

Plotted By: Tabow, Matt Sheet: Set: Roseland - WM Layout: G-1 COVER SHEET March 10, 2019 07:06:40pm. \\webp02\Draws\Project\WEP_G1\044572041 - Roseland Tank Conversion\CADD\plan sheets\G-1 COVER SHEET - WM.dwg
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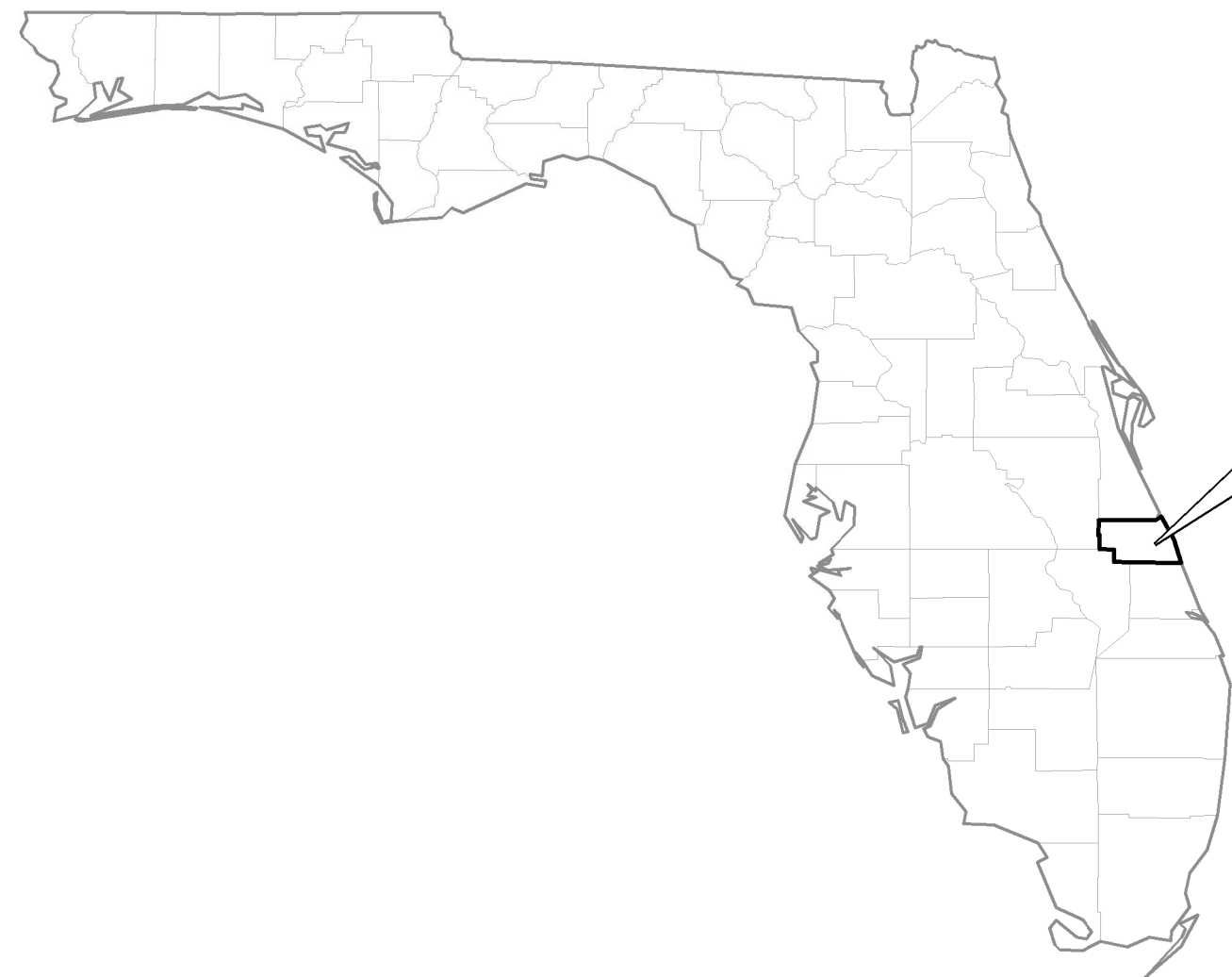


ROSELAND ELEVATED STORAGE TANK WATER TRANSMISSION MAIN PREPARED FOR INDIAN RIVER COUNTY

MARCH 2019
PROJECT NO. 044572041A
IRC BID No. 2019_____

BOARD OF COUNTY COMMISSIONERS

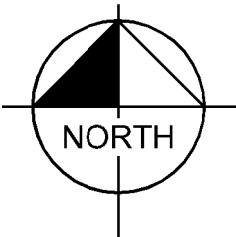
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| SUSAN ADAMS | DISTRICT 1 |
| JOSEPH E. FLESCHER | DISTRICT 2 |
| TIM ZORC | DISTRICT 3 |
| PETER D. O'BRYAN | DISTRICT 4 |
| BOB SOLARI | DISTRICT 5 |



INDIAN RIVER
COUNTY

VICINITY MAP

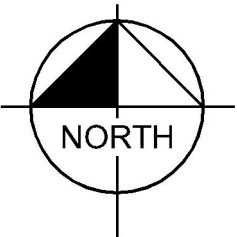
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PROJECT
LOCATION

LOCATION MAP

N.T.S.



