



ADDENDUM NUMBER THREE

**Langan Park – Amphitheater Pavilion & Restroom
Project No: PR-031-21**

**Public Safety Memorial Park
Restroom, Skateboard Park & Splashpad**

OCTOBER 26, 2022

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualifications.

This addendum consists of 1 page and 6 attachments.

PART 1 - GENERAL CHANGES

- 1.01 When a change is shown on a drawing, in a specification section or in a Document, keep that change consistent through all drawings, specifications and documents.

PART 2 - CHANGES TO THE FORMS AND CONDITIONS

- 2.01 Reference Advertisement to Bid: The date for receipt of bids has been changed to WEDNESDAY NOVEMBER 09, 2022 @ 2:15 P.M. LOCAL TIME. All other instructions and conditions remain as stated.

PART 3 - CHANGES TO THE SPECIFICATIONS

- 3.01 Reference Section 026950 Flexible Porous Pavement (LANGAN PARK ONLY):
- A. Delete existing specification section in its entirety and replace with attached revised Section 026950 Flexible Porous Pavement Addendum 03 dated October 26, 2022.
- 3.02 Reference Section 102113 Phenolic Core Toilet Compartments (Revision 2, Addendum 03 dated October 26, 2022) for the following change to both Langan Park and Public Safety Memorial Park.
- A. At 2.1, A, add the following: *“8. Scranton Products with custom hardware and fittings as required for compliance with the requirements.”*

PART 4 - CHANGES TO THE DRAWINGS

- 4.01 Reference the following attached Revised Civil Drawings to replace existing drawings. LANGAN PARK ONLY- All are dated October 26, 2022/Addendum 03:
- C1.0 – OVERALL SITE PLAN
 - C3.1 – NEW RESTROOM BUILDING & EXISTING PAVILION GEOMETRIC PLAN
 - C3.2 – NEW RESTROOM BUILDING & EXISTING PAVILION GRADING PLAN
 - C4.0 – WATER LINE IMPROVEMENTS
 - C4.1 – MAWSS WATERLINE DETAILS

END OF ADDENDUM 03

SECTION 026950 – FLEXIBLE POROUS PAVEMENT

PART 1 – GENERAL

1.1 SUMMARY

- A. Furnish all labor, materials, and equipment necessary to complete the construction of the flexible porous pavement as indicated and detailed on the Drawings and as specified herein.
- B. The items of work to perform include, but are not limited to:
 - 1. Undercut roadbed, process subgrade, construct improved subgrade with geotextile fabric, and construct base.
 - 2. Provide and install flexible porous pavement product as per manufacturer's instructions.
 - 3. Provide and install clean gravel to fill flexible porous pavement units.
- C. Related Work Specified Elsewhere:
 - 1. Earthwork: Section 022000
 - 2. Site Grading: Section 022100
 - 3. Soil Compaction Control: Section 022600

1.2 SUBMITTALS

- A. Submit (5) sets of manufacturer's product data and installation instructions.
- B. Submit two 48" x 24" sections of flexible porous pavement material for review. One of the reviewed samples will be returned to the contractor if acceptable.
- C. Submit material certificates for base course and sand fill materials.

1.3 QUALITY ASSURANCE

- A. Provide submittals as required.
- B. Installation: Work shall be performed only by skilled workpeople with satisfactory record of performance on similar projects of comparable size and quality.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Protect flexible porous pavement units from damage during delivery and store under tarp to protect from sunlight, when time from delivery to installation exceeds one week.

1.5 PROJECT CONDITIONS

- A. Contractor shall review product installation procedures and coordinate installation with other work affected. In general, the placement of the flexible porous pavement will be one of the final construction activities performed at the site. Installation shall be in strict accordance with manufacturer's instructions.
- B. All hard surface paving to be placed adjacent to flexible porous pavement areas, including concrete walks and asphalt paving must be completed prior to installation of the flexible porous pavement.
- C. Cold Weather:
 - 1. Do not use frozen materials or materials mixed or coated with ice or frost. Care should be taken in handling flexible porous pavement materials in temperatures below 50° F to prevent damage. Additionally, rolled type products will retain the roll curl until warmed to room temperature. If it is anticipated that the flexible porous pavement material will be placed in cold weather, sheet type material rather than roll type material shall be provided.
- D. Protect partially completed paving against damage from other construction traffic when work is in progress, and until surface has had 3 to 4 weeks to mature.
- E. Protect adjacent work from damage during the installation of the flexible porous pavement units.

PART 2 – PRODUCTS

2.1 MATERIAL PROVIDER

- A. Manufacturer: Suitable products will be those as provided by the following: NDS – EZ Roll Gravel Surface, or equal.

2.2 MATERIALS

- A. Gravel Fill:
 - 1. Uniformly-graded 3/8" clean crushed angular stone or AASHTO #6 stone.
 - 2. Extend 3/8" gravel inside paver an additional 1/2 to 1 inch above paver surface and match surrounding grade. Finished grade slope per project grading plan. Provide 1" (min.) clearance between any concrete edge and paver.
- B. AASHTO #57 Base Rock:
 - 1. Gradation of AASHTO #57 Coarse Base Rock: 100% passing 1-1/2" screen, 95-100% passing 1", 25-60% passing 1/2", and 0-10% passing #8 screen.
 - 2. Thickness of aggregate layer is 6 inches compacted.
 - 3. Compact with one to three passes of 5-ton steel wheel roller.
- C. Filter Fabric:
 - 1. Filter fabric may be used to prevent migration of fines from surrounding native soils into coarse aggregate layer. The fabric prevents clogging of aggregate layer

and extends its useful life. Use of filter fabric is strongly recommended around edge drain.

2. Non-woven needle-punched geotextile material required.
3. Filter fabric with AOS <0.60 MM for native soils with 50% or less particles by weight passing No. 200 sieve. Use filter fabric with AOS <0.30 MM for native soils with 50% of greater particles by weight passing the No. 200 sieve.

D. Underdrain:

1. Underdrain to collect percolated water and convey to project stormwater facility for native soil that is NRCS hydrologic soil group C or D (low infiltration rates). Underdrain is optional for soil Group B (moderate filtration) and can be eliminated for soil Group A (good infiltration).
2. Use minimum 6" dia. perforated PVC pipe. Pipe to be installed at minimum 0.5% slope. Two square inches of opening/linear foot required.
3. Underdrain to project into catch basin.
4. Invert of pipe recommended to be above project high water level to prevent backing up of water into paver system.
5. Underdrain to be surrounded by 6 inches of AASHTO #57 coarse aggregate, with min. 2" bedding.

E. Subgrade Soil:

1. Compact subgrade native soils to 98% Standard Proctor Density for a depth of 6 inches.

F. Flexible Porous Pavement Units:

1. Engineering Properties:
 - a. Compressive strength of EZ Roll Material
Empty Pavers: Ultimate Load = 53,683 lbs/373 PSI (minimum)
Filled Pavers: Ultimate Load = 500,000 lbs
 - b. Porosity of AASHTO #57 Aggregate = 0.4
2. Lightweight HDPE units with hollow formed hexagonal shapes. The plastic shall be 100% post-consumer recycled plastic resins, predominately HDPE, with minimum 3% carbon black concentrate added for UV protection. Load capacity shall be 5700 psi when filled with sand over an appropriate road base. Unit color shall be black. Units are provided in rolls 4' x 150'.

PART 3 – EXECUTION

3.1 INSPECTION

- A. Examine subgrade, base course, and underdrain installation. Do not start installation of flexible porous pavement units until unsatisfactory conditions are corrected. Check for improperly compacted trenches, debris, and improper gradients.
- B. Installation constitutes acceptance of existing conditions and responsibility for satisfactory performance. If existing conditions are found unsatisfactory, contact project manager.

3.2 PREPARATION

- A. Under cut proposed roadbed as required and process existing subgrade/subsoil to a compaction of 98% Standard Proctor density. Place geogrid fabric on top following compaction. Place stone base and compact. Place gravel fill as indicated.
- B. Place crushed aggregate base course over prepared subbase to the grades shown on the plans. Compact to 95% Modified Proctor Density in one 8" lift.
- C. Install the flexible porous pavement units by placing units facing up and facing in place with stakes as provided and interlock units. Trim units where required. Position units so that their tops are between 0.25" and 0.5" below the surface of adjacent hard-surface pavements.
- D. Place required gravel fill and compact. Place ½ inch to 1 inch of gravel fill above paver unit.

3.3 PROTECTION

- A. Surfaced areas must be protected from heavy traffic for approximately 3 to 4 weeks.

3.4 CLEANING

- A. Remove and replace damaged flexible porous pavement units.
- B. Perform cleaning during the installation of the work and upon completion of the work. Remove all excess materials, debris, and equipment from the site. Repair any damage to adjacent materials and surfaces resulting from installation of this work.

END OF SECTION

VERTICAL BENCHMARK INFORMATION:

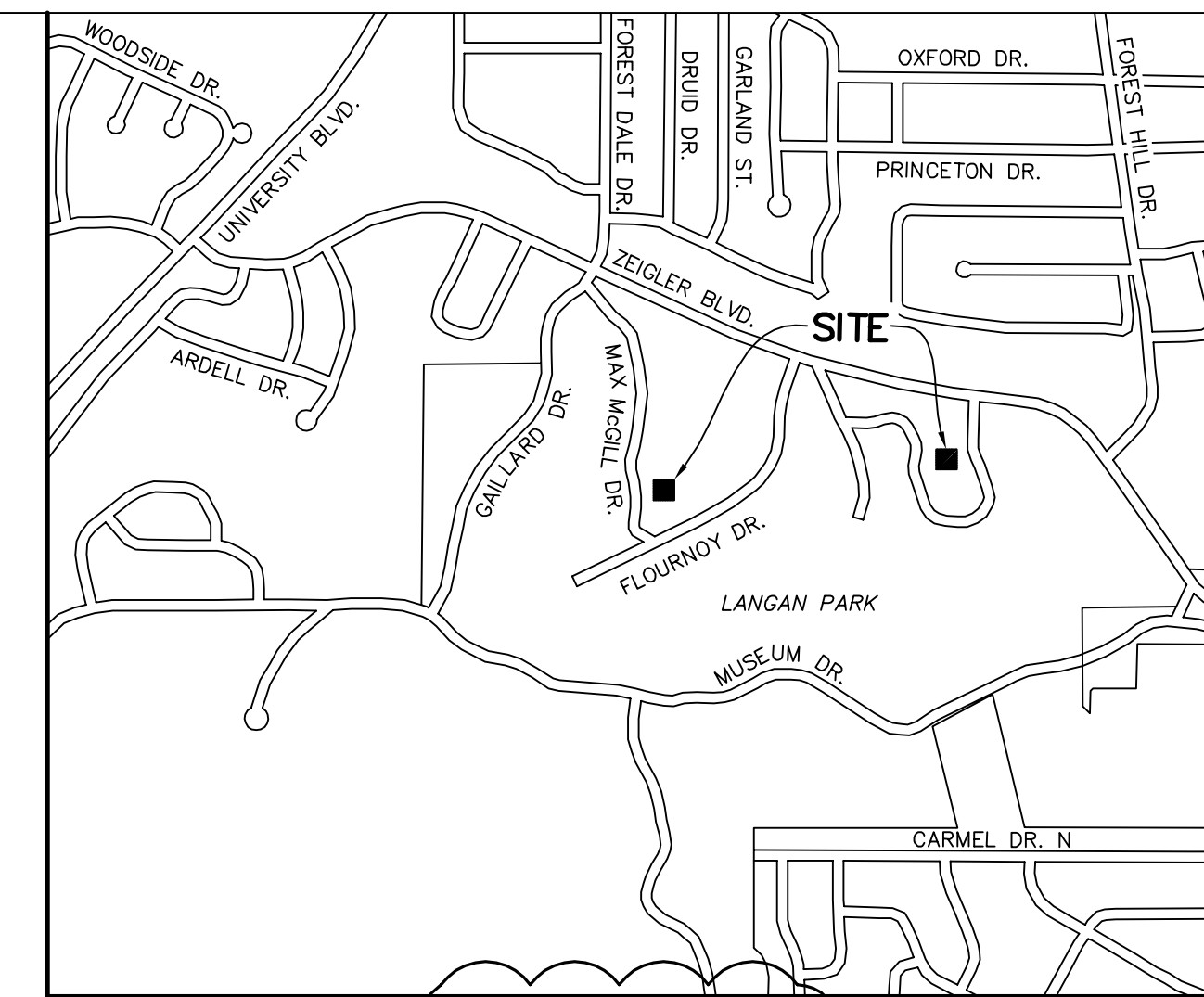
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◆ B.M.#186 - 6"x6" CONCRETE MONUMENT AT BACK OF CURB AT P.C. ZEIGLER BLVD.

