ADDENDUM NO. FOUR
NCSB -FBMS

To the Plans and Specifications for:
Nassau County School Board – Project No. 98110-031
Fernandina Beach Middle School Kitchen / Dining Remodeling and Campus Renovations/Enhancements

Prepared By:

ARCHITECT	**ELECTRICAL/MECHANICAL ENGINEER**	**CIVIL ENGINEER**
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Date: October 18, 2018

Index:

Item No. 1, Intercom, Public Address and Music System
Refer to Section 27 51 15 issued in Addendum No. One. Change paragraph 2.01A to read,

a. "All bids shall be based on the equipment as specified herein. The catalog numbers and model designations are that of the Dukane Corporation. Replacement of the intercom head-end equipment is not desired or acceptable. There is ample capacity in the existing Dukane system to add speakers and call-in buttons. Any substitutions, except ceiling speakers and call-in buttons, shall be approved by the Architect/Engineer prior to bid. Alternate manufacturer's ceiling

speakers and call-in buttons that meet the specifications may be submitted for approval after the bid."

Item No. 2, Dwgs. E-3
Sheet E-3, New Work Notes. New Dukane administrative intercom telephone sets are not required. Change the second sentence of Note 2 to read, "Provide outlets and wiring and install Owner furnished administrative telephone sets. (One existing set at school and one additional set furnished by maintenance)."

Item No. 3, Intercom and Public Address Systems
Refer to drawing E-18. Clarification of the Notes:

a. Note 2 on drawing E-18 requires the provision of a public address and music system in the dining room which will be separate from the existing school intercom system.
b. Note 6 on drawing E-18 requires a provision of new intercom speakers and call-in buttons connected to the existing intercom system.

Item No. 4, Fire Protection Drawings
Drawing FP-2 revise ceiling note to read; "Remove existing ceiling and reinstall existing ceiling in all areas where new ceiling is not specified".

Item No. 5, Pre-Construction Meeting
Section 01 30 00. Add the following to the Agenda in 3.01C. "8. Green Project Meeting. (Refer to Section 01 35 63, 2.1.1)"

Item No. 6, Temporary Lines
Section 01 50 00. Change paragraph 1.02 to read,
"1.02 TEMPORARY UTILITIES.

a. The Contractor shall provide all electrical power for the construction trailer. Provide a temporary power pole and meter for the trailer. The Contractor may use the existing power for construction. The Contractor shall make all necessary connections and extensions for the construction power.
b. Contractor shall make all necessary connections and extensions to existing water supply at the school for construction use. Use trigger-operated nozzles for water hoses, to avoid wasting of water."

Item No. 7, Emergency Egress Window Signage
Section 10 44 00. Replace existing Section with attached, revised Section 10 44 00.

Item No. 8, Dwgs. AS103 – Site Signage
Replace Sheet AS103 with attached which adds a sign detail for Low-Emitting, Fuel-Efficient and High Occupancy Vehicles.

Item No. 9, Outdoor Dining Brick Columns
Sheets 1A301 and 1A502. Add the following to Note 1A502, "The 1'-8" x 1'8" and 1'8" x 3'-4" brick columns shall receive a brick rowlock cap on top of the soldier course. The cap shall have a slight slope and constructed in a pyramidal shape. Cut bricks as necessary around the columns and downspouts. Use ¼" galvanized steel plate on top of the soldier course as support for the cap. Fill the joint at the columns and downspout with sealant."

Item No. 10, Downspouts
Sheets 1A301 and 1A502. Change the new downspouts indicated to 4 inches diameter. The downspouts shall be constructed of 4" sch. 40 galvanized pipe as specified in Section 07 71 50.

Item No. 11, Demolition Notes
Refer to Sheet 1A101 – Building & Demolition Floor Plan:
Correction to Addendum No. 1. Change Item No. 2 (a) to read "a. Change Demolition Key Note 1 located at the top right side of the drawing to Note 12.

Item No. 12, Building 9, Existing Sun Louvers
Sheet 2A205. Add the following to Demolition Key Note #16. "It is the intent that the existing sun louvers be in place after the new windows are installed. The Contractor may choose to remove and reinstall or leave in place during the window replacement. In either case, provide new aluminum horizontal braces to match existing (size is approximately 1" x 2"). Attach the braces with 'C' clips and stainless steel bolts".

Item No. 13, Fencing
Clarification of fencing details.

1. Rolling Gates / Detail 6/AS110.
   Plan at covered walkway gate' refers to the rolling gate at the south fence at the existing covered walkway – AS103.
   'Plan at Driveway Gates' refers to the rolling gate at (2) driveways at FBHS – AS104.

2. Double gates are the construction of 'Double Gates' is similar to the 'Walk Gates'. (standard chain link fence gate) except that it is a pair of gates. Provide (2) lockable drop rods into pipe sleeves cast in concrete.

Item No.14, Specs: 02 65 13 Underground Storage Tank Removal
Section 02 65 13. Please add attached Section 02 65 13 to the Table of Contents and the Project Manual.

Item No. 15, Specs: 32 12 16 Asphaltic Concrete Paving
Section 32 12 16. Please replace existing spec with attached Section 32 12 16.

Item No. 16, Civil Drawings
Replace Sheets C001, C101, C102, C103, C501, C503, C504 with attached revised sheets.

Item No. 17, Specs – Interior Signage
Replace Spec Section 10 44 00 with revised, attached section 10 44 00.

End of Addendum No. Four

SECTION 10 44 00

INTERIOR SIGNAGE

1. GENERAL:

1.1. Related Documents: The requirements of Division 1 are hereby made a part of this section as if fully repeated herein.

1.1.1. DIRECT PURCHASING: This Section is subject to the terms and procedures of Direct Purchasing, whereby the Owner reserves the right to recover the sales tax on materials by purchasing directly the materials required for this Section. Issuance of Purchase Orders by the Owner shall not relieve the Contractor of any of his responsibilities regarding material purchases or installations, with the exception of the payments for the materials as purchased.

1.2. Quality Assurance: For each sign form a graphic image process. Furnish products of a single manufacturer.

1.3. Submittals:

1.3.1. Shop Drawings: Submit shop drawings for fabrication and erection of specialty signs. Include plans, elevations, and large scale details of signs wording and lettering layout. Show anchorages and accessory items. Furnish location template drawings for items supported or anchored to permanent construction.

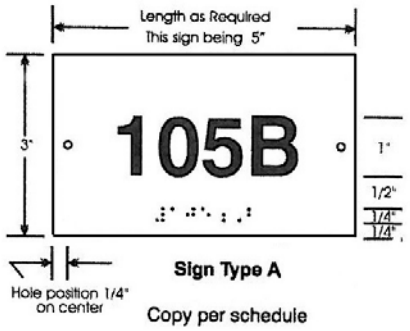
1.3.2. Production Data: Submit manufacturer's technical data and installation instructions for each type of sign required.

1.3.3. Samples: Submit samples of each sign form and material showing finishes, colors, surface textures, and qualities of manufacturer and design of each sign component including graphics.

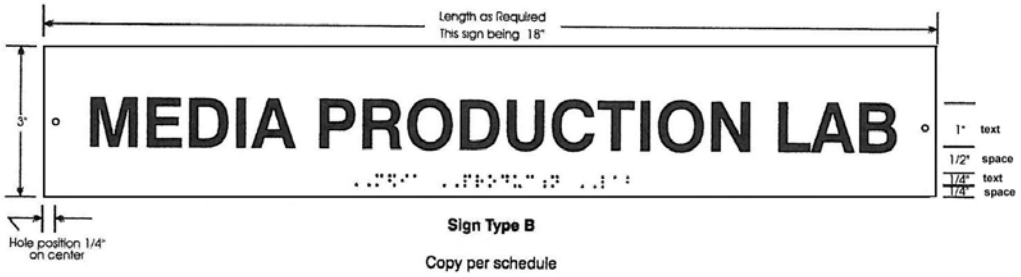
2. PRODUCTS:

2.1. Permanent room identification signs: Provide ADA compliant signs for all permanent room types, tactile and braille. Color to be as selected by the Owner or the Architect. Helvetica medium letters, 72 point. Height of sign: approximately 3"; length as required. Room numbers are the same as indicated on the drawings. Thoroughly count all doors that correspond to each room, as some rooms have more than one door. Signs shall be black background with white letters. All signage shall have Braille.

2.1.1. A room number sign with Braille. Fasten to the door frame centered above the door.
Type 'A'



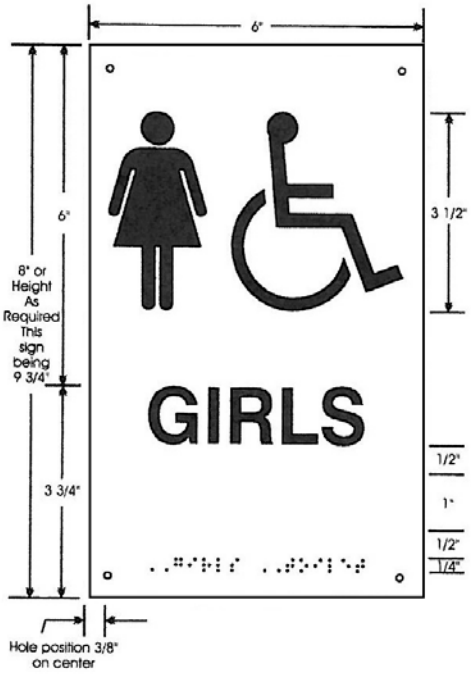
2.1.2. **Type 'B'**: room name sign with Braille is required at each door.



2.2. Tactile Braille Pictogram Toilet signs: Provide ADA compliant signs for all toilet access doors, room name per approved shop drawings: UNISEX, RESTROOM, BOYS, GIRLS, MEN, WOMEN, FAMILY RESTROOM, etc.

2.2.1. **Type 'C'**

2.2.2. **Type 'D'**



- Boys
- Girls
- Men
- Women

2.3. SPECIALTY SIGNS – **TYPE "F"**

2.3.1. A wall placard shall be located at the Type K fire extinguisher in the kitchen.

2.3.2. A wall placard shall be located at the remote pull station for the hood fire suppression system. **Type "F"**

2.3.3. A wall placard shall be located at all Mechanical and Electrical Rooms.

2.4. Provide maximum capacity signs reading, "Maximum Capacity _____ Occupants" for the following rooms:

2.4.1. Student Dining 237 Occupants
2.4.2. Teacher Dining 26 Occupants

Type "H"

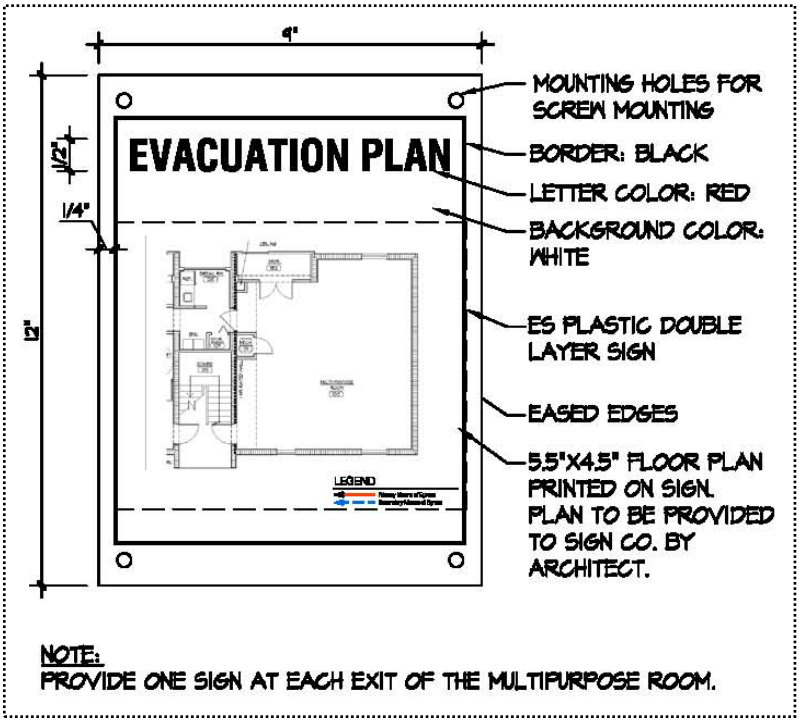
2.5. Provide hazardous area signs reading, "CAUTION HAZARDOUS AREA", red background with white letters, at the following types of spaces: Electrical Rooms, Mechanical Rooms, IT Room, Server Room, and Fire Protection Chemical Storage Areas. Hazardous area signs shall be red background with white letters.

2.5.1. Type **"G"** (Mechanical Room)

2.5.2. Type **"G"** (Electrical Room)

2.6. Provide evacuation signs as indicated in the drawings (Life Safety Plans).

2.6.1. Sample:



2.7. Tactile Braille Exit Sign, locate at all non-exterior exit doors, exit stairs and as noted on the Life Safety Plan. Color to be RED with white letters. Sign to comply with NFPA 101, Means of Egress Chapter, currently adopted edition.

2.7.1. **Type "E"**

2.7.2. Emergency Egress Window Signs: Provide sign at each emergency egress window. Windows are noted on the window replacement drawings. Signs shall be similar to "Type E" expect that copy shall read "EMERGENCY EGRESS". Locate signs adjacent to egress windows. Exact location will be determined by the Architect.

2.8. Emergency Egress Window Signs: Provide sign at each emergency egress window. Windows are noted on the window replacement drawings. Signs shall be similar to "Type E" except that copy shall read "EMERGENCY EGRESS". Locate signs adjacent to egress windows. Exact location will be determined by the Architect. A wall placard shall be located at the Type K fire extinguisher in the kitchen, at all wall hung fire extinguishers and as required by the Authority Having Jurisdiction (AHJ).

2.8.1.

2.9. Sign Type: Green Education Signs – Locations to be provided by the Architect.

2.9.1. Provide five (5) permanently installed signs that educate on the sustainable features of the Project with verbiage as follows: "This building has been designed and constructed to meet or exceed standards for certification as an energy efficient facility as established by the Florida Green Building Coalition. This includes the areas of :

Energy and Water Conservation, Site Utilization, Environmental Health, Material Selection, and Disaster Mitigation".

2.9.2. In submittal, provide floor plan indicating location of the signs, their content, and graphic sign.

2.10. Sign Type: EVACUATION Signs – Locations and Diagram for sign will be provided by the Architect during Construction. Provide (10).

2.11. Construction:

2.11.1. Basis of Design: Multi-Graphics, Inc. 2965 Landfill Road, Pelham, GA 31779, (229) 294-4601multigraphicsinc.com. Products by other manufacturers are acceptable providing their products equal or exceed the quality specified including type, size, finish, letter style, and arrangement.

2.11.2. Room signs shall be manufactured of 1/8" thick clear matte acrylic face plate, background color as required, with characters machine-cut from 1/32" thick Applique by Rowmark or other similar material. Provide 1/8" thick acrylic back plate.

2.11.3. Helvetica medium numbers and upper case letters of sizes as shown in drawings. International symbols to be raised similarly. Applique shall be eggshell finish of manufacturer's standard colors. Grade II Braille shall be raster type, no taped Braille allowed. Provide 3/8" radius corners.

2.12. Fasteners: Use screw fasteners that are non-corrosive to both the sign material and the mounting surface.

3. EXECUTION:

3.1. Installation: Locate sign units and accessories as directed by Owner using mounting method and type described and compliance with the manufacturers' instructions. Install sign units level, plumb and at the height directed with sign surfaces free from distortion or other defects in appearance.

3.2. Reinstallation: All other existing room signage not listed on the new signage schedule, is to be reinstalled after the construction of new doors and frames.

3.3. Cleaning and Protection: At completion of the installation, clean soiled sign surfaces in accordance with the manufacturer's instructions. Protect units for damage until acceptance by the Owner.

END OF SECTION

SECTION 02 65 13

UNDERGROUND STORAGE TANK REMOVAL

1. GENERAL:

1.1 QUALITY ASSURANCE:

1.1.1 Perform work in accordance with local, state, and federal regulations and 40 CFR 280.

1.1.2 Qualifications: Prior to start of work, submit documentation of recent experience and resumes of personnel working on the project.

1.1.3 References: Furnish data proving experience on at least three prior projects that included types of activities similar to those in this project and phone numbers for each point of contact.

1.2 REFERENCES:

1.2.1 Florida Department of Environmental Protection (FDEP)

1. 62-761 “Underground Tank Systems”

1.2.2 American Petroleum Institute (API)

1. RP 1604 “Closure of Underground Petroleum Storage Tanks”

1.2.3 National Fire Protection Association (NFPA)

1. 2017 Florida Building Code - Fuel Gas with Revisions (FBC)

1.3 REGULATORY REQUIREMENTS:

1.3.1 30 days, 10 days, and 48 hours prior to beginning removal operations, the Contractor shall notify the County Authority having jurisdiction (AHJ) of the upcoming work:

Nassau County Health Department - Environmental Health
Phone: (904) 875-6100

1.3.2 45 days prior to removal, a Closure Integrity Evaluation (62-761.200(10) F.A.C.) shall be performed and a closure integrity report filed with the AHJ, Nassau County Health Department.

1. A Closure Integrity Evaluation (CIE) of double wall systems requires a visual assessment of the interstitial space of all elements in contact with soil.

2. A CIE of single wall systems requires a hydrostatic test of elements in contact with soil.

3. Refer to Chapter 62-761.800(2) F.A.C. for a complete list of requirements.

4. A failed CIE requires reporting the evaluation as an incident in accordance with 62-761.405(3) F.A.C.

1.3.3 Within 60 days of completion of the work, the Contractor shall submit to the County AHJ a Closure Report. The report shall include the sample types, sample locations, measurement methods, site map, methods of maintaining quality assurance, quality control, and analytical results obtained during the assessment in accordance with FDEP's "Storage Tank System Closure Assessment Requirements".

1.3.4 Contractor performing the work shall be certified by the Florida Department of Business Professional Regulation as Pollution Storage System Contractor in accordance with Chapter 489 F.S.

2. MATERIALS: NOT APPLICABLE

3. INSTALLATION:

3.1 EXCAVATION:

3.1.1 Provide Architect with written documentation, no later than 48 hours before work begins, that proper state or local authorities have been notified as described under Regulatory Requirements, Paragraph 1.3.

3.1.2 Notify Architect at least 48 hours prior to start of tank removal work.

1. Stage operations to minimize the time that tank excavation is open and the time that any contaminated soil is exposed to the weather.

2. Existing tanks currently in use shall not be taken out of service until such time that new facilities have been brought on-line to replace.

3.1.3 Excavation: Excavate as required to remove tanks and piping.

1. Collect and temporarily store water runoff from stockpiled soils, as required by Section 31 25 00, Erosion and Sedimentation Control.

2. Water contaminated by spills during removal of the tank shall be collected and removed offsite to an appropriate treatment facility.

3.1.4 Excavation Methods: Select methods and equipment to remove soil to minimize disturbance to areas beyond the limits of the excavation area.

1. Material that becomes contaminated as a result of Contractor's operations shall be removed and disposed of at no additional cost to Nassau County School Board.

2. Where excavation extends into groundwater levels, dewatering methods shall be employed on a localized basis to facilitate excavation operations.

3.2 DISPOSAL OF UNDERGROUND TANKS, ANCHORS, SLABS, AND ASSOCIATED PIPING:

3.2.1 Preparation: API RP 1604. Remove the fill pipe, gauge pipe, vapor recovery truck connection, submersible pumps, and drop tube.

1. Remove all liquids and accumulated sludges.

2. Cap or remove non-product piping, except vent piping.

3. Plug tank openings so that vapors will exit through vent piping during the vapor-freeing process.

3.2.2 Purging: Remove flammable vapors in accordance with API RP 1604. Tanks shall be certified as "vapor free" prior to further work.

3.2.3 Cleaning and Testing: Clean tank and perform atmosphere testing in accordance with API RP 1604.

1. Distribution (product delivery) piping shall be cleaned and removed or the piping shall be cleaned, filled with concrete, and abandoned in place. Coordinate with Owner.

2. Test the tank atmosphere and the excavation area for flammable or combustible vapor concentrations with a combustible gas indicator until the tank is removed from the excavation and from the site.

3.2.4 Tank Removal and Disposal:

1. Plug or cap accessible holes. One plug shall have a minimum 1/8- inch vent hole.

2. Remove tank from the excavation, place it on a level surface, and render it useless in accordance with API RP 1604.

3. Provide warning labels on tank, if tank contained leaded fuels, as follows:

   a. "TANK HAS CONTAINED LEADED GASOLINE – NOT VAPOR FREE – NOT SUITABLE FOR STORAGE OF FOOD OR LIQUIDS INTENDED FOR HUMAN OR ANIMAL CONSUMPTION – DATE OF REMOVAL: MONTH/DAY/YEAR"

4. Transport and dispose of tank at an EPA approved disposal site in accordance with federal, state, and local regulations.

3.3 BACKFILLING:

3.3.1 Provide suitable backfill (AASHTO A-3 sand), compaction, grading, and grassing in accordance with the Contract Documents.

END OF SECTION

SECTION 32 12 16

ASPHALTIC CONCRETE PAVING

1. GENERAL:

1.1 DESCRIPTION OF WORK: The extent of asphaltic concrete paving work is shown on the drawings.

1.2 SUBMITTALS:

1.2.1 Material Certificates: Provide copies of material certificates including design mixes, signed by the Contractor, certifying that each specified material complies with, or exceeds requirements.

1.2.2 Copies of all compliance testing, certifications and retests.

1.2.3 Comply with Section 01300, Submittals.

1.3 JOB CONDITIONS:

1.3.1 Weather Limitations: Apply prime and tack coats only when ambient temperature is above 50 degrees F and when temperature has not been below 35 degrees F for 12 hours immediately prior to application. Do not apply when base contains an excess of moisture.

1.3.2 Construct asphalt concrete surface only when atmospheric temperature is above 50 degrees F and when base is dry. Base course may be placed when air temperature is above 30 degrees F and rising.

1.3.3 Do not lay base or asphalt when free surface water is present on the material below.

1.4 RELATED DOCUMENTS: The General Requirements of the Contract, including the General Conditions, Supplementary Conditions, and Special Conditions (if any), along with the General Requirements, apply to the work specified in this Section.

1.5 REFERENCES:

1.5.1 American Society For Testing And Materials (ASTM), latest edition:

1. ASTM C131, 'Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.'
2. ASTM D 977, 'Standard Specification for Emulsified Asphalt.'

3. ASTM D 1075, 'Standard Test Method for the Effect of Water on Compressive Strength of Compacted Bituminous Mixtures.'
4. ASTM D 1188, 'Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Paraffin-Coated Specimens.'
5. ASTM D 1559, 'Standard Test Method for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus.'
6. ASTM D 2027, 'Standard Specification for Cutback Asphalt (Medium-Curing Type).'
7. ASTM D 2041, 'Standard Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures.'
8. ASTM D 2397, 'Standard Specification for Cationic-Emulsified Asphalt.'
9. ASTM D 2939, 'Standard Test Methods for Emulsified Bitumens Used as protective Coatings'
10. ASTM D 2726, 'Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Saturated Surface-Dry Specimens.'
11. ASTM D 3381, 'Standard Specification for Viscosity-Graded Asphalt Cement for Use in Pavement Construction.'
12. ASTM D 5167 Practice for Melting of Hot-Applied Joint and Crack Sealant and Filler for Evaluation.
13. ASTM D 5329, 'Standard Test Methods for Sealants and Fillers, Hot-Applied, for Joints and Cracks in Asphaltic and Portland Cement Concrete Pavements.'
14. ASTM D 6690, 'Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.'

1.5.2 American Association of Safety, Highway and Traffic Officials (AASHTO):

1. AASHTO M 173 Standard Specification for Concrete Joint-Sealer, Hot-Poured Elastic Type.

1.5.3 Florida Department of Transportation (FDOT), latest edition:

1. FDOT 'Standard Specifications for Road and Bridge Construction.'
2. FM – 5 – 515 'Florida Method of Test for Limerock Bearing Ratio.'

2. MATERIAL:

2.1 Subgrade: All roadway stabilized subgrade, as required shall comply with Section 914, of FDOT Standard Specifications.

2.1.1 Base Course: Limerock Base - Material shall be as specified in Section 911, Limerock Material for Base and Stabilized Base, of the Standard FDOT Specifications. Limerock shall be mined from an FDOT approved source pit.

2.1.2 Asphaltic Concrete Pavement: Asphalt pavement shall be Type SP, Fine, Traffic Level C. However, the wear course shall be Type SP-9.5 or 12.5 only. Materials shall conform to the following: Section 334, Superpave Asphalt Concrete; Section 901, Coarse Aggregate; Section 902, Fine Aggregate; Section 916, Bituminous Material; and Section 917, Mineral Filler of the FDOT Standard Specifications for Road and Bridge Construction (Latest Edition).

1. Use of RAP (Recycled Asphalt Pavement) shall be limited to a maximum of 15% of mix by weight of total aggregate.

2. If used, provide RAP with a minimum average asphalt content of 4.0% by weight.

3. If used, RAP must be from a traceable source.

4. RAP shall use a PG 58-22 binder.

2.1.3 Priming: Prime coat shall be emulsified asphalt of a grade applicable to the base used meeting the requirements of Section 916, Bituminous Material of the FDOT Standard Specifications. Cover material for prime coat shall be hot asphalt coated sand meeting the requirements of Section 902, Fine Aggregate of the FDOT Standard Specifications.

2.1.4 Tack Coat: Use RA-500 material meeting the requirements of section 916-2 of FDOT Standard Specifications.

2.1.5 Striping: Marking and striping shall utilize products meeting or exceeding requirements as specified below.

1. Thermoplastic Pavement Marking materials shall comply with the following: Section 971-1, General Requirements; Section 971-5, Thermoplastic Materials for Traffic Stripes of the FDOT Standard Specifications.