Sheet List Table

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| KHA PROJECT 044572041 |
| DATE MAR 2019 |
| SCALE AS SHOWN |
| DESIGNED BY MT |
| DRAWN BY DJM |
| CHECKED BY MM |

ROSELAND EST WATER
TRANSMISSION MAIN
PREPARED FOR
INDIAN RIVER COUNTY

INDIAN RIVER
COUNTY

FLORIDA

LICENSED PROFESSIONAL

MARK MILLER

FLORIDA LICENSE NUMBER
45320

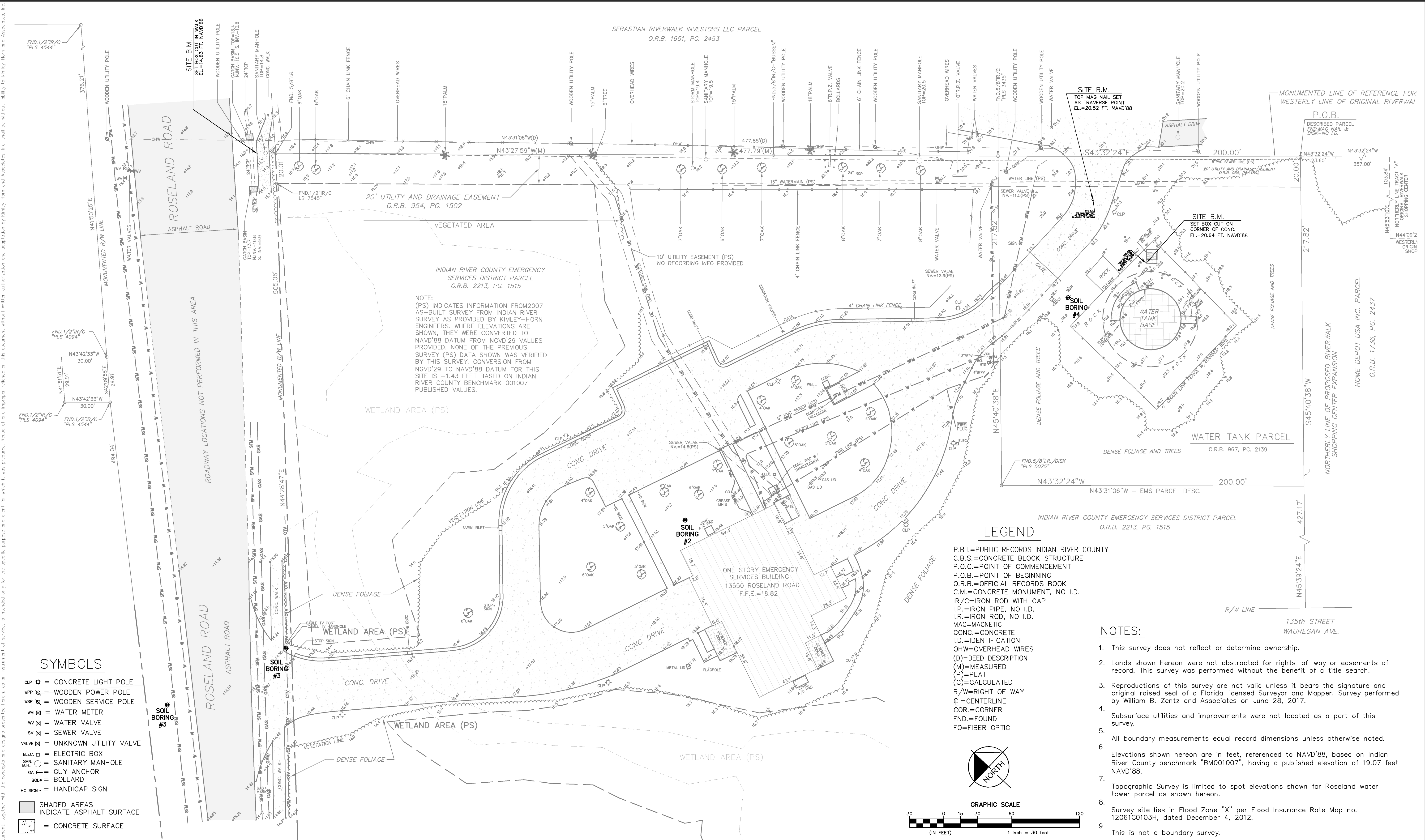
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COVER SHEET

SHEET NUMBER

G-1

Plotted By:Tabow, Matt Sheet Set:Roseland - WM Layout-C-1 EXISTING CONDITIONS March 10, 2019 07:11:23am \\wpbf002\Data\Project\WPB_Civil\044572041 - Roseland Tank Conversion\CADD\plan sheets\CIVIL SHEETS - WM.dwg
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KHA PROJECT
044572041

