

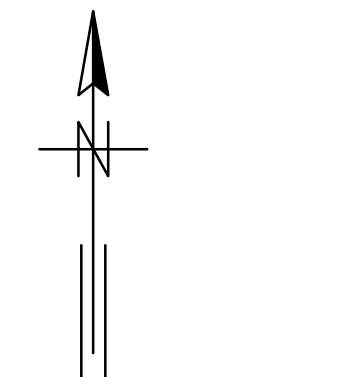
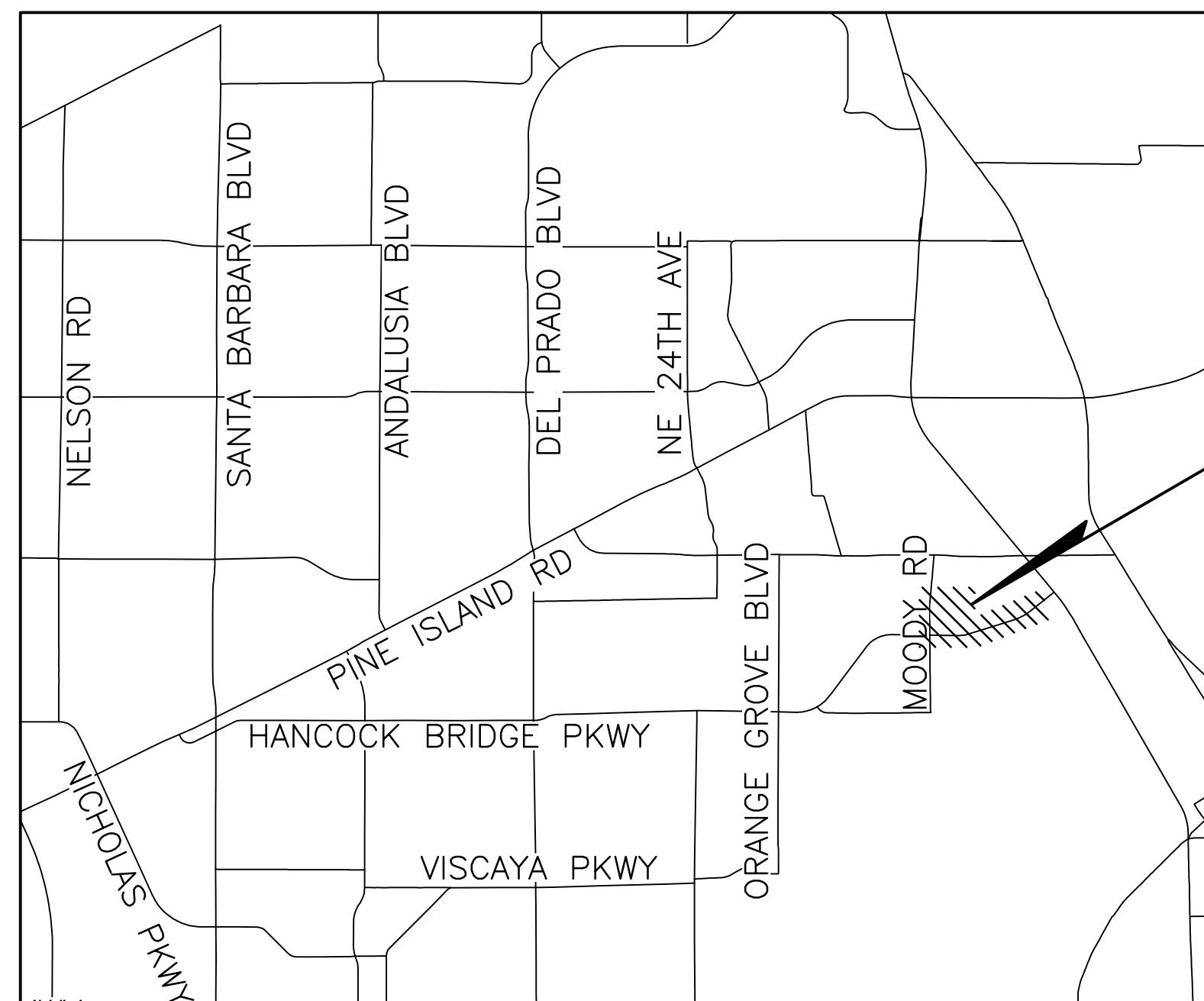
LEE COUNTY BOARD OF COUNTY COMMISSIONERS

LEE COUNTY UTILITIES

HANCOCK BRIDGE WATER MAIN IMPROVEMENTS CONSTRUCTION PLANS CONTRACT NO. 7121

SHEET INDEX

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PROJECT
LOCATION

SECTIONS 7 & 8, TOWNSHIP 46 S. RANGE 24 E
LEE COUNTY, FLORIDA

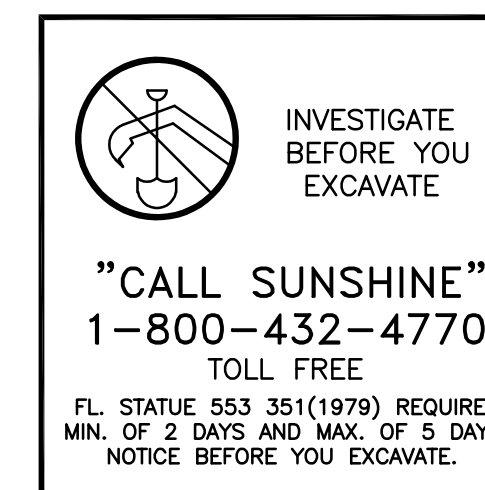
100% SUBMITTAL



5252 SUMMERLIN COMMONS WAY, SUITE 104
FORT MYERS, FLORIDA 33907

CERTIFICATE OF AUTHORIZATION NO. 37

DECEMBER 2018



LEE COUNTY COMMISSIONERS

- DIST. 1. JOHN MANNING
- DIST. 2. CECIL L. PENDERGRASS
- DIST. 3. LARRY KIKER
- DIST. 4. BRIAN HAMMAN
- DIST. 5. FRANK MANN

ATTENTION IS DIRECTED TO THE FACT THAT
THESE PLANS MAY HAVE BEEN REDUCED IN
SIZE THROUGH REPRODUCTION. THIS MUST BE
CONSIDERED WHEN OBTAINING SCALED DATA.

THIS IS TO CERTIFY THAT THESE PLANS AND
THE ASSOCIATED CONSTRUCTION PROJECTS
ARE IN SUBSTANTIAL COMPLIANCE WITH THE
LEE COUNTY LAND DEVELOPMENT CODE WITH
THE EXCEPTION OF THE FOLLOWING DEVIATIONS
WHICH HAVE BEEN APPROVED BY THE
DIRECTOR OF PUBLIC WORKS:

DATE _____ THOMAS REED MERIWETHER, P.E.
FLORIDA P.E. #75938

DEVELOPMENT ORDER APPROVED:
PUBLIC WORKS ADMINISTRATION

DATE _____ DIRECTOR OF PUBLIC WORKS

GENERAL NOTES

- THE CONTRACTOR SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF LEE COUNTY UTILITY STANDARDS.
- HORIZONTAL CONTROL FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE, NORTH AMERICAN DATUM OF 1983 (NAD 83).
- ALL ELEVATIONS ARE REFERENCED TO NAVD 1988 DATUM AND WERE DERIVED FROM NATIONAL GEODETIC SURVEY BENCHMARK V247' USING THE PUBLISHED ELEVATION OF 10.77 FEET.
- LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES BY CALLING THE UTILITY NOTIFICATION CENTER (1-800-432-4770) OR, IF NECESSARY, BY CONTACTING THE UTILITIES INDIVIDUALLY.
- WHERE THE WATER MAIN CROSSES A FORCE MAIN, 18 INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED UNLESS OTHERWISE SHOWN. VERTICAL ADJUSTMENTS SHALL BE MADE AS REQUIRED TO ACHIEVE MINIMUM CLEARANCES REQUIRED PER REGULATIONS.
- CONTRACTOR SHALL INSTALL THE UTILITIES TO THE ELEVATIONS SHOWN WITH NO INTERMEDIATE HIGH POINTS. ALL BURIED UTILITIES SHALL BE CONSTRUCTED WITH A MINIMUM OF 36 INCHES OF COVER.
- EXISTING UTILITIES AND PROPERTIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED IN KIND AND/OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- DAMAGE TO AND REMOVAL OF EXISTING DRAINAGE PIPES AND STRUCTURES SHALL BE REPLACED WITH NEW MATERIAL AT THE CONTRACTOR'S EXPENSE. ALL DAMAGED PIPES SHALL BE OF THE EQUIVALENT DIAMETER OF THE EXISTING DRAINAGE PIPE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL PROPERTY LINE MARKERS (IRON PINS, CONCRETE MONUMENTS, ETC.) DESTROYED DURING CONSTRUCTION SHALL BE REPLACED IN-KIND BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO RESET PROPERTY MARKERS.
- ALL INTERCONNECTIONS TO EXISTING UTILITY MAINS SHALL BE SCHEDULED AT LEAST TWO WEEKS IN ADVANCE WITH THE LEE COUNTY UTILITIES (LCU).
- THE CONTRACTOR SHALL USE CAUTION IN CONSTRUCTION ADJACENT TO THE EXISTING UTILITIES. ANY INTERRUPTION OF EXISTING UTILITY SERVICES RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL PROMPTLY BE RESTORED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER.
- ALL BURIED WATER MAINS INSTALLED BY HORIZONTAL DIRECTIONAL DRILLING SHALL BE HDPE DR 9.
- ALL BURIED WATER MAINS LARGER THAN 12" IN DIAMETER INSTALLED BY OPEN-CUT SHALL BE DIP PRESSURE CLASS 250, CONFORMING TO ANSI/AWWA C151, WITH CEMENT MORTAR LINING CONFORMING TO ANSI/AWWA C104.
- ALL BURIED WATER MAINS 4" THROUGH 12" IN DIAMETER INSTALLED BY OPEN-CUT SHALL BE PVC, AWWA C-900, DR-18, CLASS 150.
- ALL BURIED WATER SERVICES 2" THROUGH 4" IN DIAMETER SHALL BE PVC SCHEDULE 80 WITH A PRESSURE RATING OF 200.
- ALL BURIED WATER SERVICES LESS THAN 2" IN DIAMETER SHALL BE HDPE ENDOPURE PE4710 WITH ULTRAVIOLET INHIBITORS, NSF14 APPROVED, CTS BLUE PE4710 AS MANUFACTURED BY ENDOT INDUSTRIES OR APPROVED EQUAL.
- MAINTENANCE OF TRAFFIC SHALL BE ACCOMPLISHED USING THE APPROPRIATE TYPICAL APPLICATIONS OF INDEXES 600 THROUGH 660 OF THE FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS", LATEST EDITION. SEE NOTES ON THIS SHEET.
- EROSION AND SEDIMENT CONTROL SHALL BE ACCOMPLISHED USING THE APPROPRIATE TYPICAL APPLICATIONS OF INDEXES 102 AND 103 OF THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS LATEST EDITION.
- THE LIMITS OF CONSTRUCTION AND SURFACE RESTORATION SHOWN ON THE PLANS APPLIES TO EXCAVATION, STORAGE OF SPOIL MATERIAL, AND SURFACE RESTORATION. ANY DAMAGE OUTSIDE OF THE AREAS SHOWN SHALL BE REPAIRED IN KIND OR BETTER AND/OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- LEE COUNTY UTILITIES (LCU) STANDARD NOTES:
 - ALL WORK SHALL CONFORM TO LATEST REVISION OF THE LEE COUNTY UTILITIES OPERATIONAL MANUAL WHICH IS ON FILE AT THE DIVISION OF LCU OFFICE (1500 MONROE STREET, P.O. BOX 398, FORT MYERS, FLORIDA 33902).
 - ANY QUANTITIES SHOWN ON PLANS ARE NOT VERIFIED BY LCU.
 - AT THE SITE KEEP AND MAINTAIN ONE RECORD COPY OF ALL CONTRACT DOCUMENTS, REFERENCE DOCUMENTS, PERMITS AND ALL TECHNICAL DOCUMENTS SUBMITTED IN GOOD ORDER. RECORD IN THE PLANS THE EXACT LOCATION OF ALL CHANGES IN VERTICAL AND HORIZONTAL ALIGNMENT BY OFFSETS AND TIES AT EACH; SEWER, WATER, ELECTRIC, GAS, COMMUNICATION AND OTHER SERVICES BY OFF-SET DISTANCE TO PERMANENT IMPROVEMENTS SUCH AS BUILDINGS AND CURBS.
 - CONTRACTOR TO PROVIDE ACCURATE AS BUILT INFORMATION THAT SHALL INCLUDE VERTICAL AND HORIZONTAL ALIGNMENT OF ALL WATER, SEWER, AND EFFLUENT REUSE LINES, VALVES, TEES, BENDS, REDUCERS, HYDRANTS, PUMP STATIONS, SERVICE CONNECTIONS, METER BOXES AND/OR PADS, AND OTHER PERTINENT STRUCTURES. PIPELINE RUNS IN EXCESS OF 152.4M, (500'), WITHOUT FITTINGS SHALL INCLUDE VERTICAL ALIGNMENT INFORMATION AT 152.4M, (500') INTERVALS. SAID ALIGNMENT SHALL BE TIED TO PERMANENT IMPROVEMENTS, SUCH AS ROADWAY AND/OR RAILROAD CENTERLINES AND RIGHTS-OF-WAY, BUILDING AND PROPERTY CORNERS, AND SHALL BE CERTIFIED BY A PROFESSIONAL LAND SURVEYOR, LICENSED IN THE STATE OF FLORIDA. THE PROFESSIONAL LAND SURVEYOR CAN COORDINATE WITH THE CONTRACTOR TO INSTALL THE NECESSARY APPURTENANCES ON BURIED UTILITIES TO FACILITATE THE SURVEY AFTER CONSTRUCTION IS COMPLETED. IN ADDITION, PROPERTY STRAP NUMBERS AND STREET NAMES SHALL BE SHOWN ON THE PLAN.
 - ALL WORK AND MATERIALS, WHICH DO NOT CONFORM TO LCU SPECIFICATIONS, ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. ANY WORK PERFORMED WITHOUT THE KNOWLEDGE OF LCU IS SUBJECT TO RE-EXCAVATION, REMOVAL AND REPLACEMENT OF SAME TO BE DONE AT THE CONTRACTOR'S EXPENSE.
 - THE CONTRACTOR SHALL PROVIDE SUFFICIENT PERSONNEL AND EQUIPMENT ON THE JOB AT ALL TIMES DURING CONSTRUCTION TO SATISFY THE SPECIFICATIONS AND TO COMPLETE WORK ACCORDING TO THE APPROVED SCHEDULE.
 - LCU INSPECTION STAFF MAY OBSERVE PROJECT CONSTRUCTION.
 - THE CONTRACTOR IS TO UNCOVER ALL EXISTING LINES BEING TIED INTO AND VERIFY GRADES BEFORE BEGINNING CONSTRUCTION.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND TAKE ALL POSSIBLE PRECAUTIONS TO AVOID ANY DAMAGE TO ALL UNDERGROUND PIPELINES, TELEPHONE, CABLE TV, ELECTRIC LINES/CONDUITS AND STRUCTURES IN ADVANCE OF ANY CONSTRUCTION. LCU WILL NOT GUARANTEE ANY LOCATIONS AS SHOWN ON THESE PLANS OR THOSE OMITTED FROM THESE PLANS. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PROTECT EXISTING UTILITIES AND STRUCTURES.
 - CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND LCU IF ANY DISCREPANCIES IN QUANTITIES ARE FOUND.
 - ALL REGULATORY AND PERMITTING AGENCIES' REQUIREMENTS SHALL BE COMPLIED WITH.
 - APPROPRIATE TURBIDITY CONTROL DEVICES (E.G. SILT FENCES, HAY BALES) WILL BE UTILIZED DURING ALL PHASES OF INSTALLATION AND GRADING. CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THE NOTICE OF INTENT AND NOTICE OF TERMINATION TO THE EPA IN COMPLIANCE WITH LEE COUNTY'S NPDES PERMIT. CONTRACTOR IS RESPONSIBLE FOR DEVELOPING AND MAINTAINING AN EFFECTIVE STORM WATER POLLUTION PREVENTION PLAN.
 - IN THE EVENT THAT HARD LIMESTONE FORMATION IS ENCOUNTERED, MAKING IT IMPOSSIBLE TO EXCAVATE TO THE DEPTH REQUIRED UNDER THIS CONTRACT, THE CONTRACTOR MAY BE ALLOWED TO REDUCE THE PIPE COVER TO NOT LESS THAN TWO (2) FEET WHILE MAINTAINING THE LCU REQUIRED THICKNESS OF BEDDING UNDER THE PIPE. SUCH DEVIATION FROM THE PLANS MUST FIRST BE APPROVED BY LCU AND THE ENGINEER PRIOR TO THE PIPE LAYING. IF TWO FEET OF COVER OR MORE CANNOT BE ATTAINED, THE CONTRACTOR SHALL PROVIDE OTHER METHOD OF CONSTRUCTION OR PIPE PROTECTION WHICH SHALL FIRST BE APPROVED BY LCU AND THE ENGINEER, AT NO ADDITIONAL COST TO THE COUNTY.
- DISTANCES ARE IN FEET AND DECIMALS THEREOF.
- LINES SHOWN ON THE PLANS REPRESENTING RIGHT-OF-WAY LINES, PROPERTY LINES AND EASEMENT LINES ARE BASED ON SUBDIVISION PLATS, DEEDS OF RECORD AND FOUND MONUMENTATION. THESE LINES ARE APPROXIMATE IN THAT INDIVIDUAL LINES HAVE NOT BEEN SURVEYED ON THE GROUND.
- SOIL BORING LOCATIONS ARE SHOWN ON PLANS FOR REFERENCE ONLY. SEE ARDAMAN AND ASSOCIATES REPORT DATED MAY 2018 FOR SOIL PRESSURE DIAGRAM TO BE USED TO DESIGN SHEETING AND SHORING.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AWAY FROM THE SITE OF THE WORK TO HIS OWN PLACE OF DISPOSAL ALL EXCESS ITEMS IN ACCORDANCE WITH ALL APPLICABLE LAWS.
- REMOVAL AND DISPOSAL OF ASBESTOS CEMENT PIPE SHALL BE PERFORMED BY CONTRACTOR LICENSED AND CERTIFIED TO DO SO AND SHALL BE DONE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS, INCLUDING, BUT NOT LIMITED TO, THOSE OF F.D.E.P., O.S.H.A., AND F.D.O.T.
- CONTRACTOR MAY REFERENCE SOILS REPORT, BRIDGE AS-BUILTS AND ANY OTHER APPLICABLE DOCUMENTS THAT ARE AVAILABLE AS PART OF THE CONTRACT DOCUMENTS OR THROUGH LEE COUNTY.
- COMPLETE SURVEY IS INCLUDED IN THE ELECTRONIC FILES. SOME ELEVATIONS ARE TURNED OFF FOR CLARITY.

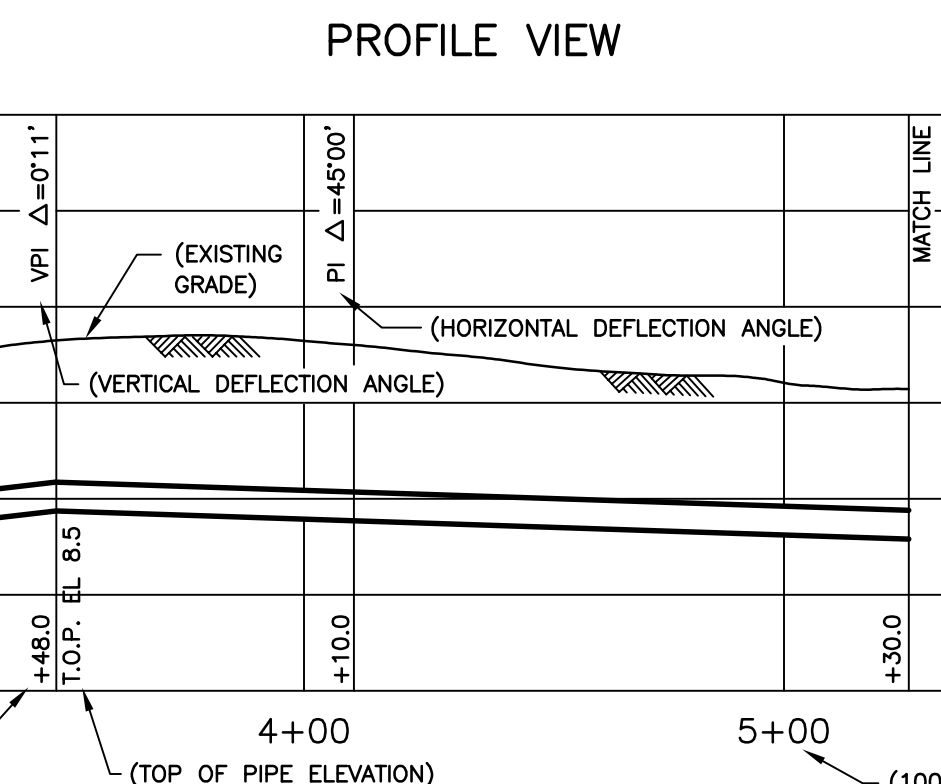
SURVEY LEGEND

- ASPH = ASPHALT
- BACK FLOW ASSEMBLY
- BLUE FLAG/PAINT MARK
- BOLLARD
- CABLE TELEVISION RISER
- CATCH BASIN
- CONC = CONCRETE
- CONCRETE UTILITY POLE
- CONTROL POINT
- COUNTY ROAD
- C.R. = COUNTY ROAD
- ELECTRIC MISCELLANEOUS
- ELECTRIC SERVICE BOX
- ELEV = ELEVATION
- ELLIPITICAL REINFORCED CONCRETE PIPE
- FIBER OPTIC CABLE POST
- FIRE ASSEMBLY
- FIRE HYDRANT
- FOUND CONCRETE MONUMENT
- FOUND IRON ROD
- FOUND NAIL & DISK
- GAS WARNING POST
- GREEN FLAG/PAINT MARK
- GUY ANCHOR
- IN-GROUND ELECTRIC BOX
- IN-GROUND FIBER OPTIC BOX
- INV = INVERT
- IRRIGATION VALVE
- LIGHT POLE
- MAILBOX
- METAL UTILITY POLE
- MITERED END SECTION
- OFFICIAL RECORD BOOK
- ORANGE FLAG/PAINT MARK
- OVERHEAD WIRES
- PEDESTRIAN SIGNAL POLE
- PINK FLAG/PAINT MARK
- PURPLE FLAG/PAINT MARK
- RED FLAG/PAINT MARK
- REINFORCED CONCRETE PIPE
- RIGHT-OF-WAY
- SANITARY SEWER MANHOLE
- SEWER CLEANOUT
- SEWER VALVE
- SIGN
- SOIL BORING LOCATION
- SPOT ELEVATION (SOFT SURFACE)
- S.R. = STATE ROAD
- ELECTRIC MISCELLANEOUS
- STORM PIPE
- STORM SEWER MANHOLE
- SUE/UTILITY LOCATION
- TELEPHONE RISER
- TOE = TOE OF SLOPE
- TOB = TOP OF BANK
- TRAFFIC SIGNAL BOX
- TRAFFIC SIGNAL POLE
- VITRIFIED CLAY PIPE
- WATER METER
- WATER VALVE
- WELL
- WETLAND BORDER POINT
- WOOD UTILITY POLE
- YELLOW FLAG/PAINT MARK
- SHRUB
- MISC TREE
- OAK TREE
- PINE TREE
- PALM TREE

NOTE: TREE SIZES INDICATED ARE TRUNK DIAMETERS MEASURED AT CHEST HEIGHT. SYMBOL SIZE DOES NOT REFLECT ACTUAL CANOPY.

NEW CONSTRUCTION LEGEND

- PLAN VIEW**
- OPEN CUT PIPELINE
 - HDD PIPELINE
 - GATE VALVE
 - REDUCER
 - AIR RELEASE VALVE
 - BLOW-OFF ASSY
 - FIRE HYDRANT
 - NEW WM WITH CASING BY JACK AND BORE
 - JCM214 PIPE ENDCAP COUPLING (TYP)
 - PIPE TO BE ABANDONED BY CAP AND GROUT IN PLACE
 - EASEMENT BOUNDARY



EXISTING UTILITIES LEGEND

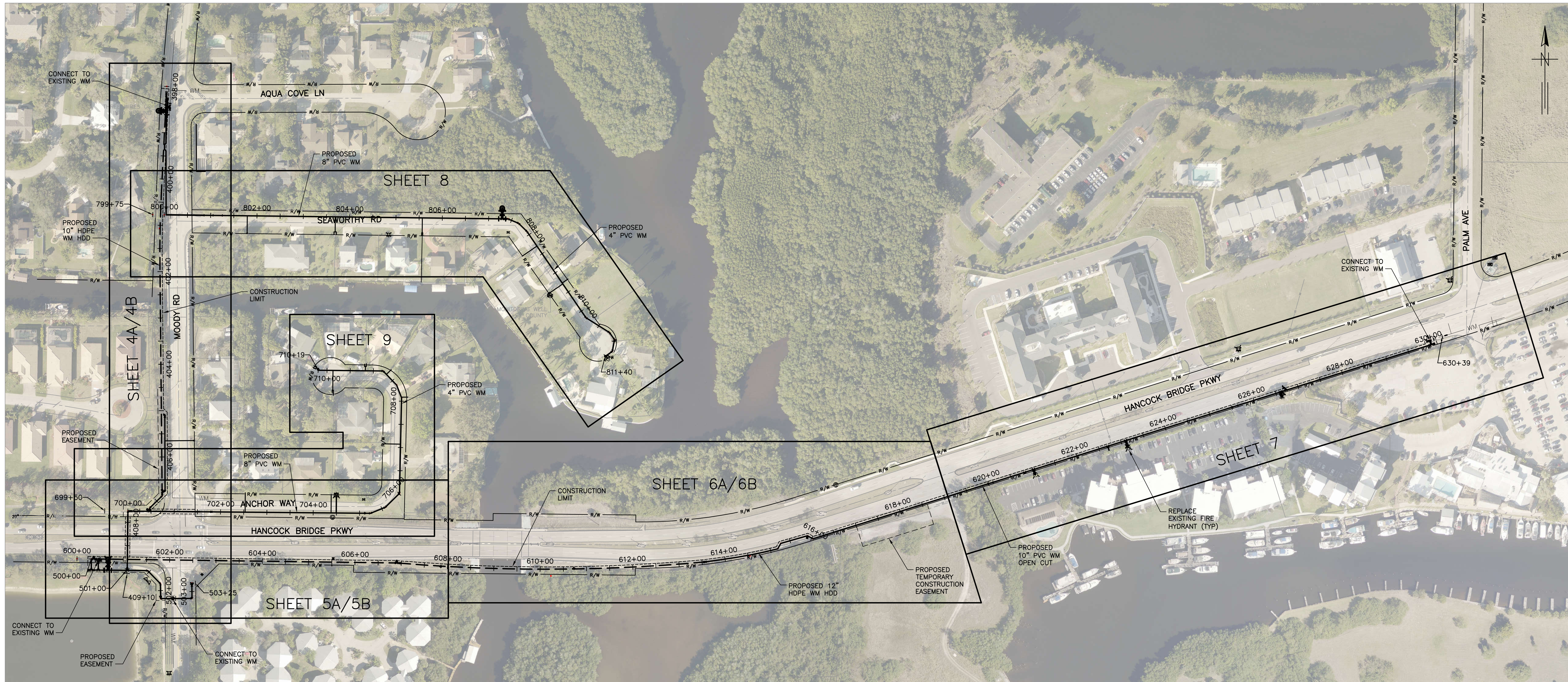
- CENTER LINE
- R/W LINE
- PROPERTY LINE
- EASEMENT
- GAS LINE
- STORM SEWER
- STORM SEWER (RCP)
- STORM SEWER (ERCP)
- SANITARY SEWER
- FORCE MAIN
- FORCE MAIN IN CASING
- FIBER OPTIC CABLE
- WATER MAIN
- RECLAIMED WATER MAIN
- BURIED TELEPHONE
- OVERHEAD WIRE
- FENCE
- HANDRAIL

TRAFFIC CONTROL GENERAL NOTES

- TRAFFIC CONTROL SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 102 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- THE FURNISHING, INSTALLING AND RELOCATION OF ALL TRAFFIC SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR MAINTENANCE OF TRAFFIC.
- TYPE III BARRICADES AND ROAD CLOSURE SIGNS SHALL BE POSITIONED ACCORDING TO HIGHWAY STANDARD 701901 AND AS DIRECTED BY THE COUNTY.
- TYPE A LOW INTENSITY FLASHING WARNING LIGHTS SHALL BE USED ON EACH SIDE IN ADVANCE OF THE WORK DURING HOURS OF DARKNESS.
- ALL WARNING SIGNS SHALL BE A MINIMUM OF 48" X 48" AND HAVE BLACK LEGEND AND BORDER ON A FLUORESCENT ORANGE REFLECTORIZED BACKGROUND.
- ALL TYPE III BARRICADES UTILIZED FOR ROAD CLOSURES SHALL HAVE TWO LOW INTENSITY FLASHING LIGHTS MOUNTED ON TO OF EACH BARRICADE.
- FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE. THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SANDBAGS ON EACH TYPE I OR II BARRICADE USED.
- CONTRACTOR SHALL PROVIDE A MAINTENANCE OF TRAFFIC PLAN TO THE COUNTY FOR APPROVAL AT LEAST 14 DAYS PRIOR TO BEGINNING WORK
- PRIOR TO START OF CONSTRUCTION, ALL REQUIRED TRAFFIC CONTROL DEVICES SHALL BE IN PLACE
- THE CONTRACTOR SHALL COORDINATE TRAFFIC CONTROL WITH OTHER PROJECTS WHICH MAY BE UNDER CONSTRUCTION DURING THE DURATION OF THIS PROJECT
- A MINIMUM 11' LANE WIDTH SHALL BE MAINTAINED ON ALL ROADS OPEN TO TRAFFIC DURING CONSTRUCTION
- OFFSETS BETWEEN THE EDGE OF TRAVEL LANE AND THE FACE OF TEMPORARY CONCRETE BARRIER ARE ASSUMED TO BE 2 FT UNLESS DESIGNATED OTHERWISE
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL BUILDING ACCESS, COORDINATE WITH BUILDING OWNERS AND LOCAL AUTHORITIES AND PROVIDE FULL ACCESS TO BUSINESS OR PROPERTIES DURING THEIR NORMAL WORKING HOURS
- THE CONTRACTOR SHALL MAINTAIN TRAFFIC ON ALL STREETS. PROVIDE CONTINUOUS ACCESS TO ALL SIDE STREETS, DRIVEWAYS AND PARKING LOTS
- MAINTAIN ACCESS TO FIRE HYDRANTS, BUILDING STANDPIPES AND OTHER EMERGENCY FACILITIES WITHIN THE CONSTRUCTION ZONE
- A 3'-6" DEFLECTION AREA IS REQUIRED FROM THE BACK SIDE OF THE TEMPORARY CONCRETE BARRIER WALL TO ANY OBSTRUCTION OR DROP OFF IN THE WORK ZONE. IF THIS 3'-6" DEFLECTION AREA CANNOT BE MAINTAINED, THE TEMPORARY CONCRETE BARRIER WALL SHALL BE ANCHORED TO THE PAVEMENT (EXCLUDING BRIDGE DECK) THROUGH THE THREE ANCHORING HOLES ON THE TRAFFIC SIDE OF THE CONCRETE BARRIER WALL.
- ALL TEMPORARY PAVEMENT MARKINGS SHOWING DETERIORATION AFTER 7 DAYS SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE COUNTY
- THE FURNISHING, INSTALLING AND RELOCATING OF ALL TRAFFIC SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR MAINTENANCE OF TRAFFIC.
- ALL EXISTING TRAFFIC SIGNS CONFLICTING WITH TEMPORARY WORK SIGNS SHALL BE COVERED
- ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC AS SOON AS THEY ARE NO LONGER NECESSARY. WHEN A SIGN IS COVERED, ITS POSTS SHALL HAVE A REFLECTIVE 3-INCH BY 6-INCH DELINEATOR INSTALLED

Digitally signed by Thomas Reed Meriwether, P.E.
Date: 2018.12.19 10:15:47 -05'00'

| | | | | | | |
|--|--------------|--|--|--|--|---------------------|
| <p>GREELEY AND HANSEN 5252 SUMMERLIN COMMONS WAY, STE 104 FORT MYERS, FLORIDA 33907 CERTIFICATE OF AUTHORIZATION NO. 37</p> | DESIGNED EJM | APPROVED | SCALE LEE COUNTY, FLORIDA HANCOCK BRIDGE PARKWAY WATER MAIN IMPROVEMENTS CONTRACT NO. 7121 | THOMAS R. MERIWETHER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 75938 THIS ITEM HAS BEEN ELECTRONICALLY SEALED ON THE DATE SHOWN BY THOMAS R. MERIWETHER, P.E. USING A SHA-1 AUTHENTICATION CODE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPY. | GENERAL GENERAL NOTES, LEGEND AND ABBREVIATIONS | FILE NAME 0520A-G02 |
| | DRAWN JMW | P.E. NAME: _____ | | | | DWG |
| CHECKED ACS | DATE: _____ | P.E. NAME: THOMAS R. MERIWETHER P.E. NO. 75938 | NO. | DATE | APPD | REVISION |



NOTES:
 1. PROPOSED FIRE HYDRANTS ARE SHOWN ENLARGED FOR LOCATION PURPOSES ONLY.