2. Painted Striping materials shall comply with the following: Section 971-1, General Requirements; Section 971-4, Fast Dry Solvent Traffic Paint; and Section 971-2, Glass Spheres of the FDOT Standard Specifications.

a. Parking stall striping shall be non reflective.

2.1.6 Raised Pavement Markers: Shall be FDOT Type 911-4"x4".

2.1.7 Pre-emergent Herbicide:

1. Selective type pre-emergence control chemical suitable for use under pavement.

2. Application personnel shall be certified in the state of Florida for application of agricultural chemicals.

2.1.8 Hot Mix Asphalt Sealant:

1. Comply with ASTM D6690, ASTM D5329 AASHTO M173.

2. Product shall be a mix of asphaltic cement, reinforcing fillers, and synthetic rubbers.

3. Acceptable Products: Beram 190, Crackmaster 3405, or approved equal.

2.1.9 Traffic Signs:

1. All signs shall conform to MUTCD requirements.

2. Signs shall be made from 6061-T6 or 5052-H38 aluminum alloy in conformance with ASTM B209.

3. All background sheeting applied to the panel shall be retroreflective in accordance with ASTM D4956.

4. Posts shall be punched steel channel, perforated steel tube, or solid steel tube. All steel shall be hot dip galvanized.

5. Signs shall be permanently affixed with a “born on” date that states the date of manufacture and origin.

6. All fasteners shall be 316 stainless steel.

3. INSTALLATION:

3.1 Survey and stake surfaces to show grading required by Contract Documents. Use a Florida Registered Professional Land Surveyor to provide all horizontal and vertical layout.

3.2 Subgrade: Unless otherwise noted, subgrade shall be a minimum of twelve (12) inches deep and extend a minimum of 6 inches beyond the limits of base material and/or curbing. Contractor may, at his own discretion, increase the depth of the prepared subgrade as necessary to accommodate his equipment needs at no additional cost. Constructed stabilized subgrade shall be mixed, moisture conditioned and compacted to 98% of the maximum density (ASTM D 1557). Prepared material shall provide a limerock bearing ratio (LBR) of 40. The subgrade shall be constructed as specified in Section 160, Stabilizing of the FDOT Standard Specifications for Road & Bridge Construction (Latest Edition).

3.2.1 Fine grade surface area to accommodate finish grades required by Contract Documents.

3.2.2 Prepared surface shall be proof-rolled with a heavy pneumatic tired vehicle.

1. Proof-roll entire surface area a minimum of two passes in each direction.

2. Remove material from soft areas and replace with new material. Failing areas shall be reconstructed to the full depth of the material. If necessary, additional stabilizing material shall be added. Recompact and retest.

3.2.3 Plasticity index shall not exceed 8 and liquid limit shall not exceed 30 in prepared material.

3.3 Pre-emergent Herbicide:

3.3.1 Apply to prepared subgrade dispersed in liquid. Concentrate shall be such that Manufacturer's full recommended rate of chemical will be applied to every 1000 sq ft and liquid will penetrate a minimum of 2 inches.

3.3.2 Application shall be no more than one day before installation of base.

3.3.3 Take necessary precautions to protect adjoining property and areas designated for planting on building site.

3.4 Limerock Base Course: Limerock shall be moisture conditioned and compacted to a LBR of 100. Thickness shall be as shown on the drawings. Base shall be constructed as specified in Section 200, Rock Base of FDOT Standard Specifications.

3.4.1 Surface shall be uniform and free of birdbaths.

3.4.2 Surface variations in prepared base material shall not exceed 1/4" when measured with a 12' straight edge.

3.4.3 Base material shall extend a minimum of 6 inches beyond the limits of asphalt paving.

3.5 Priming: All base material shall be primed. Prime coat shall be applied in accordance with Section 300, Prime and Tack Coats For Base Courses of the FDOT Standard Specifications. Cover material for prime coat shall be applied with approved distributor.

3.6 Tack Coat: All existing asphalt and any concrete surfaces that will be in contact with the asphalt course shall receive a tack coat. Tack coat shall be applied in accordance with Section 300 Prime and Tack Coats For Base Courses of the FDOT Standard Specifications.

3.7 Asphaltic Concrete Pavement: Thickness and Type shall be as shown on the drawings and shall be constructed as specified in Section 320, Hot Bituminous Mixtures-Plant, Methods, and Equipment; Section 330, Hot Bituminous Mixtures-Quality Assurance, General Construction Requirements and Acceptance Procedures; and Section 334, Superpave Asphaltic Concrete of the FDOT Standard Specifications for Road and Bridge Construction (Latest Edition).

3.7.1 Wear course shall be Type SP-9.5, SP-12.5 (Fine) only.

3.7.2 Surface shall be uniform and free of birdbaths.

3.7.3 Surface variations in wear surface shall not exceed 1/4" when measured with a 12' straight edge.

3.7.4 Spreading:

1. Spread material in a manner that requires the least handling.

2. Where thickness of finished paving will be 3" or less, spread in one layer.

3.7.5. Rolling:

1. After the material has been spread to the proper depth, roll until the surface is hard, smooth, unyielding, and true to the thickness and elevations shown on the drawings.

2. Roll in at least two directions until no roller marks are visible.

3.7.6 Temperature: Asphalt mix shall be between 240 degrees Fahrenheit and 360 degrees Fahrenheit at time of placement

3.8 Paving shall not proceed if subgrade and base are too wet or too dry. Subgrade and Base materials shall be within their respective acceptable range of optimum moisture content. Under no circumstances shall pavement be installed if standing water is present on the base material or during a rain event.

3.9 ASPHALT OVERLAY:

3.9.1 Existing asphalt surface to receive overlay shall be mechanically swept, pressure washed, and cleaned of loose material. Asphalt surface shall be free of all vegetation and other debris for the limits of the work.

3.9.2 Cracks over 1/4 inch in width shall be filled with a hot mix asphalt sealant in accordance with ASTM D 5167 and the sealant manufacturers requirements.

3.9.3 Exposed concrete and asphalt to be in contact with new asphalt shall receive a tack coat.

3.9.4 Exposed base shall be primed and asphalt surface patched to match surrounding grade.

3.9.5 Where localized depressions occur that exceed 1/2" in depth over 12 inches, the asphalt shall be sawcut, removed, and the base replaced for its full depth. The asphalt surface shall be patched to match the surrounding grade prior to installation of final overlay.

3.9.6 Where divotting or other depressions occur due to loss of asphalt and are entirely contained within the asphalt layer, the divot shall be patched with a hot or cold mix asphalt repair to match existing grade prior to installation of the final overlay.

3.9.7 Curbing, asphalt edges, or cracks within the paved area that exhibit vegetative growth shall be treated with an appropriate herbicide prior to installation of the new paving. Vegetation extending onto the asphalt surface shall be trimmed at the edge of pavement and removed.

3.9.8 Where pavement edges have been damaged due to vehicular activity across the edge, the contractor shall sawcut a new edge, remove all debris, and install a hot or cold patch to original limits of pavement.

3.9.9 Asphalt shall be spread and rolled as described in Paragraph 3.7 4 of this section, except that the paving contractor shall identify the joints in the existing pavement and shall avoid matching these joints with the new paving. Existing pavement joints shall be centered as much as possible beneath the swath of new asphalt.

3.9.10 Where described on the Drawings, reclaimed asphalt base shall be constructed onsite using reclamation equipment capable of pulverizing and mixing the existing asphalt section to a depth of 6 inches.

3.9.11 Reclaimed areas shall be mechanically strengthened by the addition of new limerock base which shall be mixed into the reclaimed material as specified on the Drawings.

3.9.12 The reclamation mix shall be shaped to provide a constant slope to existing drainage features.

3.9.13 Where existing improvements cannot be adjusted to match the reclaimed section, the Contractor shall match the existing elevations. This is most likely to occur where pavement meets pavement. Do not exceed 3% slope in the reclaimed surface.

3.9.14 Compaction and preparation of the reclaimed base shall follow those for limerock base specified elsewhere in this section.

3.10 STRIPING:

3.10.1 Pavement Marking and striping shall be applied in accordance with Section 709, Traffic Stripes and Markings-Two Reactive Components; Section 710, Painted Pavement Marking; and Section 711, Thermoplastic Traffic Stripes and Markings of the FDOT Standard Specifications for Road and Bridge Construction (Latest Edition). Type and location of marking to be used shall be as follows unless otherwise described on the Drawings:

1. Thermoplastic Stripes: (100 mils, Minimum Thickness):

    a. All striping to occur within Federal, State or Local right of way.
    b. All striping on private property to be applied within a travel lane including:

        1) Stop Bars
        2) Directional Arrows
        3) Message Lettering
        4) Other Symbols applied within the travel lane.

2. Painted Stripes: (25 mils, Minimum Thickness):
    a. Parking stalls and symbology
    b. Solid and Skip lane designation striping on private property.
    c. Curb striping
    d. Temporary striping

3.10.2 Thermoplastic striping shall be applied to asphalt pavement that has cured for a minimum of 14 days.

3.10.3 Contract shall include temporary striping for all striping, messages and symbols that will receive thermoplastic striping as the permanent marking.

3.10.4 Temporary striping shall be completed prior to substantial completion.

3.10.5 Temporary striping shall be in place within 24 hours of pavement installation.

3.10.6 Existing pavement, with modified traffic patterns, shall receive temporary striping in the event permanent striping is delayed or unavailable when traffic is allowed to use said pavement.

3.10.7 Contractor shall provide temporary striping as necessary for the duration of the work.

3.10.8 Where new automotive or pedestrian traffic patterns are to occur on existing pavement, all existing striping marking the old pattern shall be removed.

3.10.9 If requested by local AHJ, all thermoplastic striping shall be certified for thickness and retro reflectivity by the installer in accordance with FDOT requirements.

3.10.10 Permanently painted surfaces shall completely cover the asphalt surface below.

3.11 FIELD QUALITY CONTROL:

3.11.1 All work shall meet the requirements of the FDOT.

3.11.2 Surface of completed work shall not contain irregularities greater than 1/4" when checked with a 12 foot straight edge.

3.11.3 Permanent painted stripes shall completely cover asphalt below. Bleed through of aggregate or asphalt within the painted area shall require additional coating at the Contractor’s expense.

3.12 TESTING:

3.12.1 Stabilized subgrade material tests shall be made as follows:

1. Determine optimum moisture/density relationship of stabilized subgrade material in accordance with ASTM D1557. Verify moisture content of in-place material (ASTM D2216) is within 4% ± of optimum.

2. Perform in-place density tests (ASTM D1557) in the compacted stabilized subgrade material at the rate of one test for every 5,000 sf or fraction thereof. Recompact areas which fail to meet compaction requirements, then retest until passing results are obtained. Reference test locations to easily identified points on Site Plan.

3.12.2 Base material tests shall be made as follows:

1. Determine optimum moisture/density relationship of base material in accordance with ASTM D1557. Verify moisture content of in-place material (ASTM D2216) is within 2% (±) of optimum. Moisture content shall be verified within 24 hours prior to paving operations.

2. Perform in-place density tests in the compacted base material at the rate of one test for every 5,000 sf or fraction thereof. Recompact areas which fail to meet compaction requirements, then retest until passing results are obtained. Reference test locations to easily identified points on Site Plan.

3. Base material shall be cored for thickness at the rate of one test for each 5,000 sf of surface area. Passing tests shall be within ½" of specified thickness. Where material fails to meet the required thickness existing material shall be removed and subgrade cut down to accept additional material as required. Area shall be recompacted and retested as required by item 3.13.2 2. above.

3.12.3 Asphalt tests shall be made as follows:

1. At the start of paving operations, obtain one sample each of binder (if specified) and wearing surface asphalt delivered to the job. Conduct extraction and gradation analysis, Marshall Stability, and laboratory-compacted bulk specific gravity for each sample.

2. Upon completion of paving, obtain at least two 4-inch diameter cores through the asphalt paving for all areas up to 10,000 sq. feet and one additional core for each additional 10,000 sq. feet or fraction thereof. Grout core holes with non-shrink grout after core removal. Reference test locations to easily identified points on the Site Plan.

3. Measure each asphalt core for thickness and test for bulk specific gravity. Compute the compaction percentage of each core, using the bulk specific gravity of the laboratory compacted specimen as the compaction standard.

4. Asphalt thickness shall not be more than 1/4" thinner than the specified thickness.

3.12.4 Copies of all testing shall be provided to the Owner and Engineer directly from the testing laboratory.

3.12.5 All testing, retesting and remedial work shall be at the Contractor's expense.

3.12.6 Failing results for any of the testing above shall be cause for rejection of all or part of the work performed. Contractor shall reconstruct deficient work at no additional cost to the Owner.

3.13 CLEANUP:

3.13.1 Contractor shall remove excess and waste material and properly dispose of off-site.

3.13.2 Subsequent to Substantial Completion, the Contractor shall perform a final sweeping of all newly paved areas and existing pavement immediately adjacent to the work area as necessary to provide a clean and neat appearance.

END OF SECTION

EXISTING FENCE TO REMAIN

PARKING

4 AS108

NEW CONTROL DOORS B

EXISTING FENCE TO REMAIN

COND. UNIT FENCING, SEE MECH.

BLDG. 18

EXISTING MECHANICAL YARD

KITCHEN

CHORUS

BLDG. 08

BLDG. 07 AUDITORIUM

PASSAGE (RESTROOMS)

BLDG. 08 CLASSROOMS

CAFETERIA

DINING

BAND

6 AS108

NEW CONTROL DOORS C

BLDG. 04 GUIDANCE

2 AS108

BLDG. 13 CLASSROOMS

BLDG. 12 CLASSROOMS

BLDG. 06 CLASSROOMS

NEW CONTROL DOORS A

S. 19TH STREET

BLDG. 72 CLASSROOMS

BLDG. 73 CLASSROOMS

BLDG. 02 ADMIN.

STUDENT PICK-UP / DROP-OFF

PARKING

CITRONA DRIVE

BLDG. 03 CLASSROOMS

EXISTING FENCE TO REMAIN

NEW FENCE

COND. UNIT FENCING, SEE MECH.

NEW 6'-0" WIDE CONTROL GATE

BLDG. 11 CLASSROOMS

BLDG. 05 CLASSROOMS

EXISTING OAK TREE

NEW 8'-0" WIDE CONTROL GATE

NEW 16'-0" WIDE DOUBLE GATE

NEW FENCE

EXISTING FENCE TO BE REPLACED

NEW 6'-0" WIDE WALK GATE

COND. UNIT FENCING, SEE MECH.

BLDG. 14 MEDIA CENTER

BLDG. 01 GYMNASIUM

1

NEW 6'-0" WIDE CONTROL GATE

BLDG. 09 CLASSROOMS

EXISTING FENCE TO BE REPLACED

REPLACE EXISTING GATES WITH NEW SWING 16'-0" GATES. (GALV.)

NEW 16'-0" WIDE DOUBLE GATE

NEW FENCE

PARKING

NEW 6'-0" WIDE CONTROL GATE

NO WORK

NEW 6'-0" WIDE WALK GATE

EXISTING BASKETBALL COURT

BLDG. 16 FIELD HOUSE

BLDG. 15 INDUSTRIAL ARTS

NEW 6'-0" WIDE WALK GATE

D

EXISTING FENCE TO BE REPLACED

NEW 12'-0" WIDE DOUBLE GATE

EXISTING BASEBALL FIELD

EXISTING FENCE TO BE REPLACED

EXISTING COVERED WALKWAY TO REMAIN

VINYL COATED CHAINLINK FENCE

NEW ROLLING GATE, SEE 6/AS110

EXISTING FENCE TO BE REPLACED

GALV. CHAINLINK

NEW 16'-0" WIDE DOUBLE GATE

MATCHLINE - A

MATCHLINE - A

REFER TO AS104 FOR FENCING PLAN AT FBHS

NORTH

FENCING PLAN FERNANDINA BEACH MIDDLE SCHOOL

SCALE: 1" = 40'-0"

CONTRACTOR: NOTE SCALE

LEGEND:

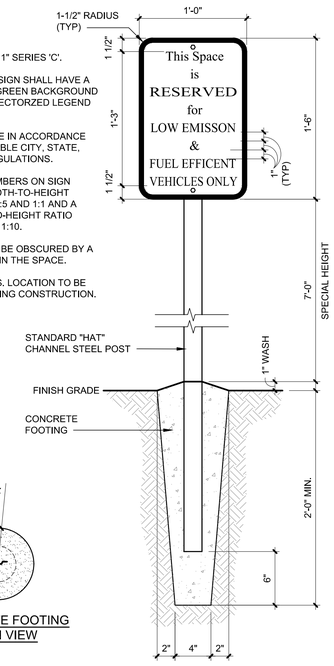
— X — X —	EXISTING CHAIN LINK FENCE TO REMAIN
— BV —	NEW BLACK VINYL COATED CHAIN LINK FENCE, NO EXISTING FENCE.
— B — B —	EXISTING RUSTED CHAIN LINK FENCE TO BE REPLACED, WITH BLACK VINYL COATED CHAIN LINK FENCE.
— G — G —	EXISTING RUSTED CHAIN LINK FENCE TO BE REPLACED, WITH GALVANIZED CHAIN LINK FENCE.
D	INDICATES CONTROL DOOR . (SEE SHEET AS108, AS109, AS110)

FENCING GENERAL NOTES:

1. CONTRACTOR SHALL VERIFY LINE OF FENCING AND LAYOUT WITH THE OWNER'S PROJECT MANAGER PRIOR TO INSTALLATION.
2. COORDINATE INSTALLATION SCHEDULE WITH THE SCHOOL.
3. ALL FENCING TO BE 6'-0" HIGH UNLESS SHOWN OTHERWISE.
4. REFER TO FENCING DETAILS, SHEET AS110.
5. REFER TO MECHANICAL DRAWINGS FOR DETAILS OF FENCING AT MECHANICAL EQUIPMENT.

2

NOTES:
1. ALL LETTERS ARE 1" SERIES 'C'.
2. TOP PORTION OF SIGN SHALL HAVE A REFLECTORIZED GREEN BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
3. SIGNAGE SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CITY, STATE, AND FEDERAL REGULATIONS.
4. LETTERS AND NUMBERS ON SIGN SHALL HAVE A WIDTH-TO-HEIGHT RATIO BETWEEN 3:5 AND 1:1 AND A STROKE WIDTH-TO-HEIGHT RATIO BETWEEN 1:5 AND 1:10.
5. SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.
6. PROVIDE (4) SIGNS. LOCATION TO BE DETERMINED DURING CONSTRUCTION.



CONCRETE FOOTING PLAN VIEW

A AS103 LEV / FEV SIGN

SCALE: 1-1/2" = 1'-0"

BHIDE & HALL ARCHITECTS, P.A.
1329 KINGSLEY AVENUE, SUITE C ORANGE PARK, FLORIDA 32073 PH. (904) 264-1919 LIC. NO. AAC000569

FERNANDINA BEACH MIDDLE SCHOOL
KITCHEN/ DINING REMODELING AND CAMPUS ADDITIONS AND REMODELING
315 Citrona Dr, Fernandina Beach, Fl 32034

Architect	License No.
Robert McVeigh	AR0011549

REVISIONS
- ADDENDUM NO. TWO 10-16-2018
- ADDENDUM NO. FOUR 10-18-2018

FENCING PLAN FERNANADINA BEACH MIDDLE SCHOOL

DATE	9-25-2018
D.B.	P.R.L
C.B.	R.E.M.
JOB NO.	18016

AS103

GENERAL NOTES

A. GENERAL CONSTRUCTION NOTES

1. BOUNDARY & TOPOGRAPHIC INFORMATION PROVIDED BY A SURVEY PERFORMED BY MANZIE & DRAKE LAND SURVEYING, JOB No. 18120, DATED 2/13/2012.
2. EXISTING UNDERGROUND UTILITIES HAVE BEEN SHOWN FROM THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD DETERMINE THE LOCATION, SIZE AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CALL THE SUNSHINE STATE ONE CENTER (1–800–432–4770).
3. CONTRACTOR IS RESPONSIBLE FOR SUPPORTING/ PROTECTING & MAINTAINING ALL EXISTING IMPROVEMENTS (i.e., UTILITIES, UTILITY POLES, STRUCTURES, PAVEMENT, SIDEWALKS, MONITORING WELLS, FOUNDATIONS, ETC.) WHICH MAY BE DAMAGED/UNDERMINED OR INTERRUPTED AS A RESULT OF HIS OPERATIONS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY SUCH OCCURRENCES. THE CONTRACTOR MAY BE REQUIRED TO SHORE, SHEET, BRACE, OR SUPPORT WORK TO PROTECT EXISTING IMPROVEMENTS. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 5 FEET OF UNDISTURBED SOIL AROUND ALL POWER POLES. WHERE EDGE OF UTILITY TRENCH WOULD BE CLOSER THAN 5 FEET FROM POLES, CONTRACTOR SHALL BE REQUIRED TO SHEET AROUND POLE TO MAINTAIN 5 FEET OF UNDISTURBED SOIL. WHERE 5 FEET OF UNDISTURBED SOIL CANNOT BE MAINTAINED, CONTRACTOR SHALL MAKE ARRANGEMENTS WITH POWER COMPANY TO HAVE POLES HELD/BRACED. ALL COSTS ASSOCIATED WITH SUPPORTING/PROTECTING EXISTING IMPROVEMENTS SHALL BE BORNE BY THE CONTRACTOR.
4. ALL EXISTING FACILITIES (E.G., PIPES, ROADWAYS, SIDEWALKS, LANDSCAPING, STRUCTURE, ETC.) NOT INDICATED TO BE DISTURBED/RESTORED WHICH ARE DISTURBED/DAMAGED AS A RESULT OF THE CONTRACTORS OPERATIONS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION, AT CONTRACTORS EXPENSE.
5. HORIZONTAL AND VERTICAL CONTROLS ARE SUBJECT TO ADJUSTMENTS IN THE FIELD IF NECESSARY TO AVOID UTILITY CONFLICTS UPON APPROVAL OF THE ENGINEER OR HIS REPRESENTATIVE. CONTRACTOR SHALL NOT ADJUST LOCATION OF PIPE OR OTHER FACILITIES (EITHER VERTICALLY OR HORIZONTALLY) WITHOUT APPROVAL OF THE OWNER, ENGINEER OR THEIR REPRESENTATIVE.
6. CONTRACTOR SHALL PROVIDE ALL FILL REQUIRED TO ACHIEVE PROPOSED GRADES AT HIS EXPENSE.
7. ALL AREAS WHICH ARE DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SODDED UNLESS OTHERWISE INDICATED ON THESE DRAWINGS.
8. THE CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL MEASURES NECESSARY TO PERFORM THE WORK AT HIS EXPENSE. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH GOVERNING LOCAL, STATE AND FEDERAL AGENCIES INCLUDING THE MUTCD LATEST EDITION.
9. THE CONTRACTOR SHALL EMPLOY THE SERVICES OF A FLORIDA LICENSED SURVEYOR WHO SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND FOR ESTABLISHING PROJECT TEMPORARY BENCH MARKS; ELEVATION LINES AND GRADES; AND RIGHT–OF–WAY AND EASEMENT LIMITS FOR CONSTRUCTION. THE FLORIDA LICENSED SURVEYOR SHALL ALSO REFERENCE AND RESTORE PROPERTY CORNERS AND LAND MARKERS WHICH MAY BE DISTURBED AS A RESULT OF CONTRACTOR'S OPERATIONS.
10. DURING ANY CONSTRUCTION ACTIVITY, INCLUDING STABILIZATION AND REVEGETATION OF DISTURBED SURFACES, THE CONTRACTOR IS RESPONSIBLE FOR THE SELECTION, IMPLEMENTATION AND OPERATION OF ALL EROSION AND SEDIMENT CONTROL MEASURES REQUIRED TO RETAIN ON–SITE SEDIMENT AND PREVENT VIOLATIONS OF THE WATER QUALITY STANDARDS IN CHAPTER 62–3 AND 62–4, F.A.C. THE CONTRACTOR SHALL USE APPROPRIATE BEST MANAGEMENT PRACTICES DESCRIBED IN THE FLORIDA LAND DEVELOPMENT MANUAL: A GUIDE TO SOUND LAND AND WATER MANAGEMENT (DER, 1988). ALL TURBIDITY/SILT BARRIERS MUST BE IN PLACE DOWNGRADIENT FROM THE CONSTRUCTION ZONE PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY. THE TYPE AND PLACEMENT OF THE BARRIERS SHALL CONFORM WITH FDOT INDEXES 102 AND 103. THE BARRIERS SHALL REMAIN IN PLACE UNTIL ALL THE DISTURBED AREAS HAVE BEEN PROPERLY STABILIZED.
11. CONTRACTOR SHALL PROVIDE CONSTANT SLOPE BETWEEN INDICATED PIPE INVERT ELEVATIONS UNLESS OTHERWISE DIRECTED BY ENGINEER.
12. ALL PIPE SHALL HAVE THE FOLLOWING MINIMUM COVER UNLESS OTHERWISE DIRECTED BY ENGINEER.

