLICATIONS.  
3. NO. 2, 3 OR 4 SUBBASE THICKNESS VARIES WITH DESIGN.  
4. PERFORATED PIPES MAY BE RAISED FOR WATER STORAGE FROM LARGE RAIN EVENTS WITH OUTLET(S) AT LINER BOTTOM TO DRAIN SMALL RAIN EVENTS.

2 PERMEABLE PAVERS  
99-C104 SCALE: NONE



3 ROCK DITCH CHECK DAM  
99-C104 SCALE: NONE



4 PULL-BOX/FLEXIBLE CHEMICAL LINES  
99-C104 SCALE: 1 1/2" = 1'-0"



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REGISTRATION NO. F-5713



Digitally Signed 8/27/2021

REV.	DATE	DESCRIPTION	BY
1	09/21/2021	ADDENDUM 1	ALH

TOWN OF ADDISON  
ADDISON, TEXAS  
ADDISON CHLORAMINE BOOSTER STATION IMPROVEMENTS

CIVIL STANDARD DETAILS IV

JOB NO.: 17088170  
DATE: SEPT. 2021  
DESIGNED BY: CDG  
DRAWN BY: O.C.

BAR IS ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.  
DRAWING NUMBER  
**99-C104**  
SHEET NUMBER  
**26**