DATE
MAR 2019

SCALE AS SHOWN

DESIGNED BY MT

DRAWN BY DJM

CHECKED BY MM

INDIAN RIVER COUNTY

ROSELAND EST WATER TRANSMISSION MAIN

PREPARED FOR
INDIAN RIVER COUNTY

LICENSED PROFESSIONAL

MARK MILLER

FLORIDA LICENSE NUMBER
45320

EXISTING CONDITIONS

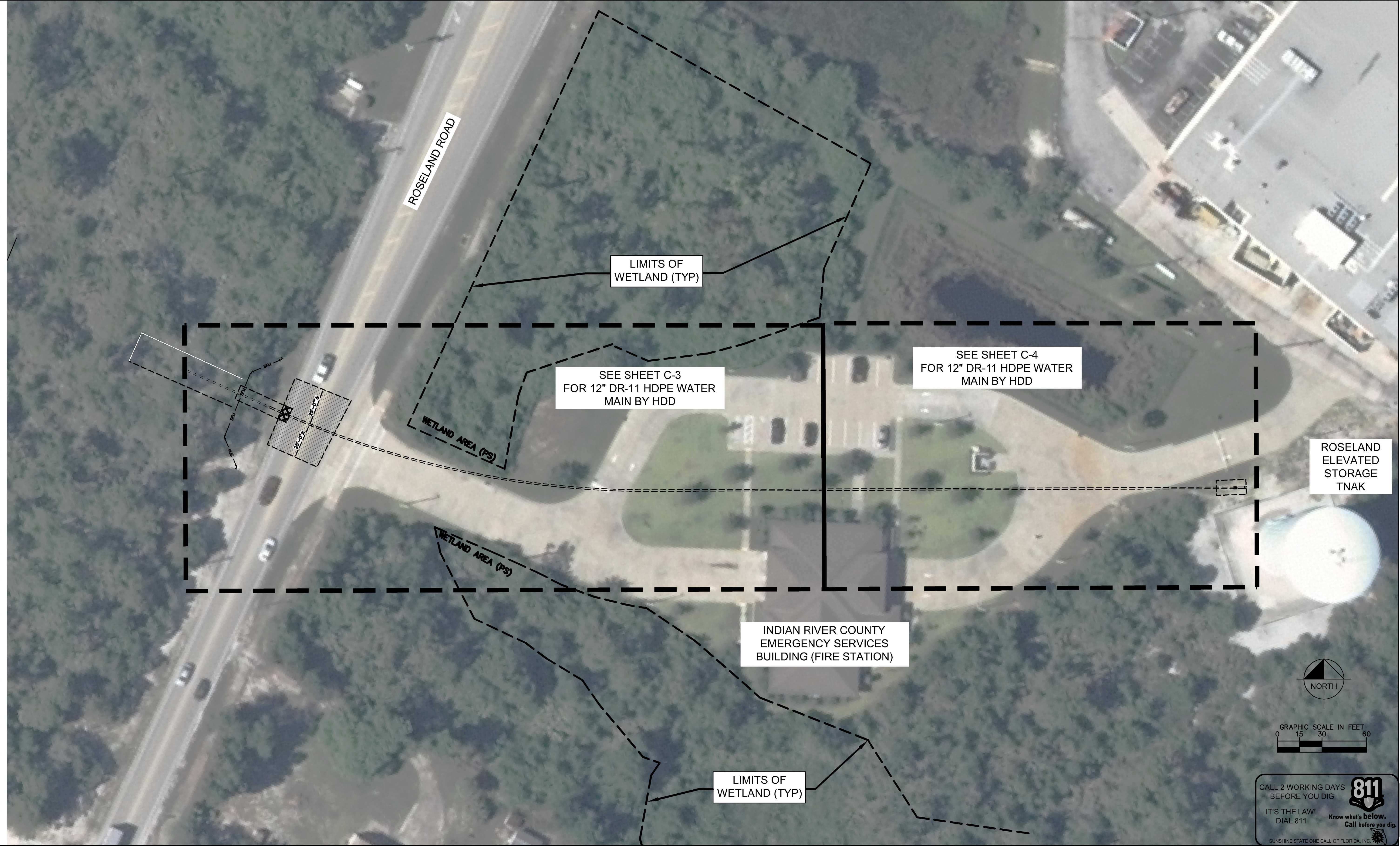
SHEET NUMBER

C-1

FLORIDA

DATE: _____

Plotted By: Tabow, Matt Sheet Set: Roseland - WM Layout: C-2 KEY MAP March 10, 2019 07:14:10am \\webp02\data\Project\WPB_Civil\044572041 - Roseland Topk Conversion\CADD\plan sheets\CIVIL SHEETS - WM.dwg
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KHA PROJECT
044572041

