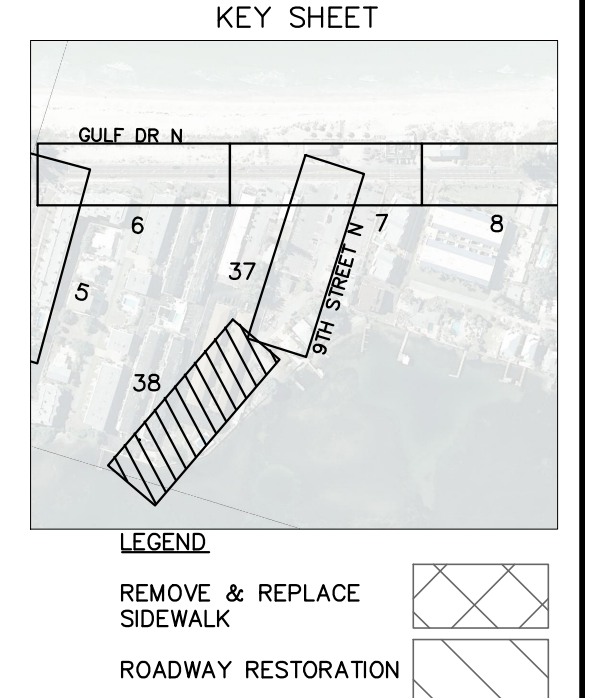
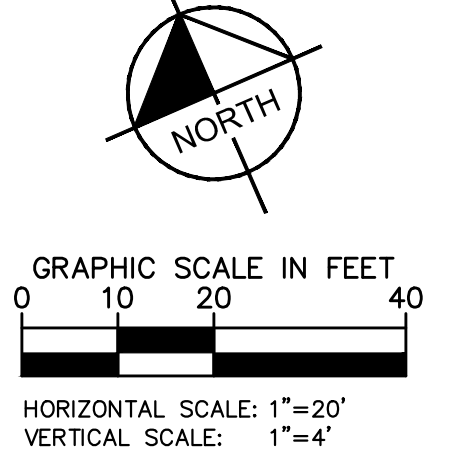
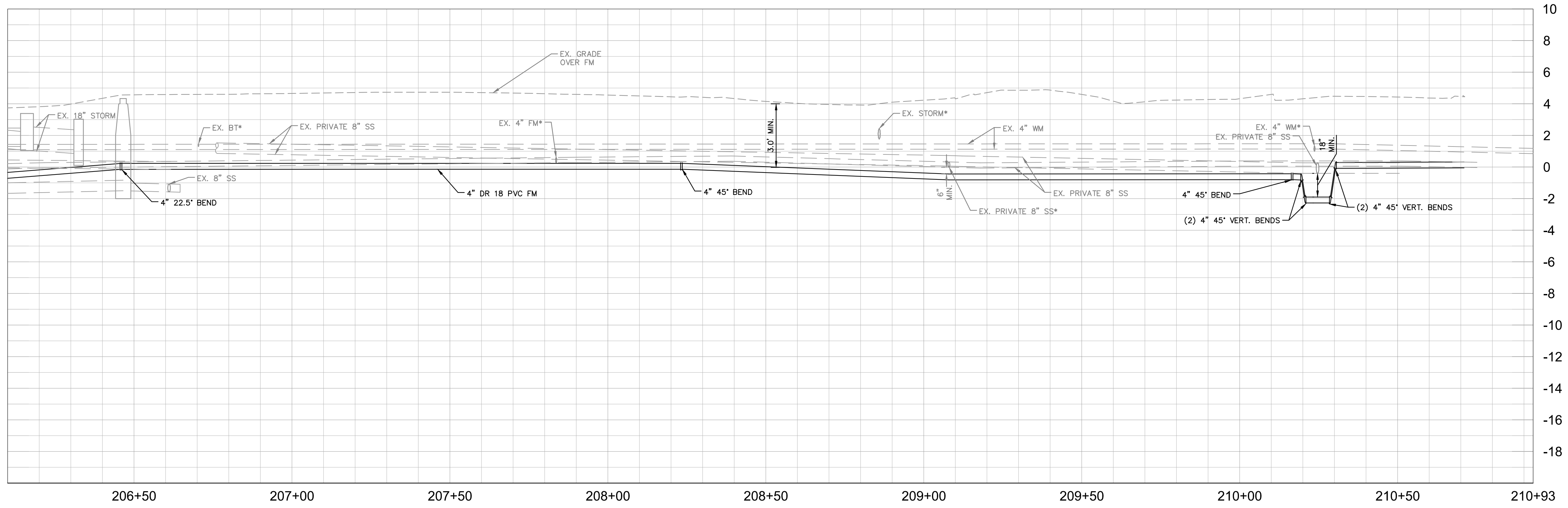
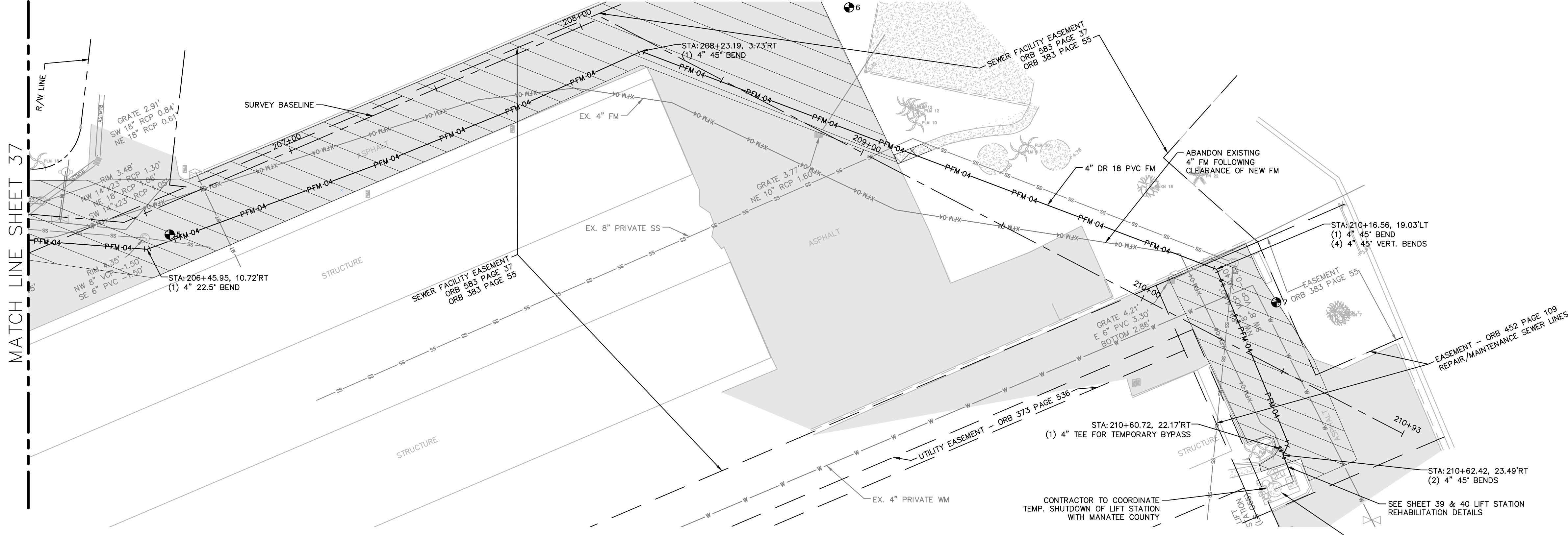


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- NOTES:
- REFER TO SHEET 03 FOR ADDITIONAL SUBSURFACE UTILITY EXPLORATION INFORMATION.
 - CONTRACTOR TO TAKE PRECAUTION WHEN CONSTRUCTING FORCE MAIN AROUND INLET STRUCTURE TO PREVENT UNDER MIND.
 - CONTRACTOR TO FOLLOW RESTRAINED LENGTHS SET IN RESTRAIN LENGTH DETAILS ON SHEET 44 & 45.
 - CONSTRUCTION DEWATERING SHALL BE CONDUCTED IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS INCLUDING BUT NOT LIMITED TO CHAPTERS 62-621.300 AND 62-620 OF THE FLORIDA ADMINISTRATIVE CODE (FAC).
 - CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS WHEN CONSTRUCTING AROUND INFILTRATION TRENCHES. IF DISTURBED/DAMAGED DURING CONSTRUCTION, CONTRACTOR SHALL RESTORE PER DETAIL ON SHEET 46.
- *NOTES:
THE ELEVATIONS OF THE UTILITIES MARKED WITH AN ASTERISK (*) HAVE BEEN ASSUMED ON THE BASIS OF TYPICAL ANTICIPATED SOIL COVERAGE. CONTRACTOR SHALL NOT RELY ON THIS INFORMATION FOR CONSTRUCTION, BUT SHALL BE RESPONSIBLE FOR FIELD LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL UTILITIES CROSSING THE PROPOSED FORCE MAIN. CONTRACTOR SHALL INCLUDE IN THE UNIT COST OF THE SUBJECT FORCE MAIN CONSTRUCTION, THE COST OF UTILITY ADJUSTMENTS NECESSARY TO ATTAIN DESIGN MINIMUM SEPARATION FOR UTILITIES CONFLICTING WITH THE CONSTRUCTION OF THE PROPOSED FORCE MAIN. INTERRUPTIONS OF ANY EXISTING UTILITY SERVICES SHALL BE NOTICED TO EFFECTED CUSTOMERS A MINIMUM OF 48 HOURS IN ADVANCE AND SHALL NOT EXCEED 4 HOURS IN DURATION.
- WHERE CONCRETE REPAIRS ARE NECESSARY AND EXPANSION JOINTS ARE PRESENT, CONTRACTOR TO REMOVE AND REPLACE CONCRETE UP TO THE NEXT EXPANSION JOINT; OTHERWISE, REPLACE CONCRETE AS NECESSARY.

GROUNDWATER / DEWATERING NOTE:
THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR THIS ISSUE. WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.



No.	REVISIONS	DATE	BY

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KHA PROJECT 148400012
DATE 2/15/2017
SCALE AS SHOWN
DESIGNED BY WWW
DRAWN BY JRT
CHECKED BY WEW

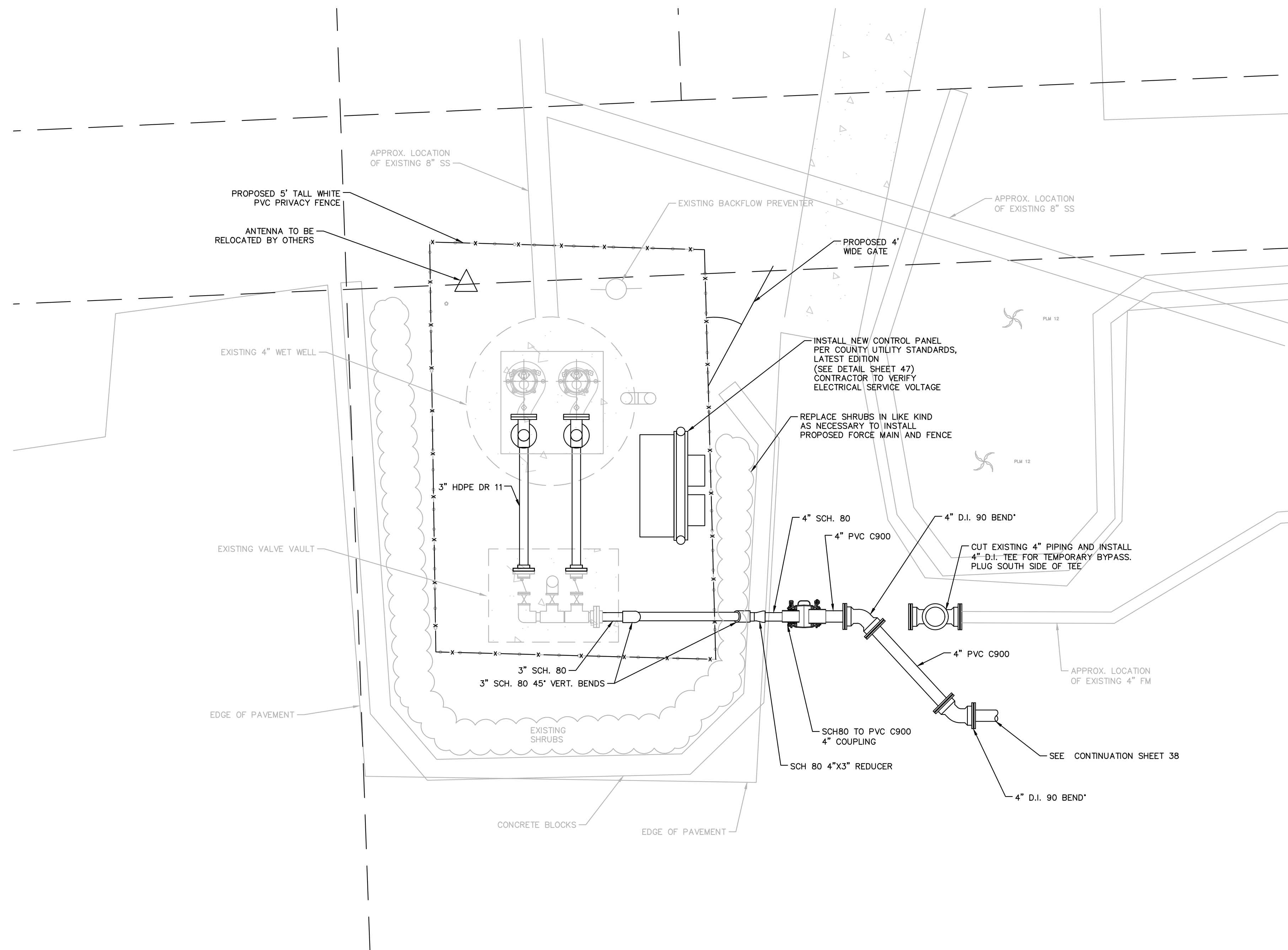
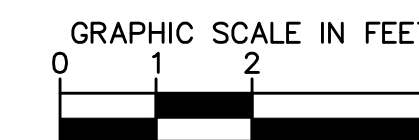
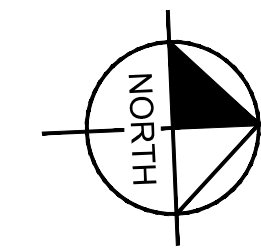
Manatee County
FORCE MAIN 5 REHABILITATION
MANATEE COUNTY

LICENSED PROFESSIONAL
W. WADE WOOD, P.E.
FL LICENSE NUMBER 69051
FL DATE:

PLAN AND PROFILE 9TH STREET

SHEET NUMBER
38

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**FORCE MAIN 5
 REHABILITATION**

MANATEE COUNTY FL DATE:

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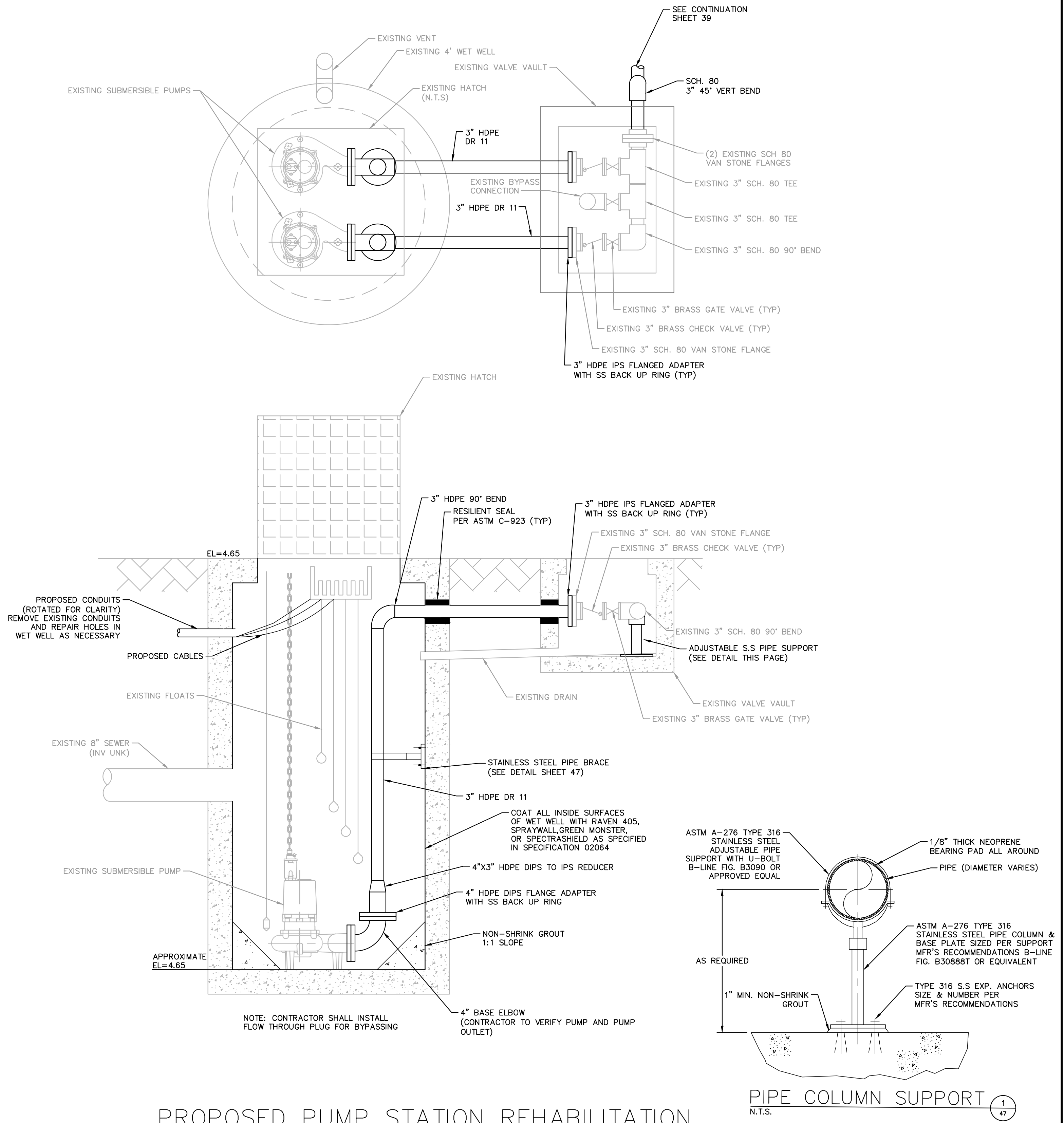
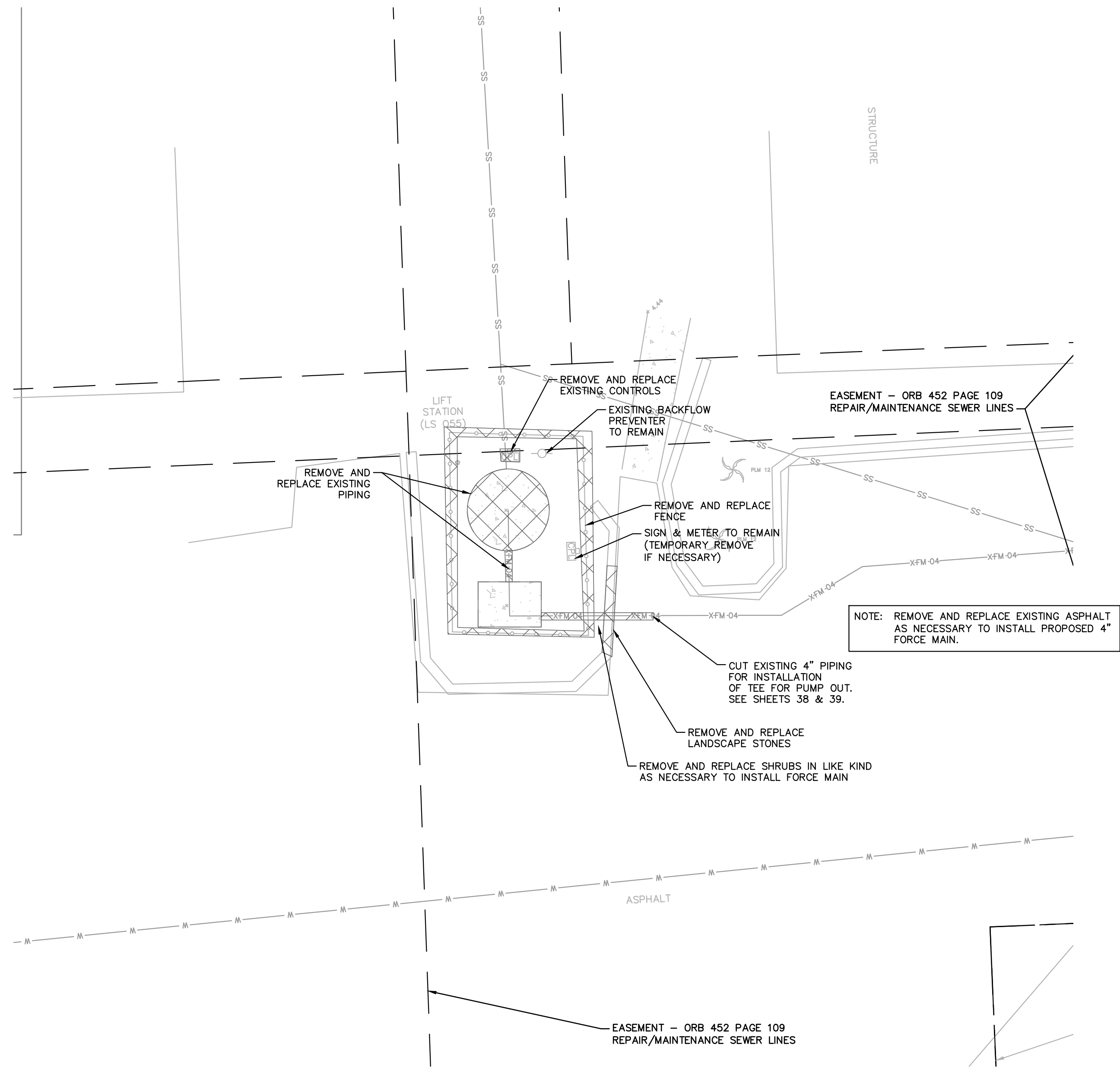
IMPERIAL HOUSE SITE PLAN

SHEET NUMBER
39

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GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION AND ORDERING EQUIPMENT. CONTRACTOR SHALL NOTIFY ENGINEER OF DISCREPANCIES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING EQUIPMENT, UTILITIES, STRUCTURES, AND PERSONNEL FROM DAMAGE OR INJURY DURING CONSTRUCTION.
3. CONSTRUCTION SEQUENCE SHALL BE COORDINATED TO AVOID ANY FLOW INTERRUPTION.
4. ALL EXISTING MECHANICAL PIPING AND EQUIPMENT SHALL BE REMOVED AND SALVAGED PER SPECIFICATION 01030.
5. CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF DEMOLISHED MATERIAL. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
6. CONTRACTOR TO FOLLOW SPECIFICATION 09900 BEFORE COATING THE EXISTING WET WELL AND VALVE VAULT.
7. REFER TO COUNTY STANDARDS FOR PUMP STATION REQUIREMENTS SHEET 47.