PVC	(<3–INCH)	30–INCHES
PVC	(3–INCH)	36–INCHES
DIP	(ALL SIZES)	36–INCHES
STEEL	(ALL SIZES)	36–INCHES
RCP	(ALL SIZES)	12–INCHES
CORRUGATED PLASTIC		24–INCHES

13. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2017 FLORIDA BUILDING CODE (WITH REVISIONS).
14. PIPE LENGTHS ARE SCALED DIMENSIONS THE CONTRACTOR SHALL FURNISH LENGTHS AS NECESSARY.
15. THE ENGINEER MAKES NO CLAIMS THAT ANY TREE WILL SURVIVE CONSTRUCTION OF THE PROPOSED PROJECT.
16. UNLESS OTHERWISE NOTED ON THE DRAWINGS ALL UNREINFORCED CONCRETE FOR SIDEWALKS AND RAMPS ETC. SHALL HAVE A MINIMUM STRENGTH OF 3,000 PSI.
17. COMPACTION: UNLESS OTHERWISE NOTED, THE REQUIRED PERCENTAGE OF MAXIMUM COMPACTION SHALL BE AS FOLLOWS; (PER MODIFIED PROCTOR MAX. DRY DENSITY, ASTM D 1557)
    - UNDER STRUCTURES AND SLABS– 95%
    - UNDER PAVED AREAS (SUBGRADE) 98%
    - UNDER PAVED AREAS (BELOW 12") –95%
    - LANDSCAPED AREAS AND OTHER –90%
    - ADJACENT TO WALLS AND ABOVE FOOTING –92%
18. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACQUIRE AND READ A COPY OF THE SOILS REPORT FOR THIS PROJECT. THE CONTRACTOR SHALL CONSIDER ALL RECOMMENDATIONS IN THE GEOTECHNICAL SOIL REPORT AS THE MINIMUM REQUIREMENTS FOR SOIL PLACEMENT, PREPARATION AND TESTING FOR THIS PROJECT.
19. UNSUITABLE MATERIALS UNDER STRUCTURES, PAVEMENTS, WATER LINES, SANITARY SEWER LINES AND STORM SEWER LINES SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL, PROPERLY COMPACTED. REMOVAL & REPLACEMENT OF UNSUITABLE MATERIALS SHALL BE IN STRICT COMPLIANCE WITH THE PLANS, SPECIFICATIONS AND THE GEOTECHNICAL SOIL REPORT.
20. ALL FILL IMPORTED OR TAKEN FROM ON–SITE BORROW, AND USED ON THIS PROJECT, SHALL BE SUITABLE MATERIAL MEETING THE DEFINITION OF AASHTO A–3 SAND (AASHTO M 145).
21. ANY NGVD OR NAVD MONUMENT WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF IN DANGER OF DAMAGE CONTRACTOR MUST NOTIFY ENGINEER PRIOR TO PROCEEDING AND NOTIFICATION SENT TO: GEODETIC INFORMATION CENTER, MAINTENANCE SECTION, N/CG–162 6001 EXECUTIVE BLVD., ROCKVILLE, MARYLAND 20852 (304)443–8319.
22. ONLY THAT EXCAVATION THAT CAN BE BACKFILLED BY THE END OF THE WORK DAY WILL BE EXCAVATED. NO OPEN TRENCH WILL BE ALLOWED TO REMAIN AFTER WORK ENDS FOR THE DAY.
23. THE CONTRACTOR SHALL PAY FOR ALL REQUIRED TESTS. GENERALLY, TESTS WILL CONSIST OF COMPACTION AND DENSITY TESTS, L.B.R. TESTS, CONCRETE TESTS (CYLINDER BREAKS), AND ASPHALTIC CONCRETE TESTS. AN ORIGINAL MANUFACTURER'S OR SUPPLIER'S CERTIFICATE THAT THE MATERIAL MEETS THE REQUIREMENTS OF THE SPECIFICATIONS SHALL BE ACCEPTED SUBJECT TO THE VERIFICATION BY THE DESIGN ENGINEER OR DESIGNATED REPRESENTATIVE. NO ADDITIONAL COST TO THE OWNER FOR ANY ASPECT OF THE TEST WILL BE ALLOWED.
24. THE CONTRACTOR SHALL ADHERE TO ALL FEDERAL, STATE AND LOCAL LAWS.
25. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE THE OWNER WITH "AS–BUILT" DRAWINGS 15 DAYS PRIOR TO SUBSTANTIAL COMPLETION OF CONSTRUCTION. THE DRAWINGS SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED AND LICENSED LAND SURVEYOR CERTIFYING AS–BUILT CONDITIONS.
26. CONTRACTORS RESPONSIBILITY FOR WORK:
    UNTIL FINAL ACCEPTANCE OF THE WORK BY THE OWNER, IT SHALL BE UNDER THE CHARGE AND CUSTODY OF THE CONTRACTOR AND HE SHALL TAKE EVERY PRECAUTION AGAINST INJURY OR DAMAGE TO THE WORK BY THE ACTION OF THE ELEMENTS OR FROM ANY OTHER CAUSE.
27. THE LOCATION OF THE NEW SIDEWALK CONNECTIONS TO THE NEW BUILDINGS SHOWN ON THESE PLANS ARE APPROXIMATE AND THE CONTRACTOR SHALL VERIFY THEIR ACTUAL LOCATION WITH THE PLANS OF OTHER DISCIPLINES FOR THIS PROJECT.
28. ALL RCP PIPE SHALL BE A MINIMUM OF CLASS III.
29. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND AVOID ALL UTILITIES, STRUCTURES AND OBSTRUCTIONS BOTH ABOVE AND BELOW THE GROUND SURFACE. ALL DAMAGES RESULTING FROM THE CONTRACTORS FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
30. ANY DAMAGE TO THE EXISTING ROADWAY, CURB, UTILITIES, OR RIGHT–OF–WAY SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
31. SHOP DRAWINGS, MIX FORMULAS AND MATERIALS CERTIFICATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR WRITTEN APPROVAL PRIOR TO CONSTRUCTING THE SITE IMPROVEMENTS.
32. FINAL ELEVATIONS SHALL BE WITHIN 0.2% OF PLAN SLOPES, NOT TO EXCEED 0.1 FOOT OF THE REQUIRED ELEVATIONS. SURFACES SHALL BE SLOPED TO DRAIN AS SHOWN ON THE DRAWINGS.
33. WHEN WORKING WITHIN THE RIGHT–OF–WAY, THE CONTRACTOR SHALL ONLY CLOSE ONE TRAFFIC LANE AT A TIME. NO LANE CLOSURES ALLOWED BETWEEN THE HOURS OF 7:00 A.M. AND 9:00 A.M. AND 4:00 P.M. AND 6:00 P.M. CONTRACTOR SHALL ABIDE BY THE CITY OF FERNANDINA BEACH MAINTENANCE OF TRAFFIC REQUIREMENTS.

B. PAVEMENT STRIPING AND SIGNAGE NOTES

1. UNLESS OTHERWISE NOTED ON THE DRAWINGS, ALL EXISTING SIGNS REMOVED BY THE CONSTRUCTION ACTIVITY, SHALL BE RESTORED TO THEIR ORIGINAL POSITION PRIOR TO COMPLETION OF THE PROJECT. ANY SIGNS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTORS EXPENSE. ALL SIGNS BEING REMOVED AND NOT REINSTALLED SHALL BECOME THE PROPERTY OF THE TOWN OF HILLIARD SHOULD THEY SO ELECT. THE CONTRACTOR SHALL DELIVER THE SIGNS ACCEPTED BY THE TOWN OF HILLIARD TO A LOCAL LOCATION AS DIRECTED BY THE TOWN OF HILLIARD AT THE CONTRACTORS EXPENSE. ALL SIGNS REJECTED BY THE TOWN OF HILLIARD SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR AT HIS EXPENSE.
2. ALL SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, LATEST EDITIONS.
3. SIGN ASSEMBLY LOCATIONS, SHOWN ON THE PLANS, WHICH ARE IN CONFLICT WITH LIGHTING, UTILITIES ETC. MAY BE ADJUSTED SLIGHTLY AS DIRECTED BY THE ENGINEER.
4. ALL PAVEMENT STRIPING WITHIN RIGHT–OF–WAY/EASEMENT AS WELL AS ALL STOP BARS, CROSSWALKS, MESSAGES AND DIRECTIONAL ARROWS (REGARDLESS OF LOCATION) SHALL BE LEAD FREE, THERMOPLASTIC PAINT (FDOT SPEC. SECTION 711). ALL OTHER STRIPING SHALL BE REFLECTIVE PAINT (FDOT SPEC. SECTION 710) UNLESS NOTED OTHERWISE ON THE DRAWINGS.
5. THE ALUMINUM COLUMN (POST) & CONNECTION DESIGN SHALL ADHERE TO FDOT INDEX 11860 AND THE FOLLOWING CRITERIA:
    a. MOUNTING HEIGHT = 14' MAXIMUM
    b. SIGN(S) AREA = 25 SQ. FT. MAXIMUM
    c. SIGN(S) WIDTH: SINGLE = 36" MAXIMUM
       DUAL = 48" MAXIMUM
    d. DRIVEN POST ONLY
6. ALL POSTS SHALL BE INSTALLED PLUMB.
7. ALL HARDWARE SHALL BE STAINLESS STEEL (ASTM F593, ASTM F594, ALLOY GROUP 2, CONDITION A , CW2 OR SH4).
8. ALL SIGNS SHALL HAVE A PERMANENTLY ADHERED "BORN ON" DATE THAT IDENTIFIES PRODUCTION DATE OF THE FINISHED PRODUCT.

LEGEND

PROPOSED	EXISTING	
W	6"W	WATER MAIN
F		FIRE MAIN
		VALVE
S	8"S	SANITARY SEWER
SD	8"SD	STORM SEWER
	4"FM	SANITARY FORCE MAIN
	W	WATER SERVICE
	FH	FIRE HYDRANT
63.0	X63.0	SPOT ELEVATIONS
	MH	MANHOLE
	E	ELECTRIC METER
	PP	POWER POLE/ W/ANCHOR
	GAS	GAS
	BT	BURIED TELEPHONE
	CTV	CABLE TELEVISION
SWALE	SWALE	SWALE
		RIGHT–OF–WAY
		EASEMENT LINE
	x x	FENCING
		STAKED TURBIDITY BARRIER/SILT FENCE
		TREE PROTECTION BARRIER
		BUILDING OR BUILDING ADDITION
		ASPHALT PAVEMENT OR CONCRETE CURB
		CONCRETE SIDEWALK OR PAVEMENT
		DEMOLISH, REMOVE & DISPOSE OF
OR		DRAINAGE INLET
		DRAINAGE INLET OR MES WITH FIBER ROLL OR TURBIDITY BARRIER PROTECTION
10	10	ELEVATION CONTOUR
		PAVEMENT STRIPING & MARKINGS
	12" PINE	TREE TO REMAIN
12" PINE		TREE TO BE REMOVED

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
A.C.P	ASBESTOS CEMENT PIPE
A.F.F.	ABOVE FINISH FLOOR (REF. ELEV.)
A.F.G.	ABOVE FINISH GRADE (REF. ELEV.)
ALUM.	ALUMINUM
ASPH.	ASPHALT
B&C	BOX AND COVER
B.E.	BURIED ELECTRIC
BFP	BACKFLOW PREVENTER
B.T.	BURIED TELEPHONE–CABLE
B.T.(F.O.)	BURIED TELEPHONE–FIBER OPTIC
BLDG.	BUILDING
C.I.	CAST IRON
C.I.P.	CAST IN PLACE
CB	CATCH BASIN
℄	CENTERLINE
C/C	CENTER TO CENTER
C.L.F.	CHAIN LINK FENCE
C.M.	CORRUGATED METAL
C.M.P.	CORRUGATED METAL PIPE
C.O.	CLEAN OUT
CONC.	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
C.T.V.	CABLE TELEVISION
CUL.	CULVERT
DIA.	DIAMETER
D.I.	DUCTILE IRON
D.I.P.	DUCTILE IRON PIPE
D.O.T.	DEPARTMENT OF TRANSPORTATION
EL., ELEV.	ELEVATION
E.F.	EACH FACE
EP	EDGE OF PAVEMENT
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
E.W.	EACH WAY
EX., EXIST.	EXISTING
F.B.	FLAT BAR
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
F.F	FINISH FLOOR
F.H.	FIRE HYDRANT
F.J.	FLANGED JOINT
F.M.	FORCE MAIN
FRP	FIBER REINFORCED PLASTIC
G.	GAS MAIN
G.S.	GALVANIZED STEEL
G.S.P.	GALVANIZED STEEL PIPE
G.V.	GATE VALVE
HB	HOSE BIBB
HDPE	HIGH DENSITY POLYETHYLENE
I.E.	INVERT ELEVATION
I.F.	INSIDE FACE
INV.	INVERT
L.F.	LINEAR FEET
L.P.	LIGHT POLE
L.R.	LONG RADIUS
MAX.	MAXIMUM
M.E.S.	MITERED END SECTION
M.H.	MANHOLE
MIN.	MINIMUM
M.J.	MECHANICAL JOINT
M.W.	MONITORING WELL
No.	NUMBER
N.T.S.	NOT TO SCALE
O.A.	OVERALL DIMENSION
O.C.	ON CENTER
O.F.	OUTSIDE FACE
O.H.	OVER HEAD
O.E., O.H.E.	OVER HEAD ELECTRIC
PL	PLATE
P.P.	POWER POLE
P.V.	PLUG VALVE
P.V.C.	POLYVINYL CHLORIDE PIPE
PAVT.,PVMT.	PAVEMENT
R.C.P.	REINFORCED CONCRETE PIPE
R/W	RIGHT–OF–WAY
R.W.M.	RAW WATER MAIN
SAN.	SANITARY SEWER
SD	STORM DRAIN
S.R.	STATE ROAD
S.S.	STAINLESS STEEL
STA.	STATION
TC	TOP OF CONCRETE
T.E.	TOP ELEVATION
TELE.	TELEPHONE
TEMP.	TEMPORARY
T.F.	TOP FACE
TOB	TOP OF BANK
TOE	TOE OF SLOPE
TP	TOP OF PAVEMENT
TYP.	TYPICAL
U.G.	UNDERGROUND
W	WATER
W/	WITH
W.M.	WATER MAIN OR WATER METER
W.W.F.	WELDED WIRE FABRIC
W.W.M	WELDED WIRE MESH

1

RIGHT–OF–WAY ACCESS

THE CONTRACTOR SHALL PROVIDE 24 HOURS NOTICE TO THE CITY OF FERNANDINA BEACH PRIOR TO PERFORMING ANY WORK SHOWN ON THESE PLANS AS OCCURRING IN RIGHT–OF–WAY. A RIGHT–OF–WAY USE PERMIT WILL NOT BE REQUIRED. COORDINATE THROUGH OWNER FOR APPROPRIATE CITY CONTACTS.

BHIDE & HALL ARCHITECTS, P.A.
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TEL. (904) 278-0030 FAX. (904) 278-0840 FLORIDA LICENSE CA-6569
MA 9806-07-1

FERNANDINA BEACH MIDDLE SCHOOL
KITCHEN/ DINING REMODELING AND CAMPUS ADDITIONS AND REMODELING
315 Citrona Dr, Fernandina Beach, Fl 32034

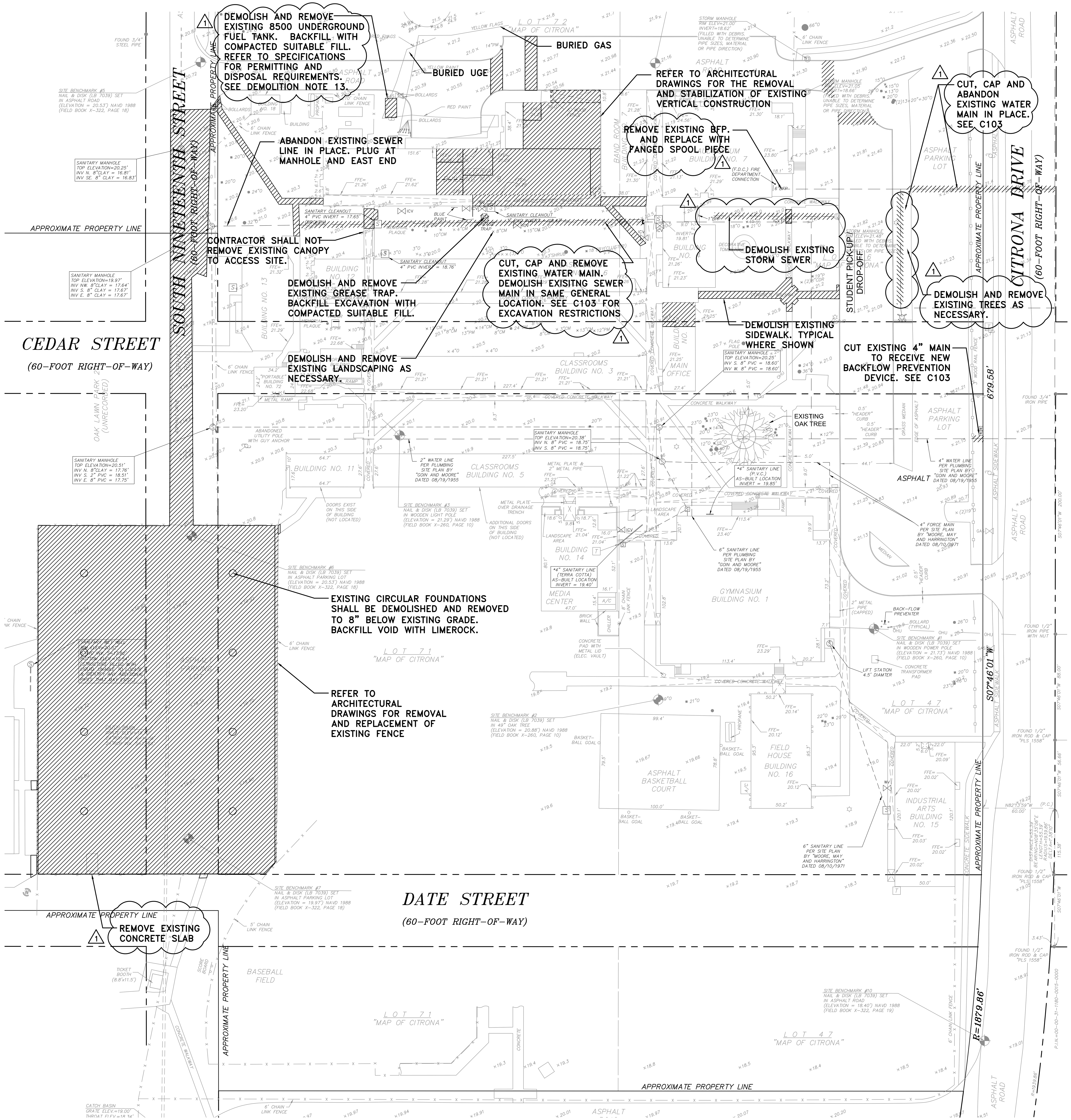
Architect	License No.
Robert McVeigh	AR0011549

REVISIONS		
1	ADDENDUM NO. 1	10/18/2018

CIVIL
GENERAL NOTES

DATE	9-25-2018
D.B.	MPT
C.B.	MPT
JOB NO.	18016

C001



DEMOLITION NOTES:

1. EXISTING TREES TO REMAIN SHALL BE PROTECTED BY WOODEN BARRIERS. BARRIERS SHALL BE CONSTRUCTED WITH 2X LUMBER. BARRIERS SHALL STAND 48" HIGH AND ENCIRCLE THE TREE AT A MINIMUM DISTANCE OF 6' FROM THE TRUNK.
2. TOPOGRAPHIC SURVEY DATA PROVIDED BY MANZIE & DRAKE LAND SURVEYING, FERNANDINA BEACH (Job No. 18210, Dated 2/13/2012). UNDERGROUND UTILITIES SHOWN ARE FOR REFERENCE ONLY AND HAVE NOT BEEN FIELD LOCATED. THE ENGINEER DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE ACCURACY OF THE EXISTING TOPOGRAPHIC INFORMATION, INCLUDING UTILITIES, SHOWN ON THESE PLANS.
3. LIMEROCK BASE BENEATH EXISTING PAVEMENT, PROPOSED TO BE REMOVED, SHALL BE STOCKPILED AND REUSED FOR SUBGRADE STABILIZATION.
4. DURING ANY CONSTRUCTION ACTIVITY, INCLUDING STABILIZATION AND REVEGETATION OF DISTURBED SURFACES, THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN SELECTION, IMPLEMENTATION AND OPERATION OF ALL EROSION AND SEDIMENT CONTROL MEASURES REQUIRED TO RETAIN SEDIMENT ON-SITE AND PREVENT VIOLATIONS OF THE WATER QUALITY STANDARDS IN CHAPTER 62-3 AND 62-4, F.A.C. THE CONTRACTOR SHALL USE APPROPRIATE BEST MANAGEMENT PRACTICES DESCRIBED IN THE STATE OF FLORIDA EROSION & SEDIMENT CONTROLS DESIGNER & REVIEWER MANUAL, LATEST EDITION (E&SC). ALL TURBIDITY/SILT BARRIERS MUST BE IN PLACE DOWNGRADIENT FROM THE CONSTRUCTION ZONE PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY. THE TYPE AND PLACEMENT OF THE BARRIERS SHALL CONFORM WITH THE E&SC. THE BARRIERS SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN PROPERLY STABILIZED.
5. SEDIMENT & EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION. CONTROLS SHALL REMAIN IN-PLACE AND BE MAINTAINED UNTIL PROPER GROUND COVER OR OTHER STABILIZATION HAS BEEN ESTABLISHED.
6. CONTRACTOR SHALL (AT HIS OWN EXPENSE) APPLY FOR AND OBTAIN A NPDES PERMIT (NOTICE TO USE GENERAL PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES) PRIOR TO ANY CONSTRUCTION.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING & INSTALLING ANY PEDESTRIAN AND MOTORIST/ROADWAY MAINTENANCE OF TRAFFIC IN ACCORDANCE WITH FDOT STANDARDS AND THE LATEST EDITION OF THE MUTCD.
8. FABRIC FROM ANY DEMOLISHED FENCE SHALL BE ROLLED AND DELIVERED TO THE OWNERS FACILITY ON GOODBREAD DRIVE IN YULEE. POSTS AND CONCRETE SHALL BE DISPOSED OF.
9. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN A TEMPORARY 6' CHAIN LINK FENCE AROUND THE ACTIVE CONSTRUCTION SITE WHILE SCHOOL IS IN SESSION AND/OR THE CAMPUS IS BEING UTILIZED BY STUDENTS. THE TEMPORARY FENCE SHALL BE CONSTRUCTED AND MAINTAINED TO PREVENT STUDENTS FROM ENTERING THE ACTIVE CONSTRUCTION SITE AND ANY LAYDOWN/ STAGING AREA. SEE ARCHITECTURAL FOR SPECIFIC FENCING REQUIREMENTS.
10. THE CONTRACTOR SHALL PROVIDE PEDESTRIAN AND VEHICLE ACCESS GATES IN TEMPORARY CONSTRUCTION FENCE AS REQUIRED TO FACILITATE CONSTRUCTION AND SO AS NOT TO INTERFERE WITH SCHOOL OPERATIONS. THE CONTRACTOR SHALL COORDINATE LOCATION AND SIZE OF ACCESS GATES WITH NASSAU COUNTY SCHOOL BOARD PERSONNEL AND ARCHITECT.
11. CONTRACTOR SHALL SALVAGE AND STORE EXISTING SIGNS FOR LATER USE. ONLY STRUCTURALLY SOUND AND READABLE SIGNS SHALL BE SALVAGED. ALL UNUSED SALVAGED SIGNS SHALL BE DELIVERED TO THE OWNERS GOODBREAD DRIVE FACILITY IN YULEE.
12. WHERE REQUIRED REMOVAL OF EXISTING STRIPING SHALL BE BY HYDROBLASTING. DAMAGE TO UNDERLYING ASPHALT SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER.
13. TANK WILL NOT BE COMPLETELY EMPTY. OWNER WILL REMOVE ALL SALVAGEABLE FUEL FROM THE TANK. CONTRACTOR SHALL EXPECT THAT RESIDUAL LIQUID FUEL AND SLUDGE WILL BE IN THE TANK.

EROSION & SEDIMENTATION CONTROL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING, ACQUIRING AND ADHERING TO THE NOTICE OF INTENT TO USE GENERAL PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH SECTION 02370 OF THE SPECIFICATIONS.
2. EXCEPT WHERE SPECIFIC REQUIREMENTS ARE NOTED, EROSION & SEDIMENTATION CONTROLS SHOWN ON THESE PLANS ARE SCHEMATIC IN NATURE. THE CONTRACTOR SHALL MODIFY OR SUPPLEMENT THESE CONTROLS, AS NECESSARY, TO DEVELOP A SITE AND PROJECT SPECIFIC STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP SHALL MEET THE REQUIREMENTS OF THE FIELD CONDITIONS ENCOUNTERED AND CONFORM TO THE CONTRACTOR'S PROPOSED MEANS AND METHODS WHILE REMAINING COMPLIANT WITH ALL PERMITTING.
3. THE CONTRACTORS CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MINIMUM OF 6-INCHES OF GRAVEL THE WIDTH OF THE DRIVE AND FOR A DISTANCE OF 25-FEET BEGINNING AT THE PROPERTY LINE AND EXTENDING ON THE PROJECT PROPERTY.
4. THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING GENERAL CONSTRUCTION SEQUENCE:
   a. ERECT ALL EROSION & SEDIMENT CONTROLS.
   b. PREPARE AND PROTECT STAGING AREAS AND CONSTRUCTION AREAS.
   c. PROCEED WITH OTHER ELEMENTS OF PROJECT.
5. CONTRACTOR SHALL PROVIDE & INSTALL ADDITIONAL EROSION CONTROLS AS NECESSARY TO REMAIN IN COMPLIANCE WITH ALL LOCAL, STATE & FEDERAL REGULATIONS.
6. MAINTAIN ALL TEMPORARY EROSION CONTROLS FOR THE DURATION OF THE WORK AND REPAIR AS NECESSARY.
7. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROLS BY SUBSTANTIAL COMPLETION OF THE PROJECT. ALL DISTURBANCE/DAMAGE INCURRED DURING REMOVAL SHALL BE REPAIRED.