DATE
MAR 2019

SCALE AS SHOWN

DESIGNED BY MT

DRAWN BY DJM

CHECKED BY MM

ROSELAND EST WATER
TRANSMISSION MAIN

PREPARED FOR
INDIAN RIVER COUNTY

INDIAN RIVER
COUNTY

FLORIDA

LICENSED PROFESSIONAL

MARK MILLER

FLORIDA LICENSE NUMBER
45320

DATE: ____

KEY MAP

SHEET NUMBER

C-2

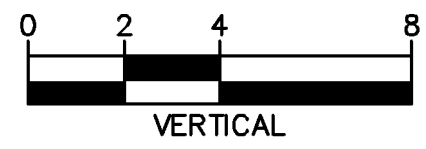
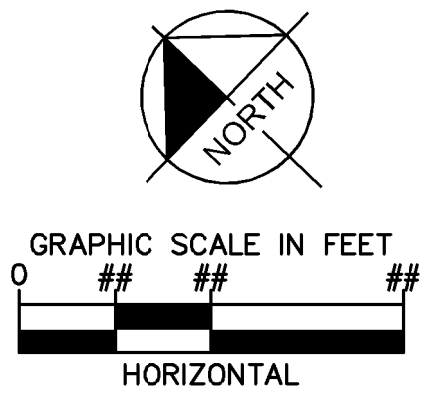
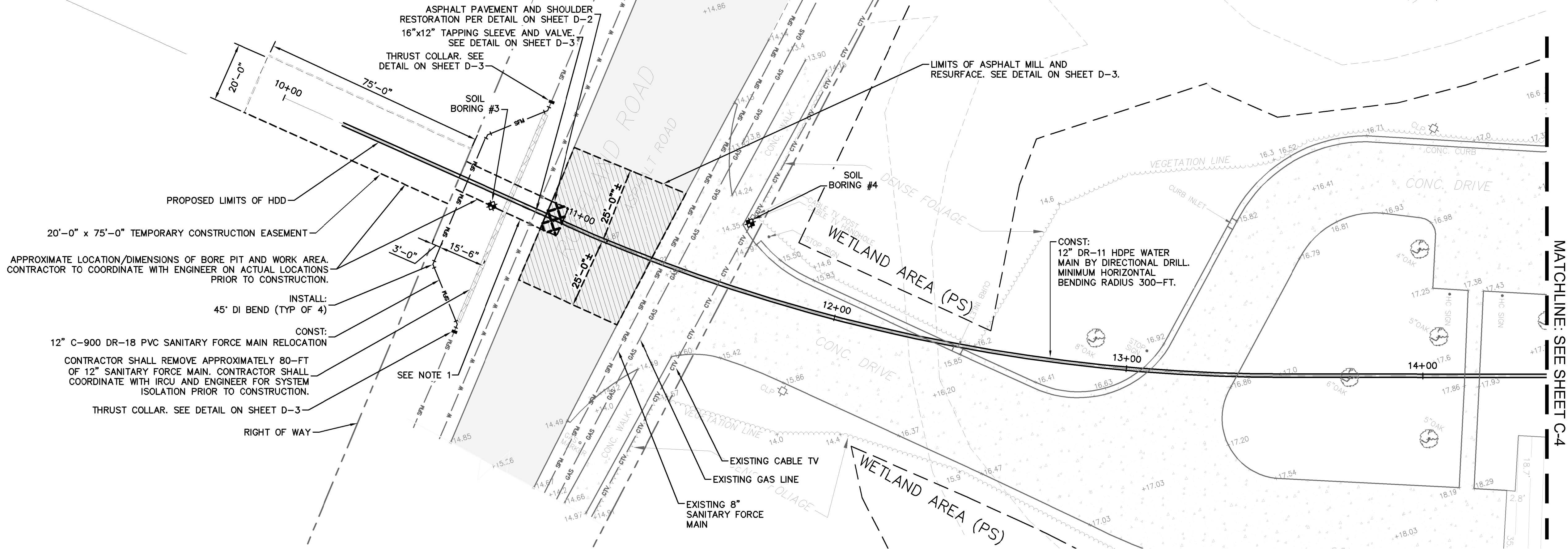
CALL 2 WORKING DAYS
BEFORE YOU DIG

IT'S THE LAW!
DIAL 811

Know what's below.
Call before you dig.

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

Plotted By: Tabow, Matt Sheet: Set: Roseland - WM Layout: C-3 PLAN AND PROFILE - March 10, 2019 07:17:43pm \\webfp02\data\project\WPB_Civil\044572041 - Roseland Tonk Conversion\CADD\plan sheets\CIVIL SHEETS - WM.dwg
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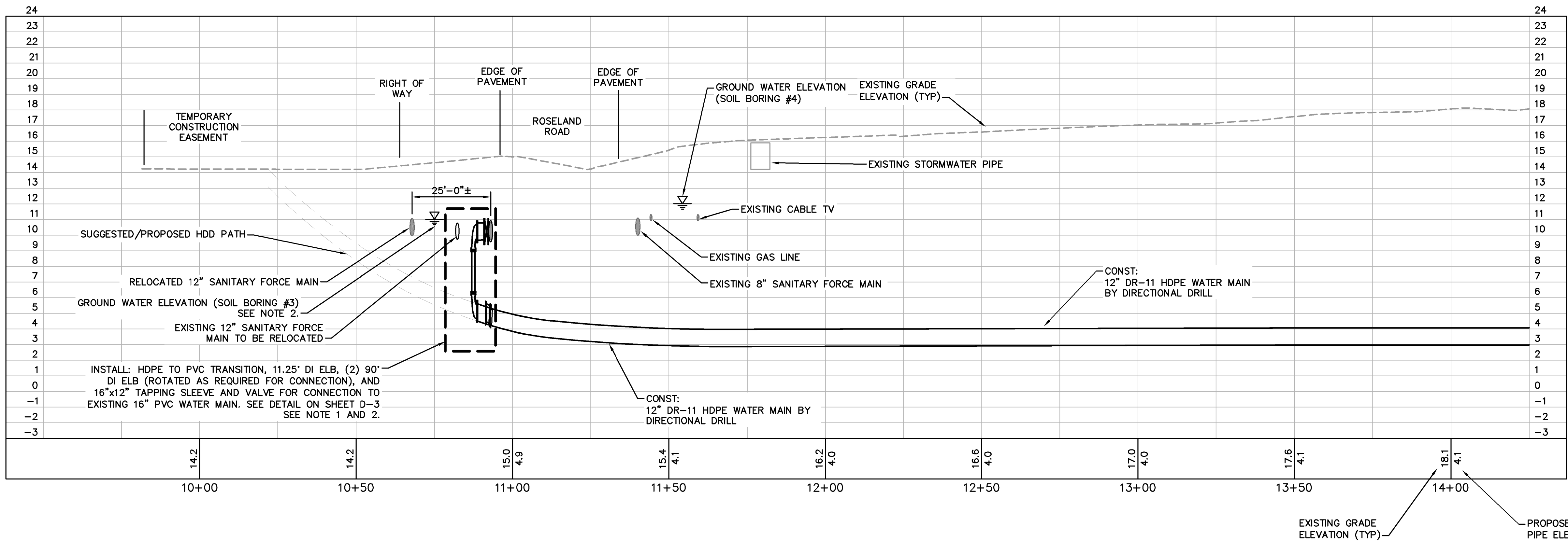


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SUNSHINE STATE ONE CALL OF FLORIDA, INC.