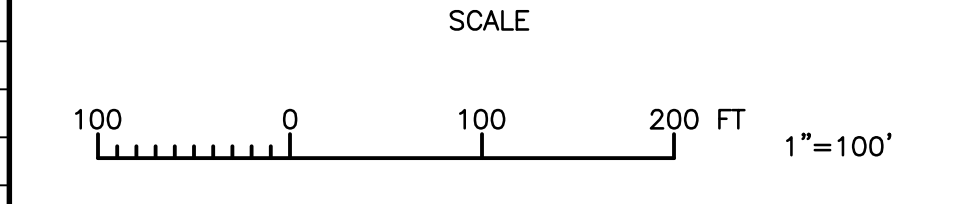
KEY MAP
 SCALE: 1" = 100'

Greeley and Hansen
 5252 SUMMERLIN COMMONS WAY, STE 104
 FORT MYERS, FLORIDA 33907
 CERTIFICATE OF AUTHORIZATION NO. 37

DESIGNED EJM
 DRAWN JMW
 CHECKED ACS

APPROVED
 P.E. NAME: _____
 DATE: _____
 P.E. NAME: THOMAS R. MERIWETHER P.E. NO. 75938

| NO. | DATE | APPD | REVISION |
|-----|------|------|----------|
| | | | |



LEE COUNTY, FLORIDA
**HANCOCK BRIDGE PARKWAY
 WATER MAIN IMPROVEMENTS**
 CONTRACT NO. 7121

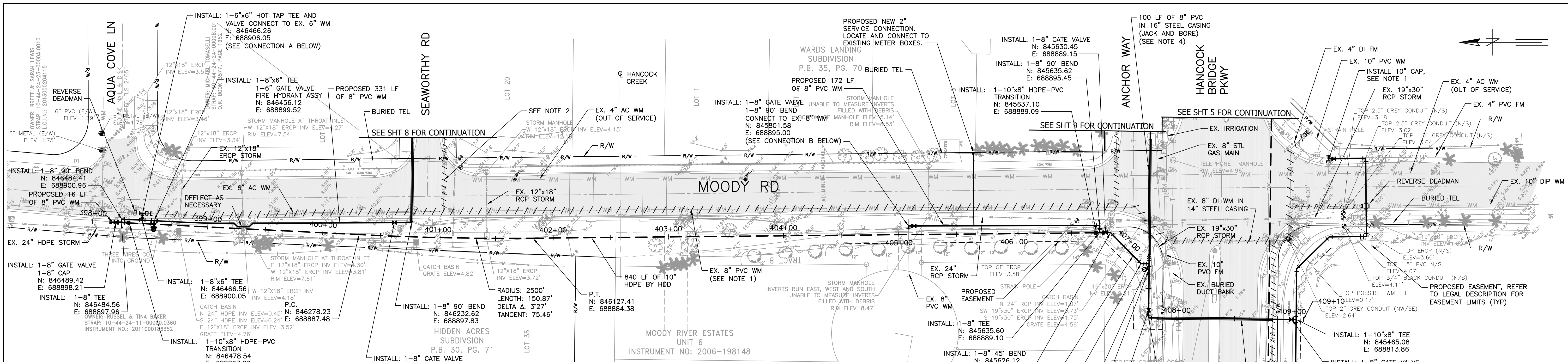
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GENERAL
KEY MAP

Thomas Reed
 Meriwether,
 P.E.

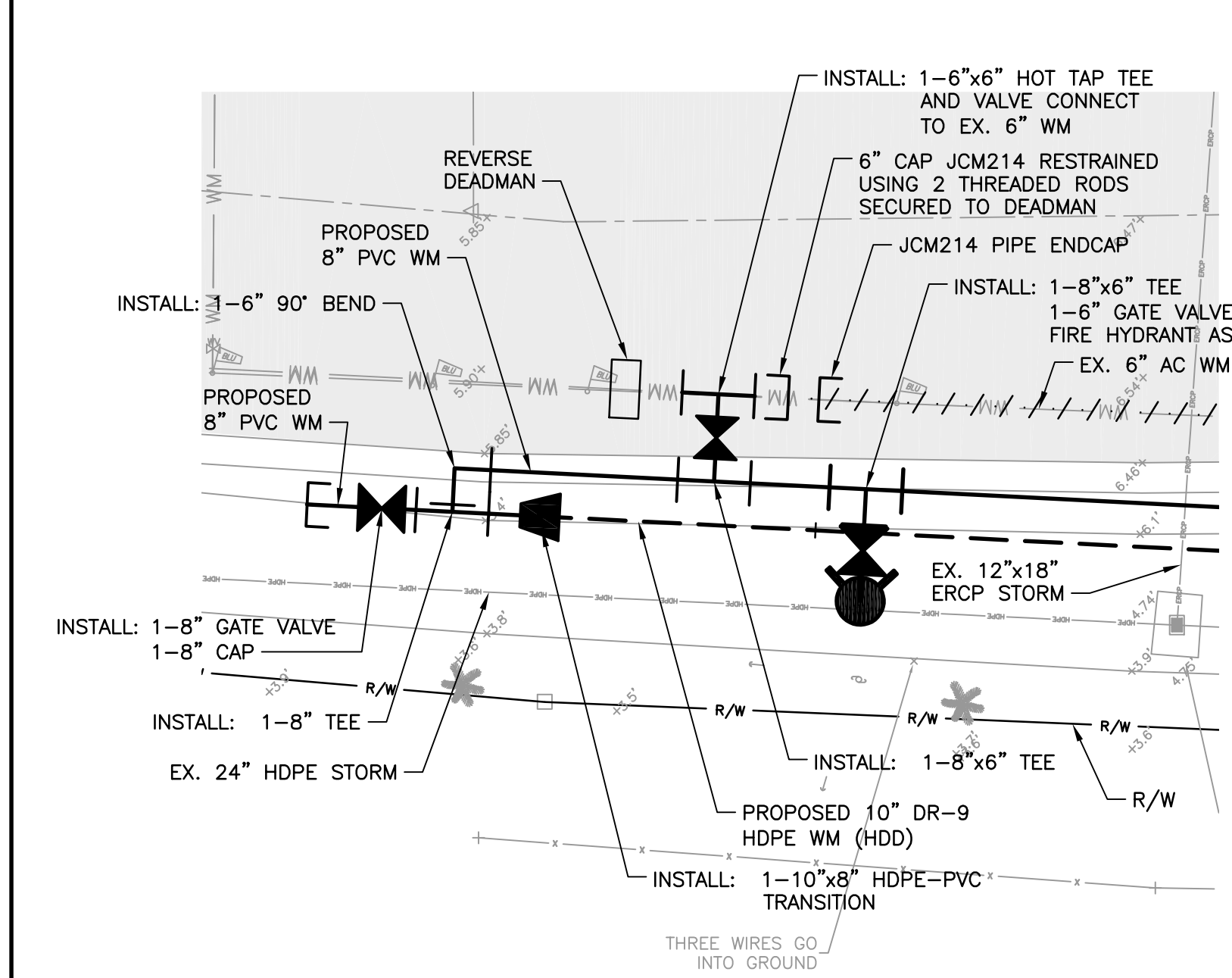
Digitally signed by
 Thomas Reed
 Meriwether, P.E.
 Date: 2018.12.19
 10:15:47 -05'00'

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| FILE NAME | 0520A-P01 |
| DWG | 3 |
| SHEET | OF 14 |
| DATE | DECEMBER 2018 |
| REV | 0 |



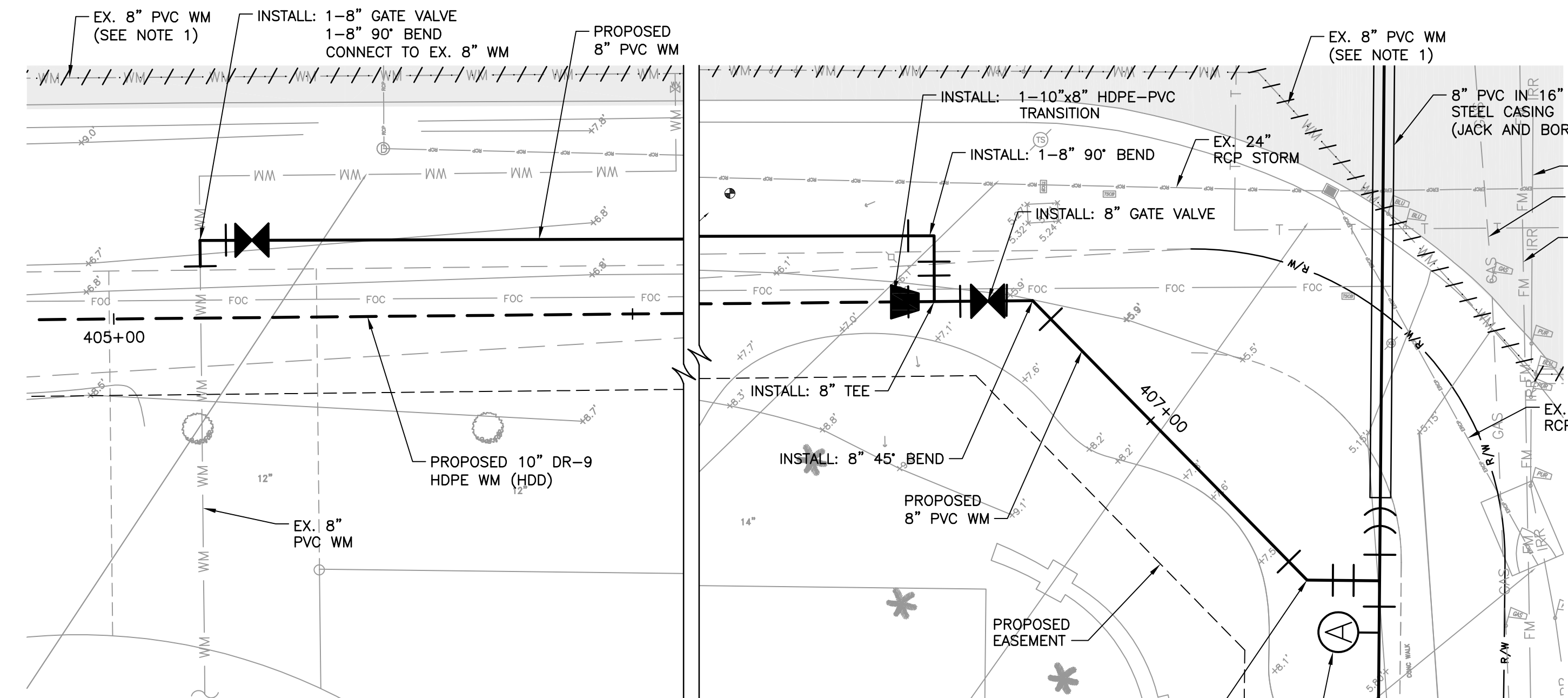
PLAN

- NOTES:**
- CAP, GROUT AND ABANDON IN PLACE AFTER NEW MAIN IS PLACED IN SERVICE. CONTRACTOR TO FIELD VERIFY DISCONNECTION OF EXISTING WATER MAIN. UTILITY ELEVATION UNKNOWN.
 - CONTRACTOR TO SURVEY LOCATION AND PROVIDE INFORMATION TO ENGINEER PRIOR TO INSTALLING WATER MAIN.
 - ALTERNATE CONSTRUCTION METHOD. HORIZONTAL DIRECTIONAL DRILLING MAY BE CONSIDERED.
 - CONTRACTOR SHALL RESTORE ALL LANDSCAPED AREAS AND PROTECT ALL TREES TO REMAIN THROUGHOUT THE PROJECT DURATION.
 - HDD PIPE TO BE LAYED OUT ALONG MOODY RD. NORTH OF AQUA COVE LN. PIPE WILL HAVE TO BE LAYED IN TWO SECTIONS.
 - CONTRACTOR SHALL VERIFY LOCATION OF FIBER OPTIC CABLE ALONG MOODY ROAD AND HANCOCK BRIDGE PARKWAY PRIOR TO EXCAVATING OR DRILLING.



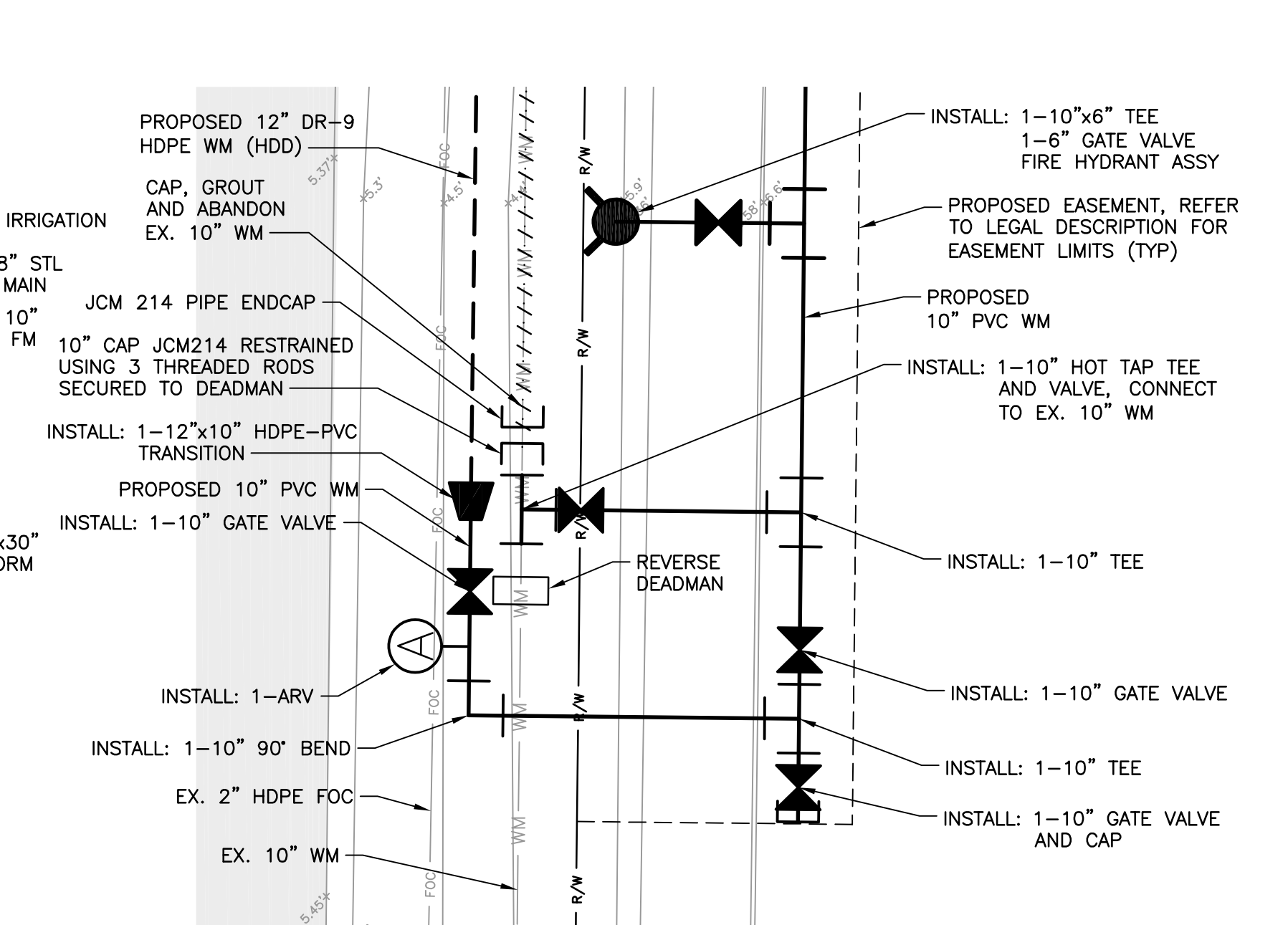
CONNECTION A
SCALE: 1" = 10'

NOTE: ALL JOINTS SHALL BE RESTRAINED



CONNECTION B
SCALE: 1" = 10'

NOTE: ALL JOINTS SHALL BE RESTRAINED



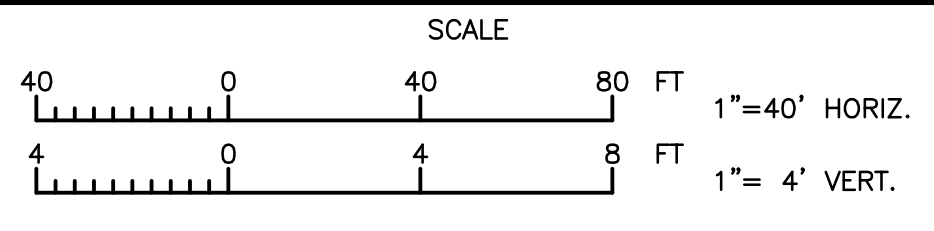
CONNECTION C
SCALE: 1" = 10'

NOTE: ALL JOINTS SHALL BE RESTRAINED

GREELEY AND HANSEN
5252 SUMMERLIN COMMONS WAY, STE 104
FORT MYERS, FLORIDA 33907
CERTIFICATE OF AUTHORIZATION NO. 37

| | | | |
|----------|-----|---------------------------------|----------------|
| DESIGNED | EJM | APPROVED | |
| DRAWN | JMW | P.E. NAME: | |
| CHECKED | ACS | DATE: | |
| | | P.E. NAME: THOMAS R. MERIWETHER | P.E. NO. 75938 |

| NO. | DATE | APPD | REVISION |
|-----|------|------|----------|
| | | | |



LEE COUNTY, FLORIDA
HANCOCK BRIDGE PARKWAY
WATER MAIN IMPROVEMENTS
CONTRACT NO. 7121

THOMAS R. MERIWETHER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 75938 THIS ITEM HAS BEEN ELECTRONICALLY SEALED ON THE DATE SHOWN BY THOMAS R. MERIWETHER, P.E. USING A SHA-1 AUTHENTICATION CODE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

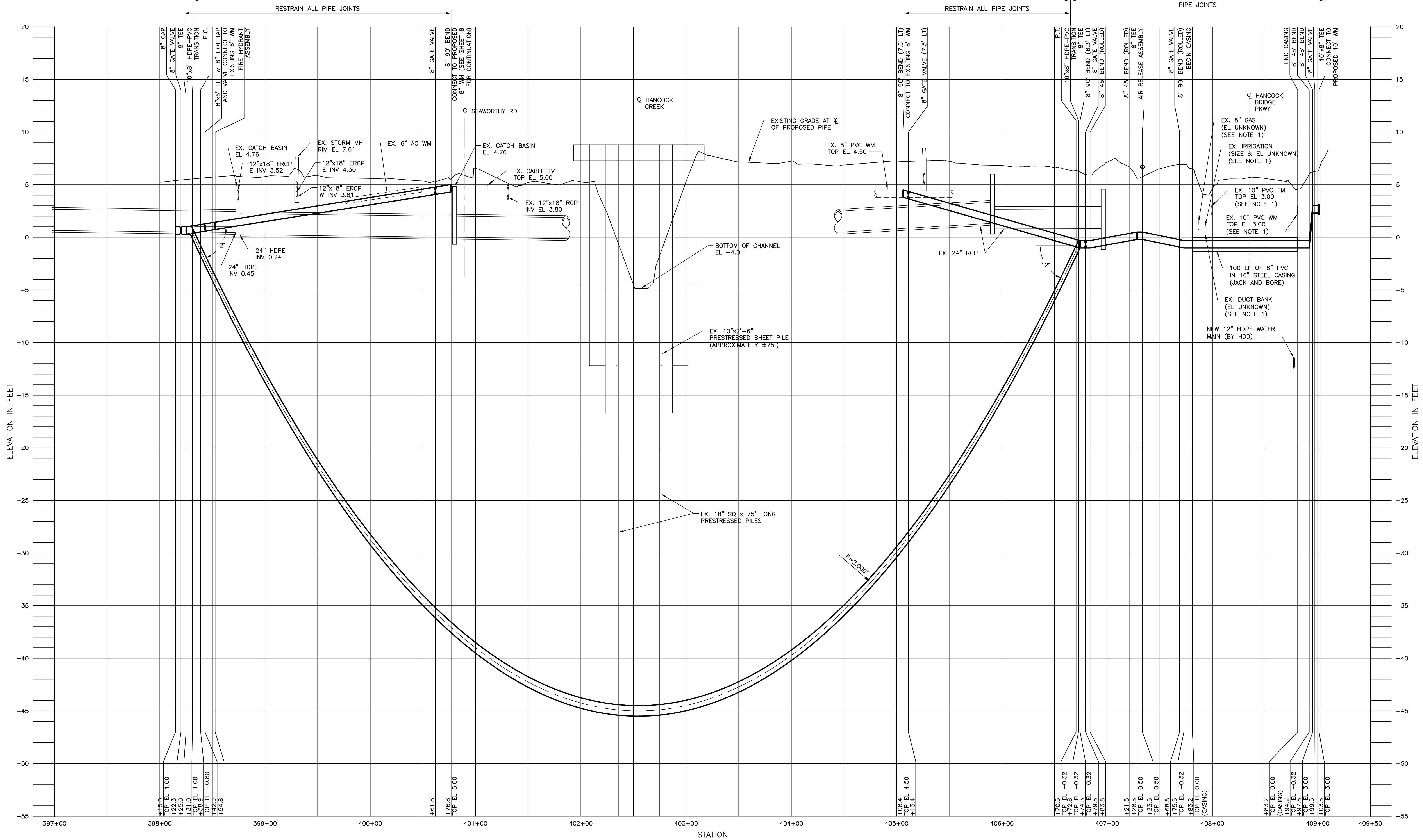
PLAN
MOODY RD.
STA 400+00.0 TO STA 409+19.0

Thomas Reed
Meriwether,
P.E.

Digitally signed by
Thomas Reed
Meriwether, P.E.
Date: 2018.12.19
10:15:47 -05'00'

FILE NAME 0520A-P01
DWG
SHEET **4A** OF 14
DATE DECEMBER 2018 REV 0

834 LF OF 10" HDPE WATER MAIN BY HORIZONTAL DIRECTIONAL DRILL



PROFILE

NOTE:
 1. EXISTING UTILITIES SHOWN FOR REFERENCE. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF UTILITIES PRIOR TO PIPE INSTALLATION. IF CONFLICTS ARE FOUND BETWEEN EXISTING UTILITIES AND NEW PIPE INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
 2. CONTRACTOR SHALL MAINTAIN A SAFE DISTANCE FROM EXISTING UTILITY POLES. CONTACT UTILITY OWNER TO VERIFY DISTANCE REQUIREMENTS.

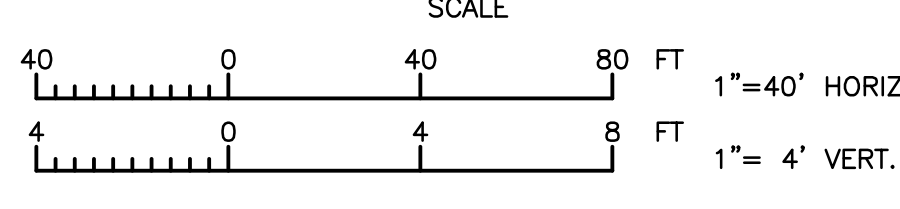
Thomas Reed
 Meriwether, P.E.
 Digitally signed by Thomas Reed Meriwether, P.E.
 Date: 2018.12.19 10:15:47 -05'00'

GREELEY AND HANSEN
 5252 SUMMERLIN COMMONS WAY, STE 104
 FORT MYERS, FLORIDA 33907
 CERTIFICATE OF AUTHORIZATION NO. 37

DESIGNED EJM
 DRAWN JMW
 CHECKED ACS

APPROVED
 P.E. NAME: _____
 DATE: _____
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| | | | |

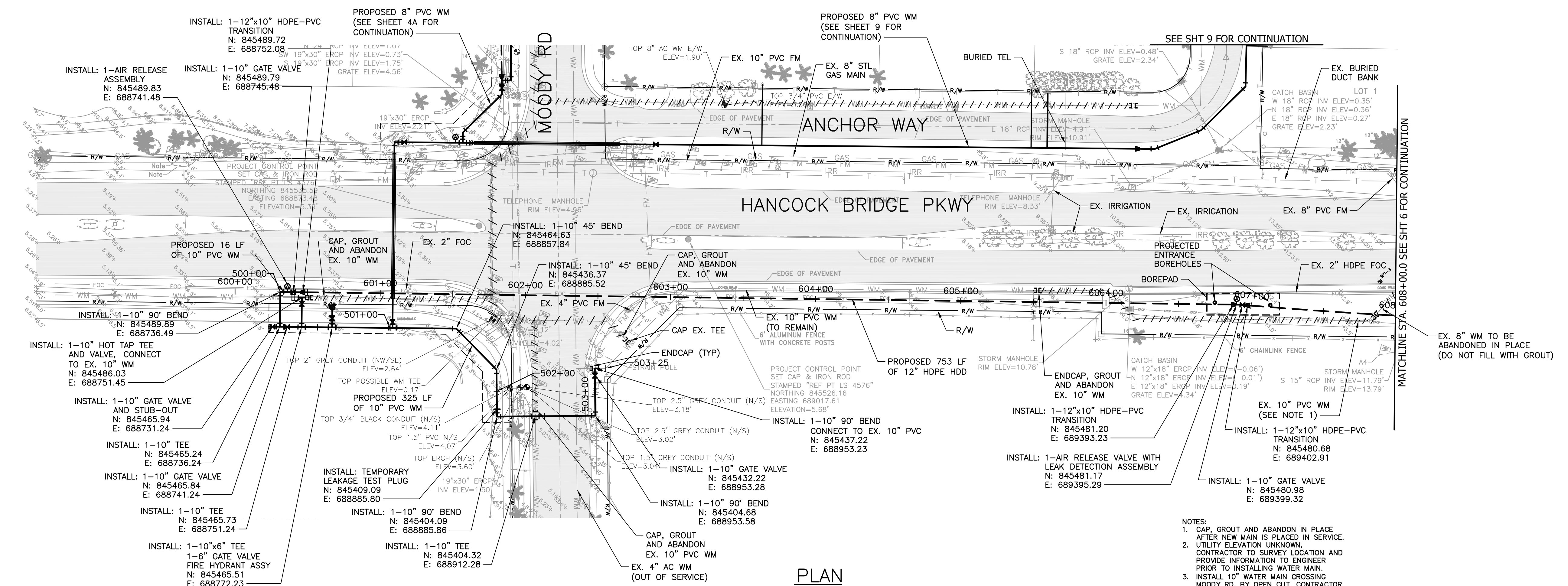
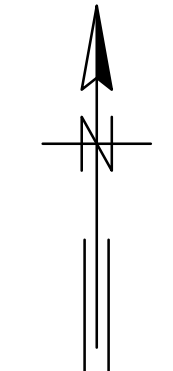


LEE COUNTY, FLORIDA
**HANCOCK BRIDGE PARKWAY
 WATER MAIN IMPROVEMENTS**
 CONTRACT NO. 7121

THOMAS R. MERIWETHER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 75938 THIS ITEM HAS BEEN ELECTRONICALLY SEALED ON THE DATE SHOWN BY THOMAS R. MERIWETHER, P.E. USING A SHA-1 AUTHENTICATION CODE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

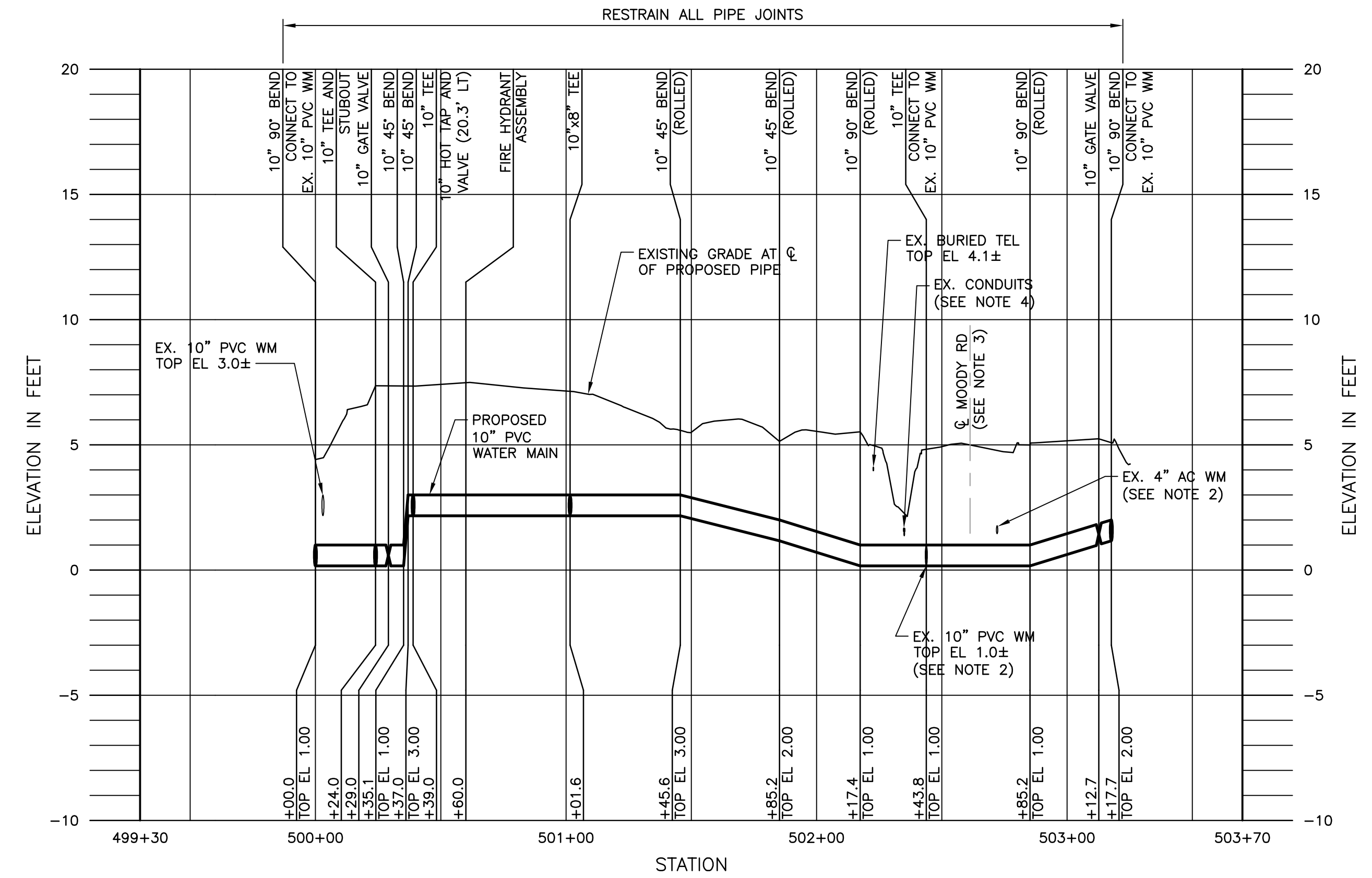
PROFILE
 MOODY RD.
 STA 400+00.0 TO STA 409+19.0

FILE NAME 0520A-P01
 DWG
 SHEET **4B** OF 14
 DATE DECEMBER 2018 REV 0



PLAN

- NOTES:
1. CAP, GROUT AND ABANDON IN PLACE AFTER NEW MAIN IS PLACED IN SERVICE. UTILITY ELEVATION UNKNOWN. CONTRACTOR TO SURVEY LOCATION AND PROVIDE INFORMATION TO ENGINEER PRIOR TO INSTALLING WATER MAIN.
 2. INSTALL 10" WATER MAIN CROSSING MOODY RD. BY OPEN CUT. CONTRACTOR WILL BE REQUIRED TO MAINTAIN ONE LANE OPEN DURING CONSTRUCTION. SEE PAVEMENT RESTORATION DETAIL. CONTRACTOR SHALL VERIFY LOCATION OF CONDUIT ALONG MOODY ROAD AND SOUTH OF HANCOCK BRIDGE PARKWAY PRIOR TO EXCAVATING OR DRILLING.



