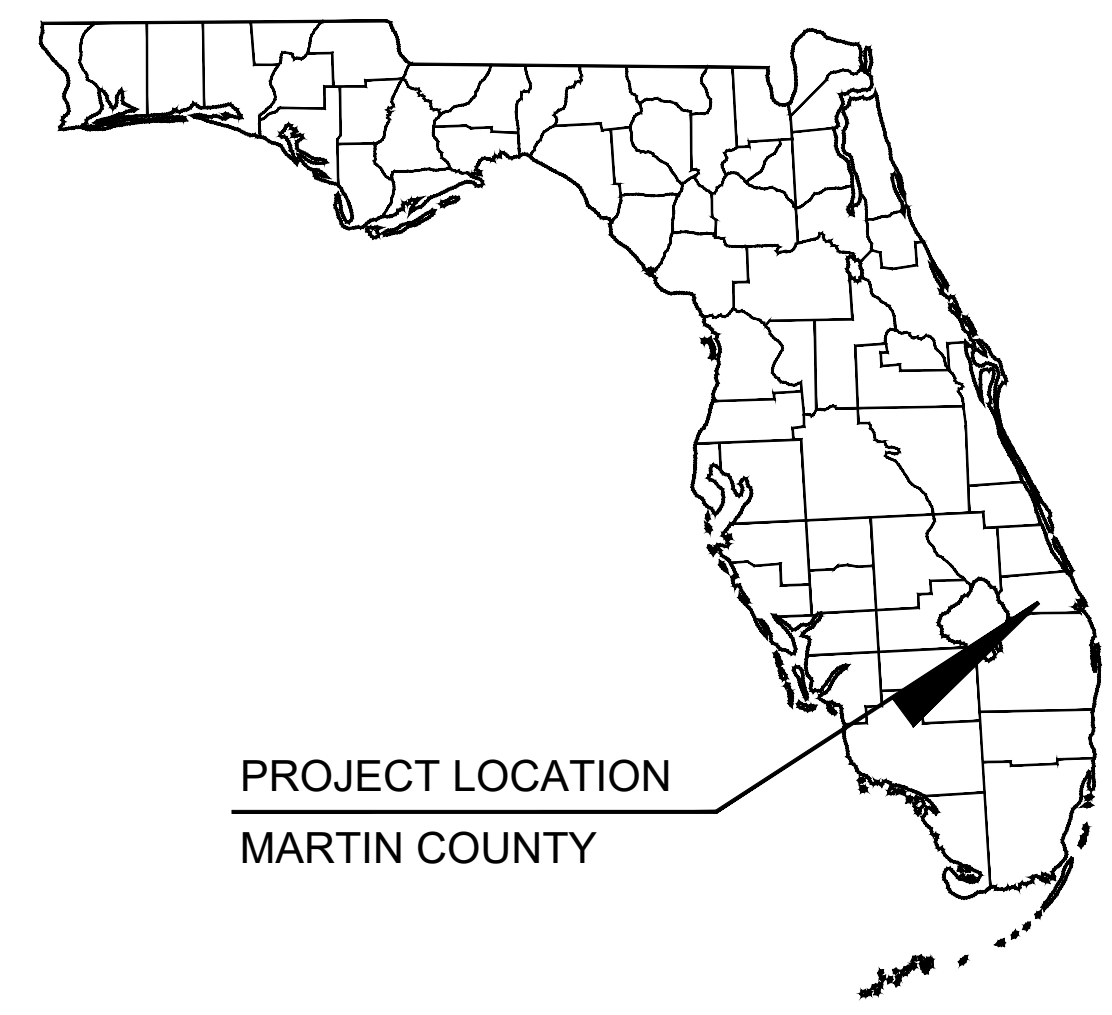


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CONSTRUCTION PLANS FOR COUNTY LINE ROAD RECLAIMED WATERMAIN, WATERMAIN, AND RAW WATERMAIN RELOCATION

PREPARED FOR THE
LOXAHATCHEE RIVER DISTRICT
NOVEMBER 2024



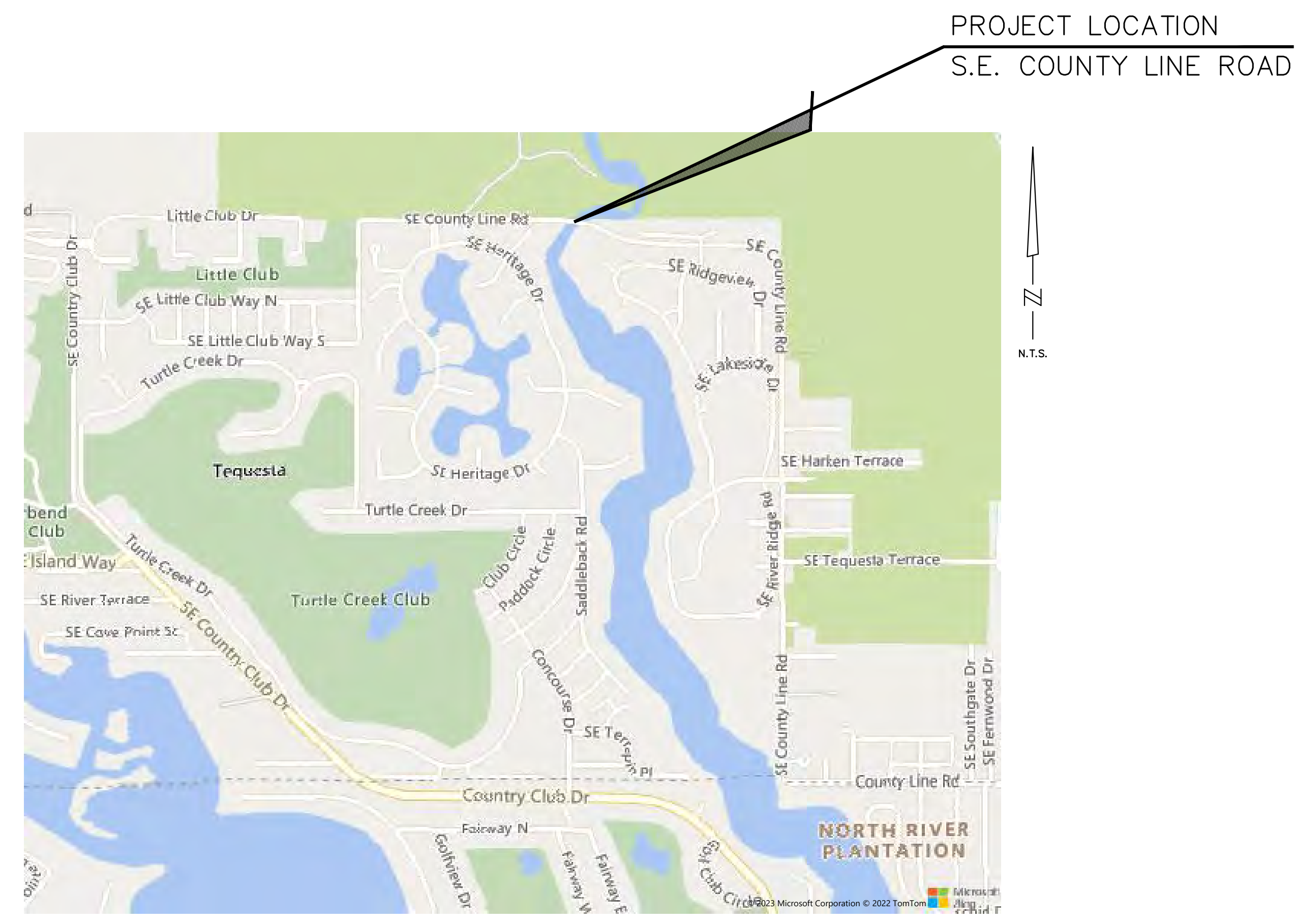
**LOXAHATCHEE RIVER DISTRICT
GOVERNING BOARD**

DR. MATT H. ROSTOCK
STEPHEN B. ROCKOFF
GORDON M. BOGGIE
KEVIN L. BAKER
CLINTON R. YERKES

CHAIRMAN
VICE CHAIRMAN
TREASURER
ASSISTANT TREASURER
SECRETARY

EXECUTIVE DIRECTOR

D. ALBREY ARRINGTON, PhD.



INDEX OF SHEETS	
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C-2	OVERALL AERIAL SITE PLAN AND KEY SHEET
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LRD-2	RECLAIMED WATERMAIN RELOCATION PLAN
LRD-3	OVERALL DIRECTIONAL DRILL PLAN AND PROFILE
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LRD-5	PROFILES AT BORE PIT AND RECEIVING PIT
LRD-6	LRD STANDARD UTILITY DETAILS
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VOT-6	V.O.T. STANDARD DETAILS
VOT-7	V.O.T. STANDARD DETAILS
VOT-8	MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS

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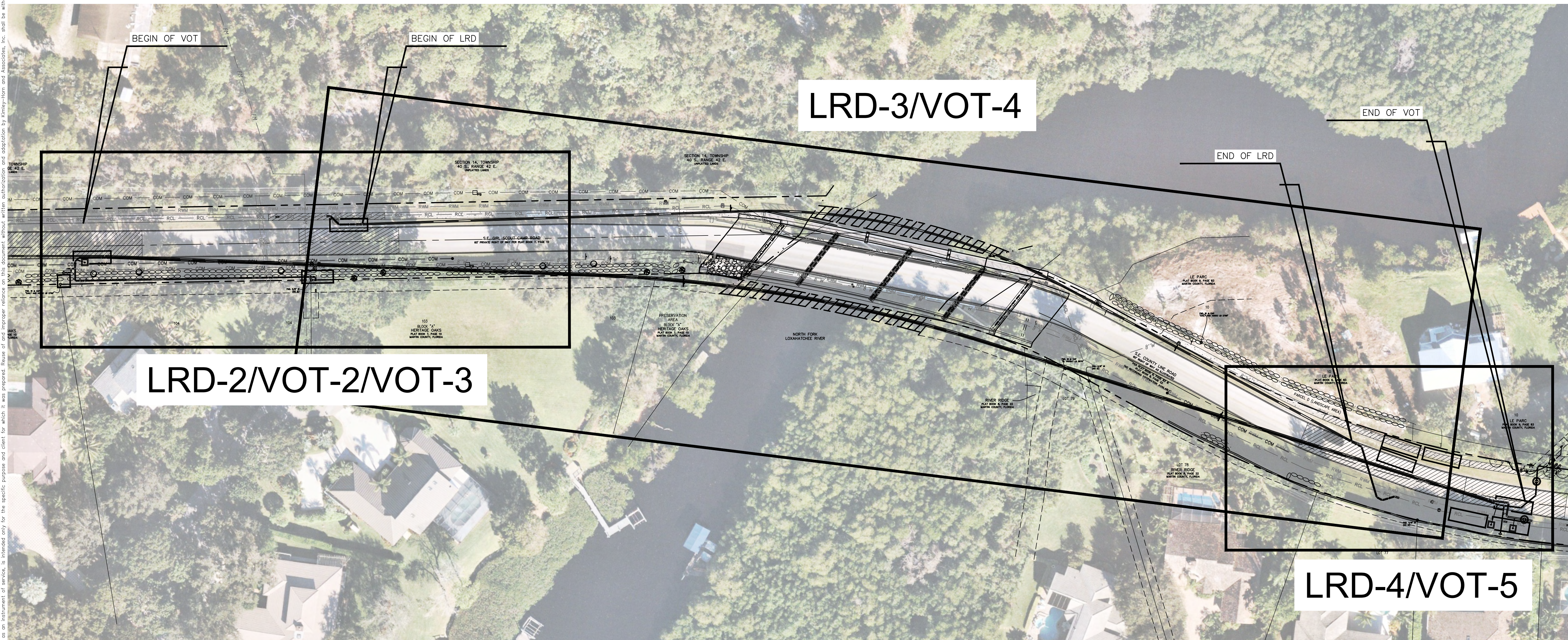
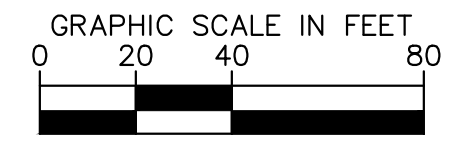
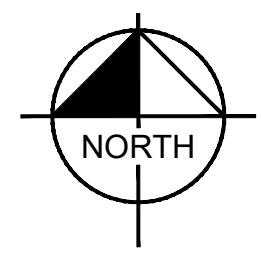
**COUNTY LINE ROAD
RECLAIMED WATERMAIN, WATERMAIN,
AND RAW WATERMAIN RELOCATION**
 PREPARED FOR
LOXAHATCHEE RIVER DISTRICT
 MARTIN COUNTY FLORIDA

LICENSED PROFESSIONAL
 THOMAS C. JENSEN
 FLORIDA LICENSE NUMBER
 37290

COVER SHEET

SHEET NUMBER
C-1

Plotted By: Muechebeter, Mark
 Sheet Set: COUNTY LINE ROAD RECLAIMED WATERMAIN RELOCATION_Layout:C-2 OVERALL AERIAL SITE PLAN AND KEY SHEET_ November, 07, 2024_ 03:50:01pm
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**COUNTY LINE ROAD
 RECLAIMED WATERMAIN, WATERMAIN,
 AND RAW WATERMAIN RELOCATION**

PREPARED FOR
LOXAHATCHEE RIVER DISTRICT

MARTIN COUNTY FLORIDA

LICENSED PROFESSIONAL

THOMAS C. JENSEN

FLORIDA LICENSE NUMBER
 37290

DATE: _____

**OVERALL AERIAL SITE PLAN AND
 KEY SHEET**

SHEET NUMBER

C-2

Plotted By: Muechebeter, Mark Sheet Set: COUNTY LINE ROAD RECLAIMED WATERMAIN RELOCATION Layout: LRD-1 GENERAL NOTES November 07, 2024 03:50:11pm K:\web_civil\140790001-ld_county_line_cd\CADD\plansheets\LRD-1_GENERAL_NOTES.dwg
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GENERAL NOTES:

- ALL CONNECTIONS TO EXISTING MAINS SHALL BE OBSERVED BY THE DISTRICT. VALVES ON EXISTING MAINS SHALL BE OPERATED BY DISTRICT PERSONNEL OR UNDER THEIR DIRECT SUPERVISION. CONTRACTOR SHALL BE PREPARED TO HANDLE DISPOSAL OF EXCESS RECLAIMED WATER FROM ISOLATION VALVES TO POINTS OF CONNECTION.
- THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF LRD UTILITIES MINIMUM DESIGN AND CONSTRUCTION STANDARDS LATEST EDITION, ONE COPY OF THE CONTRACT DOCUMENTS, INCLUDING PLANS, SPECIFICATIONS AND SPECIAL PROVISIONS, AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
- THE CONTRACTOR SHALL CONTACT ALL CONCERNED UTILITIES AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- THE LOCATION AND SIZE OF ALL EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITIES BY ELECTRONIC METHOD AND BY HAND EXCAVATION IN COORDINATION WITH ALL UTILITY COMPANIES AND SUNSHINE 811 PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. ANY AND ALL CONFLICTS OF EXISTING UTILITIES WITH PROPOSED IMPROVEMENTS SHALL BE RESOLVED BY THE ENGINEER PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- LOCATION OF PROPOSED FACILITIES WILL BE STAKED BY CONTRACTOR. CONTRACTOR MUST GIVE 48 HOURS NOTICE TO THE DISTRICT IN ADVANCE OF LAYOUT.
- THE CONTRACTOR SHALL PROVIDE A QUALIFIED SUPERINTENDENT TO REMAIN ON THE JOB SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. THE SUPERINTENDENT SHALL BE PRESENT AT THE PRE-CONSTRUCTION MEETINGS. THE CONTRACTOR SHALL NOTIFY THE DISTRICT BY LETTER PRIOR TO THE PRE-CONSTRUCTION MEETING APPOINTING THE SUPERINTENDENT FOR THE PROJECT INCLUDING A FORMAL RESUME SHOWING QUALIFICATIONS. IN THE EVENT THE SUPERINTENDENT WILL NOT BE PRESENT FOR ANY PERIOD OF TIME DURING CONTRACT WORK THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE IN WRITING TO THE DISTRICT, INCLUDING THE APPOINTMENT OF A QUALIFIED REPLACEMENT SUPERINTENDENT WHO WILL BE PRESENT DURING THE CONSTRUCTION. WORK SHALL NOT BE ALLOWED TO PROCEED UNLESS THE ASSIGNED SUPERINTENDENT IS PRESENT.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE HIS COMPLETE FAMILIARITY WITH THE PROJECT SITE AND COMPONENTS TO INCLUDE SUBSURFACE CONDITIONS OF SOIL AND GROUNDWATER TABLE.
- DENSITY TESTS OF TRENCH BACKFILL MATERIAL SHALL BE REQUIRED AT INTERVALS OF NOT MORE THAN 500 FEET. DENSITY TESTS OF PAVEMENT OPEN-CUT AREAS INCLUDING ROADS, TURNLANES, AND DRIVES SHALL BE REQUIRED AT EACH OPEN-CUT AT INTERVALS OF NO MORE THAN 50 FEET. ALL TESTS SHALL COMMENCE AT THE TOP PIPE AND EVERY 12 INCHES TO THE FINISH GRADE. COMPACTION SHALL BE IN ACCORDANCE WITH MARTIN COUNTY UTILITIES CONSTRUCTION STANDARDS "TYPICAL TRENCH DETAIL" AND "FLEXIBLE PAVEMENT REPLACEMENT DETAIL". FLORIDA BEARING TESTS FOR THE STABILITY OF EXISTING SUBSOIL SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 500 FEET, AND CLOSER AS MIGHT BE NECESSARY IN THE EVENT OF VARIATIONS IN THE STRATA. A CERTIFIED COPY OF THE TESTS SHALL BE PROVIDED TO THE DISTRICT AND MARTIN COUNTY ENGINEERING DEPARTMENT. CONTRACTORS BID PRICE SHALL INCLUDE PAYMENT FOR ALL TESTS CONDUCTED BY AN INDEPENDENT TESTING LAB.
- ANY LANDSCAPING DISTURBED, UNLESS OTHERWISE SHOWN ON THE PLANS, SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT AT THE CONTRACTORS EXPENSE.
- ANY SIDEWALK, CURB AND GUTTER OR PAVEMENT DISTURBED, UNLESS OTHERWISE SHOWN ON PLANS, SHALL BE REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. UNLESS OTHERWISE SPECIFIED OR INDICATED, ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS AND ALL CONCRETE WORK SHALL COMPLY WITH THE CURRENT EDITION OF THE AMERICAN CONCRETE INSTITUTE (ACI) BUILDING CODE AND THE APPLICABLE BUILDING CODES HAVING JURISDICTION IN THE AREA. ALL CONSTRUCTION SHALL MEET ADA REQUIREMENTS THIS INCLUDES, BUT IS NOT LIMITED TO, DETECTABLE WARNING SURFACES.
- ALL SOD IS TO BE PLACED FOR THE FULL WIDTH DISTURBED AT THE PER LINEAR FOOT UNIT PRICES FOR SOD. SOD SHALL BE REPLACED TO MATCH EXISTING KIND UNLESS OTHERWISE SHOWN ON PLANS.
- CONTRACTOR SHALL PROVIDE PROPER BENDS TO MAINTAIN REQUIRED DEPTH AND ALIGNMENT OF PIPE. COST OF BENDS NOT DESIGNATED ON PLANS SHALL BE INCLUDED WITH THE UNIT PRICE FOR PIPE.
- ANY TREES AND/OR SCRUB OR OTHER VEGETATION NOT TO BE REPLACED SHALL BE REMOVED FROM THE PROJECT AT THE CONTRACTOR'S EXPENSE.
- ALL RUBBLE AND UNSUITABLE MATERIAL MUST BE REMOVED FROM THE PROJECT AND DISPOSED OF PROPERLY BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- DEFLECT PIPE AS NECESSARY TO OBTAIN THE REQUIRED ALIGNMENT. USE APPROPRIATE FITTINGS WHEN DEFLECTION EXCEEDS 75% OF MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION.
- ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED. REFER TO LRD MINIMUM DESIGN AND CONSTRUCTION STANDARDS (LATEST EDITION).
- ALL CONSTRUCTION DEWATERING (WELL POINTS, SUMPS, ETC) WILL REQUIRE A DEWATERING PERMIT FROM SOUTH FLORIDA WATER MANAGEMENT DISTRICT. THIS SHALL BE OBTAINED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE PRIOR TO BEGINNING OF CONSTRUCTION.
- THE "TRENCH SAFETY ACT" SHALL BE INCORPORATED INTO THIS CONTRACT AS ENACTED BY THE LEGISLATURE OF THE STATE OF FLORIDA TO BE IN EFFECT AS OF OCTOBER 1, 1990.
- A PERMIT IS REQUIRED FOR ALL WORK WITHIN COUNTY RIGHT-OF-WAY. THIS PERMIT MUST BE OBTAINED BY THE CONTRACTOR FROM THE MARTIN COUNTY ENGINEERING DEPARTMENT. ALL COSTS PAYABLE BY THE CONTRACTOR. A COPY OF THIS PERMIT MUST BE MAINTAINED ON THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.
- ALL CONCRETE AND ASPHALT DRIVES MUST BE REPLACED FROM SAW CUT TO EDGE OF PAVEMENT.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING THEIR PLAN FOR ON-SITE STAGING AND STORAGE AREAS FOR EQUIPMENT AND MATERIAL.