- NOTES
- CONTRACTOR SHALL PROVIDE TEMPORARY JOINT RESTRAINTS AS REQUIRED FOR EXISTING 12" FORCE MAIN AND EXISTING 16" WATER MAIN.
 - CONTRACTOR SHALL PROVIDE DEWATERING, SHEETING, AND SHORING AS REQUIRED.

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|--------------------------------|-----------|--|--|------|------------------|--|---------------------------------|---|-----------------------|---|-------------------------|
| She Plotted By: Tabow, Matt | | | | | | <div><p>© 2018 KIMLEY-HORN AND ASSOCIATES, INC. 1920 WEKIVA WAY SUITE 200, WEST PALM BEACH, FL 33411 PHONE: 561-845-0665 FAX: 561-863-8175 WWW.KIMLEY-HORN.COM CA 00000696</p></div> | KHA PROJECT 044572041 | <div>ROSELAND EST WATER TRANSMISSION MAIN</div> <div>PREPARED FOR INDIAN RIVER COUNTY</div> <div>INDIAN RIVER COUNTY</div> <div>FLORIDA</div> | LICENSED PROFESSIONAL | <div>WATER MAIN PLAN AND PROFILE STA 10+00 TO 14+00</div> | SHEET NUMBER C-3 |
| | | | | | DATE MAR 2019 | | MARK MILLER | | | | |
| | | | | | SCALE AS SHOWN | | FLORIDA LICENSE NUMBER 45320 | | | | |
| | | | | | DESIGNED BY MT | | DATE: ____ | | | | |
| | | | | | DRAWN BY DJM | | | | | | |
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Plotted By: Tabow, Matt Sheet: SURVEY REQUIREMENTS Date: 03/10/2019 07:19:09pm File: \\webfb02\Data\Project\WPB_Civil\044572041 - Roseland Est. Pump Station\Drawings\STANDARD DETAILS - WM.dwg
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SEPTEMBER 2011

SURVEY REQUIREMENTS

FOR ALL CONSTRUCTION/ROUTE SURVEY AND AS-BUILT RECORD DRAWINGS

1. All construction/route survey and as-built record drawings shall meet the minimum requirements of the Chapter AJ-17, Florida Administration Code Pursuant to section 472 of the Florida Statutes.

2. All state plane coordinates shall be based on the Florida State Plane Horizontal data (East Zone); or Florida High Precision Geodetic Network (superstation) and NAD 83/1999 - final adjustment, or the most current datum adopted by Indian River County.

3. All elevations shown shall be based on 1929 NGVD, or the most current datum adopted by Indian River County.

4. All incoming construction/route survey and as-built record drawings shall be received on a CD, as an electronic copy, AutoCad 2007 format, with a tie to a minimum of two (2) state plane coordinates. (NOTE: Prior to submitting the electronic copy, one (1) copy of each as-built (24"x36") shall be submitted for review and approval. After all approvals, a (24"x36") Mylar reproducible along with **five (5)** signed and sealed copies of each as-built shall be submitted.

5. All construction/route survey and as-built record drawings shall be tied to a minimum of one (1) permanent reference monument (P.R.M.) at the end of each project. One P.R.M. shall be tied to a minimum of one (1) section corner or one-quarter (1/4) section corner whichever is closest to the project. State plane coordinates shall be physically shown on the drawing next to the P.R.M. used.


6. All surveys that are required for the use of engineering design, and are located within a distance of one (1) mile from any Indian River County Global Positioning System (G.P.S.) control project monuments, shall be tied into the GPS monument from one (1) permanent reference point or the subdivision corner that is along the survey route and shall then be tied to the survey base line.

7. Horizontal Control Monumentation for utility lines shall be a minimum of two (2) points at a maximum of 1,400 feet between points and shown on all plans.

8. Vertical Control (when required) for linear utility lines, such as sewer, shall have a maximum of 1,100 feet between existing construction or established benchmarks.

9. A minimum text size of 1/8" is required on all construction/route survey and as-built record drawings.

INDIAN RIVER COUNTY
DEPARTMENT OF
UTILITIES SERVICES



SURVEY REQUIREMENTS

SEPTEMBER 2011

DRAWING
NO.
M-16

SEPTEMBER 2011

GENERAL INFORMATION REQUIREMENTS

FOR ALL CONSTRUCTION/ROUTE SURVEY AND AS-BUILT RECORD DRAWINGS

1. Existing right-of-way limits and/or easements within the limits of construction.

2. Survey baseline stationing every 100', control points set every 500', and at angle change of direction.

3. Show cross section elevations at grade every 100' for gravity sewer line construction and 500' for water line and force main construction. Elevations that reflect any significant change in grade between the previously stated footage shall be shown on plans.

4. Existing parcels, tracts, and lot corner locations shown with front footage dimensions per plat when platted. If construction project is along back of lots, then show back lot dimensions.

5. Existing roadway edge of pavement or edge of dirt road.

6. Existing utilities as located in field (water, sewer, telephone, electric, cable TV, etc.) (NOTE: Sunshine One to be contacted by surveying firm prior to survey locate; with the intent of county excavation.)

7. Existing utilities as associated with number 5 above (example: valves, meters, manholes, etc.)

8. Existing curbs, driveway widths and types.

9. Existing drainage pipe crossings and driveway culverts (type, sizes and invert elevations.)

10. Existing swales and/or ditches and elevations every 100' at top and bottom if within area of construction.

11. Existing fences.


12. Existing trees and/or shrubbery.

13. All other non-movable items such as mailboxes, flag poles, etc.

14. All street names.

15. All commercial and single/multi family residence must have parcel I.D. indicated on the plan.

INDIAN RIVER COUNTY
DEPARTMENT OF
UTILITIES SERVICES



GENERAL INFORMATION
REQUIREMENTS

SEPTEMBER 2011

DRAWING
NO.
M-16
(A)

SEPTEMBER 2011

INFORMATION REQUIREMENTS

FOR ALL AS-BUILT RECORD DRAWINGS

In addition to the requirements specified in Drawings M-16 and M-16(A), the following shall be included on all As-Built Record Drawings before acceptance by the Indian River County Department of Utility Services.