EXISTING CONDITIONS AND EROSION CONTROL PLAN

1"=40'

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FERNANDINA BEACH MIDDLE SCHOOL
KITCHEN/ DINING REMODELING AND CAMPUS ADDITIONS AND REMODELING
315 Citrona Dr, Fernandina Beach, Fl 32034

Engineer	License No.
Michael Tibble, PE	55352

REVISIONS	
1 ADDENDUM NO. 1	10/18/2018

CIVIL SITE PLAN

DATE	9-25-2018
D.B.	MPT
C.B.	MPT
JOB NO.	18016

C101

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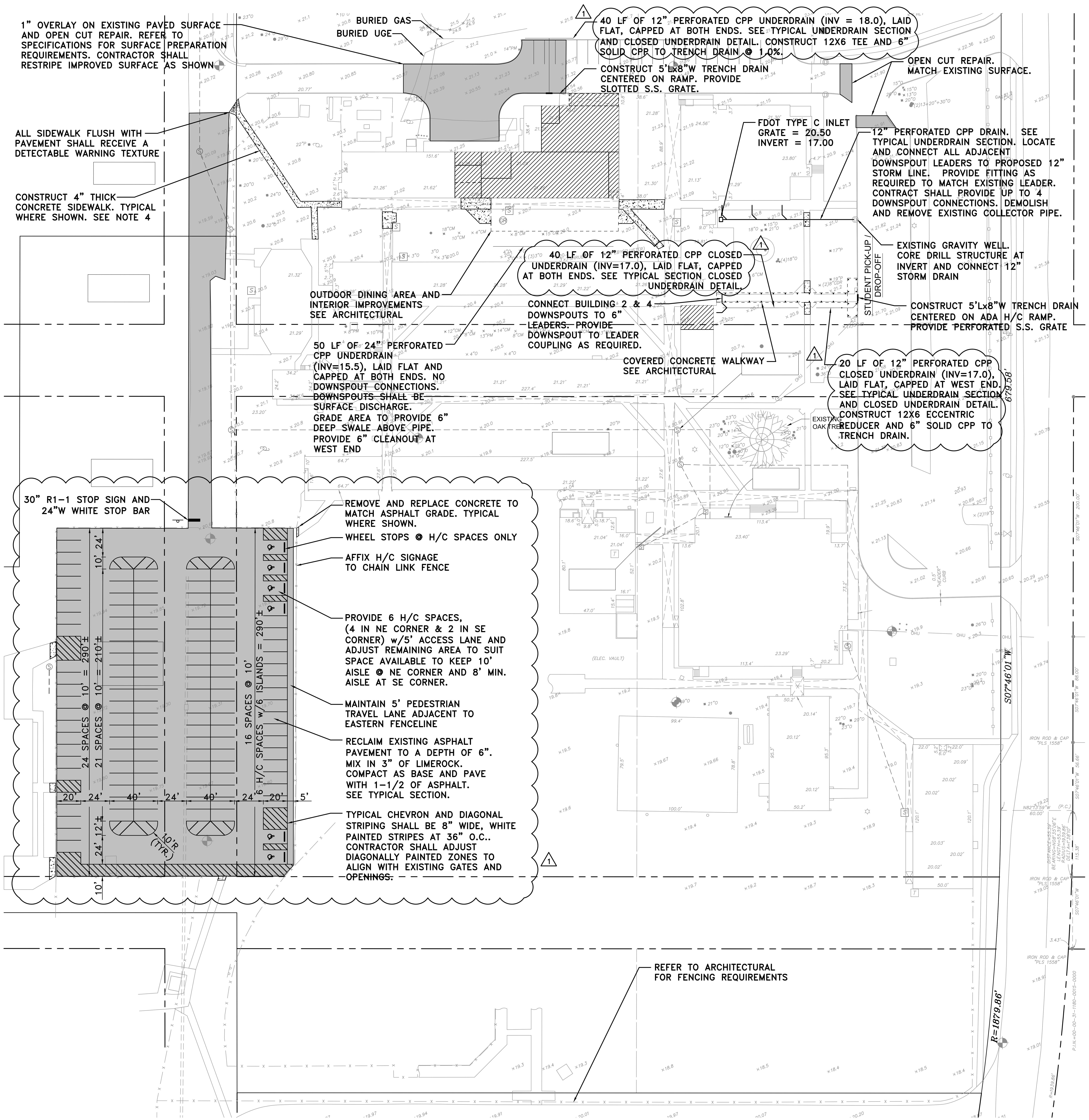

1" OVERLAY ON EXISTING PAVED SURFACE AND OPEN CUT REPAIR. REFER TO SPECIFICATIONS FOR SURFACE PREPARATION REQUIREMENTS. CONTRACTOR SHALL RESTRIPE IMPROVED SURFACE AS SHOWN
BURIED GAS
BURIED UGE
40 LF OF 12" PERFORATED CPP UNDERDRAIN (INV = 18.0), LAID FLAT, CAPPED AT BOTH ENDS. SEE TYPICAL UNDERDRAIN SECTION AND CLOSED UNDERDRAIN DETAIL. CONSTRUCT 12X6 TEE AND 6" SOLID CPP TO TRENCH DRAIN @ 1.0%.
CONSTRUCT 5'Lx8"W TRENCH DRAIN CENTERED ON RAMP. PROVIDE SLOTTED S.S. GRATE.
OPEN CUT REPAIR. MATCH EXISTING SURFACE.
ALL SIDEWALK FLUSH WITH PAVEMENT SHALL RECEIVE A DETECTABLE WARNING TEXTURE
FDOT TYPE C INLET GRATE = 20.50 INVERT = 17.00
12" PERFORATED CPP DRAIN. SEE TYPICAL UNDERDRAIN SECTION. LOCATE AND CONNECT ALL ADJACENT DOWNSPOUT LEADERS TO PROPOSED 12" STORM LINE. PROVIDE FITTING AS REQUIRED TO MATCH EXISTING LEADER. CONTRACT SHALL PROVIDE UP TO 4 DOWNSPOUT CONNECTIONS. DEMOLISH AND REMOVE EXISTING COLLECTOR PIPE.
CONSTRUCT 4" THICK CONCRETE SIDEWALK. TYPICAL WHERE SHOWN. SEE NOTE 4
40 LF OF 12" PERFORATED CPP CLOSED UNDERDRAIN (INV=17.0), LAID FLAT, CAPPED AT BOTH ENDS. SEE TYPICAL SECTION CLOSED UNDERDRAIN DETAIL.
EXISTING GRAVITY WELL. CORE DRILL STRUCTURE AT INVERT AND CONNECT 12" STORM DRAIN
STUDENT PICK-UP/ DROP-OFF
OUTDOOR DINING AREA AND INTERIOR IMPROVEMENTS SEE ARCHITECTURAL
CONNECT BUILDING 2 & 4 DOWNSPOUTS TO 6" LEADERS. PROVIDE DOWNSPOUT TO LEADER COUPLING AS REQUIRED.
CONSTRUCT 5'Lx8"W TRENCH DRAIN CENTERED ON ADA H/C RAMP. PROVIDE PERFORATED S.S. GRATE
50 LF OF 24" PERFORATED CPP UNDERDRAIN (INV=15.5), LAID FLAT AND CAPPED AT BOTH ENDS. NO DOWNSPOUT CONNECTIONS. DOWNSPOUTS SHALL BE SURFACE DISCHARGE. GRADE AREA TO PROVIDE 6" DEEP SWALE ABOVE PIPE. PROVIDE 6" CLEANOUT AT WEST END
COVERED CONCRETE WALKWAY SEE ARCHITECTURAL
20 LF OF 12" PERFORATED CPP CLOSED UNDERDRAIN (INV=17.0), LAID FLAT, CAPPED AT WEST END. SEE TYPICAL UNDERDRAIN SECTION AND CLOSED UNDERDRAIN DETAIL. CONSTRUCT 12X6 ECCENTRIC REDUCER AND 6" SOLID CPP TO TRENCH DRAIN.
EXISTING OAK TREE
679.58'
30" R1-1 STOP SIGN AND 24"W WHITE STOP BAR
REMOVE AND REPLACE CONCRETE TO MATCH ASPHALT GRADE. TYPICAL WHERE SHOWN.
WHEEL STOPS @ H/C SPACES ONLY
AFFIX H/C SIGNAGE TO CHAIN LINK FENCE
PROVIDE 6 H/C SPACES, (4 IN NE CORNER & 2 IN SE CORNER) w/5' ACCESS LANE AND ADJUST REMAINING AREA TO SUIT SPACE AVAILABLE TO KEEP 10' AISLE @ NE CORNER AND 8' MIN. AISLE AT SE CORNER.
MAINTAIN 5' PEDESTRIAN TRAVEL LANE ADJACENT TO EASTERN FENCELINE
RECLAIM EXISTING ASPHALT PAVEMENT TO A DEPTH OF 6". MIX IN 3" OF LIMEROCK. COMPACT AS BASE AND PAVE WITH 1-1/2 OF ASPHALT. SEE TYPICAL SECTION.
TYPICAL CHEVRON AND DIAGONAL STRIPING SHALL BE 8" WIDE, WHITE PAINTED STRIPES AT 36" O.C.. CONTRACTOR SHALL ADJUST DIAGONALLY PAINTED ZONES TO ALIGN WITH EXISTING GATES AND OPENINGS.
24 SPACES @ 10' = 290'±
21 SPACES @ 10' = 210'±
16 SPACES @ 10'
6 H/C SPACES w/6 ISLANDS = 290'±
10' 24'
20' 24' 40' 24' 40' 24' 20' 5'
24' 12'
10'R (TYP.)
10'
S07°46'01"W
R=1879.86'
REFER TO ARCHITECTURAL FOR FENCING REQUIREMENTS

NOTES:

1. SEE DETAILS SHEET C503 FOR TYPICAL TRENCH REQUIREMENTS.
2. COVERED SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS. UNCOVERED SIDEWALK SHALL BE CONSTRUCTED IN ACCORDANCE DETAILS ON SHEET C502.
3. UNLESS OTHERWISE NOTED BOLLARDS SHALL CONFORM TO DETAIL ON SHEET C502.
4. ALL SIDEWALKS ARE CONSIDERED HANDICAP ACCESSIBLE ROUTES AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH ADA STANDARDS FOR ACCESSIBLE DESIGN. SLOPES SHALL NOT EXCEED THE FOLLOWING:
   a) DIRECTION OF TRAVEL (LENGTH OF SIDEWALK) = 5% MAX.
   b) CROSS SLOPE = 2% MAX.
   c) RAMP = 1:12 MAX.
   d) SEE DETAIL SHT C502.
5. ALL AREAS DISTURBED BY CONSTRUCTION AND NOT OTHERWISE RECEIVING PERMANENT IMPROVEMENTS, SHALL BE STABILIZED WITH SOD IN ACCORDANCE WITH THE SPECIFICATIONS.
6. DIMENSIONS FOR PAVING ARE FROM PAVEMENT EDGE TO PAVEMENT EDGE OR FROM FACE OF CURB TO FACE OF CURB, UNLESS SHOWN OTHERWISE.
7. DETECTABLE WARNING TEXTURE (3' WIDE) IS REQUIRED AT ALL LOCATIONS WHERE TOP OF NEW CONCRETE SIDEWALK IS FLUSH WITH TOP OF PAVEMENT. FOR DETAIL SEE C502.
8. FOR CONCRETE CURB & GUTTER DETAILS SEE DETAIL SHEET C502.
9. FOR CONSTRUCTION SIGN LOCATION AND DETAILS SEE ARCHITECTURAL DRAWINGS.
10. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE HIS WORK EFFORT WITH THE NCSB PERSONNEL IN ORDER TO MINIMIZE DISRUPTION TO THE SCHOOL ACTIVITIES/OPERATIONS.

1 REAR WESTERN PARKING AREA CALCULATIONS

TOTAL REGULAR SPACES PROVIDED =

TOTAL H/C SPACES PROVIDED =

TOTAL ALL SPACES PROVIDED =

H/C SPACES ARE PROVIDED AT 1 SPACE FOR EACH 25 REGULAR SPACES PROVIDED OR FRACTION THERE OF.

PAVING AND DRAINAGE IMPROVEMENTS PLAN

1"=40'

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315 Citrona Dr, Fernandina Beach, Fl 32034

Engineer	License No.
Michael Tibble, PE	55352

REVISIONS	
1 ADDENDUM NO. 1	10/18/2018

PAVING & DRAINAGE PLAN

DATE	9-25-2018
D.B.	MPT
C.B.	MPT
JOB NO.	18016

C102

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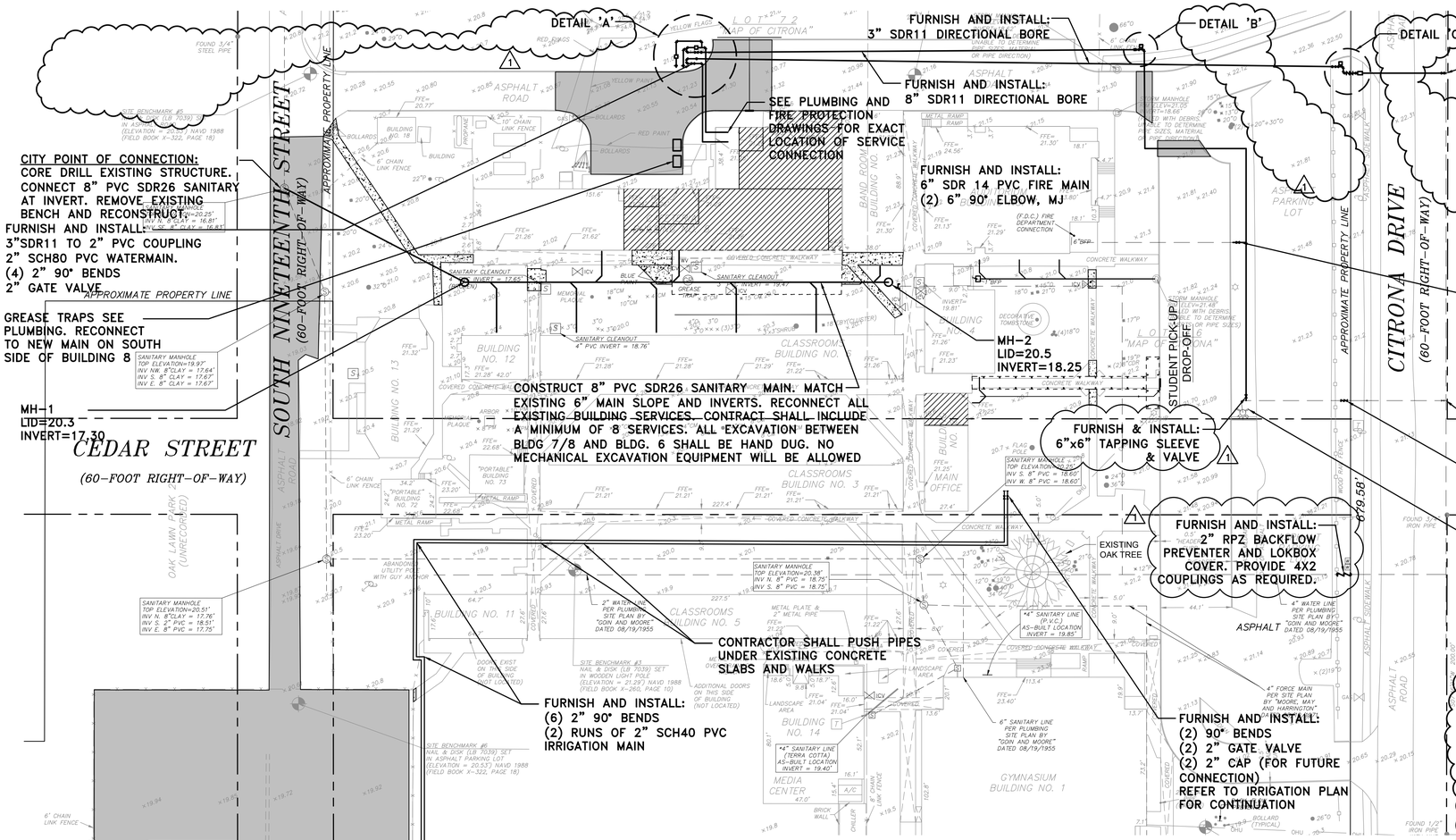
DETAIL 'A'
DETAIL 'B'
DETAIL 'C'
FURNISH AND INSTALL:
3" SDR11 DIRECTIONAL BORE
FURNISH AND INSTALL:
8" SDR11 DIRECTIONAL BORE
SEE PLUMBING AND FIRE PROTECTION DRAWINGS FOR EXACT LOCATION OF SERVICE CONNECTION
FURNISH AND INSTALL:
6" SDR 14 PVC FIRE MAIN
(2) 6" 90° ELBOW, MJ
2" TAP , BORE AND METER BY CITY OF FERNANDINA BEACH
CITY POINT OF CONNECTION:
CORE DRILL EXISTING STRUCTURE. CONNECT 8" PVC SDR26 SANITARY AT INVERT. REMOVE EXISTING BENCH AND RECONSTRUCT.
FURNISH AND INSTALL:
3"SDR11 TO 2" PVC COUPLING
2" SCH80 PVC WATERMAIN.
(4) 2" 90° BENDS
2" GATE VALVE
GREASE TRAPS SEE PLUMBING. RECONNECT TO NEW MAIN ON SOUTH SIDE OF BUILDING 8
MH-1
LID=20.3
INVERT=17.30
CONSTRUCT 8" PVC SDR26 SANITARY MAIN. MATCH EXISTING 6" MAIN SLOPE AND INVERTS. RECONNECT ALL EXISTING BUILDING SERVICES. CONTRACT SHALL INCLUDE A MINIMUM OF 8 SERVICES. ALL EXCAVATION BETWEEN BLDG 7/8 AND BLDG. 6 SHALL BE HAND DUG. NO MECHANICAL EXCAVATION EQUIPMENT WILL BE ALLOWED
MH-2
LID=20.5
INVERT=18.25
CUT AND CAP EXISTING 4" PVC LINES AND ABANDON IN PLACE IN ACCORDANCE WITH LOCAL UTILITY REQUIREMENTS.
FURNISH AND INSTALL:
6X6 TEE, MJ
6X4 REDUCER, MJ
4" GATE VALVE W/ P.I., MJ
RECONNECTION COUPLING TO EXISTING 4" FIRE LINE TO BUILDING 7
EXISTING 6" FIRE MAIN
FURNISH & INSTALL:
6"x6" TAPPING SLEEVE & VALVE
FURNISH AND INSTALL:
6" RPZ BACKFLOW PREVENTER WITH LOKBOX COVER. CUT EXISTING MAIN TO INSTALL
EXISTING FIRE HYDRANT TO REMAIN
FURNISH AND INSTALL:
2" RPZ BACKFLOW PREVENTER AND LOKBOX COVER. PROVIDE 4X2 COUPLINGS AS REQUIRED.
679.58'
EXISTING OAK TREE
CONTRACTOR SHALL PUSH PIPES UNDER EXISTING CONCRETE SLABS AND WALKS
FURNISH AND INSTALL:
(6) 2" 90° BENDS
(2) RUNS OF 2" SCH40 PVC IRRIGATION MAIN
FURNISH AND INSTALL:
(2) 90° BENDS
(2) 2" GATE VALVE
(2) 2" CAP (FOR FUTURE CONNECTION)
REFER TO IRRIGATION PLAN FOR CONTINUATION
FURNISH AND INSTALL:
(3) 2" GATE VALVE
(1) 2" CAP (FOR FUTURE CONNECTION)
FURNISH AND INSTALL:
(3) 2" 90° BENDS
(3) RUNS OF 2" SCH40 PVC IRRIGATION MAIN
EXISTING 2" IRRIGATION WELL.
FURNISH AND INSTALL:
2" TAPPING SLEEVE AND VALVE
(1) 2X2X2 CROSS
(2) 2X2 90° BENDS
3 RUNS OF 2" SCH40 PVC IRRIGATION MAIN
SOUTH NINETEENTH STREET
(60-FOOT RIGHT-OF-WAY)
APPROXIMATE PROPERTY LINE
CEDAR STREET
(60-FOOT RIGHT-OF-WAY)
DATE STREET
(60-FOOT RIGHT-OF-WAY)
CITRONA DRIVE
(60-FOOT RIGHT-OF-WAY)
OAK LAWN PARK (UNRECORDED)
BUILDING NO. 12
BUILDING NO. 13
BUILDING NO. 11
BUILDING NO. 14
BUILDING NO. 22
CLASSROOMS BUILDING NO. 5
CLASSROOMS BUILDING NO. 3
MAIN OFFICE
MEDIA CENTER
GYMNASIUM BUILDING NO. 1
ASPHALT PARKING LOT
BASEBALL FIELD
STUDENT PICK-UP/ DROP-OFF
LOT 72 "MAP OF CITRONA"
LOT 71 "MAP OF CITRONA"
SANITARY MANHOLE TOP ELEVATION=20.25' INV N, 8"CLAY = 16.81' INV S, 8" CLAY = 16.63'
SANITARY MANHOLE TOP ELEVATION=19.97' INV NW, 8"CLAY = 17.64' INV S, 8" CLAY = 17.67' INV E, 8" CLAY = 17.67'
SANITARY MANHOLE TOP ELEVATION=20.51' INV N, 8"CLAY = 17.76' INV S, 2" PVC = 18.51' INV E, 8" PVC = 17.75'
SANITARY MANHOLE TOP ELEVATION=20.38' INV N, 8" PVC = 18.75' INV S, 8" PVC = 18.75'
SANITARY MANHOLE TOP ELEVATION=20.25' INV S, 8" PVC = 18.60' INV W, 8" PVC = 18.60'
SANITARY WET WELL RIM ELEV=20.52' 6"PVC INV. S=17.82' BOTTOM ELEV=12.54' (STRUCTURE FILLED WITH LIQUID. UNABLE TO LOCATE & IDENTIFY ANY ADDITIONAL PIPES THAT MAY EXIST.)
CATCH BASIN GRATE ELEV=19.00' 24"RCP, INV. N=14.56' 24"RCP, INV. S=14.56'
CATCH BASIN GRATE ELEV=19.00' THROAT ELEV.=18.34'
SANITARY CLEANOUT 4" PVC INVERT = 18.76'
SANITARY CLEANOUT INVERT = 17.63'
SANITARY CLEANOUT INVERT = 17.63'
SITE BENCHMARK #1 NAIL & DISK (LB 7039) SET IN WOODEN LIGHT POLE (ELEVATION = 21.29') NAVD 1988 (FIELD BOOK X-260, PAGE 10)
SITE BENCHMARK #2 NAIL & DISK (LB 7039) SET IN ASPHALT PARKING LOT (ELEVATION = 20.57') NAVD 1988 (FIELD BOOK X-322, PAGE 18)
SITE BENCHMARK #3 NAIL & DISK (LB 7039) SET IN 40" OAK TREE (ELEVATION = 20.88') NAVD 1988 (FIELD BOOK X-260, PAGE 10)
SITE BENCHMARK #4 NAIL & DISK (LB 7039) SET IN ASPHALT PARKING LOT (ELEVATION = 19.97') NAVD 1988 (FIELD BOOK X-322, PAGE 18)
FOUND 3/4" STEEL PIPE
FOUND 1/2" IRON PIPE
(F.D.C.) FIRE DEPARTMENT CONNECTION
4" FORCE MAIN PER SITE PLAN BY "MOORE, MAY AND HARRINGTON"
6" SANITARY LINE PER PLUMBING SITE PLAN BY "GOIN AND MOORE" DATED 08/19/1955
4" SANITARY LINE (P.V.C.) AS-BUILT LOCATION INVERT = 19.85'
4" SANITARY LINE (TERRA COTTA) AS-BUILT LOCATION INVERT = 19.40'
4" WATER LINE PER PLUMBING SITE PLAN BY "GOIN AND MOORE" DATED 08/19/1955
2" WATER LINE PER PLUMBING SITE PLAN BY "GOIN AND MOORE" DATED 08/19/1955
ASPHALT
CONCRETE WALKWAY
COVERED CONCRETE WALKWAY
METAL RAMP
BOLLARDS
RED PAINT
YELLOW PAINT
6' CHAIN LINK FENCE
8' CHAIN LINK FENCE
10' CHAIN LINK FENCE
BRICK WALL
CHILLER
A/C
GAZEBO
SHRUB
TREE
BENCH
FLAG POLE
DOOR EXIST ON THIS SIDE OF BUILDING (NOT LOCATED)
ADDITIONAL DOORS ON THIS SIDE OF BUILDING (NOT LOCATED)
SCORE BOARD
SCOUT BOOTH (6.8'x11.5')
5' CHAIN LINK FENCE
OHU
(BILLARD (TYPICAL)
FFE=21.26'
FFE=21.62'
FFE=21.28'
FFE=21.29'
FFE=21.22'
FFE=21.21'
FFE=21.23'
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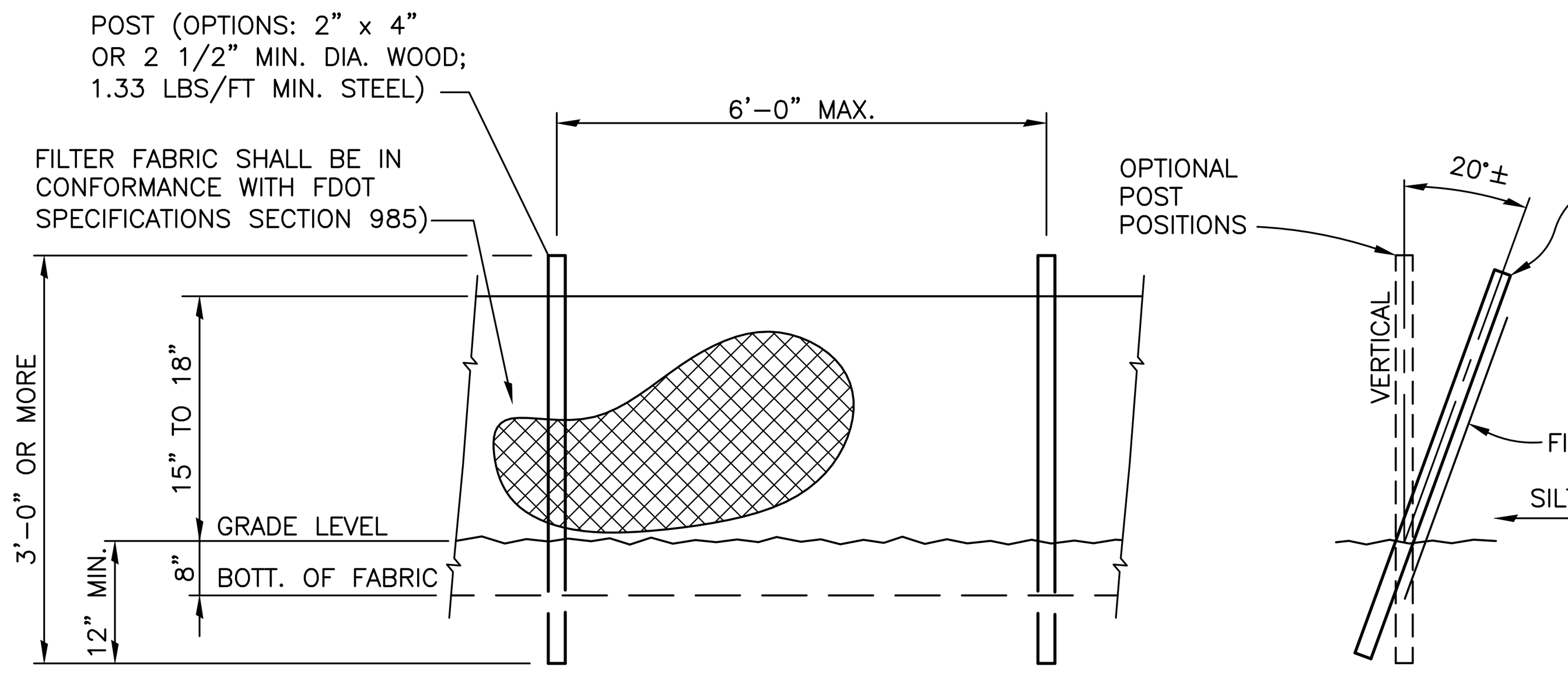
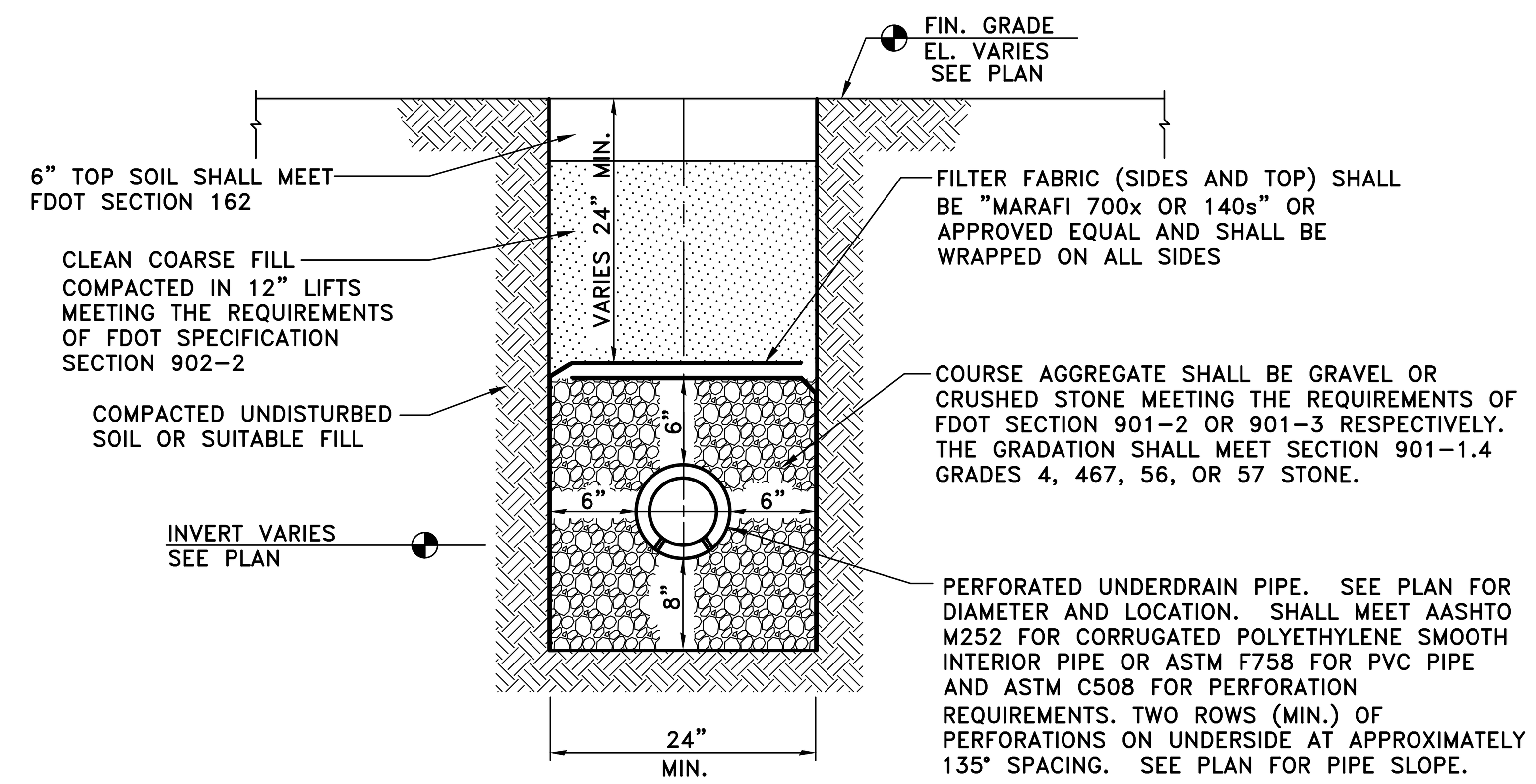