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 WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

KHA PROJECT	140790001
DATE	NOV. 2024
SCALE	AS SHOWN
DESIGNED BY	SS
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CHECKED BY	TCJ

COUNTY LINE ROAD RECLAIMED WATERMAIN RELOCATION

PREPARED FOR
LOXAHATCHEE RIVER DISTRICT

MARTIN COUNTY FLORIDA

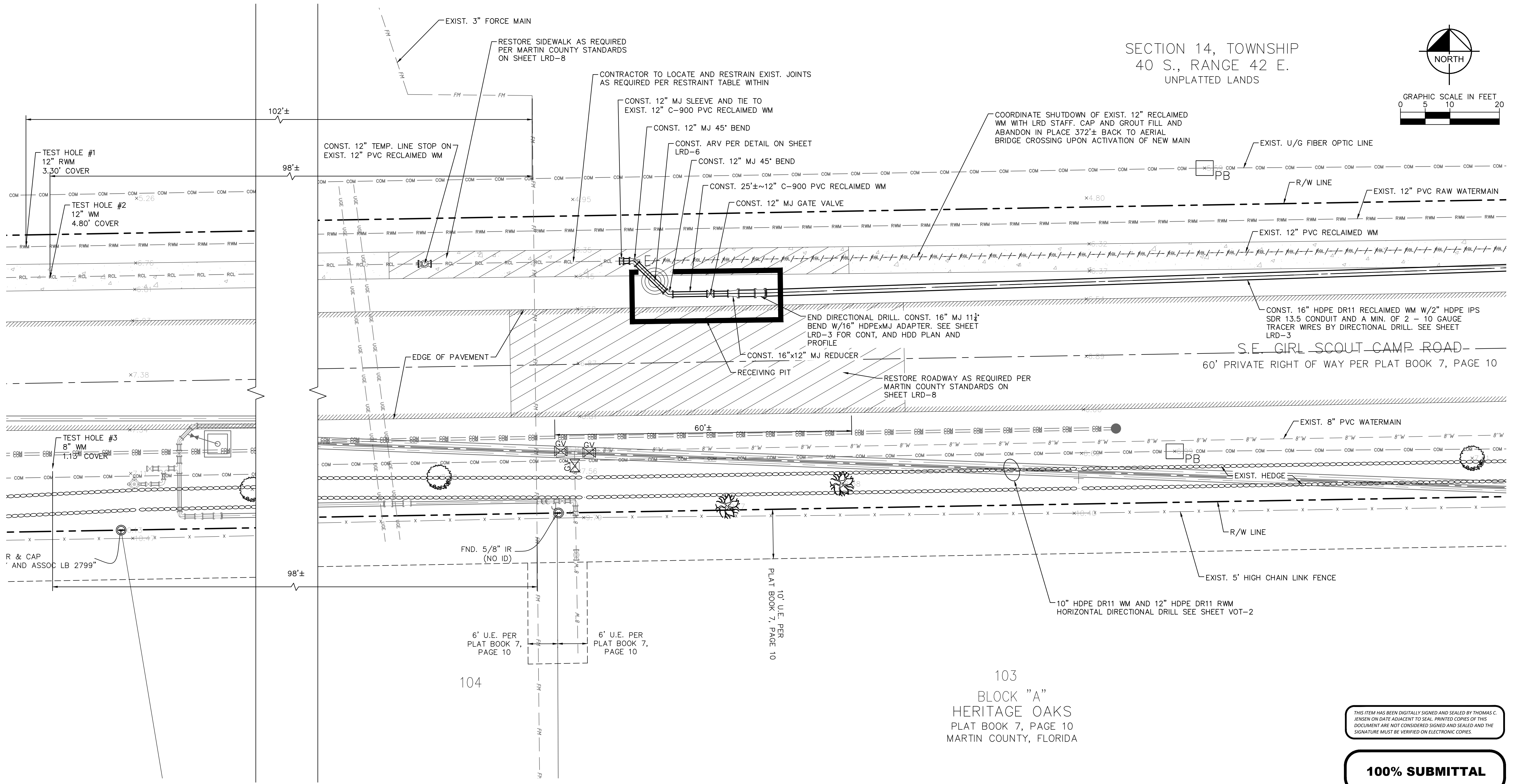
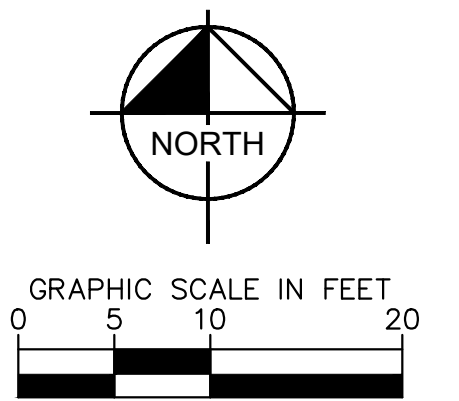
LICENSED PROFESSIONAL	THOMAS C. JENSEN
FLORIDA LICENSE NUMBER	37290
DATE:	_____

GENERAL NOTES

SHEET NUMBER
LRD-1

Plotted By: Muechebeter, Mark
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SECTION 14, TOWNSHIP
40 S., RANGE 42 E.
UNPLATTED LANDS



SEE SHEET LRD-5 FOR
PROFILE VIEW OF RECEIVING
PIT AREA

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LOXAHATCHEE RIVER DISTRICT

MARTIN COUNTY FLORIDA

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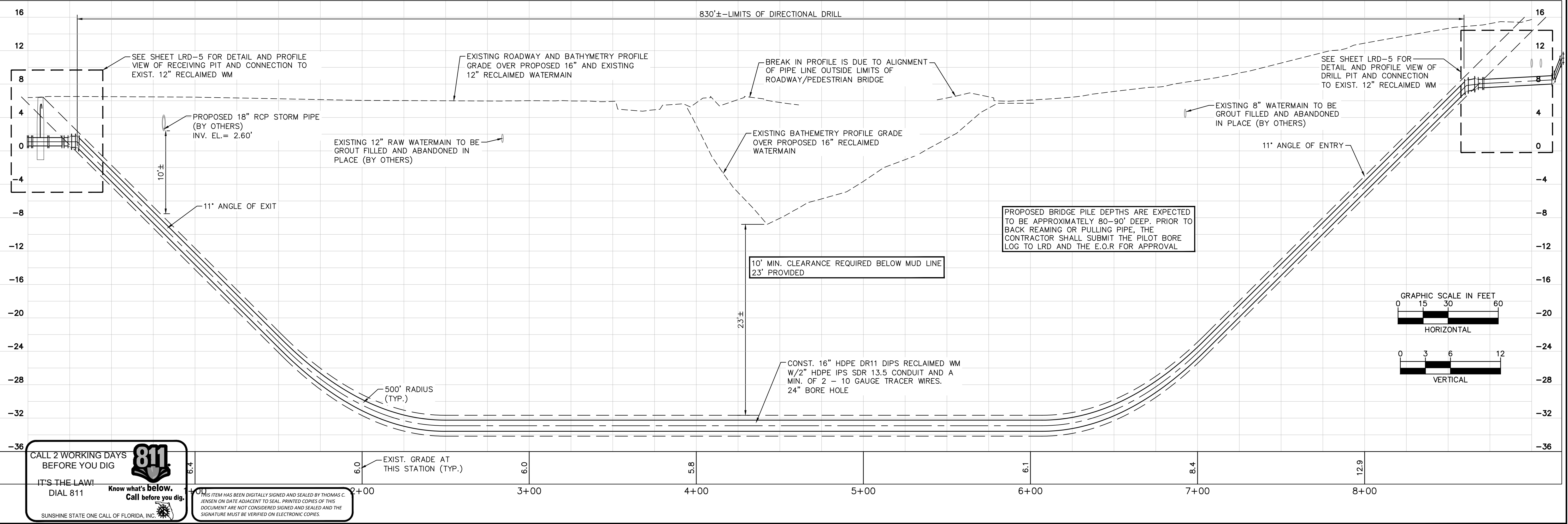
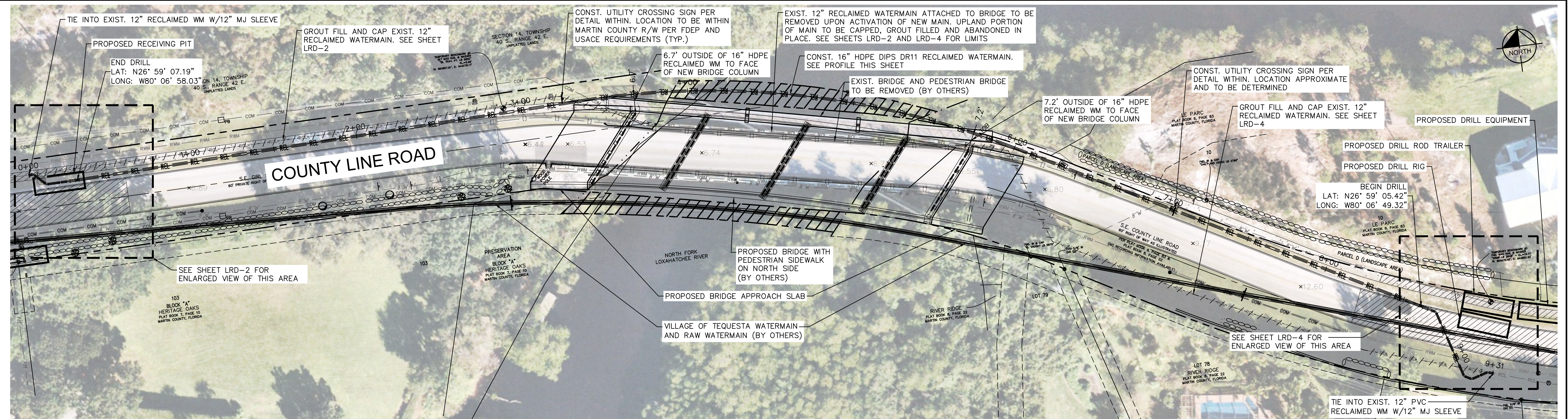
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FLORIDA LICENSE NUMBER
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RECLAIMED WATERMAIN RELOCATION PLAN

SHEET NUMBER
LRD-2

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LOXAHATCHEE RIVER DISTRICT
 MARTIN COUNTY FLORIDA

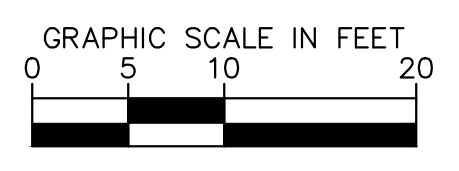
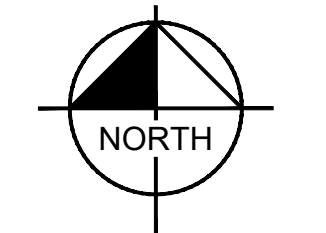
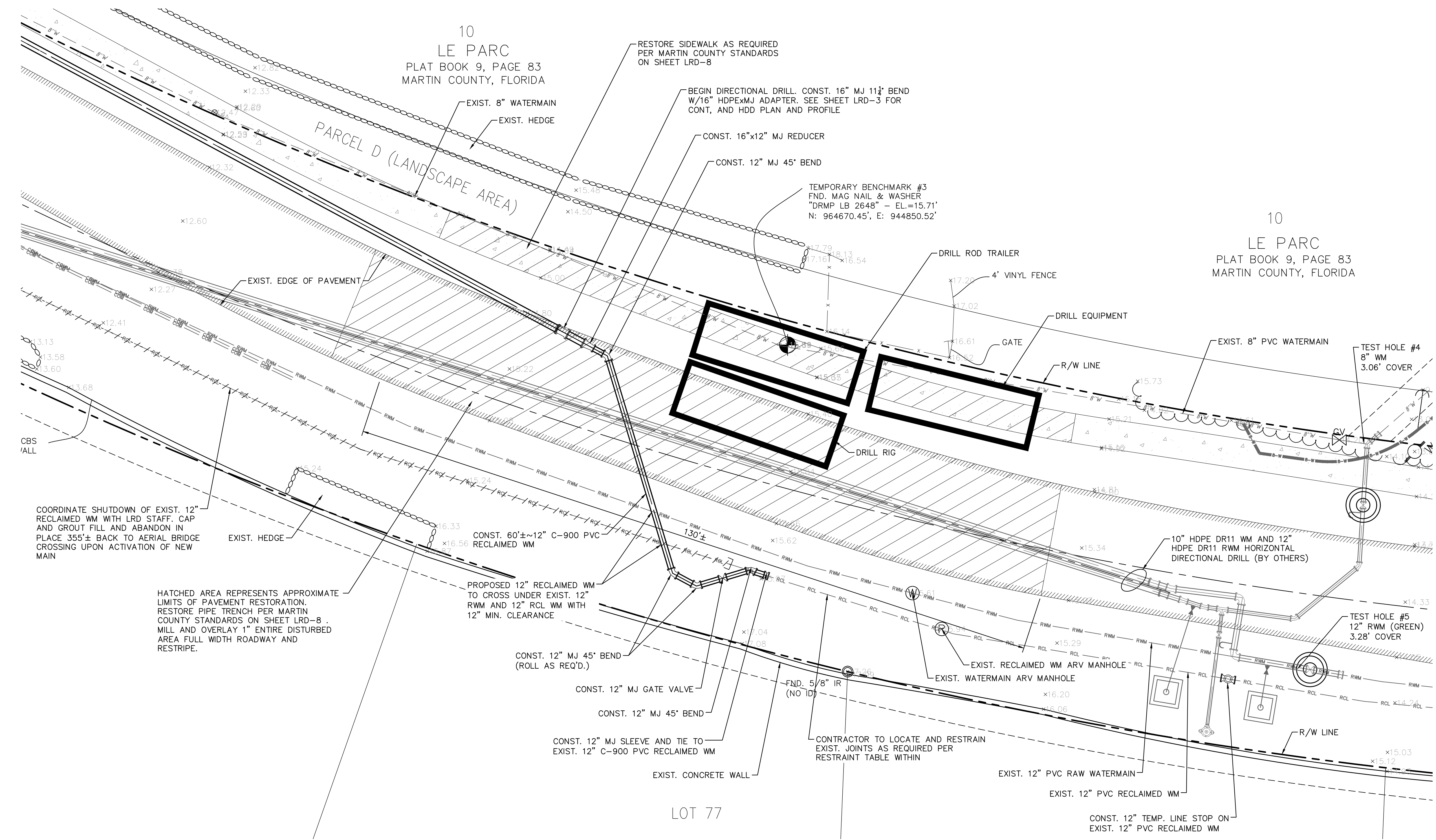
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 THOMAS C. JENSEN
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OVERALL DIRECTIONAL DRILL PLAN AND PROFILE

SHEET NUMBER
LRD-3

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SEE SHEET LRD-5 FOR PROFILE VIEW OF DRILL PIT AREA

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PREPARED FOR
LOXAHATCHEE RIVER DISTRICT

MARTIN COUNTY FLORIDA

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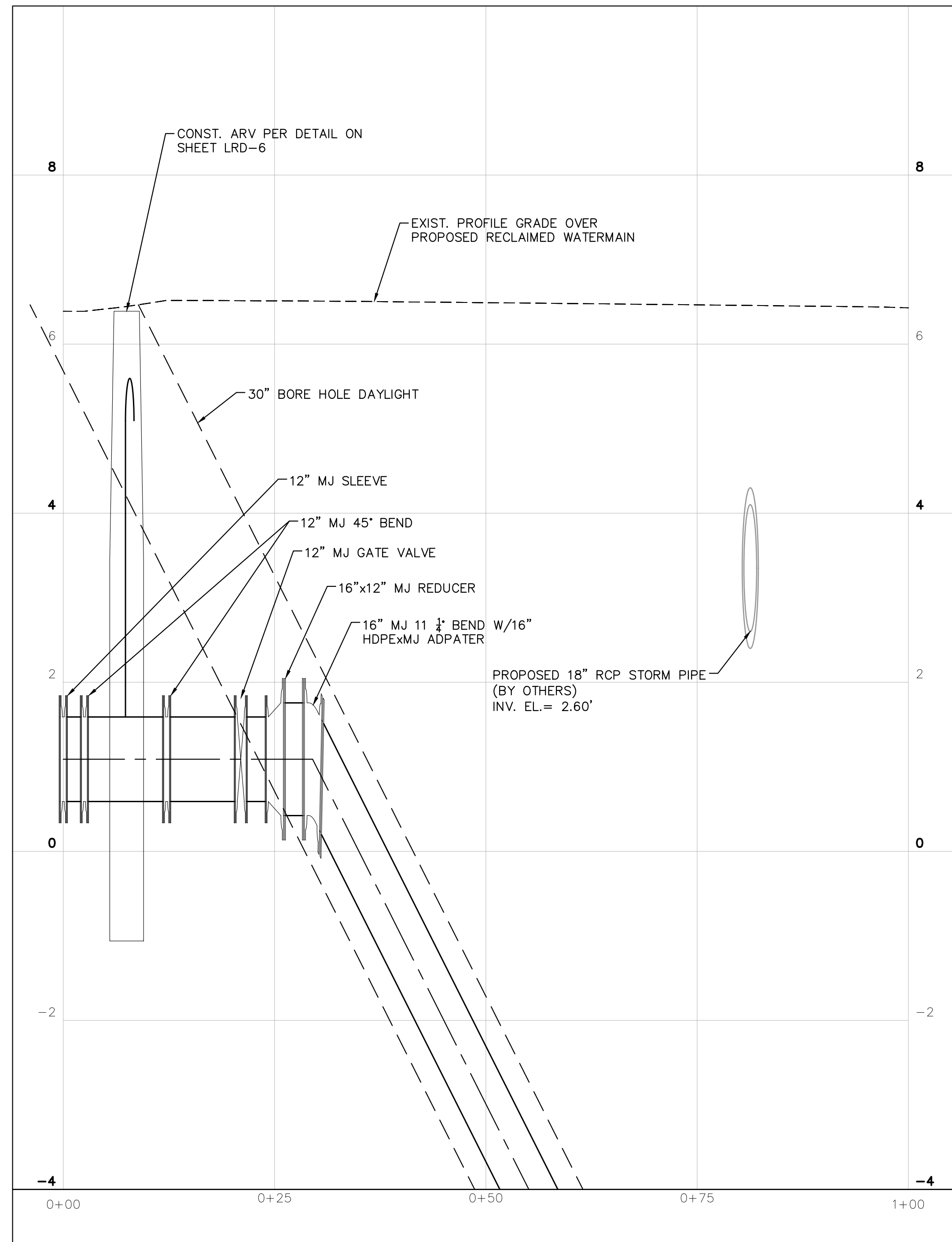
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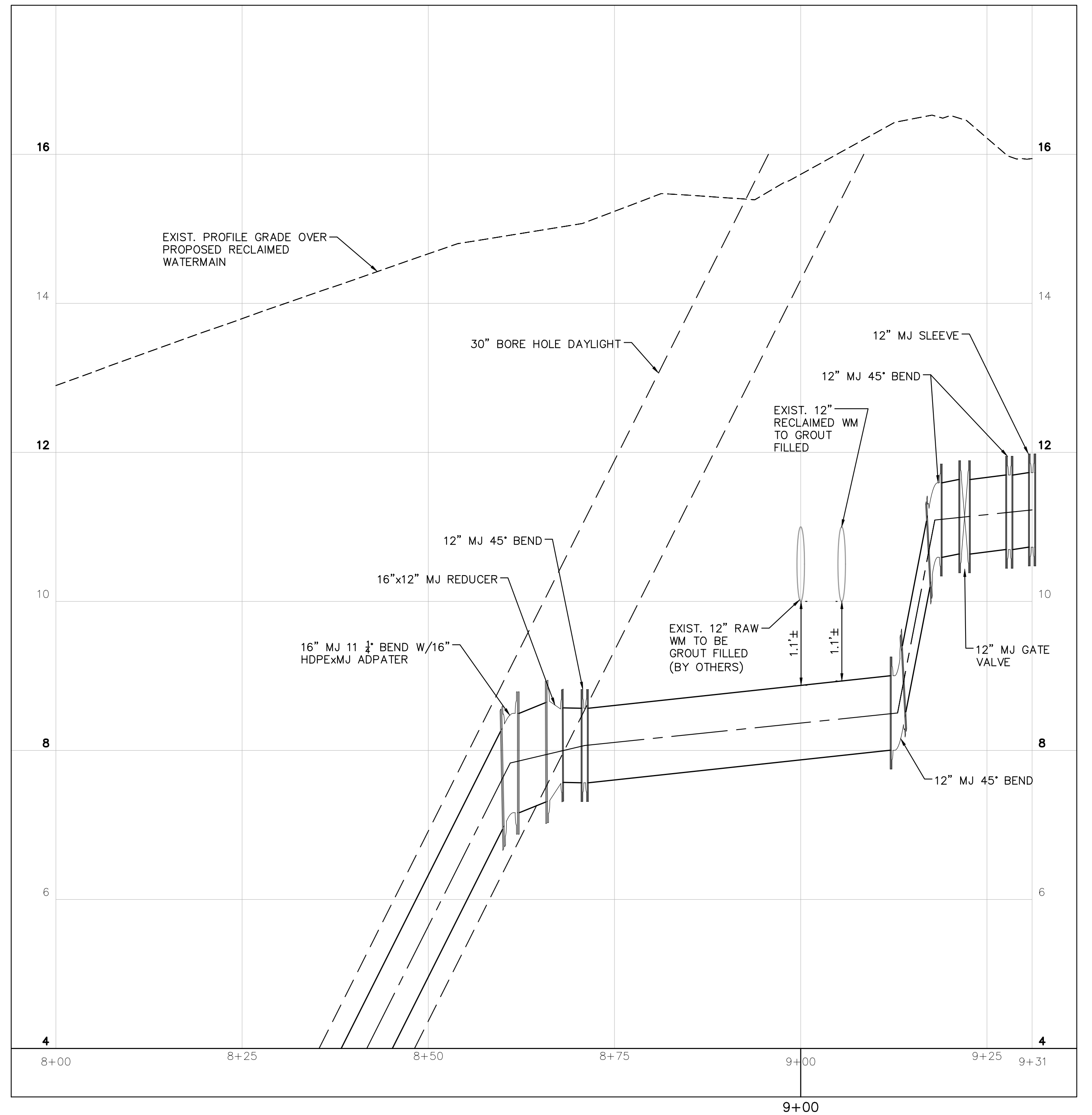
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SHEET NUMBER
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PROFILE-RECEIVING PIT AREA
AS NOTED



PROFILE-DRILL PIT AREA
AS NOTED

SEE SHEET LRD-3 FOR
OVERALL DIRECTIONAL DRILL
PROFILE

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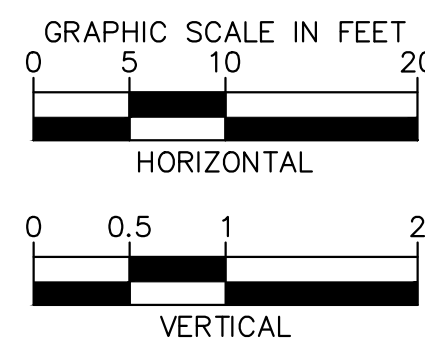
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COUNTY LINE ROAD RECLAIMED WATERMAIN RELOCATION

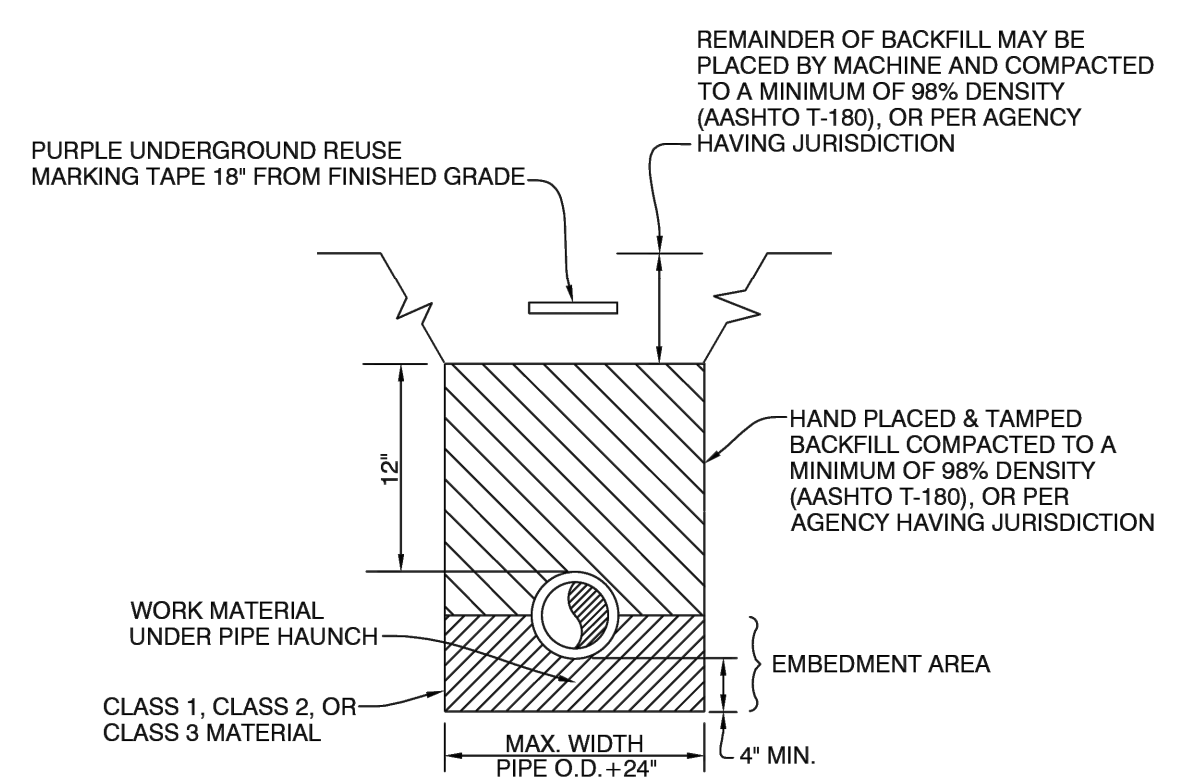
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LOXAHATCHEE RIVER DISTRICT
MARTIN COUNTY FLORIDA