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Manatee County
FLORIDA

FORCE MAIN 5 REHABILITATION

MANATEE COUNTY

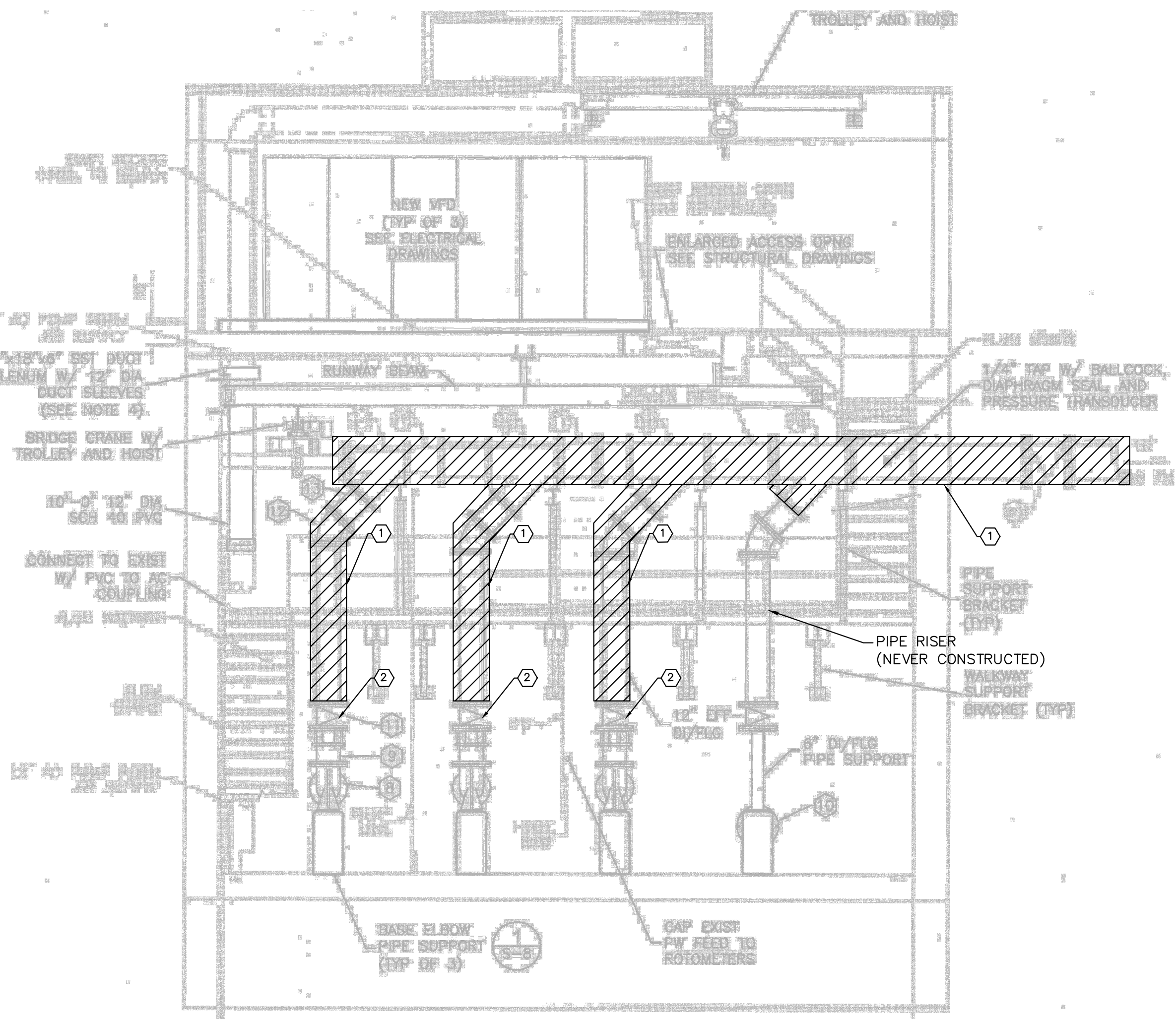
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W. WADE WOOD, P.E.
FL LICENSE NUMBER 69051
FL DATE:

IMERIAL HOUSE DEMOLITION & PROPOSED PLAN

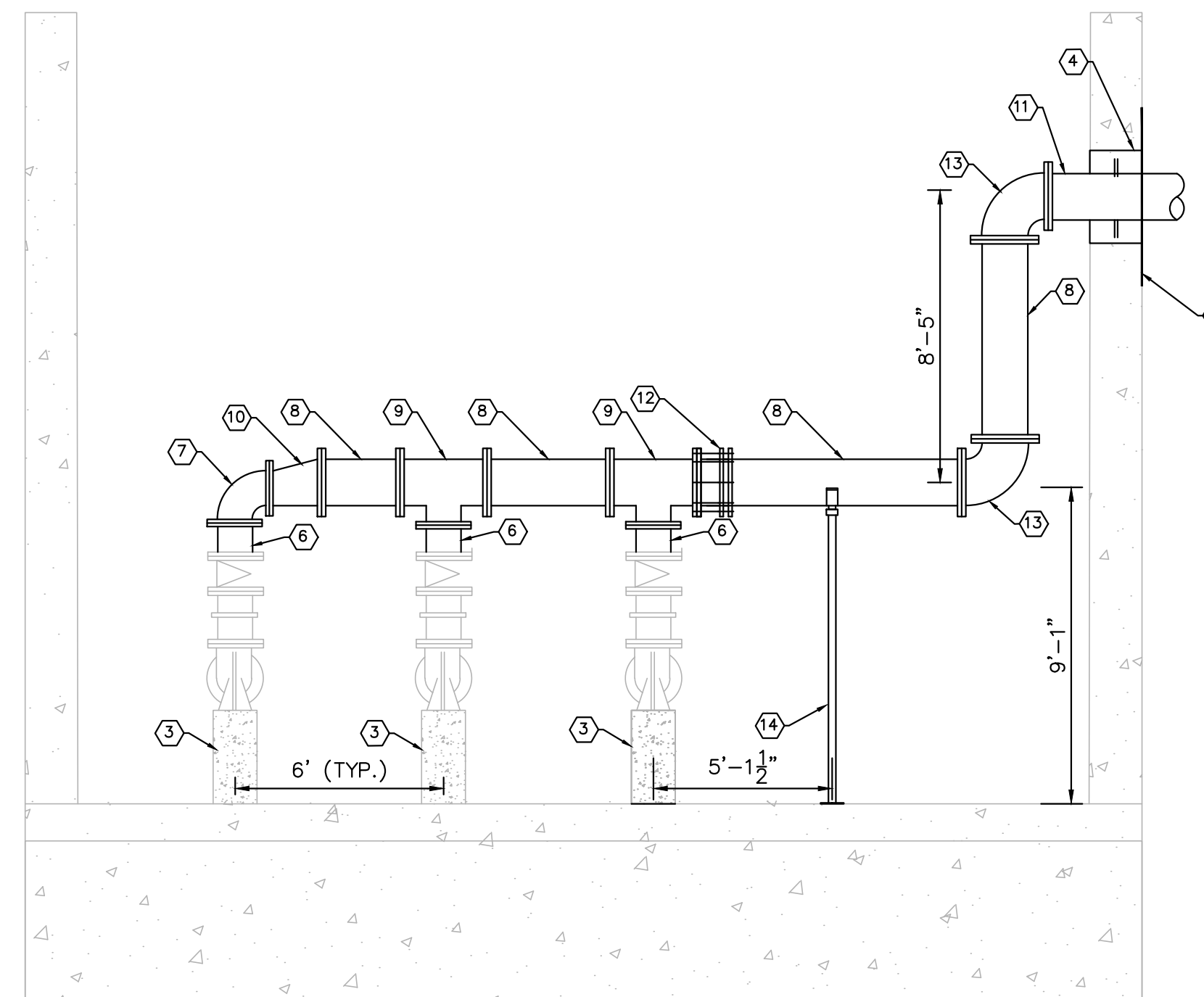
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EXISTING LIFT STATION 5 WET WELL SECTION
1/4" = 1' - 0"



PROPOSED DISCHARGE HEADER PIPING
1/4" = 1' - 0"

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF DISCREPANCIES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING EQUIPMENT, UTILITIES, STRUCTURES, AND PERSONNEL FROM DAMAGE OR INJURY DURING CONSTRUCTION.
3. CONTRACTOR SHALL SUBMIT A CONSTRUCTION SEQUENCE SCHEDULE AS PART OF HIS SUBMITTALS FOR REVIEW AND APPROVAL FROM OWNER/ENGINEER TO MINIMIZE FLOW INTERRUPTIONS.
4. THE COUNTY RESERVES THE RIGHT FOR FIRST RIGHT OF REFUSAL. ANY TAGGED EQUIPMENT SHALL BE REMOVED AND STORED IN A SAFE PLACE PRIOR TO HANDING OVER TO THE COUNTY.
5. CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF DEMOLISHED MATERIAL. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

KEY NOTES

- 1 EXISTING PIPING TO BE REMOVED AND REPLACED
- 2 EXISTING 12" PLUG VALVE TO REMAIN
- 3 EXISTING CONCRETE PEDESTAL
- 4 CONTRACTOR SHALL CHIP OUT CONCRETE FROM AROUND EXISTING FM AT BUILDING IN ORDER TO REMOVE AND REINSTALL PIPING. REMOVE PIPING AND INSTALL NEW PIPING INTO THE BUILDING. SECURE TO EXISTING HEADER PIPING IN DRYWELL AND MUD UP AROUND NEW FM PIPING WITH NON-SHRINK GROUT INSIDE AND OUT.
- 5 PREPARE AND PAINT SURROUNDING CONCRETE WITH COAL TAR-EPOXY (SYSTEM NO. 46-31) PER THE SPECIFICATIONS
- 6 PROPOSED 12" D.I. SPOOL PIECE, FLG
- 7 PROPOSED 12" D.I. 90° BEND, FLG
- 8 PROPOSED 16" D.I. SPOOL PIECE, FLG
- 9 PROPOSED 16" X 12" D.I. TEE, FLG
- 10 PROPOSED 16" X 12" D.I. ECCENTRIC REDUCER, FLG
- 11 PROPOSED 16" D.I. SPOOL PIECE, FLG X PE (SEE SHEETS 34 AND 34A FOR CONTINUATION)
- 12 PROPOSED 16" FLANGED COUPLING ADAPTOR
- 13 PROPOSED 16" D.I. 90° BEND, FLG
- 14 PIPE SUPPORT PER DETAIL SHEET 39

GROUNDWATER / DEWATERING NOTE:
THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR THIS ISSUE. WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.



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CHECKED BY WEW

Manatee County FLORIDA

FORCE MAIN 5 REHABILITATION

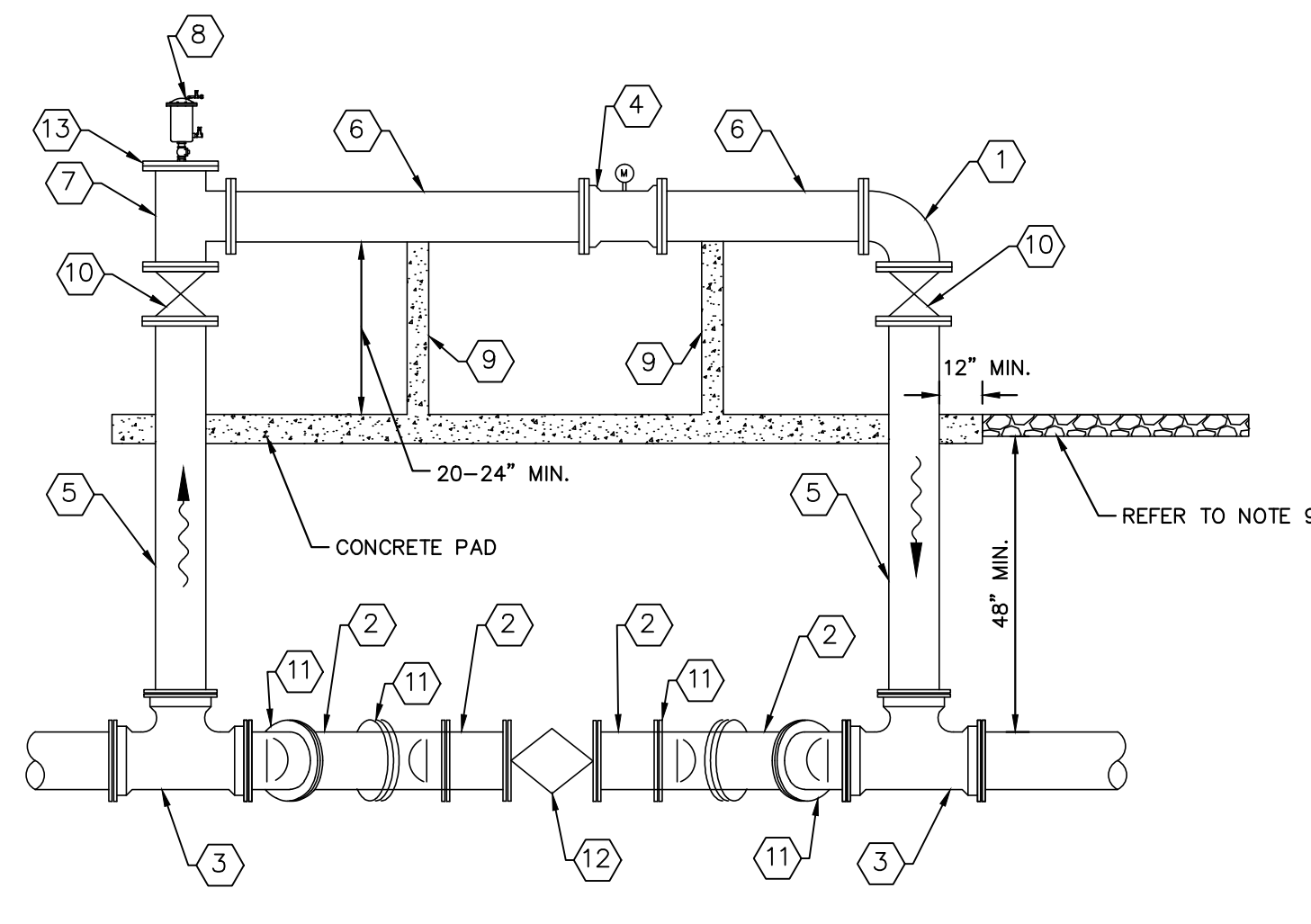
MANATEE COUNTY

LICENSED PROFESSIONAL
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HEADER PIPING MODIFICATIONS

SHEET NUMBER
41

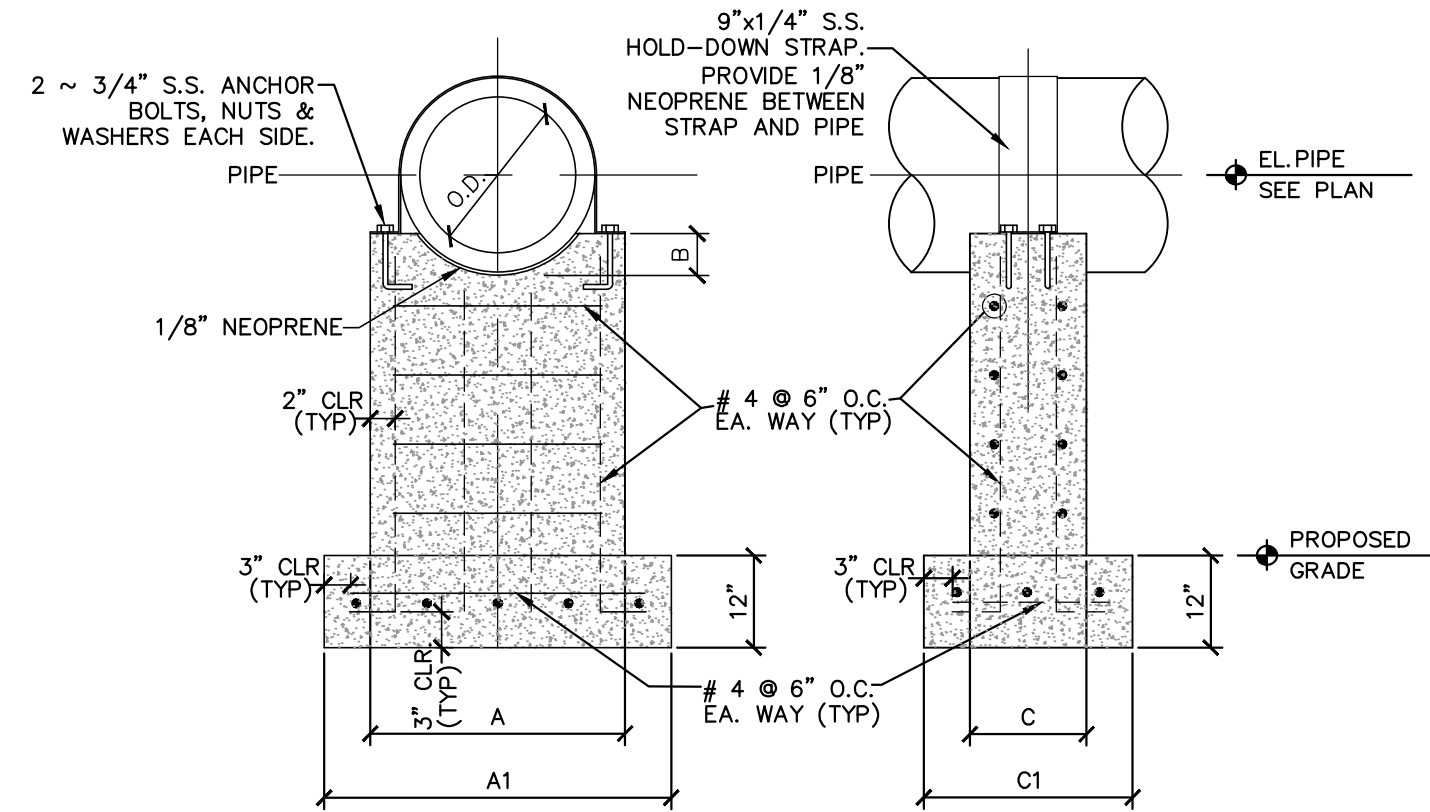
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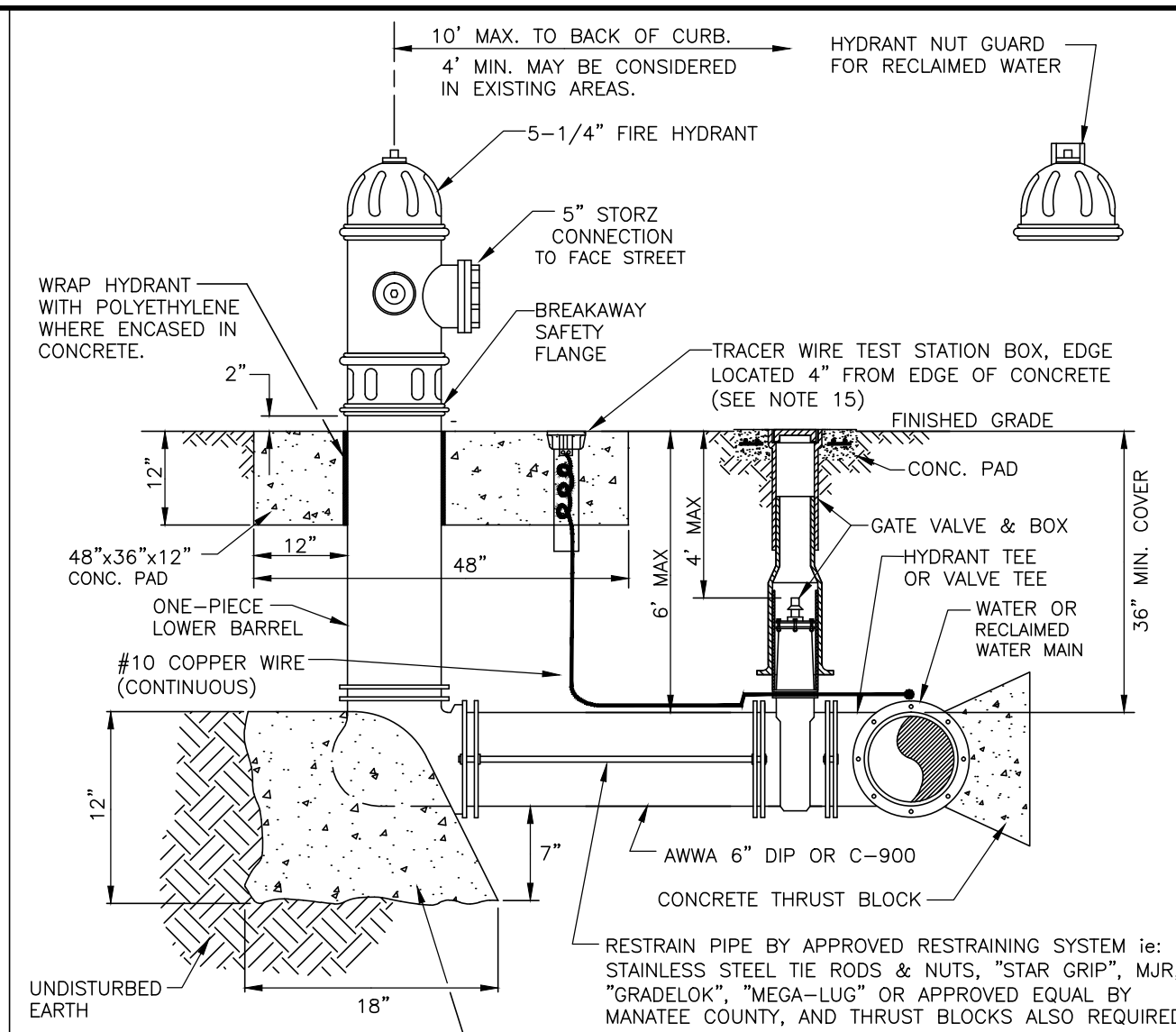
MAG METER DETAIL
1/4" = 1'

- NOTES:**
1. ABOVE GROUND PIPING SHALL BE IRON BODY FLANGED FITTINGS.
 2. ALL PIPING SHALL BE COLOR CODED IN ACCORDANCE W/ MANATEE COUNTY STANDARDS.
 3. PIPE THROUGH SLAB AND ABOVE GROUND SHALL BE D.I. PIPE AND FITTINGS.
 4. ALL METAL APPURTENANCES INCLUDING BOLTS, NUTS, AND WASHERS SHALL BE STAINLESS STEEL (TYPE 316) UNLESS OTHERWISE NOTED. ALL STAINLESS STEEL BOLTS SHALL BE TREATED WITH NEVER-SIZE PRIOR TO ASSEMBLY.
 5. CONTRACTOR TO PROVIDE REQUIRED LENGTH OF PIPE DOWNSTREAM AND UPSTREAM OF THE PROPOSED METER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 6. ALL BELOW GROUND PIPING SHALL BE RESTRAINED ACCORDINGLY.
 7. CONTRACTOR TO REMOVE/ABANDON EXISTING VAULTS AND FORCE MAIN AS NECESSARY TO PROPERLY INSTALL PROPOSED METER ASSEMBLY. ALL VOIDED AREAS SHALL BE FILLED WITH FLOWABLE FILL.
 8. ALL BELOW GROUND D.I. PIPE AND FITTINGS SHALL BE POLYETHYLENE WRAPPED.
 9. INSTALL 6" OF COMPACTED 1" WASHED, CRUSHED SHELL OVER ONE LAYER OF WEED BARRIER OVER ALL EXPOSED GROUND SURFACES. THE WEED BARRIER SHALL BE MIRASCAPE MANUFACTURED BY MIFAFI OR APPROVED EQUAL. ALL FINISHED GRADE SURFACES SHALL SLOPE AWAY FROM THE CONCRETE SLABS AT A MINIMUM SLOPE OF 2% EXTENDING 6 FEET OUTSIDE OF CONCRETE PAD. ALL DISTURBED GROUND SHALL BE COMPACTED TO 95% MAX DENSITY, AASHTO T-180, BEFORE INSTALLING THE WEED BARRIER.