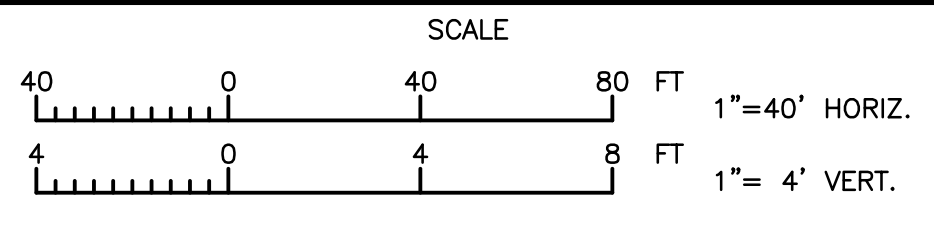
PROFILE (STA 500+00 TO 502+40)

Greeley and Hansen
 5252 SUMMERLIN COMMONS WAY, STE 104
 FORT MYERS, FLORIDA 33907
 CERTIFICATE OF AUTHORIZATION NO. 37

DESIGNED EJM
 DRAWN JMW
 CHECKED ACS

APPROVED
 P.E. NAME: _____
 DATE: _____
 P.E. NAME: THOMAS R. MERIWETHER P.E. NO. 75938

| NO. | DATE | APPD | REVISION |
|-----|------|------|----------|
| | | | |



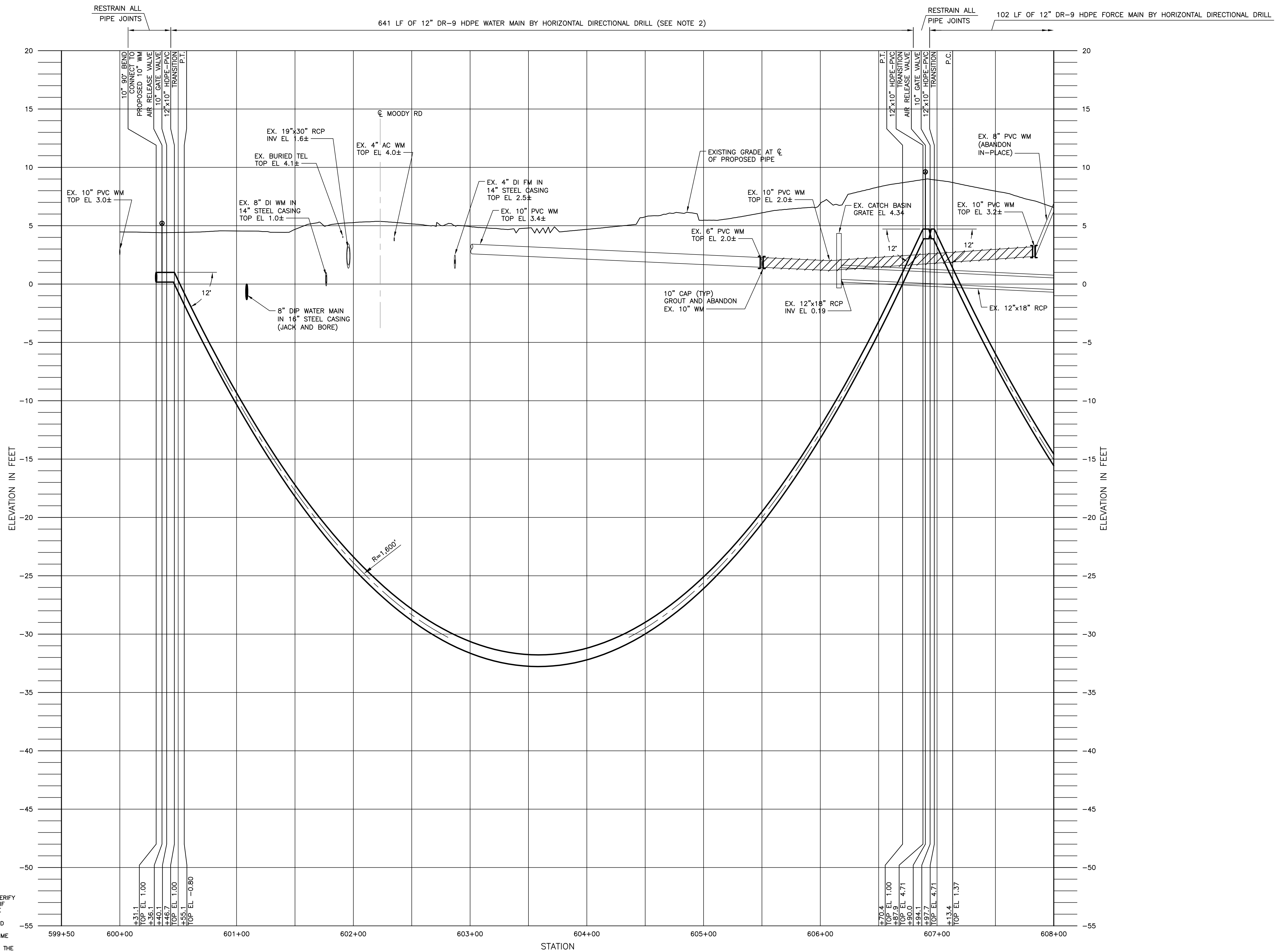
LEE COUNTY, FLORIDA
**HANCOCK BRIDGE PARKWAY
 WATER MAIN IMPROVEMENTS**
 CONTRACT NO. 7121

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PLAN AND PROFILE
HANCOCK BRIDGE PKWY
 STA 500+00.0 TO STA 503+17.7
 STA 600+00.0 TO STA 608+00.0

Thomas Reed
 Meriwether, P.E.
 Digitally signed by Thomas Reed Meriwether, P.E.
 Date: 2018.12.19 10:15:47 -05'00'

FILE NAME 0520A-P01
 DWG
 SHEET **5A** OF 14
 DATE DECEMBER 2018 REV 0



NOTE:
 1. EXISTING UTILITIES SHOWN FOR REFERENCE. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF UTILITIES PRIOR TO PIPE INSTALLATION. IF CONFLICTS ARE FOUND BETWEEN EXISTING UTILITIES AND NEW PIPE INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
 2. THE 1750 LF OF 12" HDPE INSTALLED BY DIRECTIONAL BORE IS BID ITEM 5B OPTION #1. ITEM 5B MAY OR MAY NOT BE PART OF THIS PROJECT WORK SCOPE AS DETERMINED BY LEE COUNTY AT THE TIME OF AWARD. ITEM 5B IS TO BE BID TO WITH ALL ASSOCIATED CONSTRUCTION COSTS TO COMPLETE THIS ITEM SEPARATELY FROM THE REMAINING CONTRACT BID ITEMS (INCLUDE MOB, MAINTENANCE OF TRAFFIC, ALL INCIDENTALS TO COMPLETE BORE AND TERMINATE/CAP ENDS ABOVE GROUND).

PROFILE (STA 600+00 TO 608+00)

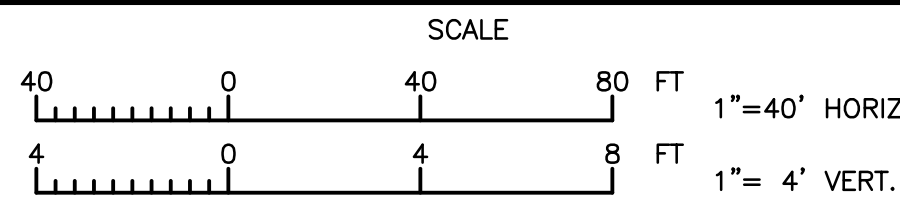
Thomas Reed
 Meriwether, P.E.
 Digitally signed by Thomas Reed Meriwether, P.E.
 Date: 2018.12.19 10:15:47 -05'00'

GREELEY AND HANSEN
 5252 SUMMERLIN COMMONS WAY, STE 104
 FORT MYERS, FLORIDA 33907
 CERTIFICATE OF AUTHORIZATION NO. 37

DESIGNED EJM
 DRAWN JMW
 CHECKED ACS

APPROVED
 P.E. NAME: _____
 DATE: _____
 P.E. NAME: THOMAS R. MERIWETHER P.E. NO. 75938

| NO. | DATE | APPD | REVISION |
|-----|------|------|----------|
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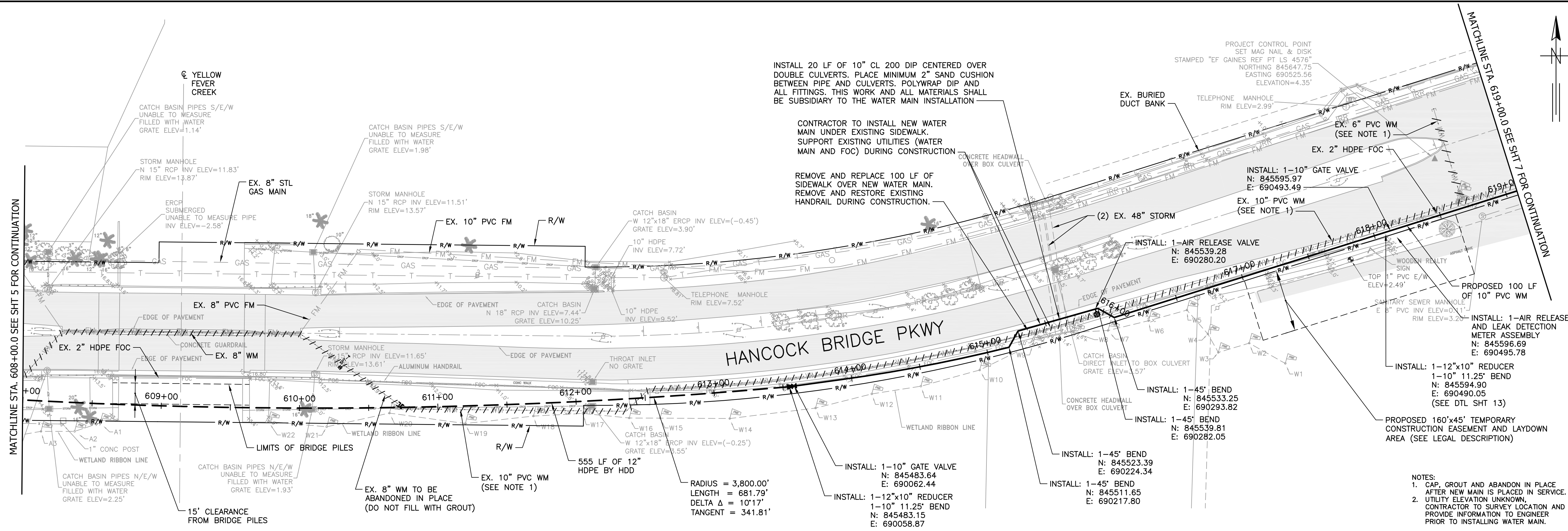
LEE COUNTY, FLORIDA
 HANCOCK BRIDGE PARKWAY
 WATER MAIN IMPROVEMENTS
 CONTRACT NO. 7121

THOMAS R. MERIWETHER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 75938 THIS ITEM HAS BEEN ELECTRONICALLY SEALED ON THE DATE SHOWN BY THOMAS R. MERIWETHER, P.E. USING A SHA-1 AUTHENTICATION CODE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

PROFILE
 HANCOCK BRIDGE PKWY

FILE NAME 0520A-P01
 DWG
 SHEET 5B OF 14
 DATE DECEMBER 2018 REV 0

STA 600+00.0 TO STA 608+00.0



PLAN

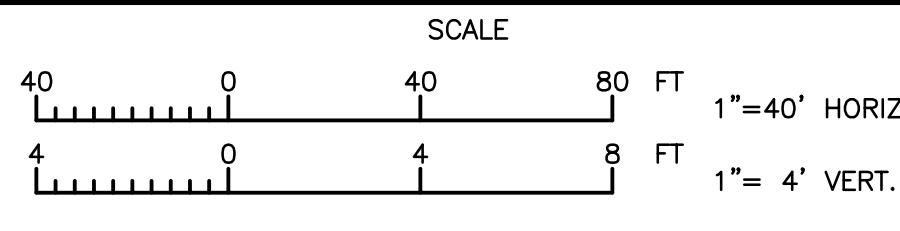
- NOTES:
- CAP, GROUT AND ABANDON IN PLACE AFTER NEW MAIN IS PLACED IN SERVICE.
 - UTILITY ELEVATION UNKNOWN. CONTRACTOR TO SURVEY LOCATION AND PROVIDE INFORMATION TO ENGINEER PRIOR TO INSTALLING WATER MAIN.

GREELEY AND HANSEN
 5252 SUMMERLIN COMMONS WAY, STE 104
 FORT MYERS, FLORIDA 33907
 CERTIFICATE OF AUTHORIZATION NO. 37

DESIGNED EJM
 DRAWN JMW
 CHECKED ACS

APPROVED
 P.E. NAME: _____
 DATE: _____
 P.E. NAME: THOMAS R. MERIWETHER P.E. NO. 75938

| NO. | DATE | APPD | REVISION |
|-----|------|------|----------|
| | | | |



LEE COUNTY, FLORIDA
HANCOCK BRIDGE PARKWAY
 WATER MAIN IMPROVEMENTS
 CONTRACT NO. 7121

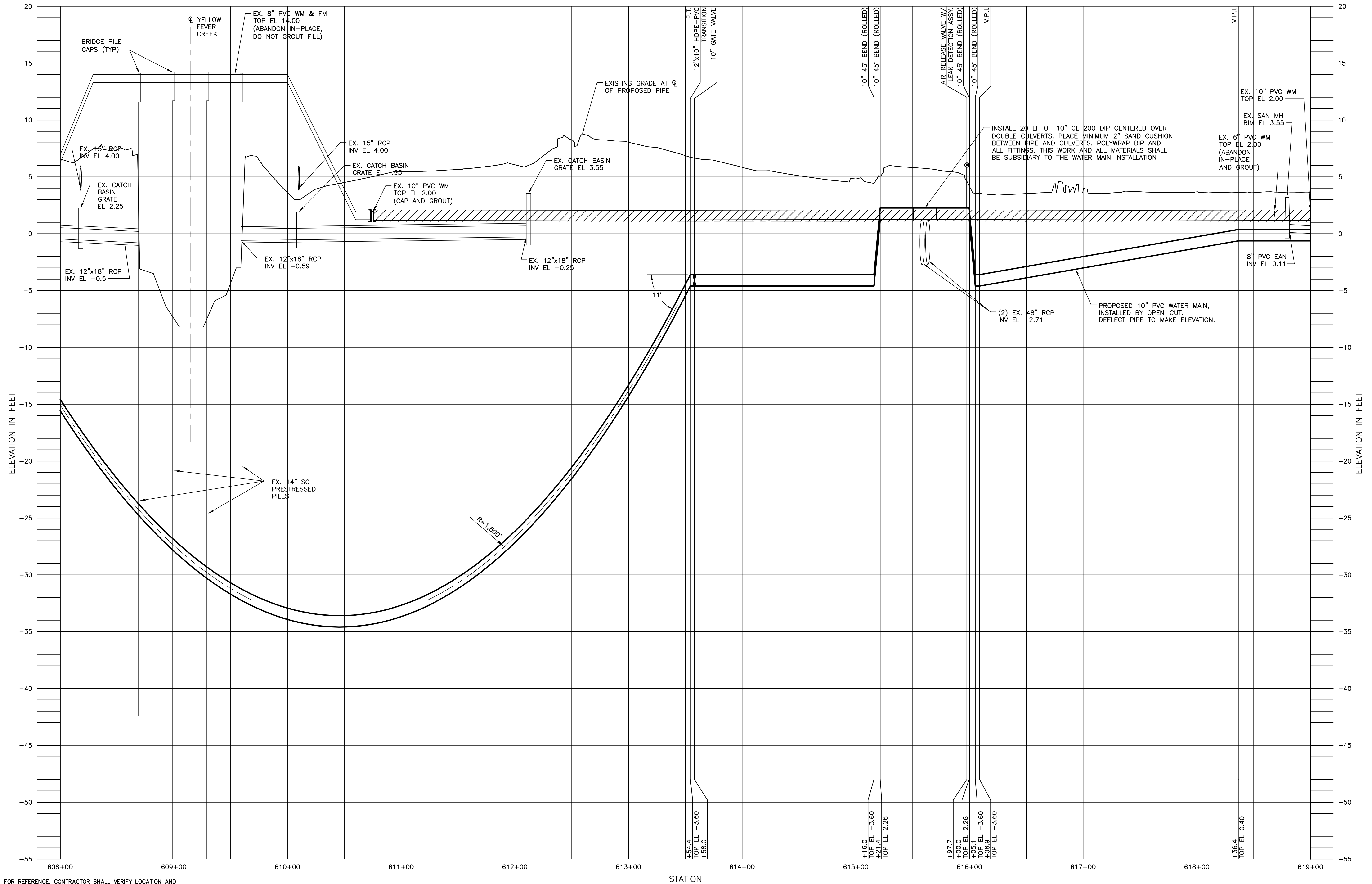
THOMAS R. MERIWETHER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 75938 THIS ITEM HAS BEEN ELECTRONICALLY SEALED ON THE DATE SHOWN BY THOMAS R. MERIWETHER, P.E. USING A SHA-1 AUTHENTICATION CODE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

PLAN
HANCOCK BRIDGE PKWY
 STA 608+00.0 TO STA 619+00.0

Thomas Reed
 Meriwether,
 P.E.

Digitally signed by
 Thomas Reed
 Meriwether, P.E.
 Date: 2018.12.19
 10:15:47 -05'00'

FILE NAME 0520A-P01
 DWG
 SHEET **6A** OF 14
 DATE DECEMBER 2018 REV 0



NOTE:
 1. EXISTING UTILITIES SHOWN FOR REFERENCE. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF UTILITIES PRIOR TO PIPE INSTALLATION. IF CONFLICTS ARE FOUND BETWEEN EXISTING UTILITIES AND NEW PIPE INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
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PROFILE

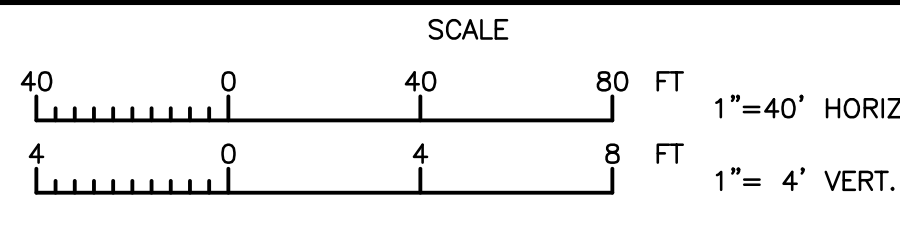
Thomas Reed
 Meriwether, P.E.
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 Date: 2018.12.19 10:15:47 -05'00'

GREELEY AND HANSEN
 5252 SUMMERLIN COMMONS WAY, STE 104
 FORT MYERS, FLORIDA 33907
 CERTIFICATE OF AUTHORIZATION NO. 37

DESIGNED EJM
 DRAWN JMW
 CHECKED ACS

APPROVED
 P.E. NAME: _____
 DATE: _____
 P.E. NAME: THOMAS R. MERIWETHER P.E. NO. 75938

| NO. | DATE | APPD | REVISION |
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| | | | |

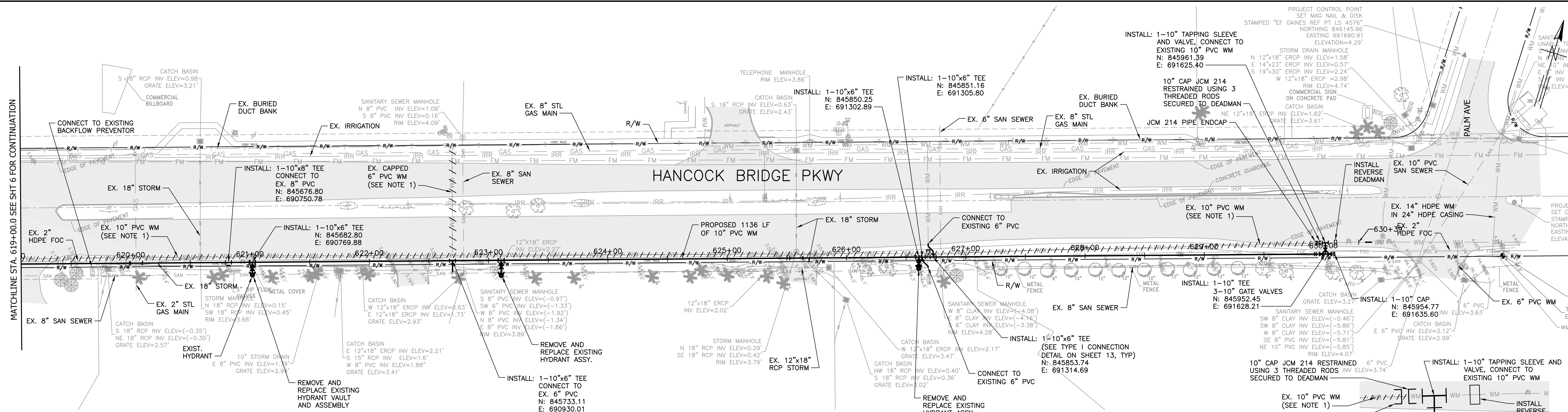


LEE COUNTY, FLORIDA
 HANCOCK BRIDGE PARKWAY
 WATER MAIN IMPROVEMENTS
 CONTRACT NO. 7121

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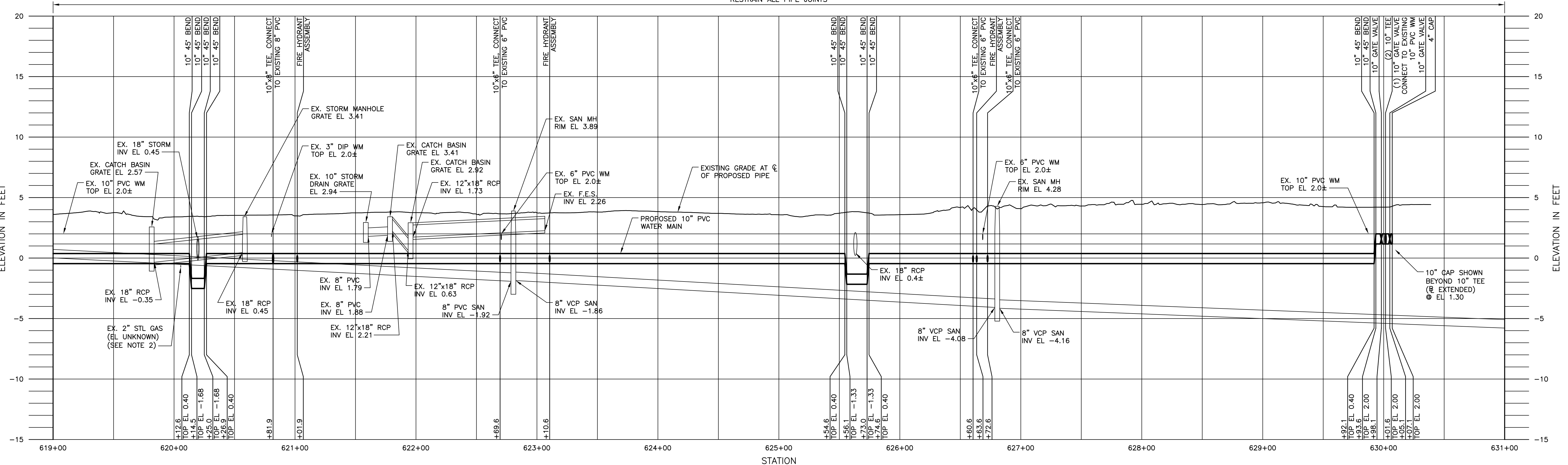
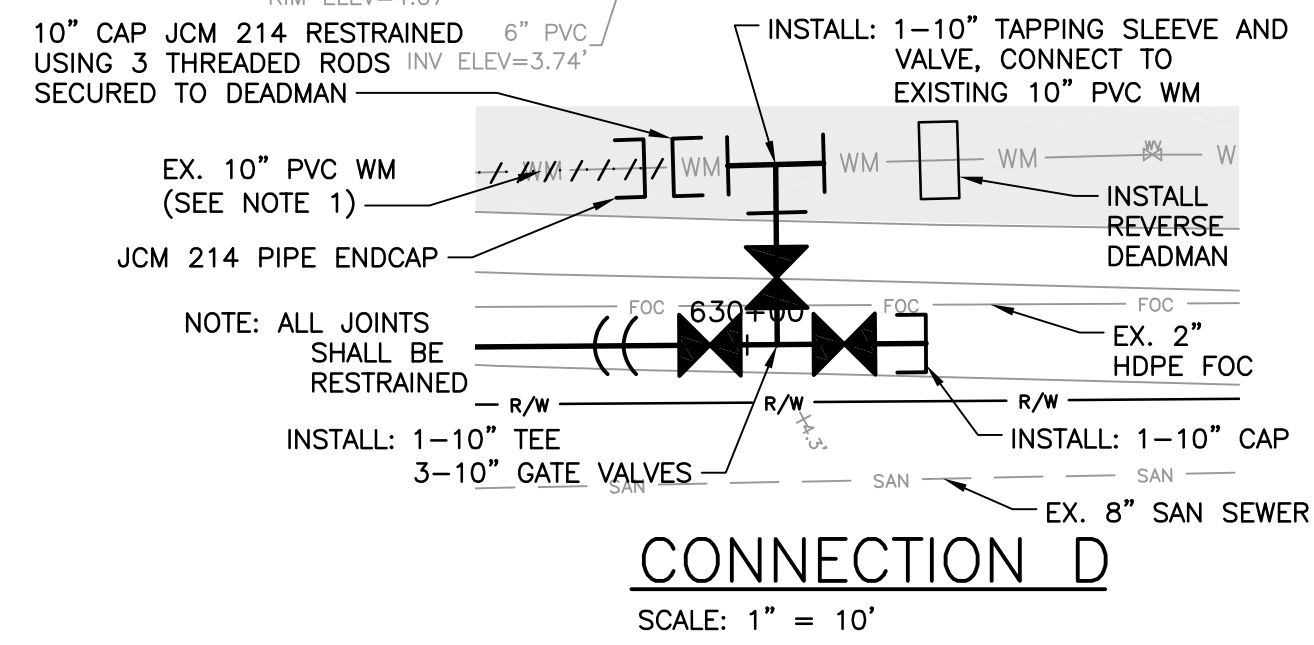
PROFILE
 HANCOCK BRIDGE PKWY
 STA 608+00.0 TO STA 619+00.0

FILE NAME 0520A-P01
 DWG
 SHEET **6B** OF 14
 DATE DECEMBER 2018 REV 0



- NOTES:
- CAP, GROUT AND ABANDON IN PLACE AFTER NEW MAIN IS PLACED IN SERVICE.
 - UTILITY ELEVATION UNKNOWN, CONTRACTOR TO SURVEY LOCATION AND PROVIDE INFORMATION TO ENGINEER PRIOR TO INSTALLING WATER MAIN.

PLAN



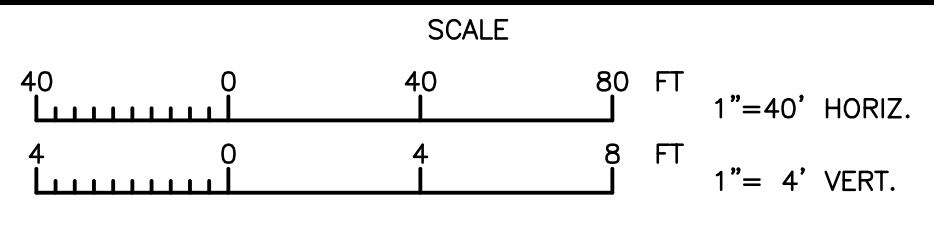
PROFILE

Greeley and Hansen
 5252 SUMMERLIN COMMONS WAY, STE 104
 FORT MYERS, FLORIDA 33907
 CERTIFICATE OF AUTHORIZATION NO. 37

DESIGNED EJM
 DRAWN JMW
 CHECKED ACS

APPROVED
 P.E. NAME: _____
 DATE: _____
 P.E. NAME: THOMAS R. MERIWETHER P.E. NO. 75938

| NO. | DATE | APPD | REVISION |
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| | | | |



LEE COUNTY, FLORIDA
**HANCOCK BRIDGE PARKWAY
 WATER MAIN IMPROVEMENTS**
 CONTRACT NO. 7121

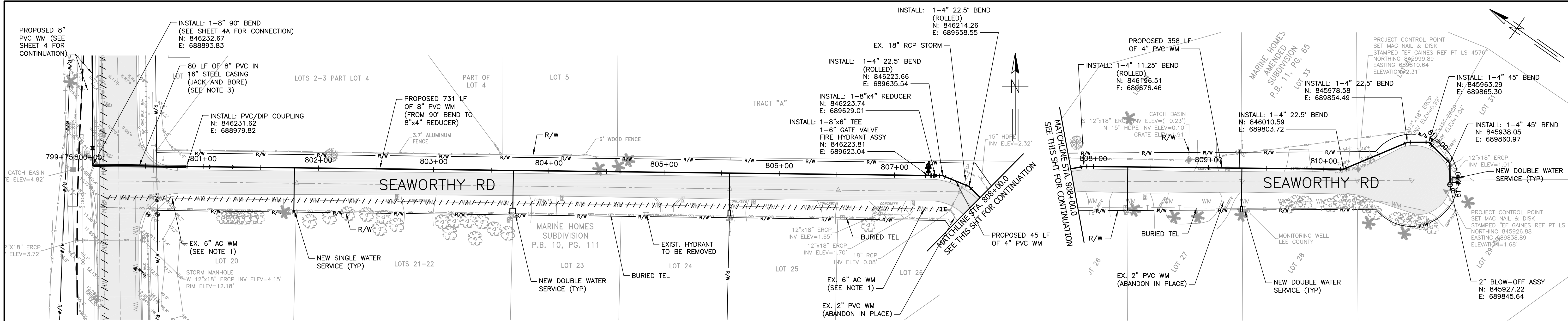
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PLAN AND PROFILE
HANCOCK BRIDGE PKWY
 STA 619+00.0 TO STA 630+36.0

Thomas Reed
 Meriwether,
 P.E.