LICENSED PROFESSIONAL	THOMAS C. JENSEN
FLORIDA LICENSE NUMBER	37290
DATE:	_____

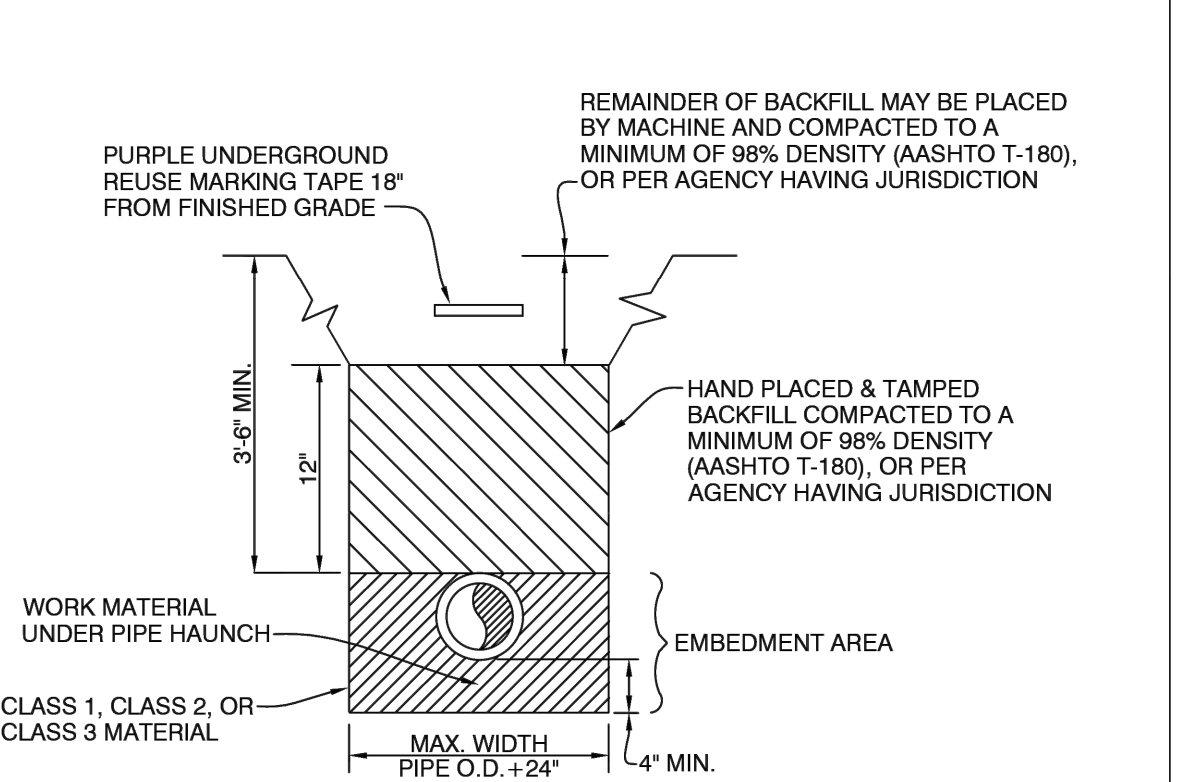
PROFILES AT BORE PIT AND RECEIVING PIT

SHEET NUMBER
LRD-5

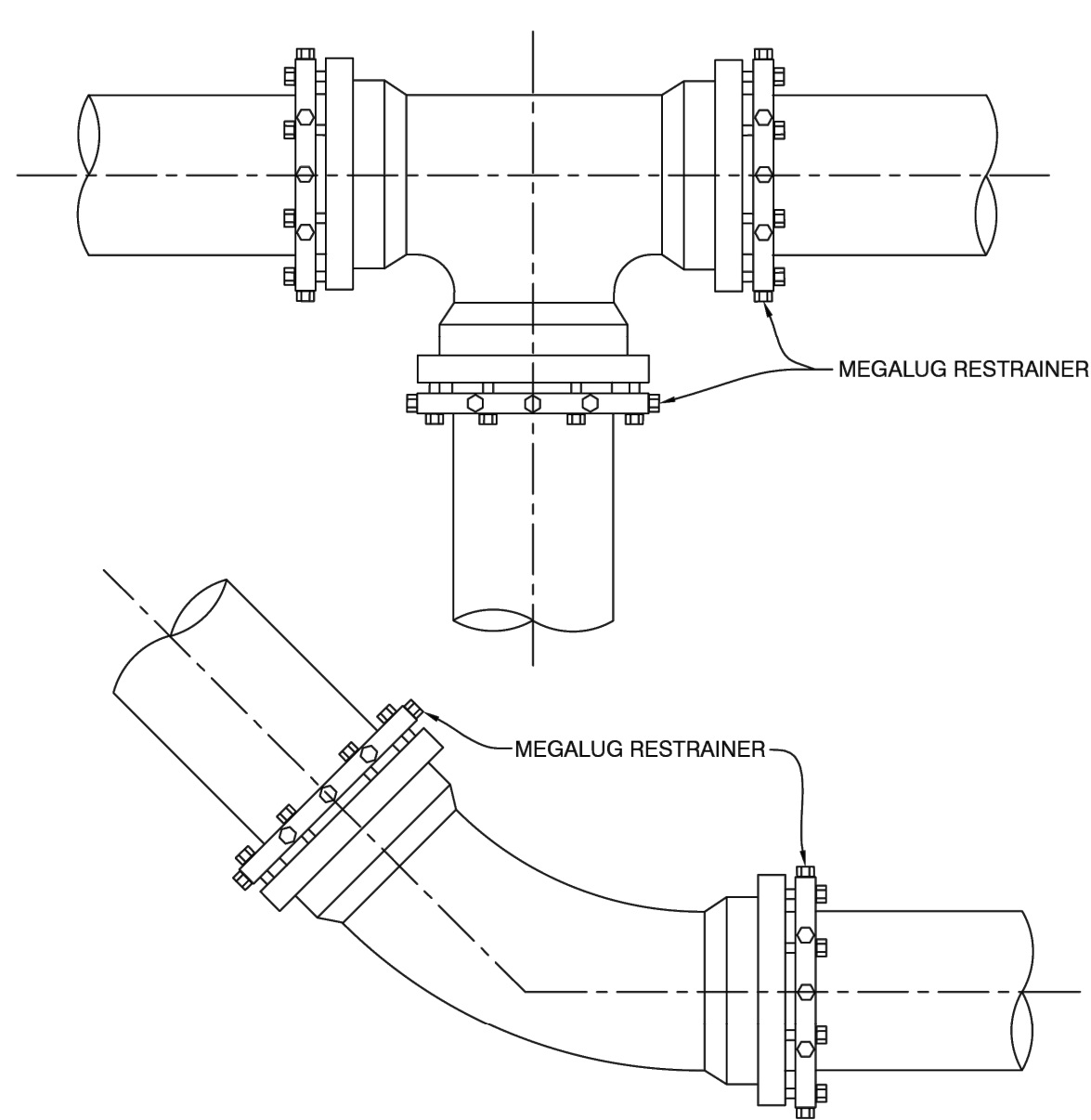
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NOTES:
 CLASS 1 MATERIAL - ANGULAR 25" TO 75" GRADED STONE SUCH AS CORAL, CRUSHED STONE, OR CRUSHED SHELLS OR BEDDING ROCK (100% PASSING 1" SIEVE).
 CLASS 2 MATERIAL - COURSE SAND AND GRAVEL'S WITH MAXIMUM PARTICLE SIZE OF .75" WITH SMALL PERCENTAGE OF FINES COMPACTED TO A MINIMUM OF 90% STANDARD PROCTOR DENSITY.
 CLASS 3 MATERIAL - FINE SAND AND CLAYEY GRAVEL'S, INCLUDING FINE SANDS, SAND-CLAY MIXTURES AND GRAVEL-CLAY MIXTURES, COMPACTED TO A MINIMUM OF 90% STANDARD PROCTOR DENSITY. INCLUDED IN CLASS 3 ARE EXISTING SOIL TYPES CLASSIFIED AS SELECT BACKFILL.
 IF CLASS 1 MATERIAL IS USED FOR BEDDING, IT MUST BE USED FOR THE ENTIRE EMBEDMENT. A DRY TRENCH SHALL BE MAINTAINED WHEN USING CLASS 2 AND CLASS 3 MATERIAL.



NOTES:
 CLASS 1 MATERIAL - ANGULAR 25" TO 75" GRADED STONE SUCH AS CORAL, CRUSHED STONE, OR CRUSHED SHELLS OR BEDDING ROCK (100% PASSING 1" SIEVE).
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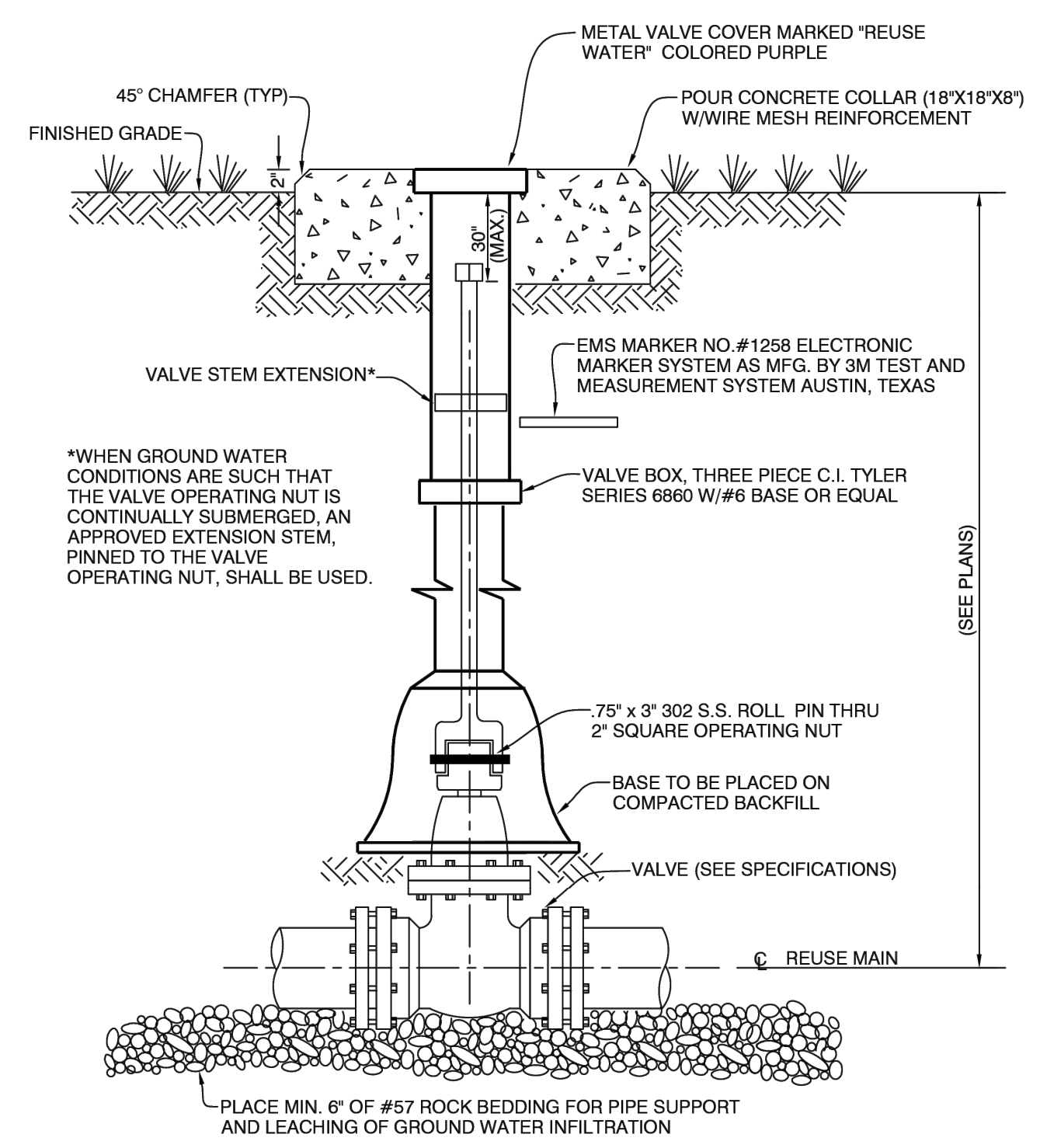


NOTES:
 1. RETAINER GLANDS FOR PVC PIPE OR DUCTILE IRON PIPE SHALL BE USED AT BENDS OR TEES. RETAINER GLANDS SHALL BE MANUFACTURED BY UNI-FLANGE CORP., OR "MEGALUG" BY EBAA IRON SALES INC., OR DISTRICT APPROVED EQUAL.
 2. THE NUMBER OF JOINTS RESTRAINED EACH SIDE OF ANY FITTING OR VALVE SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATION.
 3. ALL BENDS & TEES SHALL HAVE AN EMS INSTALLED.

LOXAHATCHEE RIVER DISTRICT
 N.T.S. REVISION: APRIL, 2012
TYPICAL REUSE DIP EMBEDMENT RU-4

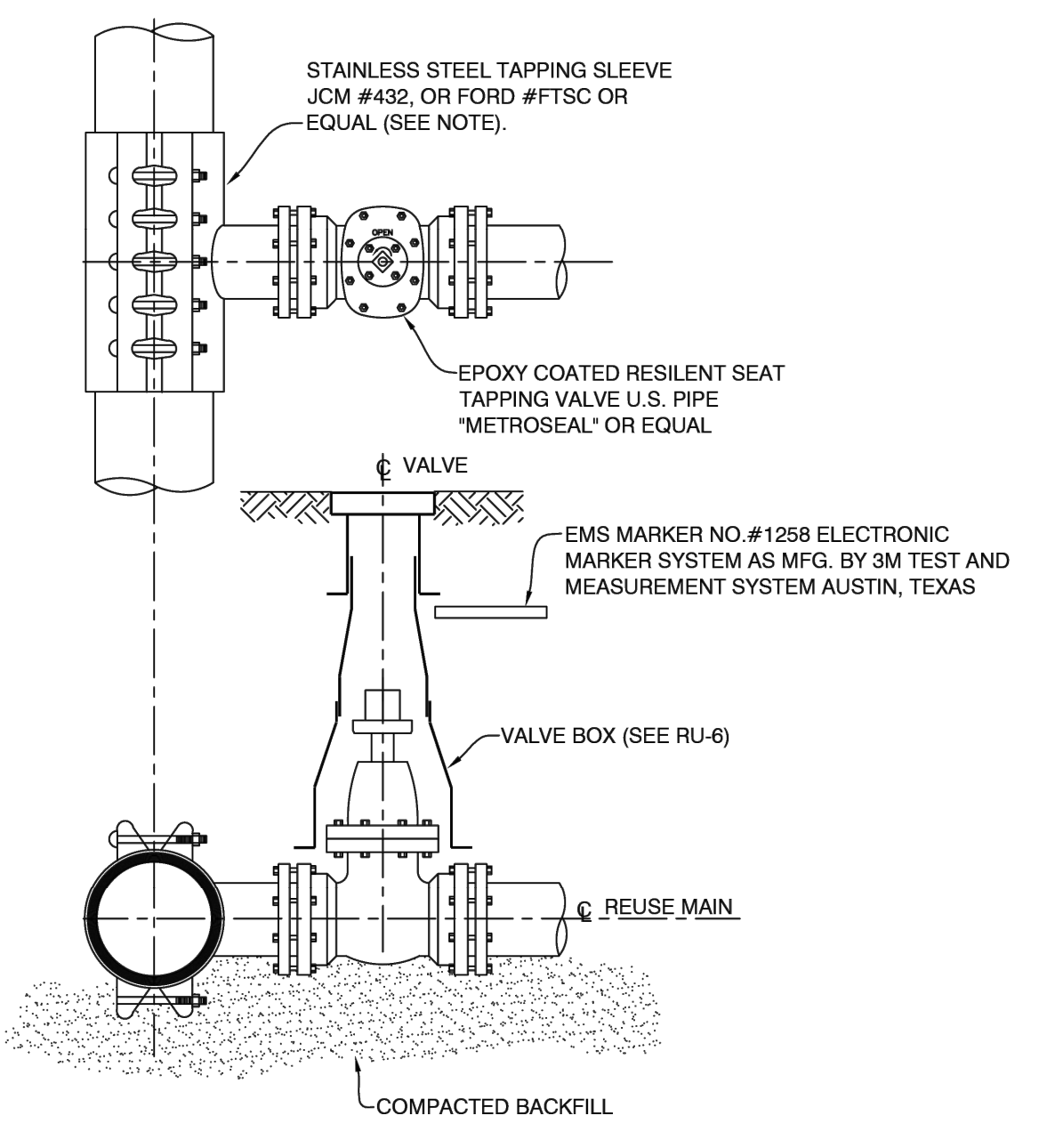
LOXAHATCHEE RIVER DISTRICT
 N.T.S. REVISION: APRIL, 2012
TYPICAL REUSE PVC PIPE EMBEDMENT RU-5

LOXAHATCHEE RIVER DISTRICT
 N.T.S. REVISION: APRIL, 2012
TYPICAL REUSE THRUST BLOCK RU-6

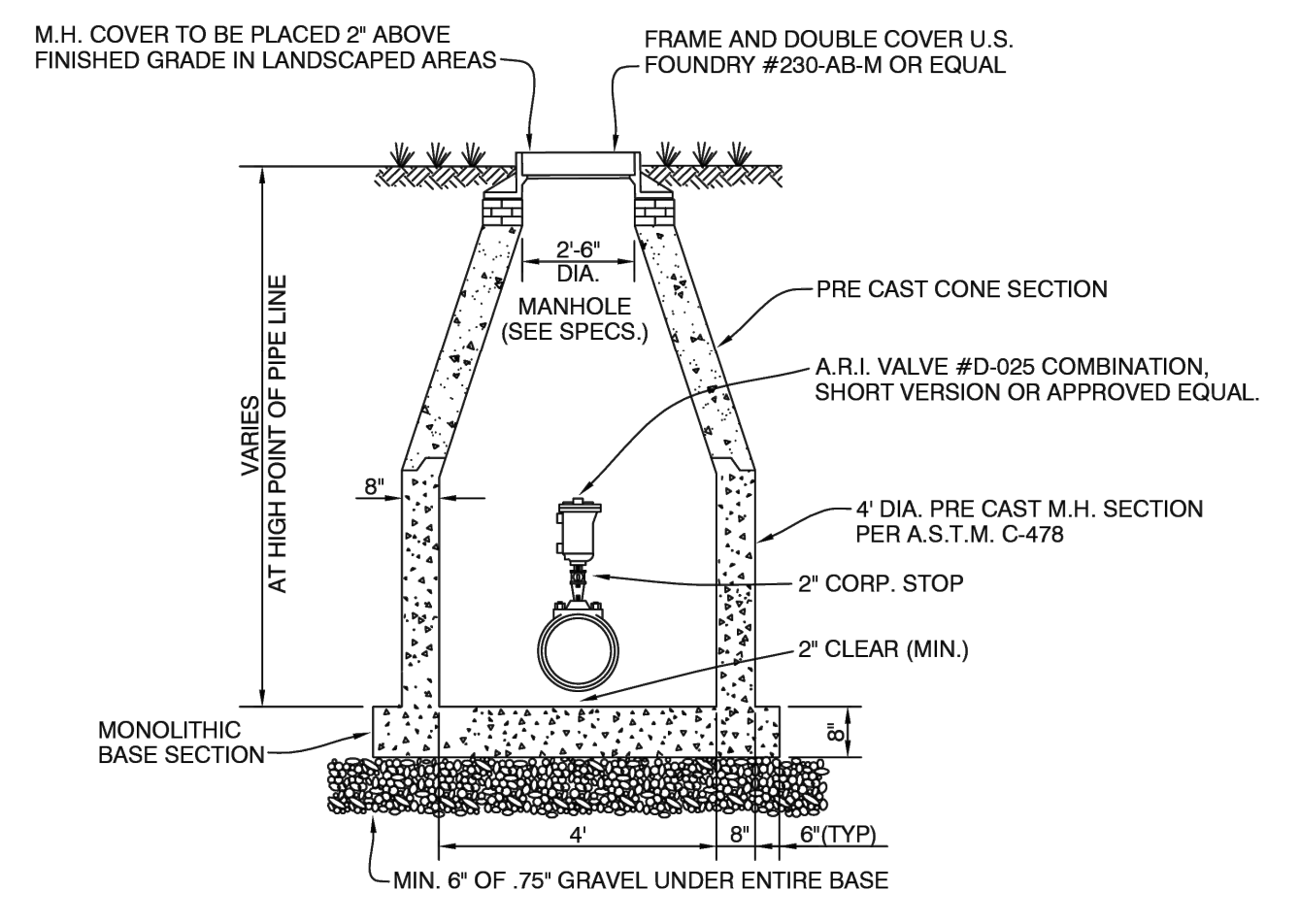


*WHEN GROUND WATER CONDITIONS ARE SUCH THAT THE VALVE OPERATING NUT IS CONTINUALLY SUBMERGED, AN APPROVED EXTENSION STEM, PINNED TO THE VALVE OPERATING NUT, SHALL BE USED.

PLACE MIN. 6" OF #57 ROCK BEDDING FOR PIPE SUPPORT AND LEACHING OF GROUND WATER INFILTRATION



NOTES:
 STAINLESS STEEL TAPPING SLEEVE WITH 304 S.S. BOLTS AND NUTS AND FUSION BONDED EPOXY COATING (12 MIL. MINIMUM), OR EQUAL. ALL SLEEVES SHALL BE PRESSURE TESTED.



NOTES:
 1. IF OFFSET CONDITION IS UTILIZED, AIR VALVE IN MANHOLE STRUCTURE SHALL BE ADEQUATELY SUPPORTED ON A 4" THICK CONCRETE PAD ON M.H. FLOOR.
 2. IN SITUATIONS WHERE A FORCE MAIN CROSSES A CANAL OR IS ATTACHED TO A BRIDGE, WHERE A STRUCTURE IS NOT NECESSARY, AN A.R.V TYPE A.R.I. MODEL #S-050-C SHALL BE USED.

LOXAHATCHEE RIVER DISTRICT
 N.T.S. REVISION: APRIL, 2012
TYPICAL REUSE BURIED VALVE DETAIL RU-7

LOXAHATCHEE RIVER DISTRICT
 N.T.S. REVISION: APRIL, 2012
TYPICAL TAPPING REUSE WATER MAIN RU-8

LOXAHATCHEE RIVER DISTRICT
 N.T.S. REVISION: APRIL, 2012
AUTOMATIC AIR RELEASE VALVE DETAIL RU-10

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COUNTY LINE ROAD RECLAIMED WATERMAIN RELOCATION
 PREPARED FOR
LOXAHATCHEE RIVER DISTRICT
 MARTIN COUNTY FLORIDA

LICENSED PROFESSIONAL
 THOMAS C. JENSEN
 FLORIDA LICENSE NUMBER
 37290

LRD STANDARD UTILITY DETAILS

SHEET NUMBER
LRD-6

No.	REVISIONS	DATE	BY

Plotted By: Muechebeter, Mark Sheet Set: COUNTY LINE ROAD RECLAIMED WATERMAIN RELOCATION Layout: LRD-7 LRD STANDARD UTILITY DETAILS November 07, 2024 03:51:15pm K:\wpb_civil\140790001-ldr_county_line_rd\CADD\plan sheets\LRD-6_LRD_STANDARD_UTILITY_DETAILS.dwg
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MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)										
TYPE	PIPE SIZE									
	4"	6"	8"	10"	12"	16"	20"	24"	30"	36"
90° BEND	18	24	31	38	43	55	65	75	88	100
45° BEND	8	10	13	15	18	23	26	31	38	43
22-1/2° BEND	4	5	6	8	9	11	13	15	18	20
11-1/4° BEND	2	3	4	5	6	8	9	10	11	13
PLUG OR BRANCH OF TEE	38	50	65	79	90	117	139	163	194	223
VALVE	19	25	32	40	45	59	70	82	98	112
REDUCER	VARIES BY SIZE, TO BE DETERMINED BY THE DESIGN ENGINEER									

NOTES:

- FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
- INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE.
- WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
- ALL INLINE VALVES SHALL BE RESTRAINED.
- WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE ENTIRE BELL SHALL BE PAINTED RED.
- LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES PUBLISHED BY DIPRA, USING THE ASSUMPTIONS SHOWN BELOW:

WORKING PRESSURE: 100 PSI
 SOIL DESIGNATION: SM (SAND SILT)
 LAYING CONDITIONS: 3
 DEPTH OF COVER: 3 FT
 SAFETY FACTOR: 1.5
 CONVERSION FACTOR FOR PVC PIPE: 1.25

THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATIONS AND LAYING CONDITIONS.