- PIPING LEGEND**
- 1 14" D.I. 90° ELBOW (COMPACT), FLG
 - 2 16" D.I. SPOOL PIECE, MJ
 - 3 16" X 14" D.I. TEE, MJ
 - 4 14" D.I. MAG METER, FLG (ABB MAG METER, MODEL FEW325)
 - 5 14" D.I. SPOOL PIECE, MJ X FLG
 - 6 14" D.I. SPOOL PIECE, FLG
 - 7 14" X 14" D.I. TEE, FLG
 - 8 2" ARV (REFER TO DETAIL US-10)
 - 9 CONCRETE PIPE SUPPORT (REFER TO DETAIL THIS PAGE)
 - 10 14" GATE VALVE, FLG
 - 11 16" 45° BEND, MJ
 - 12 16" PLUG VALVE, MJ
 - 13 14" BLIND FLANGE FOR ARV

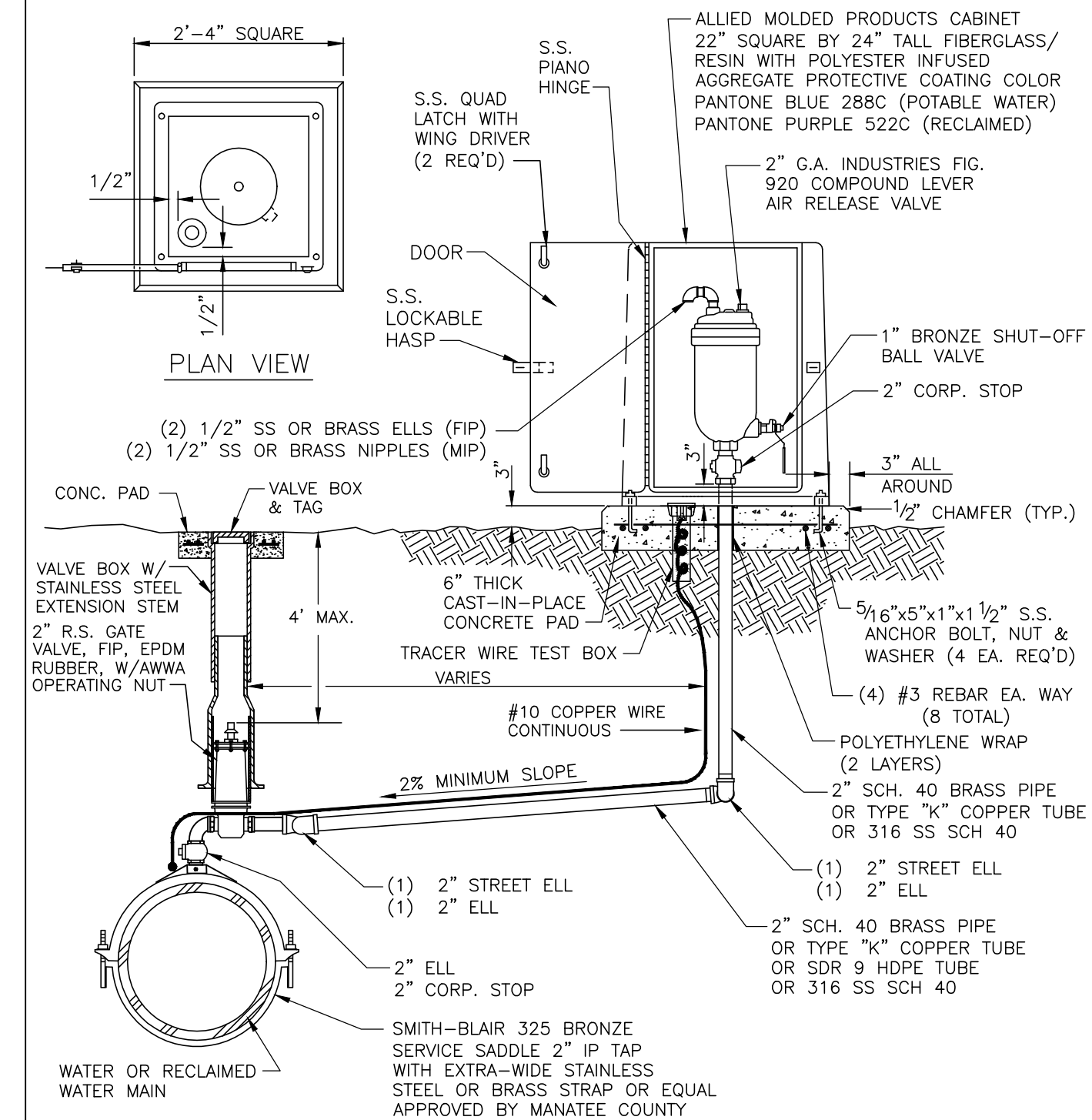


PIPE SIZE	SCHEDULE			
	A	B	C	C1
4"	1'-4"	2'-0"	2'	1'-4"
6"	1'-6"	2'-2"	2'	1'-4"
8"	1'-8"	2'-4"	3'	1'-0"
12"	2'-0"	2'-8"	4'	1'-0"
16"	2'-4"	3'-0"	4'	1'-8"
18"	2'-6"	3'-2"	6'	1'-0"
20"	2'-8"	3'-8"	6'	1'-6"
24"	3'-0"	4'-0"	6'	1'-6"
30"	3'-6"	4'-6"	9'	1'-6"



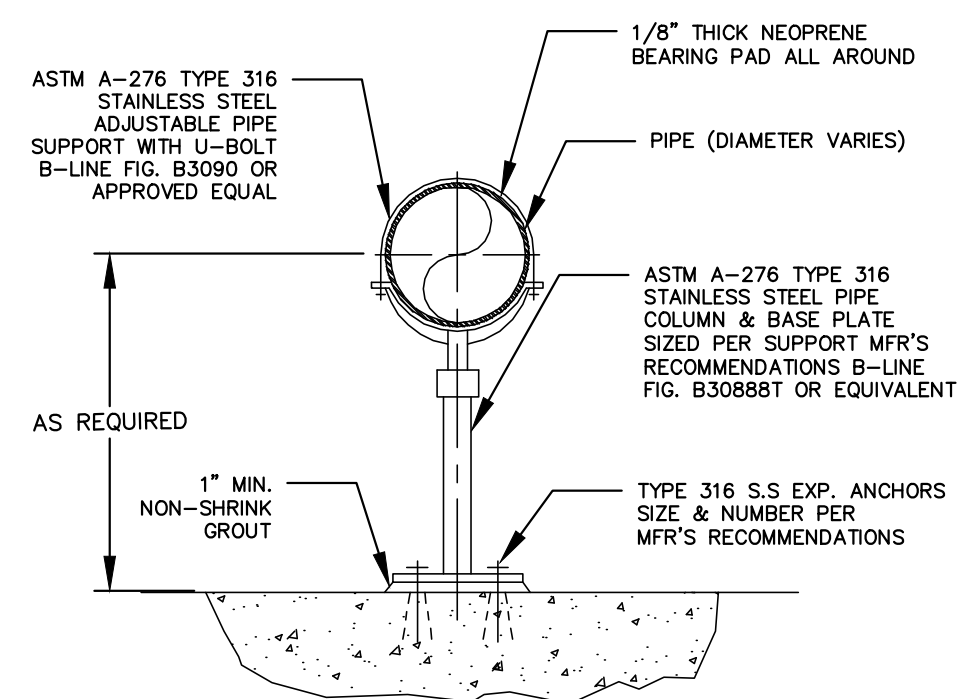
- NOTES:**
1. WEEPHOLES SHALL BE EXCLUDED FROM THE FIRE HYDRANT.
 2. FIRE HYDRANTS SHALL BE A MINIMUM OF 6" OFF EDGE OF PAVEMENT AND 10' MAX. FROM BACK OF CURB WHERE POSSIBLE AND WHERE SIDEWALK IS TO BE INSTALLED, FIRE HYDRANT SHALL BE LOCATED BETWEEN SIDEWALK AND RIGHT-OF-WAY LINE.
 3. HYDRANTS SHALL BE FUSION BONDED EPOXY COATED SAFETY YELLOW FOR WATER AND PURPLE (PANTONE 522C) FOR RECLAIMED WATER. HYDRANT SHALL BE DUCTILE IRON CONSTRUCTION.
 4. FIRE HYDRANTS SHALL BE PLACED SO THAT STORM WATER FLOWS AWAY FROM THE HYDRANT.
 5. FIRE HYDRANTS SHALL BE CONSTRUCTED WITH "GROUND LINE" SET TO FINISHED GRADES AS ESTABLISHED IN THE FIELD. NORMAL BURY IS 3 FEET OF COVER FOR ALL WATER LINES.
 6. FIRE HYDRANTS MAY BE CONSTRUCTED WITH "GRADELOK" OFFSET FITTING.
 7. RAISED REFLECTIVE PAVEMENT MARKER (BLUE) FOR POTABLE WATER (PURPLE) FOR RECLAIMED WATER. SHALL BE INSTALLED AT CENTERLINE OF PAVEMENT ADJACENT TO EACH HYDRANT.
 8. PRECAST CONCRETE THRUST BLOCKS & PADS SHALL NOT BE USED.
 9. ALL EXPOSED EDGES OF CONCRETE SHALL HAVE 1/2" CHAMFER.
 10. FIRE HYDRANT VALVE SHALL BE FASTENED DIRECTLY TO TEE.
 11. IN-LINE VALVES SHOULD BE LOCATED AT HYDRANT TEES.
 12. HYDRANTS SHALL BE LOCATED ON SAME SIDE OF ROAD AS WATER MAIN UNLESS OTHERWISE APPROVED.
 13. THERE MUST BE A CLEARANCE OF 7 1/2 FEET FROM FRONT AND BOTH SIDES, AND FOUR FEET TO THE REAR OF THE HYDRANT, TO ABOVE GRADE OBSTRUCTIONS INCLUDING POSTS, FENCES, TREES, ETC. PER THE FLORIDA FIRE PREVENTION CODE.
 14. SEE STANDARD DETAIL, GATE VALVE, BOX, LID AND TAG.
 15. SHOULD THE FIRE HYDRANT'S CONCRETE PAD OVERLAP THE SIDEWALK, THE TRACER WIRE TEST STATION BOX SHALL NOT BE LOCATED WITHIN THE SIDEWALK.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		FIRE HYDRANT ASSEMBLY	UW-5	MANATEE COUNTY PUBLIC WORKS DEPARTMENT	
REV. BY CLB/KE	DATE 11/10			REV. BY CLB/KE	DATE 11/10
MAY 10, 2011 DATE OF APPROVAL		PAGE 123		MAY 10, 2011 DATE OF APPROVAL	

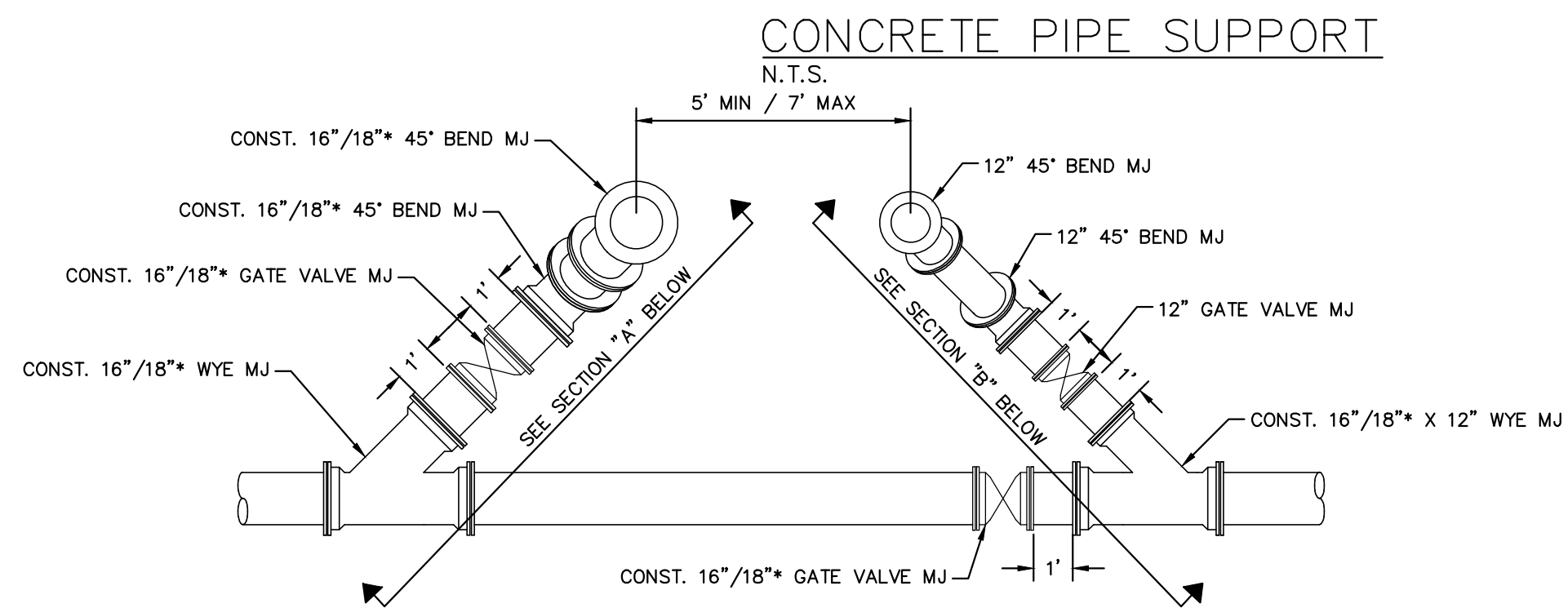


- NOTES:**
1. AIR RELEASE VALVES TO BE INSTALLED AT HIGH POINTS ALONG WATER MAINS WHERE SPECIFICALLY INDICATED ON THE PLAN.
 2. ARV VENT ORIFICE TO BE SIZED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION FOR WATER MAIN SIZE.
 3. ALL INCIDENTAL FITTINGS AND HARDWARE TO BE STAINLESS STEEL, BRASS OR COPPER.
 4. ALL PIPE THREADS TO BE SEALED AIR TIGHT.
 5. VENT PIPE TO BE LAID ACCURATELY ON SLOPE, WITHOUT HIGH OR LOW POINTS.
 6. SEE GATE VALVE, BOX, LID AND TAG STANDARD DETAIL. CENTERING COLLAR IS NOT REQUIRED ON 2" GATE VALVES.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		AIR RELEASE ASSEMBLY FOR 16-INCH AND LARGER MAINS	UW-10
REV. BY CLB/KE	DATE 11/10		
MAY 10, 2011 DATE OF APPROVAL		PAGE 128	

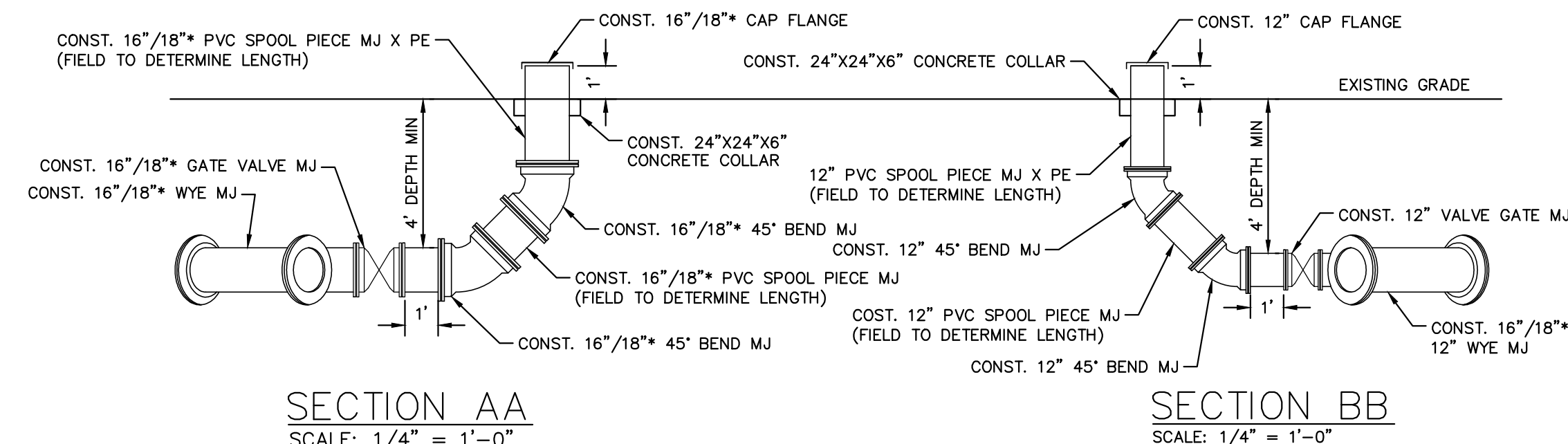


PIPE SUPPORT DETAIL
N.T.S.



PIG PORT LAUNCHING/REIEVING STATION
SCALE: 1/4" = 1'-0"

- NOTES:**
1. THE ABOVE DETAIL IS FOR A TYPICAL PIG RECOVERY STATION. PIG RECOVERY STATION WILL BE REVERSE TO FLOW.
 2. THE CONTAINMENT AREA SHALL BE COVERED WITH 8 INCHES OF #7 STONE OVER FILTER FABRIC AS SPECIFIED IN FDOT STANDARD INDEX NO. 199. CONTAINMENT AREA SHALL BE 6.0'X6.0'.
 3. *CONTRACTOR TO CONFIRM PIPE SIZE BEFORE CONSTRUCTION.



SECTION AA
SCALE: 1/4" = 1'-0"

SECTION BB
SCALE: 1/4" = 1'-0"

- NOTES:**
1. *CONTRACTOR TO CONFIRM PIPE SIZE BEFORE CONSTRUCTION.

GROUNDWATER / DEWATERING NOTE:
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MANATEE COUNTY



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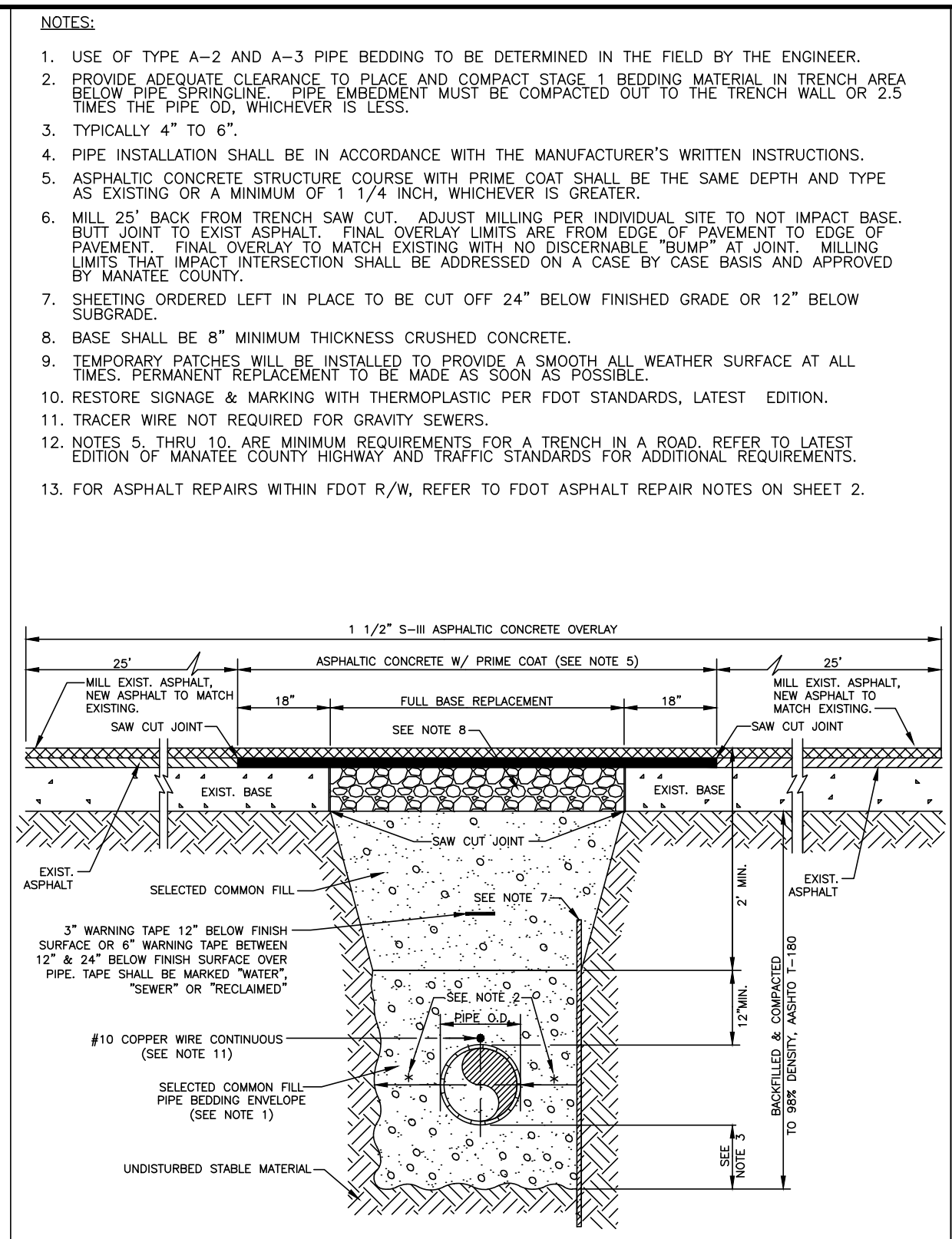
CONSTRUCTION DETAILS