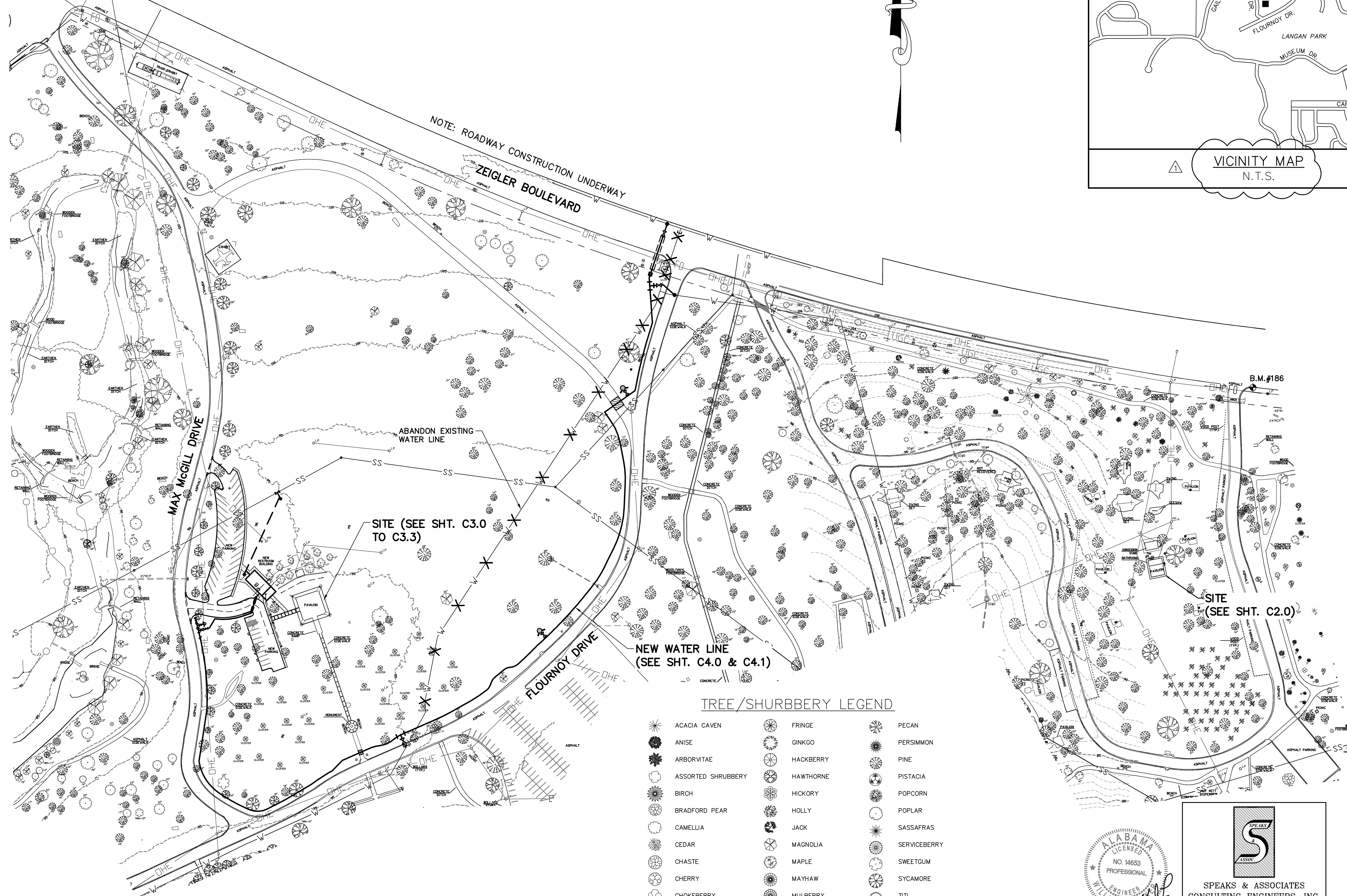
SURVEY PROVIDED BY:

WATTIER SURVEYING, INC.
PROFESSIONAL LAND SURVEYORS

4321 Downtowner Loop N., Suite 201
 Mobile, Alabama 36609 251-342-2640



VICINITY MAP
 N.T.S.



NOTE: ROADWAY CONSTRUCTION UNDERWAY
 ZEIGLER BOULEVARD

SITE (SEE SHT. C3.0 TO C3.3)

NEW WATER LINE (SEE SHT. C4.0 & C4.1)

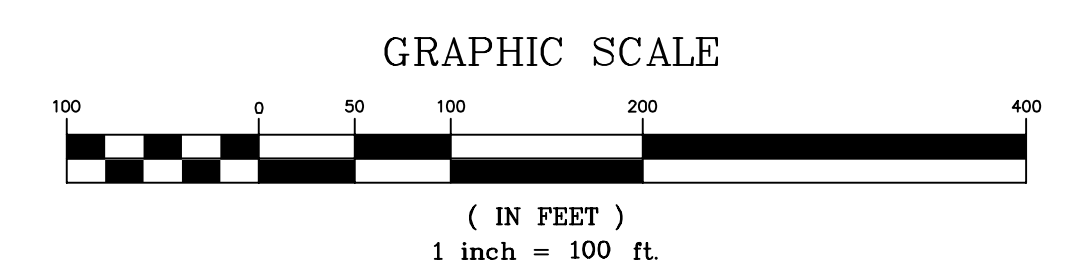
SITE (SEE SHT. C2.0)

TREE / SHRUBBERY LEGEND

- | | | |
|--------------------|---------------|--------------|
| ACACIA CAVEN | FRINGE | PECAN |
| ANISE | GINKGO | PERSIMMON |
| ARBORVITAE | HACKBERRY | PINE |
| ASSORTED SHRUBBERY | HAWTHORNE | PISTACIA |
| BIRCH | HICKORY | POPCORN |
| BRADFORD PEAR | HOLLY | POPLAR |
| CAMELLIA | JACK | SASSAFRAS |
| CEDAR | MAGNOLIA | SERVICEBERRY |
| CHASTE | MAPLE | SWEETGUM |
| CHERRY | MAYHAW | SYCAMORE |
| CHOKEBERRY | MULBERRY | TITI |
| CRABAPPLE | LIVE OAK | TUPELO |
| CREPE MYRTLE | OAK | UNKNOWN |
| CYPRESS | PALMETTO | VBURNUM |
| DEVILWOOD | PALM | WALNUT |
| DOGWOOD | PARROTIA | YAUPON |
| ELM | PAW PAW | JAPANESE YEW |
| FIR | BRADFORD PEAR | |



SPEAKS & ASSOCIATES
 CONSULTING ENGINEERS, INC.
 732 OAK CIRCLE DRIVE WEST
 MOBILE, ALABAMA 36609
 PHONE: (251)666-4646, FAX: (251)666-8868
 JOB NO. : 22-0502 F.B. : N/A



TAG
 THE ARCHITECTS
 GROUP/INC
 710 DOWNTOWNER BOULEVARD
 MOBILE, ALABAMA 36609
 251_343_1811 togarchitects.net

**LANGAN PARK -
 AMPHITHEATER
 PAVILION & RESTROOMS**

MOBILE, ALABAMA

REVISIONS

| NO. | DATE | REMARKS |
|-----|-------|-------------|
| 9 | 28-22 | IFB |
| 10 | 26-22 | ADDENDUM 03 |

SHEET TITLE

**OVERALL
 SITE PLAN**

JOB NO. 2113

DATE: SEPT. 28, 2022

SHEET

C1.0



THE ARCHITECTS
GROUP/INC
710 DOWNTOWNER BOULEVARD
MOBILE, ALABAMA 36609
251_343_1811 togarchitects.net

**LANGAN PARK -
AMPHITHEATER
PAVILION & RESTROOMS**

ALABAMA

MOBILE,

REVISIONS

| NO. | DATE | REMARKS |
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| | 9-28-22 | IFB |
| △ | 10-26-22 | ADDENDUM 03 |
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SHEET TITLE

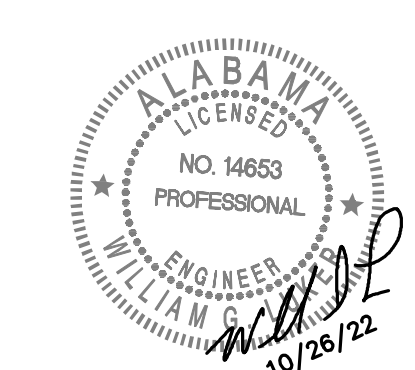
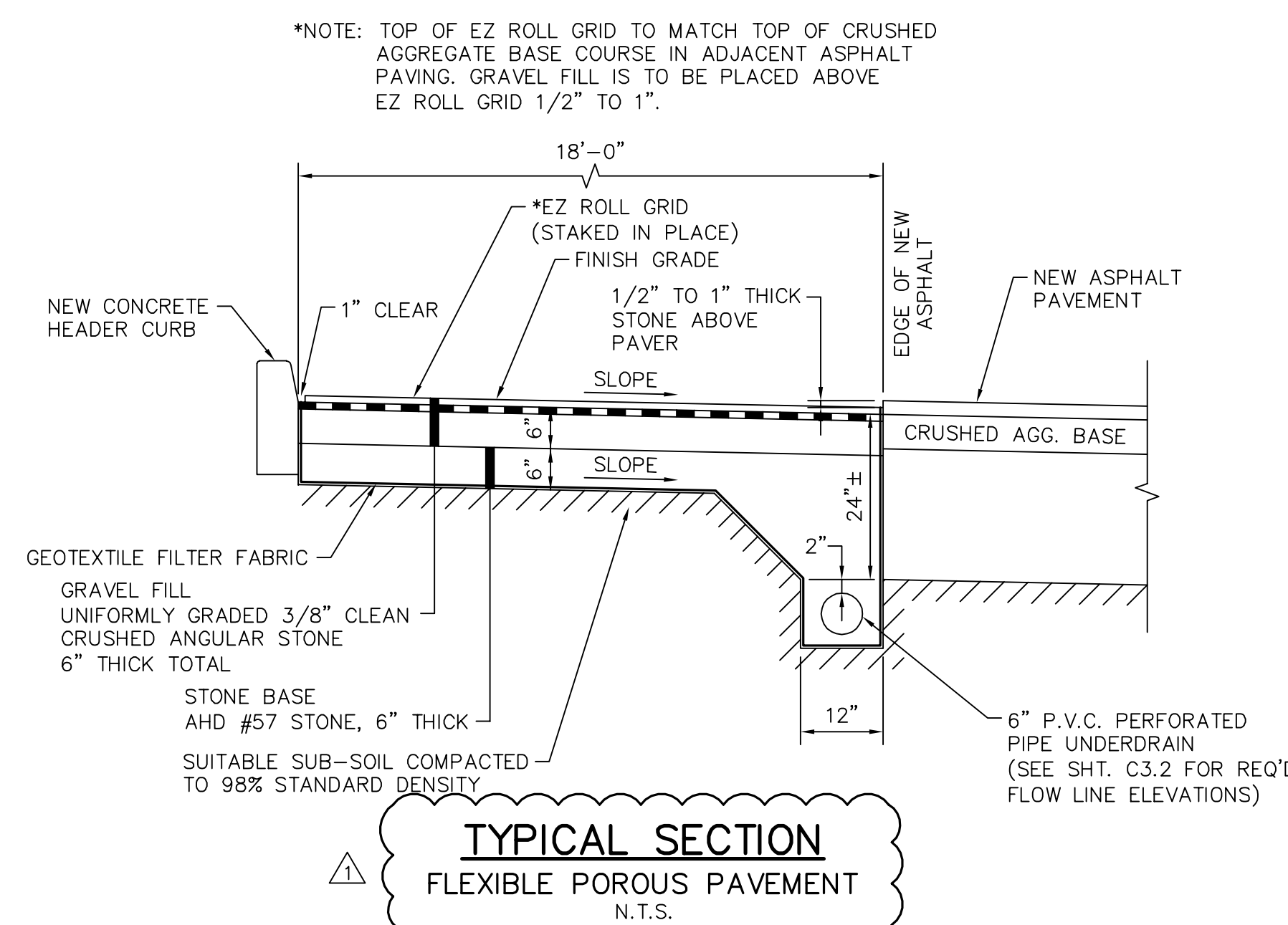
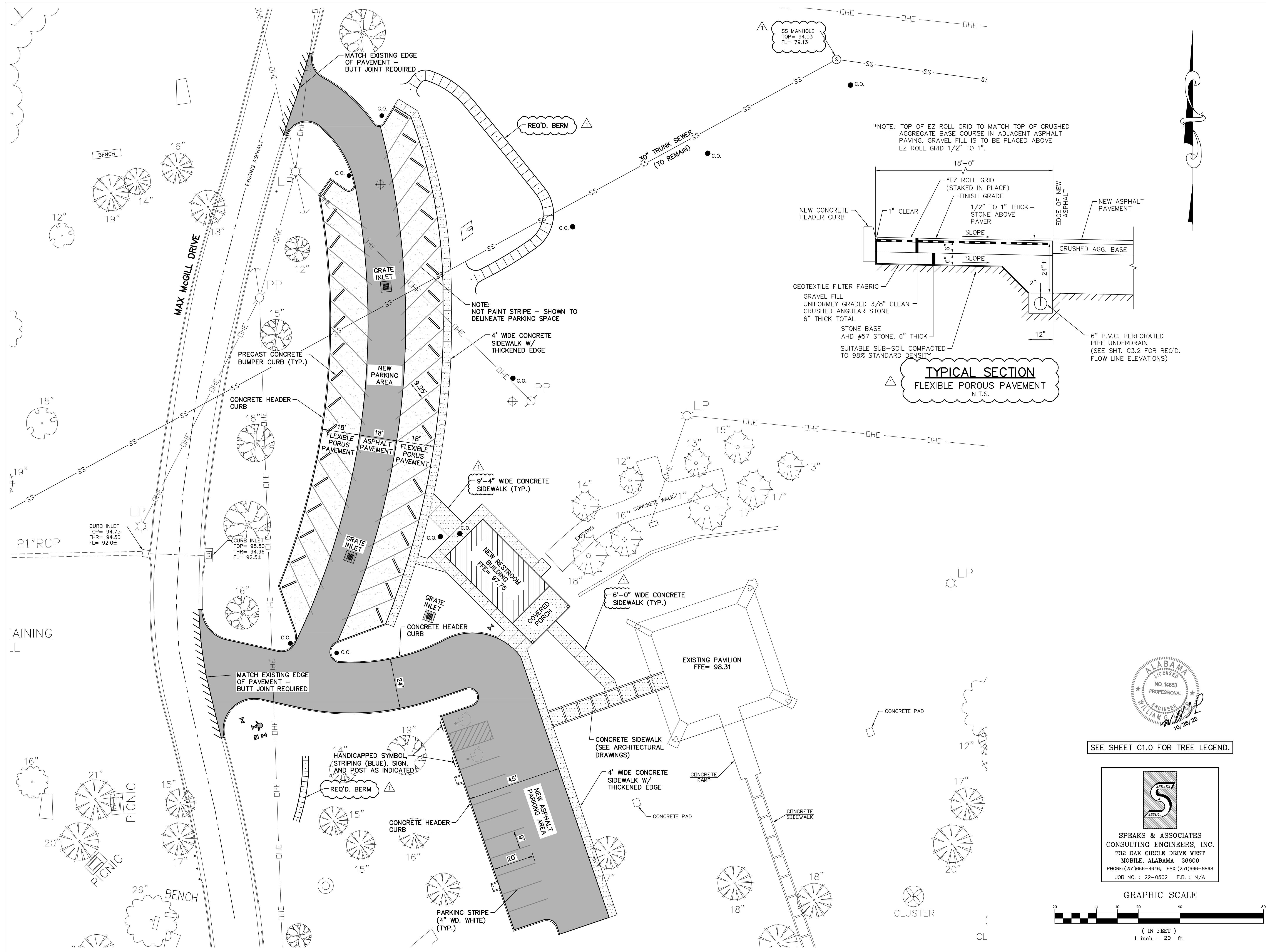
**NEW RESTROOM
BUILDING AND
EXISTING PAVILION
GEOMETRIC PLAN**