Digitally signed by
 Thomas Reed
 Meriwether, P.E.
 Date: 2018.12.19
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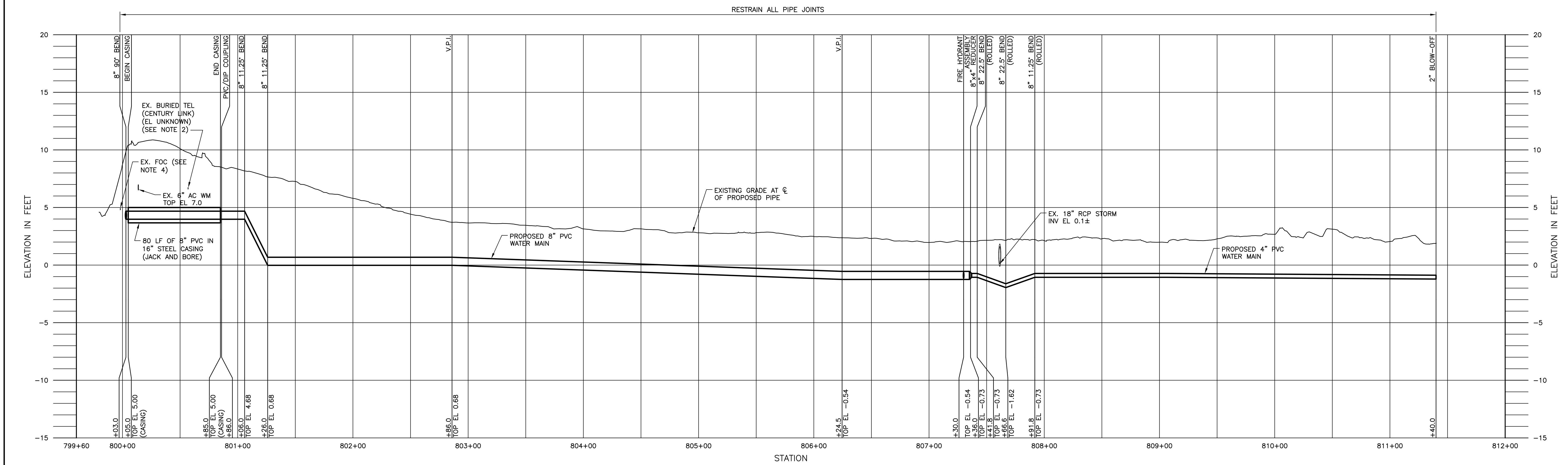
FILE NAME 0520A-P01
 DWG 7 OF 14
 SHEET 7 OF 14
 DATE DECEMBER 2018 REV 0



PLAN

PLAN

- NOTES:
- CAP, GROUT AND ABANDON IN PLACE AFTER NEW MAIN IS PLACED IN SERVICE
 - UTILITY ELEVATION UNKNOWN, CONTRACTOR TO SURVEY LOCATION AND PROVIDE INFORMATION TO ENGINEER PRIOR TO INSTALLING WATER MAIN.
 - ALTERNATE CONSTRUCTION METHOD HORIZONTAL DRILLING MAY BE CONSIDERED DUE TO CLOSE PROXIMITY OF WATER LINE TO ROADWAY EDGE OF PAVEMENT.
 - CONTRACTOR SHALL VERIFY LOCATION OF FIBER OPTIC CABLE ALONG MOODY ROAD AND HANCOCK BRIDGE PARKWAY PRIOR TO EXCAVATING OR DRILLING.



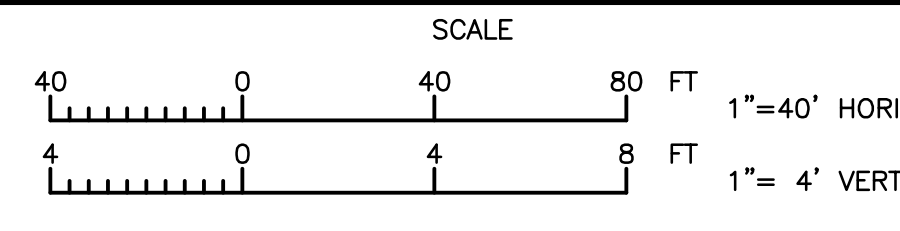
PROFILE

Greeley and Hansen
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 FORT MYERS, FLORIDA 33907
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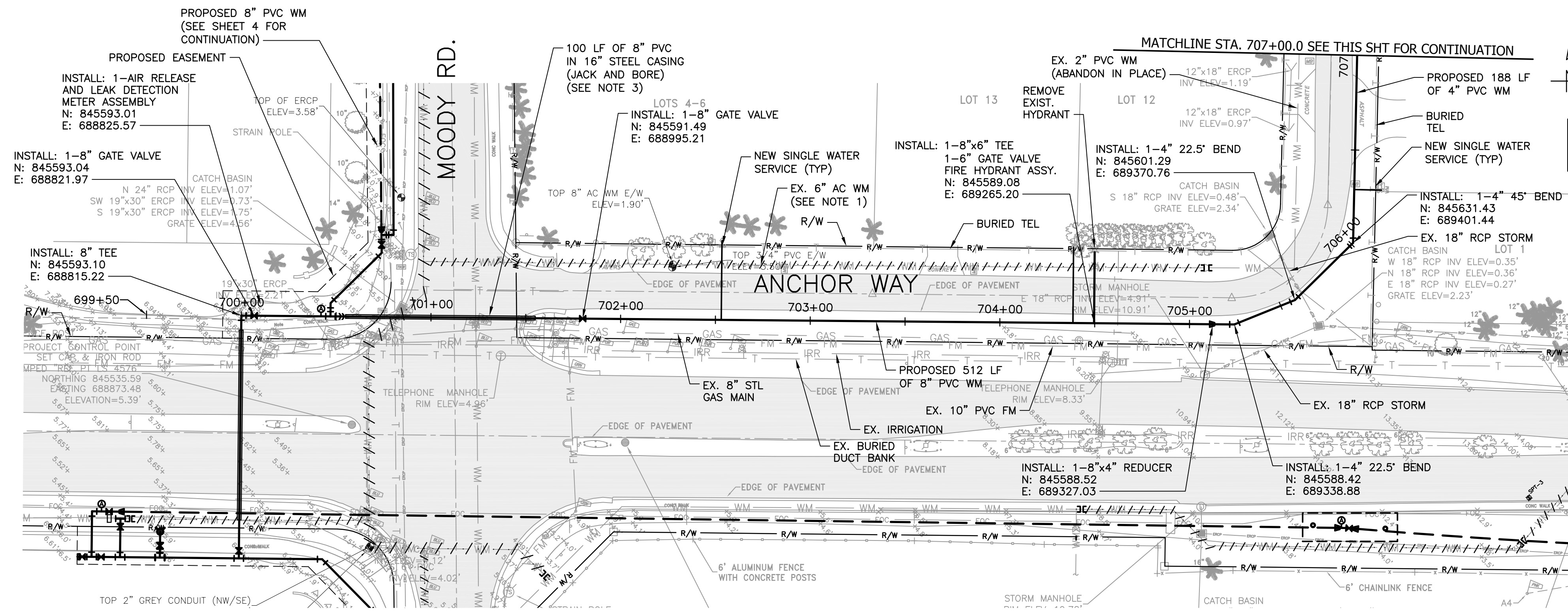
LEE COUNTY, FLORIDA
 HANCOCK BRIDGE PARKWAY
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 CONTRACT NO. 7121

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PLAN AND PROFILE
 SEAWORTHY RD.
 STA 800+00.0 TO STA 811+60.0

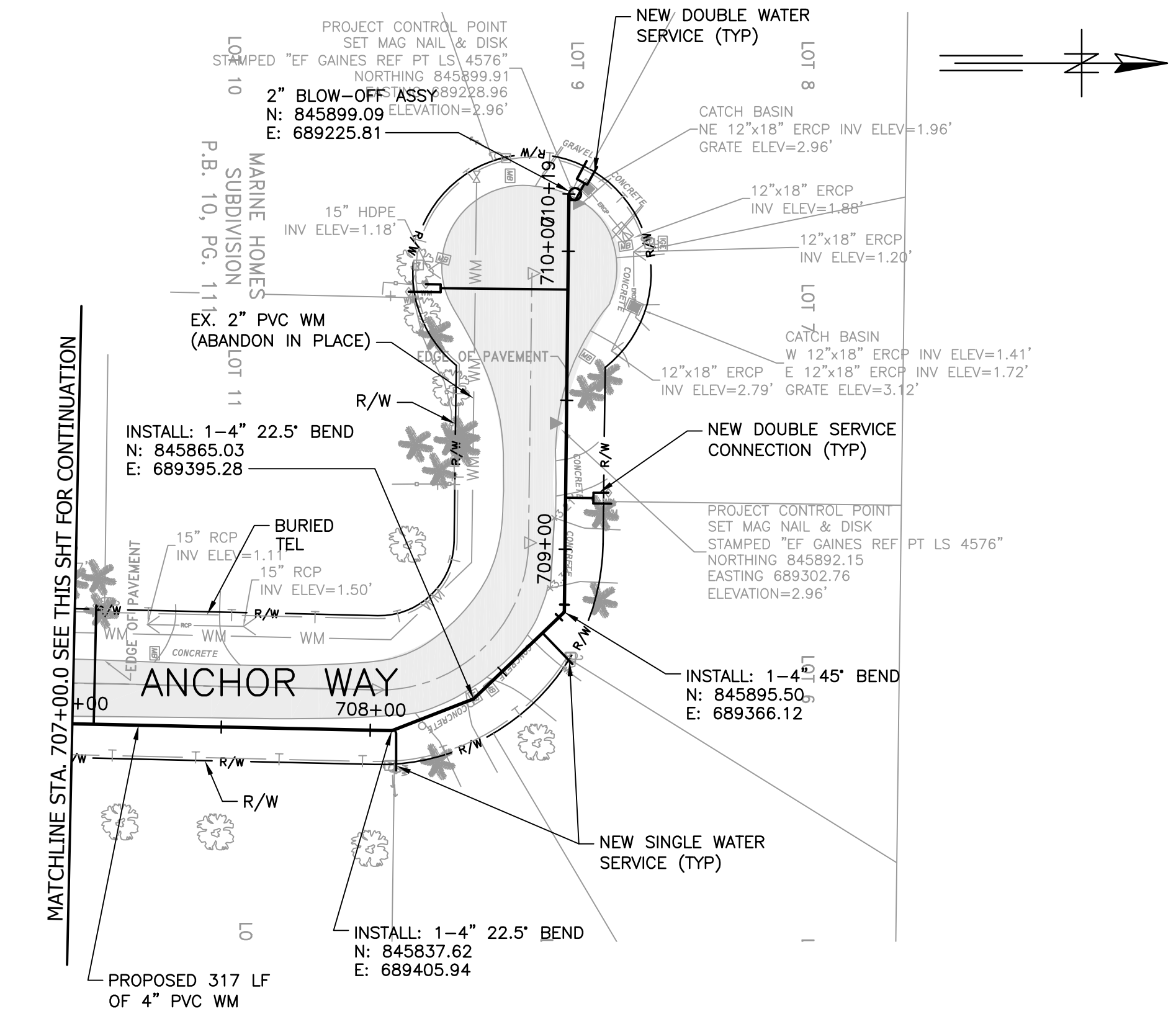
Digitally signed by
 Thomas Reed Meriwether, P.E.
 Date: 2018.12.19 10:15:47 -0500

FILE NAME 0520A-P01
 DWG
 SHEET 8 OF 14
 DATE DECEMBER 2018 REV

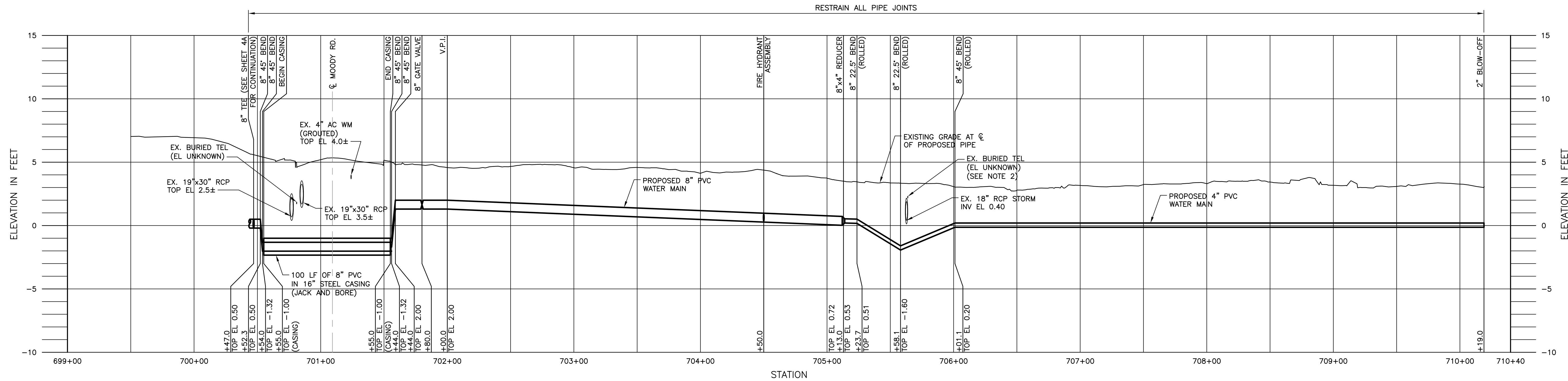


PLAN

- NOTES:
- CAP, GROUT AND ABANDON IN PLACE AFTER NEW MAIN IS PLACED IN SERVICE.
 - UTILITY ELEVATION UNKNOWN, CONTRACTOR TO SURVEY LOCATION AND PROVIDE INFORMATION TO ENGINEER PRIOR TO INSTALLING WATER MAIN.
 - ALTERNATE CONSTRUCTION METHOD. HORIZONTAL DRILLING MAY BE CONSIDERED.

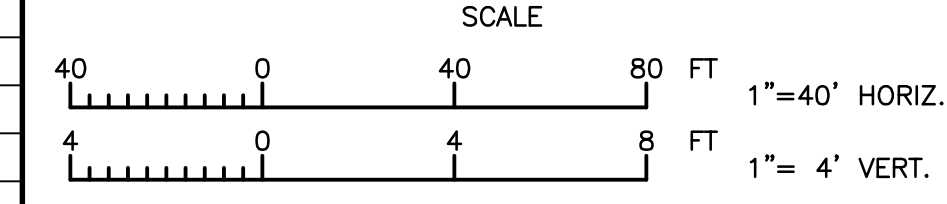


PLAN

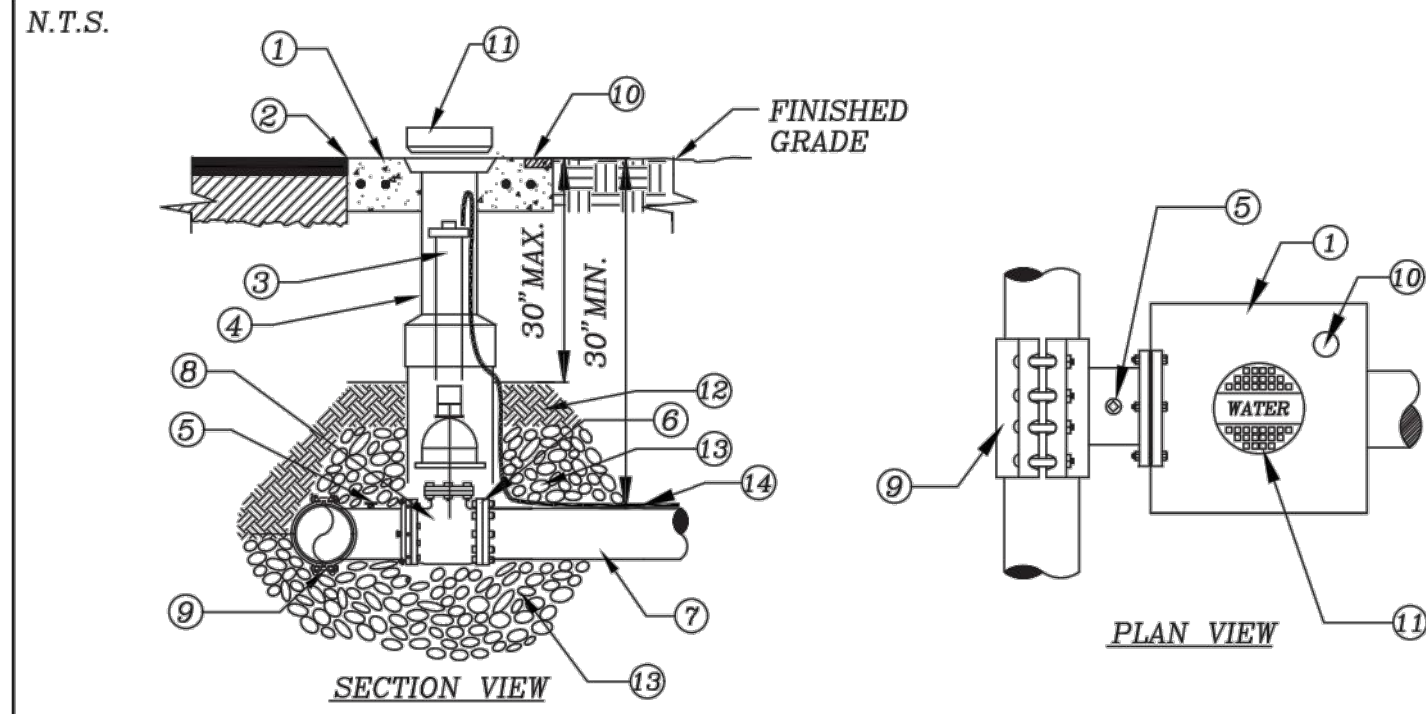


PROFILE

| NO. | DATE | APPD | REVISION |
|-----|------|------|----------|
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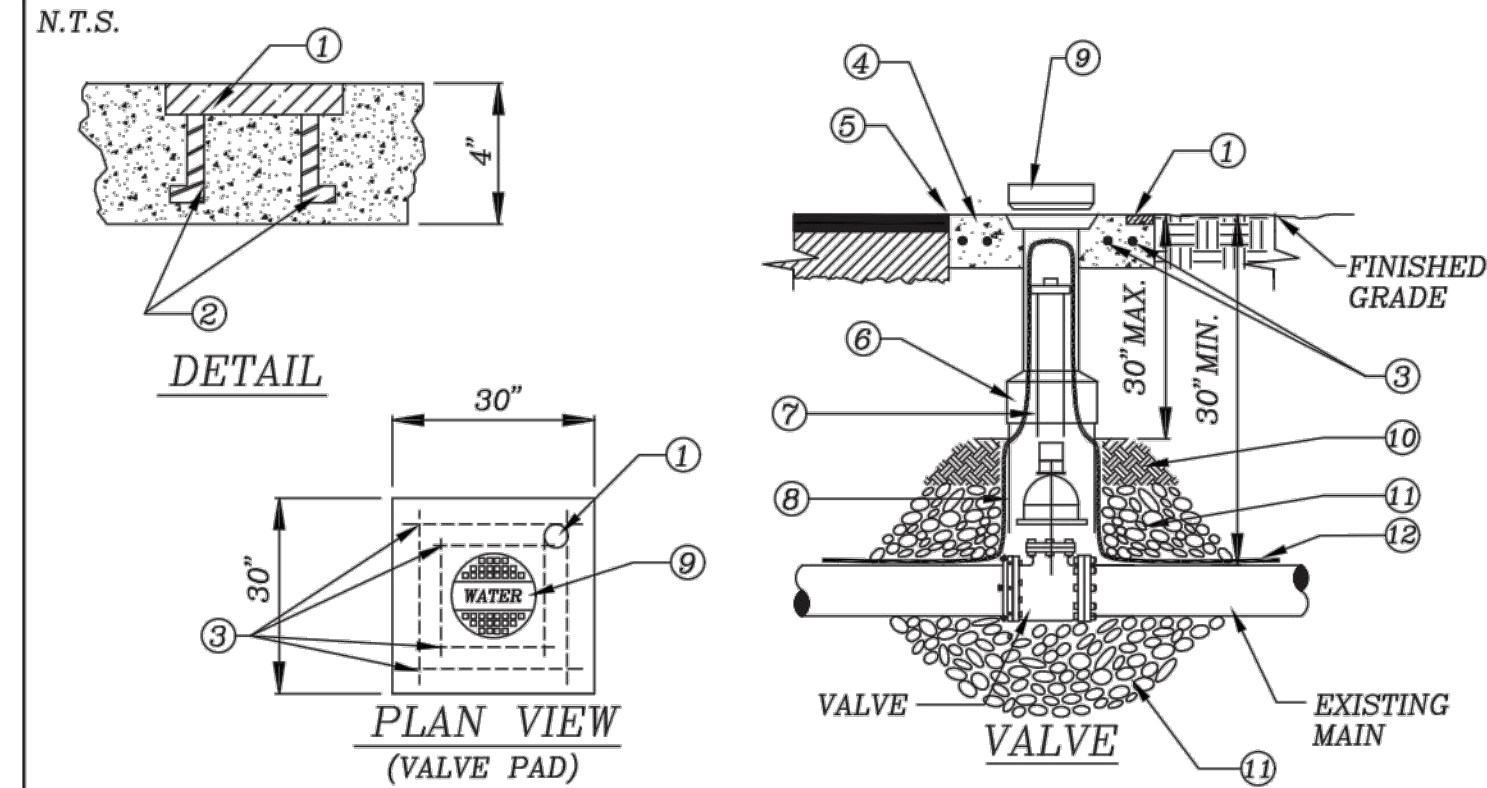
**STANDARD DETAIL NO. 6.1
LEE COUNTY UTILITIES
TAPPING SLEEVE AND VALVE**



- 1 CONCRETE PAD (SEE VALVE INSTALLATION DETAIL)
- 2 SET TOP OF BOX FLUSH WITH FINISHED GRADE
- 3 EXTENSION STEM IF TOP OF OPERATING NUT IS MORE THAN 30" BELOW FINISH GRADE
- 4 VALVE BOX (SEE VALVE INSTALLATION DETAIL)
- 5 OUTLET FOR TESTING
- 6 MJ RESTRAINED
- 7 MAIN SIZE VARIES
- 8 TAPPING VALVE (SEE VALVE INSTALLATION DETAIL)
- 9 LCU APPROVED ALL STAINLESS STEEL PRESSURE RATED TAPPING SLEEVE. FOR SIZE ON SIZE TAPS A PLANGED TAPPING SLEEVE IS REQUIRED. SPRING LOADED TAPPING SLEEVE IS REQUIRED WHEN CONNECTING TO HDPE (SEE APPROVED MATERIAL LIST).
- 10 BRASS PLATE (SEE VALVE INSTALLATION DETAIL)
- 11 CAST IRON DROP COVER MARKED "WATER", "SEWER", OR "REUSE"
- 12 COMPACTED SUITABLE EARTH BACKFILL
- 13 3/4" GRANULAR MATERIAL #57 STONE
- 14 12 GAUGE DOUBLE INSULATED COPPER LOCATING WIRE (SEE LCU STANDARD DETAIL)

REV: 12/10/2015

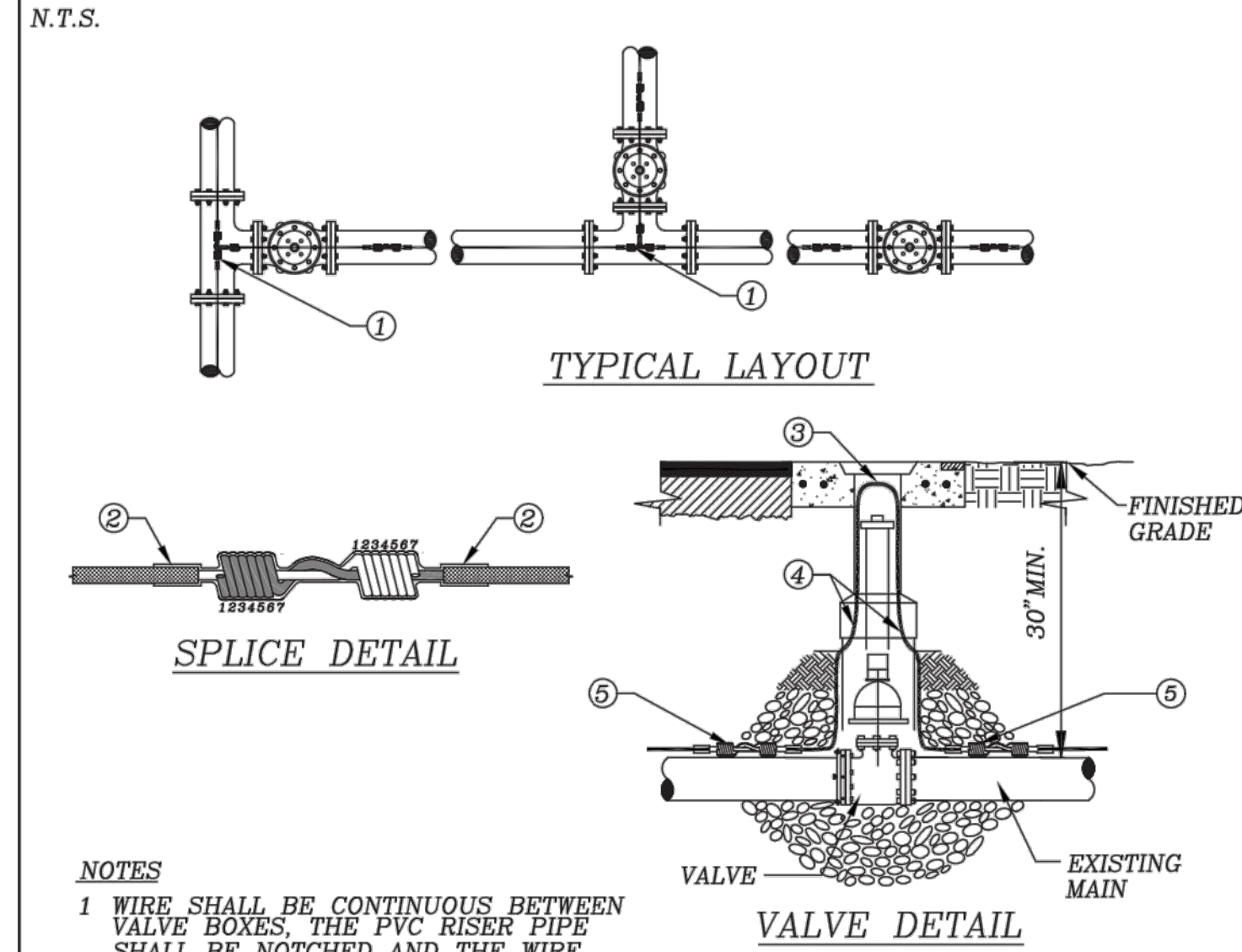
**STANDARD DETAIL NO. 6.2
LEE COUNTY UTILITIES
VALVE INSTALLATION**



- 1 BRASS PLATE: SIZE OF VALVE, VALVE TYPE No. OF TURNS & DIRECTION TO OPEN VALVE M.F.G. & YEAR INSTALL SYSTEM "WATER" OR "SEWER" OR "REUSE" OR "FIRE"
- 2 ANCHOR
- 3 EIGHT (8) #4 BARS OVERLAP EACH CORNER BY 2"
- 4 30" SQ X 4" THK. CONC. PAD SURROUNDING BOX, MIN. 3,000 P.S.I. POURED IN PLACE
- 5 SET TOP OF BOX FLUSH WITH FINISHED GRADE
- 6 HEAVY DUTY TRAFFIC BEARING CAST IRON VALVE BOX, ADJUSTABLE SCREW TYPE, 5 1/4" DIAMETER SHAFT THAT IS LCU APPROVED
- 7 EXTENSION STEM WITH 2" OPERATING NUT AS REQUIRED, IF NUT IS MORE THAN 30" BELOW FINISH GRADE
- 8 RISER NOT TO BEAR ON VALVE OR PIPE
- 9 CAST IRON DROP COVER MARKED "WATER" OR "SEWER" OR "REUSE OR "FIRE"
- 10 COMPACTED SUITABLE EARTH BACKFILL
- 11 3/4" GRANULAR MATERIAL #57 STONE
- 12 12 GAUGE DOUBLE INSULATED COPPER LOCATING WIRE (SEE LCU STANDARD DETAIL)

REV: 12/10/2015

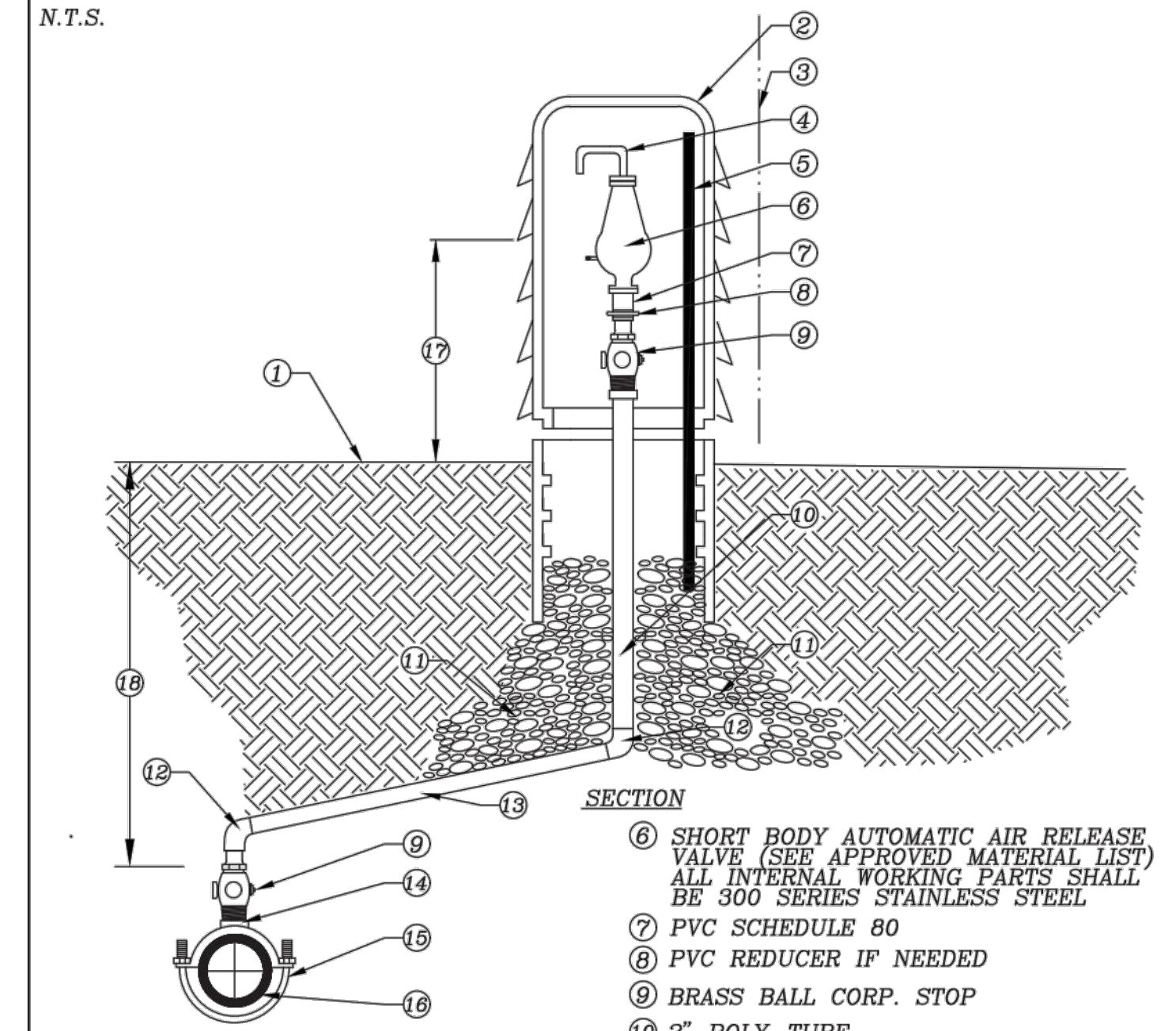
**STANDARD DETAIL NO. 6.3
LEE COUNTY UTILITIES
LOCATING WIRE FOR PRESSURE MAINS**