SHEET NUMBER

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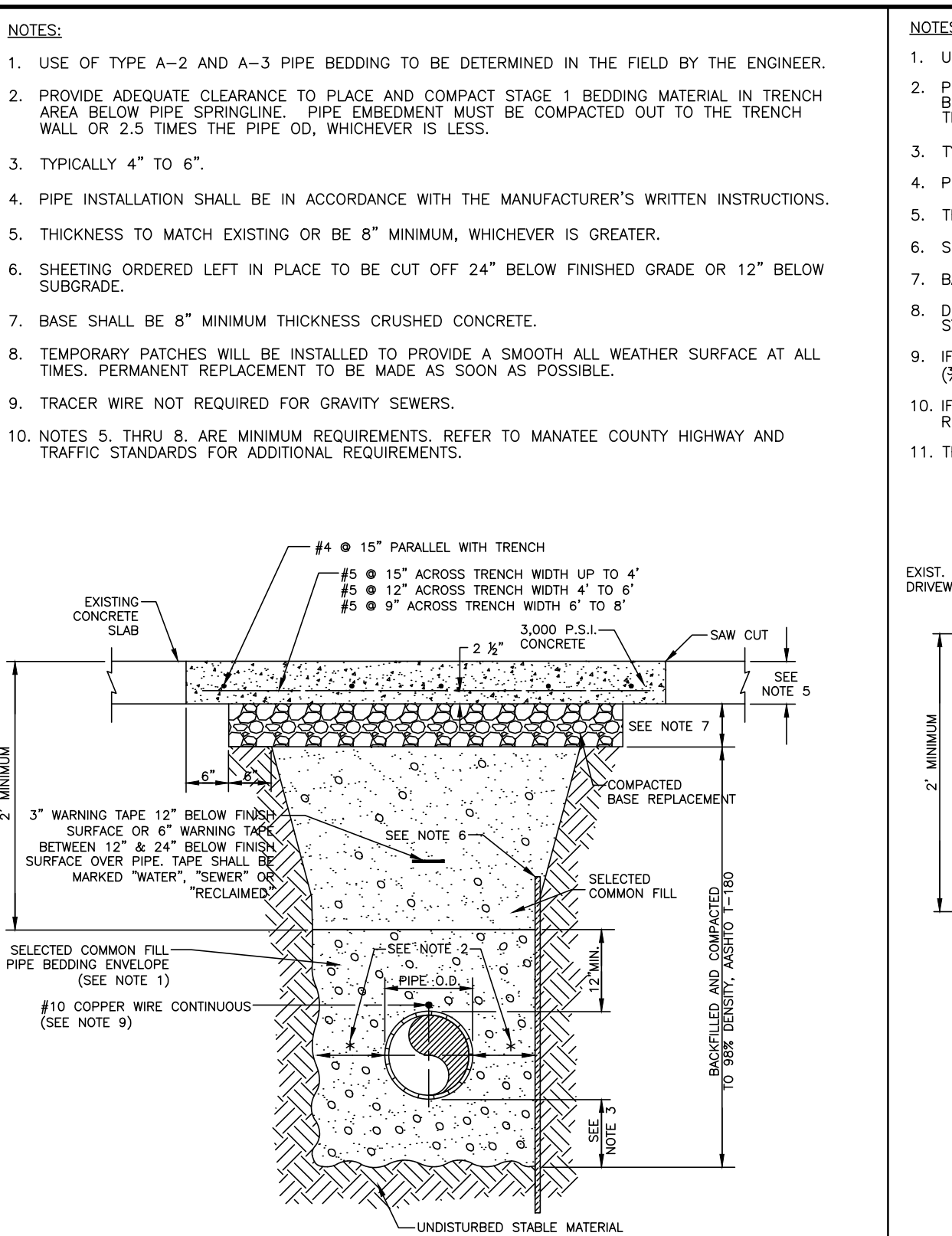
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH ASPHALT PAVEMENT SURFACE TYPE A-1 PIPE BEDDING	UG-12
REV. BY WRT/KE	DATE 03/11	MAY 10, 2011	PAGE 112
DATE OF APPROVAL			

GENERAL NOTES

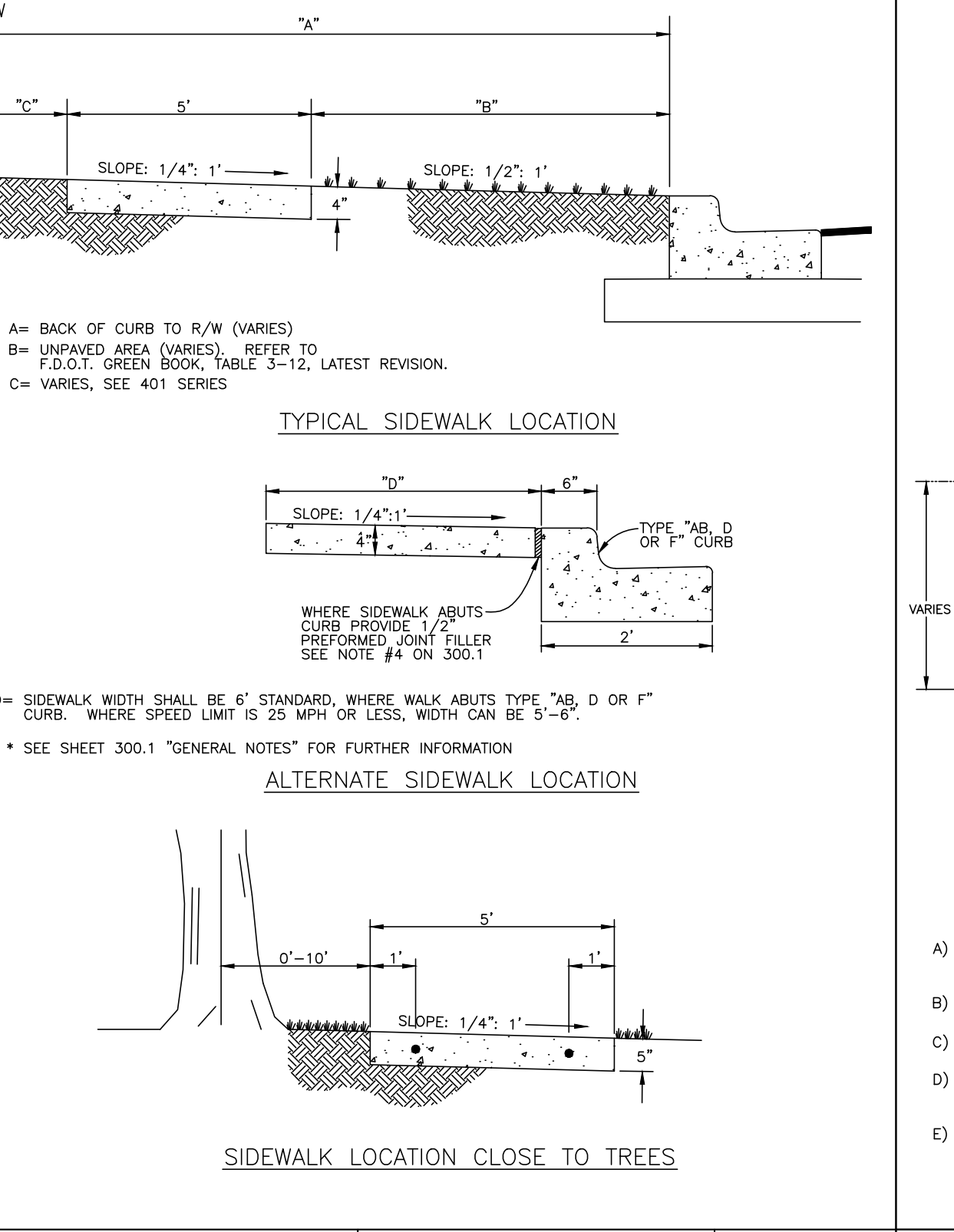
- SIDEWALK SHALL BE CONSTRUCTED A MINIMUM OF 4" THICK, USING 3000 PSI CONCRETE. WHERE SIDEWALK BISECTS A DRIVEWAY THE MINIMUM SHALL BE 6" OF CLASS 1 CONCRETE REINFORCED WITH 6"x6" #10 WIRE MESH.
 - SEE SHEETS #101.2 & 101.3.
- ALL SIDEWALKS SHALL BE CONSTRUCTED TO THE SPECIFICATIONS OF THE MANATEE COUNTY LAND DEVELOPMENT CODE, SECTION 722. A MINIMUM (5) FOOT WIDE SIDEWALK SHALL BE INSTALLED ALONG THE NORTH AND WEST SIDES OF ALL NEW LOCAL STREETS WHICH ARE CONSTRUCTED IN CONJUNCTION WITH A NEW RESIDENTIAL DEVELOPMENT. A SIDEWALK A MINIMUM OF (5) FEET IN WIDTH SHALL BE INSTALLED ON BOTH SIDES OF ALL THOROUGHFARES. REFER TO F.D.O.T. ROADWAY AND TRAFFIC STANDARDS, LATEST REVISION FOR CURB CUT RAMP SPECIFICATIONS.
- THE CONCRETE SHALL BE GIVEN A BROOM FINISH. THE SURFACE VARIATIONS SHALL NOT BE MORE THAN 1/4" UNDER A TEN FOOT STRAIGHTEDGE, NOR MORE THAN 1/8" ON A FIVE FOOT TRAVERSE SECTION. THE EDGE OF THE SIDEWALK SHALL BE CAREFULLY FINISHED WITH AN EDGING TOOL HAVING A RADIUS OF 1/2".
- EXPANSION JOINT: EXPANSION JOINTS BETWEEN THE SIDEWALKS AND THE CURB OR DRIVEWAY OR AT FIXED OBJECTS AND SIDEWALK INTERSECTIONS SHALL BE 1/2" MATERIAL SHALL MEET THE REQUIREMENTS OF AASHTO M153 OR AASHTO M213. FOR LONG POORS, AN EXPANSION JOINT SHALL BE PLACED AT INTERVALS NOT TO EXCEED 120'.
- CONTRACTION JOINTS:
OPEN TYPE JOINTS
OPEN TYPE CONSTRUCTION JOINTS SHALL BE FORMED BY STAKING A METAL BULKHEAD IN PLACE AND DEPOSITING THE CONCRETE ON BOTH SIDES. AFTER THE CONCRETE HAS SET SUFFICIENTLY TO PRESERVE THE WIDTH AND THE SHAPE OF THE JOINT, THE BULKHEAD SHALL BE REMOVED. AFTER THE SIDEWALK HAS BEEN FINISHED OVER THE JOINT, THE SLOT SHALL BE FINISHED WITH A TOOL HAVING A 1/2" RADIUS.
SAWED JOINTS
A SLOT APPROXIMATELY 3/16" WIDE AND NOT LESS THAN 1" DEEP AT 10' CENTERS SHALL BE CUT WITH A CONCRETE SAW AFTER THE CONCRETE HAS SET.
- SIDEWALKS ALONG OTHER STREETS SHALL BE CONSTRUCTED AND DEDICATED AS REQUIRED BY THE APPROVING AUTHORITY WHEN NECESSARY TO CONTINUE AN EXISTING OR PROPOSED SIDEWALK.
- HANDICAP RAMPS SHALL MEET FLORIDA ACCESSIBILITIES STANDARDS, AND SECTIONS 301.0, 301.1 AND 301.2.
- ALL SIDEWALKS ON R/W WITHIN 10' OF AN EXISTING OR PROPOSED TREE THAT WILL EXCEED 6" IN DIAMETER AT MATURITY SHALL BE 5" THICK AND CONTAIN 2-#3 REBAR CENTERED VERTICALLY AND SPACED 3' ON CENTER. PALMS ARE NOT CONSIDERED TREES.

*NOTE: FOR COMPLETE SIDEWALK DETAILS, SEE F.D.O.T. DESIGN STANDARDS, 2006 EDITION, INDEX 304, SHEETS 1 THROUGH 6 AND INDEX 310, SHEETS 1 & 2.

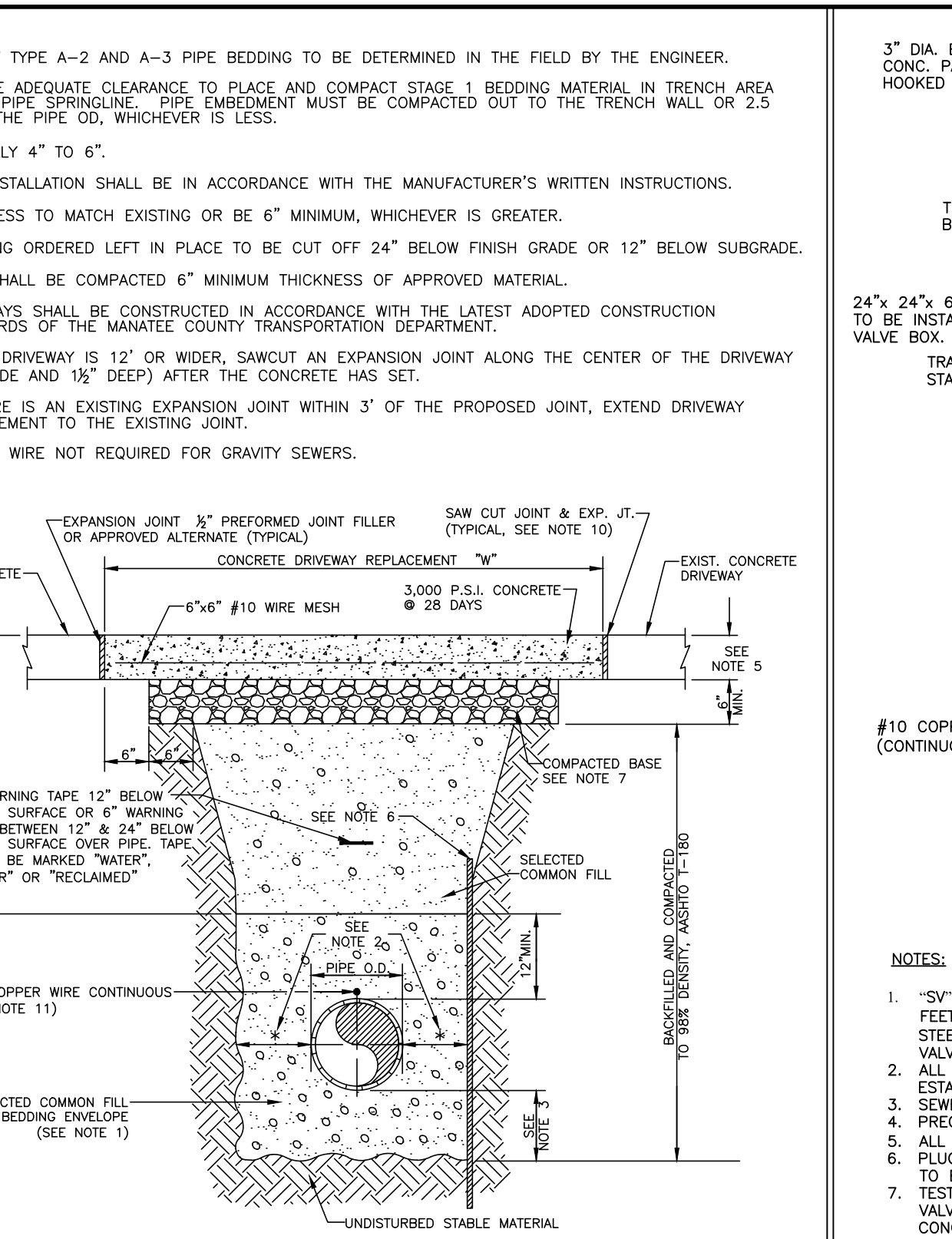
MANATEE COUNTY TRANSPORTATION DEPARTMENT		SIDEWALKS GENERAL NOTES	301.0
REV. BY	DATE	6/12/07	
DATE OF B.O.C.C. APPROVAL			



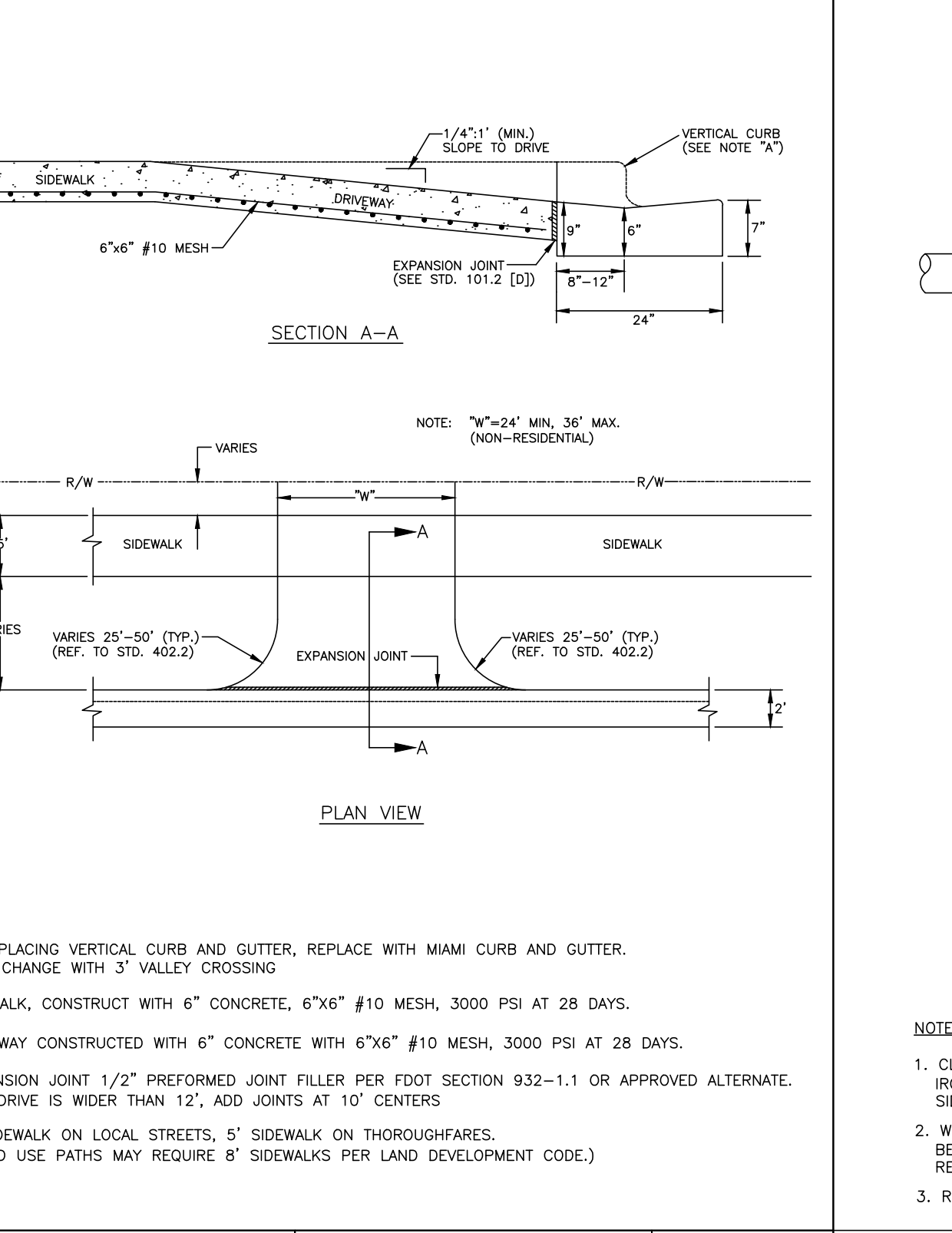
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH CONCRETE PAVEMENT SURFACE TYPE A-1 PIPE BEDDING	UG-13
REV. BY CLB/BR	DATE 11/10	MAY 10, 2011	PAGE 113
DATE OF APPROVAL			



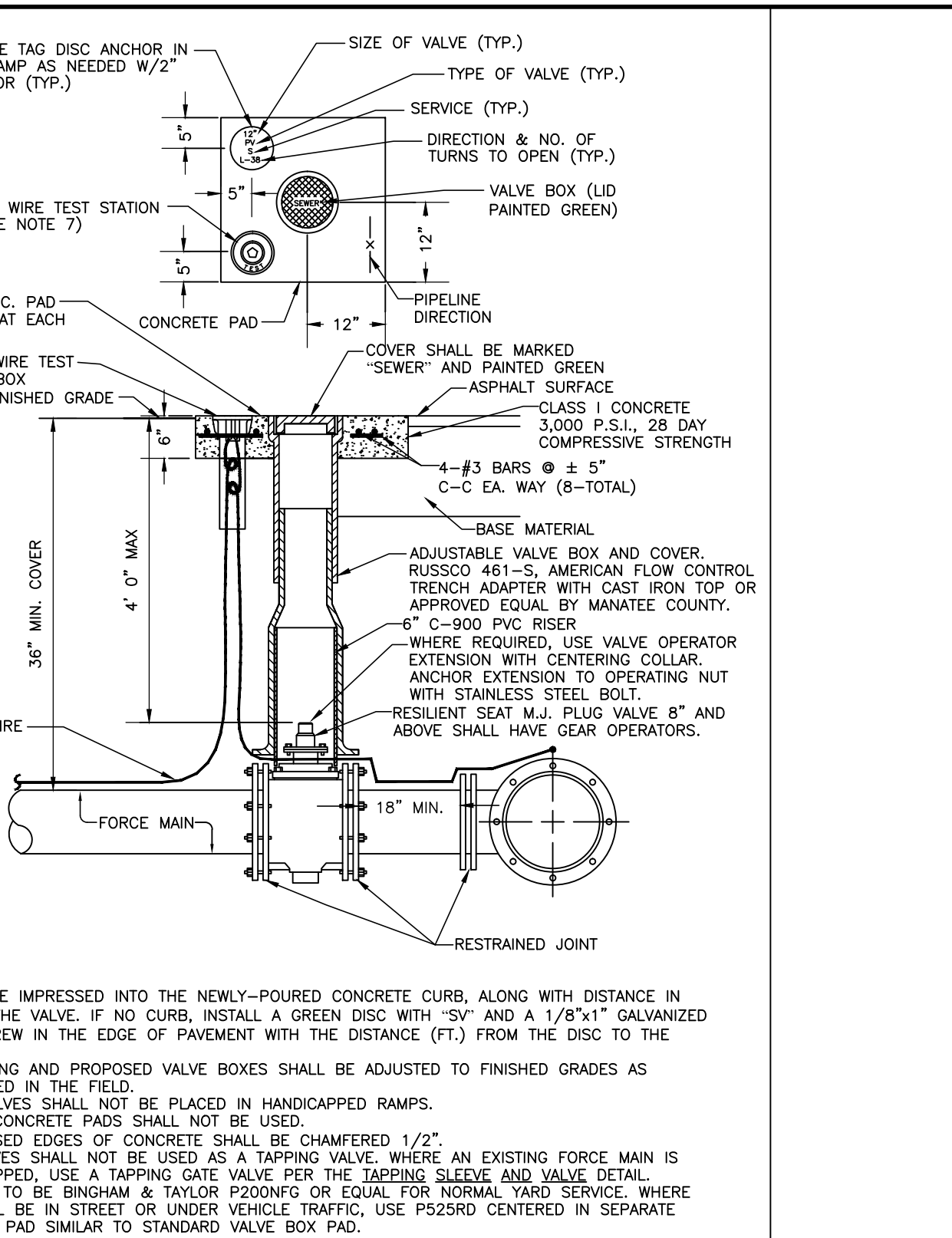
MANATEE COUNTY TRANSPORTATION DEPARTMENT		SIDEWALK REQUIREMENTS	301.1
REV. BY	DATE	6/12/07	
DATE OF B.O.C.C. APPROVAL			