JOB NO. 2113

DATE: SEPT. 28, 2022

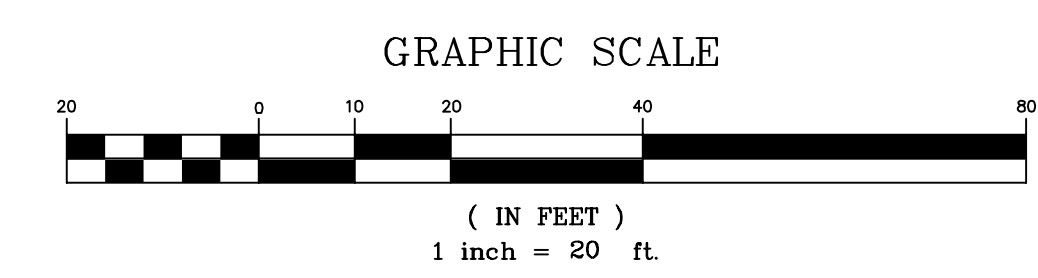
SHEET

C3.1

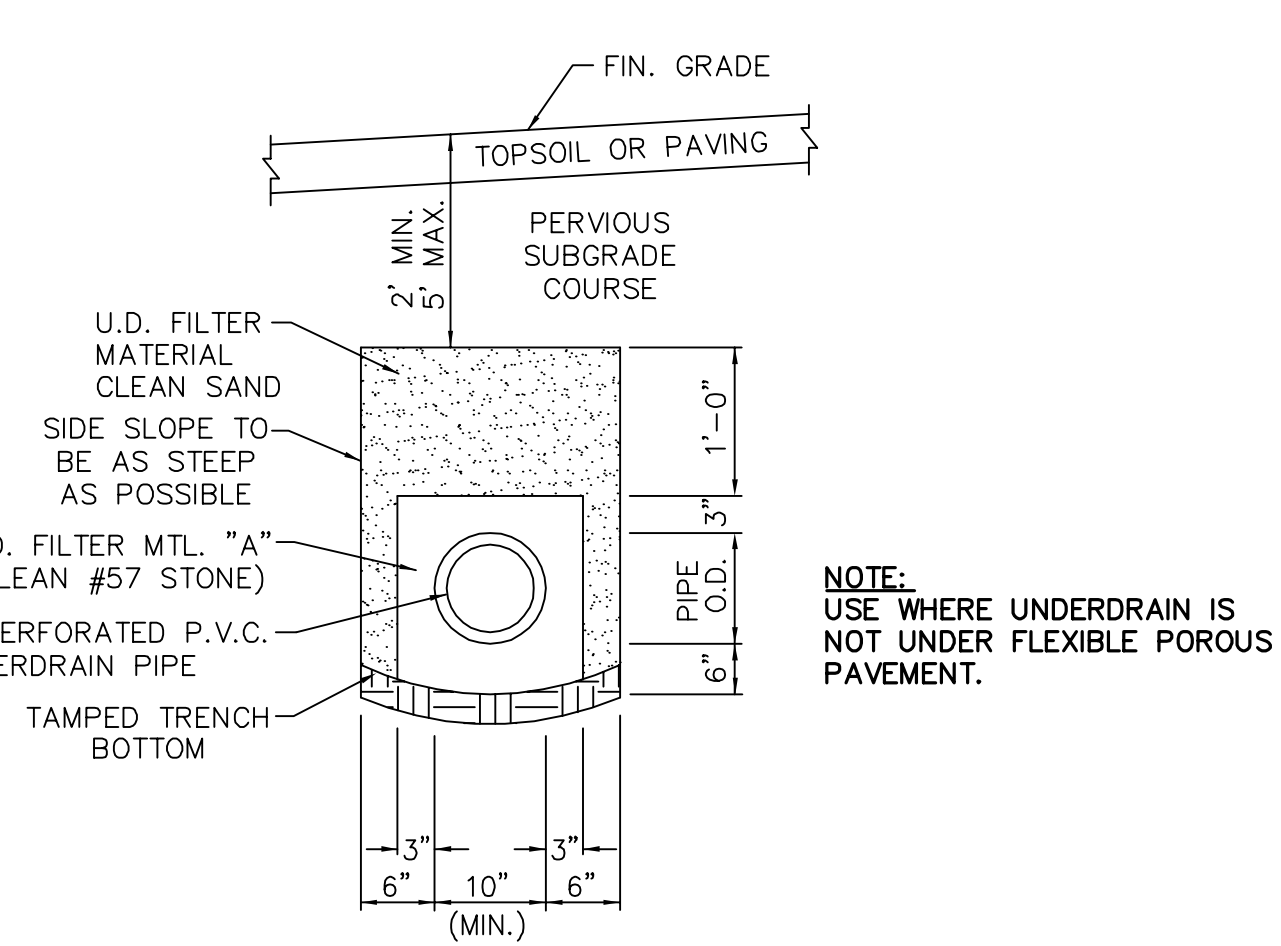
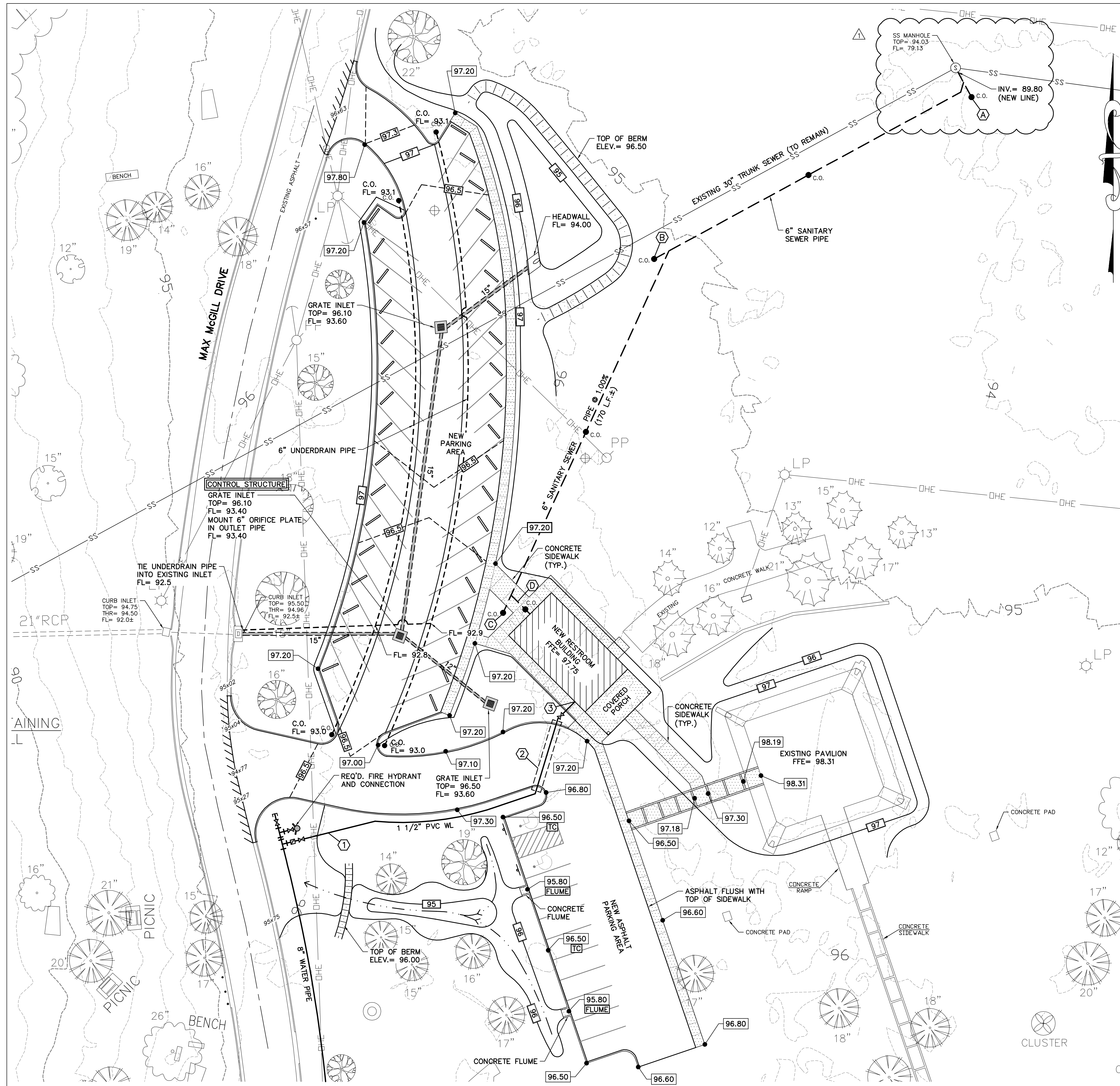


SEE SHEET C1.0 FOR TREE LEGEND.

**SPEAKS & ASSOCIATES
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JOB NO. : 22-0502 F.B. : N/A



WRITTEN SCALES AT DRAWING TITLE(S) ARE VALID ONLY FOR 24" x 36" SHEET SIZE.



PIPE UNDERDRAIN DETAIL
N.T.S.

NEW WATER LINE WORK

| SYMBOL | DESCRIPTION |
|--------|---|
| ① | 1 1/2" WATER SERVICE COMPLETE IN PLACE INCLUDING METER, BACKFLOW PREVENTOR, AND BOX, AND 1 1/2" GATE VALVE WITH BOX |
| ② | 4" SDR 11 HDPE SLEEVE FOR WATER LINE BENEATH PAVEMENT |
| ③ | CONNECT TO 1 1/2" BUILDING WATER LINE. PROVIDE GATE VALVE WITH BOX. |

NEW SEWER LINE WORK

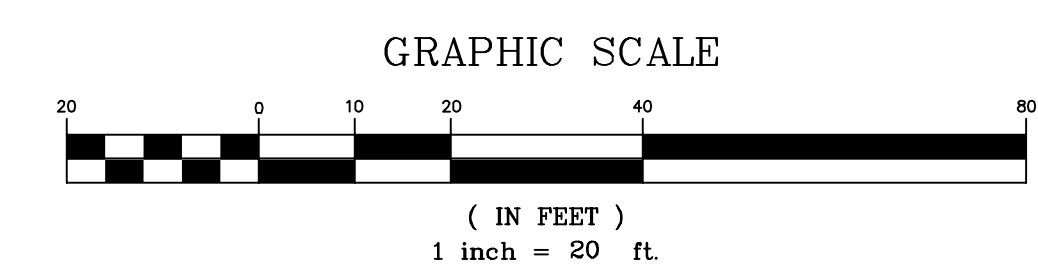
| SYMBOL | DESCRIPTION |
|--------|---|
| Ⓐ | NEW 6 INCH SERVICE LATERAL. CORE DRILL EXISTING MANHOLE AND INSTALL BOOT FOR NEW LATERAL IN ACCORDANCE WITH MAWSS SPECIFICATIONS. INV.= 90.00 APPROX. |
| Ⓑ | 6 INCH CLEANOUT TOP= 96.00 INV.= 91.80 |
| Ⓒ | 6 INCH CLEANOUT TOP= 97.50 INV.= 93.50 |
| Ⓓ | CONNECT TO 3 INCH BUILDING SEWER LINE. PROVIDE CLEANOUT. |

NOTE: AT EACH CLEANOUT, PROVIDE 4"x4" SQ. x 6" LONG CONCRETE MARKING POST STAMPED "SEWER". PAINT OLIVE GREEN.



SEE SHEET C1.0 FOR TREE LEGEND.