- NOTES**
- 1 WIRE SHALL BE CONTINUOUS BETWEEN VALVE BOXES. THE PVC RISER PIPE SHALL BE NOTCHED AND THE WIRE ATTACHED TO THE RISER PIPE TO ALLOW FOR THE WIRE TO FIT INSIDE THE CAST IRON VALVE BOX WITHOUT SHEARING THE WIRE.
 - 2 LOCATING WIRE SHALL BE LAID ON TOP OF THE MAIN AND SHALL BE TAPED TO IT AT 10' INTERVALS AND TAPED AT ALL FITTINGS. TAPE SHALL BE 10 MIL POLYETHYLENE.
 - 3 CONTRACTOR SHALL CONDUCT A CONTINUITY TEST ON ALL LOCATING WIRE SPLICES PRIOR TO SCHEDULING THE OFFICIAL FINAL INSPECTION WITH LCU.
 - 4 ALL SPLICES SHALL UTILIZE A DIRECT BURY WATERPROOF SPLICE KIT (SEE APPROVED MATERIAL LIST)
- 1 SPLICE RUN TOGETHER, KEEP CLEAR OF FITTING, TYPICAL
 - 2 COVER SPLICE WITH 2 WRAPS OF 10 MIL. POLYETHYLENE TAPE
 - 3 6" LOOP OF BARE WIRE, 9" MAX. DEPTH TO TOP OF BARE WIRE
 - 4 12 GAUGE DOUBLE INSULATED COPPER LOCATING WIRE
 - 5 SPLICE (SEE DETAIL THIS SHEET)

REV: 12/10/2015

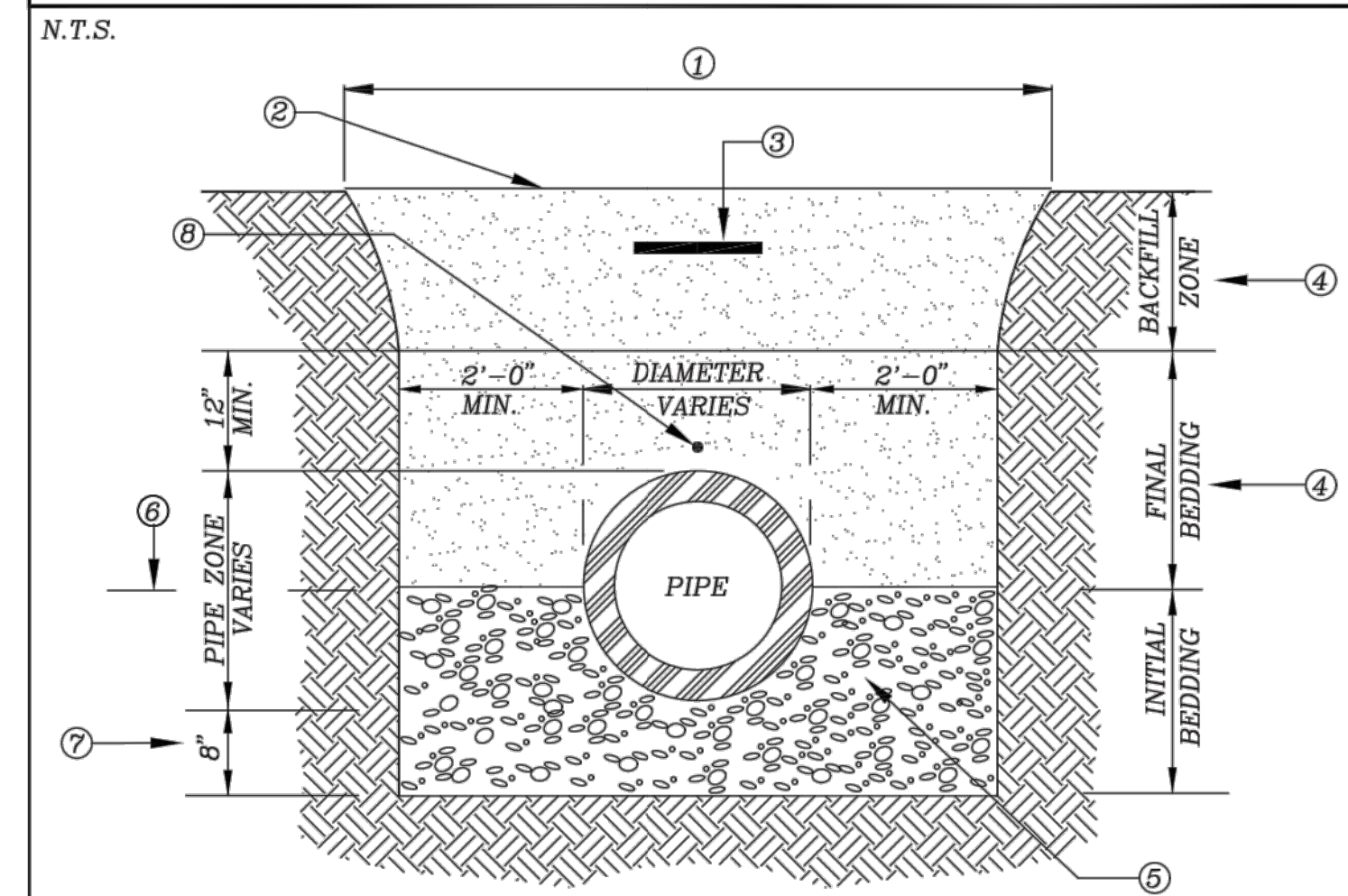
**STANDARD DETAIL NO. 6.4
LEE COUNTY UTILITIES
AUTOMATIC AIR RELEASE VALVE**



- 1 FINISHED GRADE
- 2 PEDESTAL HOUSING (SEE APPROVED MATERIAL LIST) COLORS: BLUE-WATER GREEN-SEWER, FANTONE-REUSE
- 3 EDGE OF RIGHT-OF-WAY
- 4 PVC STREET ELL
- 5 S.S. POST WITH S.S. HARDWARE AND S.S. LOCKING HASP WITH BRASS LOCK
- 6 SHORT BODY AUTOMATIC AIR RELEASE VALVE (SEE APPROVED MATERIAL LIST) ALL INTERNAL WORKING PARTS SHALL BE 300 SERIES STAINLESS STEEL
- 7 PVC SCHEDULE 80
- 8 PVC REDUCER IF NEEDED
- 9 BRASS BALL CORP. STOP
- 10 2" POLY-TUBE
- 11 3/4" GRANULAR MATERIAL, #57 STONE
- 12 2" BRASS FITTING IF NECESSARY
- 13 1% MIN. SLOPE UP, 2" POLY-TUBE
- 14 TAP AT CROWN OF PIPE
- 15 2" DOUBLE STRAP TAPPING SADDLE (SEE APPROVED MATERIAL LIST)
- 16 EXISTING PRESSURE MAIN
- 17 24"
- 18 30" MIN.

REV: 12/10/2015

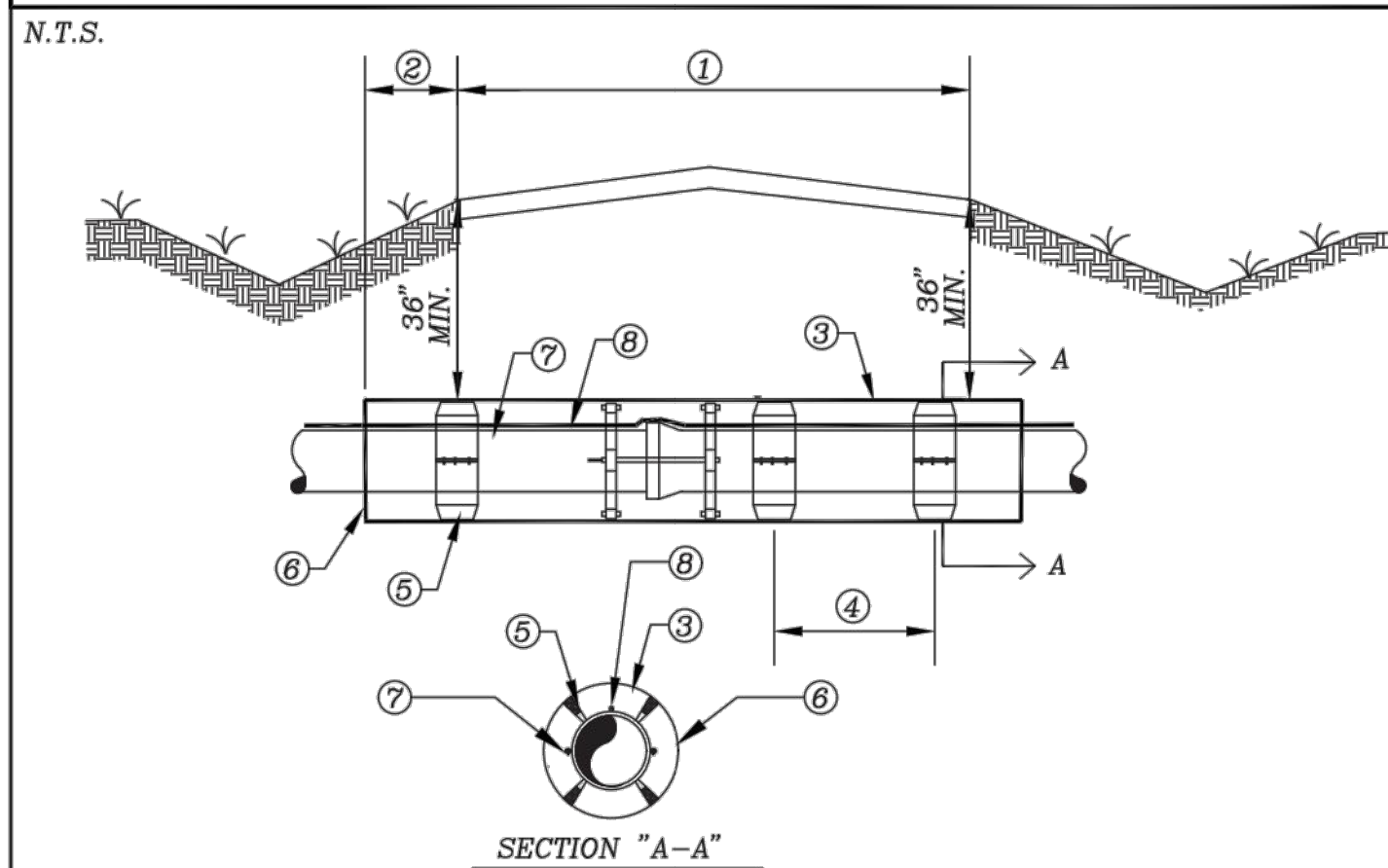
**STANDARD DETAIL NO. 6.5
LEE COUNTY UTILITIES
TRENCH CROSS SECTION**



- 1 EXCAVATED TRENCH
- 2 FINISHED GRADE
- 3 MARKING TAPE 12" DEPTH MAX.
- 4 MATERIALS CLEAN DRY SAND, FINE LIME ROCK OR PIT SHELL MECHANICALLY COMPACTED IN 6" LIFTS TO AT LEAST 95% OF MAX. DENSITY, OR 98% IF UNDER PAVED AREA OF ROADWAY.
- 5 #57 STONE LOCATED UNDER PIPE OR EXISTING UNDISTURBED SUITABLE MATERIAL
- 6 SPRING LINE
- 7 STANDARD 8" MIN TRENCH UNDERCUT AND BACKFILL WITH #57 STONE COMPACTED IN 6" LIFTS ADDITIONAL UNDERCUT AND CRUSHED ROCK BEDDING FOUNDATION WHEN DIRECTED BY L.C.U. THE CONTRACTOR IS TO REMOVE UNSTABLE MATERIAL FROM THE TRENCH FOUNDATION. THEN INSTALL STABILIZED CRUSHED ROCK BACKFILL WITH #57 STONE COMPACTED IN 6" LIFTS
- 8 LOCATING WIRE IS REQUIRED FOR ALL PRESSURIZED PIPELINES.

REV: 12/10/2015

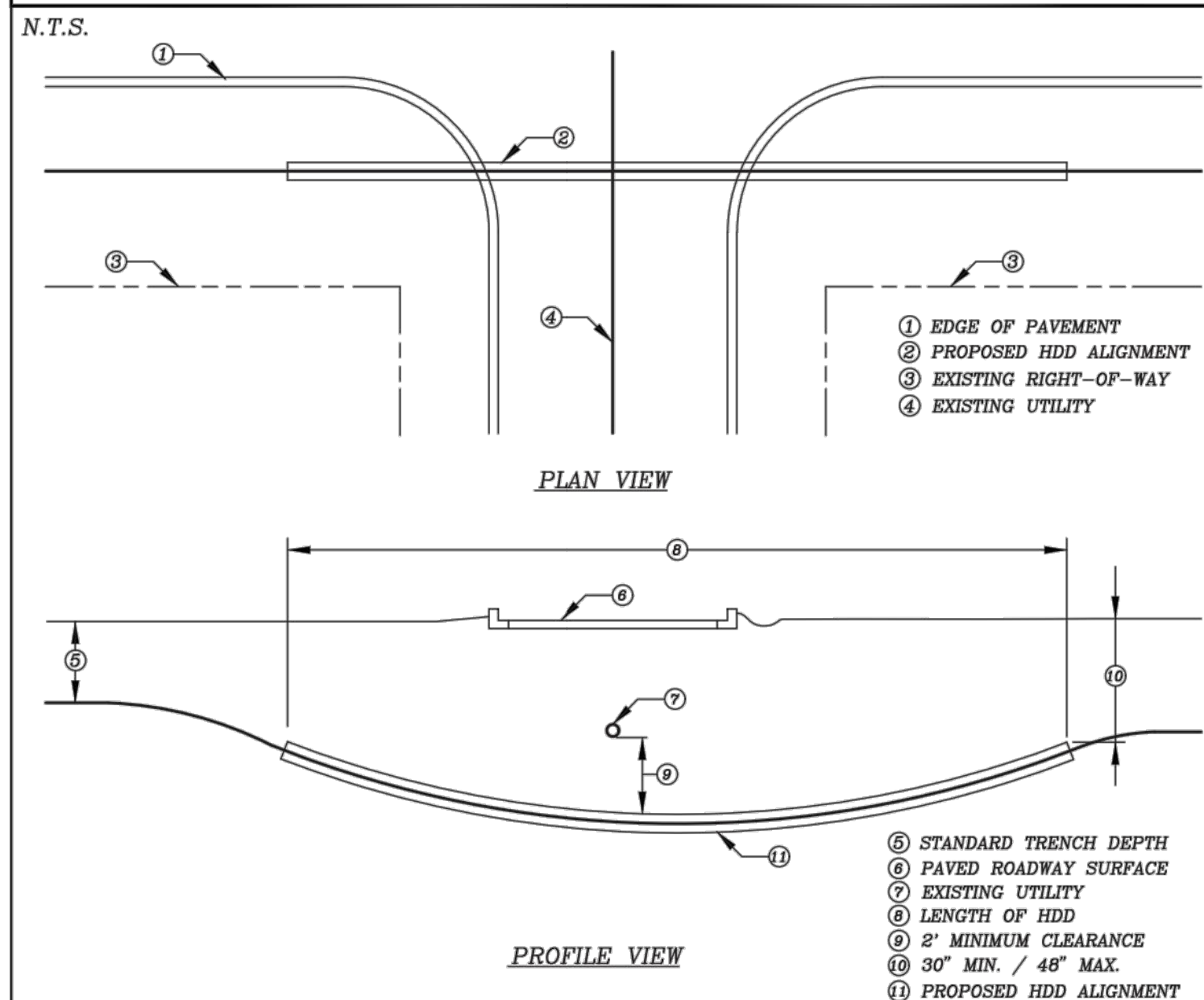
**STANDARD DETAIL NO. 6.6
LEE COUNTY UTILITIES
JACK AND BORE**



- 1 LIMITS OF PAVEMENT
- 2 EXTEND CASING 4' MIN. BEYOND E.O.P. AND/OR BACK OF CURB FOR L.C.D.O.T. MAINTAINED R.O.W. AND 8' MIN. FOR F.D.O.T. MAINTAINED R.O.W.
- 3 STEEL CASING PIPE CONFORMING TO ASTM A-139
- 4 T.O.C. MAX OR AS PER MANUFACTURER'S RECOMMENDATION
- 5 L.C.U. APPROVED CASING SPACERS
- 6 SEAL CASING ENDS WITH: 8" WALL OF BRICK MASONRY WITH WEEP HOLE INSTALLED NEAR BOTTOM, OR APPROVED EQUAL
- 7 ALL JOINTS OF THE CARRIER PIPE SHALL HAVE BELL RESTRAINTS
- 8 12 GAUGE DOUBLE INSULATED COPPER WIRE (SEE LCU STANDARD DETAIL)

REV: 12/10/2015

**STANDARD DETAIL NO. 6.7
LEE COUNTY UTILITIES
HORIZONTAL DIRECTIONAL DRILL UNDER A ROADWAY**

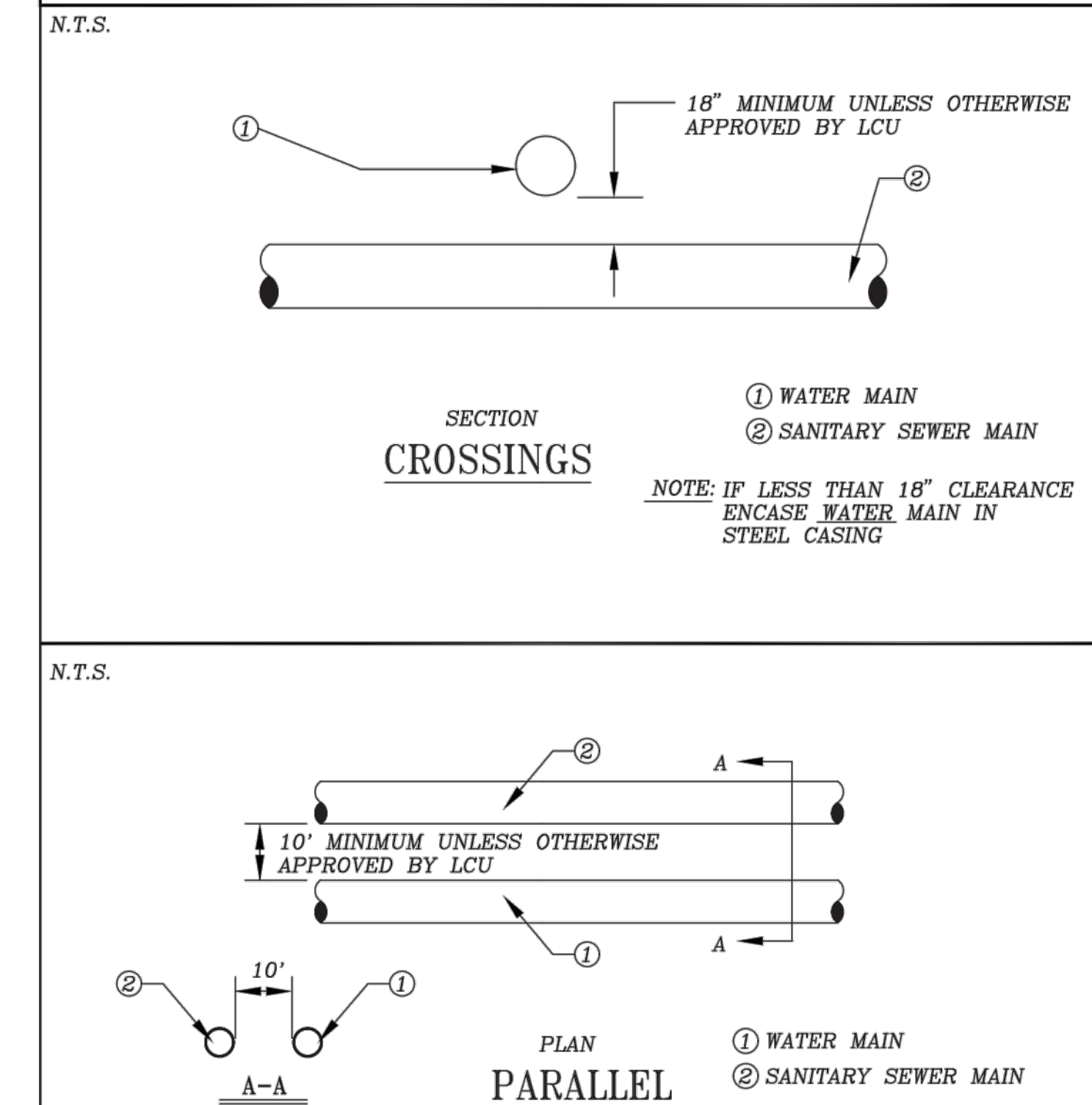


- HDD INSTALLATION NOTES:**
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LEE COUNTY UTILITIES DESIGN MANUAL.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF AFFECTED AGENCIES AND COORDINATION WITH ALL UTILITIES PRIOR TO CONSTRUCTION.
 3. ALL CONSTRUCTION MATERIALS, INCLUDING DRILLING FLUID, SHALL BE REMOVED FROM THE SITE PRIOR TO RESTORATION OF DISTURBED AREAS.
 4. ALL RESTORATION WORK SHALL BE IN ACCORDANCE WITH THE LCU DESIGN MANUAL.
 5. CASING DIAMETER SHALL BE IN ACCORDANCE WITH THE LCU DESIGN MANUAL.
 6. NO CASING SPACERS REQUIRED.
 7. WHEN CASING IS REQUIRED INSTALL 1" HDPE PIPE ATTACHED TO THE CARRIER PIPE WITH 12 GAUGE DOUBLE INSULATED COPPER WIRE INSIDE THE HDPE PIPE.
- 1 EDGE OF PAVEMENT
 - 2 PROPOSED HDD ALIGNMENT
 - 3 EXISTING RIGHT-OF-WAY
 - 4 EXISTING UTILITY
 - 5 STANDARD TRENCH DEPTH
 - 6 PAVED ROADWAY SURFACE
 - 7 EXISTING UTILITY
 - 8 LENGTH OF HDD
 - 9 2' MINIMUM CLEARANCE
 - 10 30° MIN. / 48° MAX.
 - 11 PROPOSED HDD ALIGNMENT

REV: 12/10/2015

Thomas Reed
Meriwether, P.E.
P.E.
Digitally signed by Thomas Reed Meriwether, P.E. Date: 2018.12.19 10:15:47 -05'00'

**STANDARD DETAIL NO. 6.8
LEE COUNTY UTILITIES
WATER AND SEWER CROSSING DETAIL**



- 1 WATER MAIN
 - 2 SANITARY SEWER MAIN
- NOTE: IF LESS THAN 18" CLEARANCE ENCASE WATER MAIN IN STEEL CASING
- NOTE: IF LESS THAN 10' CLEARANCE ENCASE WATER MAIN IN STEEL CASING

REV: 12/10/2015

GREELEY AND HANSEN
5252 SUMMERLIN COMMONS WAY, STE 104
FORT MYERS, FLORIDA 33907
CERTIFICATE OF AUTHORIZATION NO. 37

DESIGNED EJM
DRAWN JMW
CHECKED ACS
APPROVED
P.E. NAME: _____
DATE: _____
P.E. NAME: THOMAS R. MERIWETHER P.E. NO. 75938

| NO. | DATE | APPD | REVISION |
|-----|------|------|----------|
| | | | |

SCALE

LEE COUNTY, FLORIDA
HANCOCK BRIDGE PARKWAY
WATER MAIN IMPROVEMENTS
CONTRACT NO. 7121

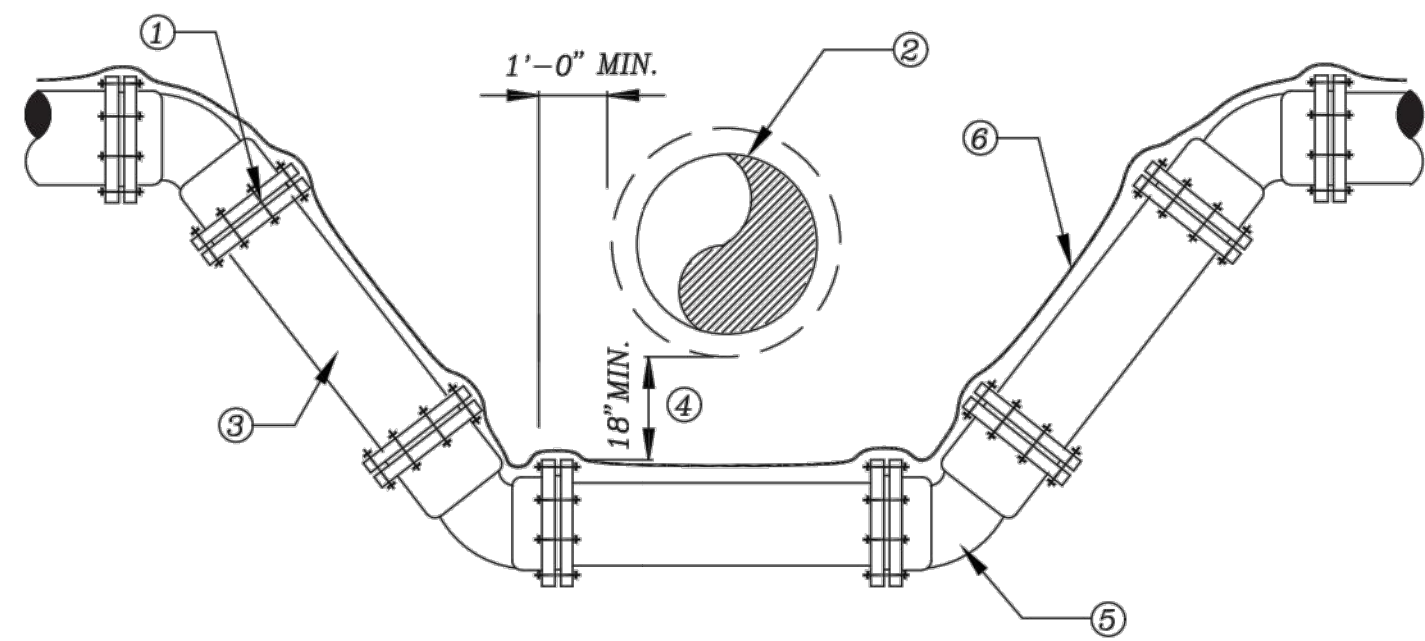
THOMAS R. MERIWETHER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 75938 THIS ITEM HAS BEEN ELECTRONICALLY SEALED ON THE DATE SHOWN BY THOMAS R. MERIWETHER, P.E. USING A SHA-1 AUTHENTICATION CODE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

DETAILS
STANDARD DETAILS

FILE NAME 0520A-D01
DWG
SHEET 10 OF 14
DATE DECEMBER 2018 REV 0

STANDARD DETAIL NO. 6.10
LEE COUNTY UTILITIES
WATER PRESSURE LINE VERTICAL OFFSET
W/ DUCTILE IRON MJ FITTINGS & PIPE

N.T.S.



- ① LCU APPROVED JOINT RESTRAINT FOR D.I., M.J. PIPE AND FITTINGS PLACED IN ACCORDANCE WITH JOINT RESTRAINT SCHEDULE. (SEE DETAIL 6.12)
- ② CONFLICT PIPE
- ③ LCU APPROVED DUCTILE IRON PIPING PRESSURE CLASS 350
- ④ 18" MIN. UNLESS OTHERWISE APPROVED BY LCU
- ⑤ 45° MECHANICAL JOINT FITTING, TYPICAL
- ⑥ 12 GAUGE DOUBLE INSULATED COPPER WIRE (SEE LCU STANDARD DETAIL)

REV: 12/10/2015

STANDARD DETAIL NO. 6.12
LEE COUNTY UTILITIES
RESTRAINED LENGTH SCHEDULE

N.T.S.

DUCTILE IRON PIPE

| PIPE SIZE (Inches) | MINIMUM RESTRAINED PIPE LENGTH (FEET) | | | | DEAD END | HORIZONTAL TEE |
|--------------------|---------------------------------------|-----|---------|---------|----------|----------------|
| | 90° | 45° | 22-1/2' | 11-1/4' | | |
| 4 | 17 | 7 | 4 | 2 | 29 | 6 |
| 6 | 23 | 10 | 5 | 2 | 40 | 17 |
| 8 | 29 | 12 | 6 | 3 | 53 | 29 |
| 10 | 35 | 14 | 7 | 4 | 63 | 38 |
| 12 | 41 | 17 | 8 | 4 | 74 | 49 |
| 16 | 51 | 21 | 11 | 5 | 94 | 68 |
| 24 | 69 | 29 | 14 | 7 | 131 | 105 |
| 30 | 81 | 34 | 17 | 8 | 156 | 129 |

PVC PIPE

| PIPE SIZE (Inches) | MINIMUM RESTRAINED PIPE LENGTH (FEET) | | | | DEAD END | HORIZONTAL TEE |
|--------------------|---------------------------------------|-----|---------|---------|----------|----------------|
| | 90° | 45° | 22-1/2' | 11-1/4' | | |
| 4 | 20 | 8 | 4 | 2 | 45 | 8 |
| 6 | 29 | 12 | 6 | 3 | 63 | 25 |
| 8 | 36 | 15 | 8 | 4 | 83 | 43 |
| 10 | 44 | 18 | 9 | 5 | 99 | 58 |
| 12 | 51 | 21 | 11 | 5 | 116 | 74 |
| 16 | 63 | 26 | 13 | 7 | 149 | 103 |
| 24 | 87 | 36 | 18 | 9 | 208 | 158 |
| 30 | 102 | 42 | 21 | 10 | 248 | 194 |

A COMPLETE JOINT RESTRAINING SCHEDULE FOR ALL ENCOUNTERED VERTICAL & HORIZONTAL BENDS, VERTICAL OFFSETS, TEES, AND DEAD ENDS SHALL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER.

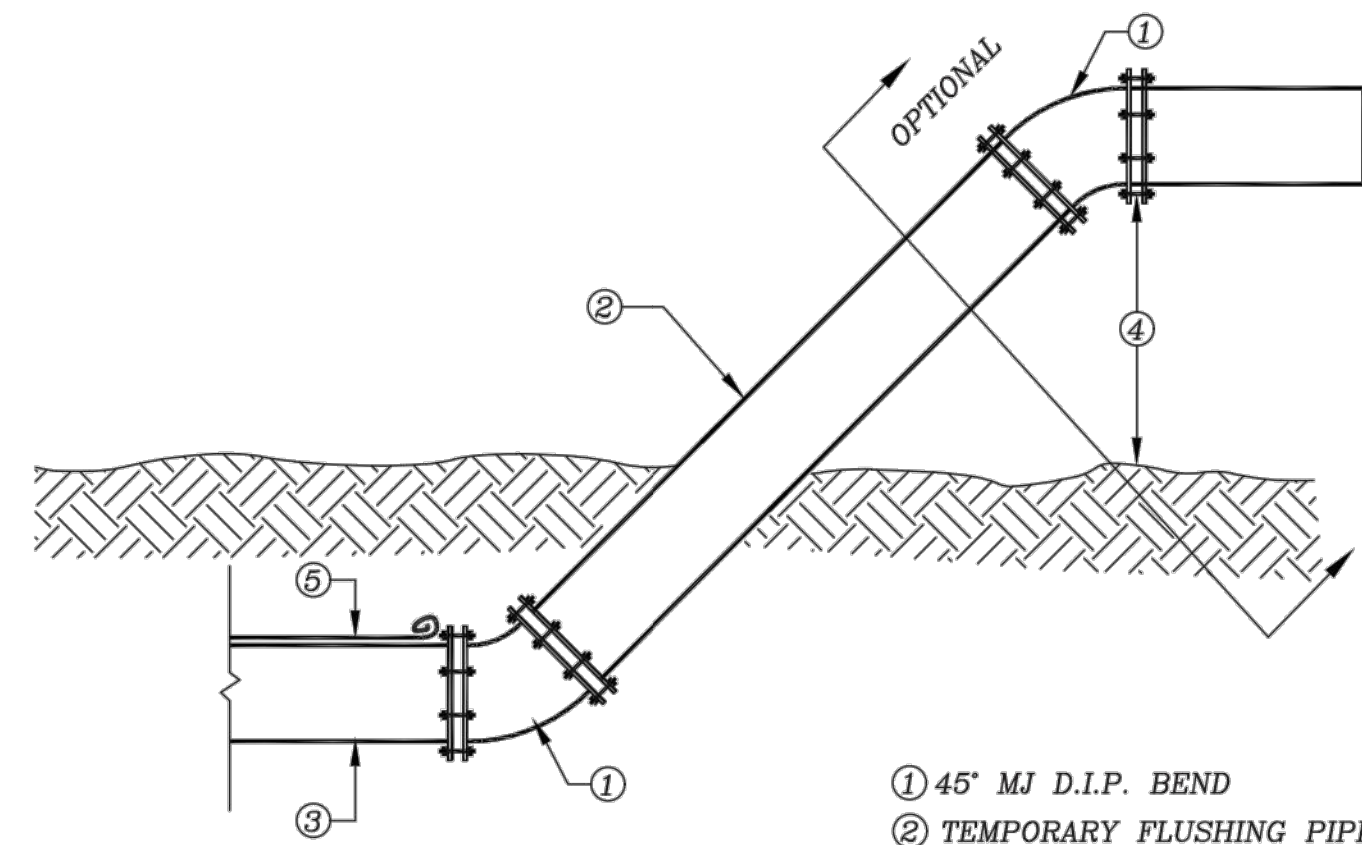
LENGTH FIGURES BASED ON FOLLOWING:

Pressure = 150 psi, FS = 1.5, trench type = 3, 30" cover on Bare pipe, Soil type = GP & SP

REV: 12/10/2015

STANDARD DETAIL NO. 6.13
LEE COUNTY UTILITIES
WATER MAIN FLUSHING DETAIL

N.T.S.