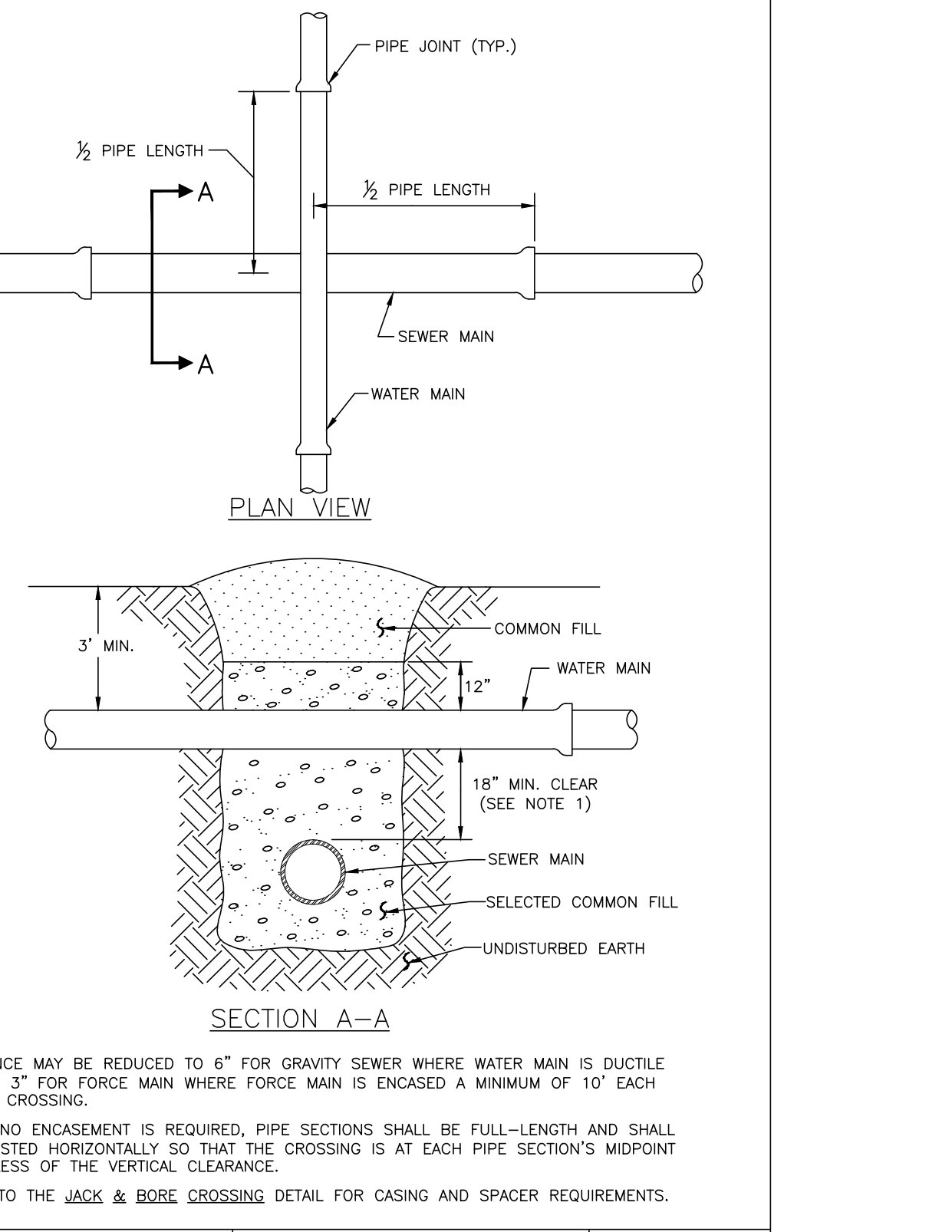
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH CONCRETE DRIVEWAY SURFACE TYPE A-1 PIPE BEDDING	UG-14
REV. BY CLB/BR	DATE 11/10	MAY 10, 2011	PAGE 114
DATE OF APPROVAL			



MANATEE COUNTY TRANSPORTATION DEPARTMENT		COMMERCIAL & INDUSTRIAL DRIVE	101.3
REV. BY	DATE	6/12/07	
DATE OF B.O.C.C. APPROVAL			



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		PLUG VALVE, BOX, COVER AND TAG	US-12
REV. BY CLB/DOH	DATE 11/10	MAY 10, 2011	PAGE 152
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MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TYPICAL NEW WATER & SEWER LINE CROSSING	UG-2
REV. BY CLB/BR	DATE 11/10	MAY 10, 2011	PAGE 102
DATE OF APPROVAL			

GROUNDWATER / DEWATERING NOTE:
THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR THIS ISSUE. WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.



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WWW.KIMLEY-HORN.COM CA 00000696

KHA PROJECT
148400012
DATE
2/14/2017
SCALE AS SHOWN
DESIGNED BY WWW
DRAWN BY JRT
CHECKED BY WEW
MANATEE COUNTY

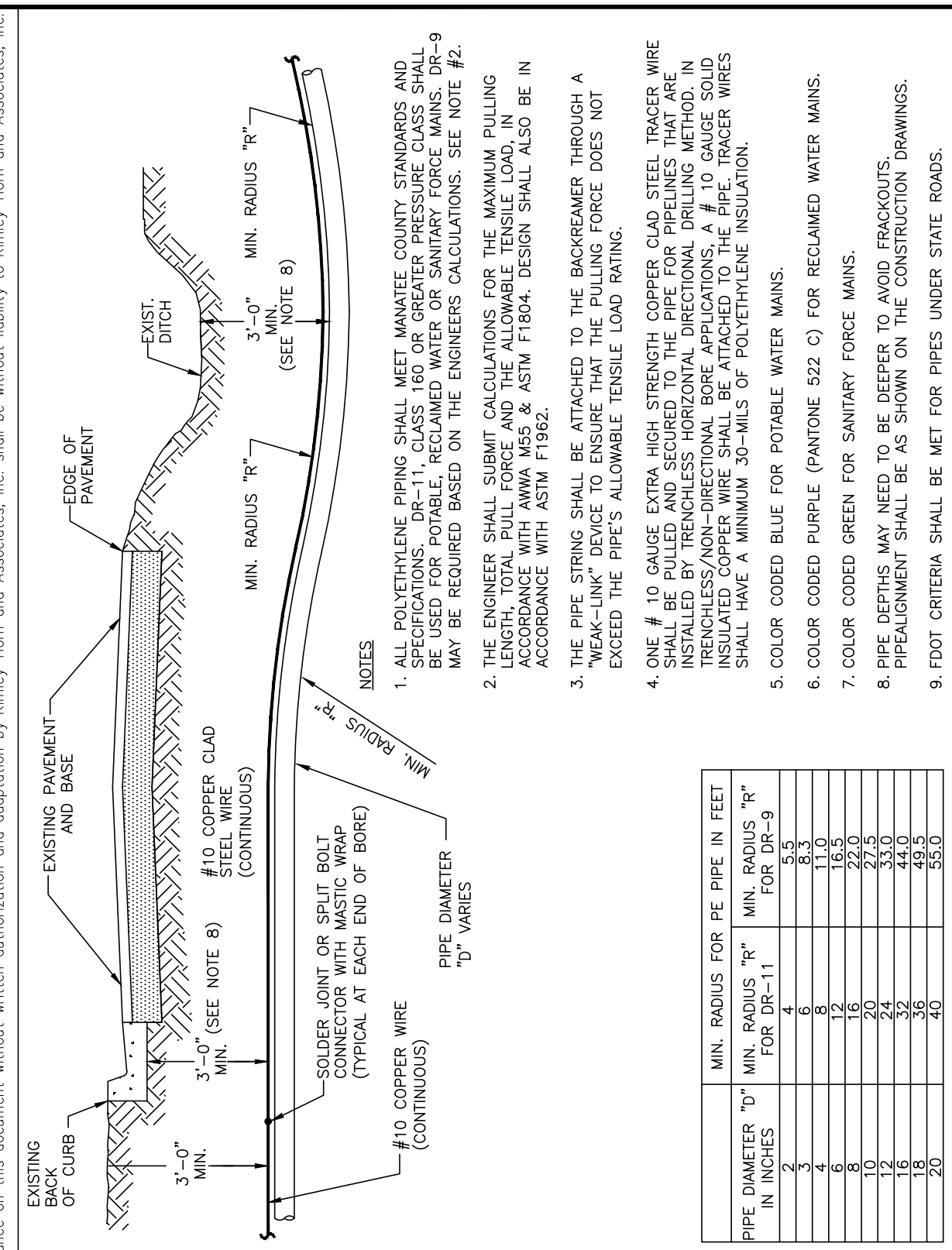
Manatee County
**FORCE MAIN 5
REHABILITATION**

LICENSED PROFESSIONAL
W. WADE WOOD, P.E.
FL LICENSE NUMBER
69051
FL DATE:

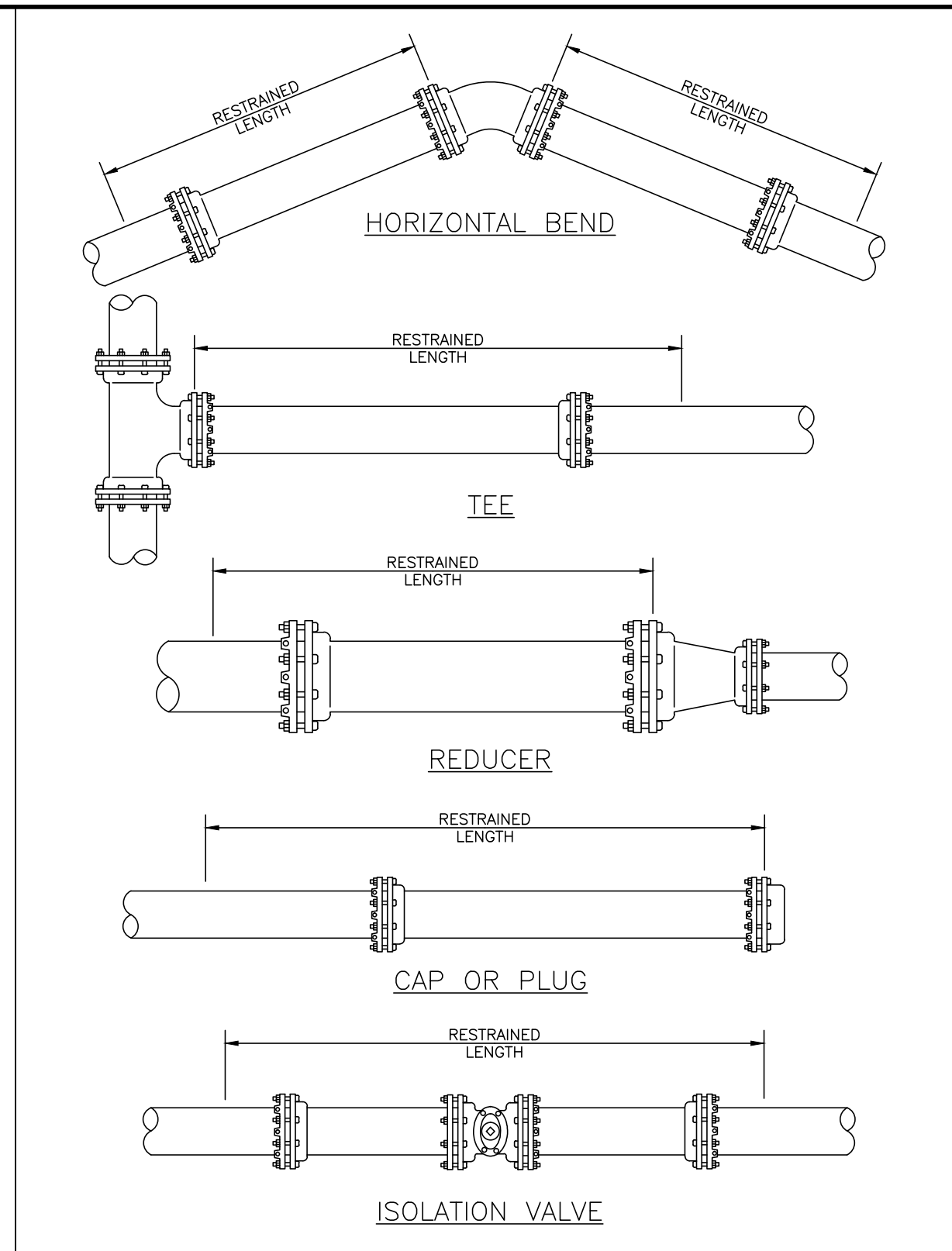
CONSTRUCTION DETAILS
SHEET NUMBER
43

No.	REVISIONS	DATE	BY

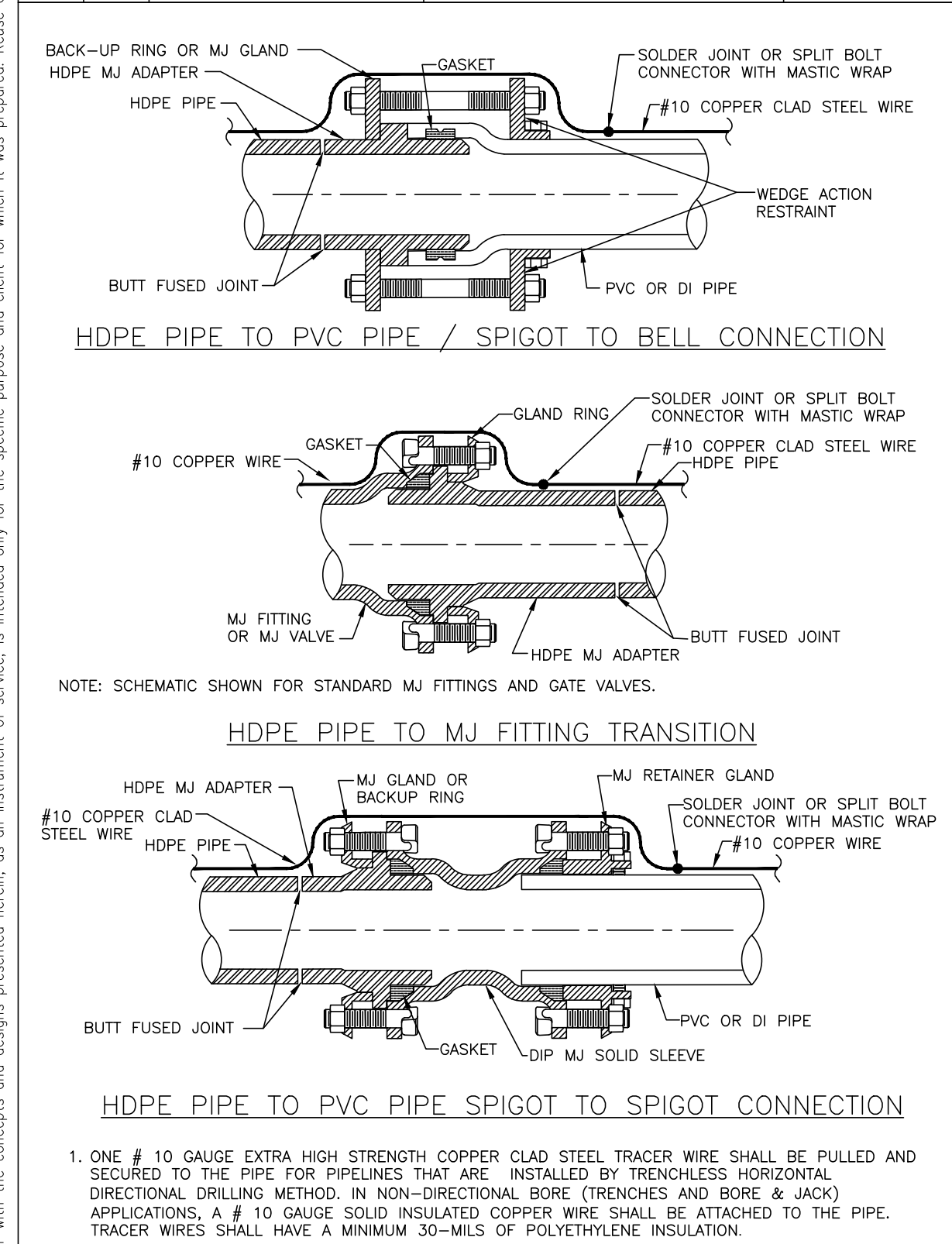
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CLB/BR	11/10	MAY 10, 2011 DATE OF APPROVAL



REV. BY	DATE	DESCRIPTION
CLB/BR	11/10	MAY 10, 2011 DATE OF APPROVAL

REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR DR-18 PVC PIPE

MAIN PIPE SIZE	HORIZ. BENDS			TEES						REDUCERS			PLUGS & VALVES		
	90°	45°	22.5°	SIZE			LENGTH			SIZE				LENGTH	
24	90	38	18	X24	X18	X12	X10	X8	X6	X4	X20	X16	X12	158	214
20	78	32	16	X20	X16	X12	X10	X8	X6	X4	X16	X12	X10	149	184
16	66	27	13	X16	X12	X10	X8	X6	X4	X2	X12	X10	X8	111	151
12	52	22	10	X12	X10	X8	X6	X4	X2	X1	X10	X8	X6	86	118
10	44	18	9	X10	X8	X6	X4	X2	X1	X1	X8	X6	X4	81	100
8	37	15	7	X8	X6	X4	X2	X1	X1	X1	X6	X4	X2	60	83
6	29	12	6	X6	X4	X2	X1	X1	X1	X1	X4	X2	X1	48	63
4	21	8	4	X4	X2	X1	X1	X1	X1	X1	X2	X1	X1	33	45

NOTE: 1. RESTRAIN 11.25' BENDS 50% OF LENGTH FOR 22.5' BENDS.

2. ALL VALVES AND FITTINGS SHALL BE RESTRAINED TO THE CONNECTIONS SECTIONS OF PIPE.

3. ALL ISOLATION VALVES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI TEST PRESSURE IN EITHER DIRECTION.

4. PIPE SIZES ARE GIVEN IN INCHES.

5. RESTRAINED PIPE LENGTHS ARE GIVEN IN FEET.

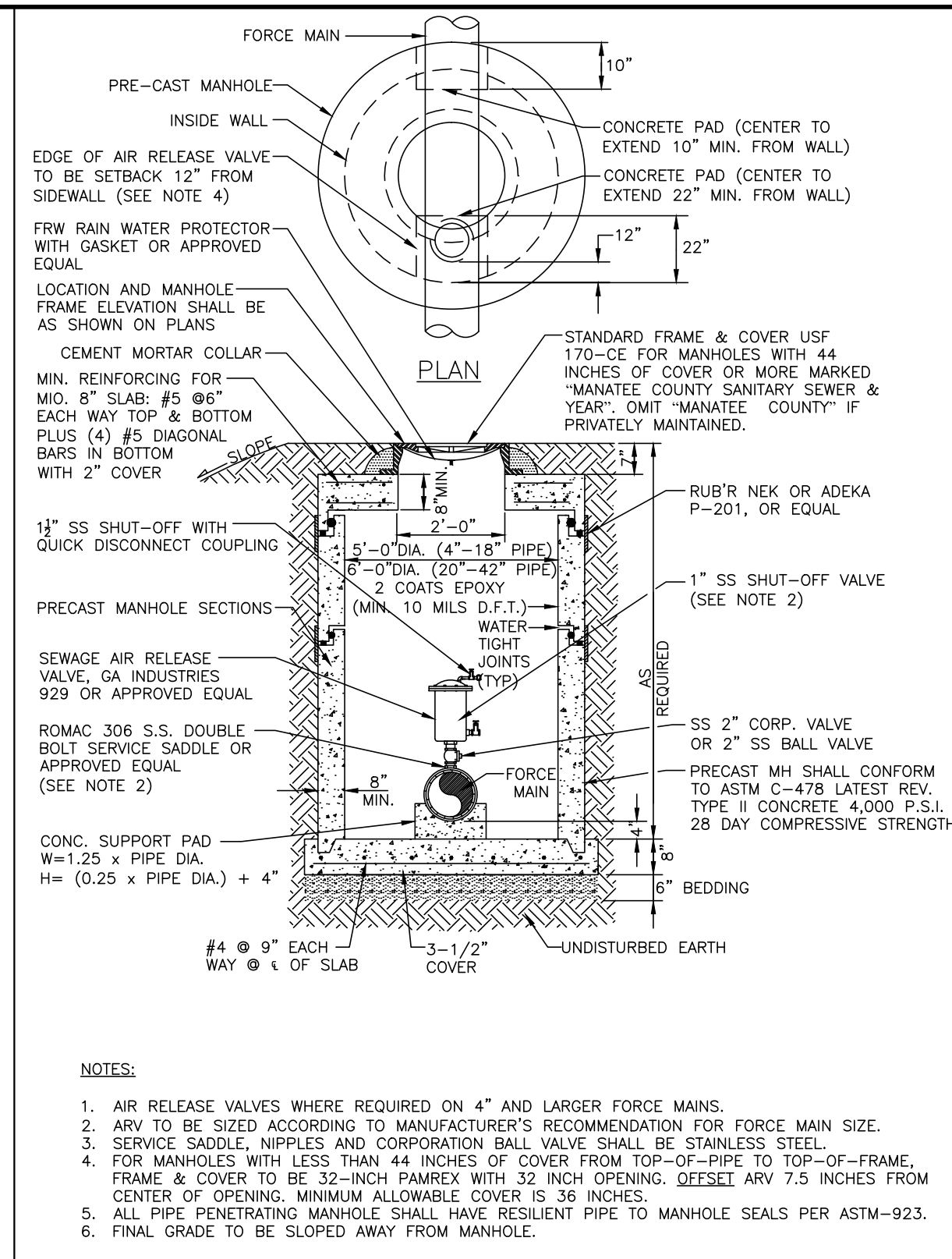
6. LENGTHS SHOWN ARE FOR A TEST PRESSURE OF 180 PSI.

7. THE RESTRAINED LENGTHS SHOWN IN THESE TABLES ARE BASED ON SOIL CLASSIFICATION SP WITH AWWA TYPE 3 TRENCH CONDITIONS, 180 PSI TEST PRESSURE, 3 FEET OF COVER AND 1.5 FACTOR OF SAFETY. ACTUAL BURY CONDITIONS MUST BE DETERMINED BY THE ENGINEER OF RECORD AND THE RESTRAINED LENGTHS MODIFIED ACCORDINGLY.