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**LANGAN PARK -
AMPHITHEATER
PAVILION & RESTROOMS**

REVISIONS

| NO. | DATE | REMARKS |
|-----|----------|-------------|
| | 9-28-22 | IFB |
| ⚠ | 10-26-22 | ADDENDUM 03 |

SHEET TITLE
**NEW RESTROOM
BUILDING AND
EXISTING PAVILION
GRADING PLAN**

JOB NO. 2113

DATE: SEPT. 28, 2022

SHEET

C3.2

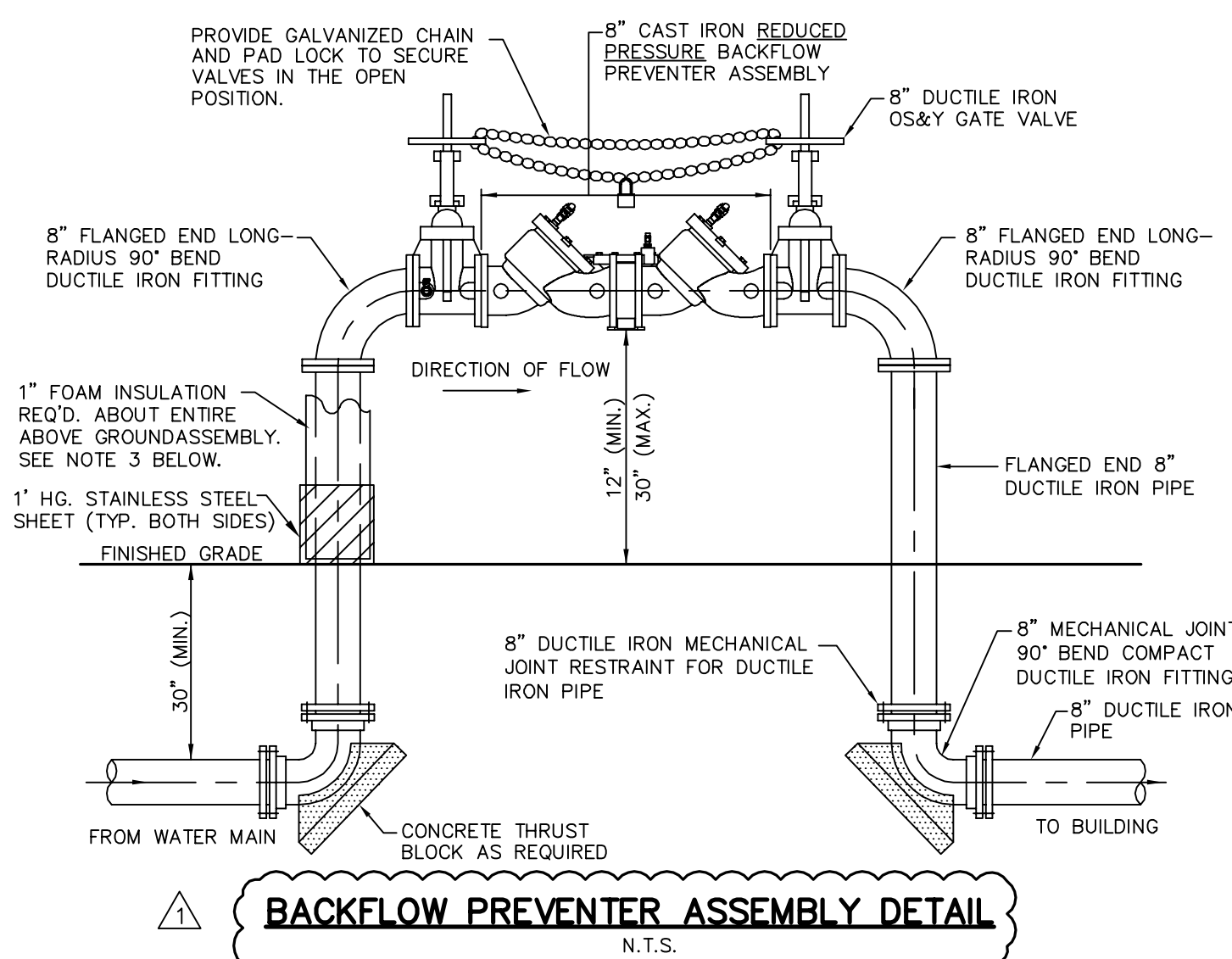
**LANGAN PARK -
AMPHITHEATER
PAVILION & RESTROOMS**

ALABAMA

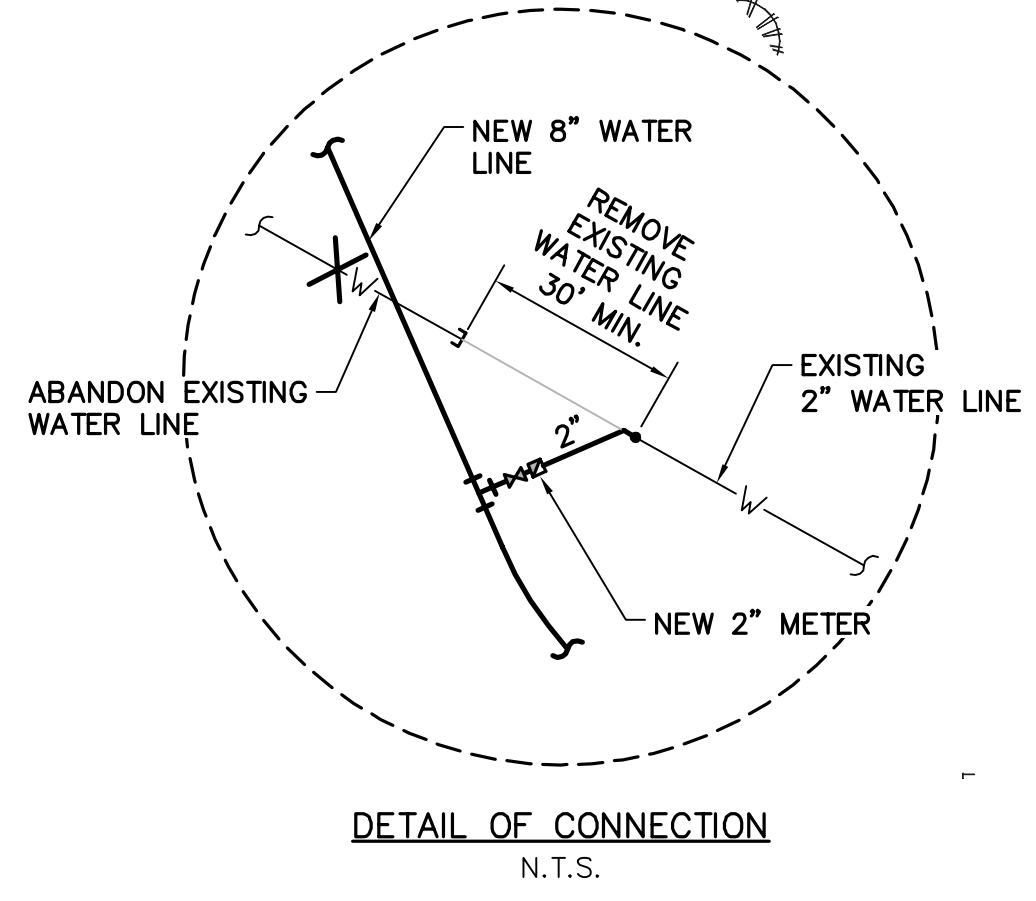
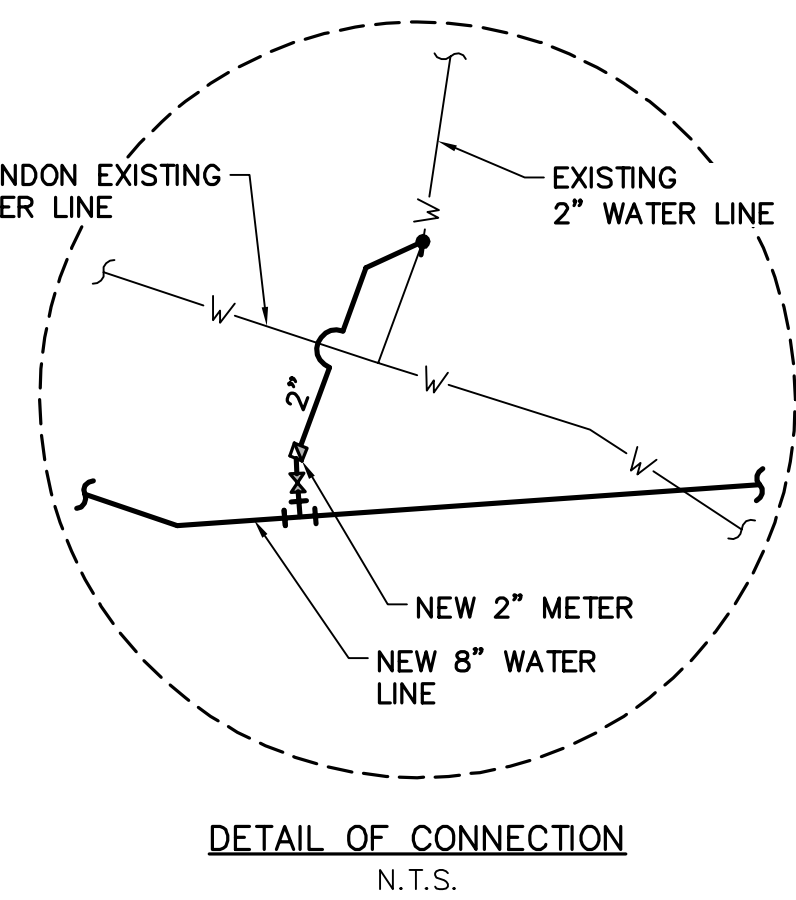
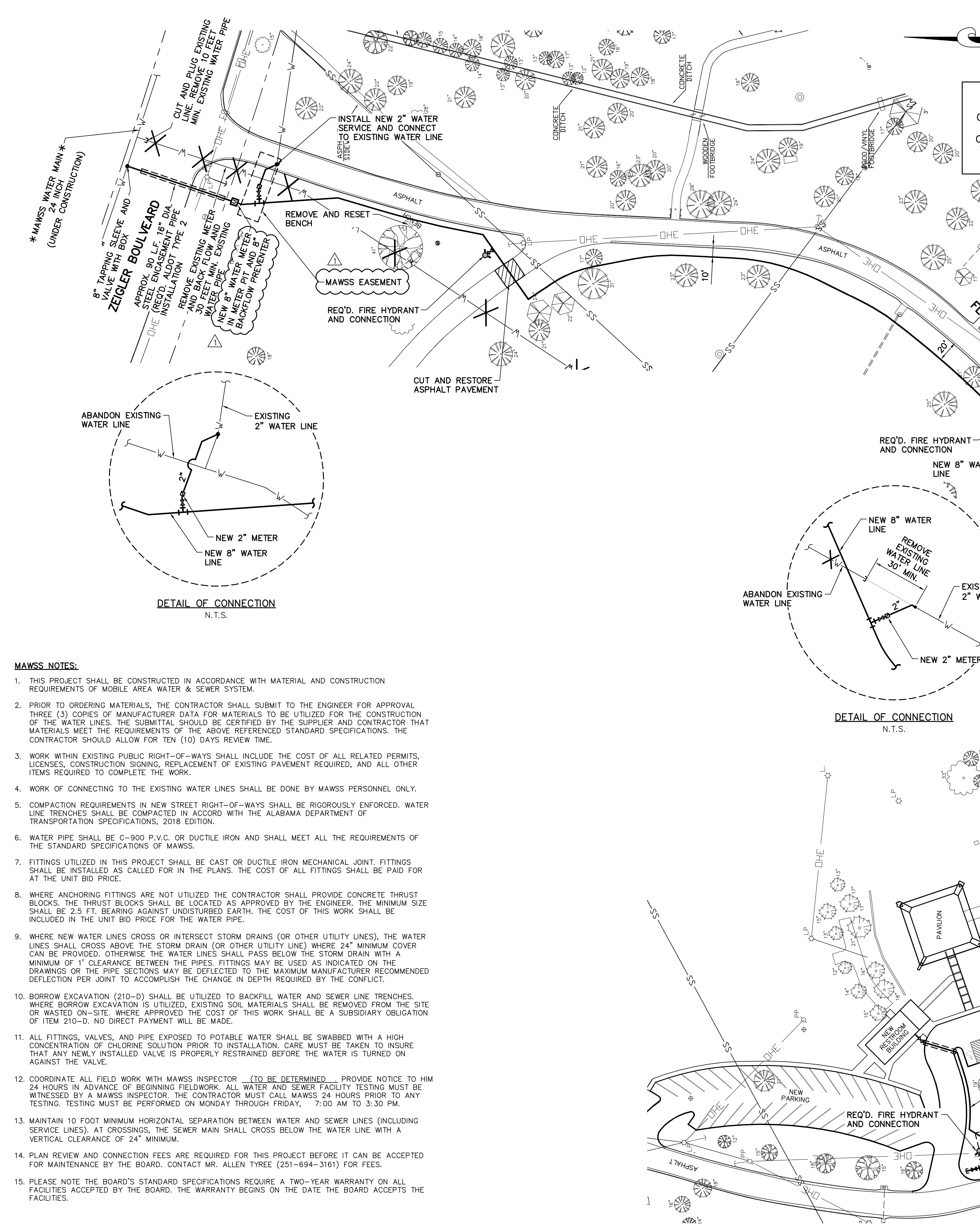
MOBILE,

NOTE: CITY OF MOBILE TO PROVIDE EASEMENT TO MOBILE AREA WATER SERVICE SYSTEM (MAWSS) FOR NEW WATER METERS. THE NEW WATER MAIN WILL BE CONSTRUCTED TO MAWSS SPECIFICATIONS.

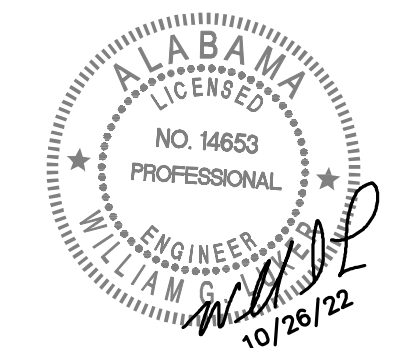
*** NOTE ***
THE WATER MAIN FACILITIES ARE UNDER CONSTRUCTION AND BEING RELOCATED IN CONJUNCTION WITH THE WIDENING OF ZEIGLER BOULEVARD. THE CONTRACTOR SHALL COORDINATE ALL NEW CONTRACT WORK PRIOR TO ORDERING AND MATERIALS OR BEGINNING WATER LINE WORK IN THIS AREA.