LOXAHATCHEE RIVER DISTRICT		
N.T.S.	FORCE MAIN THRUST RESTRAINT CHART	SD-18
REVISION: APRIL, 2012		

RECORD DRAWING SUBMITTAL GUIDE

- TWO (2) SETS OF FULL SIZE PRINTS SHALL BE SUBMITTED TO THE DISTRICT FOR REVIEW 48 HOURS PRIOR TO REQUESTING INSPECTIONS SUCH AS, FINAL INSPECTION, PRESSURE TESTS, SANITARY SEWER LAMPING OR ANY OTHER ELEMENT OF THE SYSTEM WHICH IS DETERMINED BY THE DISTRICT TO REQUIRE CLARIFICATION.
- THE DRAWINGS WILL BE REVIEWED BY THE DISTRICT FOR DEFICIENCIES. DEFICIENCIES WILL BE INDICATED ON ONE (1) SET OF PRINTS WHICH WILL BE RETURNED TO THE E.O.R. OR CONTRACTOR FOR NECESSARY CORRECTIVE ACTION.
- UPON CORRECTION, TWO (2) SETS OF FULL SIZE PRINTS (SIGNED/SEALED BY A FLORIDA LICENSED SURVEYOR) SHALL BE SUBMITTED AND A GEOREFERENCED DESIGN AUTOCAD FILE (VERSION 2020 OR LATER).
- NO DISCLAIMERS ON DRAWINGS WILL BE ACCEPTED.
- UPON FINAL SUBMITTAL OF RECORD DRAWINGS, A GEOREFERENCED AUTOCAD FILE (VERSION 2020 OR LATER) AND AN ADOBE PDF 24"X36" FILE SHALL BE FURNISHED ON A CD/DVD DISK, THUMB DRIVE OR DOWNLOADABLE LINK EMAILED TO THE DISTRICT. ONLY (1) CAD FILE WITH ALL SHEETS OF RECORD DRAWINGS ALLOWED.

REQUIRED INFORMATION ON RECORD DRAWINGS

GENERAL:

- DRAWINGS ON 24" X 36" BOND PAPER THAT WILL REPRODUCE LEGIBLY.
- LABEL EACH PLAN SHEET "RECORD DRAWINGS" WITH DATE, COMPLETED TITLE BLOCK WITH CURRENT FILE NAME, SIGNED & SEALED BY A FLORIDA LICENSED PROFESSIONAL LAND SURVEYOR.
- ALL SEWER ITEMS SHALL BE CATEGORIZED AND ASSIGNED TO THE DRAWING LAYERS SUCH AS: AB-MANHOLES, AB-FORCEMAIN, AB-VALVE, AB-GRAVITY MAIN, ETC.
- REDRAW ALL SEWER LINES AND INFRASTRUCTURE ON RECORD DRAWINGS AS CONSTRUCTED HORIZONTALLY & VERTICALLY, BOLD, OR HEAVY LINE WORK & TEXT CALL OUTS TO STAND OUT FROM REST OF DRAWING, USING ORIGINAL DESIGN LINEWORK & ONLY UPDATING THE CORRESPONDING TEXT CALLOUTS WILL NOT BE ACCEPTED AS RECORD DRAWINGS.
- ALL ITEMS LISTED BELOW MUST BE CORRECTLY GEOREFERENCED WITH NORTHINGS/EASTINGS CLEARLY SHOWNED. THE AS BUILTS SHALL BE GEOREFERENCED TO THE STATE PLANE COORDINATES IN NAD 83, FLORIDA EAST ZONE, WHILE THE VERTICAL DATUM SHALL BE NGVD 29.

GRAVITY SEWER:

- AS-BUILT DISTANCE OF GRAVITY MAIN FROM CENTER LINE OF ROAD OR EASEMENT RIGHT- OF-WAY LINE, BUILDINGS, OR AS DETERMINED BY THE LOXAHATCHEE RIVER DISTRICT. EXTENSIONS OF AN IMAGINARY LINE WILL NOT BE ACCEPTABLE AS REFERENCED POINTS.
- TYPE OF MATERIALS INSTALLED - MAINS AND SERVICES.
- SHOW EACH SEWER SERVICE LATERAL INCLUDING THE CONNECTION TO THE MAIN AND PROVIDE THE NORTHING & EASTING POINTS FOR EACH CLEANOUT & INDICATE CLEANOUT DIAMETER & INVERT ELEVATION.
- AS-BUILT LOCATIONS OF MANHOLES WITH A NORTHING & EASTING PROVIDED.
- AS-BUILT ELEVATIONS, RIM ELEVATION, EACH INVERT AND PIPE SLOPE.
- UPDATE LIFT STATION DETAILS/ELEVATIONS INCLUDING START UP DATA.
- LIFT STATION AND UTILITY EASEMENTS, INCLUDING LOCATION OF F.P.&L. SERVICE TO CONTROL PANEL.

PRESSURE PIPE:

- AS BUILT DISTANCE OF FORCE MAINS AT 100' INTERVALS FROM CENTER LINE OF ROAD, EASEMENT, RIGHT-OF-WAY LINE, BUILDINGS, SEWER MAINS OR AS DETERMINED BY THE LOXAHATCHEE RIVER DISTRICT. EXTENSIONS OF AN IMAGINARY LINE WILL NOT BE ACCEPTABLE AS REFERENCED POINTS.
- SHOW ELEVATIONS, NORTHING/EASTING OF EACH VALVE, FITTING, AIR RELEASE VALVE, SERVICE LINE, TAP, ETC.
- TYPE OF MATERIALS INSTALLED - PIPE AND APPURTENANCES. INDICATE ALL LOCATIONS OF CHANGE OF MATERIAL INCLUDING JOINT TYPE (M.J., SLIP, RESTRAINED).
- VALVE TYPE (BUTTERFLY, GATE, PLUG) INCLUDING THE NORTHING & EASTING POINT.
- AS BUILT LENGTH OF ALL JACK AND BORE CASINGS INDICATING DISTANCE FROM CENTER LINE OF PAVING TO EACH END OF CASING. THE AS BUILT INVERT ELEVATION OF EACH END OF CASING, (INCLUDING NORTHING/EASTING) AND AS BUILT DISTANCE FROM EACH END OF CASING TO LIMITS OF MECHANICAL JOINT PIPE IS ALSO REQUIRED.
- AS BUILT ELEVATIONS AT 100' INTERVALS AS WELL AS ANY MAJOR CHANGES IN DIRECTION AND/OR ELEVATION. ELEVATIONS SHOWN AT THESE INTERVALS AND CHANGES MUST SHOW TOP OF PIPE ELEVATION, NORTHING/EASTING AND FINISHED GRADE ELEVATION AT THAT LOCATION. SHOW LOCATION OF EMS MARKERS.
- UTILITY EASEMENTS SHALL BE CORRECTLY SHOWN AND DIMENSIONED WITH REFERENCED SEWER FACILITY.

LOXAHATCHEE RIVER DISTRICT		
N.T.S.	RECORD DRAWING SUBMITTAL GUIDE	SD-29
REVISION: AUG, 2022		

SEPARATION REQUIREMENTS
62-555.314 F.A.C. AUGUST 28, 2003

- HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
 - NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
 - NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
 - NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
- VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.
 - NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
 - NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATERMAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
 - AT THE UTILITY CROSSING DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

*REQUIRED BY: HRS, STATE OF FLORIDA, PALM BEACH COUNTY PUBLIC HEALTH UNIT

LOXAHATCHEE RIVER DISTRICT		
N.T.S.	STANDARD WATER AND SEWER SEPARATION STATEMENT	SD-30
REVISION: APRIL, 2012		

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 PHONE: 561-845-0665 FAX: 561-863-8175
 WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

COUNTY LINE ROAD RECLAIMED WATERMAIN RELOCATION
 PREPARED FOR
LOXAHATCHEE RIVER DISTRICT
 MARTIN COUNTY FLORIDA

LICENSED PROFESSIONAL

THOMAS C. JENSEN

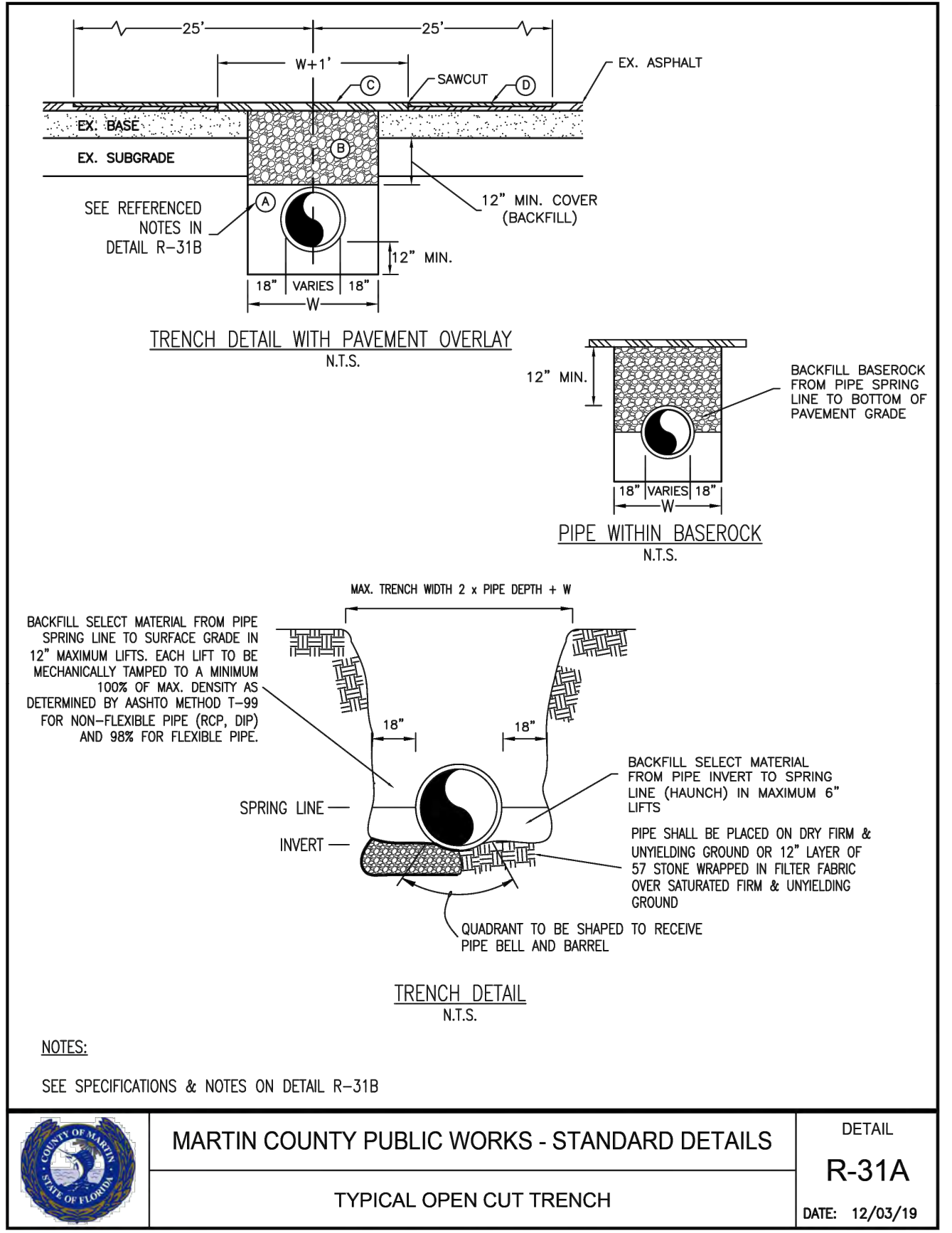
FLORIDA LICENSE NUMBER
37290

LRD STANDARD UTILITY DETAILS

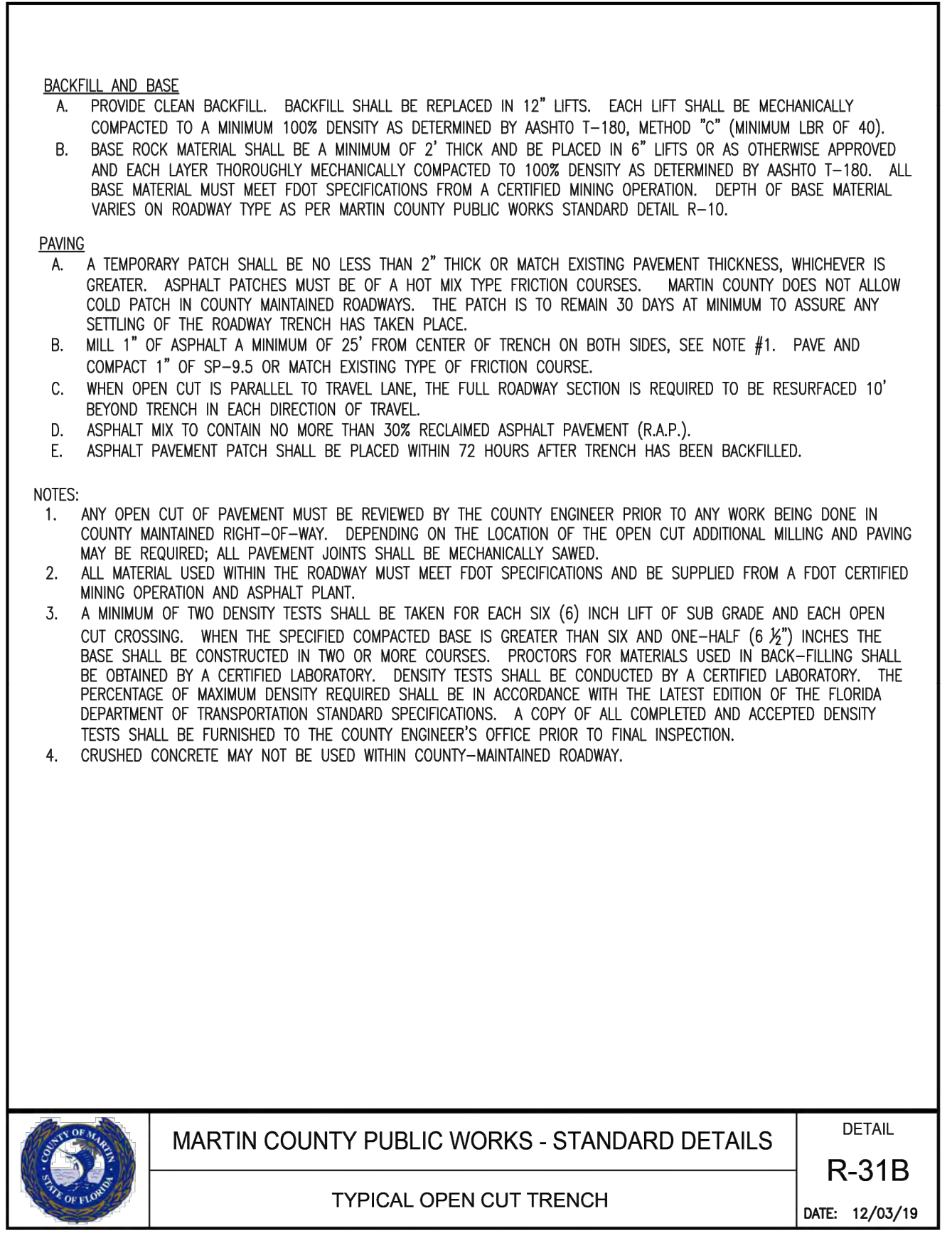
SHEET NUMBER

LRD-7

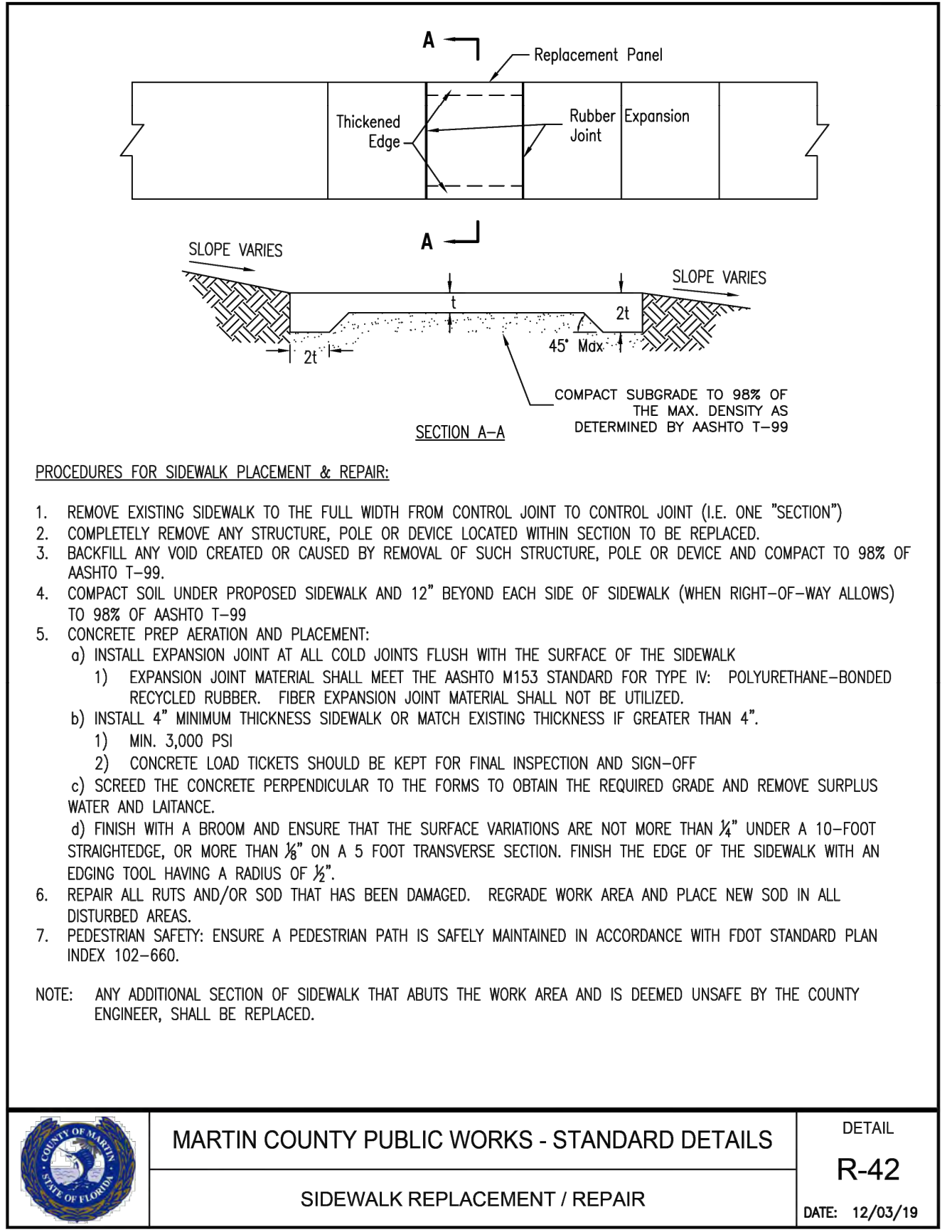
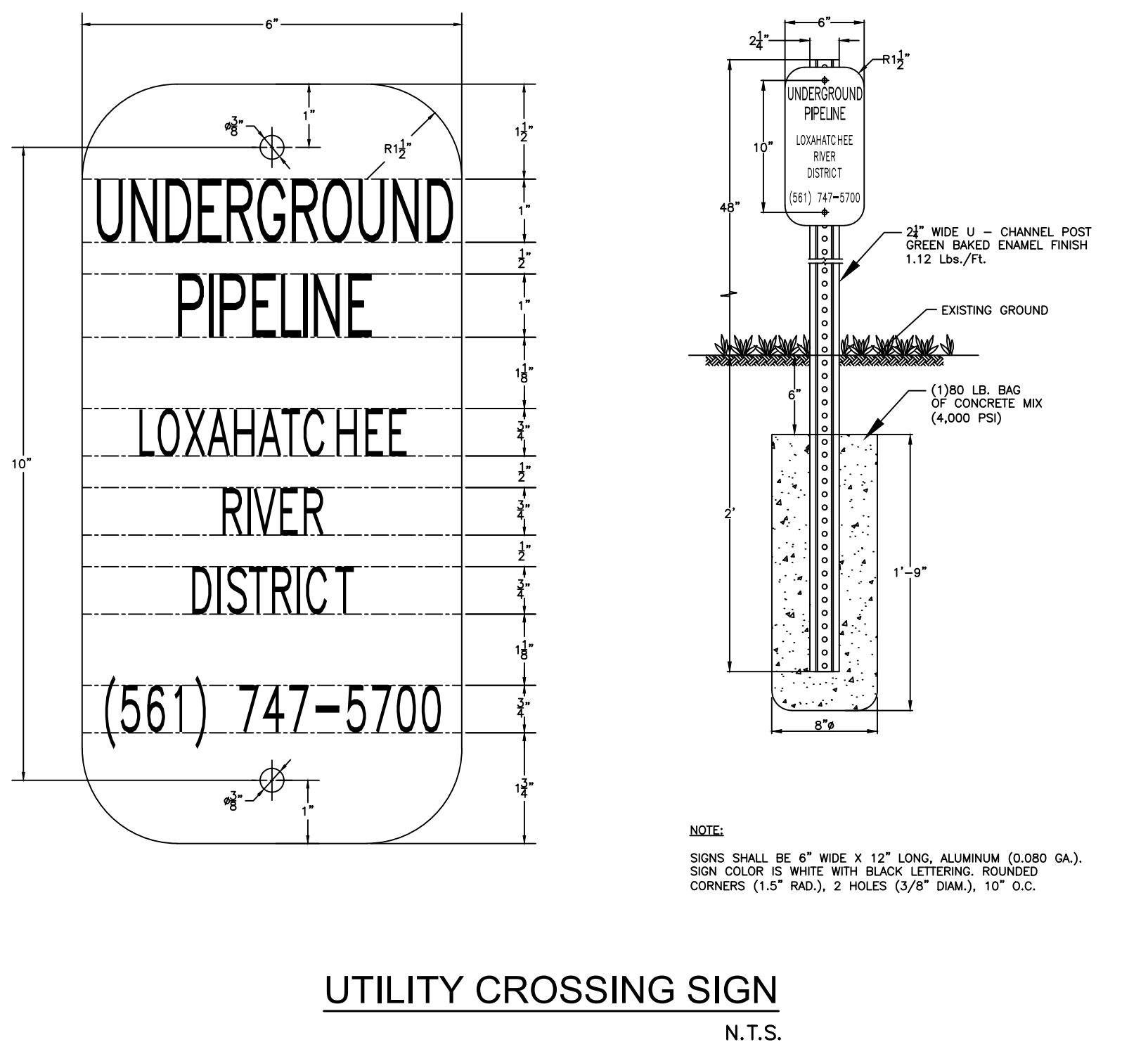
Plotted By: Muechechete, Mark. Sheet Set: COUNTY LINE ROAD RECLAIMED WATERMAIN RELOCATION. Layout: LRD-8 MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS. November 07, 2024. 03:51:27pm. k:\wpb_civil\140790001-ldr_county_line_rd\CADD\plan sheets\LRD-8 MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS. This document is intended only for the specific purpose and client for which it was prepared. Reuse of any improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



	MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS	DETAIL R-31A
	TYPICAL OPEN CUT TRENCH	DATE: 12/03/19



	MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS	DETAIL R-31B
	TYPICAL OPEN CUT TRENCH	DATE: 12/03/19



	MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS	DETAIL R-42
	SIDEWALK REPLACEMENT / REPAIR	DATE: 12/03/19

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811

IT'S THE LAW!
DIAL 811

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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

No.	REVISIONS	DATE	BY

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WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

KHA PROJECT 140790001
DATE NOV. 2024
SCALE AS SHOWN
DESIGNED BY SS
DRAWN BY SS
CHECKED BY TCJ

COUNTY LINE ROAD RECLAIMED WATERMAIN RELOCATION

PREPARED FOR
LOXAHATCHEE RIVER DISTRICT

MARTIN COUNTY FLORIDA

LICENSED PROFESSIONAL

THOMAS C. JENSEN

FLORIDA LICENSE NUMBER 37290

DATE: _____

MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS

SHEET NUMBER

LRD-8

Plotted By: Muechechete, Mark. Sheet Set: COUNTY LINE RD WM AND RWM Layout: VOT-1 GENERAL NOTES November 07, 2024. 03:42:14pm. K:\WEB_Civil\040097046-County Line Rd WM and RWM\CADD\Plots\Sheets\VOT-1_GENERAL_NOTES.dwg. This document, together with the concepts and designs presented herein, is an instrument of service, as an instrument of service, is intended only for the specific purpose and date for which it was prepared. Reuse of any improper reliance on this document without authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

GENERAL CONSTRUCTION NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITIES AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. ALL WORK SHALL BE PERFORMED IN A PROFESSIONAL MANNER AND SHALL CONFORM WITH ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL REGULATIONS AND/OR CODES.
- EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. A LIST OF THE UTILITY COMPANIES WHICH THE CONTRACTOR MUST CALL BEFORE COMMENCING WORK IS PROVIDED BELOW. THIS LIST SERVES AS A GUIDE ONLY AND IS NOT INTENDED TO LIMIT THE UTILITY COMPANIES WHICH THE CONTRACTOR MAY WISH TO NOTIFY.