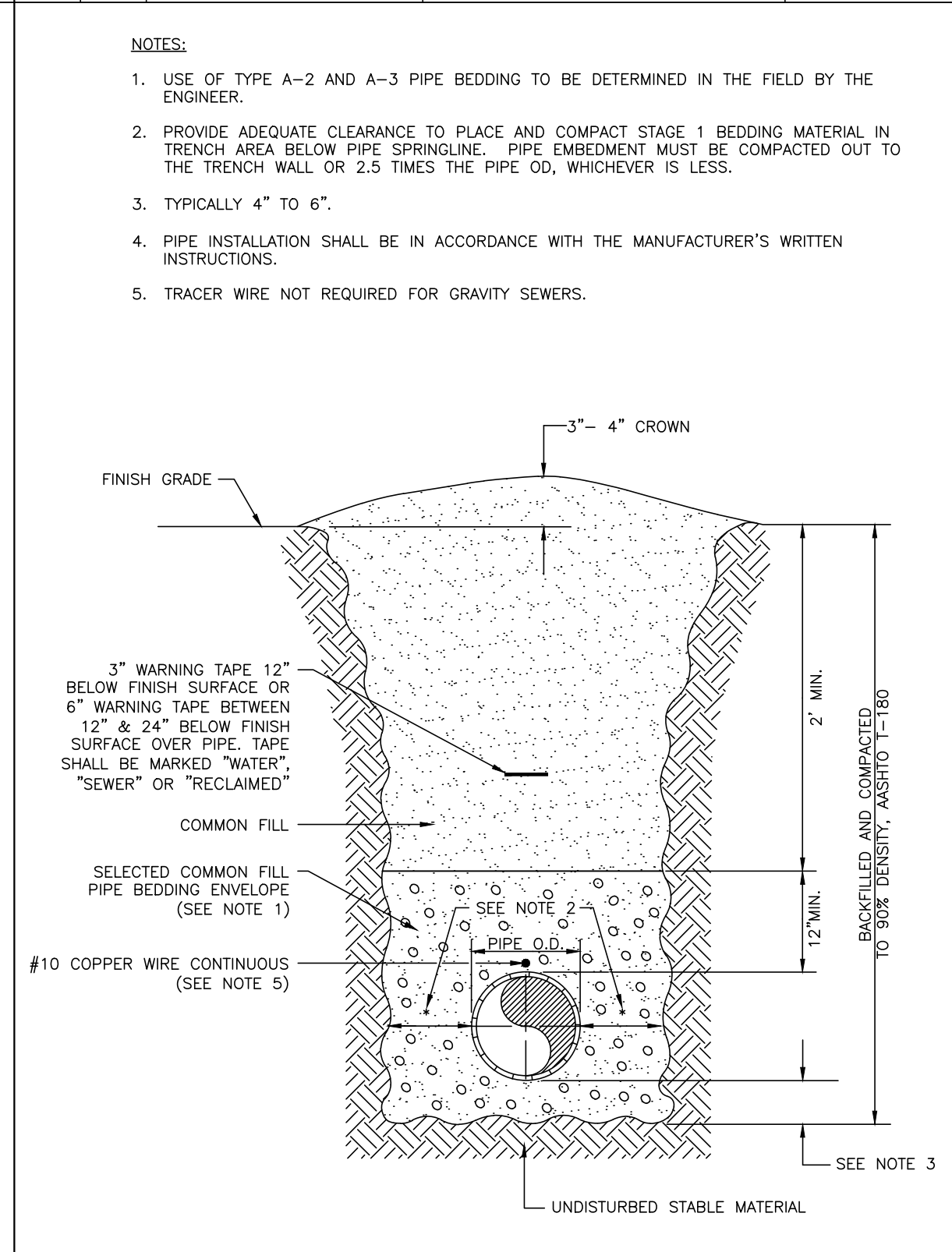
8. RESTRAINED LENGTHS TO BE APPLIED TO PIPELINES PER DETAIL RESTRAINED LENGTHS FOR PIPE.

9. IF FITTING TYPE OR PIPE SIZE IS NOT SHOWN, REFER TO THE ADDITIONAL RESTRAIN LENGTHS DETAIL FOR SECONDARY REFERENCE ON SHEET 46.

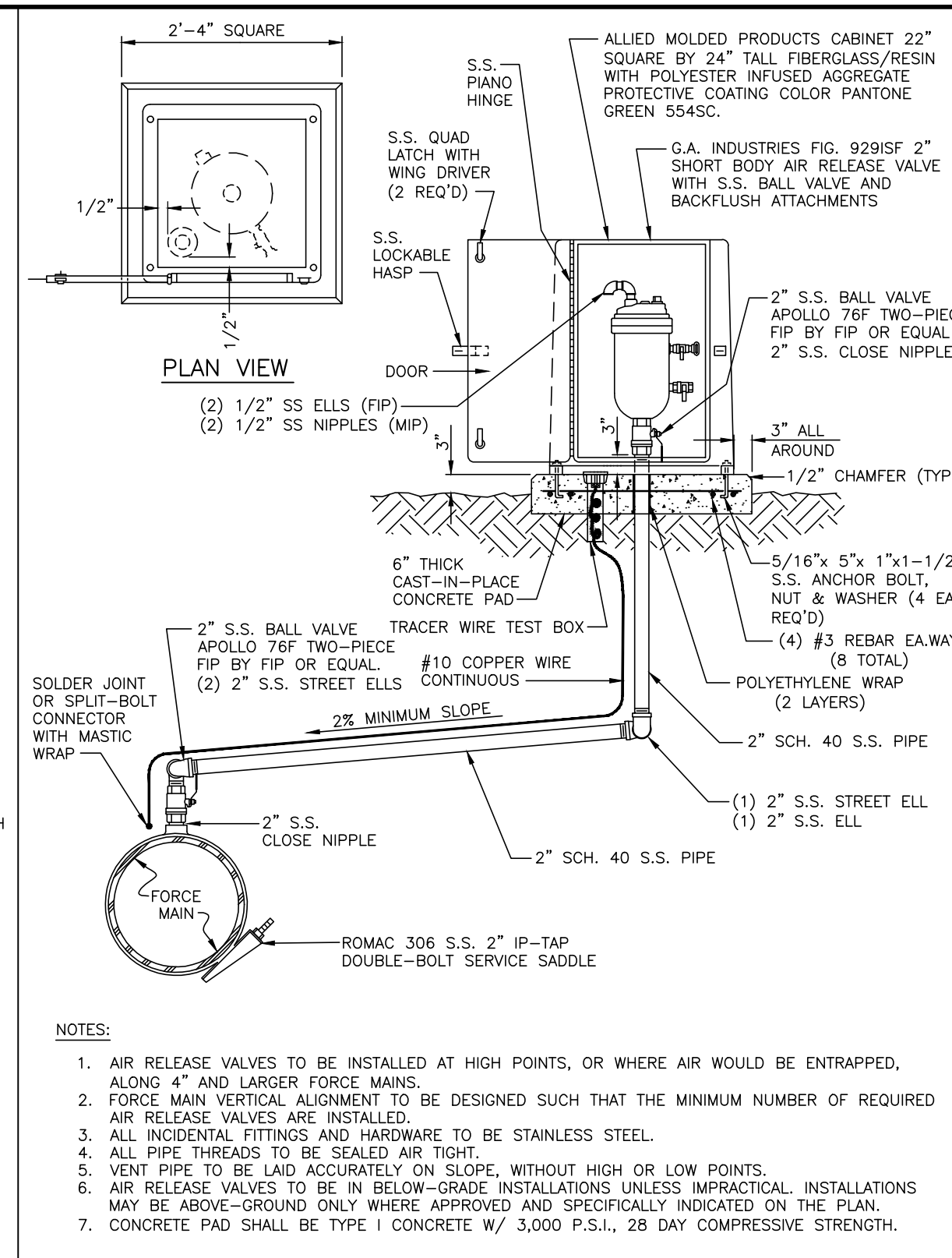
REV. BY	DATE	DESCRIPTION
CLB/BR	11/10	MAY 10, 2011 DATE OF APPROVAL



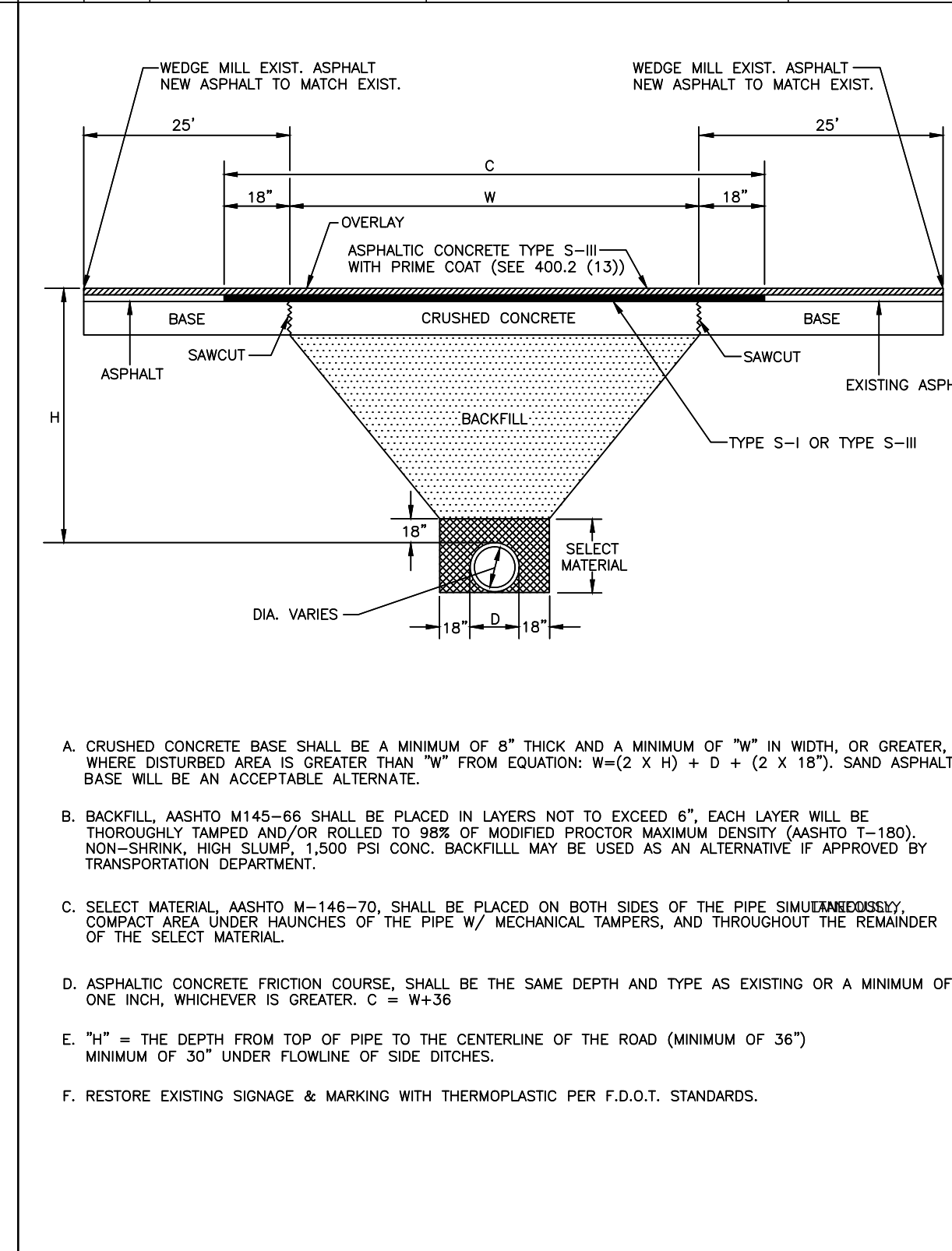
REV. BY	DATE	DESCRIPTION
CLB/KE	11/10	MAY 10, 2011 DATE OF APPROVAL



REV. BY	DATE	DESCRIPTION
WRT/KE	03/11	MAY 10, 2011 DATE OF APPROVAL



REV. BY	DATE	DESCRIPTION
CLB/KE	11/10	MAY 10, 2011 DATE OF APPROVAL



REV. BY	DATE	DESCRIPTION
	6/12/07	DATE OF B.O.C.C. APPROVAL

No.	REVISIONS	DATE	BY

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Manatee County

FORCE MAIN 5 REHABILITATION

KHA PROJECT 148400012
DATE 2/14/2017
SCALE AS SHOWN
DESIGNED BY WWW
DRAWN BY JRT
CHECKED BY WEW MANATEE COUNTY

LICENSED PROFESSIONAL

W. WADE WOOD, P.E.
FL LICENSE NUMBER 69051
FL DATE:

GROUNDWATER / DEWATERING NOTE:

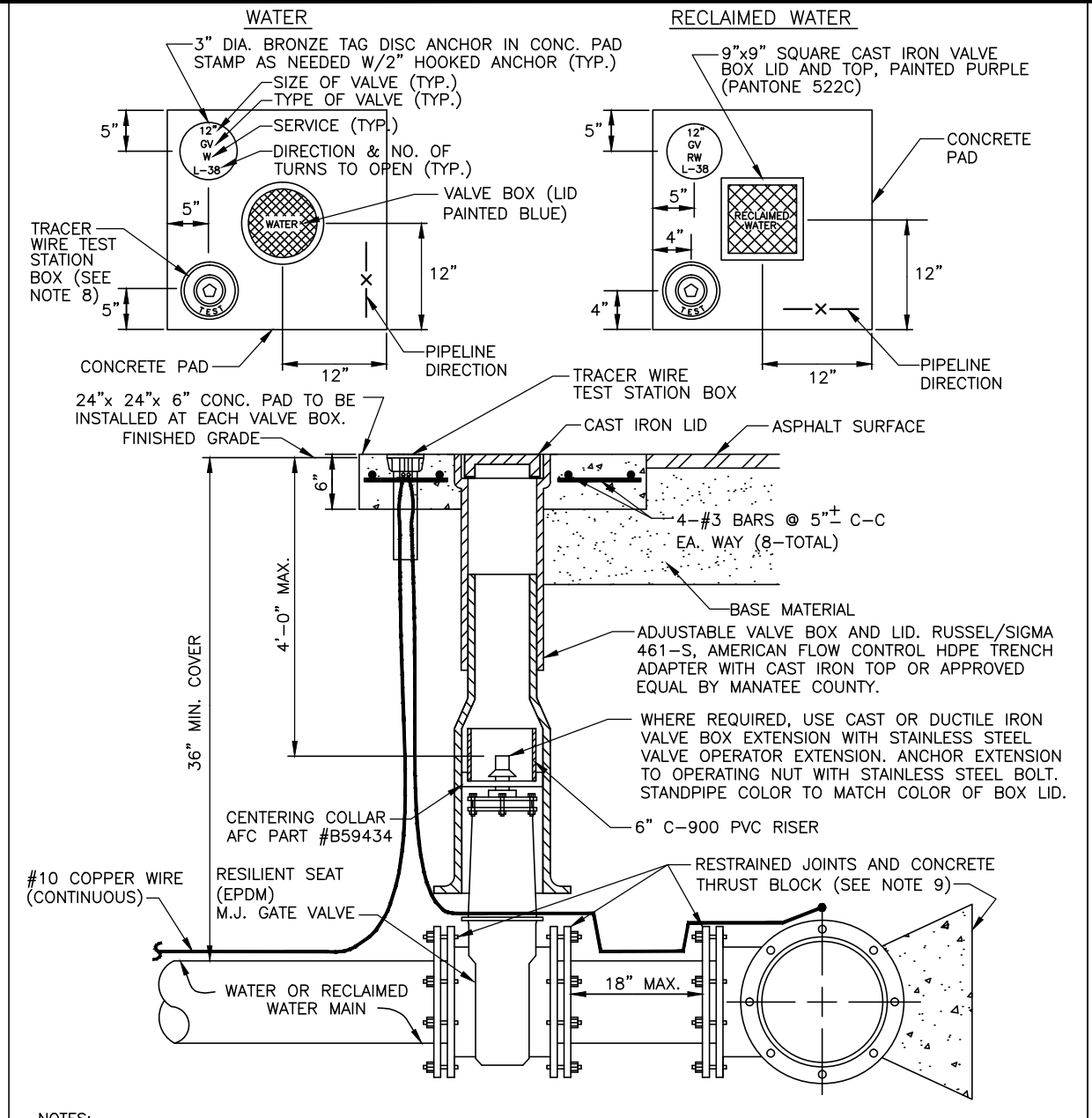
THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR THIS ISSUE. WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.

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CONSTRUCTION DETAILS

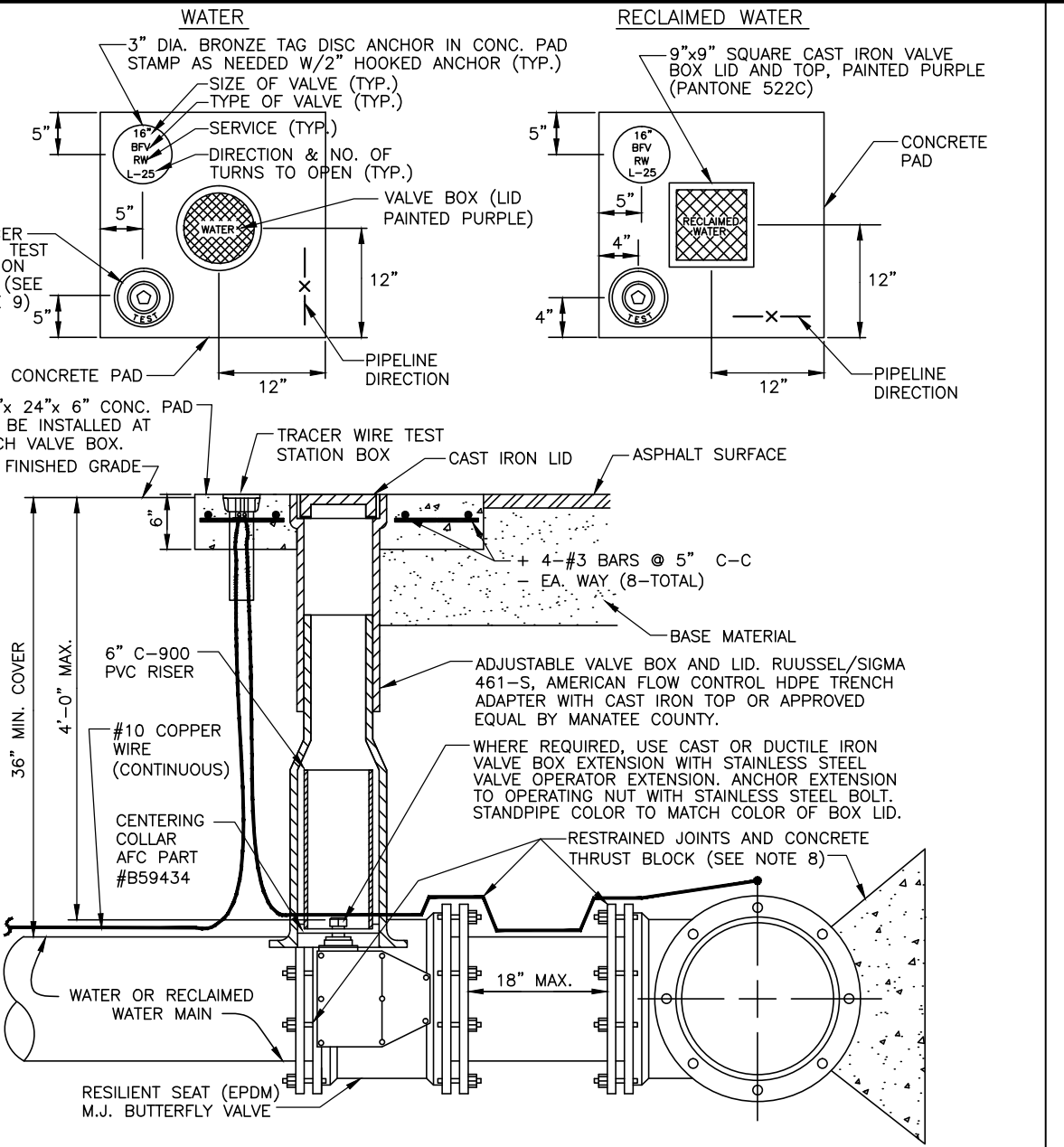
SHEET NUMBER 44

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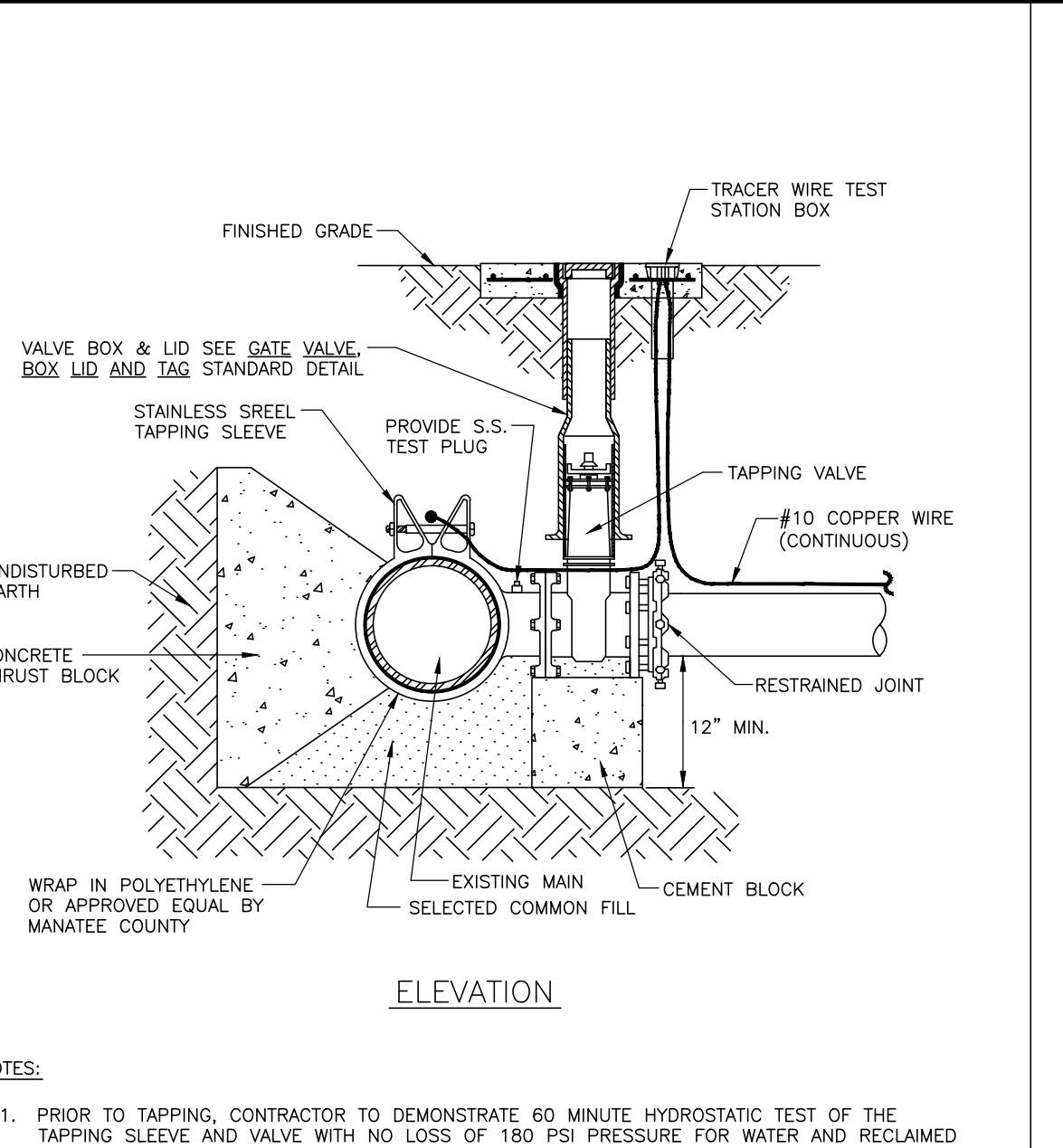
- NOTES:**
- "W" or "RW" to be impressed into the newly-poured concrete curb, along with distance in feet to the valve. If no curb, install a blue disc with "W" or purple disc with "RW" and a 1/8"x1" galvanized steel screw in the edge of pavement with the footage from the disc to the valve.
 - All existing and proposed valve boxes shall be adjusted to finished grades as determined in the field.
 - Water valves shall not be placed in handicapped ramps.
 - Precast concrete pads & thrust blocks shall not be used.
 - All exposed edges of concrete shall be chamfered 1/2".
 - For valves 16" and larger, use butterfly valves.
 - Pipeline direction to be impressed into newly poured concrete pad.
 - Tracer wire test station box is not required in valve box pad if the gate valve is located within 200 feet of a water service block backflow preventer or fire hydrant that has a tracer wire box.
 - Where thrust block not used, restrained joints must then extend from tee full length specified for tees.
 - Bingham & Taylor P200PFG or equal for normal yard service. Where valve will be in street or parking traffic, use P252RD centered in separate concrete pad similar to standard valve box pad.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		GATE VALVE, BOX, LID AND TAG	UW-2
REV. BY CLB/KE	DATE 11/10		
MAY 10, 2011		PAGE 120	
DATE OF APPROVAL			