- BACKFLOW PREVENTER NOTES:**
1. THE ENTIRE ABOVEGROUND PORTION OF THE BACKFLOW PREVENTER ASSEMBLY SHALL BE INSULATED.
 2. APPROVED BACKFLOW PREVENTERS SHALL INCLUDE THE WATTS MODEL 909, WILKINS MODEL 975, AMES MODEL 4000CIV, APOLLO VALVES (CONBRACO) MODEL 40-200, OR EQUAL.
 3. THE FIRE WATER, AND POTABLE WATER, BACKFLOW PREVENTERS SHALL BE INSTALLED ABOVE GROUND AND SHALL BE INSULATED. THE INSULATION SHALL BE 1" THICK CLOSED CELL, FIBER-FREE ELASTOMERIC FOAM THAT IS WHITE IN COLOR. THE INSULATION MATERIAL SHALL BE ADHERED, SEAL, AND ASSEMBLED UTILIZING MATERIAL RECOMMENDED AND MANUFACTURED BY THE FOAM INSULATION MANUFACTURER. ONCE THE INSULATION HAS BEEN INSTALLED, IT SHALL BE PAINTED WITH A WHITE SEMI-GLOSS EXTERIOR LATEX PAINT MANUFACTURED, OR RECOMMENDED FOR USE, BY THE MANUFACTURER. INSULATION, APPLICATION AND PAINT MATERIALS SHALL BE ARMACELL, AC MANUFACTURED BY ARMAFLEX, OR ENGINEER APPROVED EQUAL.
 4. CONTRACTOR SHALL PROVIDE A GALVANIZED WELDED LINK CHAIN AND WEATHER-RESISTANT KEYED LOCK TO LOCK THE OS&Y VALVES IN THE OPEN POSITION.
 5. SEE THE ELECTRICAL DRAWINGS FOR THE PROVISION OF A TAMPER SWITCH AND A FLOW SWITCH TO WORK IN CONJUNCTION WITH THE OS&Y VALVES ASSOCIATED WITH THE FIRE WATER BACK-FLOW PREVENTER.

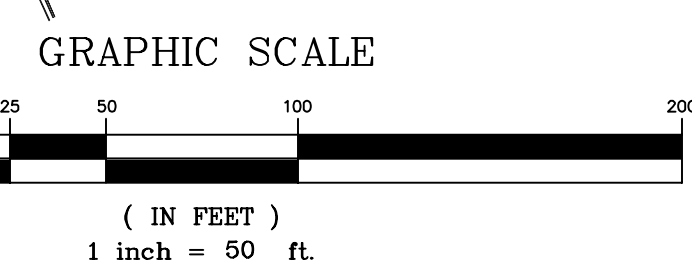


- MAWSS NOTES:**
1. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH MATERIAL AND CONSTRUCTION REQUIREMENTS OF MOBILE AREA WATER & SEWER SYSTEM.
 2. PRIOR TO ORDERING MATERIALS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL THREE (3) COPIES OF MANUFACTURER DATA FOR MATERIALS TO BE UTILIZED FOR THE CONSTRUCTION OF THE WATER LINES. THE SUBMITTAL SHOULD BE CERTIFIED BY THE SUPPLIER AND CONTRACTOR THAT MATERIALS MEET THE REQUIREMENTS OF THE ABOVE REFERENCED STANDARD SPECIFICATIONS. THE CONTRACTOR SHOULD ALLOW FOR TEN (10) DAYS REVIEW TIME.
 3. WORK WITHIN EXISTING PUBLIC RIGHT-OF-WAYS SHALL INCLUDE THE COST OF ALL RELATED PERMITS, LICENSES, CONSTRUCTION SIGNING, REPLACEMENT OF EXISTING PAVEMENT REQUIRED, AND ALL OTHER ITEMS REQUIRED TO COMPLETE THE WORK.
 4. WORK OF CONNECTING TO THE EXISTING WATER LINES SHALL BE DONE BY MAWSS PERSONNEL ONLY.
 5. COMPACTION REQUIREMENTS IN NEW STREET RIGHT-OF-WAYS SHALL BE RIGOROUSLY ENFORCED. WATER LINE TRENCHES SHALL BE COMPACTED IN ACCORD WITH THE ALABAMA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, 2018 EDITION.
 6. WATER PIPE SHALL BE C-900 P.V.C. OR DUCTILE IRON AND SHALL MEET ALL THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS OF MAWSS.
 7. FITTINGS UTILIZED IN THIS PROJECT SHALL BE CAST OR DUCTILE IRON MECHANICAL JOINT. FITTINGS SHALL BE INSTALLED AS CALLED FOR IN THE PLANS. THE COST OF ALL FITTINGS SHALL BE PAID FOR AT THE UNIT BID PRICE.
 8. WHERE ANCHORING FITTINGS ARE NOT UTILIZED THE CONTRACTOR SHALL PROVIDE CONCRETE THRUST BLOCKS. THE THRUST BLOCKS SHALL BE LOCATED AS APPROVED BY THE ENGINEER. THE MINIMUM SIZE SHALL BE 2.5 FT. BEARING AGAINST UNDISTURBED EARTH. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE WATER PIPE.
 9. WHERE NEW WATER LINES CROSS OR INTERSECT STORM DRAINS (OR OTHER UTILITY LINES), THE WATER LINES SHALL CROSS ABOVE THE STORM DRAIN (OR OTHER UTILITY LINE) WHERE 24" MINIMUM COVER CAN BE PROVIDED. OTHERWISE THE WATER LINES SHALL PASS BELOW THE STORM DRAIN WITH A MINIMUM OF 1' CLEARANCE BETWEEN THE PIPES. FITTINGS MAY BE USED AS INDICATED ON THE DRAWINGS OR THE PIPE SECTIONS MAY BE DEFLECTED TO THE MAXIMUM MANUFACTURER RECOMMENDED DEFLECTION PER JOINT TO ACCOMPLISH THE CHANGE IN DEPTH REQUIRED BY THE CONFLICT.
 10. BORROW EXCAVATION (210-D) SHALL BE UTILIZED TO BACKFILL WATER AND SEWER LINE TRENCHES. WHERE BORROW EXCAVATION IS UTILIZED, EXISTING SOIL MATERIALS SHALL BE REMOVED FROM THE SITE OR WASTED ON-SITE, WHERE APPROVED THE COST OF THIS WORK SHALL BE A SUBSIDIARY OBLIGATION OF ITEM 210-D. NO DIRECT PAYMENT WILL BE MADE.
 11. ALL FITTINGS, VALVES, AND PIPE EXPOSED TO POTABLE WATER SHALL BE SWABBED WITH A HIGH CONCENTRATION OF CHLORINE SOLUTION PRIOR TO INSTALLATION. CARE MUST BE TAKEN TO INSURE THAT ANY NEWLY INSTALLED VALVE IS PROPERLY RESTRAINED BEFORE THE WATER IS TURNED ON AGAINST THE VALVE.
 12. COORDINATE ALL FIELD WORK WITH MAWSS INSPECTOR (TO BE DETERMINED). PROVIDE NOTICE TO HIM 24 HOURS IN ADVANCE OF BEGINNING FIELDWORK. ALL WATER AND SEWER FACILITY TESTING MUST BE WITNESSED BY A MAWSS INSPECTOR. THE CONTRACTOR MUST CALL MAWSS 24 HOURS PRIOR TO ANY TESTING. TESTING MUST BE PERFORMED ON MONDAY THROUGH FRIDAY, 7:00 AM TO 5:30 PM.
 13. MAINTAIN 10 FOOT MINIMUM HORIZONTAL SEPARATION BETWEEN WATER AND SEWER LINES (INCLUDING SERVICE LINES). AT CROSSINGS, THE SEWER MAIN SHALL CROSS BELOW THE WATER LINE WITH A VERTICAL CLEARANCE OF 24" MINIMUM.
 14. PLAN REVIEW AND CONNECTION FEES ARE REQUIRED FOR THIS PROJECT BEFORE IT CAN BE ACCEPTED FOR MAINTENANCE BY THE BOARD. CONTACT MR. ALLEN TYREE (251-694-3161) FOR FEES.
 15. PLEASE NOTE THE BOARD'S STANDARD SPECIFICATIONS REQUIRE A TWO-YEAR WARRANTY ON ALL FACILITIES ACCEPTED BY THE BOARD. THE WARRANTY BEGINS ON THE DATE THE BOARD ACCEPTS THE FACILITIES.



SEE SHEET C1.0 FOR TREE LEGEND.

SPEAKS & ASSOCIATES
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MOBILE, ALABAMA 36609
PHONE: (251)666-4646, FAX: (251)666-8868
JOB NO.: 22-0502 F.B.: N/A