NOTE:

WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH FDOT DESIGN STANDARDS, 2010, INDEX NO. 102, SHEET 1 OF 3, CHART NO. 1.

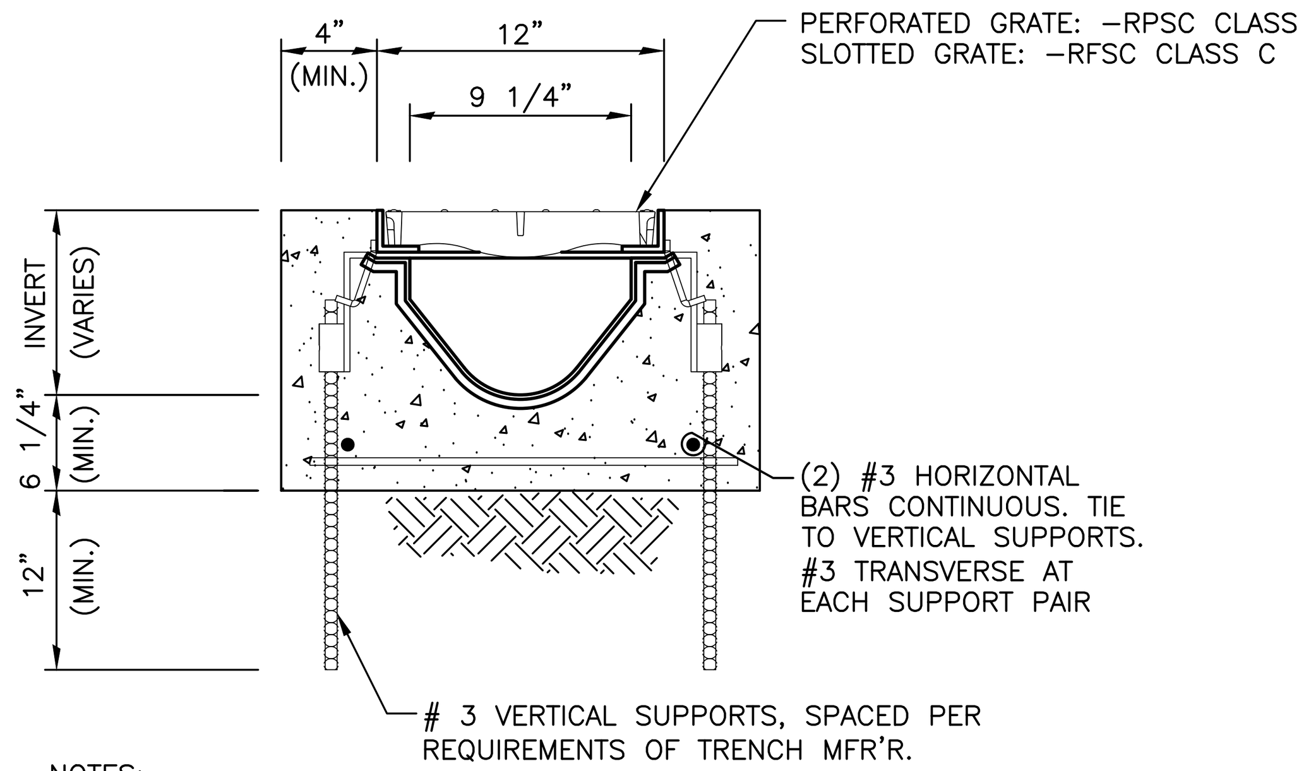
A TYPE III SILT FENCE

NTS



B UNDERDRAIN PIPE DETAIL

NTS

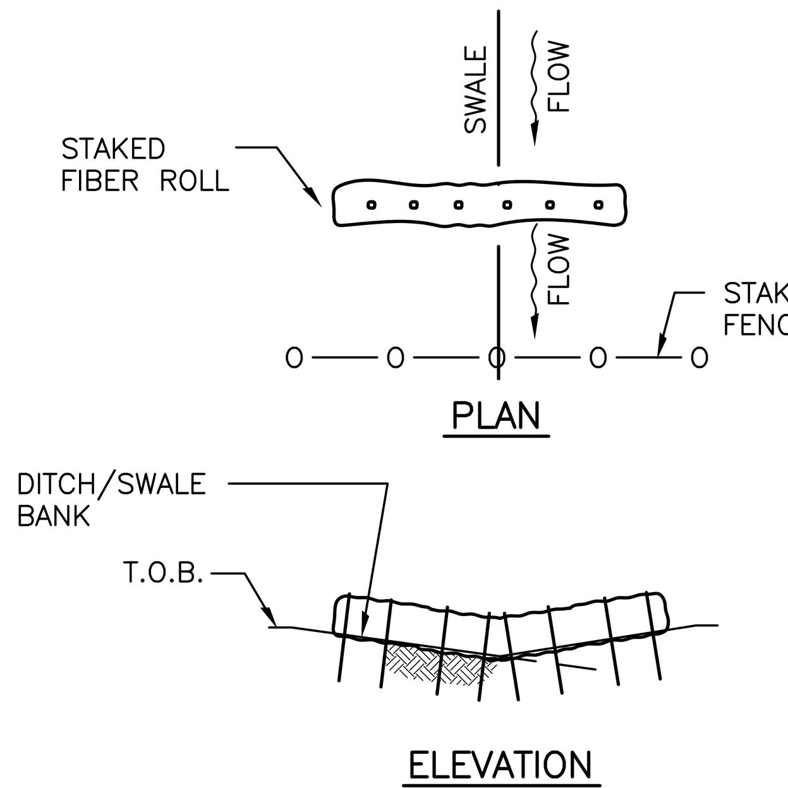


NOTES:

1. FIBER REINFORCED POLYMER CHANNEL PRE-SLOPED AT 1.0% (TYP.).
2. ADA COMPLIANT GRATE, LOCKABLE.
3. BASIS OF DESIGN: ZURN Z812.

C PRE-SLOPED TRENCH DRAIN DETAIL

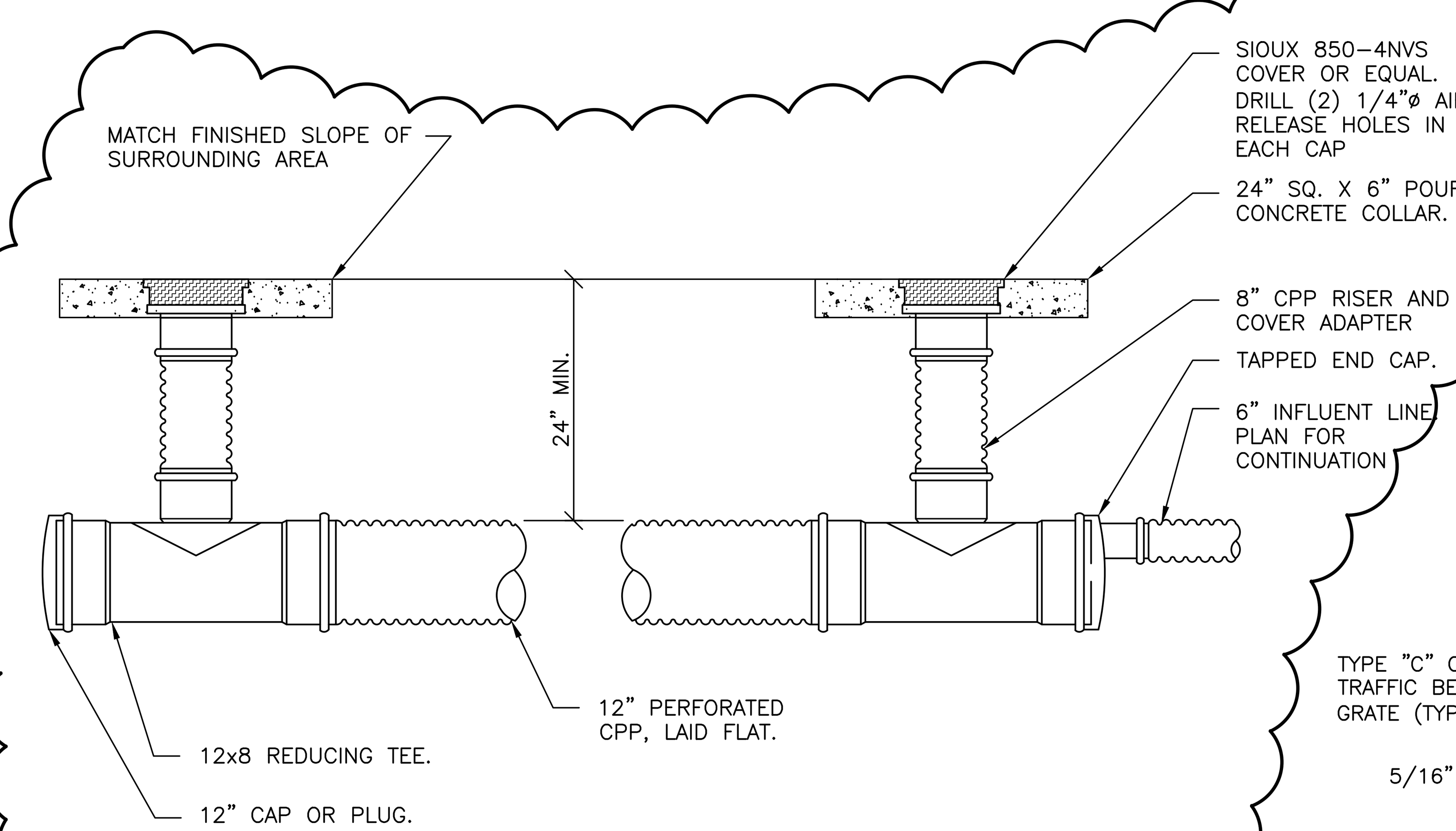
NTS



NOTES:
1. FIBER ROLL SHALL BE STAKED WITH (1) 1"x2"x4' WOOD STAKE EVERY 24 INCHES.
2. SILT FENCE SHALL BE DOWN STREAM OF FIBER ROLL
3. ADJACENT ROLLS SHALL BE BUTTED FIRMLY TOGETHER. UNAVOIDABLE GAPS SHALL BE PLUGGED WITH STRAW TO PREVENT SILT FROM PASSING.

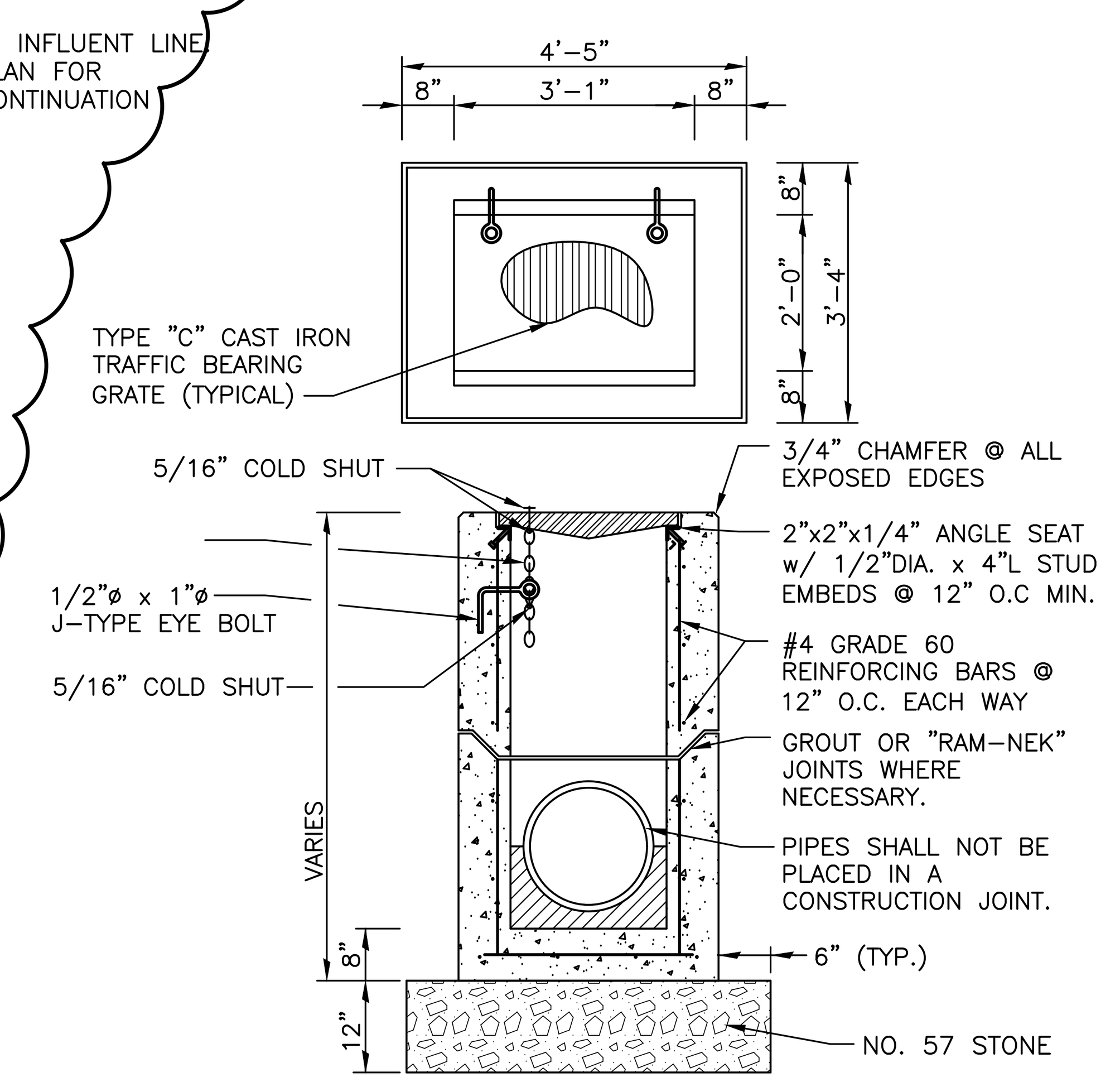
D FIBER ROLL PLACEMENT

NTS



H TYPICAL CLOSED UNDERDRAIN SYSTEM

NTS



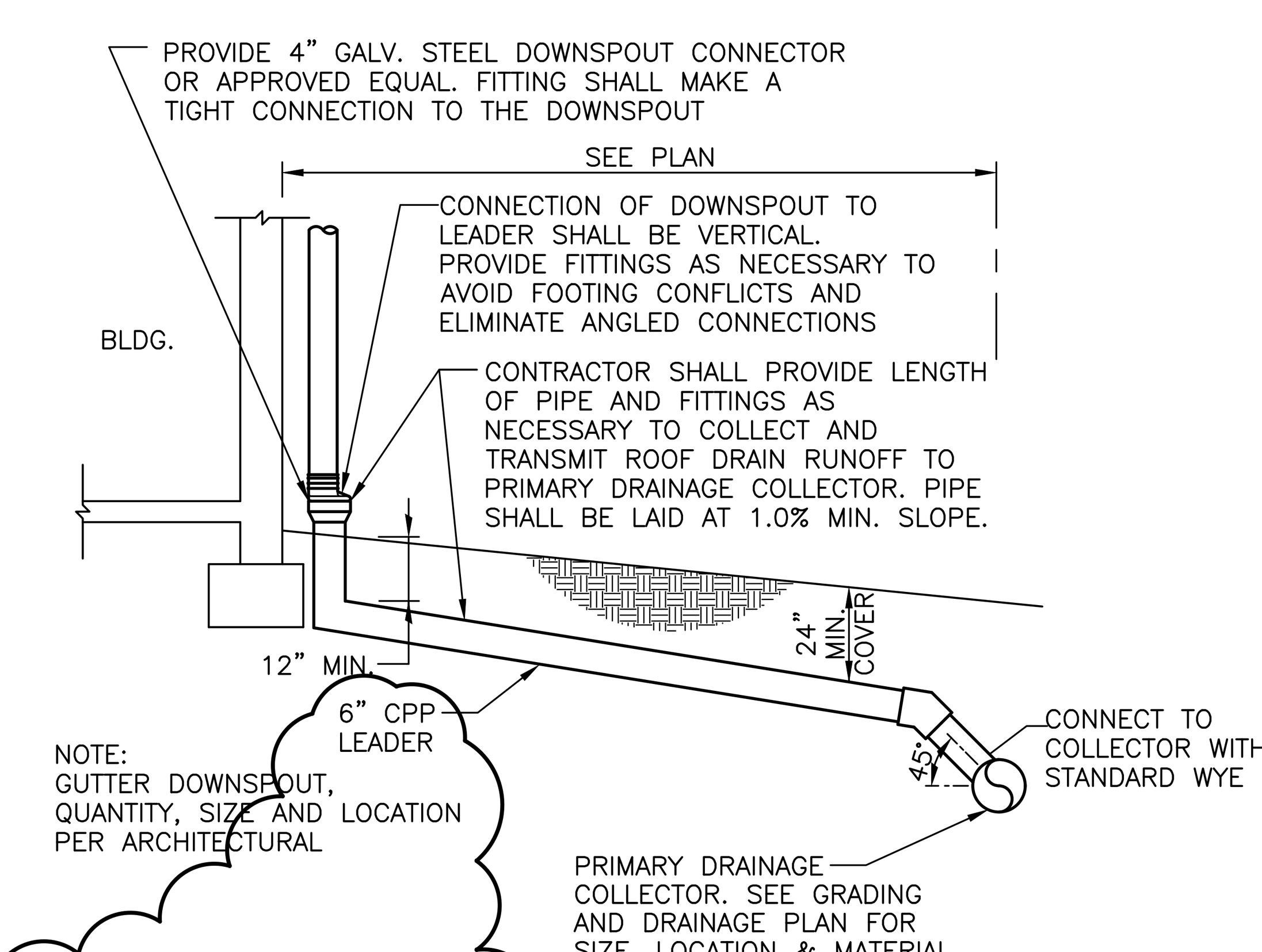
NOTE:

CONCRETE SHALL HAVE A MINIMUM DESIGN STRENGTH OF 4,000 PSI
MIN. SOIL BEARING CAPACITY OF 2,000 PSF
GRATE DESIGN FLOW RATE 5 CFS (50% CLOGGED)
STRUCTURE SHALL MEET ALL STANDARDS FOR AN FDOT TYPE "C" INLET.
MAXIMUM PIPE SIZES:
2'-0" WALL - 18" PIPE
3'-1" WALL - 24" PIPE

SLOTS EXCEEDING 12" IN DEPTH SHALL BE PROTECTED WITH 2"ø G.S. PIPE GRATING AT 8" O.C.