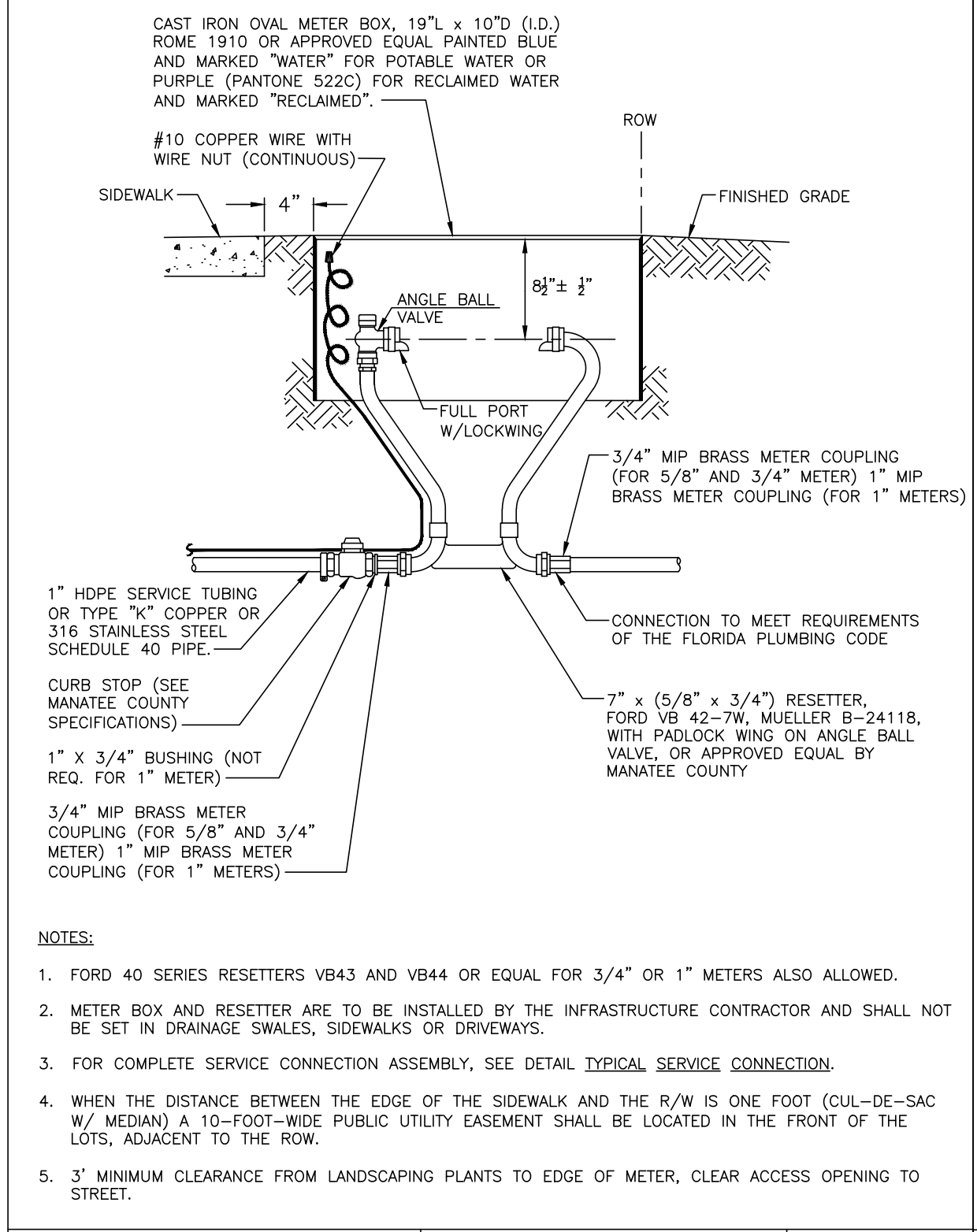
- NOTES:**
- "W" or "RW" to be impressed into the newly-poured concrete curb, along with if no curb, install a blue disc with "W" or purple disc distance in feet to the valve. With "RW" and a 1/8"x1" galvanized steel screw in the edge of pavement with the footage from the disc to the valve.
 - All existing and proposed valve boxes shall be adjusted to finished grades as determined in the field.
 - Water valves shall not be placed in handicapped ramps.
 - Precast concrete pads & thrust blocks shall not be used.
 - All exposed edges of concrete shall be chamfered 1/2".
 - For valves 16" and larger, use butterfly valves.
 - Pipeline direction to be impressed into newly poured concrete pad.
 - Where thrust block not used, restrained joints must then extend from tee full length specified for tees.
 - Bingham & Taylor P200PFG or equal for normal yard service. Where valve will be in street or parking under vehicle traffic, use P252RD centered in separate concrete pad similar to standard valve box pad.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		BUTTERFLY VALVE, BOX, LID AND TAG	UW-3
REV. BY CLB/KE	DATE 11/10		
MAY 10, 2011		PAGE 121	
DATE OF APPROVAL			

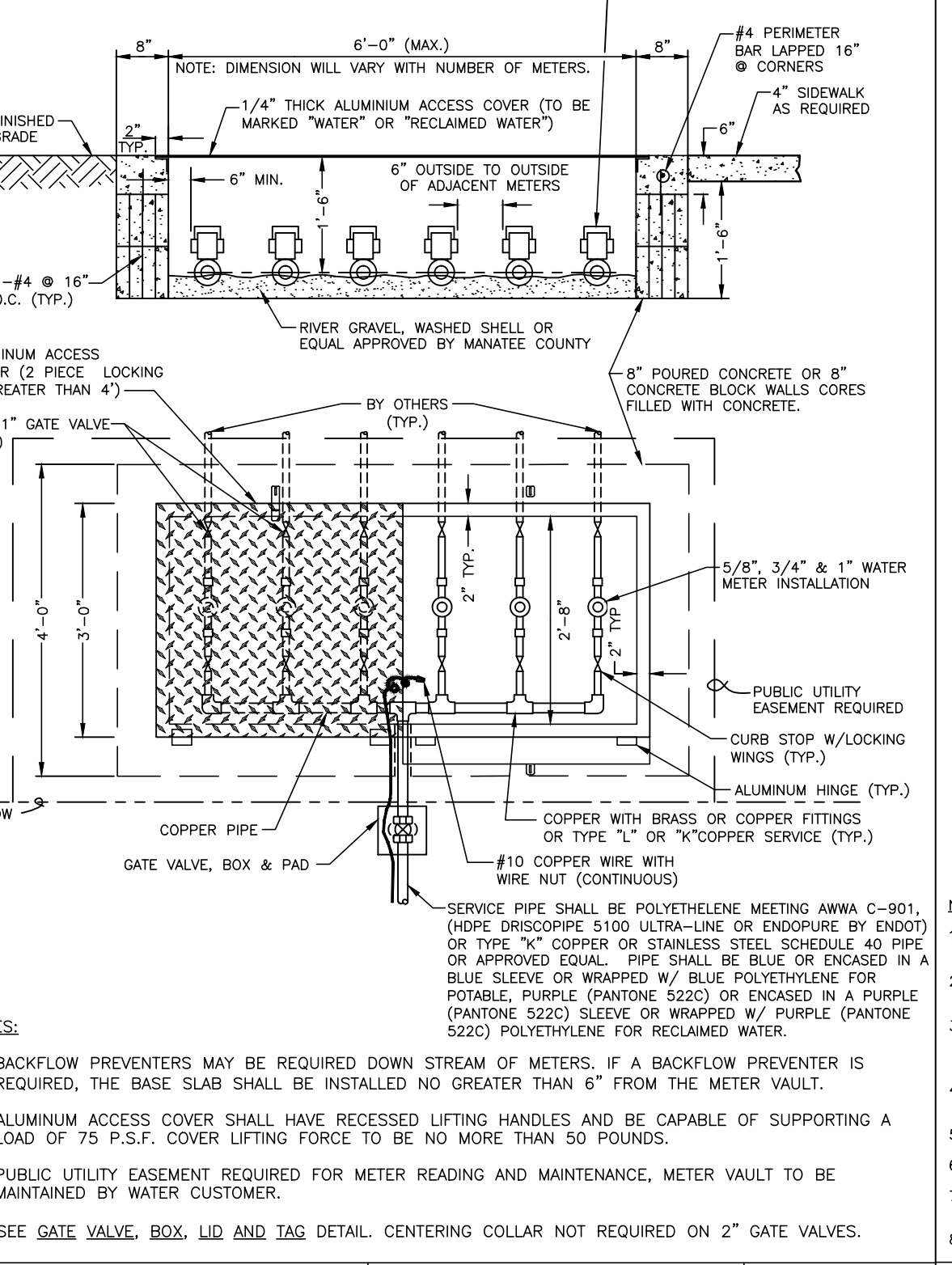


- NOTES:**
- Prior to tapping, contractor to demonstrate 60 minute hydrostatic test of the tapping sleeve and valve with no loss of 180 PSI pressure for water and reclaimed water or 150 PSI for force main.
 - All fittings to be wrapped with 20 mil visqueen at thrust block.
 - All taps on concrete water mains and larger than 12" are to be made by a Manatee County approved tapping company. All materials to be supplied by the contractor.
 - All taps must be of a smaller size than the main being tapped & placed no closer than 30" or a distance equal to (1) main pipe diameter plus (2) tap pipe diameters (whichever is greater) from a joint or fitting.
 - Contractor to supply a dry hole for tapping crew to work in and a back-hoe to lower tapping machine into the hole.
 - Where thrust block not used, restrained joints must then extend from tee full length specified for tees.
 - Tracer wire test station box is required at connections to existing mains.

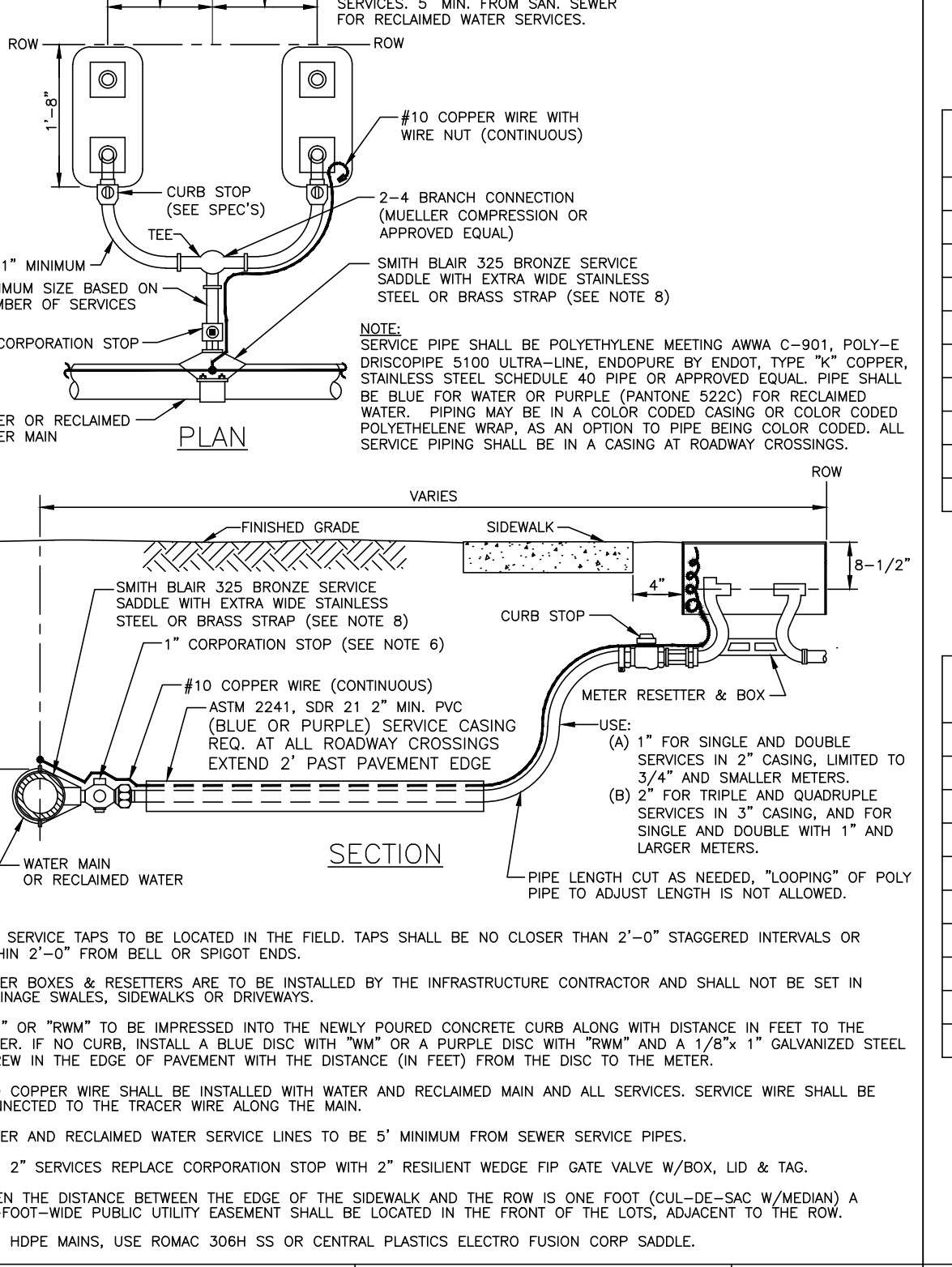
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TAPPING SLEEVE AND VALVE	UW-4
REV. BY CLB/KE	DATE 11/10		
MAY 10, 2011		PAGE 122	
DATE OF APPROVAL			



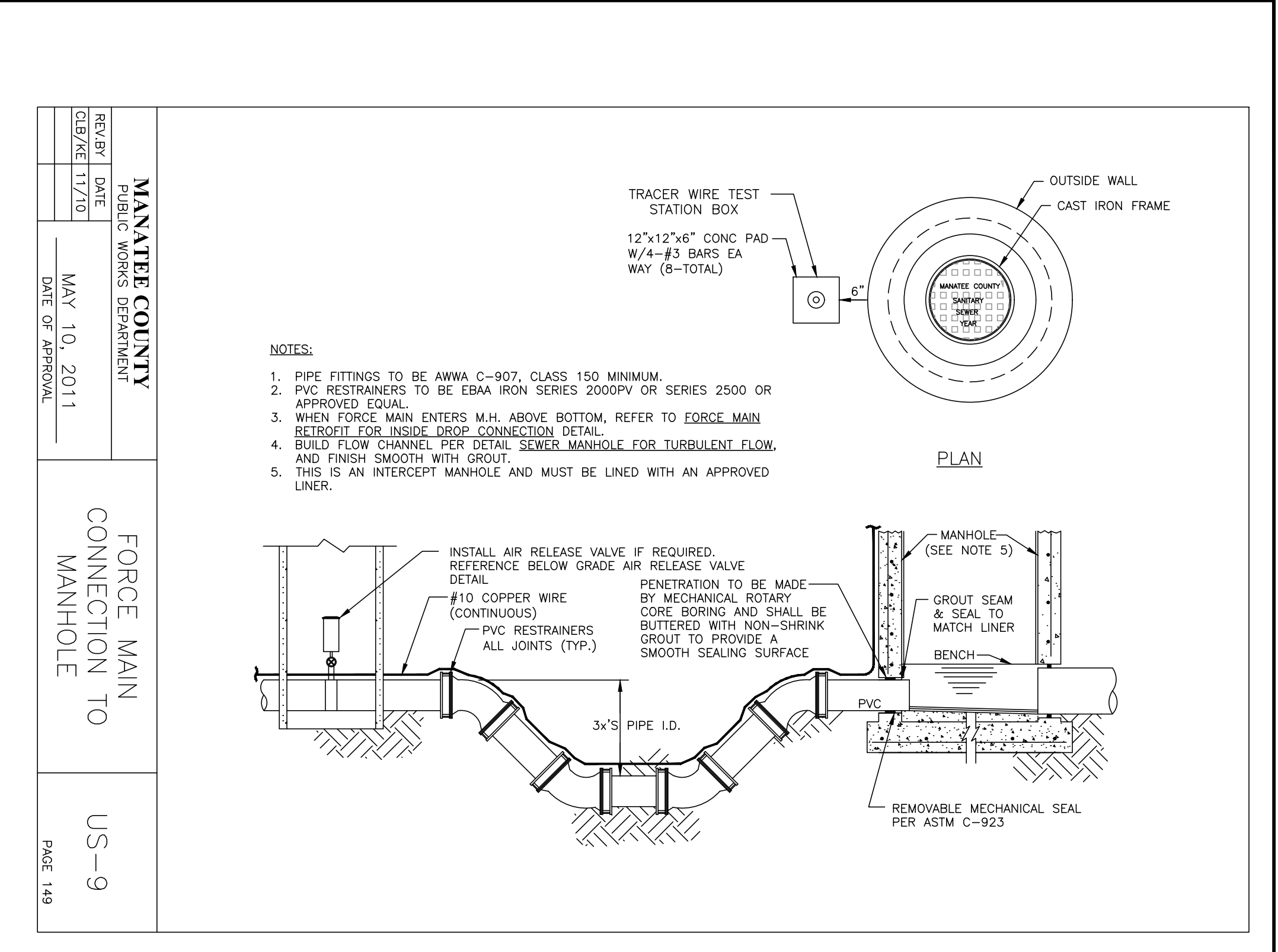
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		METER BOX ASSEMBLY FOR 5/8" x 3/4", 3/4" & 1" METERS	UW-17
REV. BY CLB/BR	DATE 11/10		
MAY 10, 2011		PAGE 135	
DATE OF APPROVAL			



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		MULTIPLE METER VAULT	UW-18
REV. BY CLB/BR	DATE 11/10		
MAY 10, 2011		PAGE 136	
DATE OF APPROVAL			



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TYPICAL SERVICE CONNECTION	UW-19
REV. BY CLB/BR	DATE 11/10		
MAY 10, 2011		PAGE 137	
DATE OF APPROVAL			



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		FORCE MAIN CONNECTION TO MANHOLE	US-9
REV. BY CLB/KE	DATE 11/10		
MAY 10, 2011		PAGE 149	
DATE OF APPROVAL			

REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR DIP (POLY-WRAPPED)

MAIN PIPE SIZE	HORIZ. BENDS	TEES				REDUCERS				PLUGS & VALVES
		SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	
90'	45'	22.5'								
36	142	59	28	36	24	212	165	118	84	453
30	124	51	25	30	204	148	108	78	54	391
24	106	44	21	24	174	126	90	66	42	327
20	92	38	18	20	144	108	78	54	36	280
16	77	32	15	16	114	90	66	42	30	231
12	61	25	12	12	90	72	54	36	24	181
10	52	22	10	10	72	60	42	30	20	153
8	44	18	9	8	60	48	36	24	18	128
6	34	14	7	6	48	36	24	18	14	98
4	24	10	5	4	36	24	18	14	10	69

REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR DIP (NON-WRAPPED)

MAIN PIPE SIZE	HORIZ. BENDS	TEES				REDUCERS				PLUGS & VALVES
		SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	
90'	45'	22.5'								
36	100	42	20	36	180	132	96	72	48	188
30	88	37	18	30	156	114	84	60	42	162
24	75	31	15	24	132	96	72	54	36	135
20	65	27	13	20	114	84	60	48	30	116
16	54	22	11	16	96	72	54	42	24	96
12	43	18	9	12	78	60	48	36	20	75
10	37	15	7	10	66	54	42	30	18	63
8	30	13	6	8	54	42	30	24	16	53
6	24	10	5	6	42	30	24	18	14	41
4	17	7	3	4	30	24	18	14	10	29

RESTRAINED LENGTHS FOR DIP

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		RESTRAINED LENGTHS FOR DIP	UG-9
REV. BY CLB/BR	DATE 11/10		
MAY 10, 2011		PAGE 109	
DATE OF APPROVAL			

MIN. LENGTH OF PIPE (FEET) TO BE RESTRAINED

FITTING TYPE	PIPE SIZE											
	4"	6"	8"	10"	12"	16"	20"	24"	30"	36"	42"	48"
90° VERT. OFFSET	77	109	143	171	201	257	311	363	435	503		
45° VERT. OFFSET	32	45	59	71	83	107	129	151	180	209		
22.5° VERT. OFFSET	16	22	29	34	40	52	62	73	87	100		
1.25° VERT. OFFSET	8	11	14	17	20	26	28	31	36	43		

(SOURCES: EBAA IRON RESTRAINT LENGTH CALCULATION PROGRAM FOR DI PIPE, RELEASE 7.1.2)

NOTES:

- THE DATA IN THE ABOVE TABLE ARE BASED UPON THE FOLLOWING INSTALLATION CONDITIONS:
SOIL TYPE-SP SAFETY FACTOR-200 PSI
TRENCH TYPE-3 TRENCH TYPE-3
MINIMUM PIPE LENGTH ALONG TEE RUN-5'
DEPTH OF BURY-3' VERTICAL OFFSET-3'
- THE RESTRAINED PIPE LENGTHS APPLY TO POLYWRAPPED DI PIPE.
- ALL JOINTS BETWEEN UPPER AND LOWER BENDS SHALL BE RESTRAINED.
- RESTRAINED PIPE LENGTHS APPLY TO PIPE ON BOTH SIDES OF FITTINGS.
- RESTRAINED JOINTS SHALL EXTEND ONE JOINT BEYOND MIN. LENGTH REQUIRED.