REVISIONS

| NO. | DATE | REMARKS |
|-----|----------|-------------|
| | 9-28-22 | IFB |
| △ | 10-26-22 | ADDENDUM 03 |

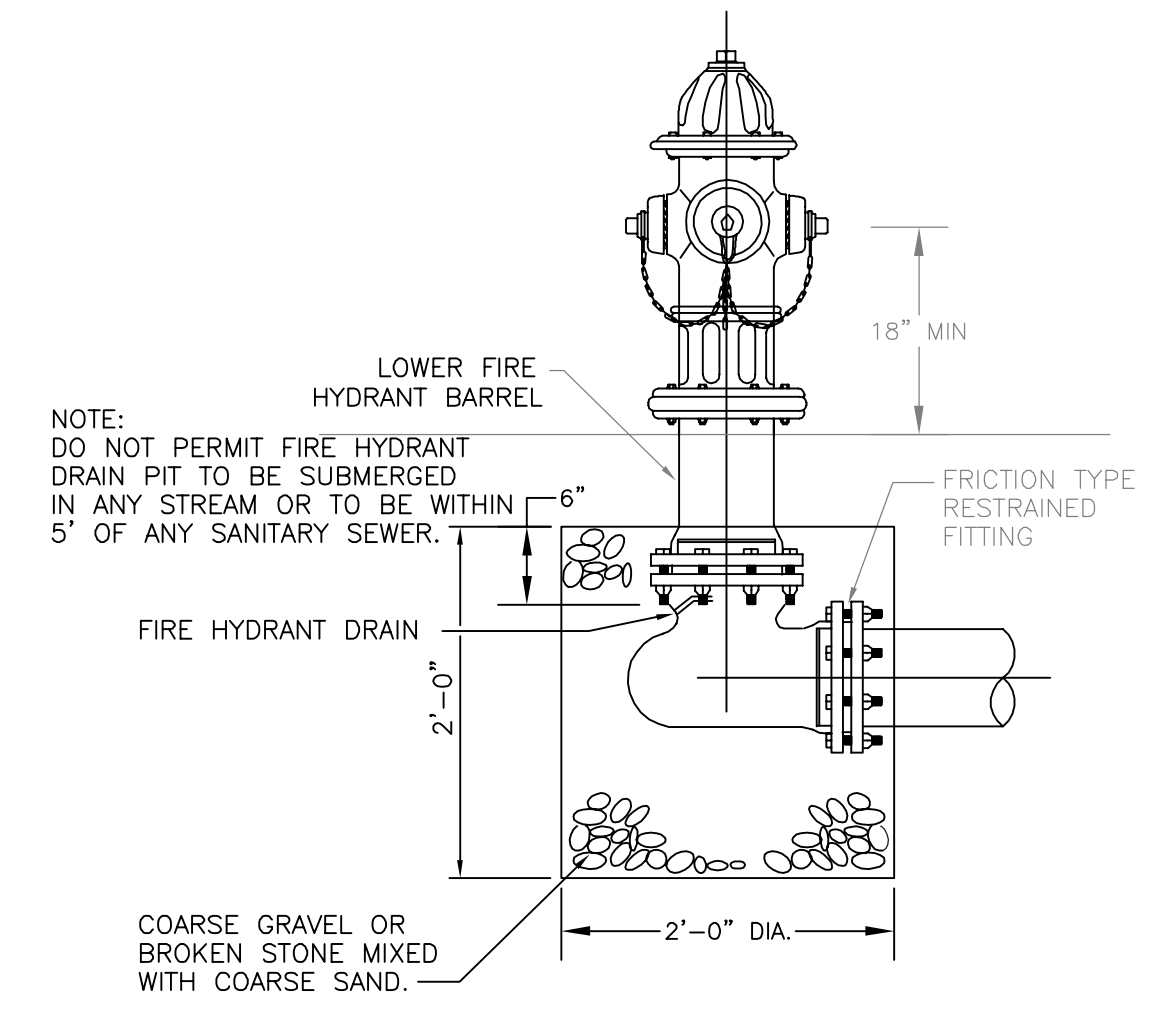
SHEET TITLE
WATERLINE IMPROVEMENTS

JOB NO. 2113

DATE: SEPT. 28, 2022

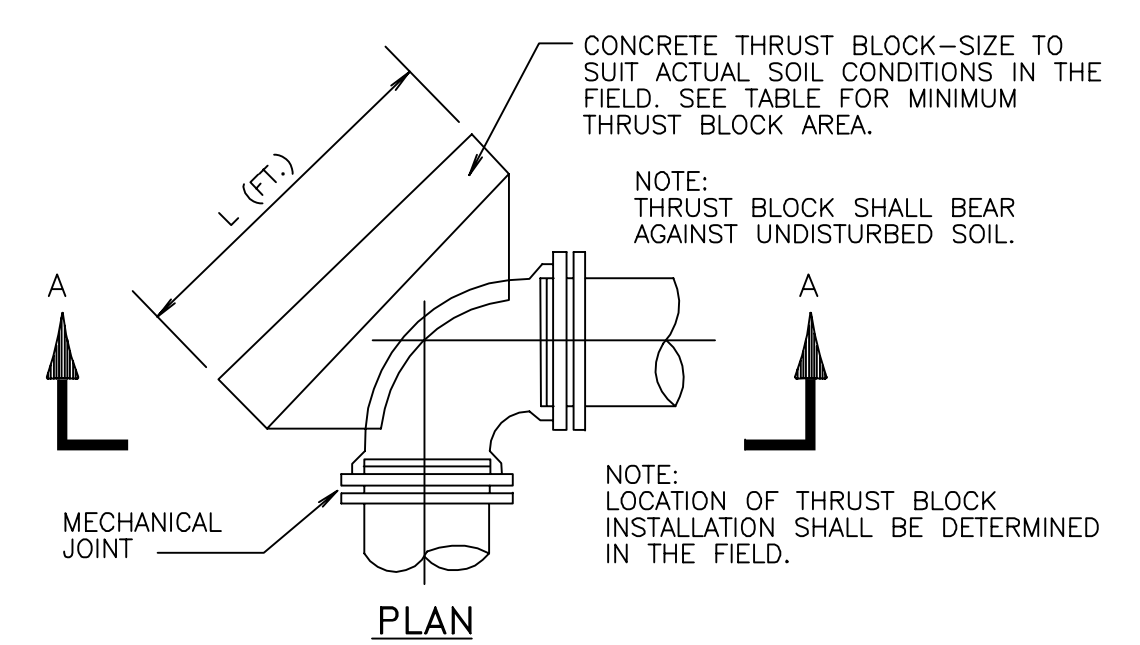
SHEET

C4.0

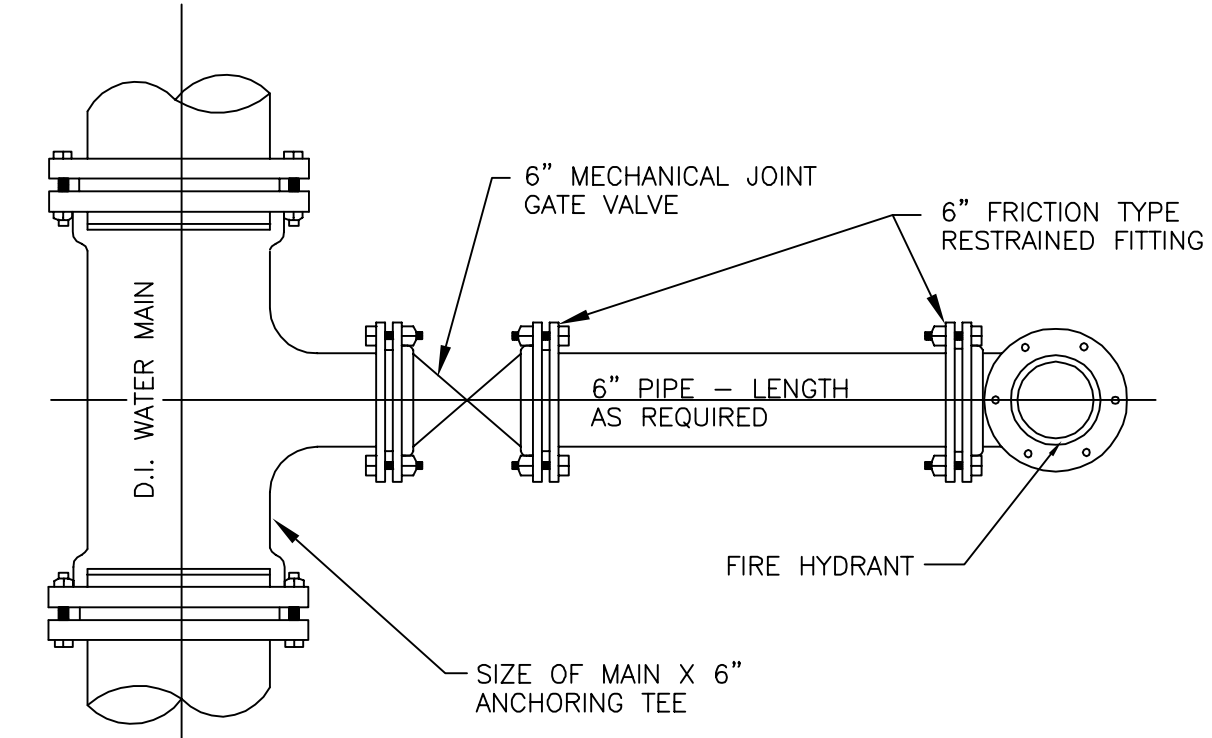


TYPICAL FIRE HYDRANT DRAIN PIT

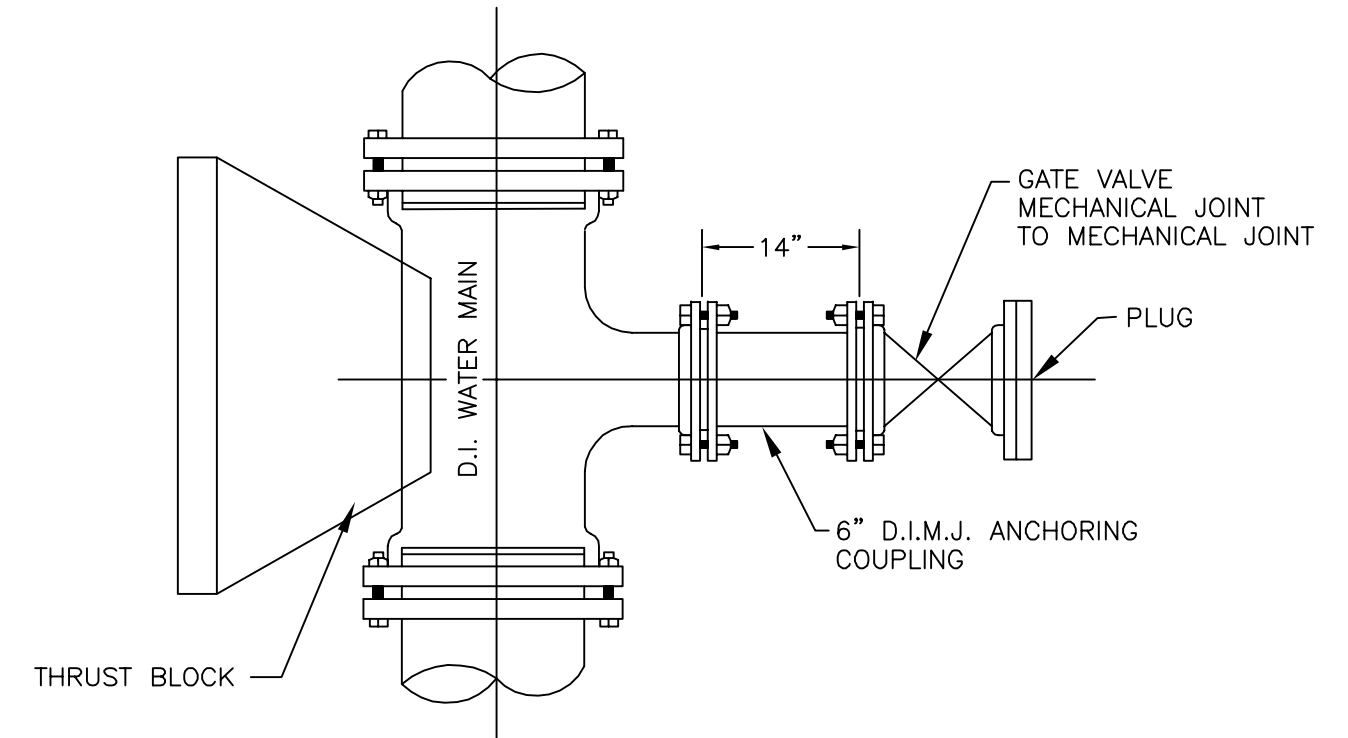
| TYPICAL THRUST BLOCKS MINIMUM THRUST BLOCK AREA SQ. FT. L (FT.) X H (FT.) | | | |
|--|-----------|-------------------------------|---------------|
| INSIDE DIA. PIPE LINE IN INCHES | 90° BENDS | TEES, DEAD ENDS, OR 45° BENDS | 22 1/2° BENDS |
| 6" | 3.0 | 2.2 | 1.0 |
| 8" | 5.5 | 4.0 | 1.5 |
| 10" | 8.5 | 6.0 | 2.5 |
| 12" | 12.0 | 9.0 | 3.5 |
| 16" | 22.0 | 16.0 | 6.0 |
| 18" | 27.0 | 20.0 | 8.0 |
| 20" | 34.0 | 24.0 | 10.0 |
| 24" | 48.0 | 34.0 | 14.0 |
| 30" | 75.0 | 53.0 | 21.0 |



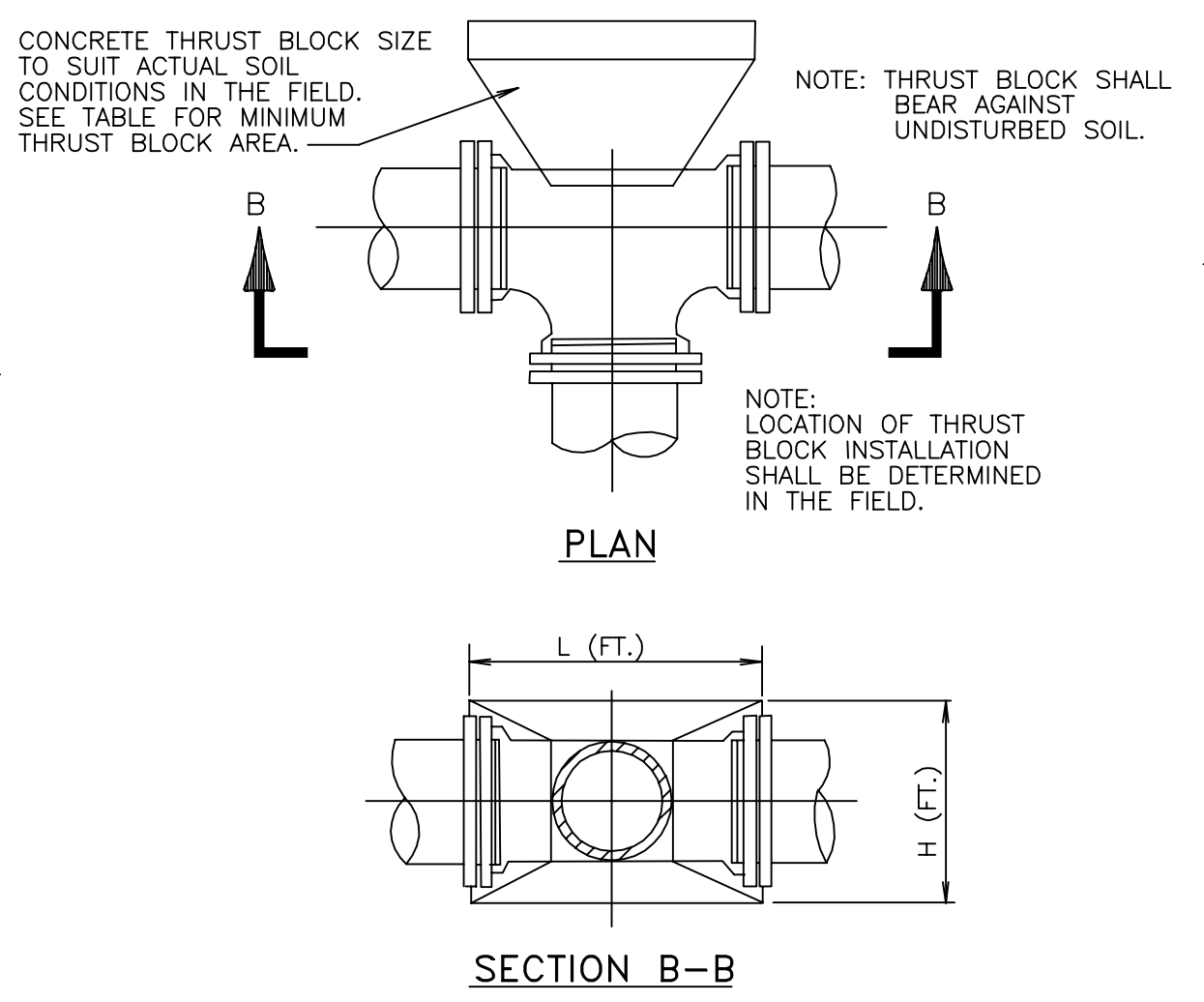
TYPICAL THRUST BLOCK DETAIL FOR BENDS



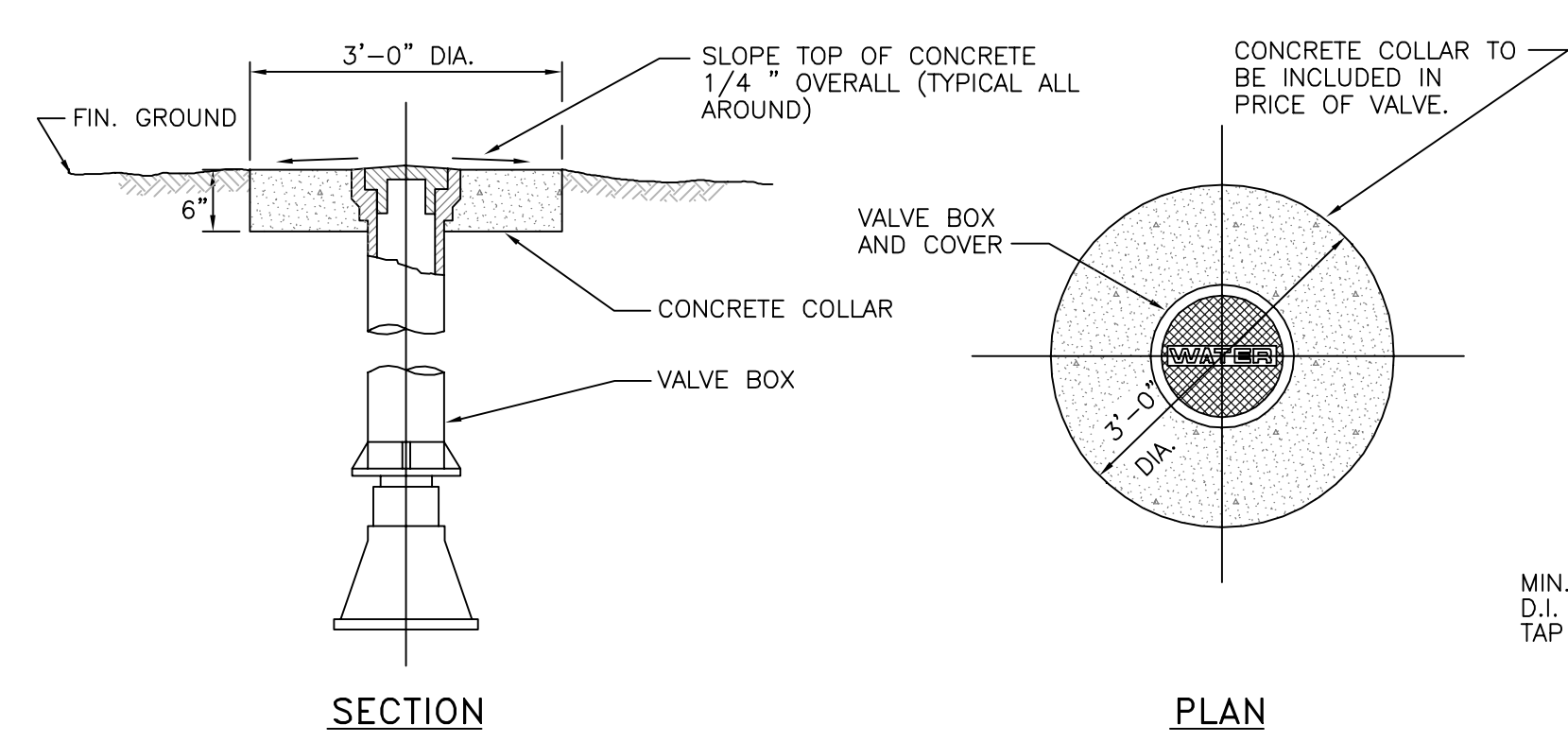
FIRE HYDRANT CONNECTION TO WATER MAIN (TYPICAL)