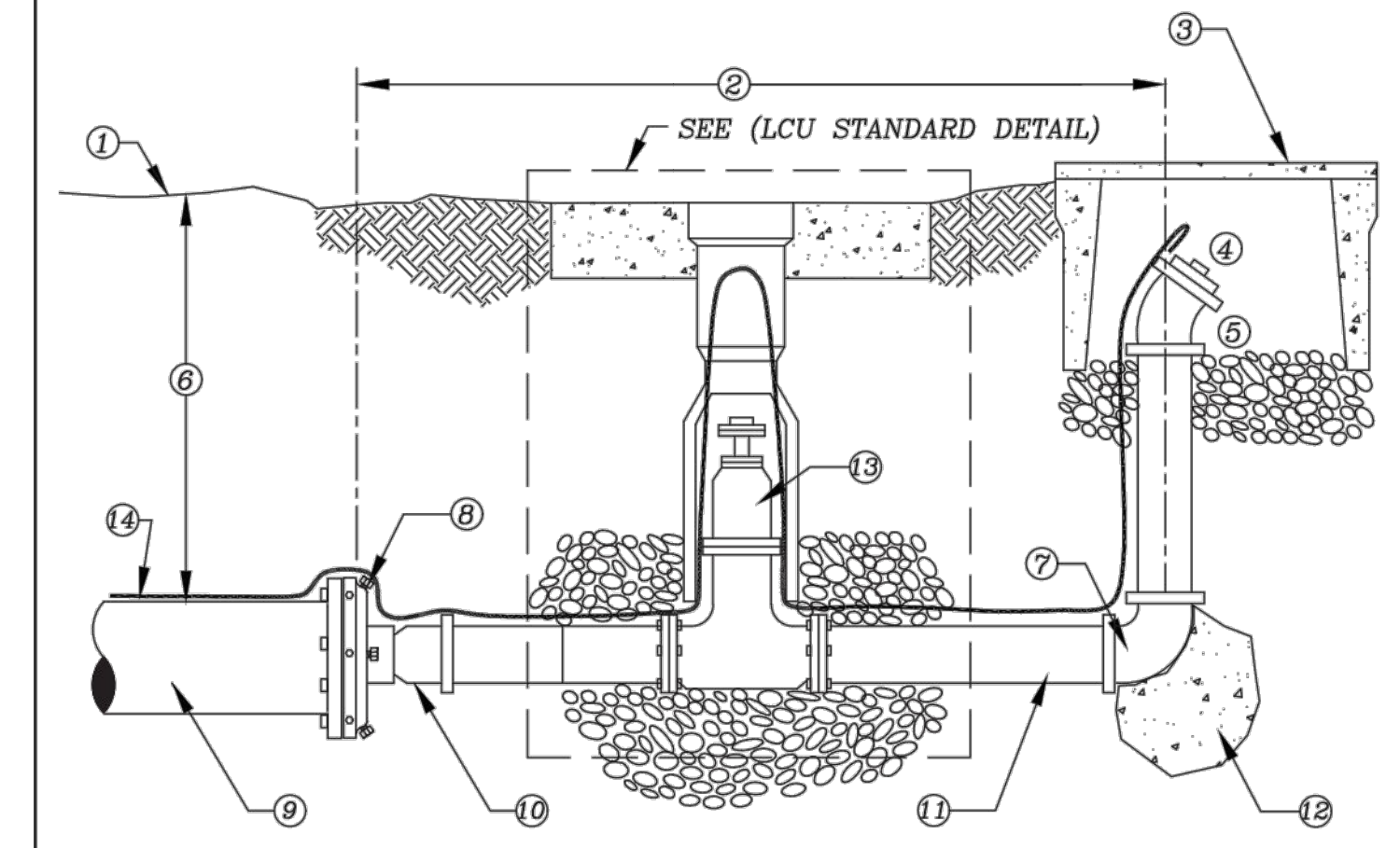
NOTES:

1. FLUSHING DETAIL TO BE USED ON WATER LINES 8" DIAMETER OR GREATER.
2. FLUSHING PIPE SHALL BE THE SAME DIAMETER AS WATER MAIN.
3. CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE FOR FLUSHED WATER.
4. PROVIDE M.J. CAP IF ASSEMBLY IS LEFT IN PLACE UNATTENDED.
5. 12 GAUGE DOUBLE INSULATED COPPER LOCATING WIRE (SEE LCU STANDARD DETAIL)

REV: 12/10/2015

STANDARD DETAIL NO. 6.14
LEE COUNTY UTILITIES
BLOW OFF DETAIL

N.T.S.



- ① FINISHED GRADE
- ② 5'-0" MAX.
- ③ WATER METER BOX W/GRAVEL BOTTOM (SEE APPROVED MATERIAL LIST)
- ④ 2" THREADED PLUG
- ⑤ 2"-45° BEND
- ⑥ 30" MIN.
- ⑦ 2"-90° BEND
- ⑧ M.J. CAP WITH 2" TAP
- ⑨ END OF WATER MAIN, R.J. PER SCHEDULE
- ⑩ 2" THREADED
- ⑪ 2" P.V.C. (SCH 80) C. MALE ADAPTER
- ⑫ POURED IN PLACE THRUST BLOCKING (SEE DETAIL 9.20)
- ⑬ 2" DIAMETER GATE VALVE
- ⑭ 12 GAUGE DOUBLE INSULATED COPPER LOCATING WIRE (SEE LCU STANDARD DETAIL)

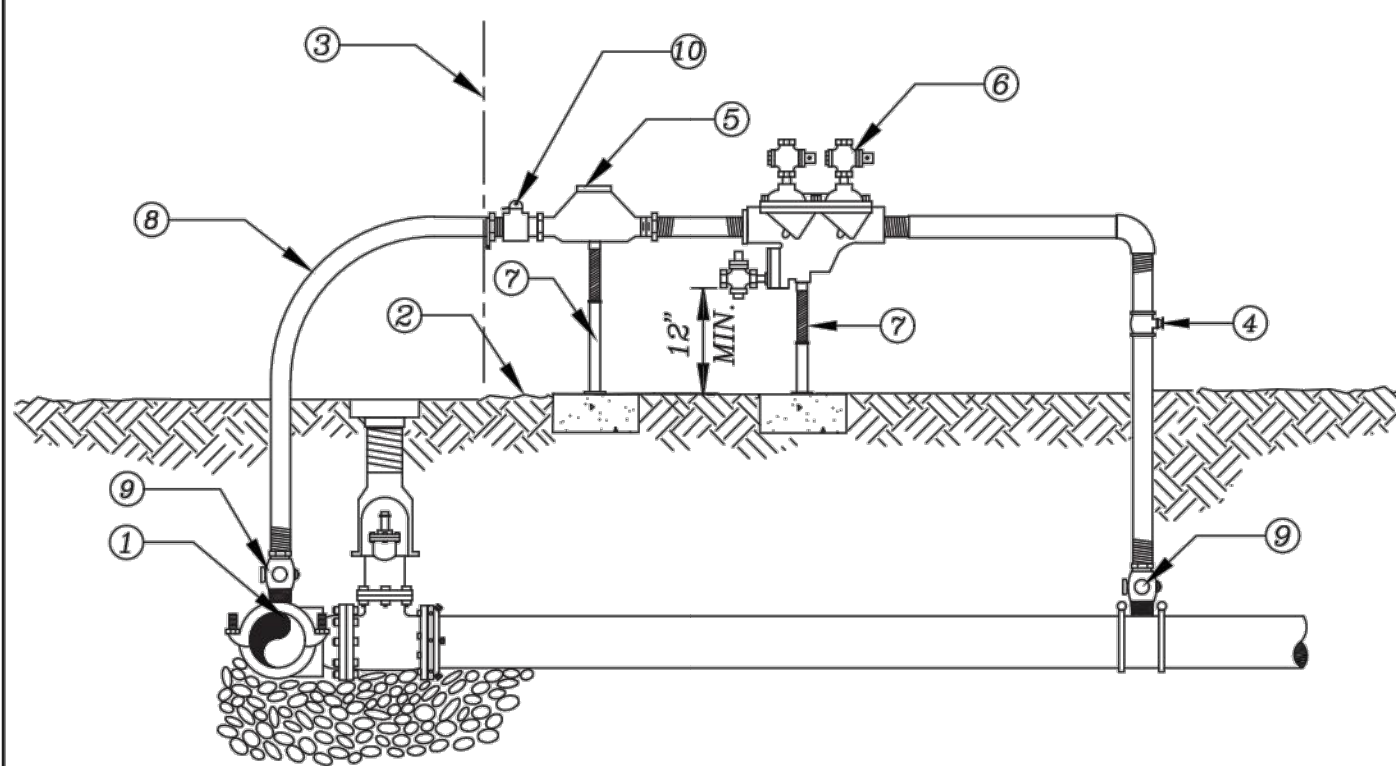
NOTE:

ALL PIPING TO BE 2" P.V.C. (SCH 80) THREADED FITTINGS OR SOLVENT WELDED FITTINGS

REV: 12/10/2015

STANDARD DETAIL NO. 6.15
LEE COUNTY UTILITIES
TEMPORARY CONSTRUCTION JUMPER WITH METER

N.T.S.



NOTES:

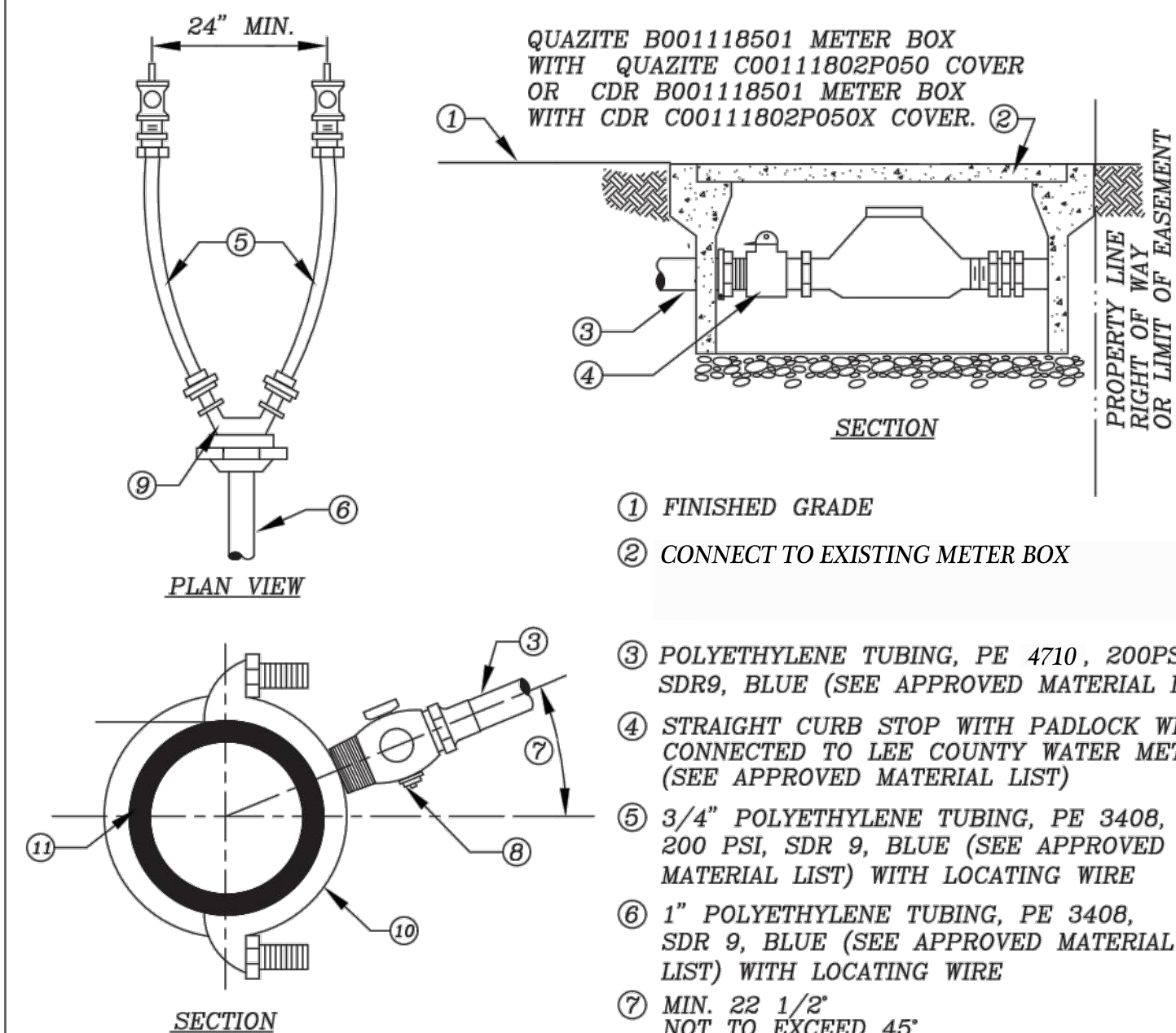
CONTRACTOR/CUSTOMER SHALL APPLY AT LEE COUNTY UTILITIES FOR TEMPORARY WATER SERVICE FIVE DAYS PRIOR TO REQUIRED SERVICE DATE. THE METER ONLY WILL BE FURNISHED BY LEE COUNTY UTILITIES. ALL FITTINGS, PIPING, VALVES AND MATERIALS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR/CUSTOMER. THE APPROVED BACKFLOW PREVENTION DEVICE SHALL BE TESTED AND CERTIFIED BY LEE COUNTY UTILITIES APPROVED CERTIFIED BACKFLOW PREVENTION TECHNICIAN (FURNISHED BY CONTRACTOR/CUSTOMER) AT TIME OF METER INSTALLATION. CONTRACTOR/CUSTOMER SHALL PROTECT THE ASSEMBLY FROM DAMAGE. TEMPORARY CONSTRUCTION JUMPER/METER ASSEMBLY SHALL NOT BE REMOVED UNTIL SYSTEM IS ACCEPTED AND DEPARTMENT OF HEALTH CERTIFICATION AND CLEARANCE FOR SERVICE FORM HAS BEEN RECEIVED BY LEE COUNTY UTILITIES. WHEN THE NEW SYSTEM IS ACCEPTED, THE TEMPORARY CONSTRUCTION JUMPER METER ASSEMBLY MUST BE COMPLETELY REMOVED DOWN TO CORP STOPS.

- ① TAPPING SLEEVE AND VALVE TO BE FULLY RESTRAINED ON EXISTING MAIN (SEE LCU STANDARD DETAIL)
- ② GRADE
- ③ PROPERTY LINE AND/OR RIGHT OF WAY LINE
- ④ BRONZE BALL VALVE
- ⑤ METER FURNISHED BY LEE COUNTY UTILITIES
- ⑥ REDUCED PRESSURE BACKFLOW PREVENTER
- ⑦ PIPE STAND (SEE LCU STANDARD DETAIL)
- ⑧ 2" DIA. HDPE DR9
- ⑨ 2" DIA. CORPORATION STOP
- ⑩ 2" DIA. CURB STOP

REV: 12/10/2015

STANDARD DETAIL NO. 6.16
LEE COUNTY UTILITIES
WATER SERVICE INSTALLATION 5/8" THROUGH 1"

N.T.S.



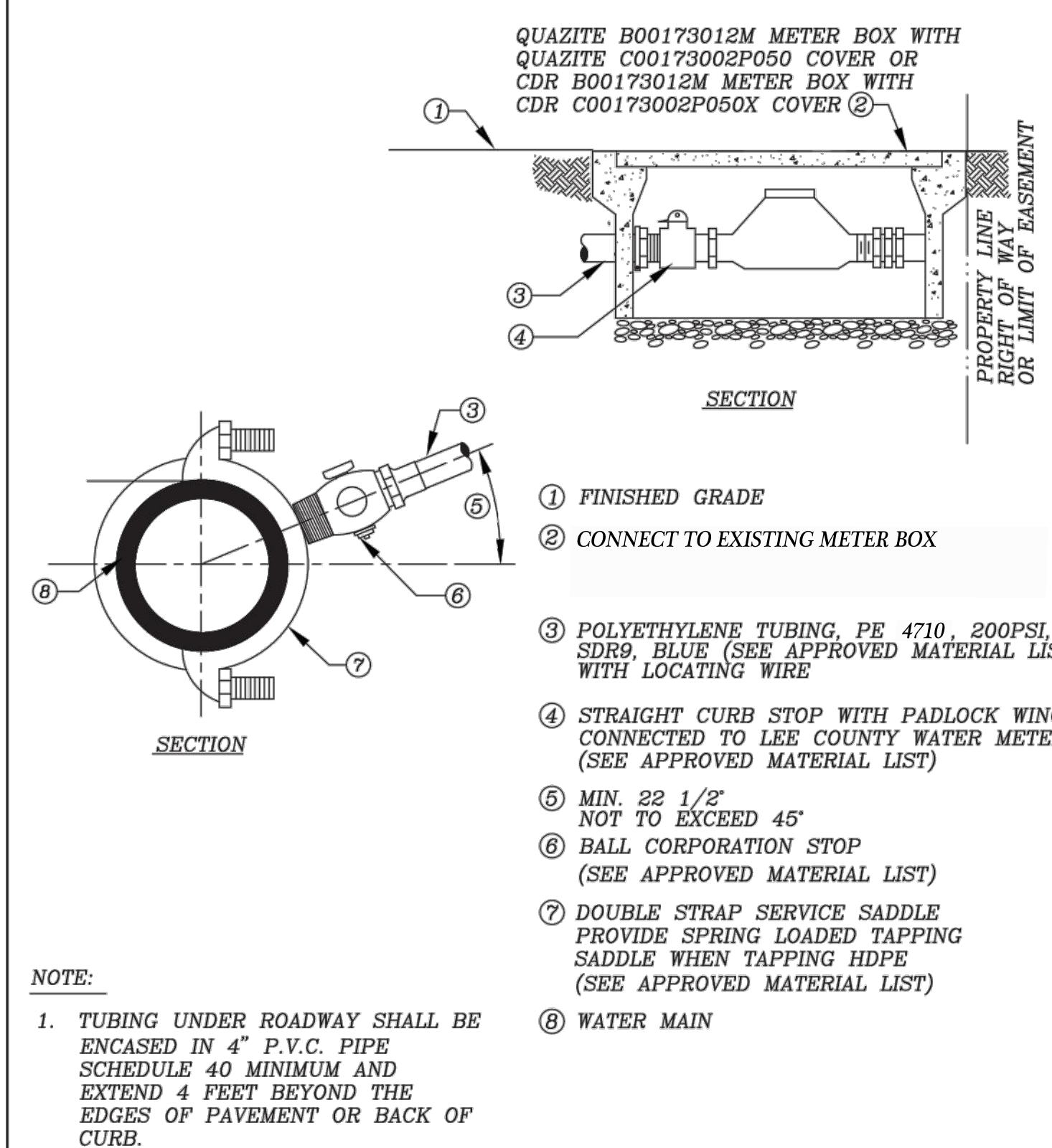
NOTES:

1. TUBING UNDER ROADWAY SHALL BE ENCASED IN 4" P.V.C. PIPE SCHEDULE 40 MINIMUM AND EXTEND 4 FEET BEYOND THE EDGES OF PAVEMENT OR BACK OF CURB.

REV: 12/10/2015

STANDARD DETAIL NO. 6.17
LEE COUNTY UTILITIES
WATER SERVICE INSTALLATION 1-1/2" THROUGH 2"

N.T.S.



NOTE:

1. TUBING UNDER ROADWAY SHALL BE ENCASED IN 4" P.V.C. PIPE SCHEDULE 40 MINIMUM AND EXTEND 4 FEET BEYOND THE EDGES OF PAVEMENT OR BACK OF CURB.

REV: 12/10/2015

Thomas Reed
 Meriwether, P.E.
 P.E.
 Digitally signed by Thomas Reed
 Date: 2018.12.19 10:15:47 -05'00'

GREELEY AND HANSEN
 5252 SUMMERLIN COMMONS WAY, STE 104
 FORT MYERS, FLORIDA 33907
 CERTIFICATE OF AUTHORIZATION NO. 37

DESIGNED EJM
 DRAWN JMW
 CHECKED ACS
 APPROVED
 P.E. NAME: _____
 DATE: _____
 P.E. NAME: THOMAS R. MERIWETHER P.E. NO. 75938

| NO. | DATE | APPD | REVISION |
|-----|------|------|----------|
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SCALE
 LEE COUNTY, FLORIDA
 HANCOCK BRIDGE PARKWAY
 WATER MAIN IMPROVEMENTS
 CONTRACT NO. 7121

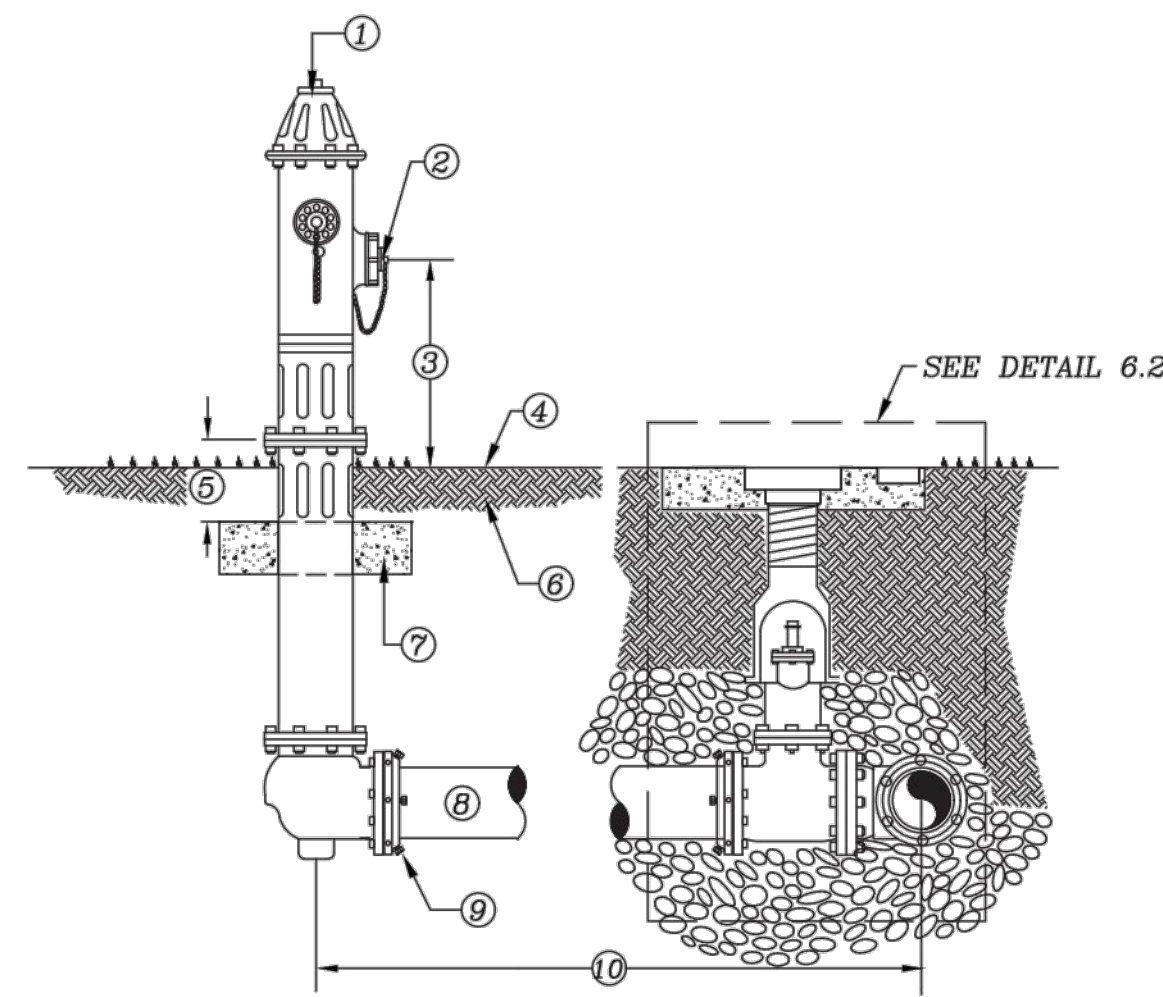
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DETAILS
 STANDARD AND MISCELLANEOUS DETAILS

FILE NAME 0520A-D01
 DWG
 SHEET 11 OF 14
 DATE DECEMBER 2018 REV 0

STANDARD DETAIL NO. 6.24
LEE COUNTY UTILITIES
FIRE HYDRANT ASSEMBLY

N.T.S.

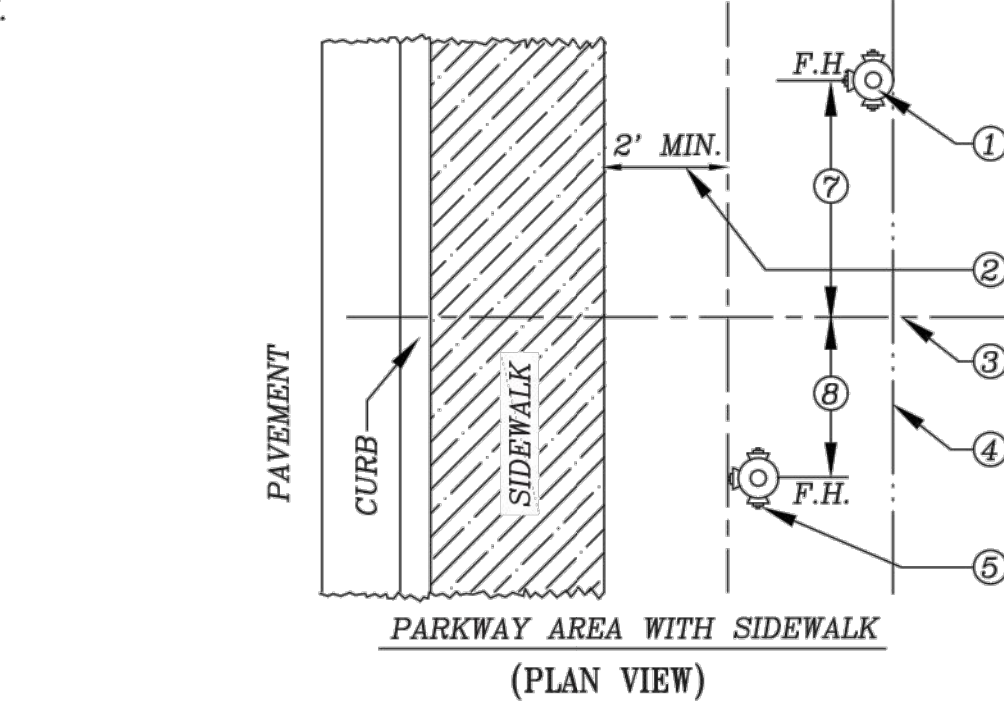


- ① FIRE HYDRANT: STANDARD A.W.W.A. SAFETY YELLOW (SEE APPROVED MATERIAL LIST)
- ② PUMPER CONNECTION FACING AS PER FIRE DISTRICT RECOMMENDATION
- ③ 18" MIN. - 24" MAX.
- ④ FINISHED GRADE
- ⑤ 6" MIN. CLEARANCE
- ⑥ COMPACTED FILL
- ⑦ 30" X 30" X 4" CONCRETE BREAK AWAY CONCRETE PAD, 3000 P.S.I.
- ⑧ PIPE TO BE D.I.P., PRESSURE CLASS 350
- ⑨ RESTRAINED JOINTS, FROM HYDRANT TO WATER MAIN
- ⑩ VARIABLE DISTANCE, IF GREATER THAN 100' A VALVE SHALL BE INSTALLED AT HYDRANT BASE

REV: 12/10/2015

STANDARD DETAIL NO. 6.25
LEE COUNTY UTILITIES
FIRE HYDRANT LOCATIONS/CLEARANCE

N.T.S.