F TYPE "C" FDOT INLET STRUCTURE

NTS

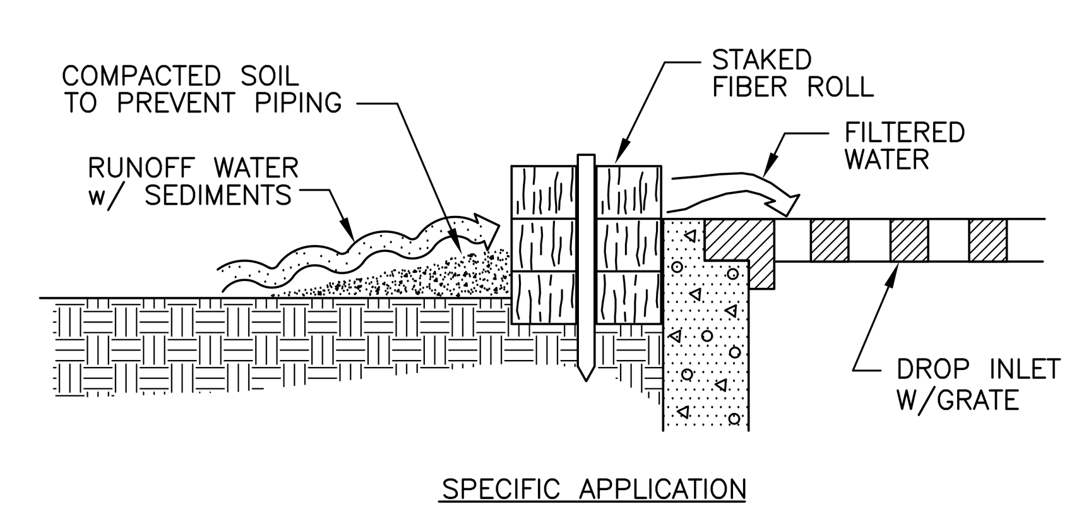


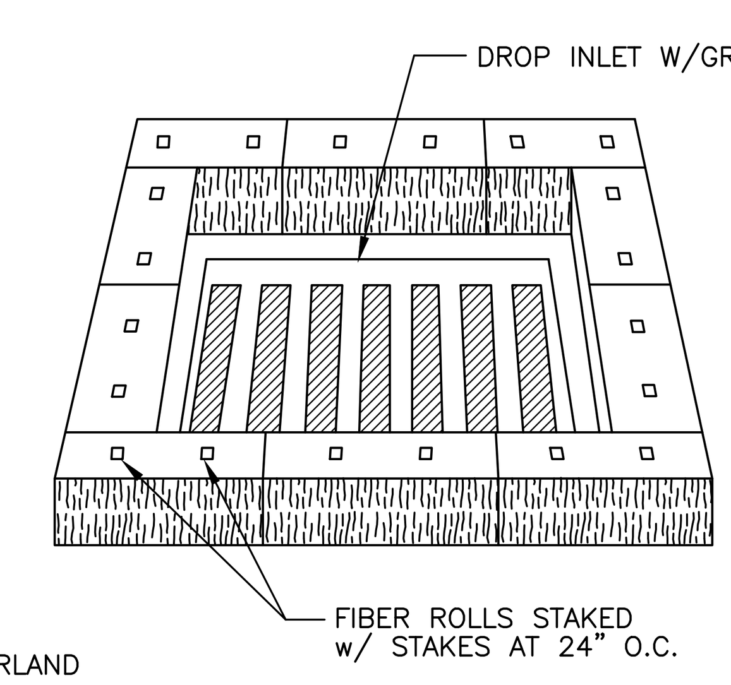
G TYPICAL DOWNSPOUT CONNECTION

NTS

NOTE:
SOME EXISTING DOWNSPOUTS MAY HAVE BELOW GRADE LEADERS. WHERE EXISTING LEADERS ARE PRESENT THE CONTRACTOR SHALL CUT REMOVE LEADER AT A CONVENIENT POINT AND RECONNECT (WITH APPROPRIATE WATER TIGHT COUPLING) TO THE NEW SYSTEM.

1





THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5%) WHERE SHEET OR OVERLAND FLOWS (NOT EXCEEDING 0.5 CFS) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

E FIBER ROLL DROP INLET SEDIMENT FILTER

NTS

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MITTAUER & ASSOCIATES, INC. CONSULTING ENGINEERS

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KITCHEN/ DINING REMODELING AND CAMPUS ADDITIONS AND REMODELING
315 Citrona Dr, Fernandina Beach, Fl 32034

Engineer	License No.
Michael Tibble, PE	55352

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1 ADDENDUM NO. 1 — 10/18/2018

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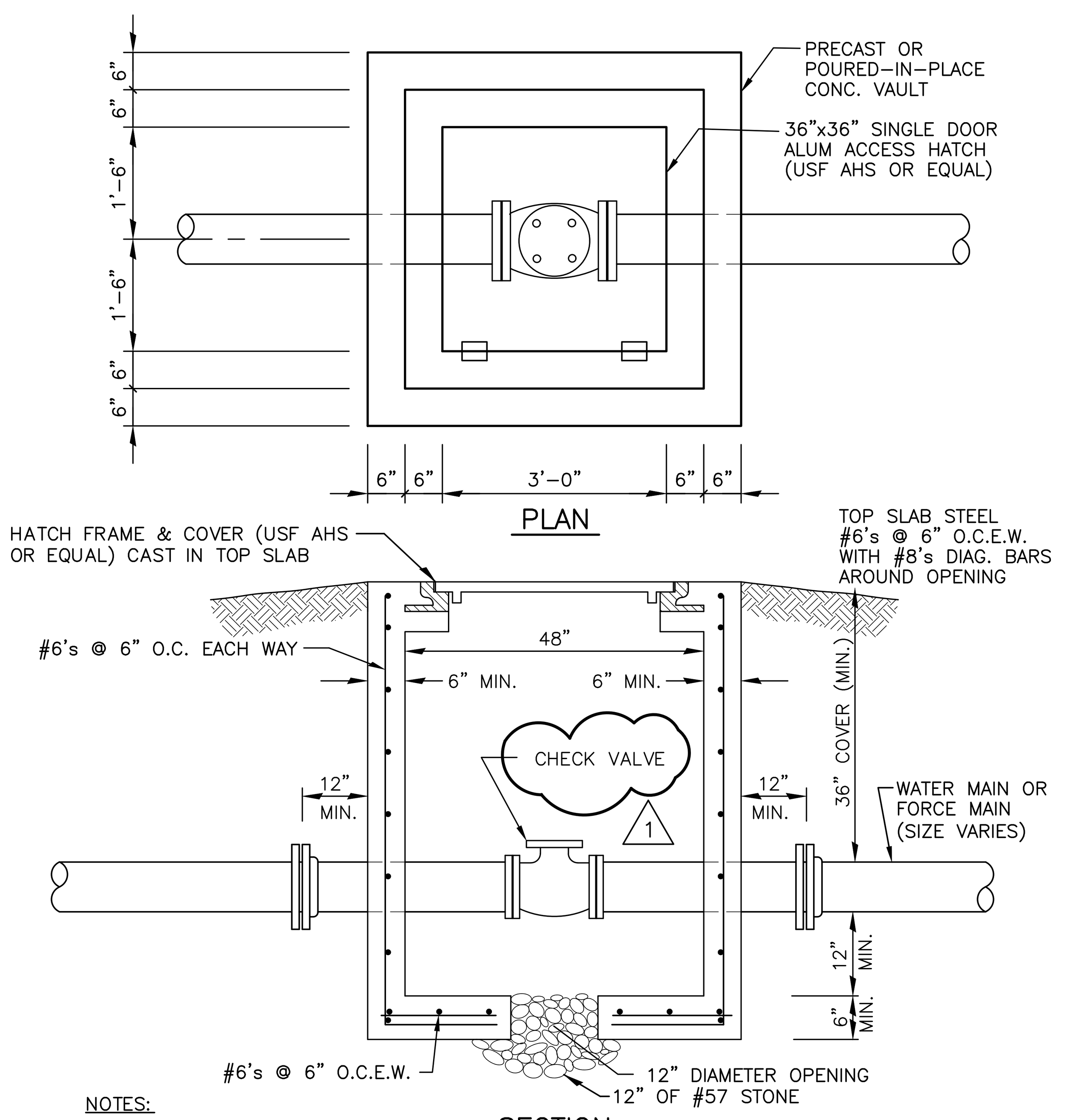
C.B.	MPT
JOB NO.	18016

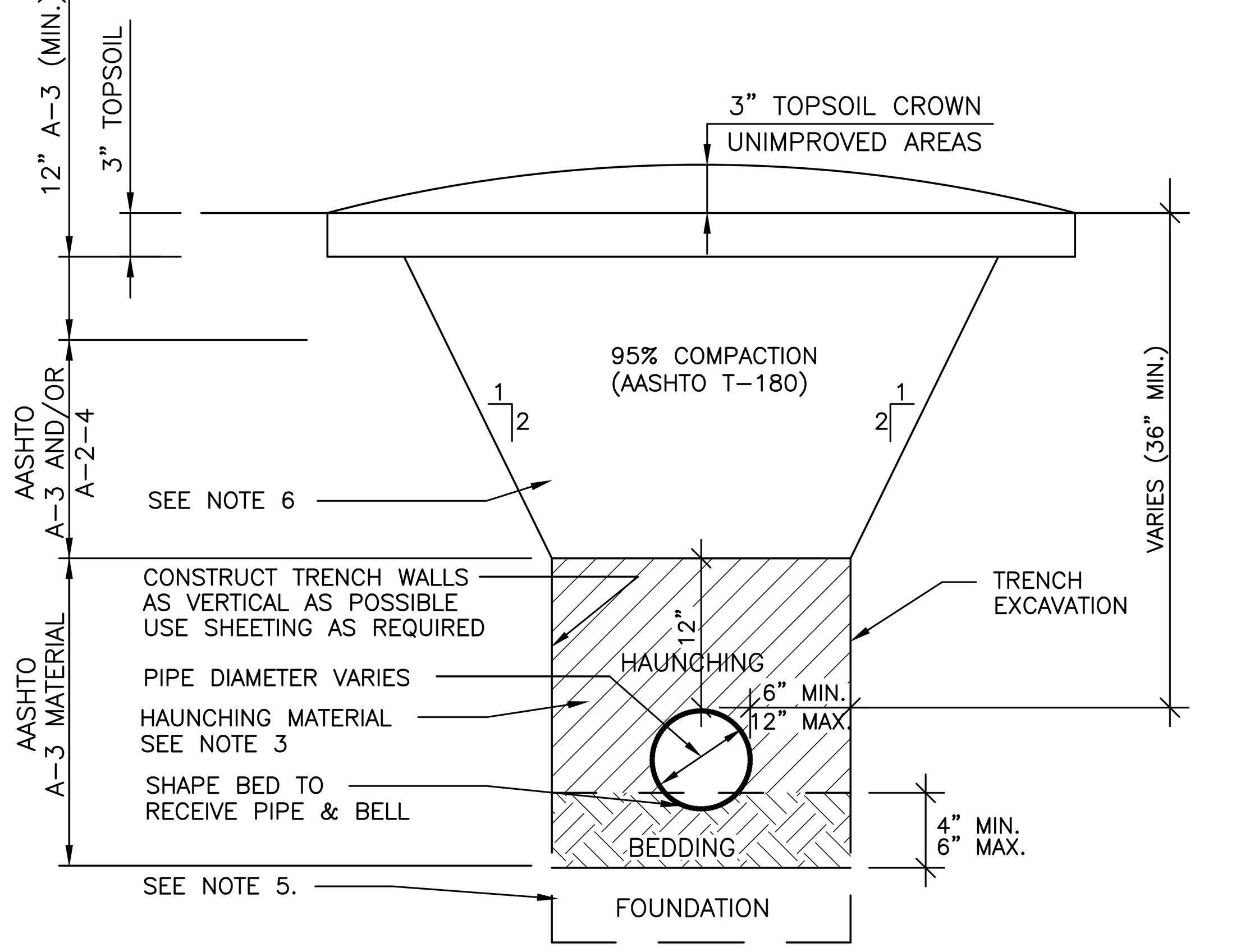
C501



NOTES:

1. 4000 P.S.I., CONCRETE.
2. VAULT SHALL BE PRECAST OR POURED IN PLACE CONCRETE ALL WITH STEEL REINFORCING. BOX MAY HAVE SLOTTED BOTTOM (I.E. DOGHOUSE) TO ALLOW BOX TO BE SET OVER PIPE.
3. ALL OPENINGS SHALL BE SEALED WITH WATERPROOF NON-SHRINK GROUT.

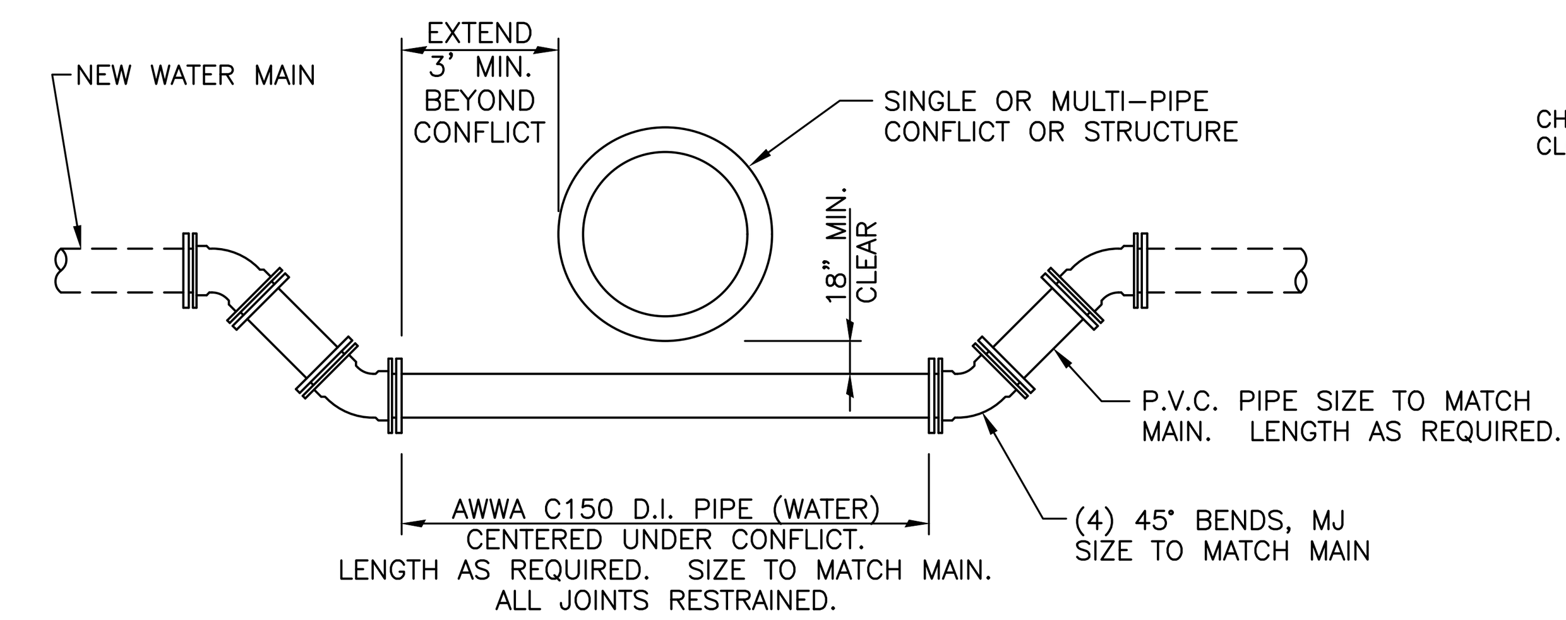
(A) BELOW GRADE CHECK VALVE ASSEMBLY DETAIL
NTS



NOTES:

1. DEWATERING SHALL CONTINUE UNTIL BACKFILL IS COMPACTED AT LEAST 2 FEET ABOVE WATER TABLE.
2. PIPE INSTALLATION SHALL MEET THE REQUIREMENTS OF AWWA C-600 TYPE 4 LAYING CONDITION AND AS MODIFIED BY THIS DETAIL.
3. COMPACT HAUNCHING MATERIAL IN 12" LIFTS COMPACTED TO 98% OF THE MAXIMUM DENSITY PER AASHTO T-180 TO 12 INCH ABOVE TOP OF PIPE.
4. COMPACT A-3 FILL USED FOR BEDDING TO 98% OF THE MAX. DENSITY PER AASHTO T-180.
5. FOUNDATIONS SHALL BE REQUIRED WHERE CONSTRUCTION ENCOUNTERS UNSUITABLE MATERIAL REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
6. A-2-4 USED IN THIS ZONE MUST BE MOISTURE CONDITIONED AS NECESSARY TO MEET THE REQUIRED COMPACTION CRITERIA.

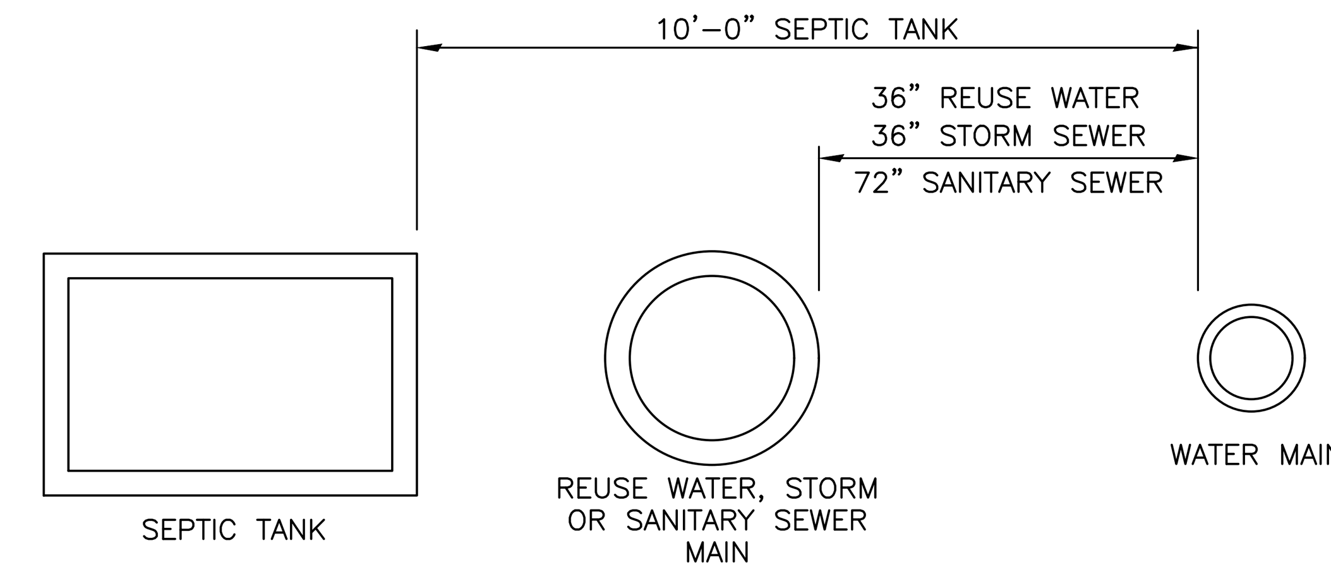
(B) TYPICAL TRENCH DETAIL
NTS



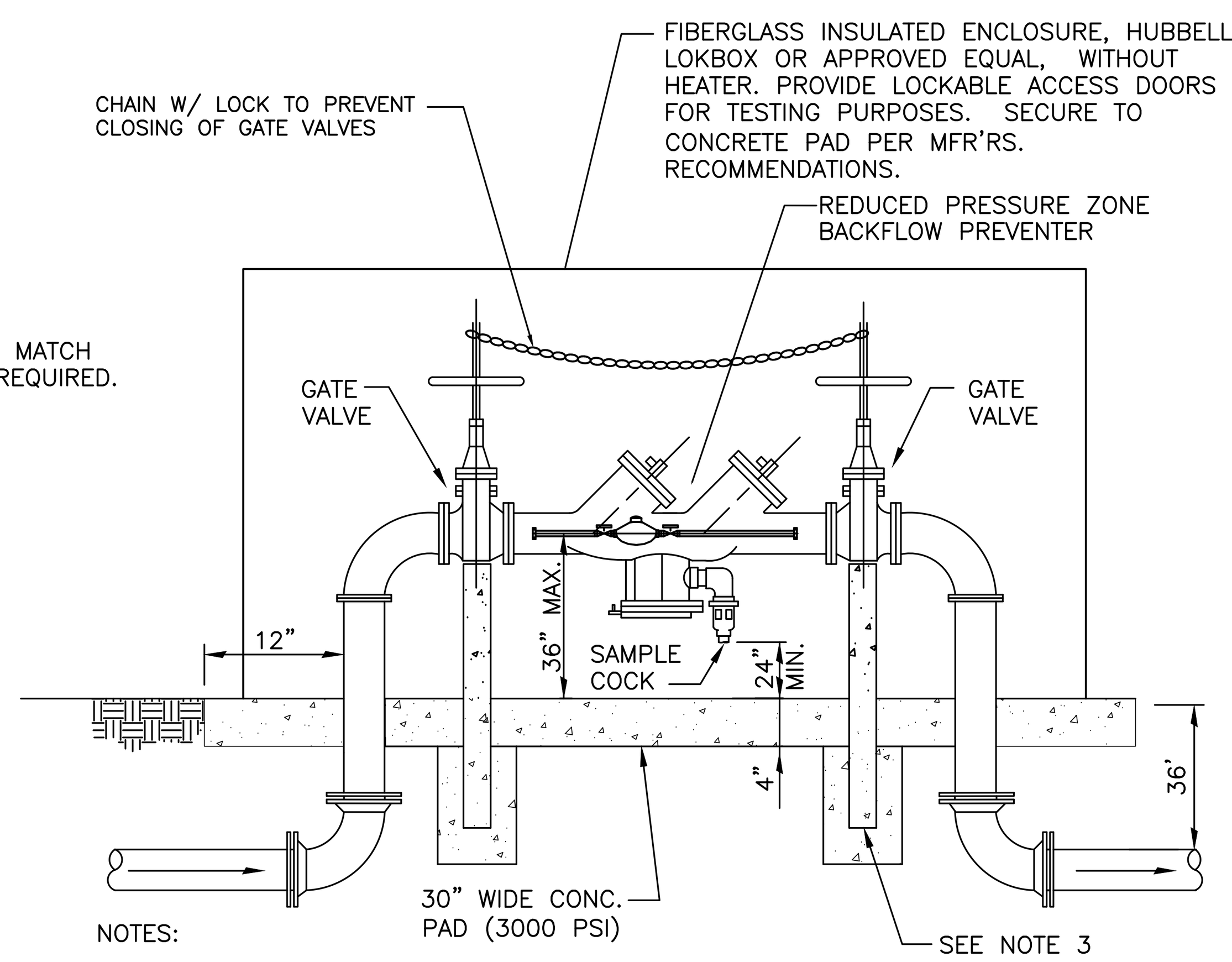
NOTES:

1. CONTRACTOR TO VERIFY EXISTING AND PROPOSED ELEVATIONS AT ALL UTILITY CONFLICT LOCATIONS.
2. ALL JOINTS (PROPOSED AND EXISTING) AT UTILITY CONFLICTS SHALL BE MECHANICALLY RESTRAINED.
3. WHERE POSSIBLE IT IS PREFERABLE THAT THE WATER MAIN PASS OVER THE CONFLICT WHILE MAINTAINING 24" MIN. COVER AND 6" VERTICAL CLEARANCE VERSUS PASSING UNDER THE CONFLICT.

(C) UTILITY CONFLICT TYPE A
N.T.S.