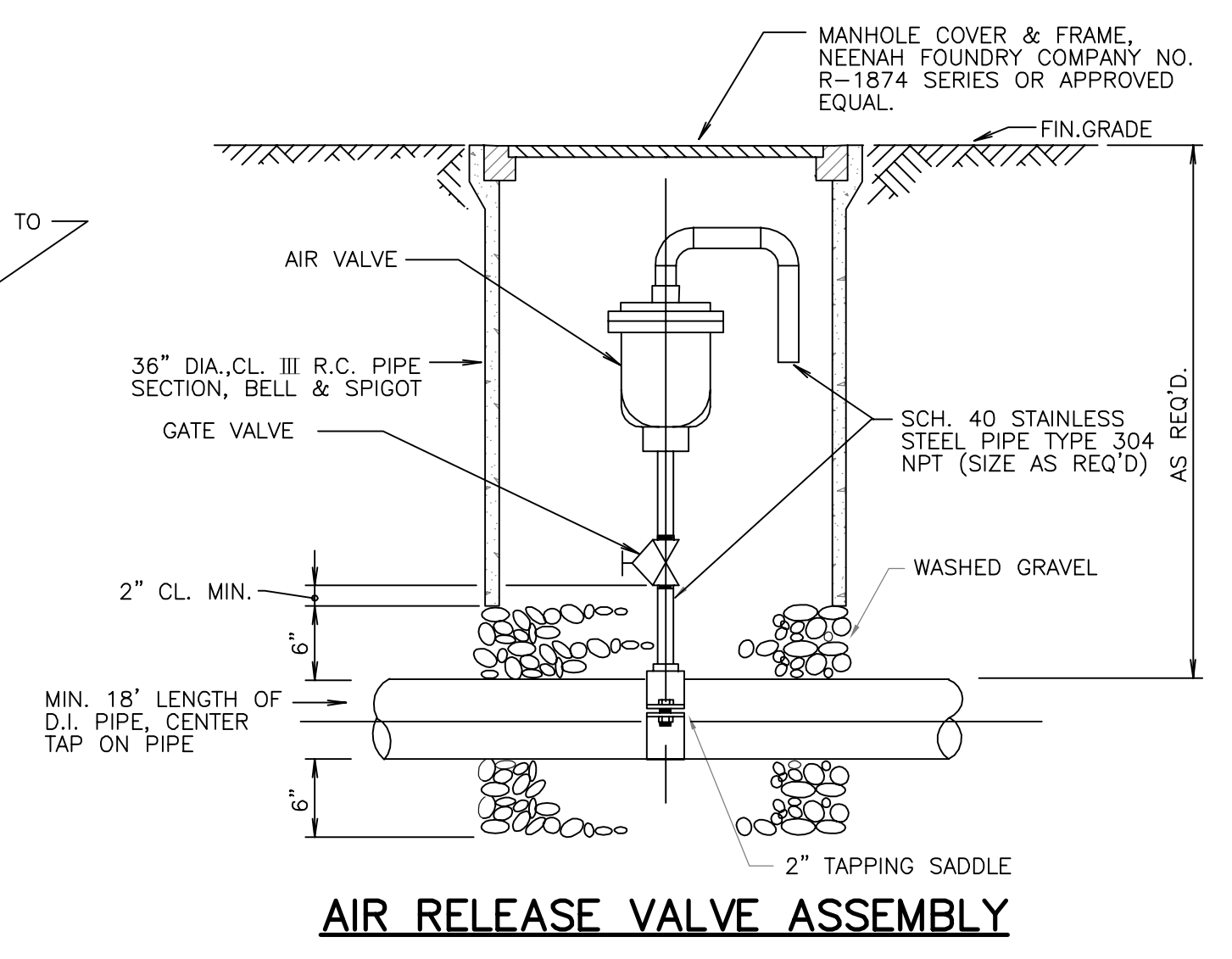
STUBOUT FOR FUTURE CONNECTION (TYPICAL)