1. All as-built drawings (24"x36") shall state in 1" lettering "AS-BUILT" located in the bottom right hand side of the drawing original and/or copies, along with the as-built date.

2. All utility as-built construction located within the rights-of-way, easements and alike shall be tied to the respective rights-of-way, easements, etc., every 1,000 feet and change of direction.

3. All as-builts shall clearly depict as-built utility lines that were constructed along with their respective easement (if required). As-builts will not be accepted unless the verbiage "Proposed" and/or "To Be constructed" have been revised to read "AS-Built". As-built Construction drawings with, to be constructed terminology, will not be accepted.

4. All as-builts shall be certified by the project engineer or contracting surveyor.

5. All projects, which utilize lift stations, shall specify on plans as to whether or not subject lift stations are to remain private or are to be dedicated to the county.

6. All fire hydrants and valves shall be located with state plane coordinates, station number and off-set and shall be clearly identified on the as-built drawing.

7. All valves shall be clearly identified by size, type, top elevation and direction/number of turns to open or close each valve.

8. Horizontal directional bores shall have a profile or cross section drawing and include the bore log.

9. The contractor is to provide the name of business or residence, street address and tax I.D. number for all properties adjacent to line extensions.

10. Shown with a thin dashed line, top elevations of As-Built utility lines and existing utility lines shall be shown for all utility crossings.


11. Baseline of construction and station of items to be on the centerline of the roadway.

12. As-Built utility lines shall be shown with a wider solid line.

13. Top of pipe elevations & stationing to be typed, listed, sealed & submitted for the engineer to locate the air release valves as construction proceeds.

14. All as-builts shall be complete and approved before commencement of field test.

INDIAN RIVER COUNTY
DEPARTMENT OF
UTILITIES SERVICES




AS-BUILT
REQUIREMENTS

SEPTEMBER 2011

DRAWING
NO.
M-16
(B)

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KHA PROJECT
044572041

DATE
MAR 2019

SCALE AS SHOWN

DESIGNED BY MT

DRAWN BY DJM

CHECKED BY MM

ROSELAND EST PUMP STATION

PREPARED FOR
INDIAN RIVER COUNTY

INDIAN RIVER COUNTY FLORIDA

LICENSED PROFESSIONAL

MARK MILLER

FLORIDA LICENSE NUMBER
45320

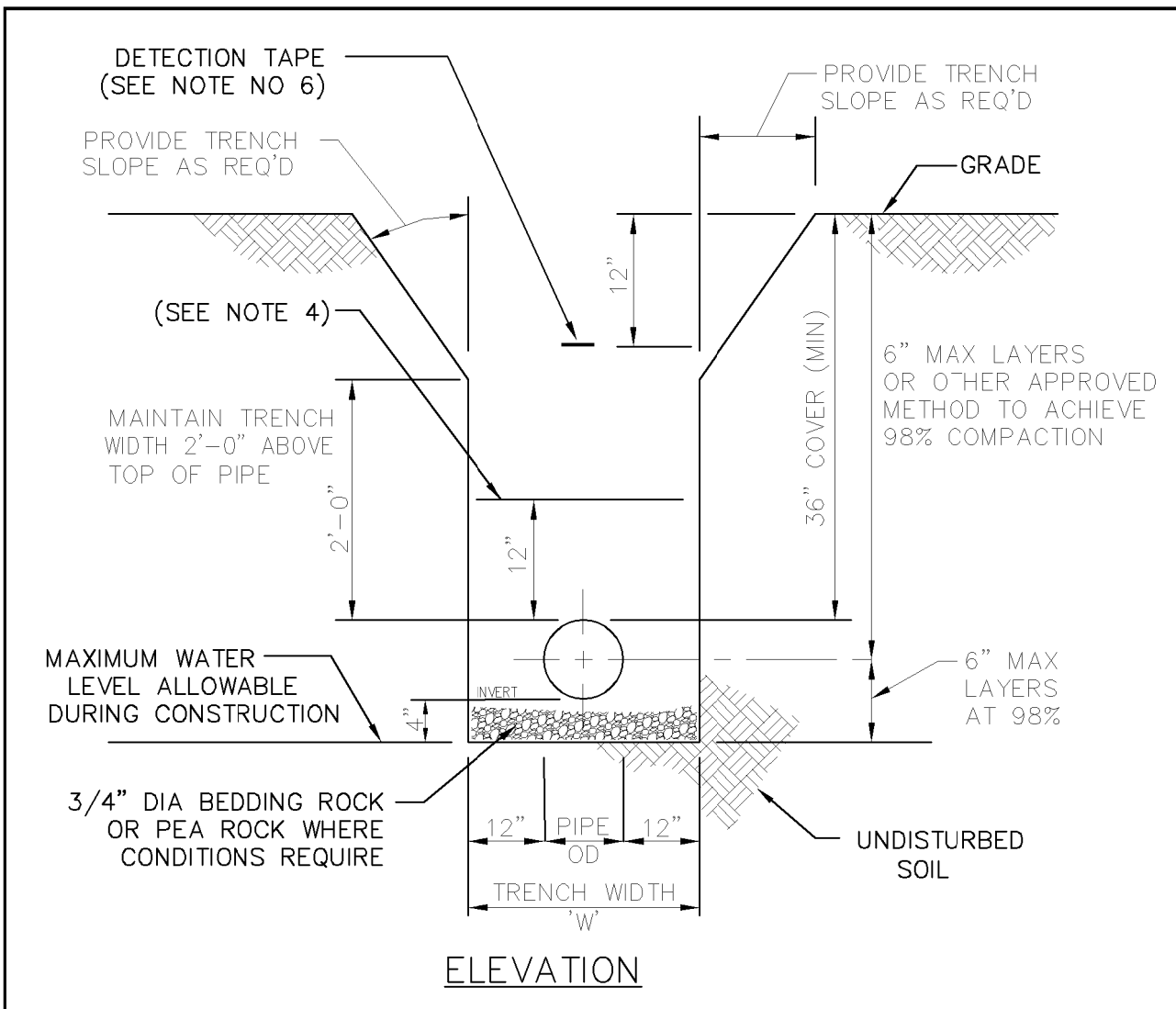
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IRCU STANDARD DETAILS