ADDITIONAL RESTRAIN LENGTHS DETAIL FOR DIP

GROUNDWATER / DEWATERING NOTE:
THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR THIS ISSUE. WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.



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PHONE: 813-620-1460
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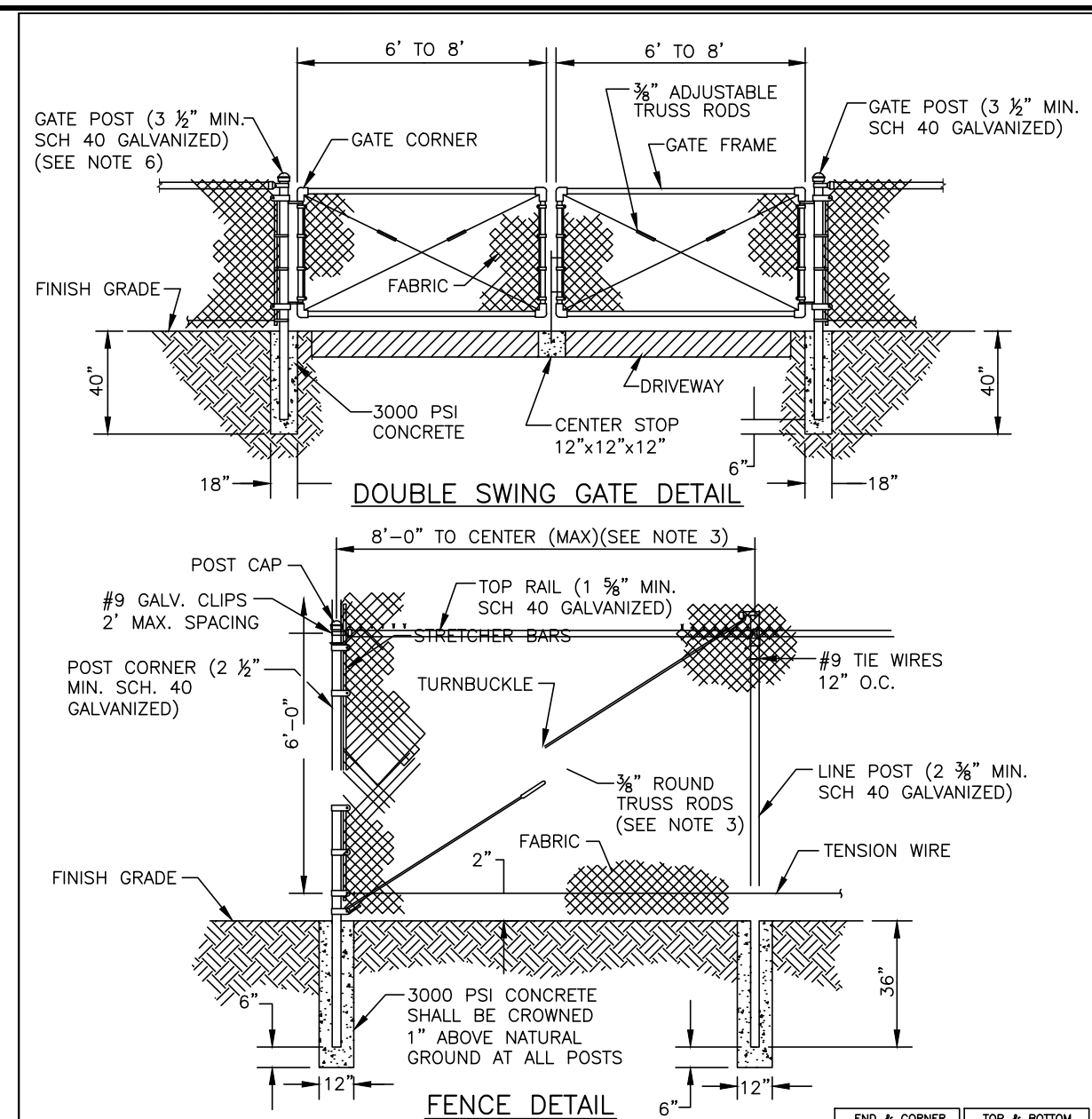
Manatee County
FORCE MAIN 5 REHABILITATION

LICENSED PROFESSIONAL
W. WADE WOOD, P.E.
FL LICENSE NUMBER 69051
FL DATE:

SHEET NUMBER
45

No.	REVISIONS	DATE	BY

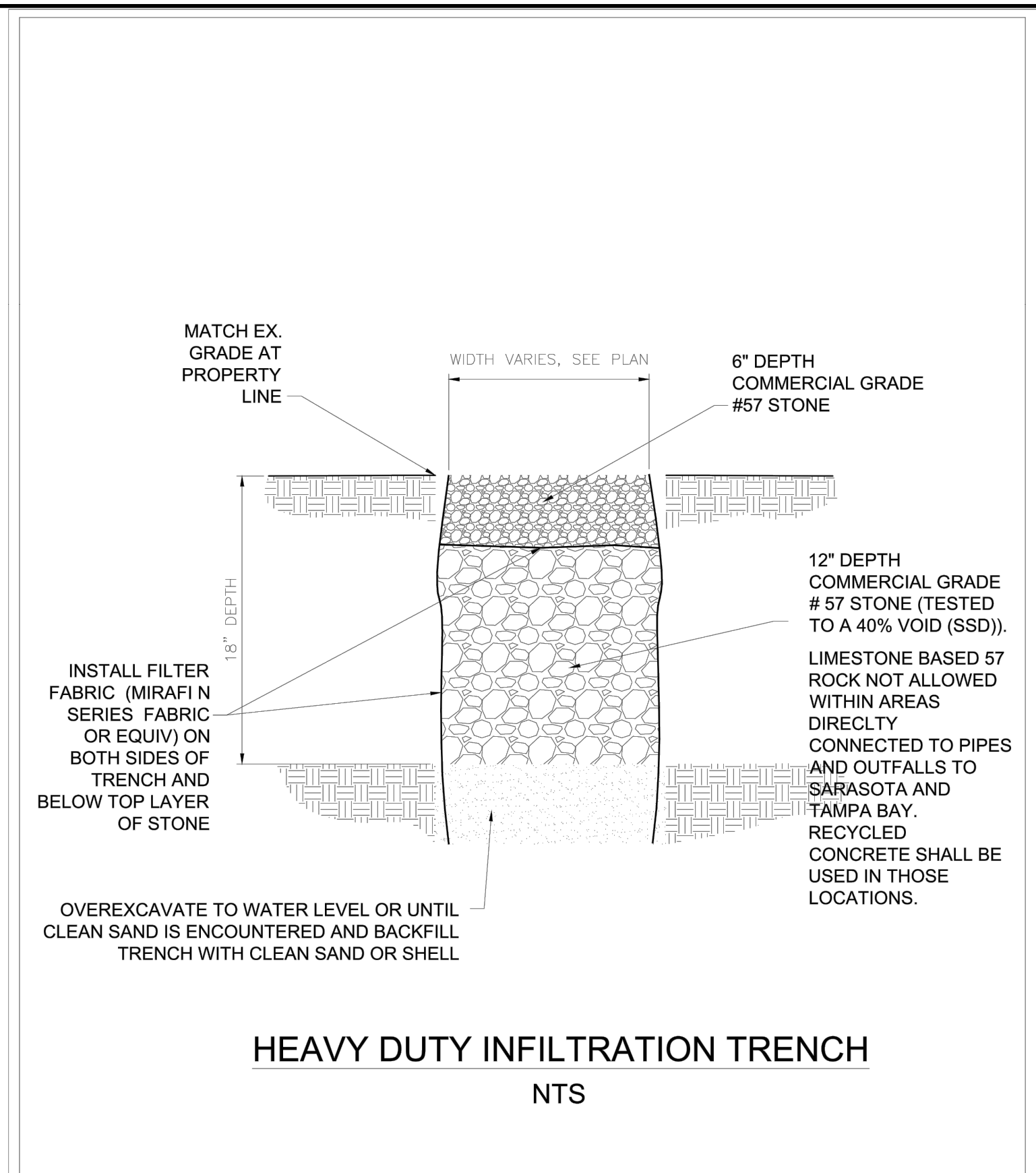
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- NOTES:**
- FENCING SHALL BE CONCRETE AGGREGATE, STUCCO, BRICK, STONE, SPLIT FACE CONCRETE MASONRY, OR CHAIN LINK.
 - CHAIN LINK FENCING SHALL BE #9 GAUGE, GALVANIZED STEEL WITH VINYL COATING.
 - TRUSS BARS ON CHAIN LINK FENCES ARE REQUIRED FOR THE FIRST SPAN ON EACH SIDE OF THE CORNER POST AND FOR EACH GATE SECTION.
 - LANDSCAPE SCREENING SHALL BE LOCATED ON THE EXTERIOR OF LIFT STATION FENCING.
 - SWING GATES SHALL BE CAPABLE OF SWINGING BOTH INWARDS AND OUTWARDS. CANTILEVER SLIDE GATES AND ROLL SLIDE GATES MEETING FDOT DESIGN STANDARDS MAY BE USED AS AN OPTION TO SWING GATES.
 - GATE POSTS AND TRACK LINE POSTS SHALL BE 4 INCH SCHEDULE 40 FOR CANTILEVER SLIDE GATES AND ROLL SLIDE GATES.
 - VINYL COATINGS FOR FABRIC, POSTS, RAILS, AND ALL OTHER FITTINGS SHALL BE THERMALLY FUSED POLYVINYL CHLORIDE, HEAVY MIL COATING PER ASTM F 668. COATING SHALL BE 6-GAUGE VINYL FINISH.

END & CORNER POST TOP OPTIONS		TOP & BOTTOM FABRIC OPTIONS	
STANDARD	DIAM.	W/ST	KNURLED

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SECURITY FENCING	UG-18
REV. BY CLB/BR	DATE 11/10		
MAY 10, 2011 DATE OF APPROVAL		PAGE 118	

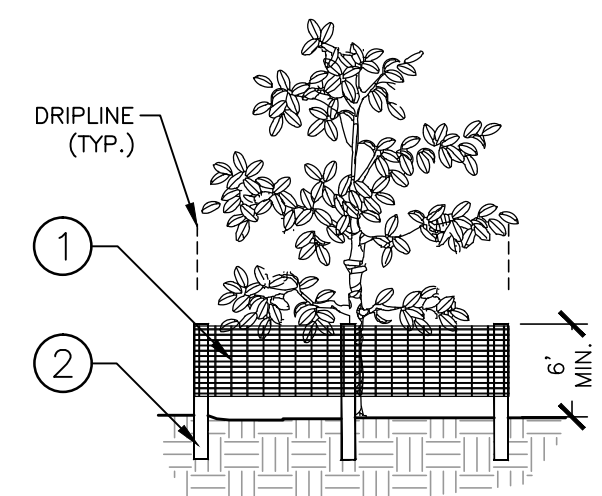


DRAWN BY:	DATE:	CITY OF BRADENTON BEACH PUBLIC WORKS STANDARD DETAIL 1.04
LTB	7-2016	
REVISION NO.	SCALE:	
1	NTS	

FITTING TYPE	PIPE SIZE										200psi		
	4"	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"		
90° HORIZ. BEND	17	24	31	37	43	55	60	66	76	119	136		
45° HORIZ. BEND	8	10	13	16	18	23	25	28	32	49	56		
22.5° HORIZ. BEND	4	5	7	8	9	11	12	13	15	24	27		
11.25° HORIZ. BEND	2	3	4	4	5	6	6	7	8	12	14		
90° VERT. OFFSET	UPPER BEND	38	53	70	84	99	115	140	153	179	285	330	
	LOWER BEND	38	53	70	84	99	115	140	153	179	285	330	
45° VERT. OFFSET	UPPER BEND	16	22	29	35	41	53	58	64	74	118	137	
	LOWER BEND	4	6	7	9	10	13	14	15	18	29	33	
22.5° VERT. OFFSET	UPPER BEND	8	11	14	17	20	26	28	31	36	57	66	
	LOWER BEND	2	3	4	4	5	6	7	8	9	14	16	
11.25° VERT. OFFSET	UPPER BEND	4	6	7	9	10	13	14	16	18	29	33	
	LOWER BEND	1	1	1	2	3	3	4	4	5	7	8	
PLUG/ IN-LINE VALVE	38	53	70	84	99	115	140	153	179	285	330		
TEE (BRANCH RESTRAINT)	4" x Ø	20	-	-	-	-	-	-	-	-	-	-	-
	6" x Ø	11	35	-	-	-	-	-	-	-	-	-	-
	8" x Ø	2	29	51	-	-	-	-	-	-	-	-	-
	10" x Ø	1	22	46	65	-	-	-	-	-	-	-	-
	12" x Ø	1	15	41	61	79	-	-	-	-	-	-	-
	16" x Ø	1	1	30	52	72	107	-	-	-	-	-	-
	18" x Ø	1	1	24	47	68	104	120	-	-	-	-	-
	20" x Ø	1	1	18	42	64	101	117	133	-	-	-	-
REDUCER (LARGER PIPE RESTRAINT)	24" x Ø	1	1	5	32	55	95	112	128	158	-	-	-
	30" x Ø	1	1	1	15	42	84	103	120	152	193	-	-
	36" x Ø	1	1	1	1	26	73	93	111	144	187	226	-
	6" x Ø	28	-	-	-	-	-	-	-	-	-	-	-
	8" x Ø	50	30	-	-	-	-	-	-	-	-	-	-
	10" x Ø	68	52	28	-	-	-	-	-	-	-	-	-
	12" x Ø	86	72	52	29	-	-	-	-	-	-	-	-
	16" x Ø	117	107	93	75	54	-	-	-	-	-	-	-
200psi	18" x Ø	131	122	110	95	76	29	-	-	-	-	-	-
	20" x Ø	146	138	126	113	96	54	29	-	-	-	-	-
	24" x Ø	173	166	157	146	132	98	77	54	-	-	-	-
	30" x Ø	279	272	262	251	237	201	179	155	100	-	-	-
36" x Ø	325	320	312	303	291	262	245	225	181	100	-	-	

*PER DIPRA, AS THE BEND ANGLE APPROACHES 90°, LATERAL MOVEMENT OF THE OUTER LEGS APPROACHES ZERO. FOR THIS CONDITION, RESTRAIN ALL PIPE BETWEEN THE FITTINGS AND RESTRAIN THE OUTER LEGS AS DEAD ENDS.

ADDITIONAL RESTRAIN LENGTHS DETAIL FOR PVC



- 6" H "PERIMETER PLUS" CONSTRUCTION FENCE BY CONWED PLASTICS OR OWNER'S REPRESENTATIVE APPROVED EQUAL. SUBMIT PRODUCT INFORMATION FOR APPROVAL PRIOR TO INSTALLATION.
 - 8' TALL METAL "T" POSTS OR 2" x 2" x 8' PRESSURE TREATED WOOD POSTS WITH 24" BURIAL BELOW GRADE.
- INSTALLATION NOTES:**
- POST SELECTION SHOULD BE BASED ON EXPECTED STRENGTH NEEDS AND THE LENGTH OF TIME FENCE WILL BE IN PLACE. FLEXIBLE FIBERGLASS ROD POSTS ARE RECOMMENDED FOR PARKS, ATHLETIC EVENTS AND CROWD CONTROL INSTALLATIONS. METAL "T" POSTS OR TREATED WOOD POSTS ARE TYPICALLY USED FOR CONSTRUCTION AND OTHER APPLICATIONS.
 - POSTS SHOULD BE DRIVEN INTO THE GROUND TO A DEPTH OF 1/3 OF THE HEIGHT OF THE POST. FOR EXAMPLE, A 6' POST SHOULD BE SET AT LEAST 2' INTO THE GROUND.
 - SPACE POSTS EVERY 6' (MIN.) TO 8' (MAX.).
 - SECURE FENCING TO POST WITH NYLON CABLE TIES (AVAILABLE FROM CONWED PLASTICS). WOOD STRIPS MAY BE ALSO BE USED TO PROVIDE ADDITIONAL SUPPORT AND PROTECTION BETWEEN TIES AND POSTS.
 - FOR PIPELINE CONSTRUCTION ADJACENT TO TREES: EXAMPLE: DIVIDE 30" TRUNK DIAMETER BY 2. (30/2=15) EXCAVATION SHALL BE PROHIBITED WITHIN 15' OF THE TRUNK OR THE LIMITS OF THE DRIPLINE, WHICHEVER IS GREATER.

NOTE: IF WIRE TIES ARE USED, AVOID DIRECT CONTACT WITH FENCE. WIRE MAY DAMAGE FENCE OVER TIME.

1 TREE PROTECTION FENCING
ELEVATION / PLAN

NTS

GROUNDWATER / DEWATERING NOTE:
THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR THIS ISSUE. WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.



No.	REVISIONS	DATE	BY

Kimley»Horn

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KHA PROJECT 148400012
DATE 2/14/2017
SCALE AS SHOWN
DESIGNED BY WWW
DRAWN BY JRT
CHECKED BY WEW

Manatee County FLORIDA

FORCE MAIN 5 REHABILITATION

MANATEE COUNTY

LICENSED PROFESSIONAL

W. WADE WOOD, P.E.

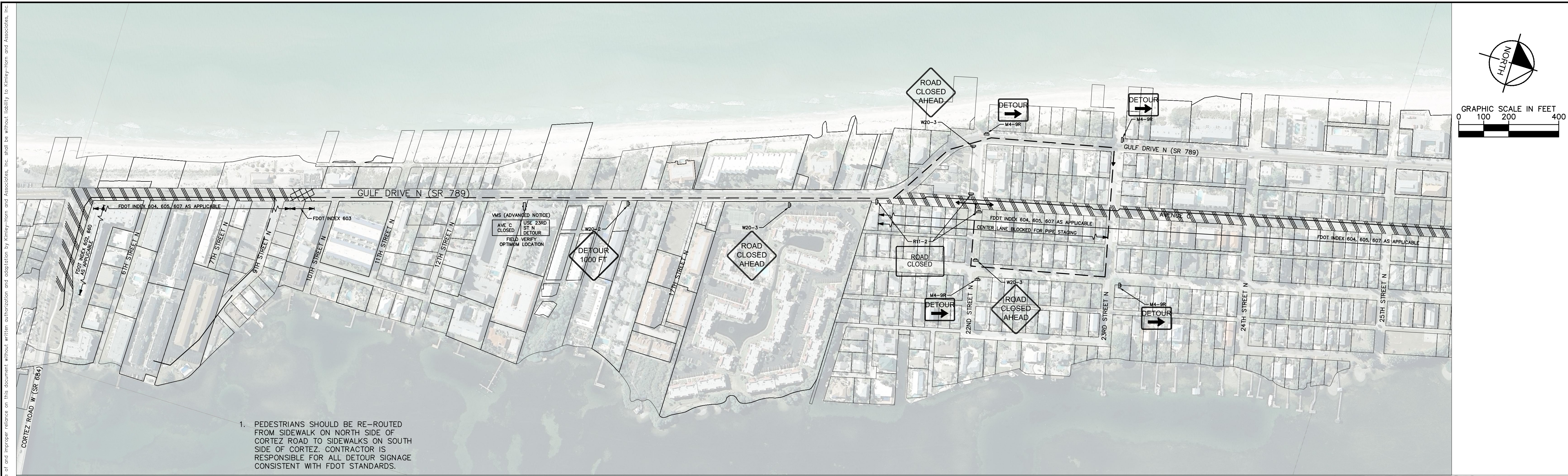
FL LICENSE NUMBER 69051

FL DATE:

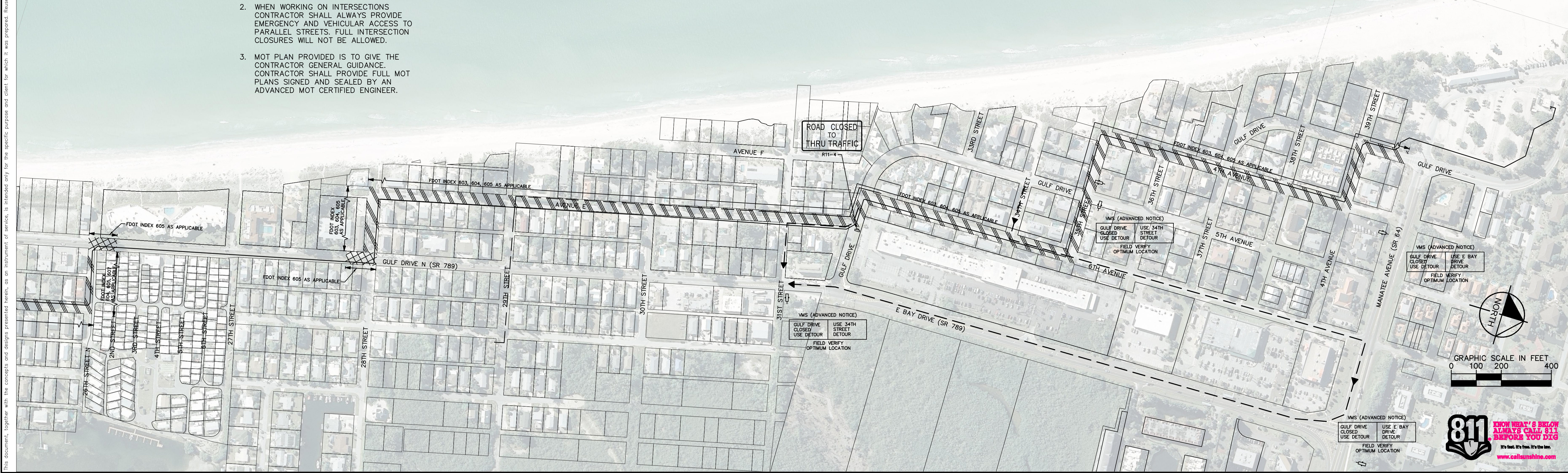
CONSTRUCTION DETAILS

SHEET NUMBER

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1. PEDESTRIANS SHOULD BE RE-ROUTED FROM SIDEWALK ON NORTH SIDE OF CORTEZ ROAD TO SIDEWALKS ON SOUTH SIDE OF CORTEZ. CONTRACTOR IS RESPONSIBLE FOR ALL DETOUR SIGNAGE CONSISTENT WITH FDOT STANDARDS.
2. WHEN WORKING ON INTERSECTIONS CONTRACTOR SHALL ALWAYS PROVIDE EMERGENCY AND VEHICULAR ACCESS TO PARALLEL STREETS. FULL INTERSECTION CLOSURES WILL NOT BE ALLOWED.
3. MOT PLAN PROVIDED IS TO GIVE THE CONTRACTOR GENERAL GUIDANCE. CONTRACTOR SHALL PROVIDE FULL MOT PLANS SIGNED AND SEALED BY AN ADVANCED MOT CERTIFIED ENGINEER.



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MAINTENANCE OF TRAFFIC PLAN

SHEET NUMBER

48

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48

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