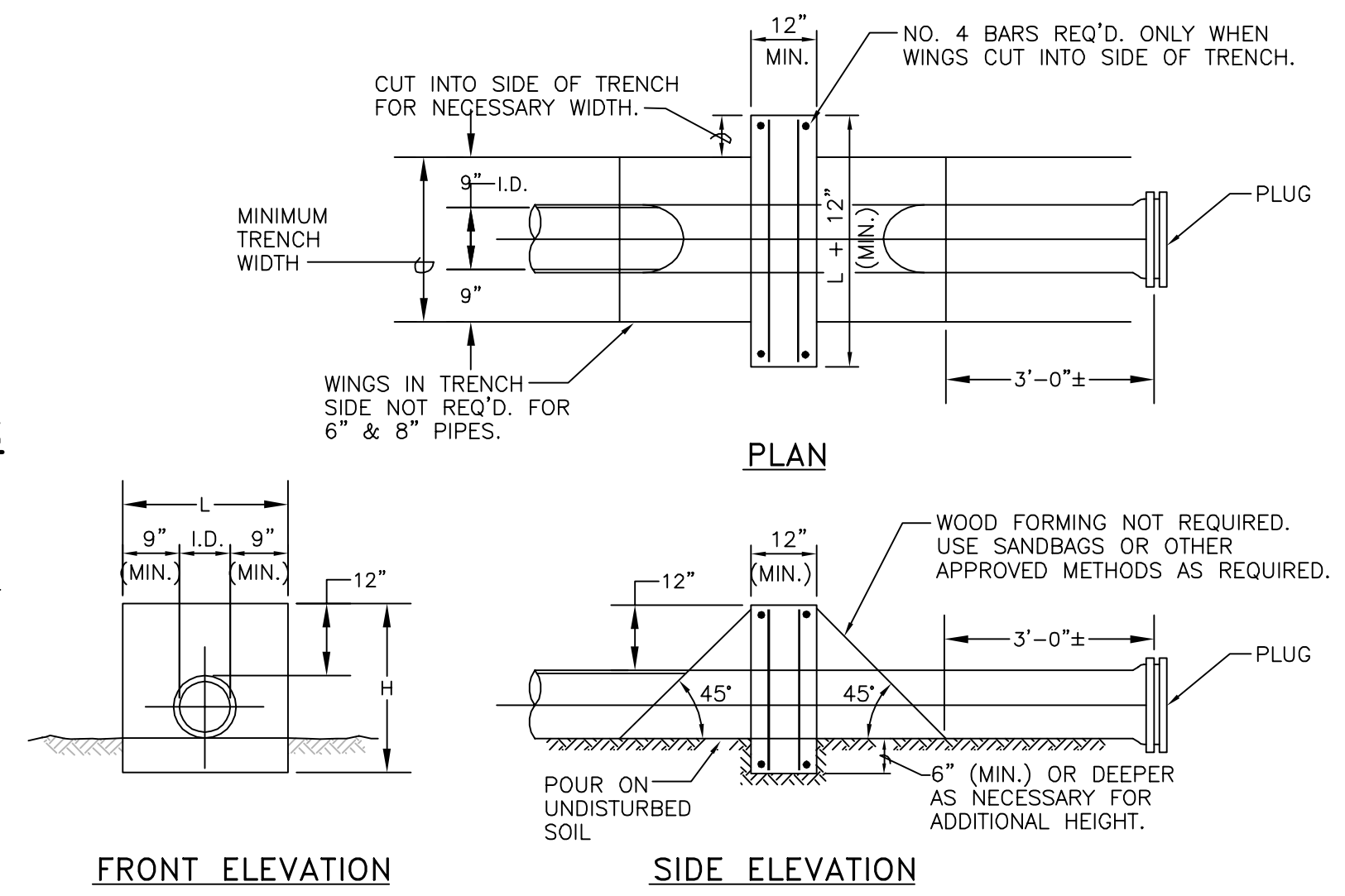
TYPICAL THRUST BLOCK DETAIL FOR TEES



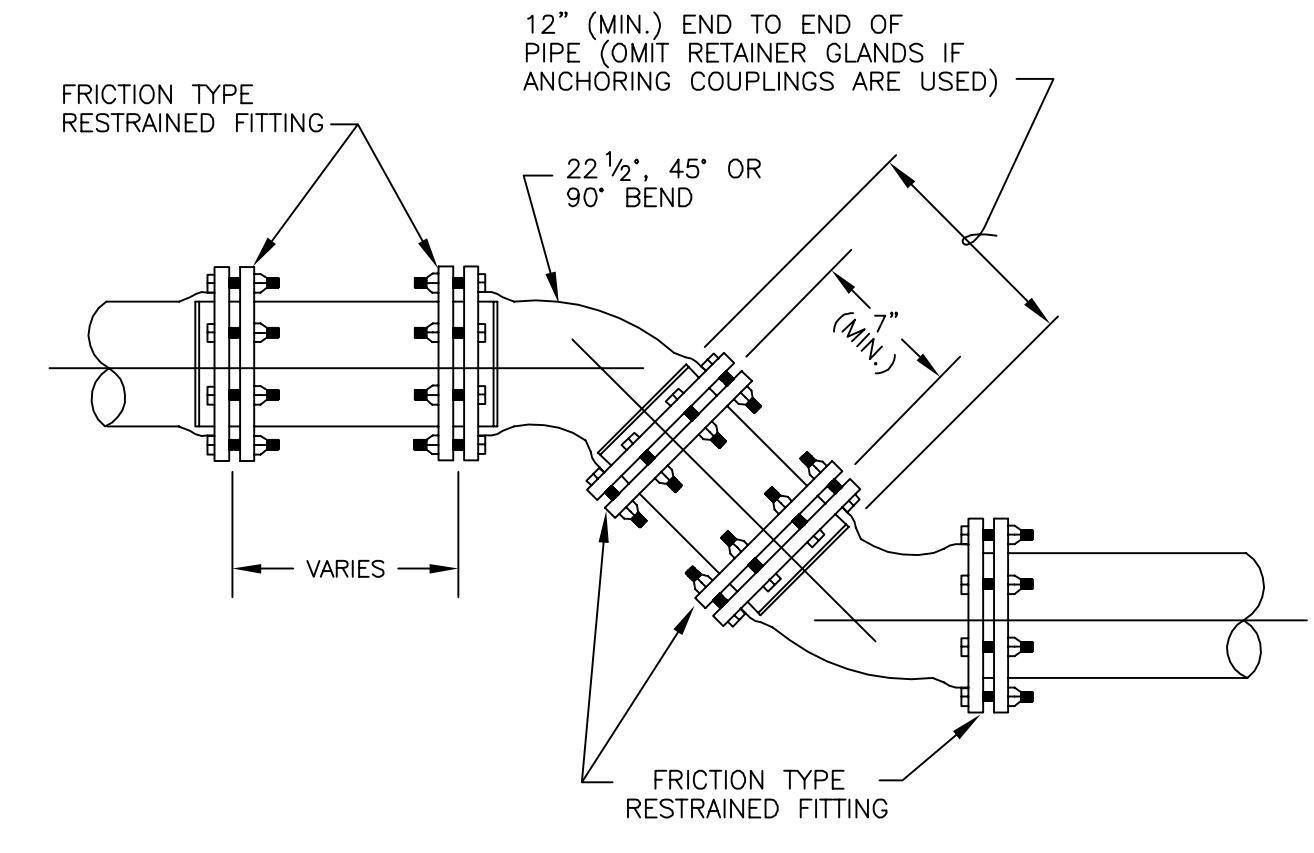
VALVE BOX COLLAR DETAIL



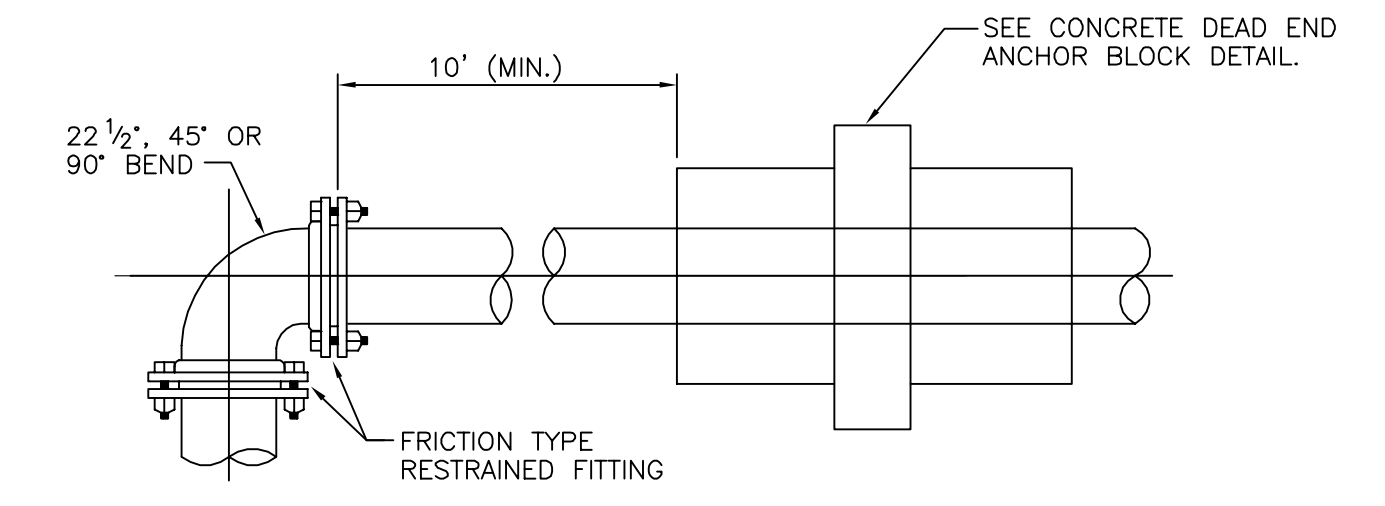
AIR RELEASE VALVE ASSEMBLY



CONCRETE DEAD END ANCHOR BLOCK DETAILS



ANCHORING OF VERTICAL OR HORIZONTAL BENDS WHERE THRUST BLOCKS ARE NOT DESIRED

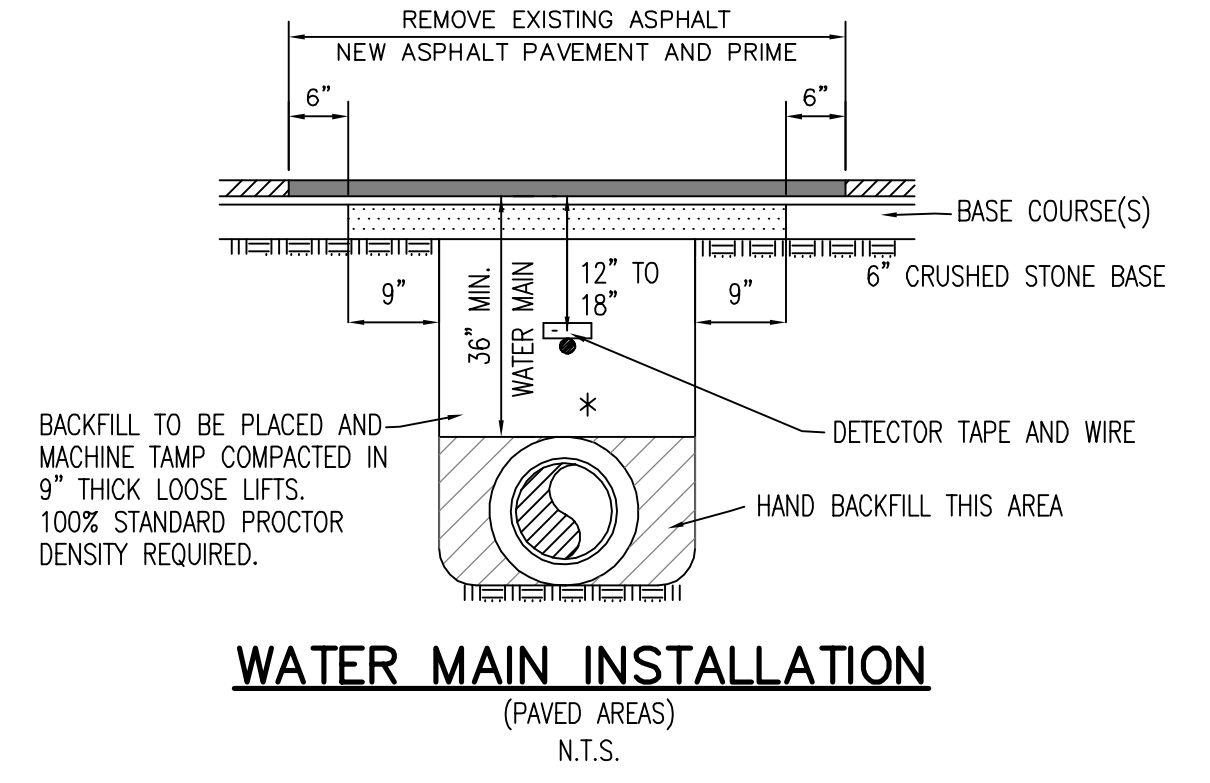


ANCHORAGE OF BENDS WHERE THRUST BLOCKS ARE NOT DESIRED — DEAD END ANCHORS

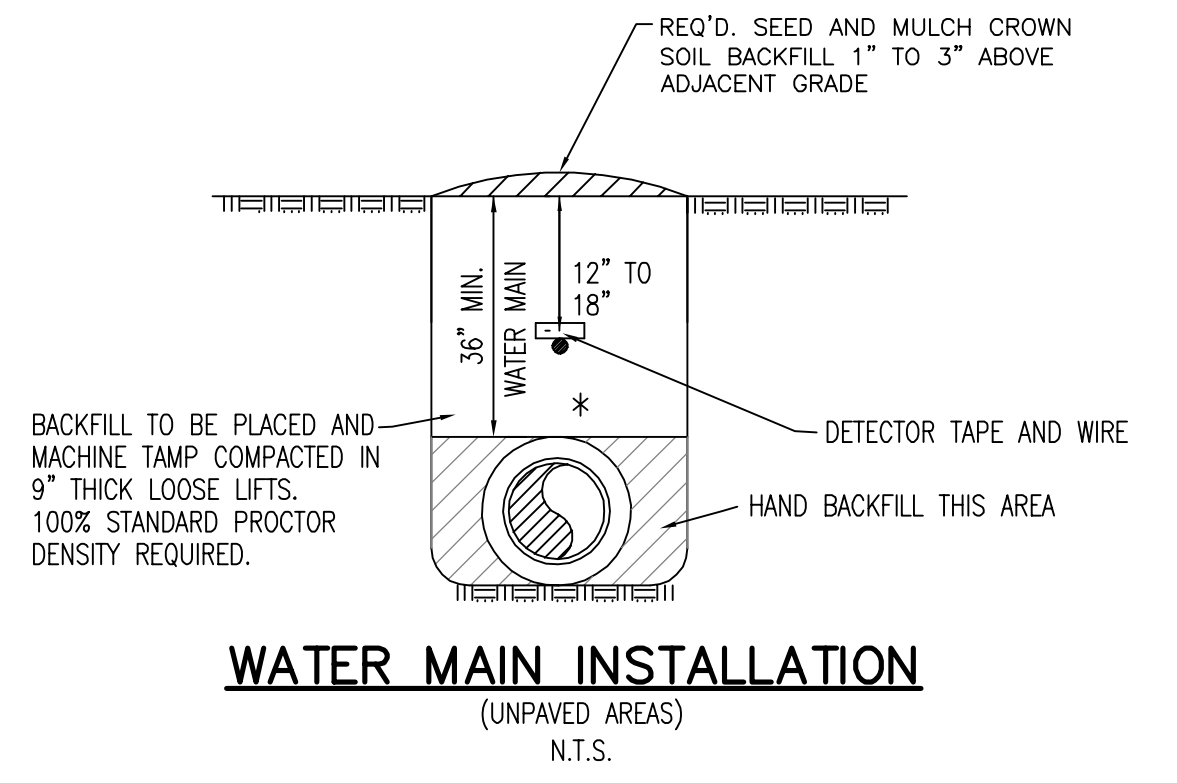
NOTES:

- ALL FITTINGS SHALL BE MECHANICAL JOINT CAST OR DUCTILE IRON WITH A MINIMUM OF 250 P.S.I. PRESSURE RATING MEETING THE REQUIREMENTS OF ANSI/AWWA-C110/A21.10 AND/OR ANSI/AWWA-C111/A21.11 STANDARDS.
- TRANSITION SLEEVES FOR DUCTILE IRON TO P.V.C. PIPE SHALL BE MECHANICAL JOINT CAST IRON WITH ALL REQUIRED GASKETS AND OTHER COMPONENTS.
- THRUST BLOCKS SHALL BE UTILIZED AT THE LOCATION OF TEES, BENDS, DEAD ENDS, AND OTHER LOCATIONS AS INDICATED HEREON. THRUST BLOCKS SHALL BE PLACED ON UNDISTURBED EARTH NEATLY TRIMMED, COMPACTED, AND PREPARED TO RECEIVE CONCRETE. CONCRETE SHALL BE 2,500 PSI MINIMUM AT 28 DAYS TEST. (SAK-CRETE OR OTHER PREMIXED MATERIALS ARE NOT ACCEPTABLE).
- THE COLOR OF THE FIRE HYDRANT BARRELS SHALL BE CHROME YELLOW

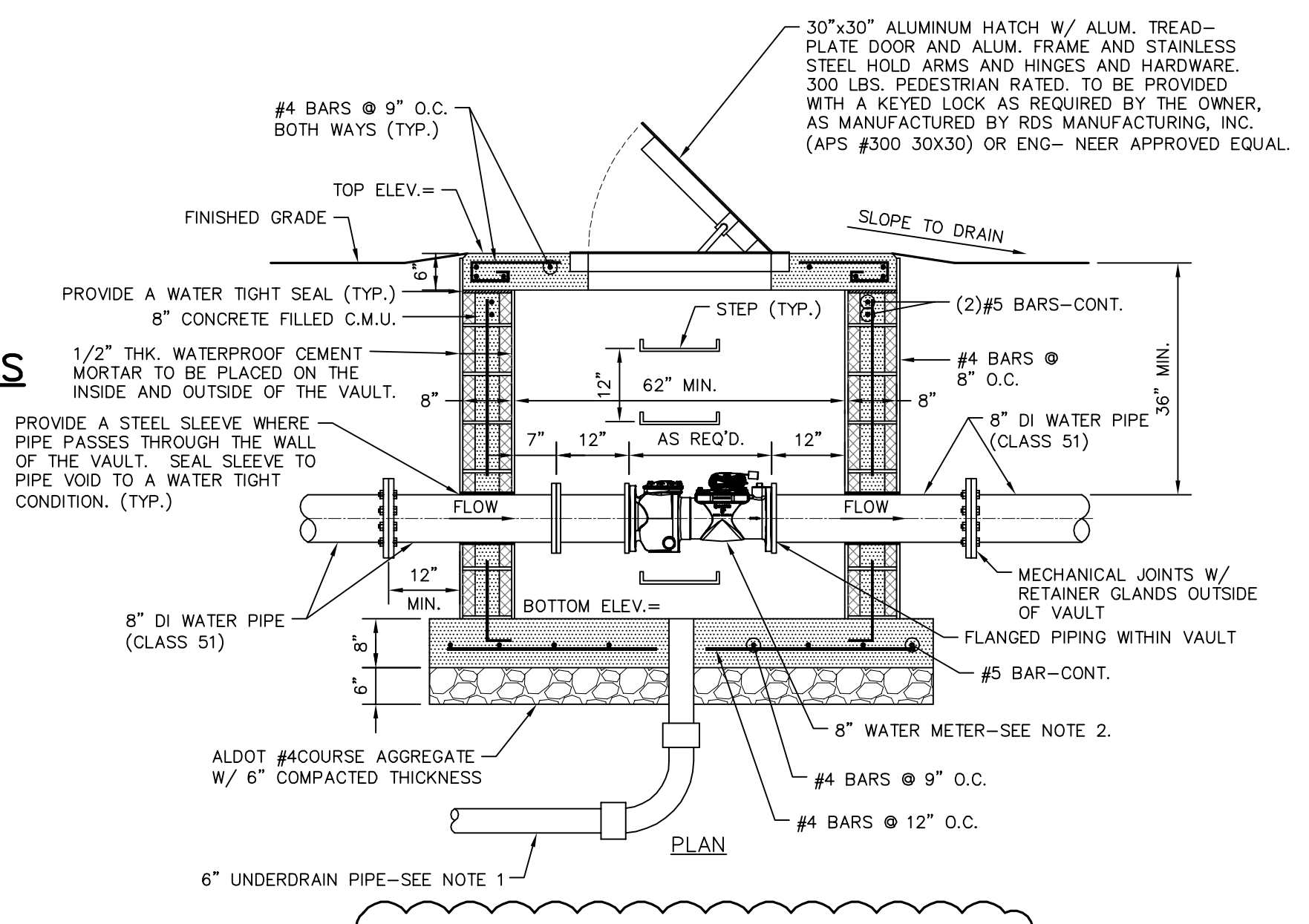
*NOTE:
MACHINE TRENCHING WILL BE ALLOWED; HOWEVER, SUFFICIENT CLEAR DISTANCE WILL BE REQUIRED SUCH THAT THE PIPE REST ON TRENCH BOTTOM AT ALL LOCATIONS.
 THIS REQUIREMENT WILL BE STRICTLY ENFORCED.



WATER MAIN INSTALLATION (PAVED AREAS)



WATER MAIN INSTALLATION (UNPAVED AREAS)



WATER METER AND VAULT DETAIL

NOTES:

- INCLUDED IN THE COST OF THE METER VAULT SHALL BE 50 L.F. OF 6" UNDERDRAIN PIPE AS A DRAIN LINE FROM THE METER VAULT.
- THE WATER METER REGISTER SHALL READ IN GALLONS AND SHALL BE IN ACCORDANCE WITH MAWSS REQUIREMENTS.
- PROVIDE 0.25" THICK STEEL PIPE SLEEVES AT ALL PIPING PENETRATIONS OF VAULT WALLS. SEAL TO WATER-TIGHT.
- TOP AND BOTTOM ELEVATION FOR VAULT TO BE FIELD SET BY ENGINEER PRIOR TO CONSTRUCTION.



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 PHONE: (251) 668-4646, FAX: (251) 668-8868
 JOB NO. : 22-0502 F.B. : N/A

REVISIONS

| NO. | DATE | REMARKS |
|-----|----------|-------------|
| | 9-28-22 | IFB |
| △ | 10-26-22 | ADDENDUM 03 |

SHEET TITLE
MAWSS WATERLINE DETAILS

JOB NO. 2113

DATE: SEPT. 28, 2022

SHEET

C4.1