LOXAHATCHEE RIVER DISTRICT 2500 JUPITER PARK DR JUPITER, FL 33458 PROJECT CONTACT: KRIS DEAN, P.E. PHONE NUMBER: (561) 401-4024	ATT UTILITY COORDINATOR 2315 GEES MILL BUSINESS PKWY NE CONYERS, GA 30013 PROJECT CONTACT: PAUL HERRON PHONE NUMBER: (561) 281-5302
COMCAST CABLE 10435 IRONWOOD ROAD PALM BEACH GARDENS, FL 33410 PROJECT CONTACT: MIYA FISHER PHONE NUMBER: (561) 454-5846	FLORIDA POWER & LIGHT 4200 W FLAGLER ST MIAMI, FL 33134 PROJECT CONTACT: JOEL BRAY PHONE NUMBER: (386) 536-6403
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS, LICENSES, AND BONDS AS REQUIRED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL OBTAIN COPIES OF AND FAMILIARIZE HIMSELF AND HIS SUBCONTRACTORS WITH THE PERMIT CONDITIONS OF ALL OWNER OBTAINED PERMITS FOR THE WORK.
- ANY DISCREPANCIES ON THE DRAWINGS, INCLUDING ALL DEVIATION FROM THE EXISTING UTILITY SIZE AND LOCATIONS SHOWN ON THE PLANS, SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE ENGINEER A CERTIFIED RECORD SURVEY SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA DEPICTING THE ACTUAL FIELD LOCATION OF ALL CONSTRUCTED IMPROVEMENTS THAT ARE REQUIRED BY THE JURISDICTIONAL AGENCIES FOR THE CERTIFICATION PROCESS. ALL SURVEY COSTS WILL BE THE CONTRACTORS RESPONSIBILITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF FLORIDA PROFESSIONAL LAND SURVEYOR WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE VIDEO DOCUMENTATION OF THE SITE CONDITIONS AND EXISTING UTILITY CONDITIONS AS REQUIRED BY THE OWNER PRIOR TO CONSTRUCTION. VIDEO DOCUMENTATION SHALL BE CONDUCTED BY A PROFESSIONAL WITH EXPERIENCE WITH VIDEO DOCUMENTATION OF SIMILAR PROJECTS AND EXISTING UTILITIES. ALL VIDEO DOCUMENTATION COSTS WILL BE THE CONTRACTORS RESPONSIBILITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER/ENGINEER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER/ENGINEER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.
- ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED TO THE GREATEST EXTENT PRACTICAL. WHEN ACCESS CANNOT BE MAINTAINED, THE TIME OF NON-ACCESS SHALL BE MINIMIZED AND CLOSELY COORDINATED WITH THE PROPERTY OWNER.
- ANY DAMAGE TO PRIVATE PROPERTY MADE BY THE CONTRACTOR SHALL BE PROMPTLY REPAIRED TO AN EQUAL OR BETTER CONDITION AS IT WAS BEFORE COMMENCEMENT OF THE WORK. ALL REPAIR COSTS WILL BE THE CONTRACTOR'S RESPONSIBILITY.
- ALL RECORD DRAWINGS SHALL BE PROVIDED IN NAVD 1988.
- ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN THE RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO PUBLIC RIGHTS-OF-WAY STANDARDS AND EASEMENTS WITHIN THE VILLAGE OF TEQUESTA (VILLAGE'S STANDARDS), FDOT SPECIFICATIONS AND STANDARDS (LATEST EDITION), AND PALM BEACH COUNTY STANDARDS IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS.
- ALL ELEVATIONS SHOWN REFER TO NAVD 1988.
- CONTRACTOR SHALL APPLY FOR AND MAINTAIN APPROPRIATE DEWATERING PERMIT(S) (IF REQUIRED) FOR GOVERNING AGENCIES AND ABIDE BY TERMS AND CONDITIONS OF PERMITS DURING CONSTRUCTION.

DEMOLITION NOTES

- REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC., LOCATED WITHIN THE PROJECT SITE. UNLESS OTHERWISE NOTED, ALL EXISTING STRUCTURES, SLABS, FIRE HYDRANTS, PIPES, VALVES, CONCRETE, ASPHALT, DEBRIS PILES, AND ALL APPURTENANCES TO BE REMOVED FROM THE SITE BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN A LEGAL MANNER AS PART OF THIS CONTRACT. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
- THE CONTRACTOR SHALL REFER TO THE PLANS FOR DEMOLITION/PRESERVATION OF EXISTING TREES AND LANDSCAPING. ALL TREES AND LANDSCAPING NOT SPECIFICALLY SHOWN TO BE REMOVED OR RELOCATED SHALL BE PRESERVED AS A PART OF THIS CONTRACT. TREE/LANDSCAPING PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY DEMOLITION.
- ALL OUTLETS, ELECTRICAL CONDUITS AND SERVICES TO REMAIN AND BE PROTECTED THROUGHOUT THE PROJECT DURATION.
- LANDSCAPING ELEMENTS, TREES, ETC. MAY REQUIRE TEMPORARY RELOCATION TO COMPLETE THE WORK AS SHOWN. CONTRACTOR TO STORE, PROTECT, AND REINSTALL THESE ITEMS UPON COMPLETION OF THE WORK. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER FOR REMOVAL/REINSTALLATION OF THESE ITEMS. IF THE TREES DO NOT SURVIVE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT IN KIND.
- THE CONTRACTOR SHALL GRADE THE SITE TO RESTORE THE EXISTING DRAINAGE PATTERNS AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL.

- AREAS INDICATED AS PAVEMENT SHALL BE REPAIRED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AND AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL FILTER FABRIC OVER ALL DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
- FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH SPECIFICATIONS, THE LOCAL JURISDICTIONAL AGENCY, OR TO VILLAGE STANDARDS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT REQUIREMENT SHALL GOVERN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
- THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS. AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE WHICH VIOLATES THE WATER QUALITY STANDARDS IN CHAPTER 17-302, FLORIDA ADMINISTRATIVE CODE.
- SOD, AND FENCE, WHERE REQUIRED FOR RESTORATION, MUST BE INSTALLED TO MATCH EXISTING AND MAINTAINED THROUGH PROJECT COMPLETION.

WATER UTILITY NOTES

- ALL MATERIALS TO BE PROVIDED SHALL BE IN ACCORDANCE WITH THE VILLAGE OF TEQUESTA'S APPROVED MATERIALS LIST AND DESIGN STANDARDS.
- THE CONTRACTOR SHALL CONSTRUCT DOMESTIC WATER LINES AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS AND VILLAGE OF TEQUESTA REQUIREMENTS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
- ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS FOR UTILITY LOCATION AND COORDINATION IN ACCORDANCE WITH THE NOTES CONTAINED IN THE GENERAL CONSTRUCTION SECTION OF THIS SHEET.
- UNLESS OTHERWISE NOTED, PROPOSED WATER MAIN TO BE POLYVINYL CHLORIDE PIPE (PVC) PIPE. ALL FITTINGS AND VALVES TO BE MECHANICAL JOINT UNLESS OTHERWISE NOTED.
 - CEMENT LINED DUCTILE IRON PIPE (ALL SIZES) OR C-900 CLASS 150 DR 18 PVC PIPE (UP TO 12" DIAMETER) SHALL BE ALLOWED FOR POTABLE WATER PIPES. THE LINING FOR DUCTILE IRON PIPE SHALL BE FACTORY APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND SHALL BE WARRANTED BY THE PIPE MANUFACTURER. UNLESS SPECIFIC APPROVAL IS GRANTED, NO WATER MAIN SHALL BE ENCASED IN CONCRETE.
 - PVC PIPE - ALL PRODUCTS SHALL BE AS SPECIFIED BY THE VILLAGE STANDARDS. IF NO STANDARD EXISTS, THE FOLLOWING SHALL BE USED:
 - AWWA C-900 AND C-905 PVC PIPE
 - ALL PVC PIPE SHALL MEET AWWA C-900 AND C-905 STANDARDS AND NSF REQUIREMENTS FOR POTABLE WATER APPLICATION. PVC PIPE 6" THROUGH 12" SHALL BE CLASS 150 DR 18 PIPE CONFORMING TO AWWA C-900. PIPE GREATER THAN 12" SHALL CONFORM TO AWWA C-905, DR 18 OR BETTER.
 - FITTINGS USED IN CONJUNCTION WITH THE C-900 PVC PIPE SHALL BE AWWA DUCTILE IRON FITTINGS.
 - PVC WATERMAIN SHALL BE BLUE IN COLOR.
 - HDPE PIPE - ALL PRODUCTS SHALL BE SPECIFIED BY THE VILLAGE STANDARDS.
 - FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT AND SHALL CONFORM TO ANSI/AWWA STANDARD C110.A21.10 LATEST REVISION. FITTINGS 4" AND LARGER SHALL BE CEMENT LINED.
- REFER TO THE VILLAGE SEPARATION DETAILS FOR INSTALLATION AT PIPE CONFLICTS. IF CROSSING IS NOT SPECIFIED, FOLLOW PART III OF CHAPTER 62-610 FAC FOR MINIMUM PIPE SEPARATION DISTANCES.
- PIPE LENGTHS ARE MEASURED FROM CENTER OF FITTINGS UNLESS OTHERWISE NOTED.
- DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED 75% OF THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERTIGHT PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE PLANS.
- ALL PHASES OF INSTALLATION, INCLUDING UNLOADING, TRENCHING, LAYING AND BACK FILLING, SHALL BE DONE IN A WORKMANLIKE MANNER. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING IN ANY DI. PIPE FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER OR OWNER, RENDERS IT UNFIT FOR USE, SHALL NOT BE USED. ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMEDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AREAS TO RECEIVE PAVING SHALL BE COMPLETELY BACK FILLED IN ACCORDANCE WITH THE GOVERNING JURISDICTIONAL AGENCY'S SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
- UNDERGROUND LINES SHALL BE SURVEYED BY A STATE OF FLORIDA PROFESSIONAL LAND SURVEYOR BEFORE BACK FILLING. SEE SPECIFICATION FOR ADDITIONAL REQUIREMENTS.
- ALL WATER MAIN CONSTRUCTED ON THIS PROJECT SHALL BE RESTRAINED PER VILLAGE OF TEQUESTA STANDARD DETAILS.
- CONTRACTOR SHALL PERFORM, AT HIS OWN EXPENSE, ANY AND ALL TESTS REQUIRED BY THE SPECIFICATIONS AND/OR AGENCY HAVING JURISDICTION. THESE TESTS MAY INCLUDE, BUT MY NOT BE LIMITED TO, PRESSURE AND BACTERIOLOGICAL TESTING FOR POTABLE WATER SYSTEMS. A COPY OF THE TEST RESULTS SHALL BE PROVIDED TO THE UTILITY PROVIDER, OWNER AND JURISDICTIONAL AGENCY AS REQUIRED.
- ALL VALVE BOXES, MANHOLE FRAMES AND COVERS ARE TO BE FLUSH WITH PROPOSED FINISHED GRADES OR WALKS, PAVEMENTS, SWALES, ETC. THEY SHALL HAVE CONCRETE PADS POURED IN UNPAVED AREAS, IN ACCORDANCE WITH VALVE, AIR RELEASE & MANHOLE SETTING DETAILS.
- PRESSURE AND LEAKAGE TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE ENGINEER OR AN APPOINTED REPRESENTATIVE. THE CONTRACTOR WILL PROVIDE ALL NECESSARY APPARATUS INCLUDING A PUMP, MEASURING DEVICE, PIPING CONNECTIONS, FITTINGS AND THE NECESSARY LABOR TO CONDUCT THE TEST. THE TEST SHALL BE A MINIMUM 2 HOUR DURATION. DURING THE TEST, THE PIPE BEING TESTED SHALL BE MAINTAINED AT A PRESSURE OF NOT LESS THAN 150 PSI FOR WATER MAINS. THERE SHALL NOT BE A LOSS OR GAIN OF MORE THAN 5 PSI DURING THE TEST. LEAKAGE IS DEFINED AS THE QUANTITY OF WATER ADDED TO THE PIPE AFTER THE TESTING PERIOD. NO PIPE INSTALLATION WILL BE ACCEPTED IF THE LEAKAGE EXCEEDS THE QUANTITIES SPECIFIED IN AWWA C-605 OR C-600 AS APPROPRIATE. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE PROPOSED TESTING PATTERN TO FOLLOW. THIS SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER TO THE VILLAGE PRIOR TO TESTING. UNLESS APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL NOT TEST MORE THAN 1,500 FT OF THE PIPE IN A SINGLE TEST, AND ALL SERVICES MUST BE INSTALLED.
- TAPS SHALL NOT BE MADE CLOSER THAN 8" OR TWICE THE PIPE DIAMETER, WHICHEVER IS GREATER.
- ALL LINES SHALL BE BACTERIOLOGICALLY EVALUATED IN ACCORDANCE WITH RULE 62.555 340 FAC.

EROSION CONTROL NOTES

- CONTRACTOR SHALL PREPARE AND SUBMIT A NOTICE OF INTENT TO USE THE APPLICABLE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT PRIOR TO THE START OF WORK. THE CONTRACTOR SHALL PREPARE AN EROSION CONTROL PLAN AS NOTED HERE AND IN THE PROJECT SPECIFICATIONS.
- ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF FLORIDA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
- THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMPs) AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO THE OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
- BEST MANAGEMENT PRACTICES AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY THE PERMITTING AGENCY OR OWNER.
- EROSION CONTROL PLAN MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
- THE CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
- SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ON SITE AND TRACKING OF SOIL. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
- RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
- ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
- ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED AS SOON AS POSSIBLE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.

EROSION CONTROL MAINTENANCE

ALL MEASURES STATED IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

- INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
- SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
- OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 55 CUBIC YARDS / ACRE.

PIPE COLOR CODING REQUIREMENTS:

ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(B)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL BLUE, WILL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE WILL HAVE BLUE STRIPED APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPED THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.) [FAC 62-555.320(21)(B)3]

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KHA PROJECT
040097046

DATE
OCT. 2023

SCALE AS SHOWN

DESIGNED BY SS

DRAWN BY SS

CHECKED BY TCJ

COUNTY LINE ROAD WATERMAIN
AND RAW WATERMAIN RELOCATION

PREPARED FOR
VILLAGE OF TEQUESTA

VILLAGE OF TEQUESTA, FLORIDA

LICENSED PROFESSIONAL

THOMAS C. JENSEN

FLORIDA LICENSE NUMBER
37290

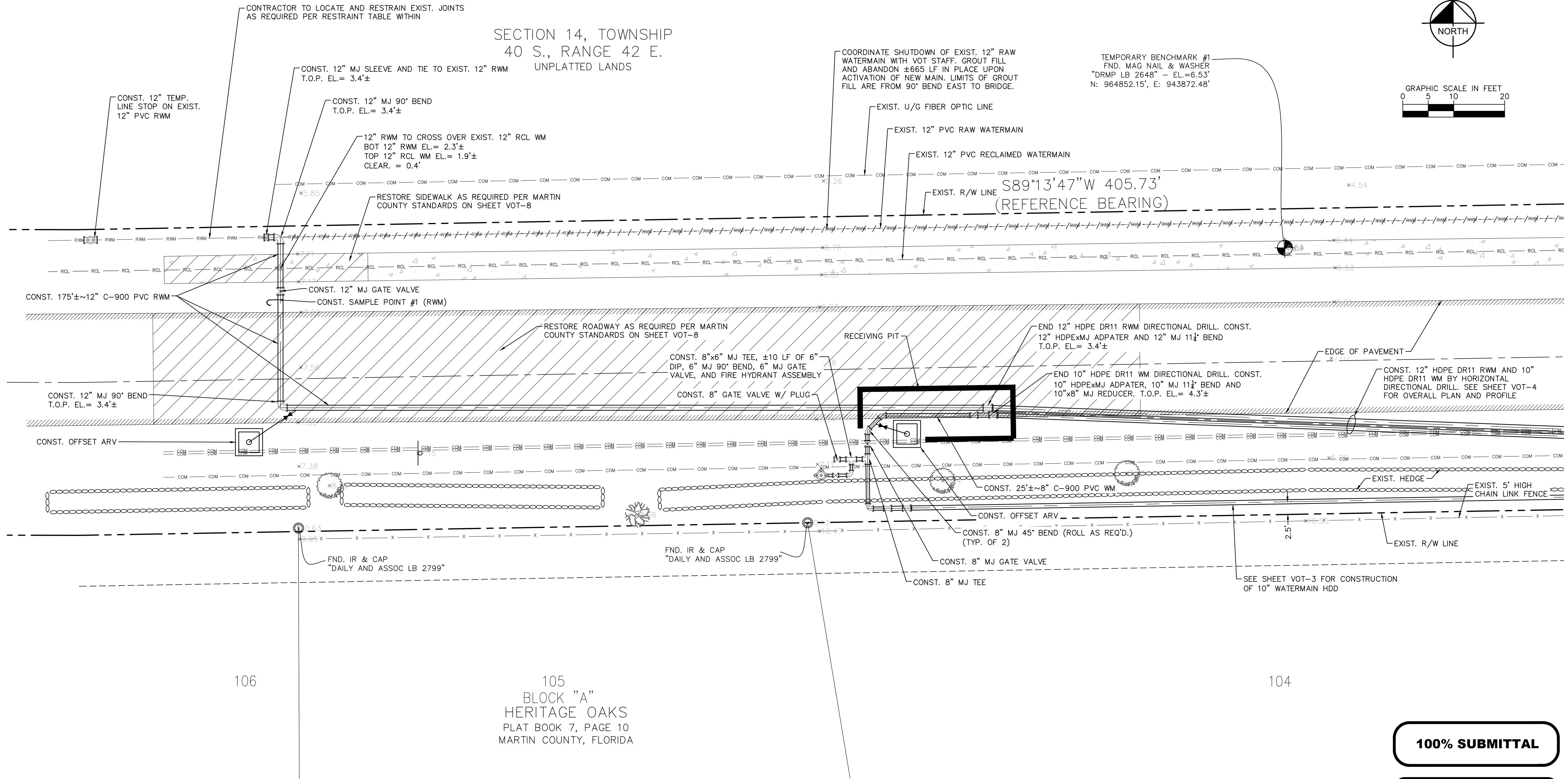
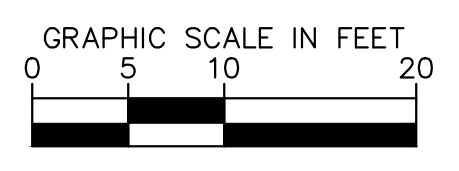
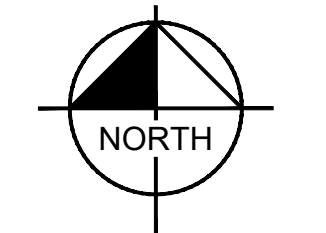
GENERAL NOTES

VOT-1

SHEET NUMBER
VOT-1

Plotted By: Muechechete, Mark. Sheet Set: COUNTY LINE RD WM AND RAW WATERMAIN RELOCATION PLAN, November 07, 2024, 03:47:27pm. K:\WEB\Civil\040097046-County Line Rd WM and RAW WATERMAIN RELOCATION PLAN\Drawings\01-2 WATERMAIN AND RAW WATERMAIN RELOCATION PLAN\01-2 WATERMAIN AND RAW WATERMAIN RELOCATION PLAN.dwg. This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of any information on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