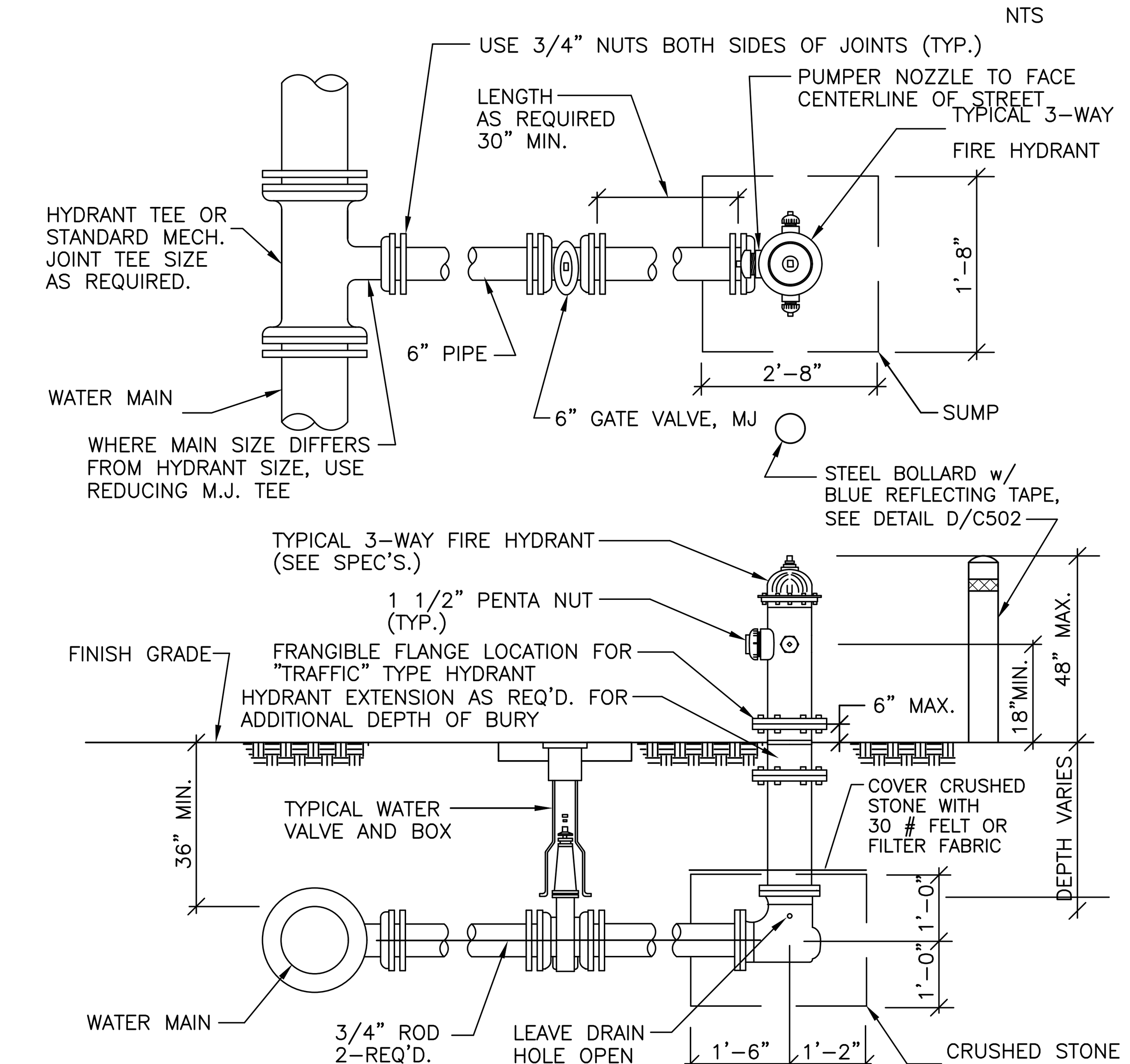
(D) PIPELINE HORIZONTAL CLEARANCE
NTS



NOTES:

1. USE DUCTILE IRON PIPE ABOVE GRADE.
2. ALL JOINTS SHALL BE MECHANICALLY RESTRAINED.
3. 4" SCH 40 STEEL PIPE COLUMN FILLED w/ CONCRETE CENTERED UNDER VALVES. USE NONSHRINK GROUT TO FILL VOID BETWEEN VALVE AND SUPPORT. COLUMN SHALL BE PAINTED W/ RUST INHIBITING PAINT (COLOR BY OWNER). EXTEND COLUMN 24" BELOW SLAB AND EMBED IN 18" DIA. CONCRETE FOOTING.
4. BACKFLOW PREVENTER SHALL BE TESTED AND CERTIFIED.
5. BYPASS METER SHALL BE 3/4" WITH TWO (2) BRONZED DOUBLE CHECK VALVES. BYPASS METER SHALL ACCURATELY RECORD FLOWS UP TO 3 GPM AND SHALL NOT BE DAMAGED BY FLOWS IN EXCESS OF 3 GPM.
6. INSTALL BLUE BI-DIRECTIONAL TRAFFIC REFLECTOR IN CENTERLINE OF ADJACENT ROADWAY

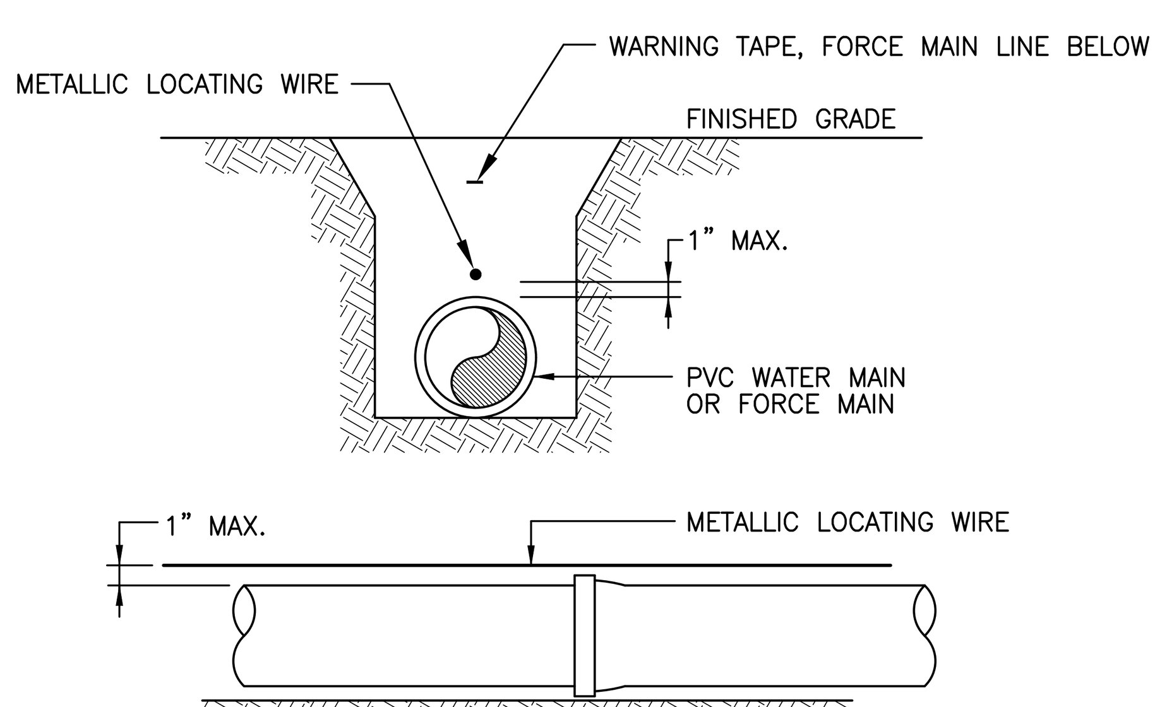
(E) REDUCED PRESSURE ZONE BACKFLOW PREVENTER 3" & LARGER
NTS



NOTES:

1. TIE RODS, NUTS, WASHERS AND OTHER FASTENERS SHALL BE ASTM A 246 CORROSION RESISTANT STEEL, GALVANIZED OR TYPE 316 STAINLESS STEEL.
2. ALL PIPE, VALVES AND FITTINGS OF HYDRANT SHALL BE RESTRAINED.
3. ALL PRIVATE HYDRANTS SHALL BE PAINTED RED.

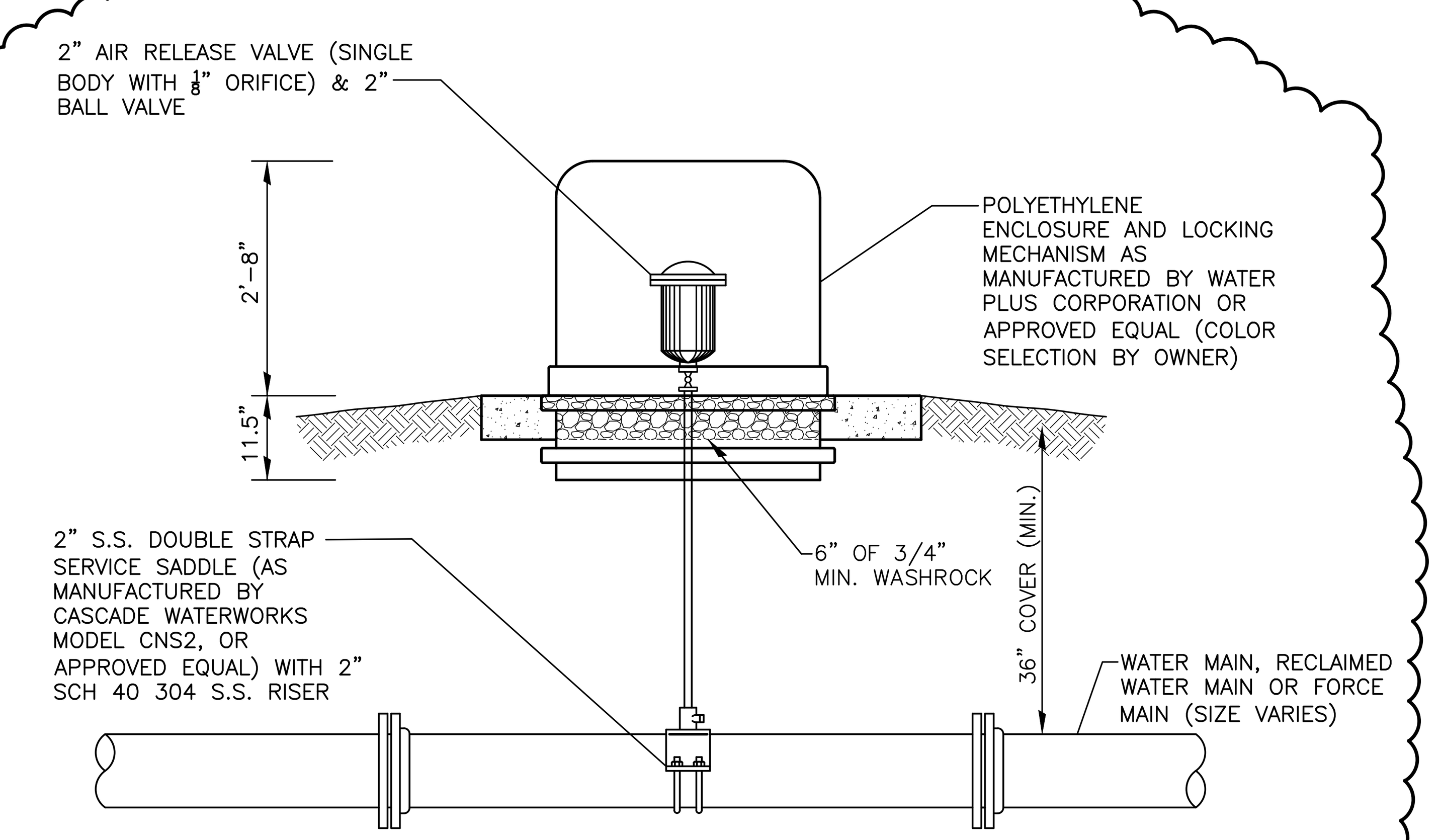
(J) TYPICAL FIRE HYDRANT INSTALLATION
NTS



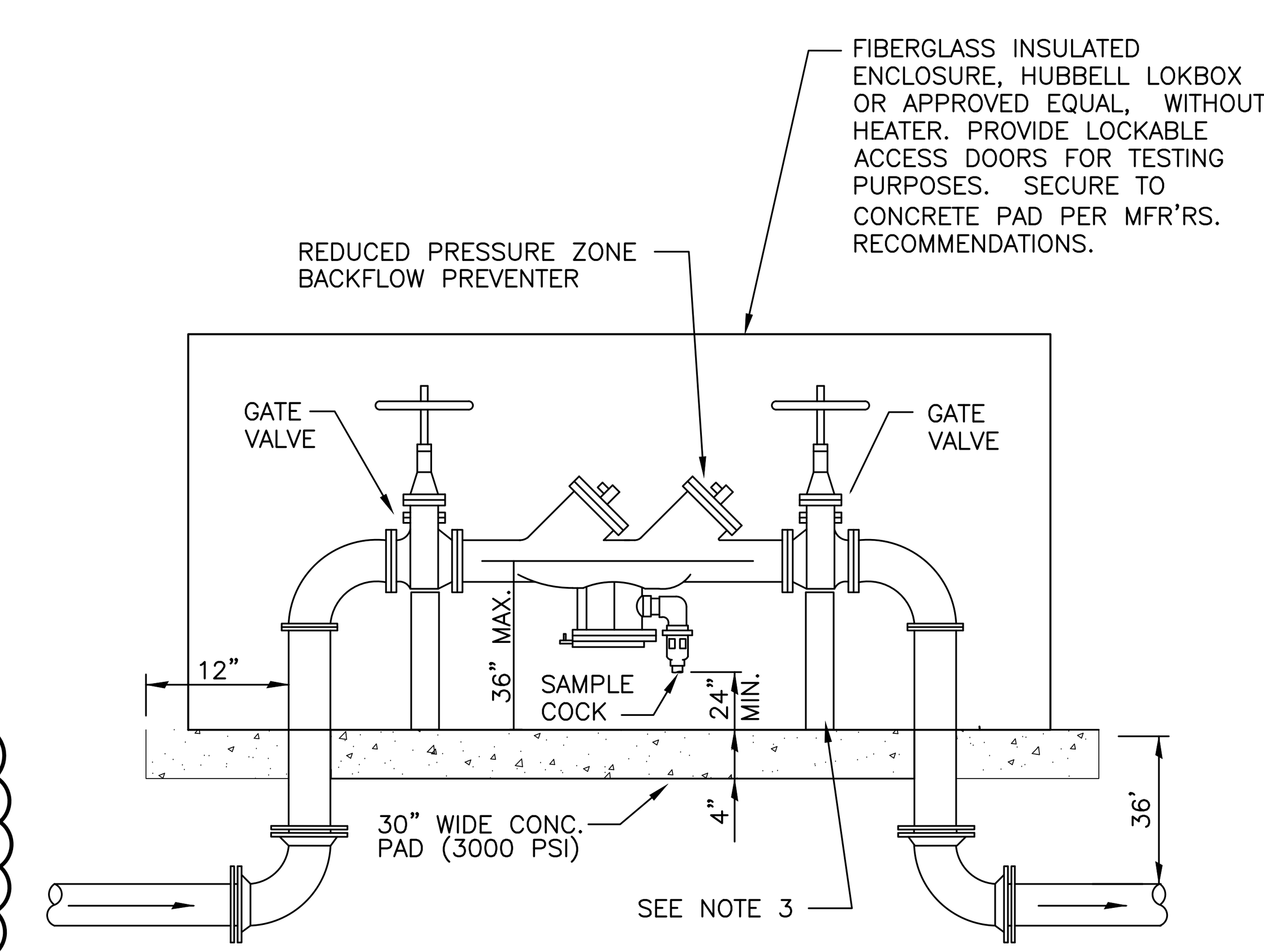
NOTES:

1. ALL PVC FORCE MAIN/WATER MAIN SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (12 GAUGE, SOLID STRAND COPPER W/TYPE UF INSULATION) CAPABLE OF DETECTION BY A CABLE LOCATOR
2. WIRE SHALL BE ATTACHED TO THE TOP OF PIPE WITH DUCT TAPE, A MINIMUM OF THREE TIMES PER JOINT OF PIPE. LOCATING WIRE SHALL TERMINATE AT THE TOP OF EACH VALVE BOX
3. PROVIDE WIRE LENGTH CAPABLE OF EXTENDING 12" ABOVE TOP OF VALVE BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.

(F) FORCE MAIN/WATER MAIN LOCATING WIRE DETAIL
NTS



(G) 2" AIR RELEASE VALVE IN-LINE ASSEMBLY DETAIL
NTS



1. USE DUCTILE IRON PIPE ABOVE GRADE.
2. ALL JOINTS SHALL BE MECHANICALLY RESTRAINED.
3. 4" SCH 40 STEEL PIPE COLUMN FILLED w/ CONCRETE CENTERED UNDER VALVE. USE NONSHRINK GROUT TO FILL VOID BETWEEN VALVE AND SUPPORT. COLUMN SHALL BE PAINTED W/ RUST INHIBITING PAINT (COLOR BY OWNER). EXTEND COLUMN 24" BELOW SLAB AND EMBED IN 18" DIA. CONCRETE FOOTING.
4. ALL ABOVE GROUND PIPING, FITTINGS, VALVES, ETC., ASSOCIATED WITH THE BACKFLOW PREVENTER SHALL BE FREEZE PROTECTED WITHIN AN INSULATED ENCLOSURE.

(H) REDUCED PRESSURE ZONE BACKFLOW PREVENTER SIZES SMALLER THAN 3"
NTS

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Engineer: Michael Tibble, PE — License No. 55352

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JOB NO.	18016

C503

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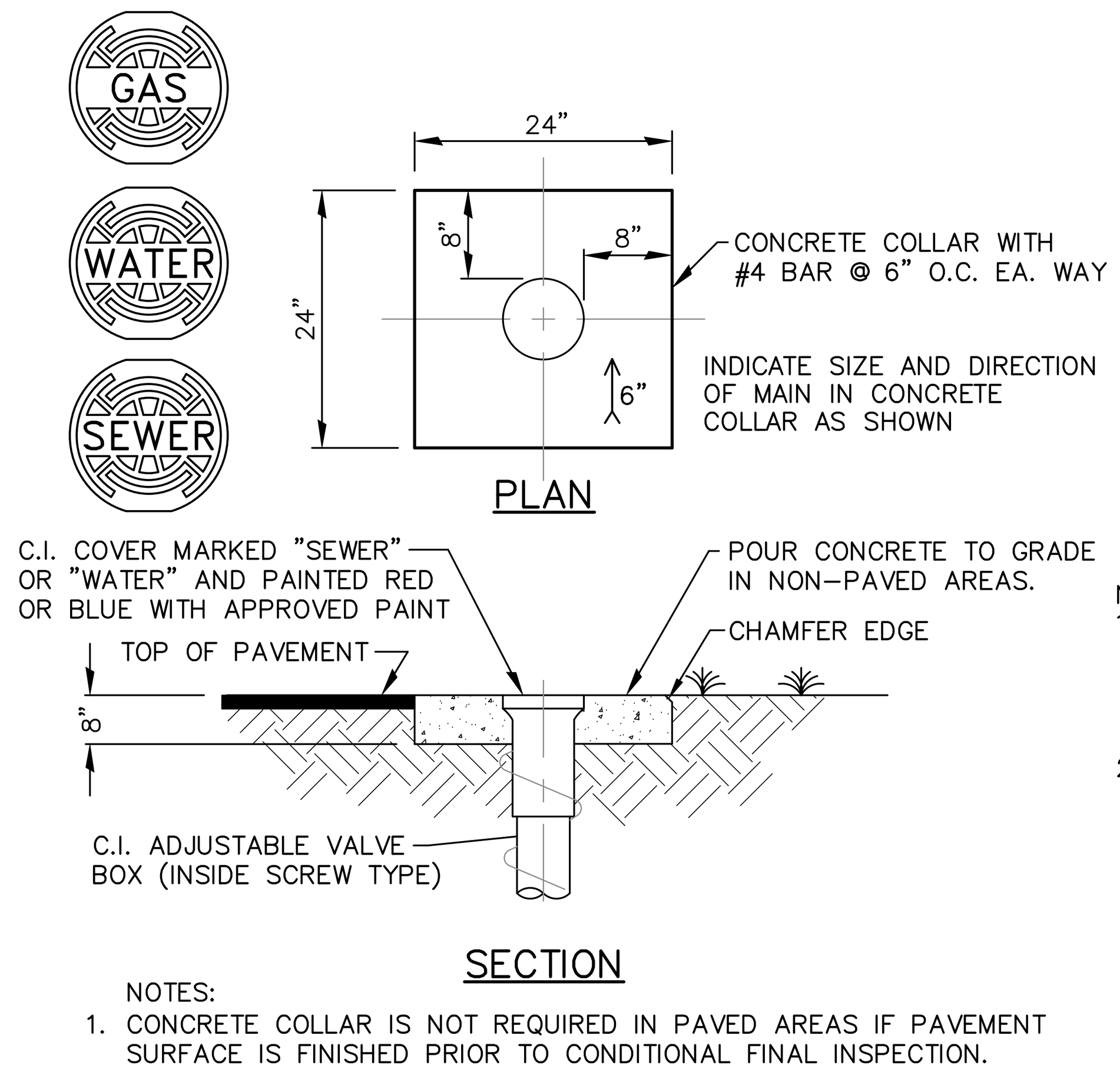
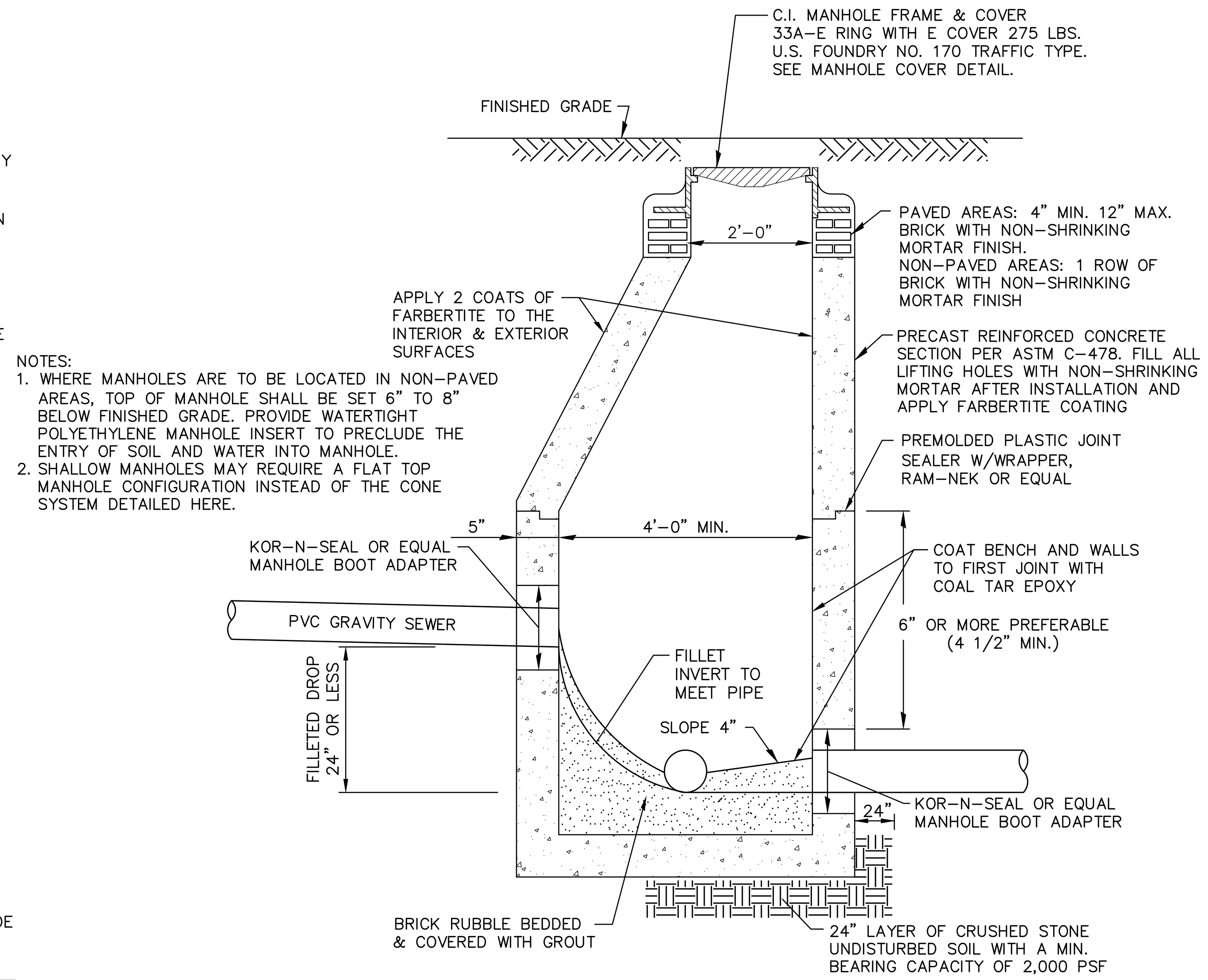
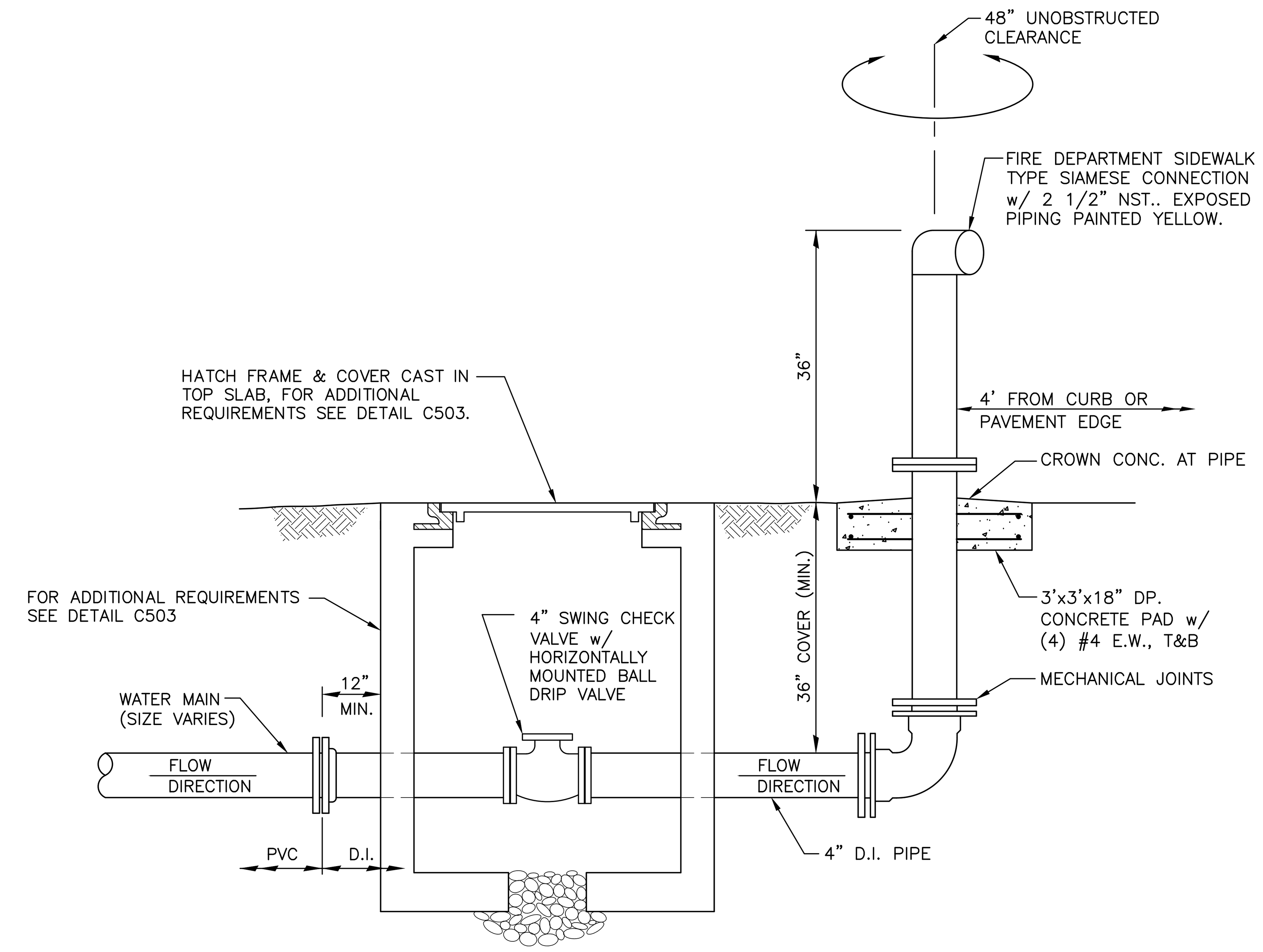

GAS
WATER
SEWER
24"
8"
8"
24"
6"
CONCRETE COLLAR WITH #4 BAR @ 6" O.C. EA. WAY
INDICATE SIZE AND DIRECTION OF MAIN IN CONCRETE COLLAR AS SHOWN
PLAN
C.I. COVER MARKED "SEWER" OR "WATER" AND PAINTED RED OR BLUE WITH APPROVED PAINT
POUR CONCRETE TO GRADE IN NON-PAVED AREAS.
CHAMFER EDGE
TOP OF PAVEMENT
8"
C.I. ADJUSTABLE VALVE BOX (INSIDE SCREW TYPE)
SECTION
NOTES:
1. CONCRETE COLLAR IS NOT REQUIRED IN PAVED AREAS IF PAVEMENT SURFACE IS FINISHED PRIOR TO CONDITIONAL FINAL INSPECTION.