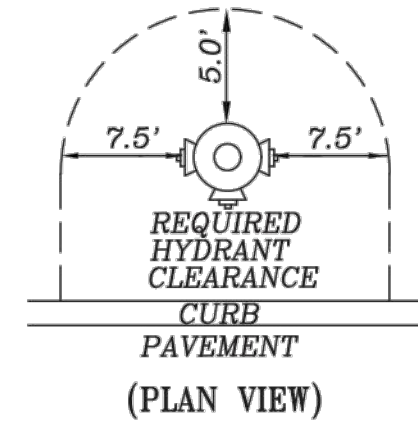


- ① PREFERRED LOCATION
- ② F.H. TO BE LOCATED 2' MINIMUM FROM EDGE OF SIDEWALK
- ③ P.T. OR P.C. OF CURB RETURN
- ④ PROPERTY LINE RIGHT-OF-WAY OR LIMIT OF EASEMENT
- ⑤ ACCEPTABLE LOCATION WITH CURB RADIUS OF 20' OR MORE
- ⑥ BETWEEN 2'-0" MIN. AND 6'-0" MAX.
- ⑦ 6'-0"
- ⑧ 4'-0"

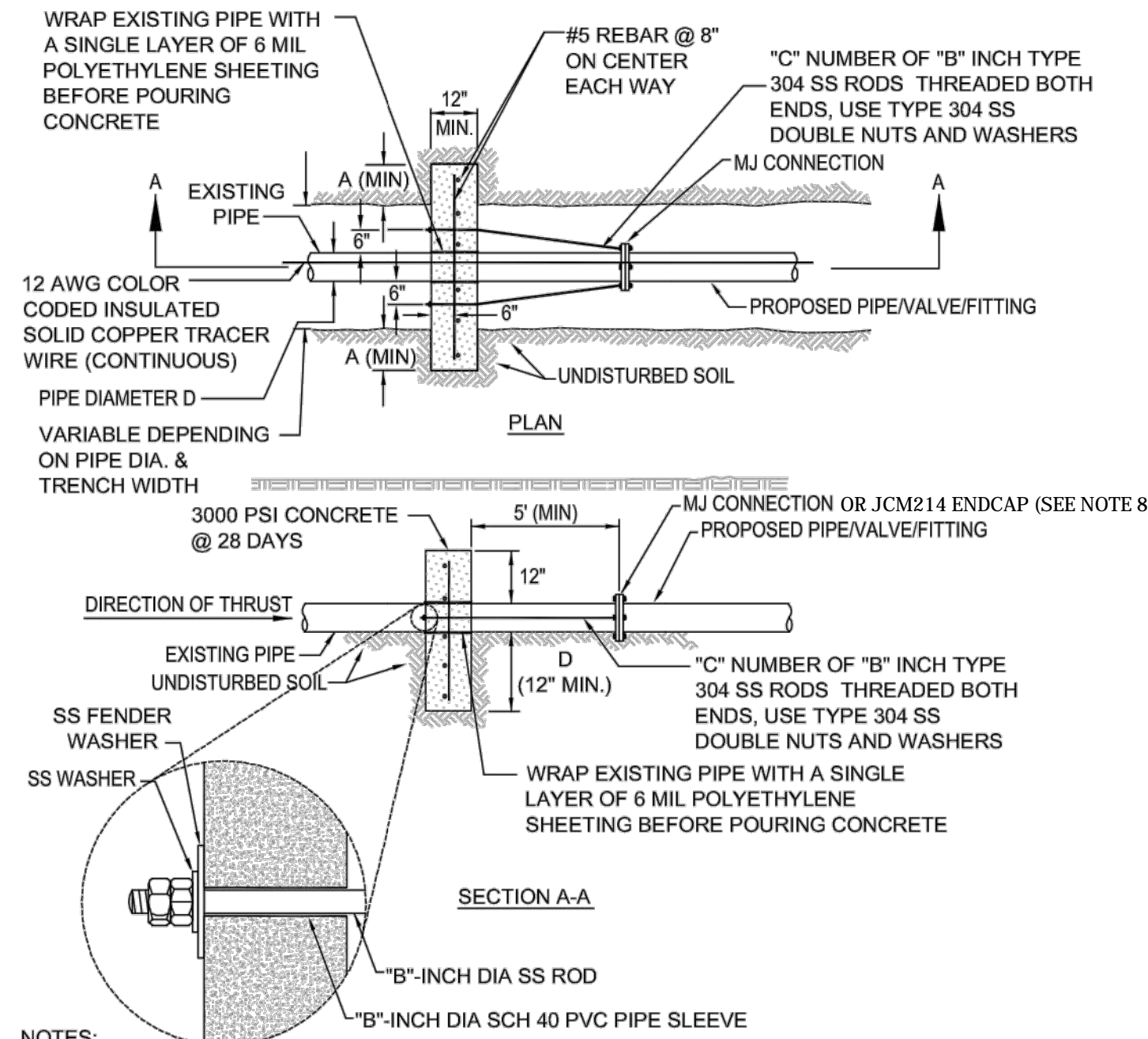
PARKWAY AREA OR NO SIDEWALK
 (PLAN VIEW)

NOTES

1. OBSTRUCTIONS SUCH AS UTILITY POLES, STREET SIGNS, IRRIGATION BOXES, FENCES, ETC. SHALL NOT BE PLACED BETWEEN CURB AND HYDRANT.
2. SOME LOCATIONS APPLY AT EITHER END OF CURB RETURNS.
3. DIMENSION SHOWN ON CONSTRUCTION DRAWINGS SUPERCEDE LOCATIONS SHOWN HERE.



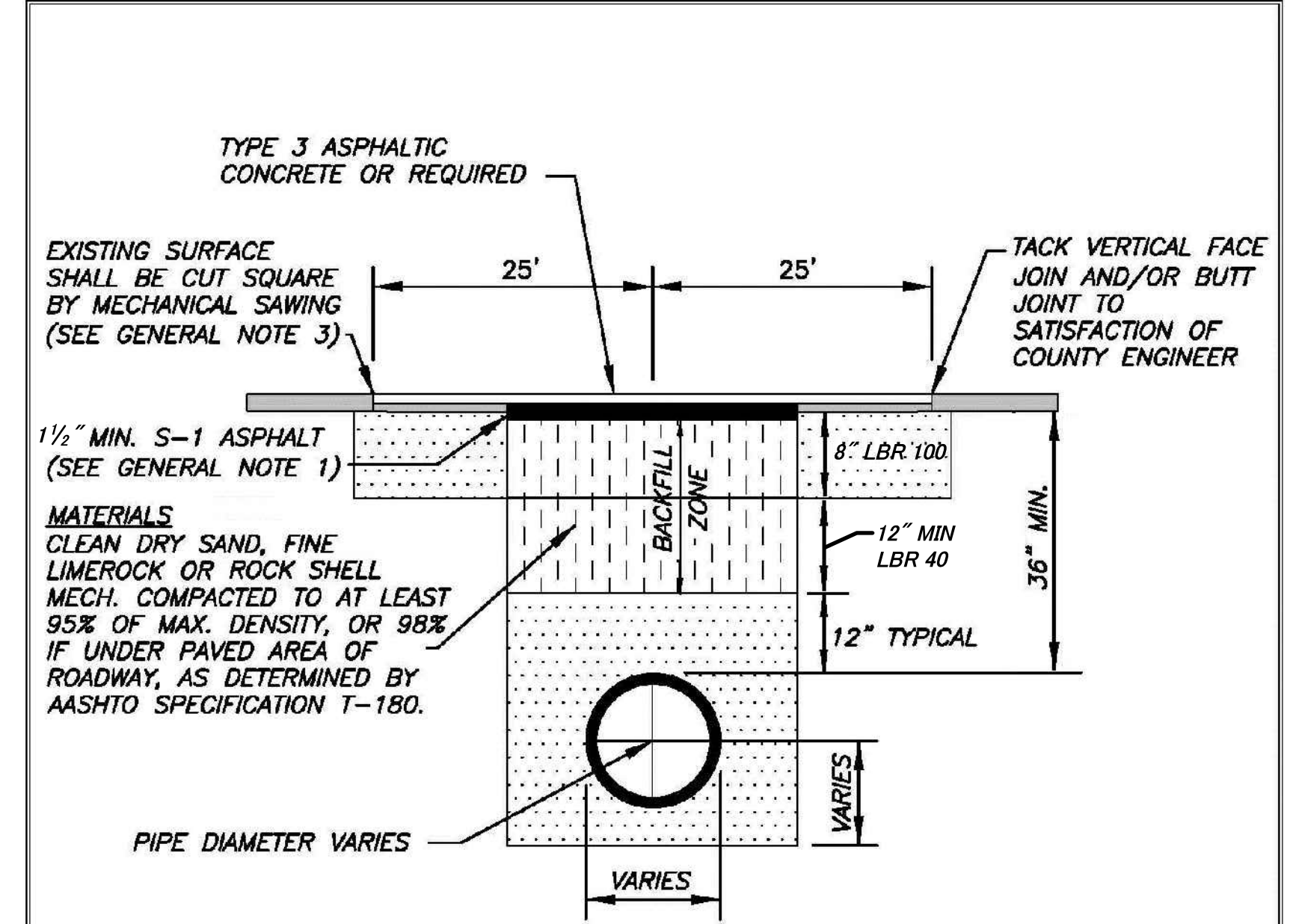
REV: 12/10/2015



- NOTES:**
1. ADDITIONAL REINFORCEMENT SHALL BE AS SPECIFIED BY THE ENGINEER OF RECORD.
 2. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 3000 PSI.
 3. BEDDING, BACKFILL AND COMPACTION SHALL BE AS SPECIFIED IN GR-01 AND GR-02.
 4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
 5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
 6. CHART FIGURES CALCULATED FOR 1000 PSF SOIL BEARING, 150 PSI LINE PRESSURE AND A 1.5 FACTOR OF SAFETY.
 7. A GATE VALVE OF A SIZE MATCHING MAIN SIZE SHALL BE INSTALLED PRIOR TO THE END CAP ON ALL MAINS NOT TERMINATING WITHIN A CUL-DE-SAC.
 8. WHERE PIPE CAP IS RESTRAINED USING DEADMAN PROVIDE JCM214 END CAP AS MANUFACTURED BY JCM INDUSTRIES.

SCHEDULE OF DIMENSIONS AND MATERIALS

| PIPE SIZE D (INCHES) | DIMENSIONS (IN.) | | | TIE RODS REQ'D |
|----------------------|------------------|-----|---|----------------|
| | A | B | C | |
| 4 | 15 | 1/2 | 2 | |
| 6 | 22 | 1/2 | 2 | |
| 8 | 30 | 5/8 | 2 | |
| 10 | 39 | 5/8 | 3 | |
| 12 | 49 | 5/8 | 5 | |
| 16 | 70 | 3/4 | 5 | |



OVERLAY WITH 1" S-1 ASPHALT OR MATCH EXISTING, 25 FEET IN EACH DIRECTION WITH 2" WIDE X 3/4" DEEP MILLED BUTT JOINT AT EACH END.

GENERAL NOTES

1. THE LIMITS OF ASPHALT (OVERLAY) REPLACEMENT SHALL BE DETERMINED BY LEE COUNTY.
2. FOR GRAVITY PIPE LINES, MAY USE ROCK 1' (FT) ABOVE PIPE.
3. USING A 3/4" THICK X 2" WIDE BUTT JOINT AT EACH END.
4. COMPACTION 6" LIFTS WITH DENSITIES EVERY 12".

PAVEMENT RESTORATION DETAIL
 FOR PUBLIC ROADS

N.T.S.

DEADMAN DETAIL

NOT TO SCALE

SCALE

LEE COUNTY, FLORIDA

HANCOCK BRIDGE PARKWAY
 WATER MAIN IMPROVEMENTS
 CONTRACT NO. 7121

THOMAS R. MERIWETHER, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 75938 THIS ITEM HAS BEEN ELECTRONICALLY SEALED ON THE DATE SHOWN BY THOMAS R. MERIWETHER, P.E. USING A SHA-1 AUTHENTICATION CODE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

DETAILS

STANDARD AND
 MISCELLANEOUS DETAILS

Thomas Reed Meriwether, P.E.
 Digitally signed by Thomas Reed Meriwether, P.E.
 Date: 2018.12.19 10:15:47 -05'00'

FILE NAME 0520A-D01

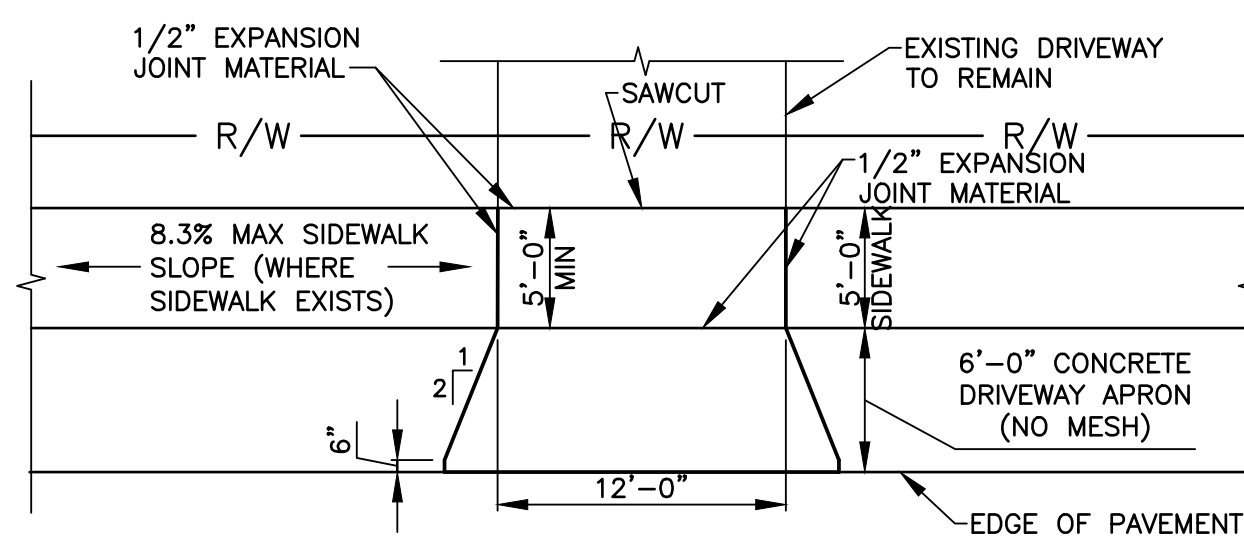
DWG SHEET 12 OF 14
 DATE DECEMBER 2018 REV 0

GREELEY AND HANSEN
 5252 SUMMERLIN COMMONS WAY, STE 104
 FORT MYERS, FLORIDA 33907
 CERTIFICATE OF AUTHORIZATION NO. 37

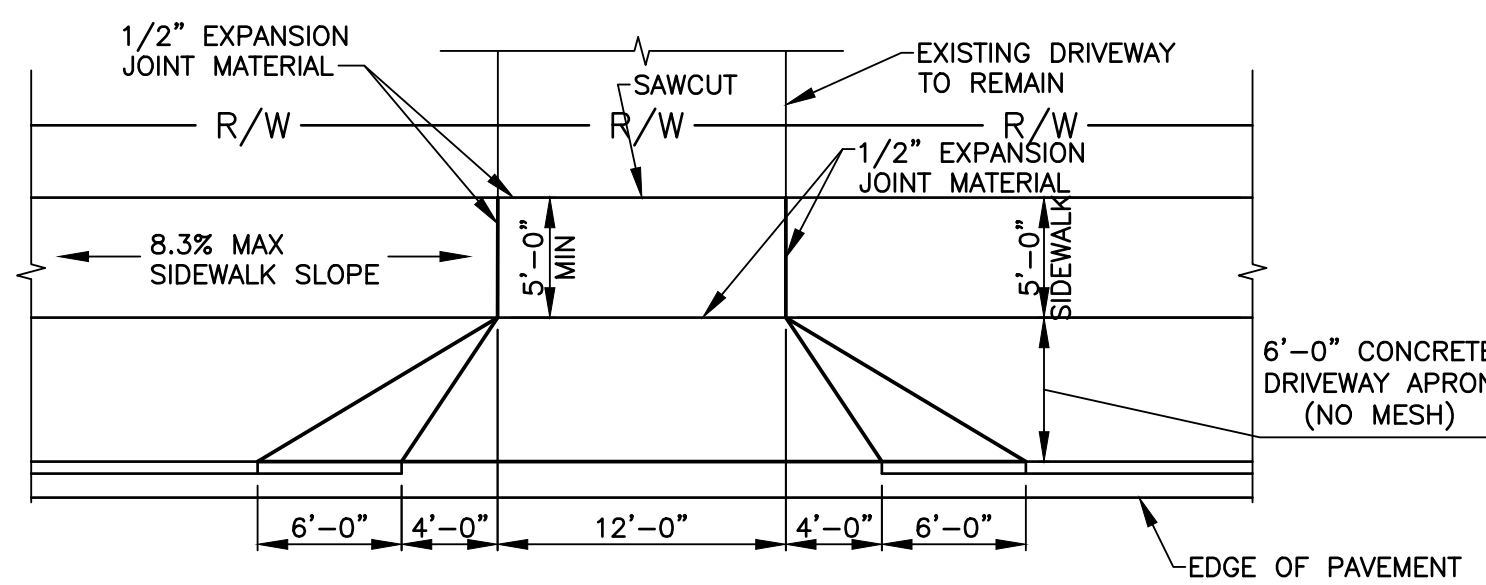
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| | | | |



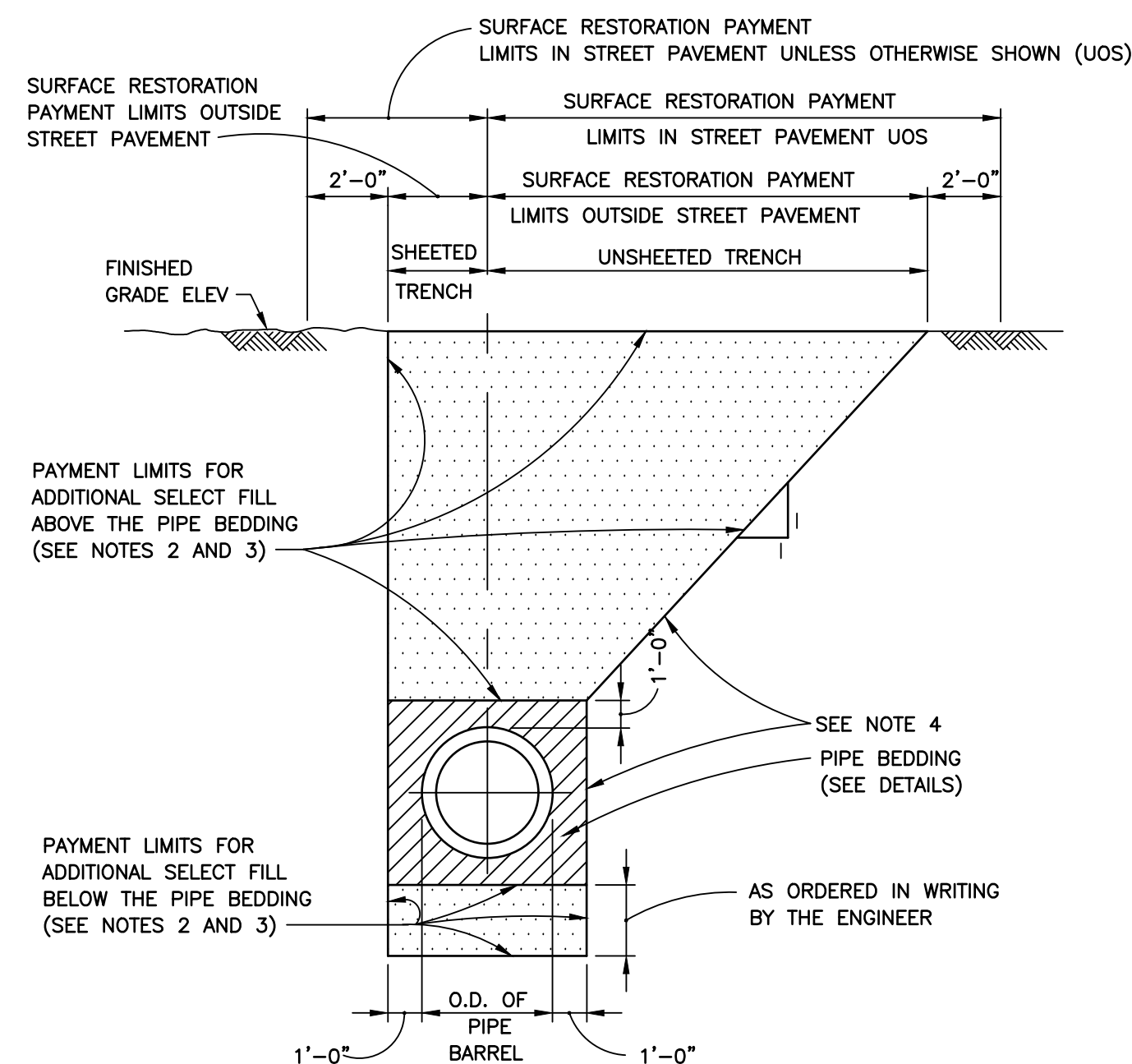
RESIDENTIAL DRIVEWAY WITHOUT CURB AND GUTTER
SINGLE FAMILY AND TWO FAMILY DRIVEWAYS



RESIDENTIAL DRIVEWAY WITH CURB AND GUTTER
SINGLE FAMILY AND TWO FAMILY DRIVEWAYS

- NOTES:**
1. DRIVEWAYS IMPACTED DURING CONSTRUCTION SHALL BE RESTORED TO CONDITIONS EQUAL TO OR BETTER THAN THE PRE-EXISTING CONDITIONS USING LIKE MATERIALS AND THICKNESS.
 2. BRICK OR PAVER DRIVEWAYS SHALL BE REMOVED AND STORED WITHOUT DAMAGING THE UNITS. THEN RESTORED IN EXACTLY THE SAME PATTERN.
 3. ALL CONCRETE SHALL BE A MINIMUM OF 3,000 PSI IN 28 DAYS.
 4. COMMERCIAL DRIVEWAYS SHALL BE A MINIMUM 6" THICK CONCRETE WITH 6"x6" 10 GAUGE WELDED WIRE MESH.

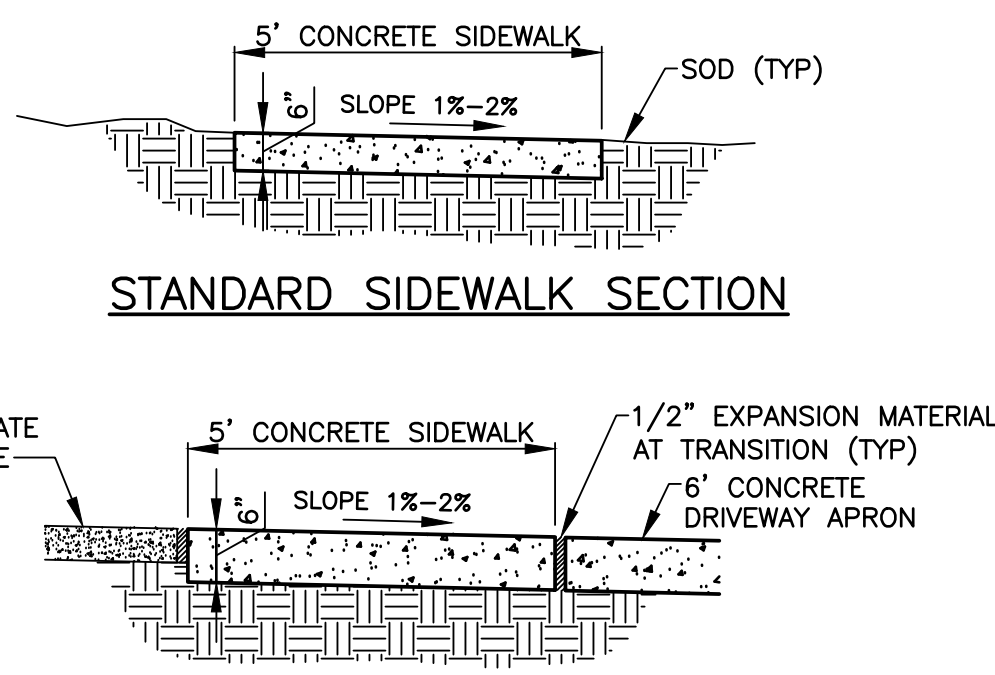
DRIVEWAY RESTORATION
NOT TO SCALE



PAYMENT LIMITS FOR SURFACE RESTORATION AND ADDITIONAL SELECT FILL FOR TRENCH STABILIZATION
NOT TO SCALE

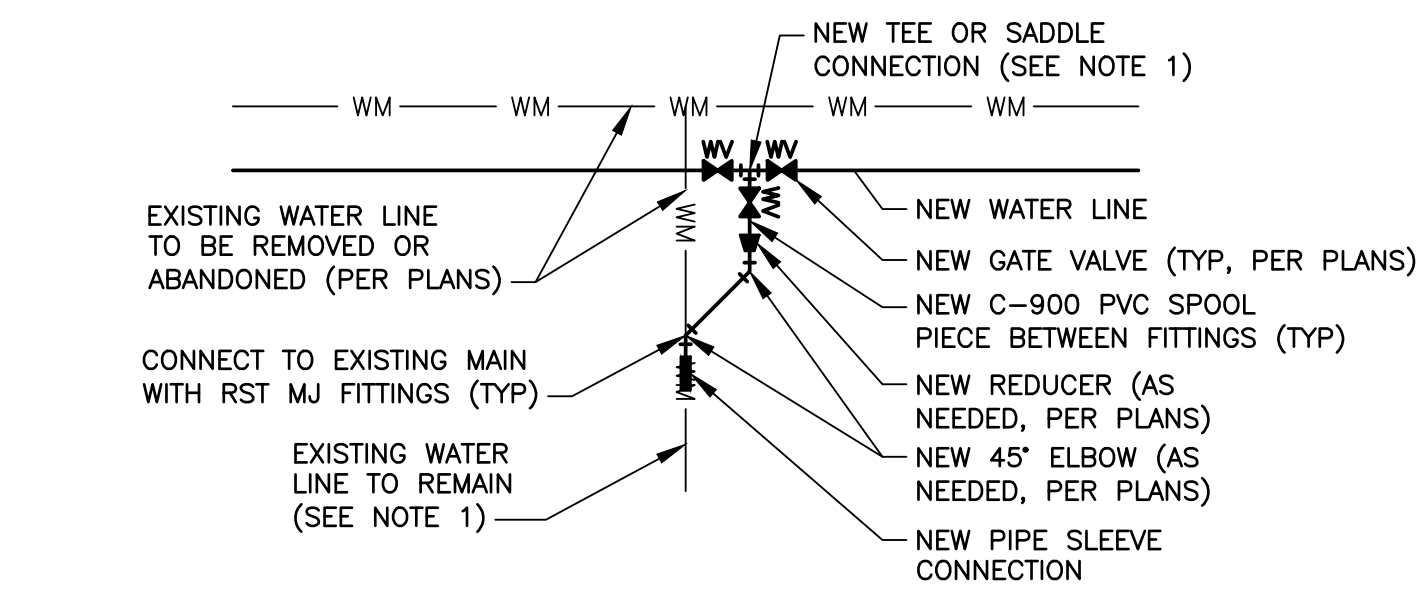
NOTES FOR PAYMENT

1. PAYMENT FOR SURFACE RESTORATION WILL BE MADE FOR THE ACTUAL QUANTITIES, AS DETERMINED BY THE ENGINEER, OF SURFACE RESTORED WITHIN THE PAYMENT LIMITS SHOWN.
2. PAYMENT FOR ADDITIONAL SAND OR CRUSHED STONE FOR TRENCH STABILIZATION, ORDERED IN WRITING BY THE ENGINEER, WILL BE MADE FOR THE ACTUAL COMPACTED VOLUME, AS DETERMINED BY THE ENGINEER, OF SAND OR CRUSHED STONE PLACED WITHIN THE PAYMENT LIMITS SHOWN. CRUSHED STONE SHALL BE COMPLETELY ENVELOPED IN NON-WOVEN FILTER FABRIC CONFORMING TO FDOT TYPE D-3, PER FDOT SPECIFICATION SECTION 985 AND FDOT STANDARD INDEX NO. 199.
3. CONTRACTOR SHALL USE ALL SURPLUS SAND, APPROVED AS SUITABLE, FROM EXCAVATIONS IN THIS CONTRACT PRIOR TO SUPPLYING SAND FROM OTHER SOURCES. PAYMENT FOR ADDITIONAL SAND WILL BE MADE ONLY FOR SAND SUPPLIED FROM SOURCES OTHER THAN EXCAVATIONS IN THIS CONTRACT. SEE SPECIFICATIONS FOR MATERIAL REQUIREMENTS.
4. DETAIL IS FOR DELINEATION OF PAYMENT LIMITS ONLY AND IS NOT TO BE INTERPRETED AS DELINEATING, OR INFLUENCING IN ANY MANNER, THE TRENCH CONFIGURATION, WHICH IS SUBJECT TO OSHA REGULATIONS.



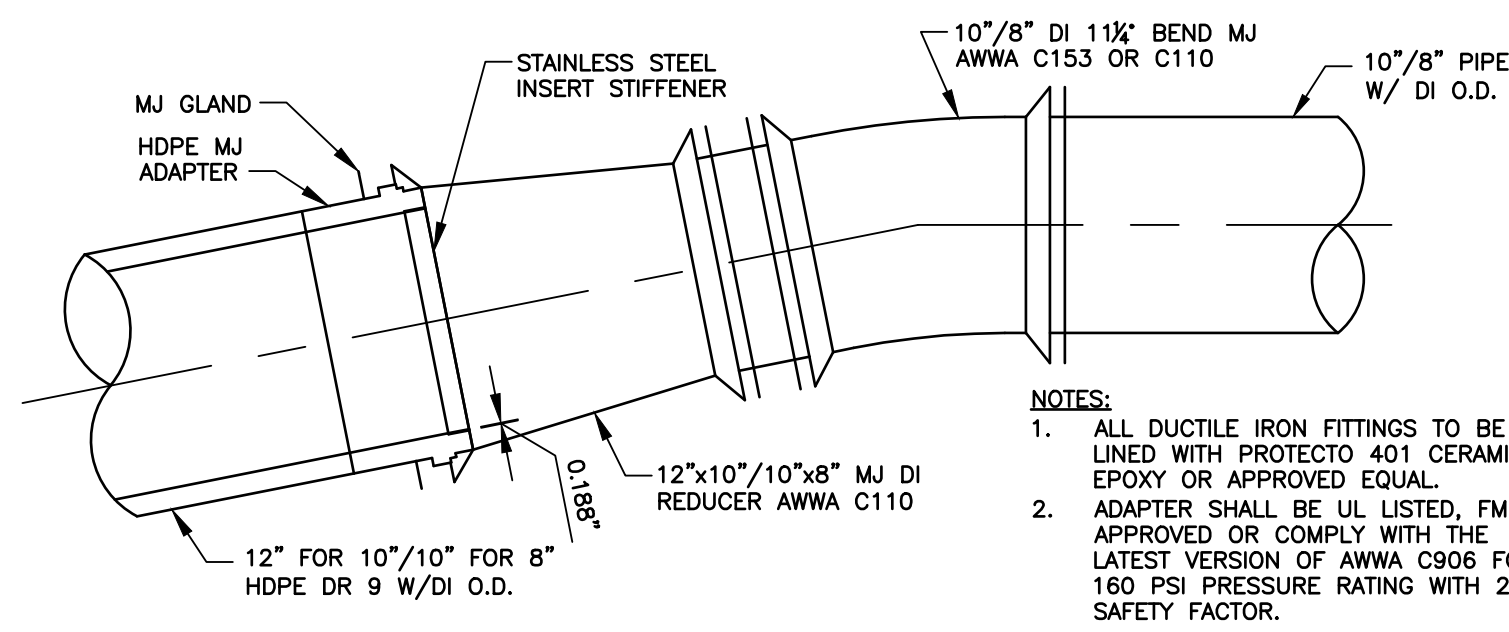
STANDARD SIDEWALK SECTION
6" CONCRETE SIDEWALK AND DRIVEWAY APRON FOR SINGLE FAMILY/DUPLEX

- NOTES:**
1. TYPICAL SCORE OR SAW CUT WALKS 1-1/2" DEEP, 5'-0" O.C., 6" THICK SIDEWALK, 6" THICK THROUGH DRIVEWAY. EXPANSION JOINTS TO BE A MAX OF EVERY 100'.
 2. CONCRETE FDOT CLASS 1 3000 P.S.I. MIN. MAX. SLUMP 4" OR FIBROUS CONCRETE ACCEPTED.
 3. NO REINFORCING IN CONCRETE IN RIGHT-OF-WAY. SIDEWALK FINISH TO BE LIGHT BROOM.
 4. ALL DISTURBED AREAS NEXT TO WALK TO BE RESTORED TO MATCH ORIGINAL SOD. IF NO ORIGINAL SOD THEN SEED, FERTILIZE AND STRAW.
 5. NO PATCHING OF ANY KIND WILL BE ALLOWED IN CONCRETE WORK.
 6. ASPHALT DRIVES SHALL BE CONSTRUCTED OF 8" COMPACTED LIMEROCK BASE OVER A SUITABLY COMPACTED SUBGRADE AND SURFACED WITH 1-1/2" OF ASPHALT CONCRETE.
 7. ANY REQUIRED CULVERT SHALL BE CONSTRUCTED WITH A MINIMUM OF A 15" RCP MITERED END SECTIONS, (FDOT INDEX #270).