SHEET NUMBER

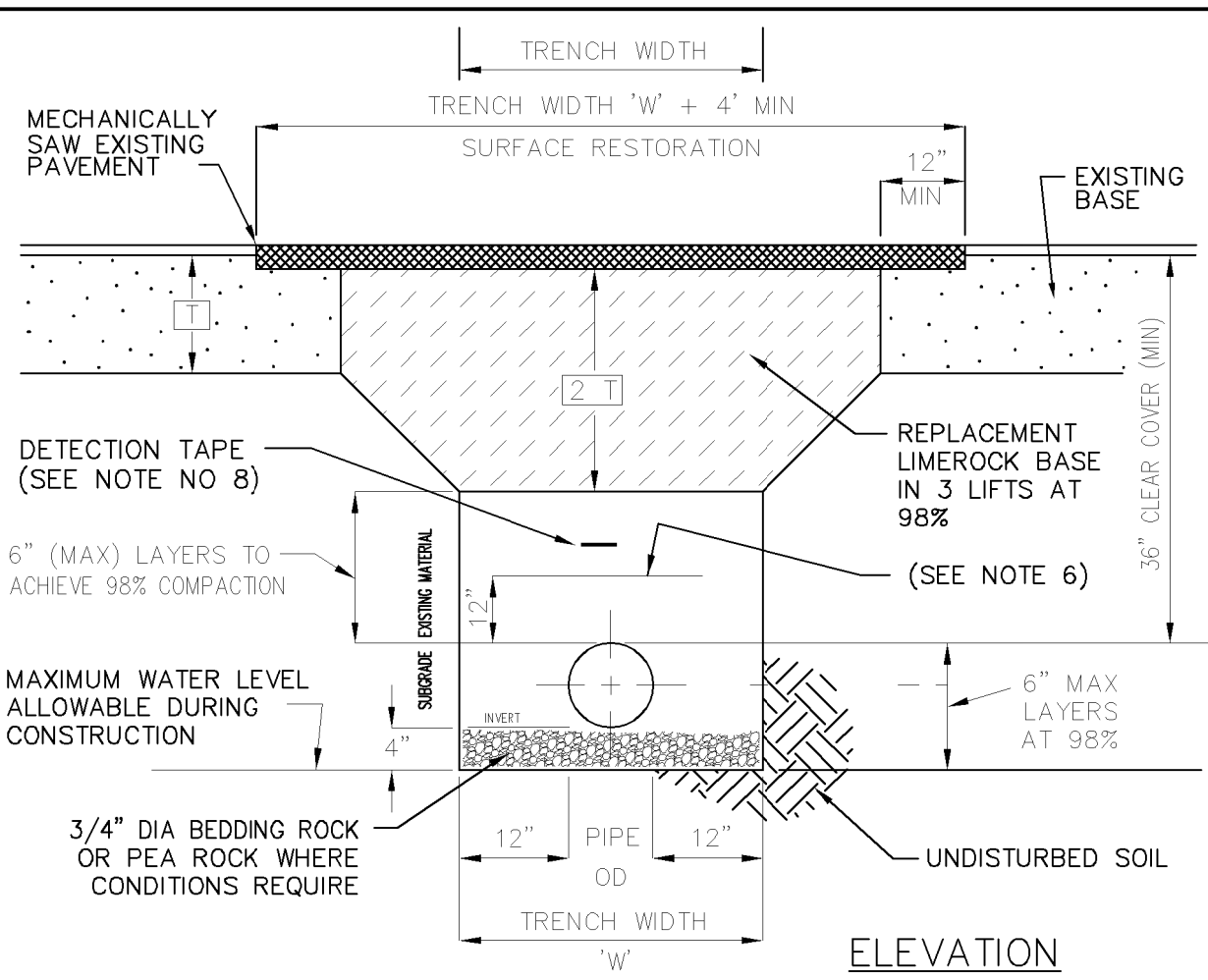
D-1

Plotted By: Tabow, Matt Sheet: Set-Roseland - VM - Layout-D-2 March 10, 2019 07:19:45pm \\web-f02\data\Project\WEB_Civil\044572041 - Roseland_Tank_Conversion\CADD\plan_sheets\STANDARD DETAILS - VM.dwg This document, together with the concepts and designs presented herein, is an instrument of service, intended only for the specific purpose and client for which it was prepared. Reuse of and/or 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.