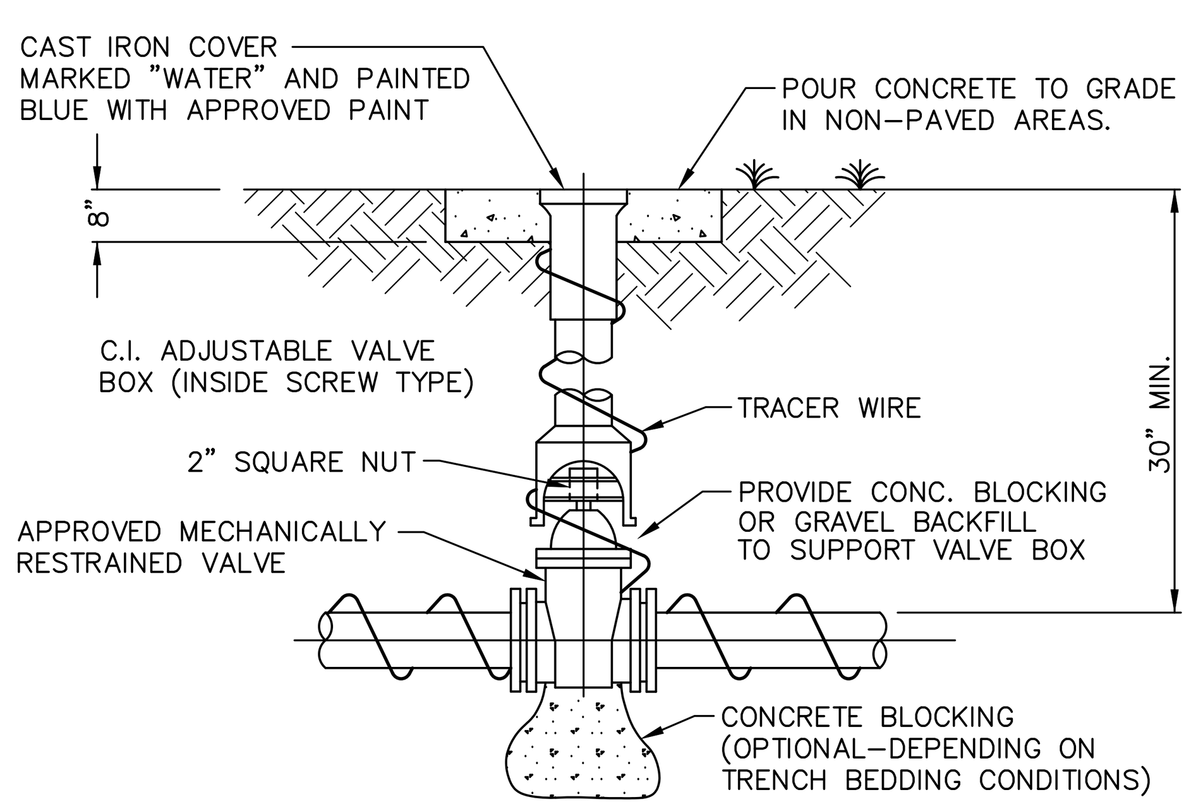
A VALVE COLLAR DETAIL
2" THRU 12"
NTS


C.I. MANHOLE FRAME & COVER 33A-E RING WITH E COVER 275 LBS. U.S. FOUNDRY NO. 170 TRAFFIC TYPE. SEE MANHOLE COVER DETAIL.
FINISHED GRADE
2'-0"
PAVED AREAS: 4" MIN. 12" MAX. BRICK WITH NON-SHRINKING MORTAR FINISH. NON-PAVED AREAS: 1 ROW OF BRICK WITH NON-SHRINKING MORTAR FINISH
APPLY 2 COATS OF FARBERTITE TO THE INTERIOR & EXTERIOR SURFACES
PRECAST REINFORCED CONCRETE SECTION PER ASTM C-478. FILL ALL LIFTING HOLES WITH NON-SHRINKING MORTAR AFTER INSTALLATION AND APPLY FARBERTITE COATING
NOTES:
1. WHERE MANHOLES ARE TO BE LOCATED IN NON-PAVED AREAS, TOP OF MANHOLE SHALL BE SET 6" TO 8" BELOW FINISHED GRADE. PROVIDE WATERTIGHT POLYETHYLENE MANHOLE INSERT TO PRECLUDE THE ENTRY OF SOIL AND WATER INTO MANHOLE.
2. SHALLOW MANHOLES MAY REQUIRE A FLAT TOP MANHOLE CONFIGURATION INSTEAD OF THE CONE SYSTEM DETAILED HERE.
PREMOLDED PLASTIC JOINT SEALER W/WRAPPER, RAM-NEK OR EQUAL
5"
4'-0" MIN.
KOR-N-SEAL OR EQUAL MANHOLE BOOT ADAPTER
COAT BENCH AND WALLS TO FIRST JOINT WITH COAL TAR EPOXY
PVC GRAVITY SEWER
6" OR MORE PREFERABLE (4 1/2" MIN.)
FILLET INVERT TO MEET PIPE
FILLETED DROP 24" OR LESS
SLOPE 4"
24"
KOR-N-SEAL OR EQUAL MANHOLE BOOT ADAPTER
BRICK RUBBLE BEDDED & COVERED WITH GROUT
24" LAYER OF CRUSHED STONE UNDISTURBED SOIL WITH A MIN. BEARING CAPACITY OF 2,000 PSF

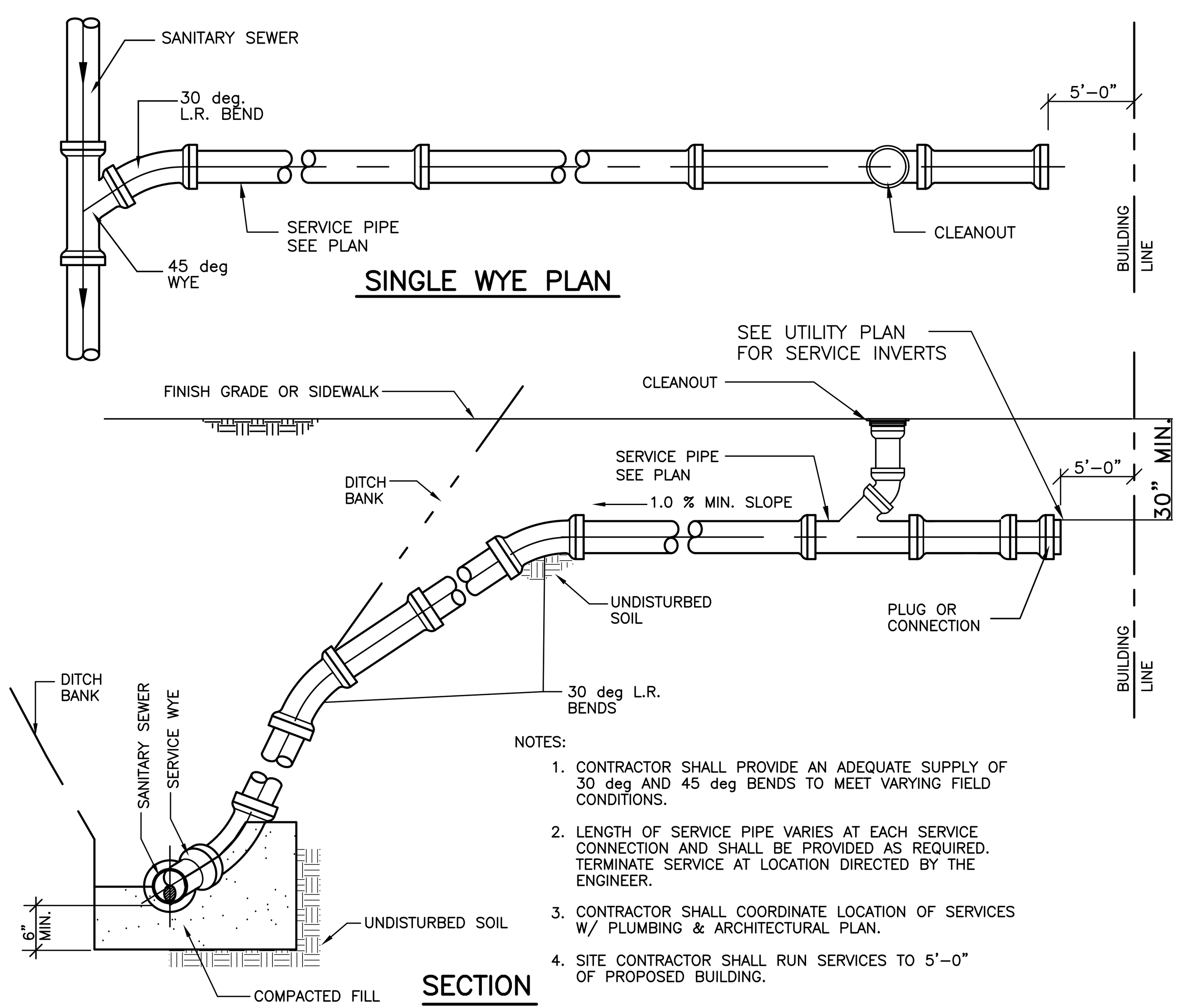
B SANITARY MANHOLE DETAIL
NTS

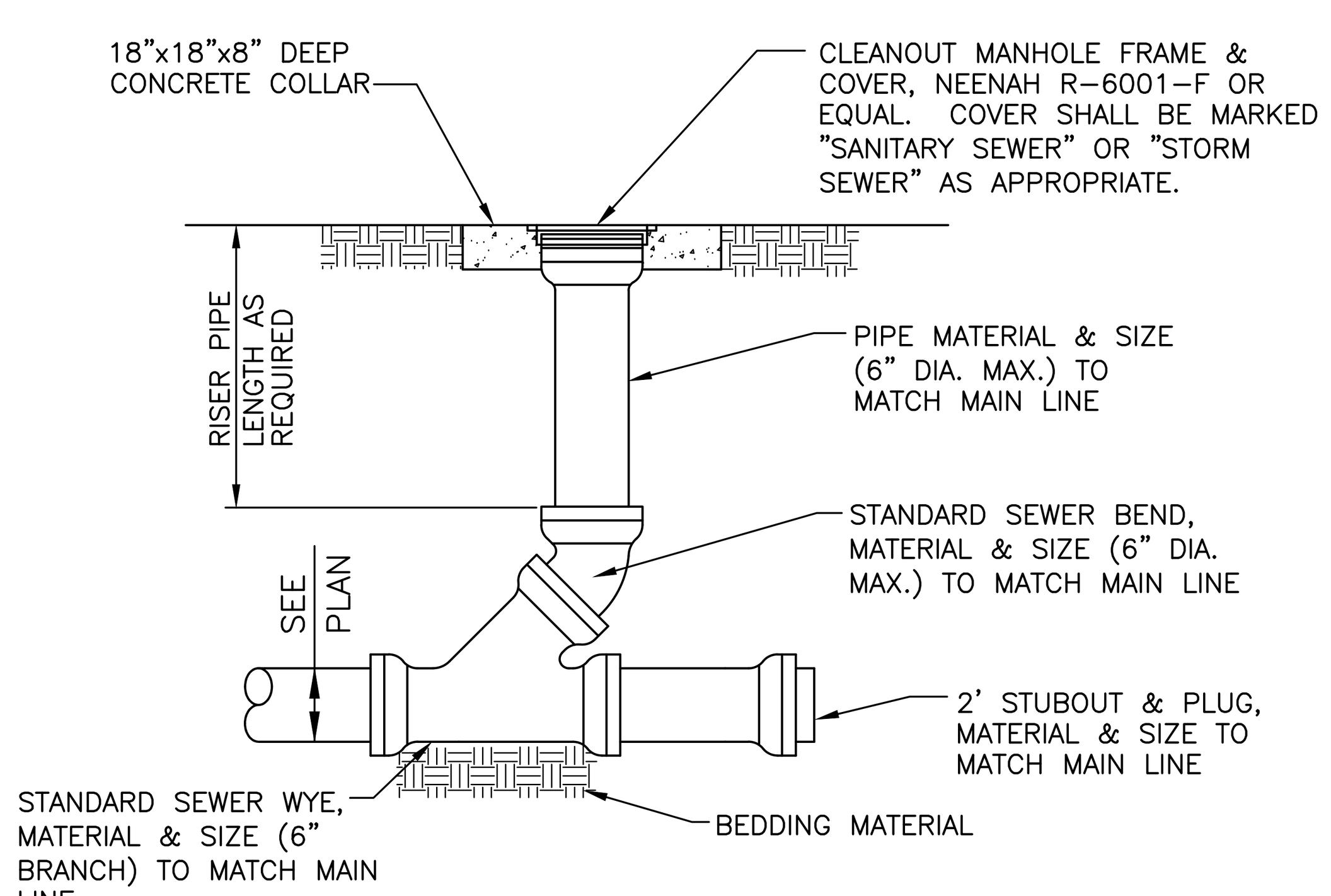

48" UNOBSTRUCTED CLEARANCE
FIRE DEPARTMENT SIDEWALK TYPE SIAMESE CONNECTION w/ 2 1/2" NST., EXPOSED PIPING PAINTED YELLOW.
36"
HATCH FRAME & COVER CAST IN TOP SLAB, FOR ADDITIONAL REQUIREMENTS SEE DETAIL C503.
4' FROM CURB OR PAVEMENT EDGE
CROWN CONC. AT PIPE
FOR ADDITIONAL REQUIREMENTS SEE DETAIL C503
4" SWING CHECK VALVE w/ HORIZONTALLY MOUNTED BALL DRIP VALVE
36" COVER (MIN.)
3'x3'x18" DP. CONCRETE PAD w/ (4) #4 E.W., T&B
MECHANICAL JOINTS
WATER MAIN (SIZE VARIES)
12" MIN.
FLOW DIRECTION
FLOW DIRECTION
PVC
D.I.
4" D.I. PIPE

C SIAMESE FDC CONNECTION ASSEMBLY
NTS


CAST IRON COVER MARKED "WATER" AND PAINTED BLUE WITH APPROVED PAINT
POUR CONCRETE TO GRADE IN NON-PAVED AREAS.
8"
C.I. ADJUSTABLE VALVE BOX (INSIDE SCREW TYPE)
TRACER WIRE
30" MIN.
2" SQUARE NUT
PROVIDE CONC. BLOCKING OR GRAVEL BACKFILL TO SUPPORT VALVE BOX
APPROVED MECHANICALLY RESTRAINED VALVE
CONCRETE BLOCKING (OPTIONAL-DEPENDING ON TRENCH BEDDING CONDITIONS)

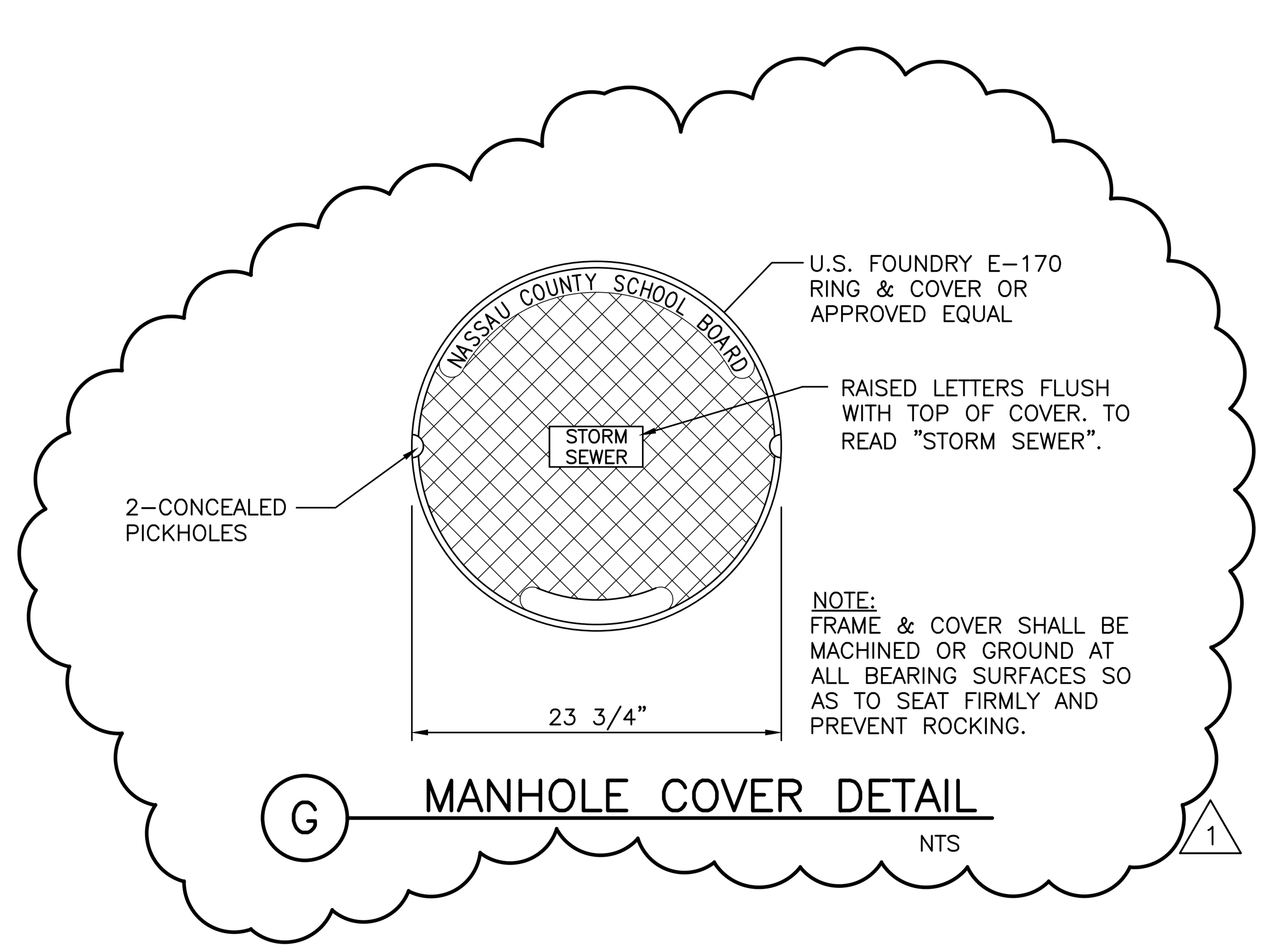
D TYPICAL VALVE & BOX DETAIL
WATER & FORCEMAIN
NTS


SANITARY SEWER
30 deg. L.R. BEND
5'-0"
SERVICE PIPE SEE PLAN
CLEANOUT
45 deg WYE
BUILDING LINE
SINGLE WYE PLAN
SEE UTILITY PLAN FOR SERVICE INVERTS
CLEANOUT
FINISH GRADE OR SIDEWALK
SERVICE PIPE SEE PLAN
DITCH BANK
1.0 % MIN. SLOPE
5'-0"
30" MIN.
UNDISTURBED SOIL
PLUG OR CONNECTION
BUILDING LINE
30 deg L.R. BENDS
DITCH BANK
SANITARY SEWER
SERVICE WYE
NOTES:
1. CONTRACTOR SHALL PROVIDE AN ADEQUATE SUPPLY OF 30 deg AND 45 deg BENDS TO MEET VARYING FIELD CONDITIONS.
2. LENGTH OF SERVICE PIPE VARIES AT EACH SERVICE CONNECTION AND SHALL BE PROVIDED AS REQUIRED. TERMINATE SERVICE AT LOCATION DIRECTED BY THE ENGINEER.
3. CONTRACTOR SHALL COORDINATE LOCATION OF SERVICES W/ PLUMBING & ARCHITECTURAL PLAN.
4. SITE CONTRACTOR SHALL RUN SERVICES TO 5'-0" OF PROPOSED BUILDING.
6" MIN.
UNDISTURBED SOIL
COMPACTED FILL
SECTION

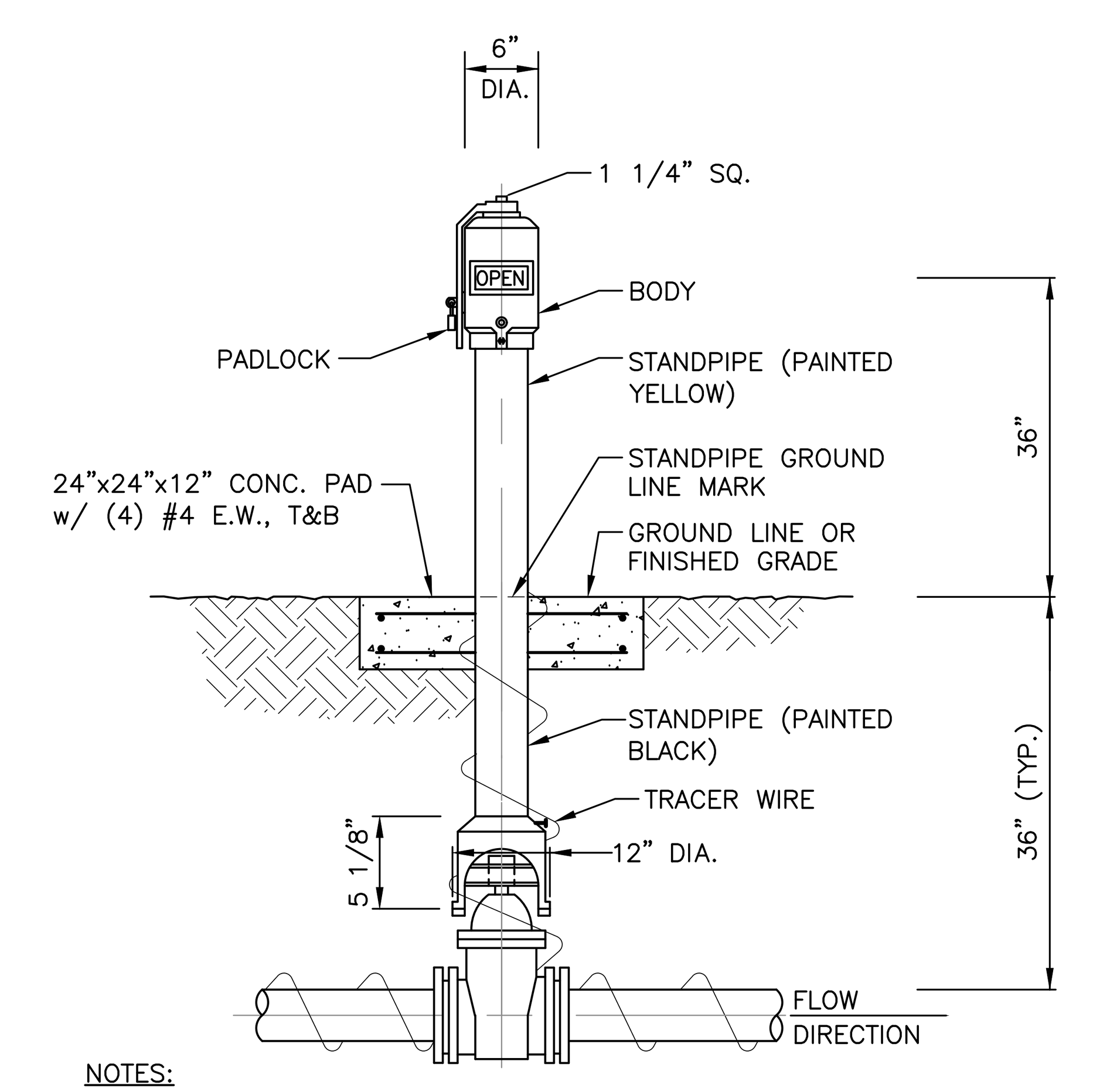

18"x18"x8" DEEP CONCRETE COLLAR
CLEANOUT MANHOLE FRAME & COVER, NEENAH R-6001-F OR EQUAL. COVER SHALL BE MARKED "SANITARY SEWER" OR "STORM SEWER" AS APPROPRIATE.
RISER PIPE LENGTH AS REQUIRED
PIPE MATERIAL & SIZE (6" DIA. MAX.) TO MATCH MAIN LINE
STANDARD SEWER BEND, MATERIAL & SIZE (6" DIA. MAX.) TO MATCH MAIN LINE
SEE PLAN
2' STUBOUT & PLUG, MATERIAL & SIZE TO MATCH MAIN LINE
STANDARD SEWER WYE, MATERIAL & SIZE (6" BRANCH) TO MATCH MAIN LINE
BEDDING MATERIAL

E SEWER CLEANOUT DETAIL
NTS

F SANITARY SERVICE CONNECTION
NTS


NASSAU COUNTY SCHOOL BOARD
STORM SEWER
U.S. FOUNDRY E-170 RING & COVER OR APPROVED EQUAL
RAISED LETTERS FLUSH WITH TOP OF COVER. TO READ "STORM SEWER".
2-CONCEALED PICKHOLES
NOTE:
FRAME & COVER SHALL BE MACHINED OR GROUND AT ALL BEARING SURFACES SO AS TO SEAT FIRMLY AND PREVENT ROCKING.
23 3/4"

G MANHOLE COVER DETAIL
NTS
1



NOTES:
1. FIELD ADJUST INDICATOR HEIGHT.
2. VALVES SHALL NORMALLY BE IN A LOCKED 'OPEN' POSITION.
3. THERE SHALL BE 36" OF UNOBSTRUCTED CLEARANCE AROUND THE PERIMETER OF ALL POST INDICATOR VALVES.
4. POST INDICATOR VALVE SHALL BE LOCATED AT A MINIMUM 5 FEET FROM BUILDING.

H POST INDICATOR VALVE DETAIL
NTS

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