SECTION 14, TOWNSHIP
40 S., RANGE 42 E.
UNPLATTED LANDS



106

105
BLOCK "A"
HERITAGE OAKS
PLAT BOOK 7, PAGE 10
MARTIN COUNTY, FLORIDA

104

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COUNTY LINE ROAD WATERMAIN AND RAW WATERMAIN RELOCATION

PREPARED FOR
VILLAGE OF TEQUESTA

VILLAGE OF TEQUESTA, FLORIDA

LICENSED PROFESSIONAL

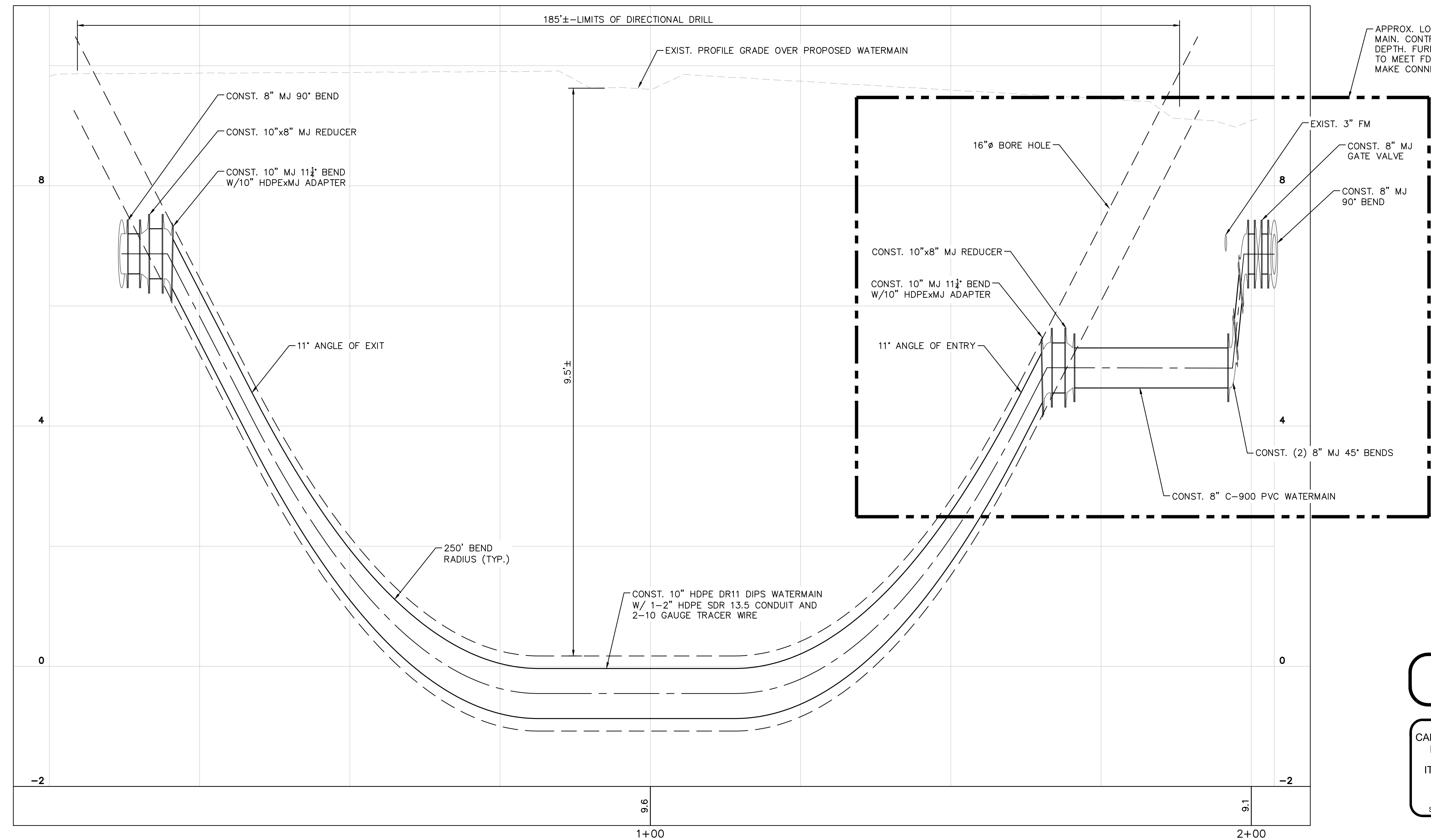
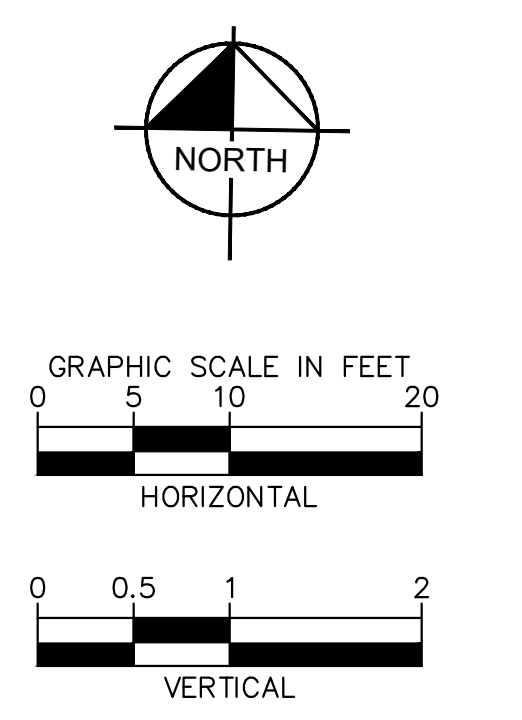
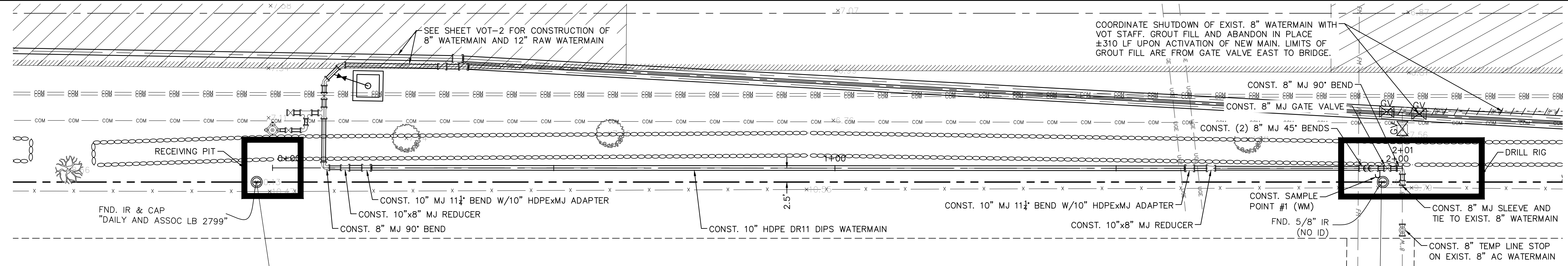
THOMAS C. JENSEN

FLORIDA LICENSE NUMBER
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WATERMAIN AND RAW WATERMAIN RELOCATION PLAN

SHEET NUMBER
VOT-2

Plotted By: Muechebeter, Mark
 Sheet Set: COUNTY LINE RD WM AND RWM Layout: VOT-3 WATERMAIN RELOCATION PLAN AND PROFILE - November, 11, 2024, 08:42:11am
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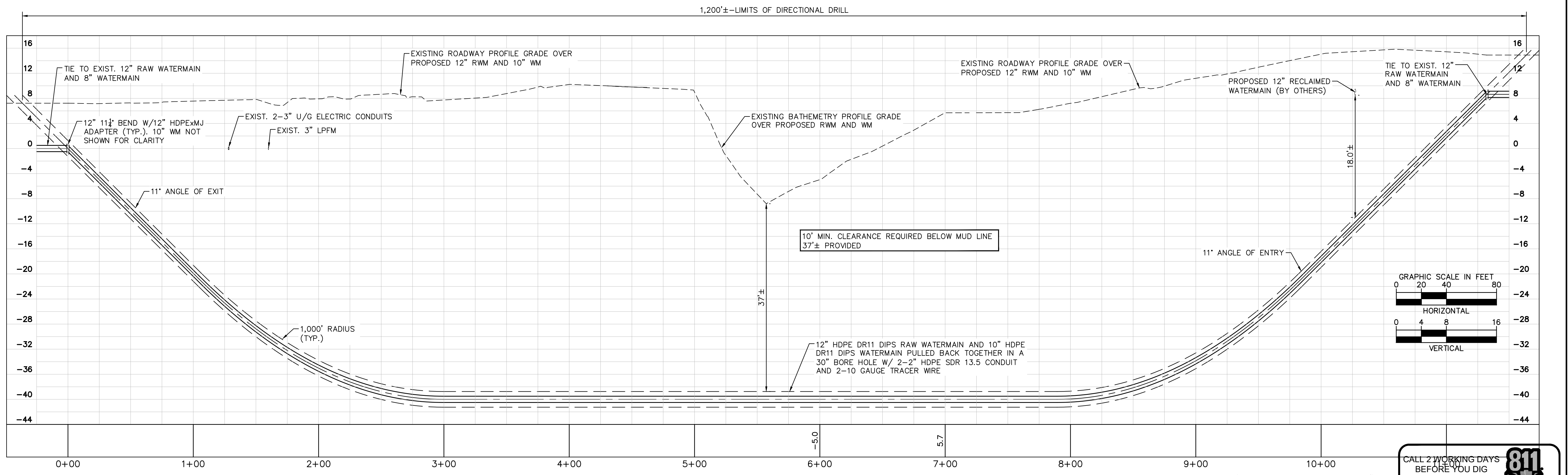
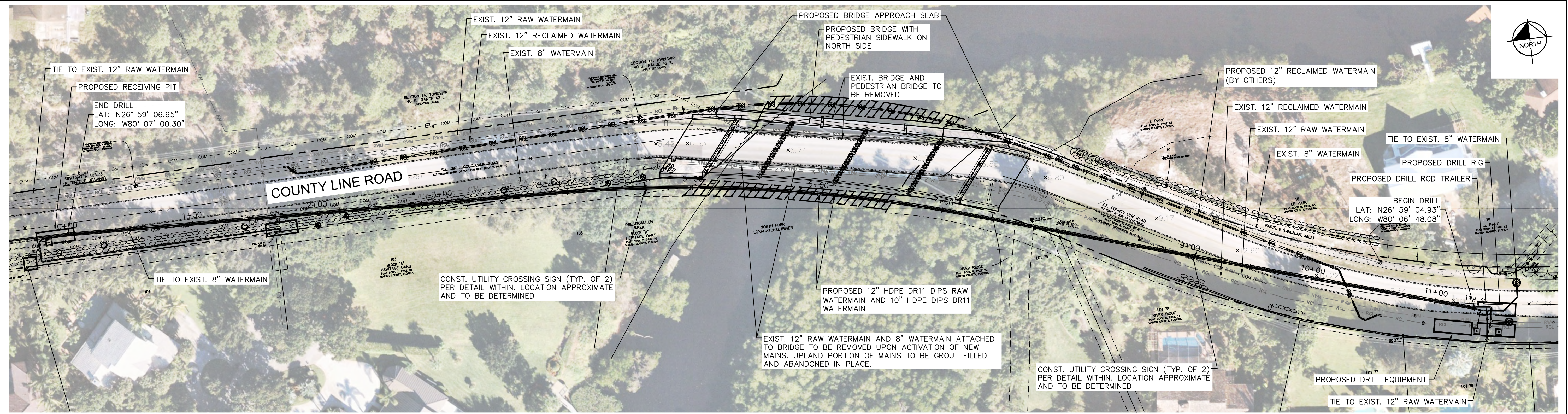
COUNTY LINE ROAD WATERMAIN AND RAW WATERMAIN RELOCATION
 PREPARED FOR
VILLAGE OF TEQUESTA
 VILLAGE OF TEQUESTA, FLORIDA

LICENSED PROFESSIONAL	THOMAS C. JENSEN
FLORIDA LICENSE NUMBER	37290

WATERMAIN RELOCATION PLAN AND PROFILE

SHEET NUMBER
VOT-3

Plotted By: Muechebeter, Mark. Sheet: COUNTY LINE RD WM AND RWM Layout: VOT-4 OVERALL DIRECTIONAL DRILL PLAN AND PROFILE. November 11, 2024. 08:38:04am. K:\WPB_Civil\040097046-County Line Rd WM and RWM\CADD\PlanSheets\VOT-4 OVERALL DIRECTIONAL DRILL PLAN AND PROFILE. This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of any improper reference on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



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COUNTY LINE ROAD WATERMAIN AND RAW WATERMAIN RELOCATION

PREPARED FOR
VILLAGE OF TEQUESTA

VILLAGE OF TEQUESTA, FLORIDA

LICENSED PROFESSIONAL

THOMAS C. JENSEN

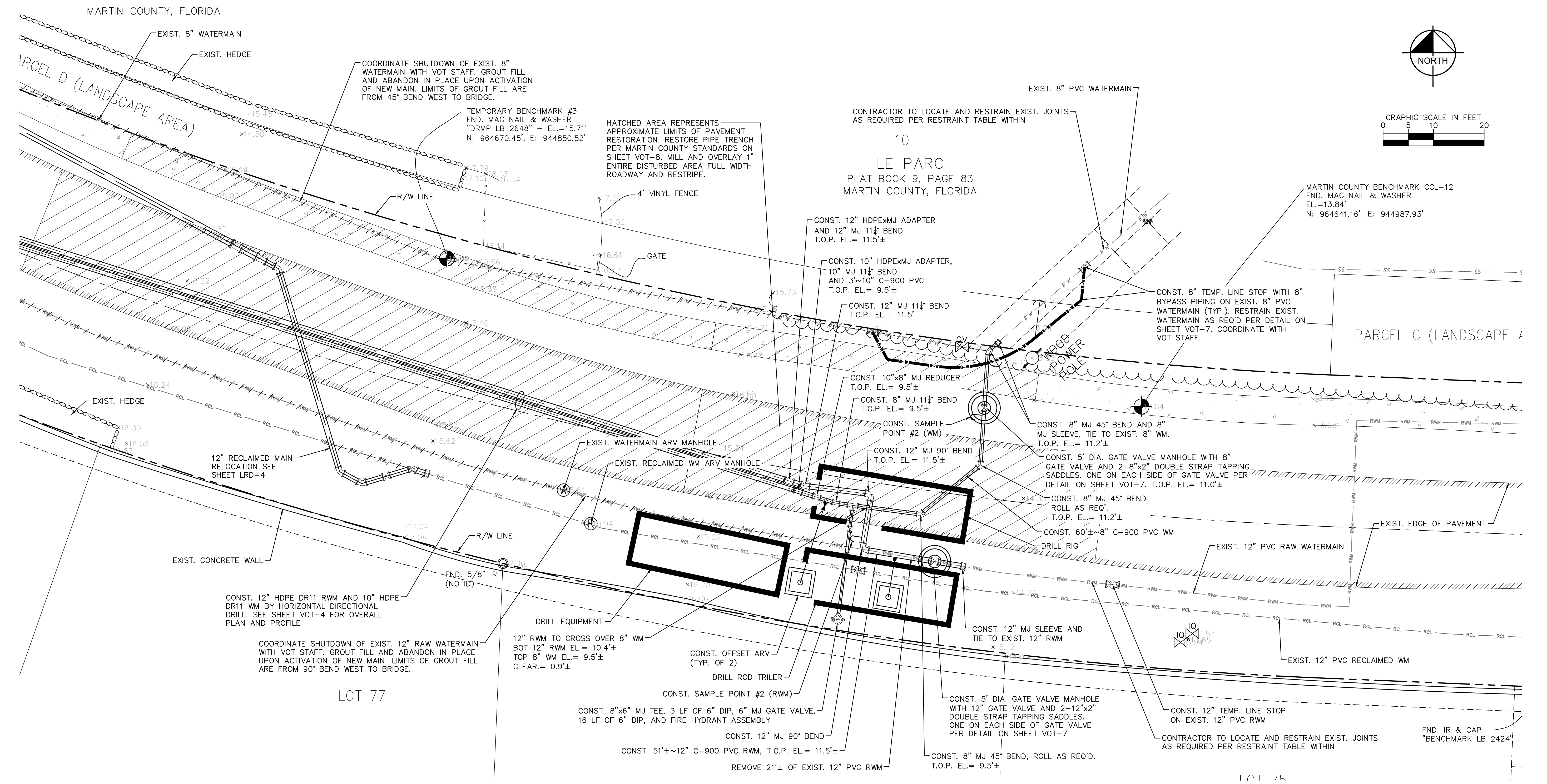
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OVERALL DIRECTIONAL DRILL PLAN AND PROFILE

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VOT-4

Plotted By: Muechechete, Mark. Sheet: Set: COUNTY LINE RD WM AND RWM. Layout: VOT-5. WATERMAIN AND RAW WATERMAIN RELOCATION PLAN. November 07, 2024. 03:48:01pm. K:\WPB\Civil\040097046-County Line Rd WM and RWM\CADD\PlanSheets\VOT-2 WATERMAIN AND RAW WATERMAIN RELOCATION PLAN. This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of any information on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



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KHA PROJECT	040097046
DATE	OCT. 2023
SCALE	AS SHOWN
DESIGNED BY	SS
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COUNTY LINE ROAD WATERMAIN AND RAW WATERMAIN RELOCATION

PREPARED FOR
VILLAGE OF TEQUESTA

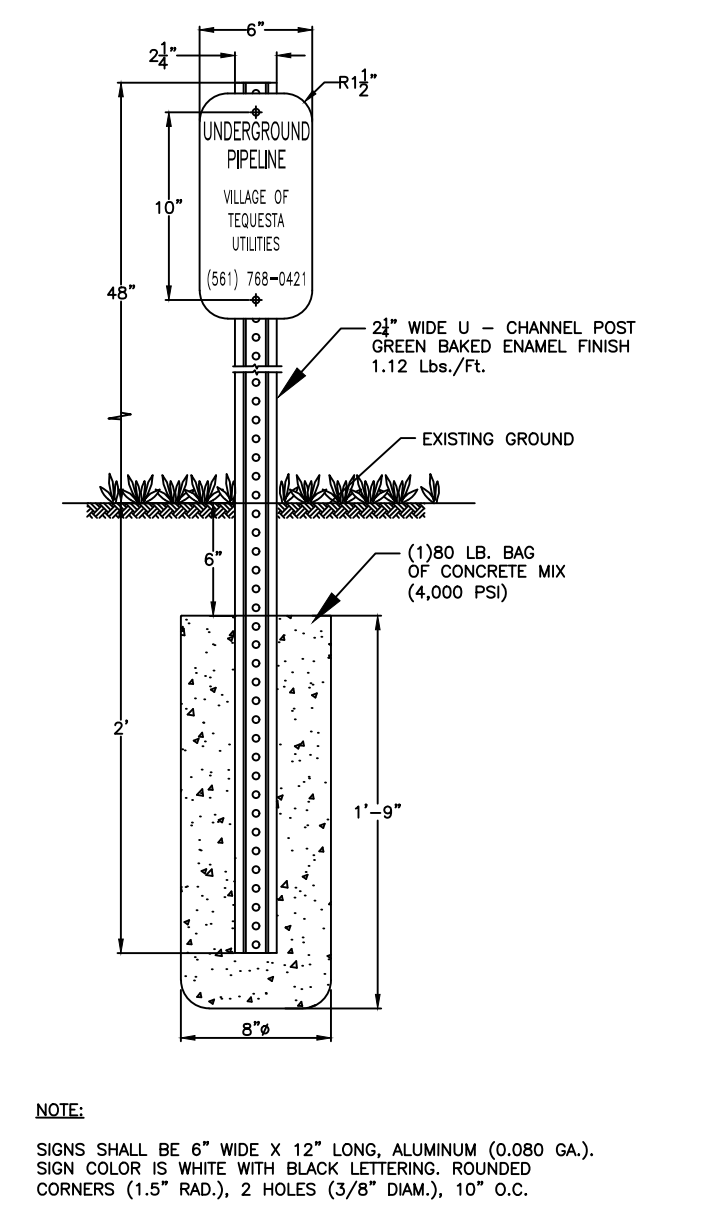
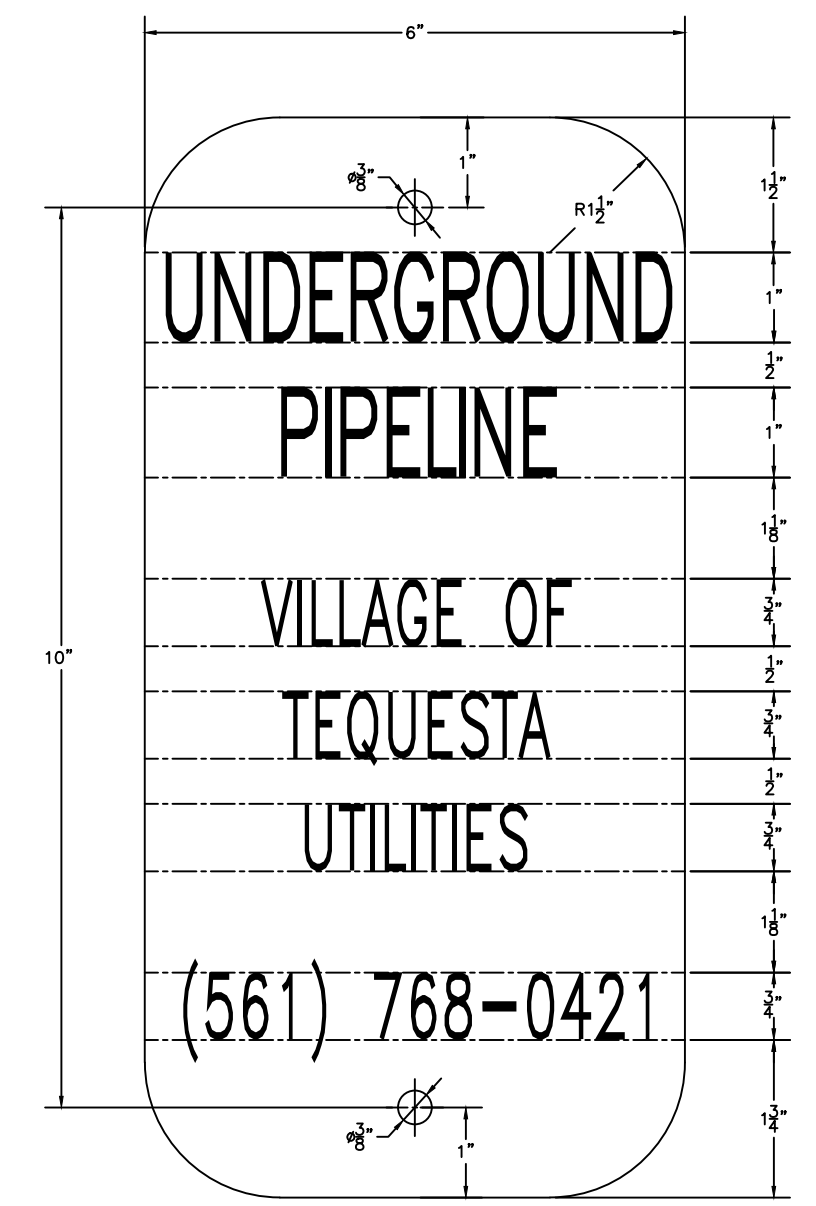
VILLAGE OF TEQUESTA, FLORIDA

LICENSED PROFESSIONAL	THOMAS C. JENSEN
FLORIDA LICENSE NUMBER	37290

WATERMAIN AND RAW WATERMAIN RELOCATION PLAN

SHEET NUMBER
VOT-5

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VOT CONSTRUCTION STANDARDS & DETAILS

TYPICAL TRENCH DETAIL D1

NOTES:

1. BEDDING MATERIAL SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LIMEROCK 3/8"-7/8" SIZING. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGER ROCKS SHALL BE REMOVED BY THE CONTRACTOR.
2. THE PIPE SHALL BE FULLY SUPPORTED FOR ITS ENTIRE LENGTH WITH APPROPRIATE COMPACTION UNDER THE PIPE HAUNCHES.
3. THE PIPE SHALL BE PLACED IN A DRY TRENCH. THE CONTRACTOR SHALL CONTINUE DEWATERING OPERATIONS UNTIL BACKFILL HAS PROCEEDED TO A SUFFICIENT HEIGHT (ABOVE THE WATER TABLE) TO PREVENT GROUNDWATER FROM ENTERING THE EXCAVATION, WATER TO BE DISPOSED OF SHELL BE DONE IN A MANNER APPROVED BY THE VILLAGE AND CONSISTENT WITH ALL APPLICABLE REGULATORY AGENCIES. UNLESS A WET TRENCH INSTALLATION IS APPROVED BY THE VILLAGE.
4. BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGER ROCK, MUCK AND DEBRIS. BACKFILL SHALL BE PLACED IN 6" LAYERS. ONLY HARD OPERATED MECHANICAL COMPACTION EQUIPMENT SHALL BE USED WITHIN 6" OF THE INSTALLED.
5. DENSITY TEST ARE REQUIRED IN ONE (1) FOOT LIFTS ABOVE PIPE AT INTERVALS OF 400 FT. MAXIMUM, OR AS DIRECTED BY VOT.
6. THE APPLICANT / CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH ALL APPLICABLE TRENCH-SAFETY LAWS AND REGULATIONS.
7. THE AFFECTED AREA SHALL BE RESTORED TO EQUAL OR BETTER CONDITION OR AS SPECIFIED IN PERMIT / CONTRACT DOCUMENTS.
8. MINIMUM COMPACTION CRITERIA SHALL BE NOTED HEREIN OR PER THE PIPE MANUFACTURERS RECOMMENDATIONS, WHICHEVER IS MORE STRINGENT.
9. COMPACT TO 100% UNDER EXISTING AND PROPOSED ROADS. COMPACT TO 85% ON ALL OTHER AREAS UNLESS NOTED ELSEWHERE.
10. MINIMUM COVER UNDER ASPHALT AND STATE ROADS SHALL BE 36-INCHES. MAXIMUM COVER SHALL BE 48-INCHES UNLESS APPROVED BY THE VILLAGE.