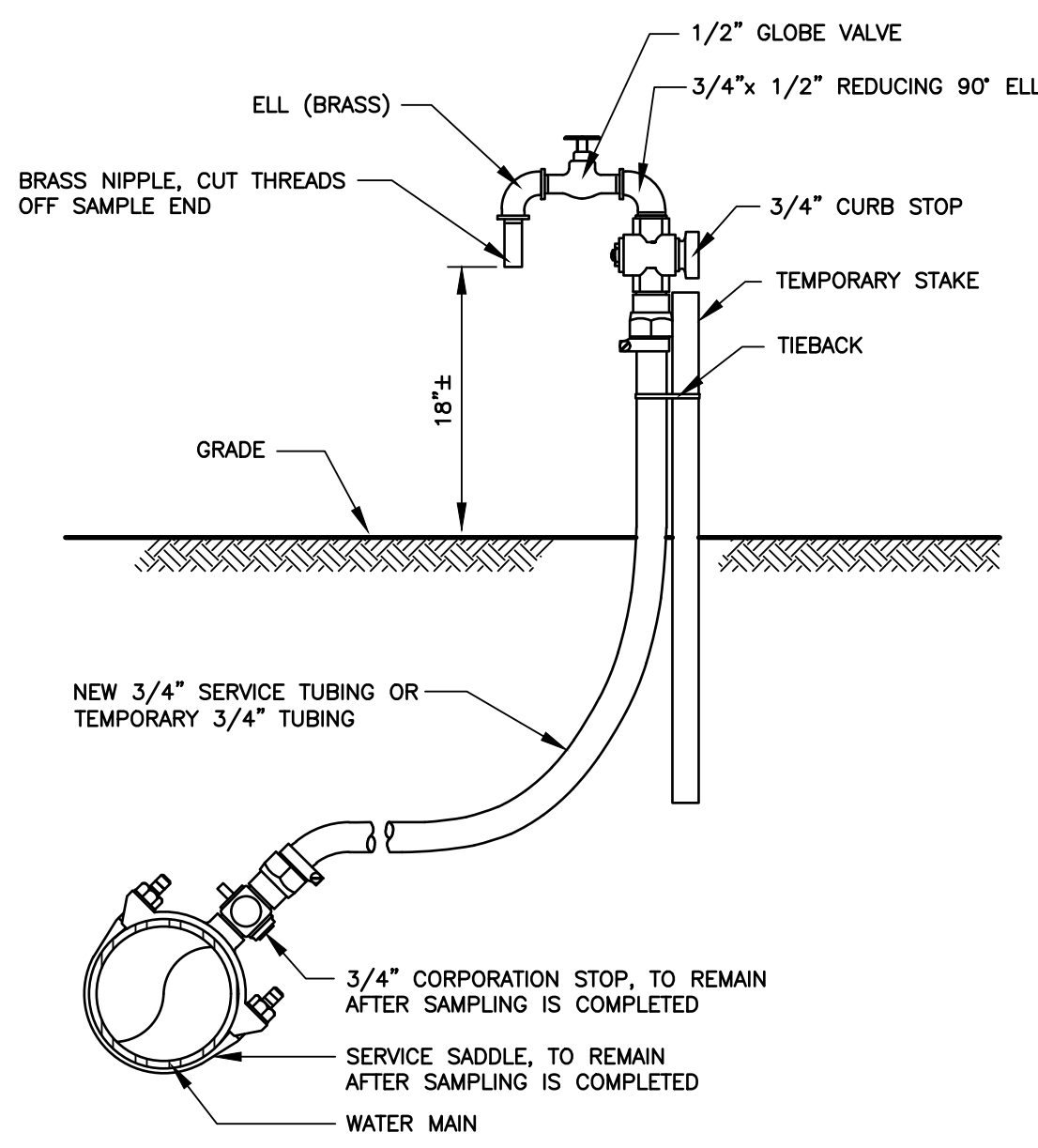
TYPICAL TYPE 1 SERVICE CONNECTION DETAIL
NOT TO SCALE

- NOTES:**
1. EXCAVATE AND INSTALL EXTERNAL SPLIT RING TYPE RESTRAINED JOINT RETAINER GLANDS AT ALL EXISTING WATER LINE JOINTS BASED ON RESTRAINED LENGTH SCHEDULE IN STANDARD DETAIL NO. 6.12.



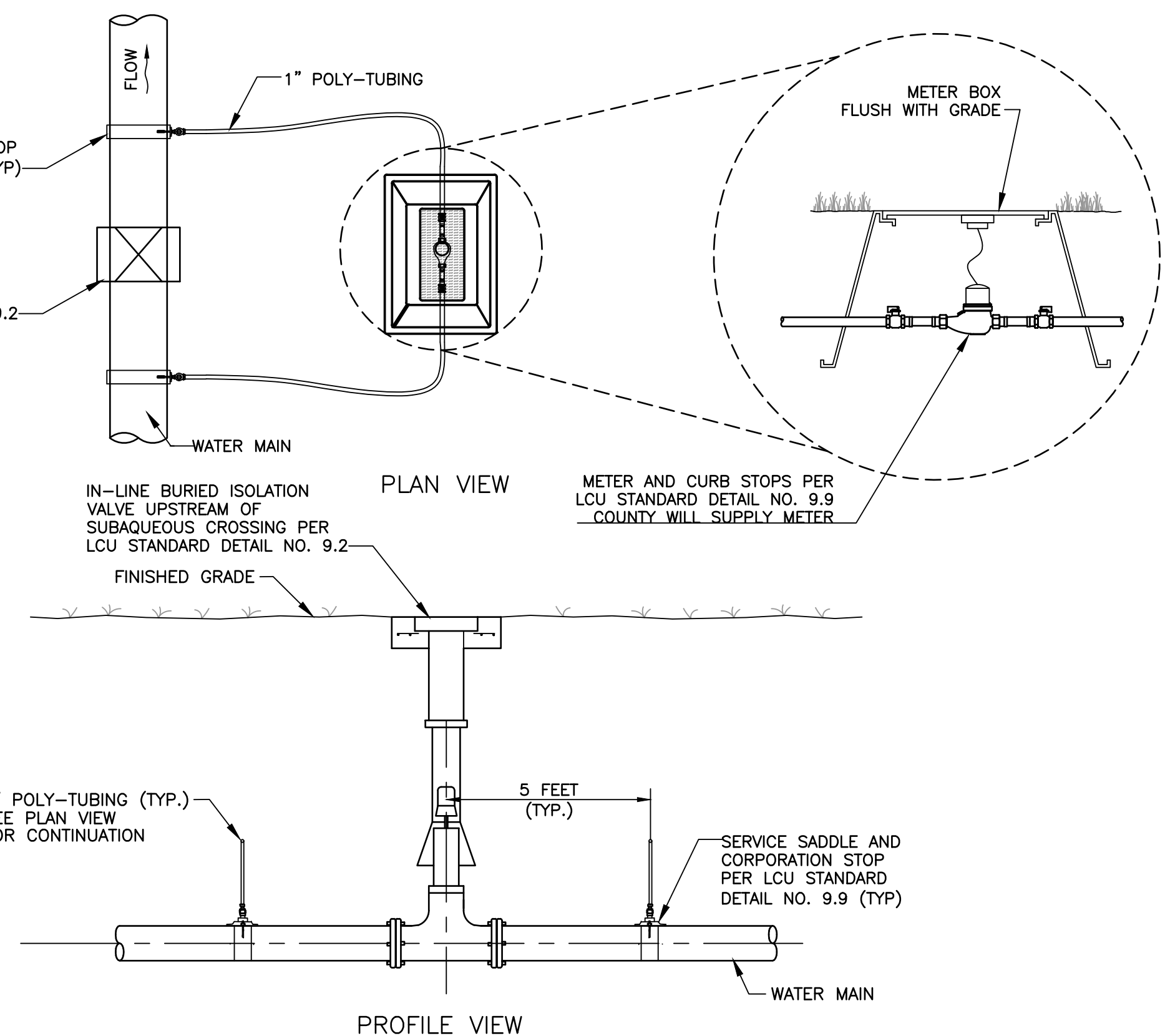
HDPE TO DI/PVC TRANSITION DETAIL
SCALE: 3/8" = 1'-0"

- NOTES:**
1. ALL DUCTILE IRON FITTINGS TO BE LINED WITH PROTECTO 401 CERAMIC EPOXY OR APPROVED EQUAL.
 2. ADAPTER SHALL BE UL LISTED, FM APPROVED OR COMPLY WITH THE LATEST VERSION OF AWWA C906 FOR 160 PSI PRESSURE RATING WITH 2:1 SAFETY FACTOR.

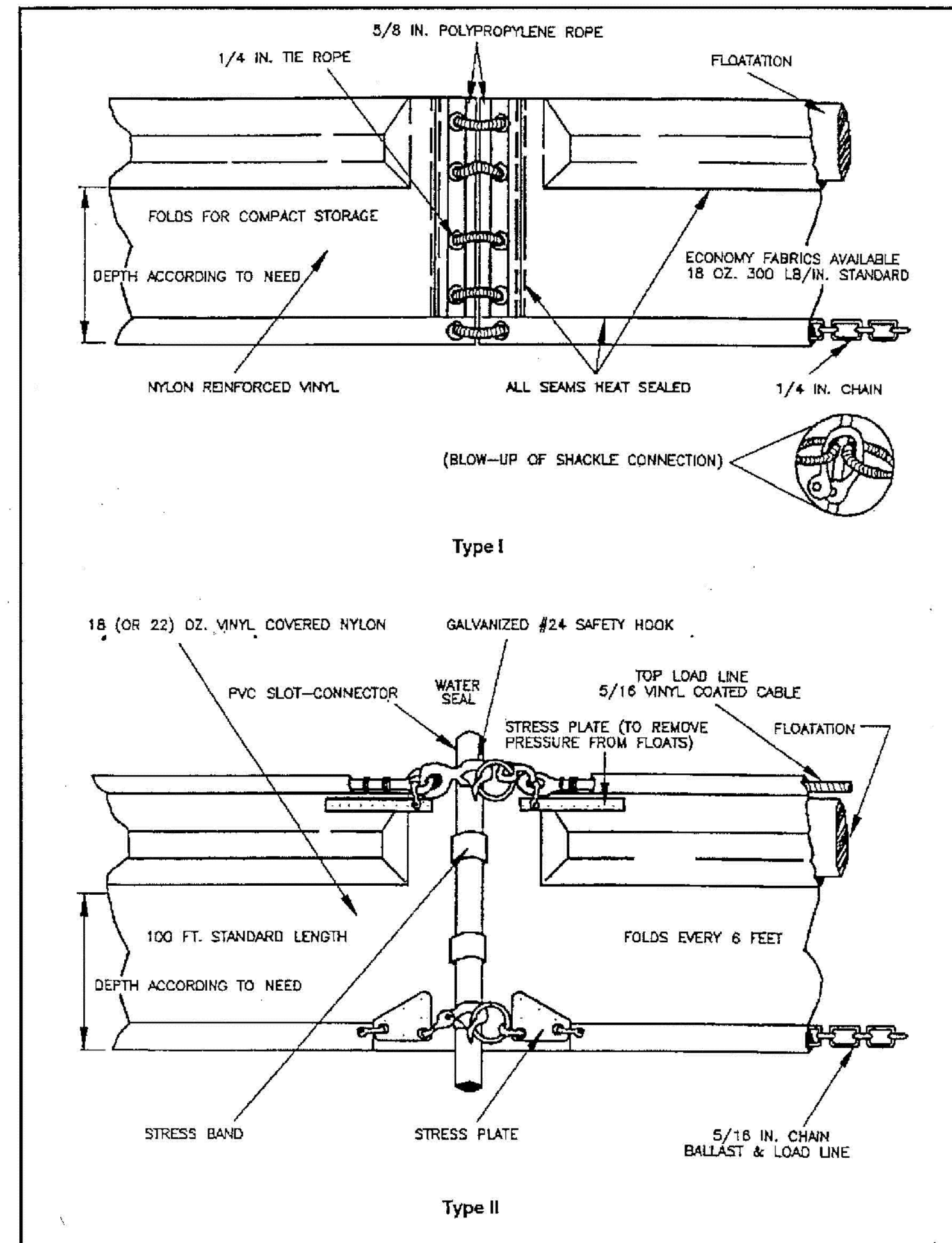
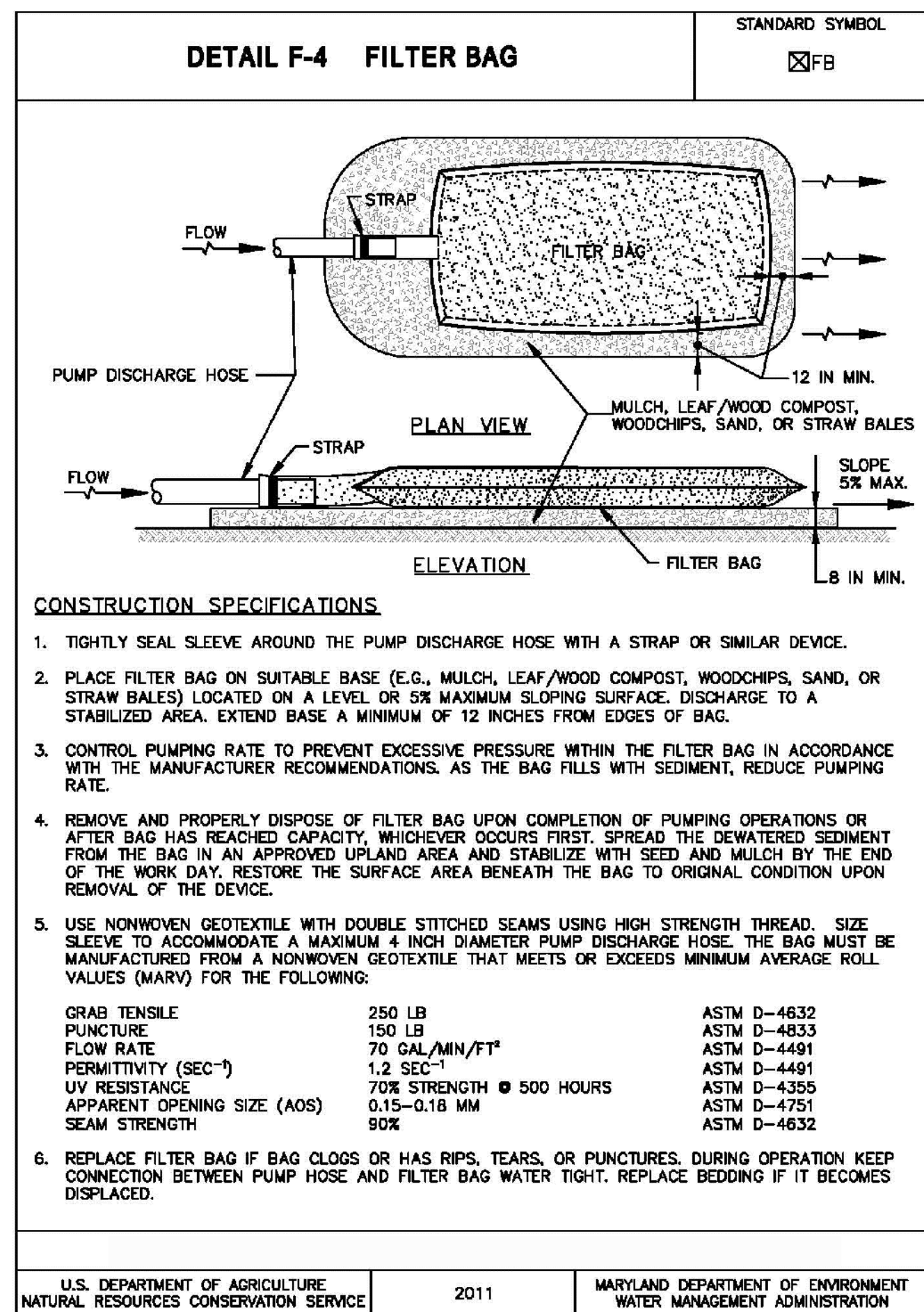
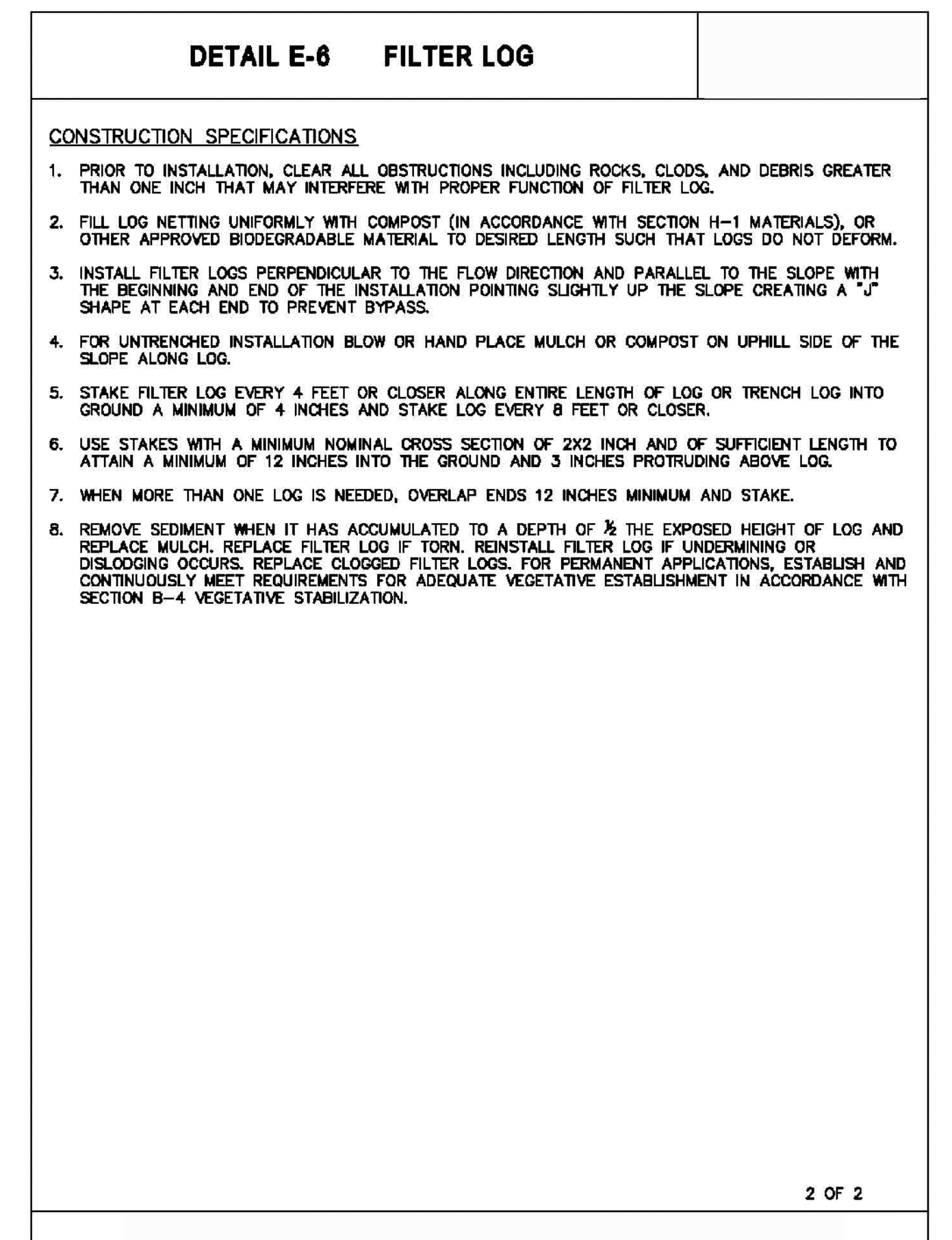
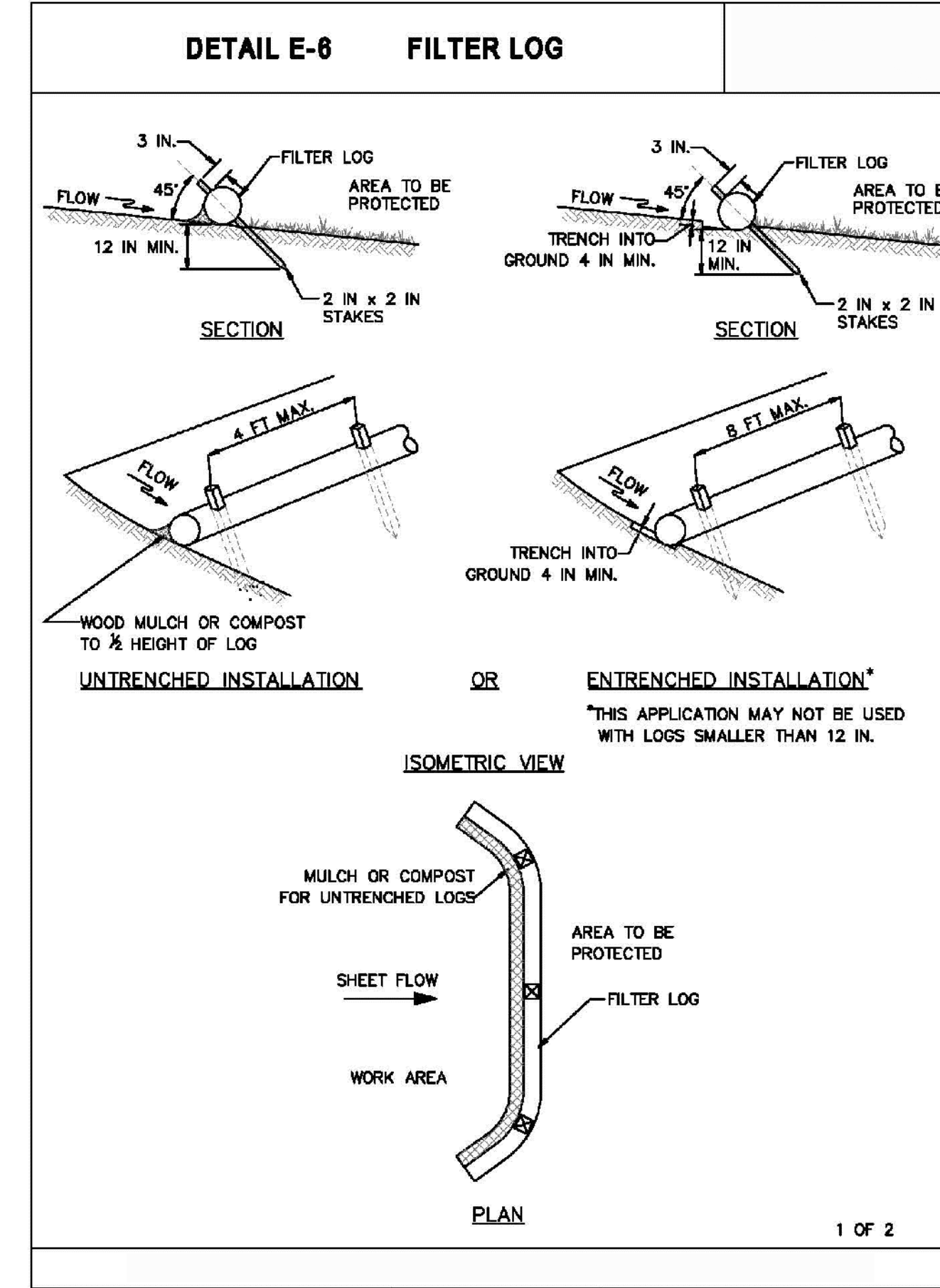
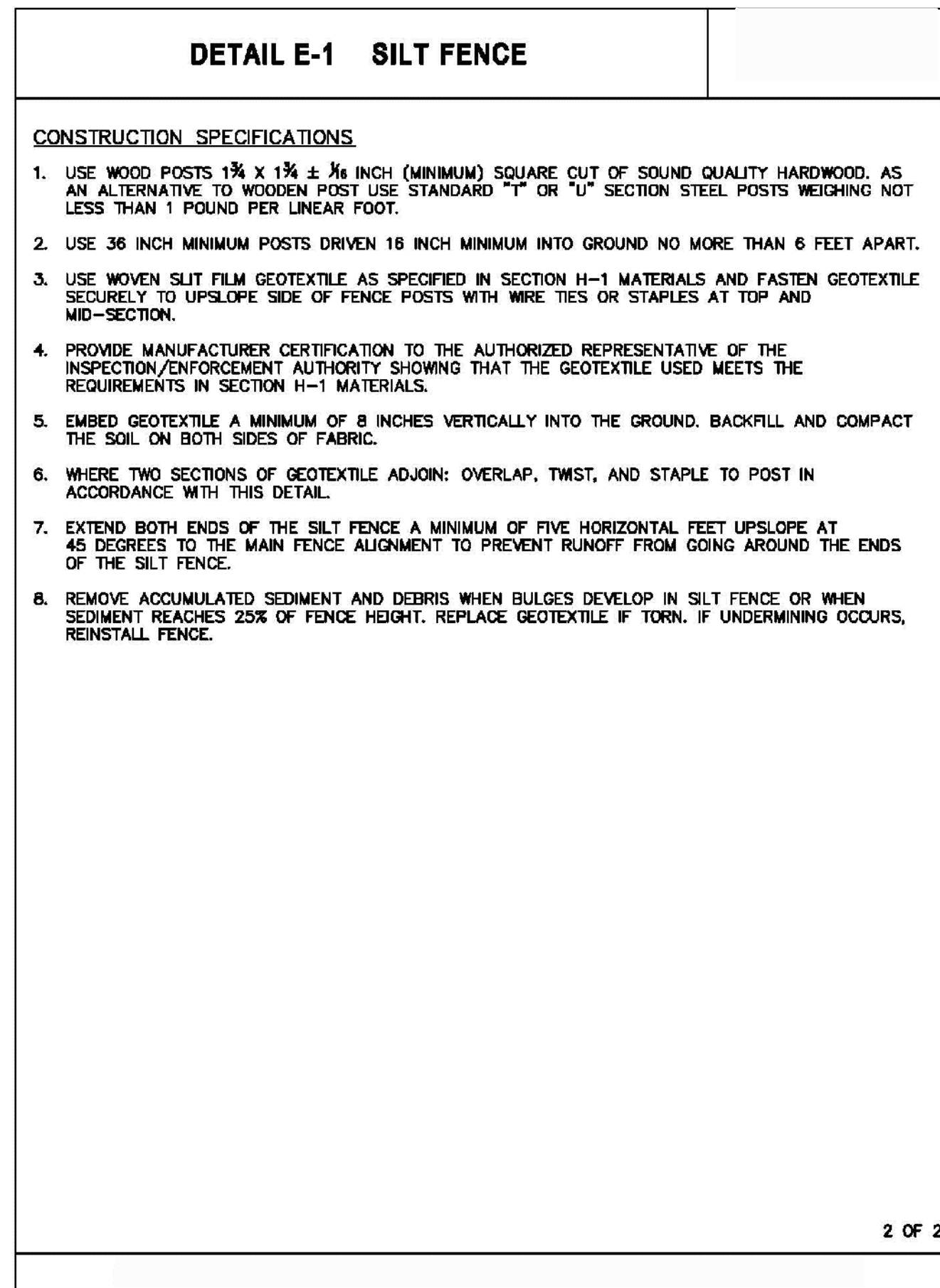
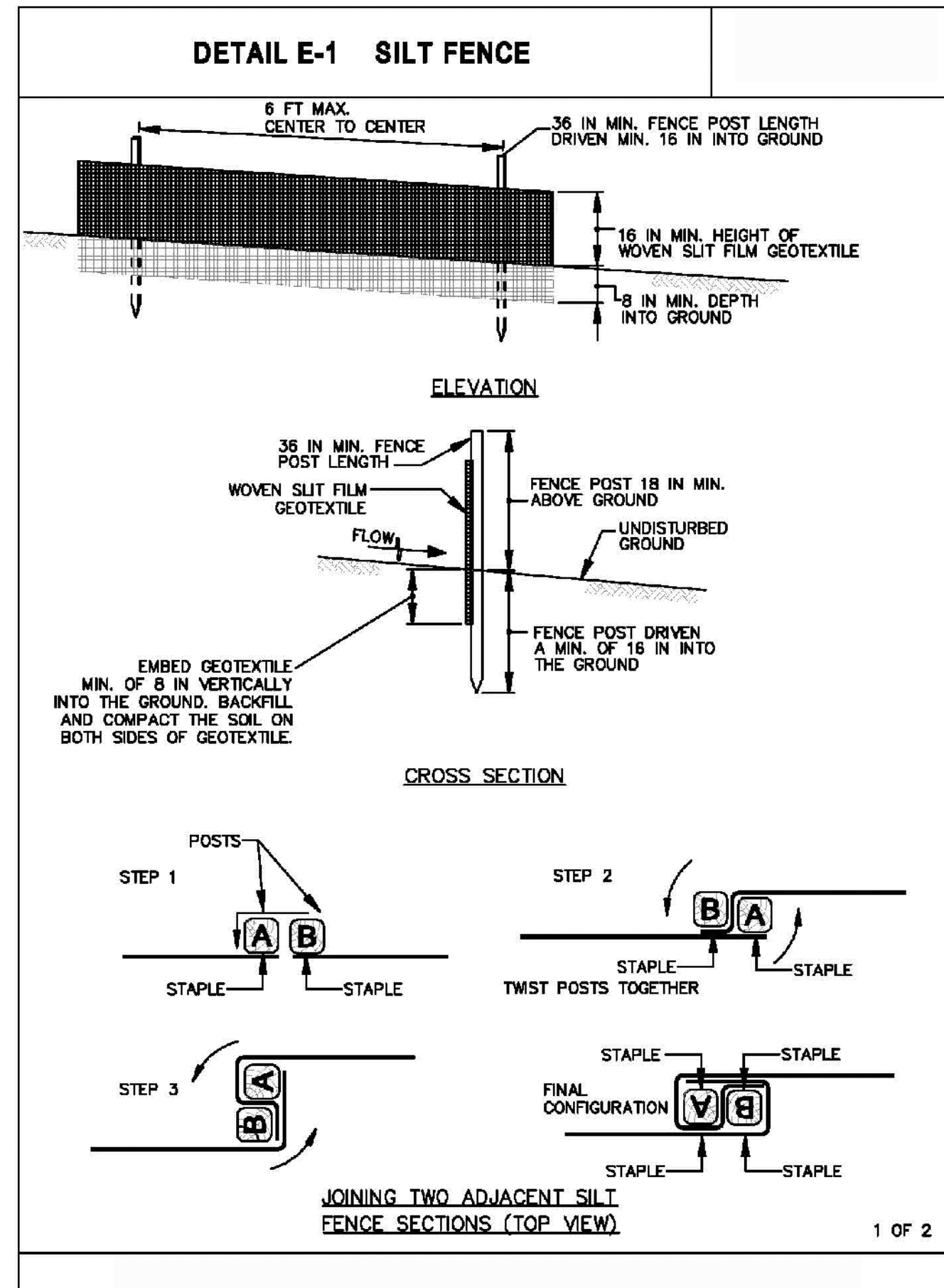


TEMPORARY SAMPLE TAP INSTALLATION
NOT TO SCALE

- NOTE:**
REMOVE ALL ABOVE GROUND MATERIALS, CLOSE CORPORATION STOP, AND TEMPORARY TUBING AFTER ACCEPTANCE OF PIPELINE.



LEAKAGE DETECTION METER ASSEMBLY FOR POTABLE WATER MAIN SUBAQUEOUS CROSSINGS
NOT TO SCALE



EROSION CONTROL NOTES

- THE CONTRACTOR SHALL PREVENT CONSTRUCTION DEBRIS AND SILT FROM ENTERING ROADSIDE AND AT-GRADE CATCH BASINS WITHIN THE CONSTRUCTION AREA AND UP TO 50' OUTSIDE OF THE CONSTRUCTION AREA IF IT IS DOWNHILL, USING SILT FENCES, HAY BALES, FILTER SOCKS, DANDY BAGS OR OTHER APPROVED METHODS.
- SILT FENCE SHALL BE USED AROUND ALL EXCAVATIONS, STOCKPILE, BORE PITS AND DRILL PITS. SILT FENCES SHALL ALSO BE USED IN ANY SWALES THAT DISCHARGE TO OPEN WATER.
- THE CONTRACTOR SHALL PREVENT SEDIMENT LADEN WATER FROM ENTERING ANY CANAL.
- EROSION CONTROL DEVICES SHALL BE CHECKED AFTER EVERY RAIN EVENT FOR EFFECTIVENESS. REPAIR OR REPLACE ANY DEVICES THAT ARE NON-EFFECTIVE.