VOT CONSTRUCTION STANDARDS & DETAILS

SHELLROCK ROAD / DRIVEWAY REPLACEMENT DETAIL D3

NOTE:

1. ROCK BASE SHALL BE 100 LBR, COMPACTED TO 98% AASHTO T-180.
2. SUBBASE SHALL BE 40 LBR, COMPACTED TO 98% AASHTO T-180.

VOT CONSTRUCTION STANDARDS & DETAILS

WATERMAIN - SANITARY SEWER CONFLICT DETAIL D5

OTHER PIPE:

- 1. RECLAIMED WATER REGULATED UNDER PART III 62-610 FAC
- 2. RECLAIMED WATER NOT REGULATED UNDER PART III 62-610 FAC
- 3. MINIMUM SEPARATIONS WITH DUCTILE IRON PIPE ONLY.
- 4. WATER MAIN SHOULD CROSS ABOVE OTHER PIPE WHEN WATER MAIN IS 18" OR LARGER.
- 5. SANITARY SEWER SHOULD CROSS BELOW OTHER PIPE WHEN SEWER IS 18" OR LARGER.

VOT CONSTRUCTION STANDARDS & DETAILS

PRESSURE PIPE CONFLICT DETAIL D6

NOTES:

1. THESE METHODS ARE TO BE USED WHEN INSUFFICIENT COVER EXISTS TO ALLOW PRESSURE PIPE TO CROSS ABOVE CONFLICT PIPE WITH 6" VERTICAL SEPARATION AND MAINTAIN 30" COVER TO FINISHED GRADE.
2. FITTINGS SHALL BE RESTRAINED WITH MECHANICAL RESTRAINTS.
3. THE DEFLECTION TYPE CROSSING IS PREFERRED.
4. DO NOT EXCEED 75% OF MANUFACTURERS RECOMMENDED MAXIMUM JOINT DEFLECTION.
5. MECHANICALLY RESTRAIN ALL FITTINGS, AS PER MANUFACTURERS RECOMMENDATION.
6. 36" MIN IN STATE ROAD R/W AND UNDER ASPHALT, 30" MIN. COVER IN ALL OTHER AREAS.

VOT CONSTRUCTION STANDARDS & DETAILS

CONFLICT MANHOLE DETAIL D7

FITTING TYPE	MIN. LENGTH OF PIPE (FEET) TO BE RESTRAINED															
	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	60"	72"
HORIZ. 90° BEND	18	25	33	39	46	52	58	63	68	74	80	84	87	91	94	97
HORIZ. 45° BEND	8	11	14	16	19	22	24	26	28	31	33	35	36	38	40	41
HORIZ. 22.5° BEND	4	5	7	8	9	11	12	13	14	16	18	19	20	22	24	25
HORIZ. 11.25° BEND	2	3	4	4	5	6	7	7	8	10	11	12	12	15	16	16
90° VERT. UPPER BEND	31	44	58	69	81	92	103	114	124	145	173	209	249	291	336	381
90° VERT. LOWER BEND	18	25	33	39	46	52	58	63	68	74	80	84	87	91	94	97
OFF-SET BEND	18	25	33	39	46	52	58	63	68	74	80	84	87	91	94	97
45° VERT. UPPER BEND	13	19	24	29	34	38	43	47	52	60	72	83	93	101	110	119
45° VERT. LOWER BEND	8	11	14	16	19	22	24	26	28	31	33	35	36	38	40	41
22.5° VERT. UPPER BEND	7	9	12	14	18	19	21	23	25	29	36	43	49	55	61	67
22.5° VERT. LOWER BEND	4	5	7	8	9	11	12	13	14	16	18	19	20	22	24	25
11.25° VERT. UPPER BEND	4	5	6	7	8	10	11	12	13	15	18	20	23	26	28	29
11.25° VERT. LOWER BEND	2	3	4	4	5	6	7	7	8	10	11	12	12	15	16	16
TEE (BRANCH RESTRAINT)	22	28	33	35	-	-	-	-	-	-	-	-	-	-	-	-
TEE RUN (MIN. PIPE LENGTH ALONG TEE RUN = 5)	11	16	21	24	28	32	36	40	44	50	58	68	80	94	110	129
REDUCER (LARGER PIPE RESTRAINT)	58	42	23	-	-	-	-	-	-	-	-	-	-	-	-	-
PLUG / IN-LINE VALVE	31	44	58	69	81	92	103	114	124	145	173	209	249	291	336	381

NOTES:

1. THE DATA IN THE ABOVE TABLE ARE BASED UPON THE FOLLOWING INSTALLATION CONDITIONS:
SOIL TYPE: SAND DEPTH OF BURY: 3 FEET
TRENCH TYPE: 2 TEST PRESSURE: 150 PSI
SAFETY FACTOR: 1.5
2. THE RESTRAINED PIPE LENGTHS APPLY TO DUCTILE IRON PIPE ONLY.
3. RESTRAINED PIPE LENGTHS APPLY TO PIPE ON BOTH SIDES OF VALVES AND FITTINGS.
4. MULTIPLE PIPE LENGTH BY 1.4 FOR POLYETHYLENE ENCASED PIPE.
5. ALL JOINTS BETWEEN UPPER AND LOWER BENDS SHALL BE RESTRAINED.
6. DESIGN ENGINEER IS RESPONSIBLE TO PROPERLY SIZE THE RESTRAINT PIPE LENGTHS FOR THE PROJECT.
7. MINIMUM NUMBER OF JOINTS TO BE RESTRAINED SHALL BE MINIMUM LENGTH AS LISTED ABOVE PLUS ONE FULL LENGTH.

VOT CONSTRUCTION STANDARDS & DETAILS

TYPICAL VALVE SETTING D10

NOTES:

1. AS NOTED, ALL VALVE BOXES AND STEMS SHALL BE FULLY ADJUSTABLE. THE VALVE BOX SHALL BE AS MANUFACTURED BY TYLER OR BINGHAM TAYLOR.
2. NO VALVES SHALL BE DESIGNED OR CONSTRUCTED WITHIN CURBS, SIDEWALKS OR DRIVEWAYS.
3. VILLAGE RESERVES THE RIGHT TO REQUIRE THERMOPLASTIC LOCKING VALVE BOX COVERS ON A CASE-BY-CASE BASIS.
4. VALVE NUT EXTENSION IS REQUIRED ON THE VALVES WITH MORE THAN 36" OF COVER. EXTEND NUT TO WITHIN 18" OF VALVE BOX RIM.

VOT CONSTRUCTION STANDARDS & DETAILS

DOUBLE VALVE DETAIL D11

NOTES:

1. BOTH VALVES SHALL BE KEPT CLOSED EXCEPT FOR FILLING, FLUSHING AND BACTERIOLOGICAL TESTING PURPOSES.
2. THE CORPORATION STOP MUST BE USED FOR VENTING DURING PRESSURE/LEAKAGE TESTS.
3. VOT SHALL BE NOTIFIED BEFORE FILLING AND FLUSHING. VALVES ON EXISTING SYSTEM SHALL BE OPERATED ONLY BY VOT PERSONNEL.
4. PRESSURE TEST PUMP CONNECTS TO SERVICE LINE TAPS OR BLOWOFF. NO EXTRA TAPS ARE PERMITTED UNLESS APPROVAL HAS BEEN BY VOT.
5. FILLING AND FLUSHING LOCATIONS SHALL BE COORDINATED BY THE CONTRACTOR, ENGINEER, AND VOT.
6. VENT TO ATMOSPHERE SHALL REMAIN OPEN DURING ALL PHASES OF PRESSURE TESTING.
7. AFTER BACTERIOLOGICAL CLEARANCE, VALVE NO. 2 IS TO BE LEFT OPEN WITHOUT A VALVE BOX.

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COUNTY LINE ROAD WATERMAIN AND RAW WATERMAIN RELOCATION

PREPARED FOR
VILLAGE OF TEQUESTA

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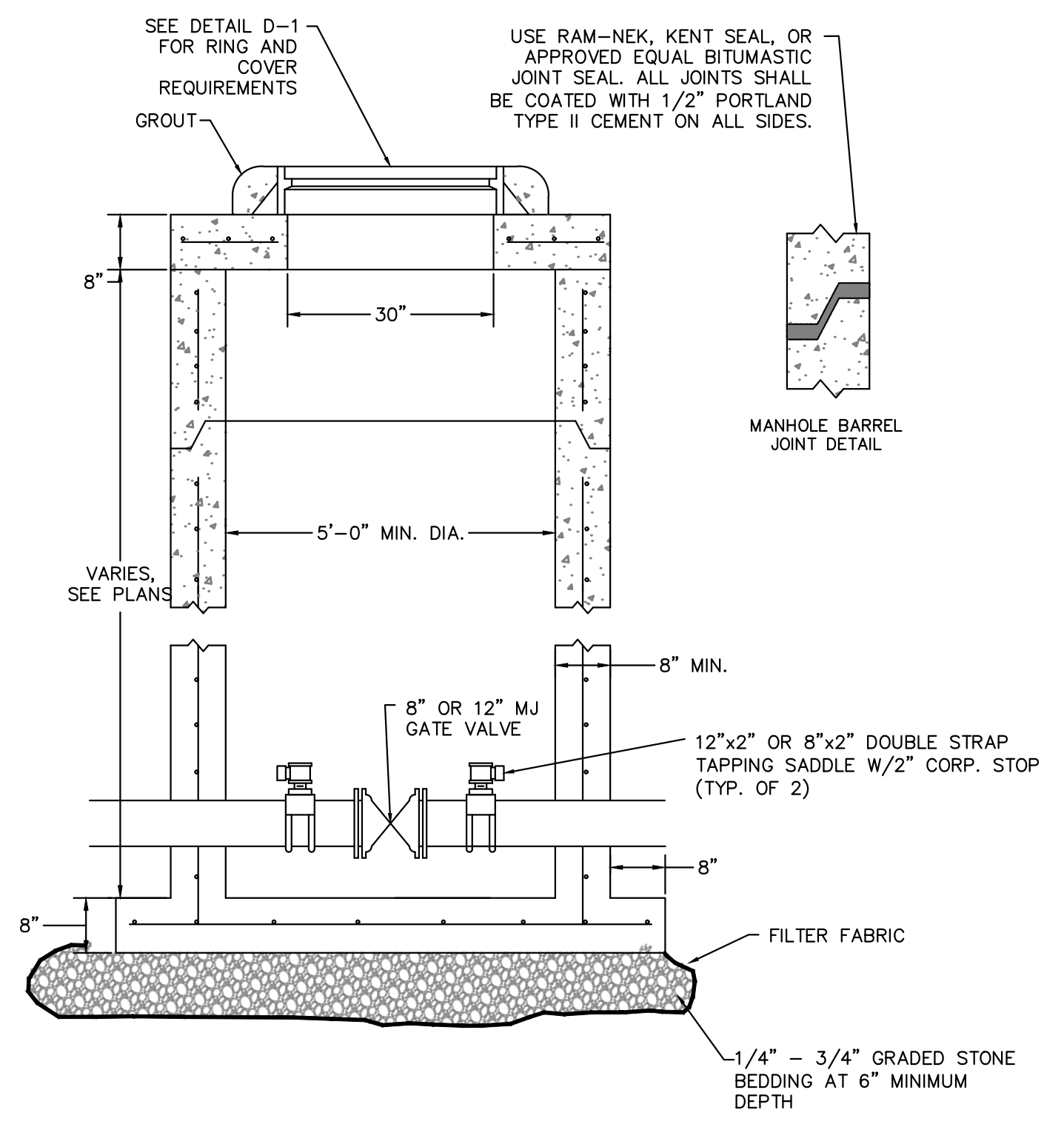
LICENSED PROFESSIONAL
THOMAS C. JENSEN
FLORIDA LICENSE NUMBER
37290

V.O.T. STANDARD DETAILS

SHEET NUMBER
VOT-6

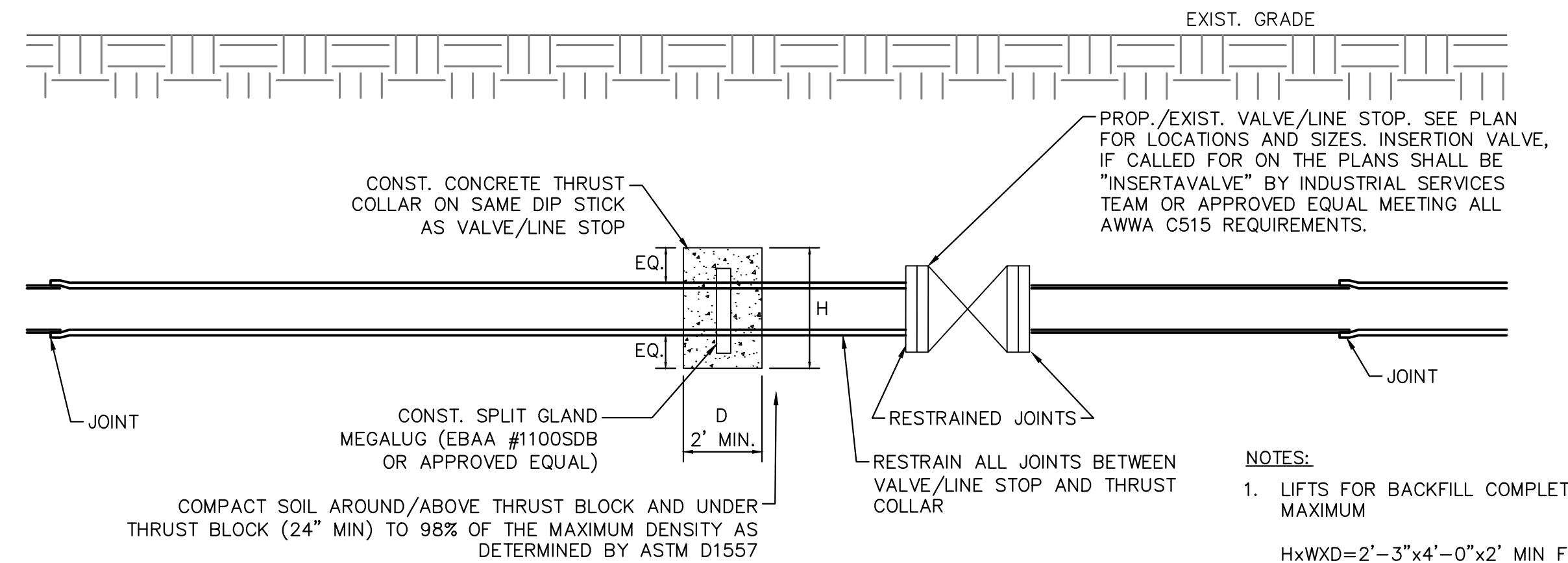
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- NOTES:**
- MANHOLES SHALL CONFORM TO ASTM C478 (F_c=4,000 PSI CONCRETE).
 - PIPE PENETRATIONS ON NEW STRUCTURES SHALL BE CAST AT A MINIMUM OF 12 INCHES ABOVE THE MANHOLE BOTTOM. OPENINGS REQUIRED ON EXISTING MANHOLES SHALL BE CORED WITH APPROVED CORING EQUIPMENT.
 - ANNULUS AREA BETWEEN PIPE AND MANHOLE SHALL BE COMPLETELY FILLED WITH CLAY BRICK AND TYPE II PORTLAND CEMENT.
 - MANHOLE BASE AND WALL SHALL BE A MINIMUM OF 8 INCHES THICK CONCRETE WITH #5 RE-BAR AT 12" O.C.E.W. BASE WALLS SHALL BE CAST WITH THE BOTTOM SLAB.
 - REFER TO FDOT SPECIFICATIONS FOR ROADWAY AND TRAFFIC DESIGN, LATEST EDITION FOR ADDITIONAL MANHOLE DESIGN INFORMATION.
 - INSTALLATION OF ALL PIPE AND STRUCTURES MUST MEET THE BEDDING AND BACKFILL REQUIREMENTS FOR NEW STRUCTURES AND PIPE ON DETAIL D-1.

MANHOLE W/TEST PORTS FOR DIRECTIONALLY DRILLED MAINS
N.T.S.



- NOTES:**
- LIFTS FOR BACKFILL COMPLETION SHALL BE 12" MAXIMUM
 $H \times W \times D = 2'-3" \times 4'-0" \times 2'$ MIN FOR 12" WM
 $H \times W \times D = 2'-2" \times 2'-0" \times 2'$ MIN FOR 6" OR 8" WM
 - THRUST COLLAR MUST HAVE 25' UNDISTURBED SOIL ON EACH SIDE AT ALL TIMES WHEN VALVE IS CLOSED.
 - THRUST COLLAR NOT REQUIRED IF LINE STOP IS LOCATED A DISTANCE FROM THE EDGE OF THE TIE-IN EXCAVATION PIT THAT IS EQUAL TO OR GREATER THAN THE RESTRAINT LENGTH INDICATED IN THE TABLE SHOWN IN DETAIL W-8 FOR A PLUG-IN-LINE VALVE.

THRUST COLLAR FOR IN LINE VALVE / LINE STOP RESTRAINT DETAIL
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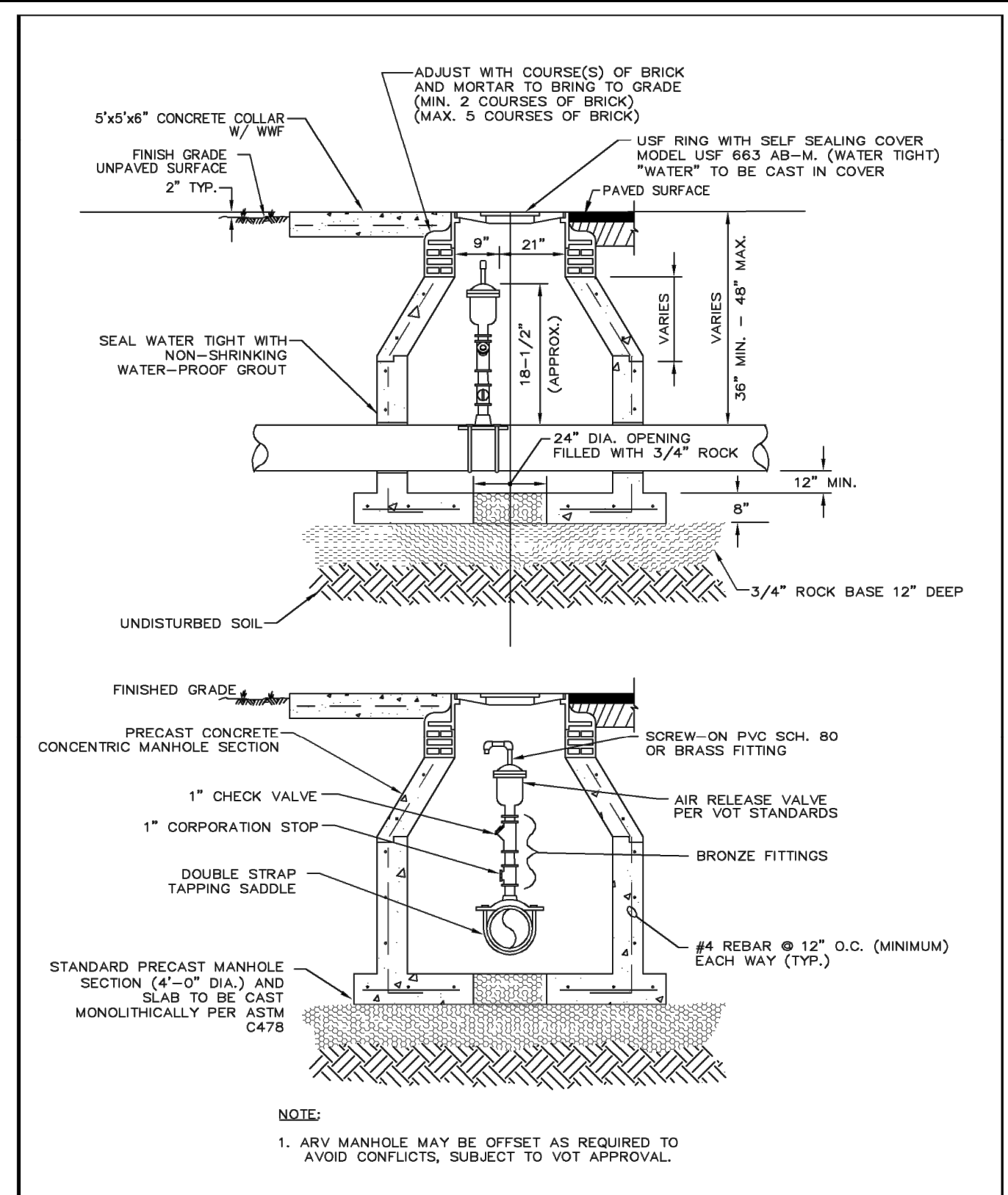
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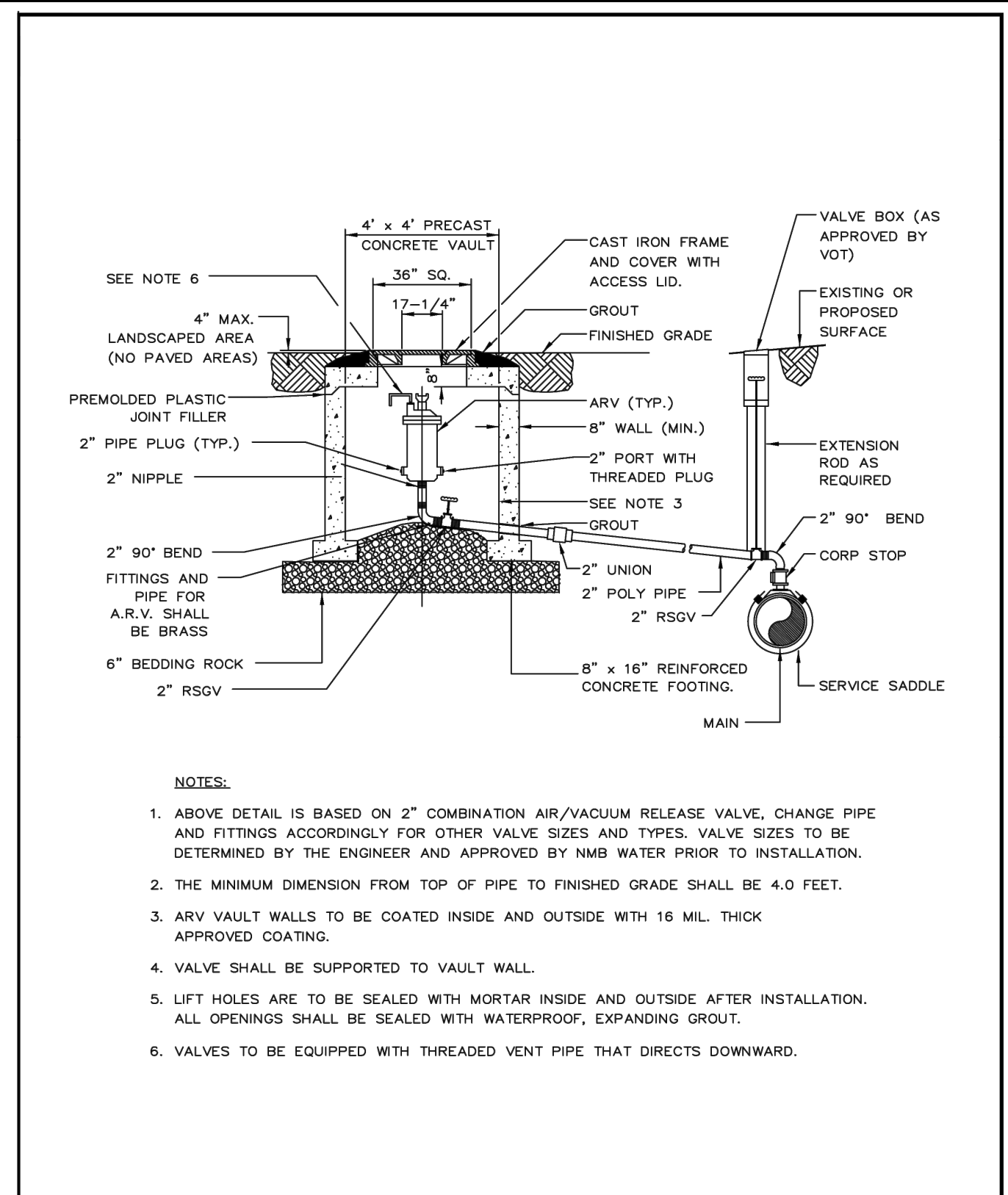
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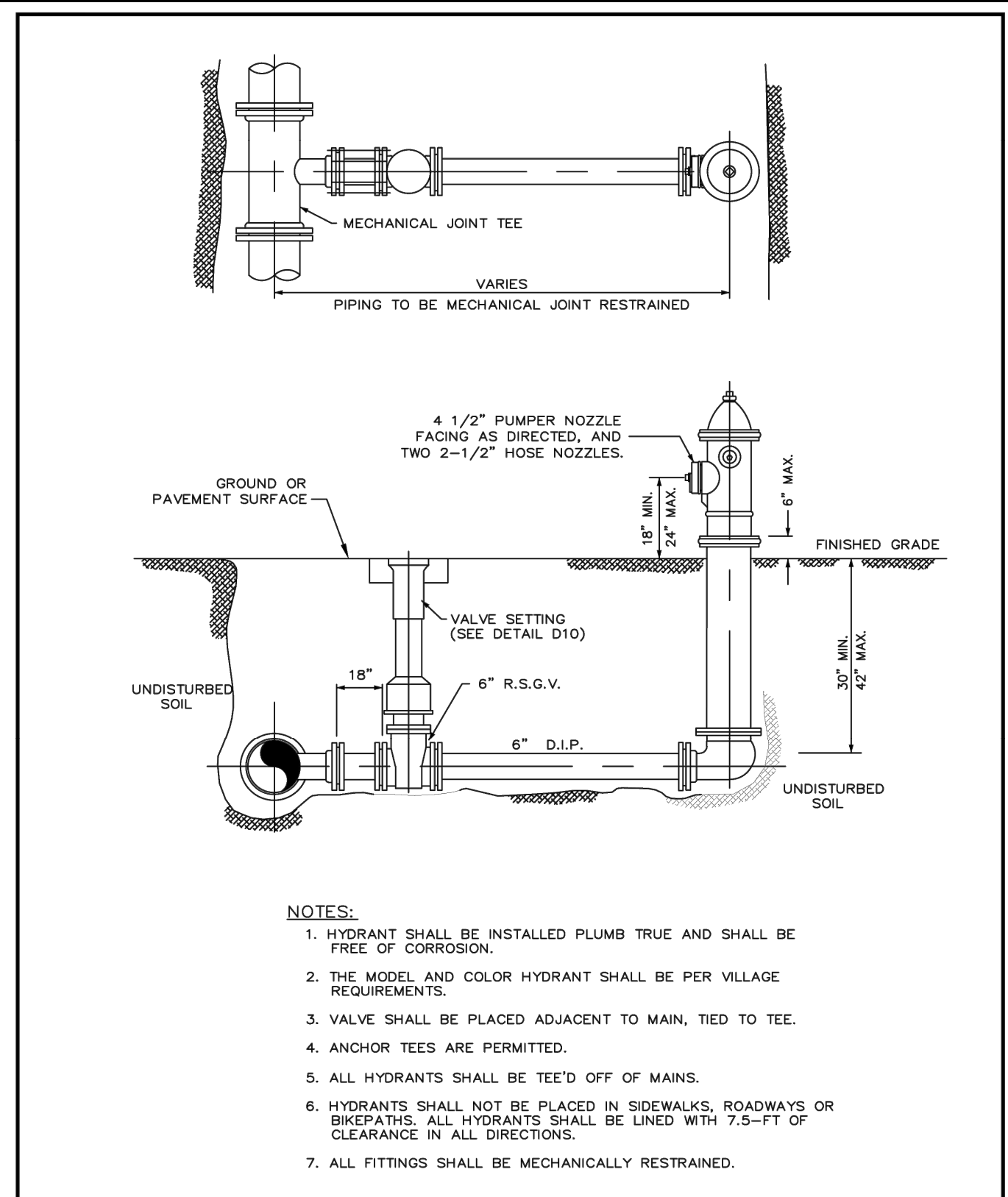
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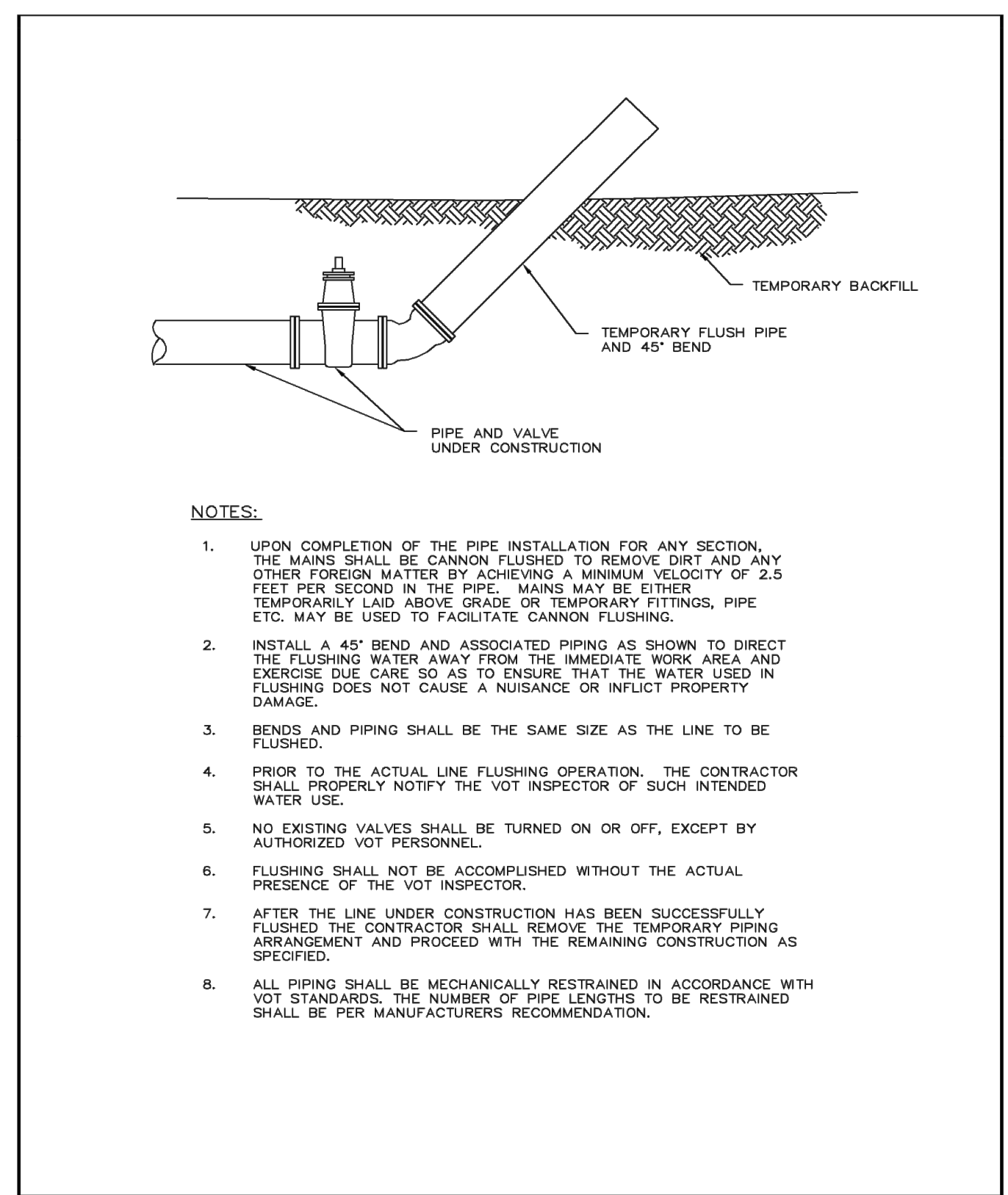
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REVISION	DESCRIPTION	PAGE No.
SEPT. 2019	AIR RELEASE VALVE (UNDERGROUND WATERMAIN)	D12



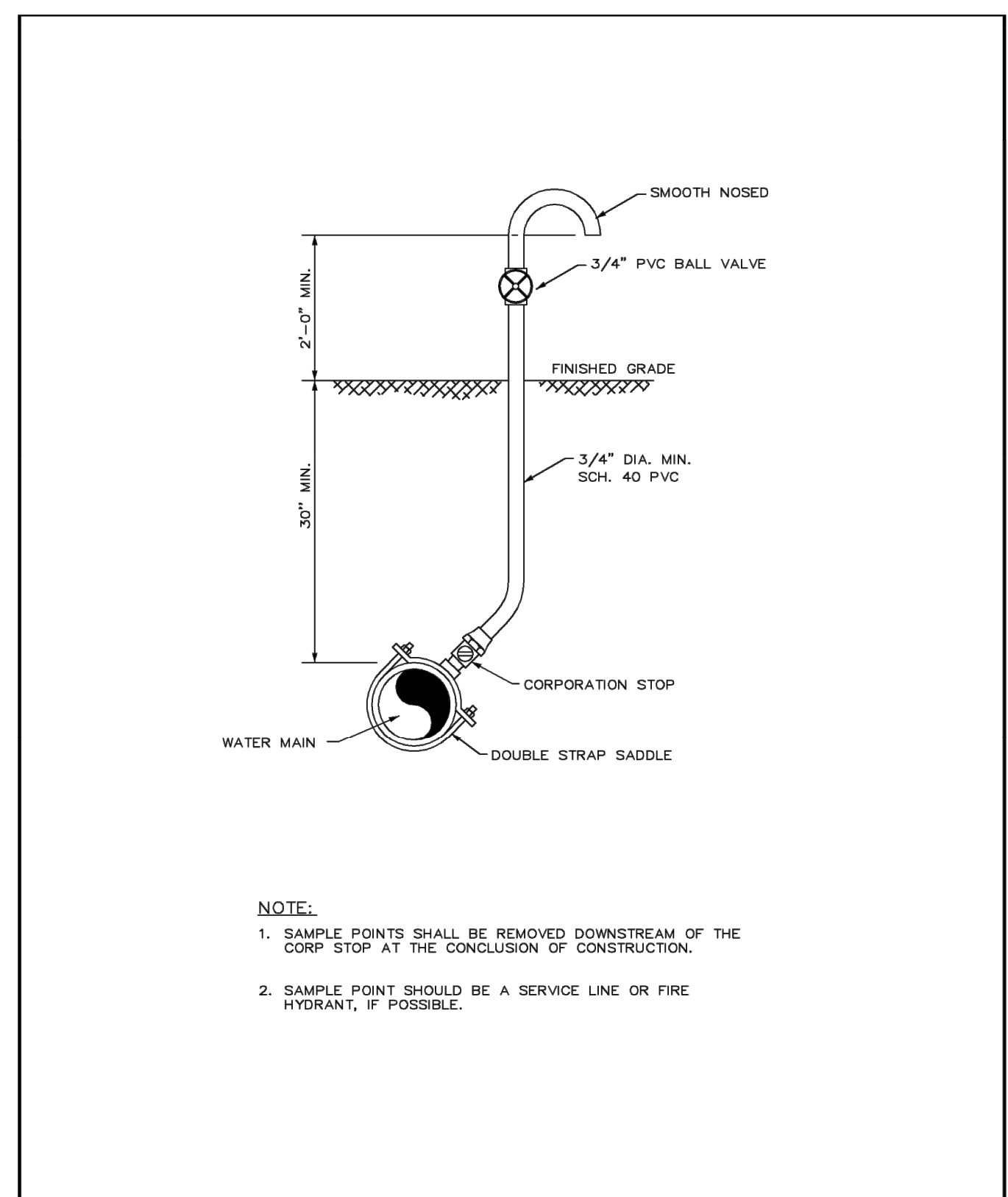
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REVISION	DESCRIPTION	PAGE No.
SEPT. 2019	OFFSET AIR RELEASE VALVE (UNDERGROUND WATERMAIN)	D13



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REVISION	DESCRIPTION	PAGE No.
SEPT. 2019	TYPICAL FIRE HYDRANT ASSEMBLY	D14



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REVISION	DESCRIPTION	PAGE No.
SEPT. 2019	CANNON FLUSHING DETAIL/PIG LAUNCH DETAIL	D25



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SEPT. 2019	SAMPLING POINT (ON MAIN)	D26

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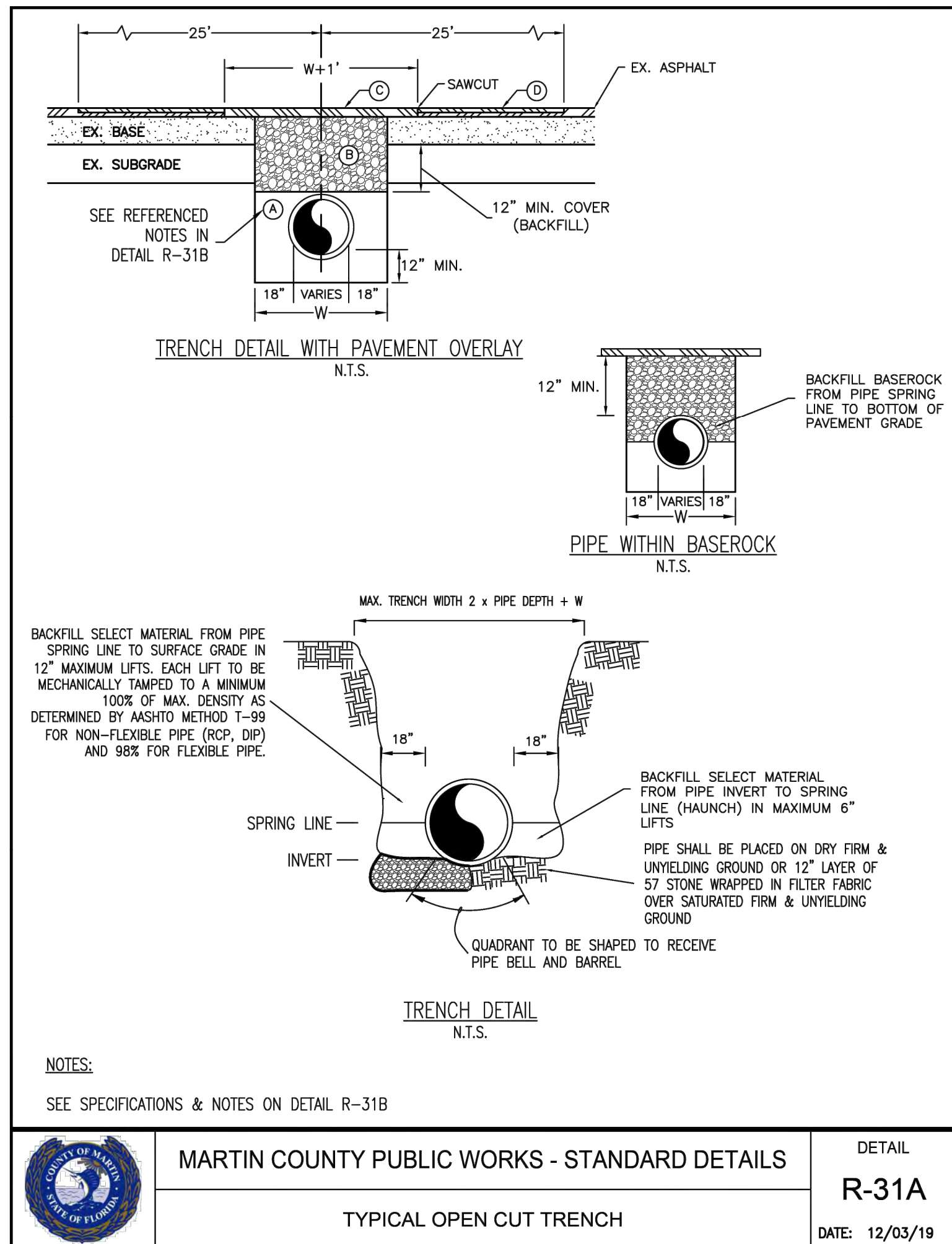
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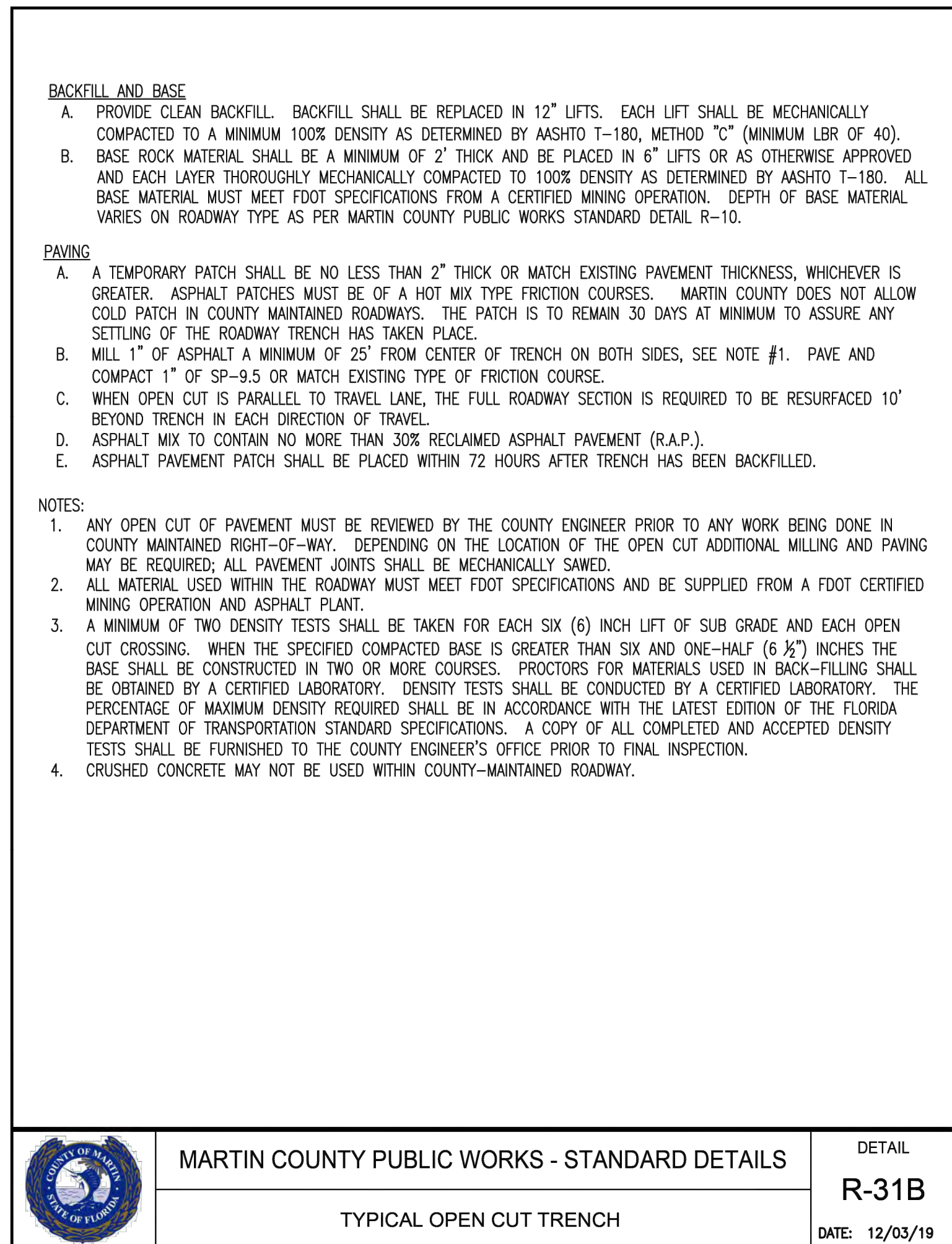
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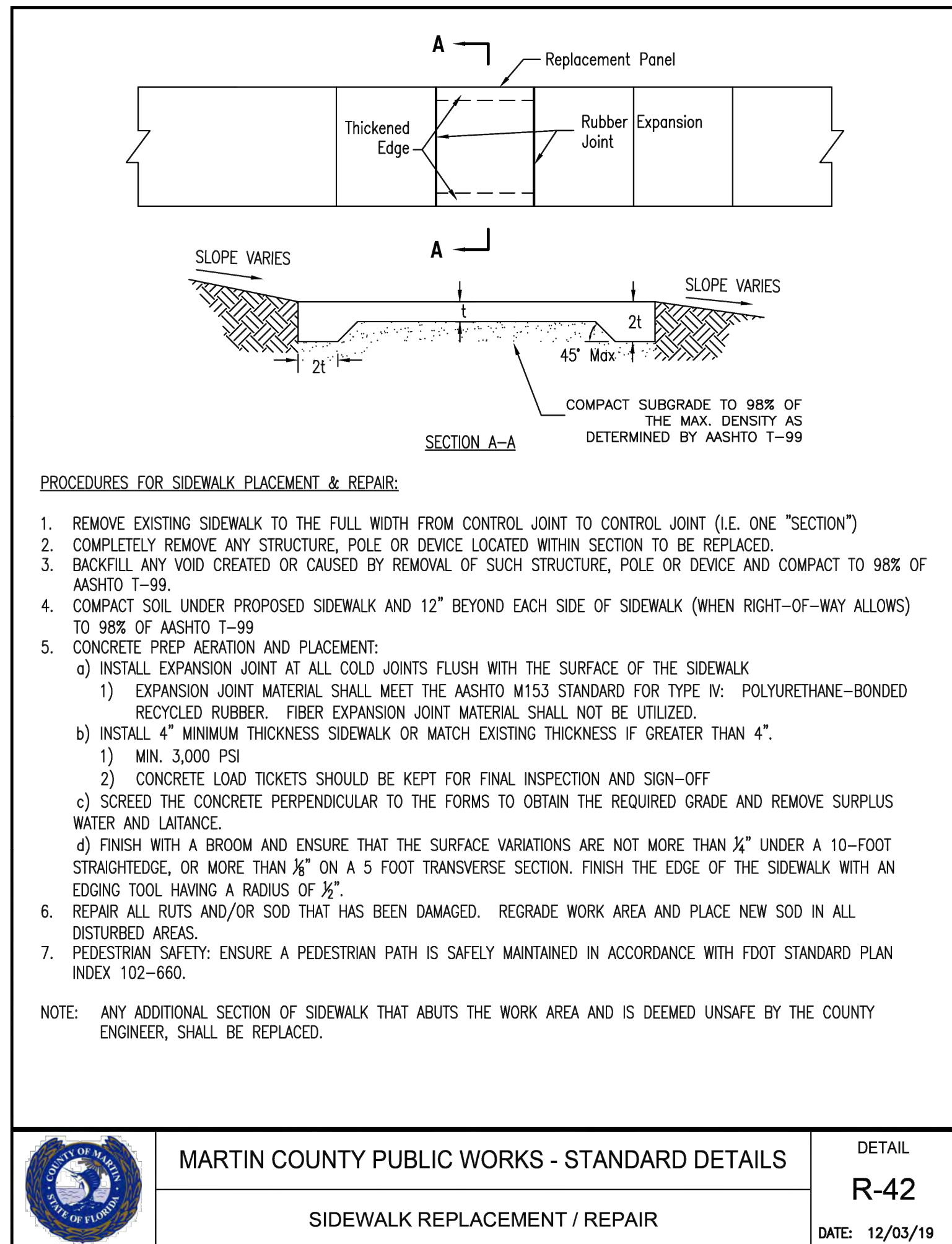
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	MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS	DETAIL
	TYPICAL OPEN CUT TRENCH	R-31A
		DATE: 12/03/19



	MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS	DETAIL
	TYPICAL OPEN CUT TRENCH	R-31B
		DATE: 12/03/19



	MARTIN COUNTY PUBLIC WORKS - STANDARD DETAILS	DETAIL
	SIDEWALK REPLACEMENT / REPAIR	R-42
		DATE: 12/03/19

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