NOTES

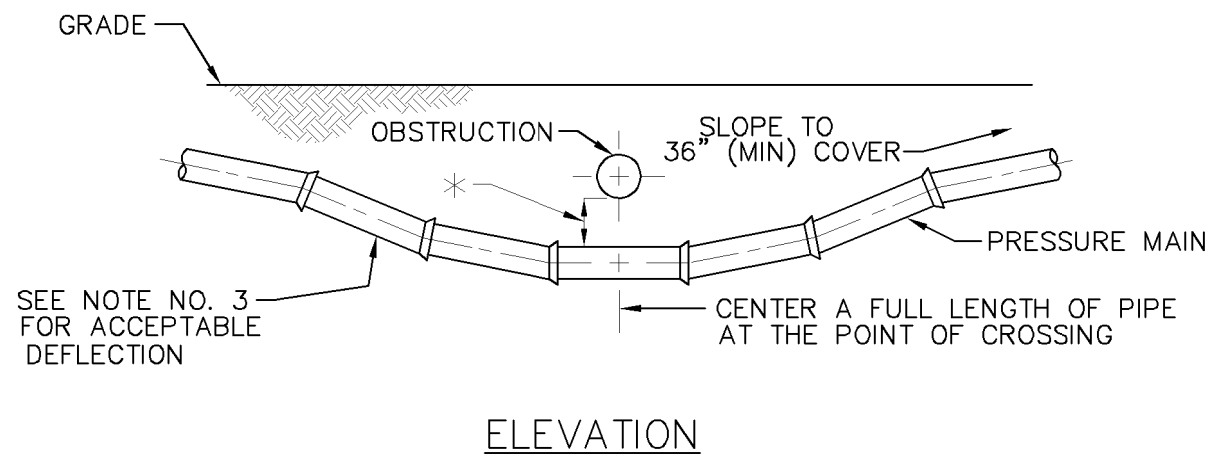
1. WHERE SOIL CONDITIONS CANNOT BE MAINTAINED AS SHOWN ABOVE, PROVIDE APPROVED METHOD OF CONSTRUCTION.
2. SHEETING WILL BE REQUIRED AS DETERMINED IN THE FIELD.
3. COMPACTION PERCENTAGES SHOWN REFER TO AASHTO T-180.
4. MECHANICAL COMPACTION NOT ALLOWED BELOW THIS LEVEL OTHER THAN HAND VIBRATORY MEANS.
5. TRENCH WIDTH "W" = PIPE O.D. PLUS 2'-0".
6. 2" WIDE DETECTION TAPE WITH METALLIC BACKING TO BE INSTALLED OVER MAIN 1' BELOW SURFACE. TAPE TO BE MARKED-"CAUTION: WATER LINE BELOW", CAUTION: FORCE MAIN BELOW", OR "CAUTION: REUSE WATER MAIN BELOW". TRACE WIRE SHALL ALSO BE USED CONTINUOUSLY ON ALL PIPE. (SEE DETAIL M-14).
7. ALL RESTORATION IN EASEMENTS OR RIGHTS OF WAY OR WHEN REQUIRED BY OTHER JURISDICTIONAL AGENCIES SHALL CONFORM TO IRCUDS SPECIFICATIONS OR THE OTHER JURISDICTIONAL AGENCY SPECIFICATIONS, WHICHEVER IS MORE STRINGENT.
8. ALL PIPE TO BE LOCATED 5' O.C. (TYPICAL) FROM EDGE OF PAVEMENT, PER FDOT INDEX 105.



NOTES

1. WHERE SOIL CONDITIONS CANNOT BE MAINTAINED AS SHOWN ABOVE, PROVIDE APPROVED METHOD OF CONSTRUCTION.
2. SHEETING WILL BE REQUIRED AS DETERMINED IN THE FIELD.
3. NEW SURFACING MATERIALS SHALL BE CONSISTENT IN DEPTH WITH EXISTING MATERIALS AND SHALL HAVE LAPPED AND FEATHERED JOINTS. (1-1/2" MIN. THK.) MATERIAL TYPE TO BE SPECIFIED.
4. COMPACTION PERCENTAGES SHOWN REFER TO AASHTO T-180.
5. ALL ROADWAY RESTORATION SHALL COMPLY WITH INDIAN RIVER COUNTY PUBLIC WORKS/FDOT STANDARDS.
6. MECHANICAL COMPACTION NOT ALLOWED BELOW THIS LEVEL OTHER THAN HAND VIBRATORY MEANS.
7. TRENCH WIDTH "W" = PIPE O.D. PLUS 2'-0".
8. 2" WIDE DETECTION TAPE WITH METALLIC BACKING TO BE INSTALLED OVER MAIN 1' BELOW SURFACE. TAPE TO BE MARKED-"CAUTION: WATER LINE BELOW", CAUTION: FORCE MAIN BELOW", OR "CAUTION: REUSE WATER MAIN BELOW". TRACE WIRE SHALL BE USED CONTINUOUSLY ON ALL PIPE. (SEE DETAIL M-14).
9. 98% COMPACTION IN SHOULDER OF RIGHT OF WAY.
10. ALL PIPE TO BE LOCATED MINIMUM OF 5' O.C. (TYPICAL) FROM EDGE OF PAVEMENT. ALL RESTORATION (SODDING) SHALL BE PER FDOT INDEX 105.

| RESTRAINED LENGTH IN FEET FOR REDUCER | PIPE DIAMETER (INCHES) | | | | | | | | | | | | | | | |
|--|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 30" | 24" | 20" | 18" | 12" | 10" | 8" | 6" | 4" | 3" | 30" | 24" | 20" | 18" | 12" | 10" |
| RESTRAINED LENGTH IN FEET EACH SIDE OF | P. V. C. | | | | | | | | | | | | | | | |
| | 90" | 40" | 20" | 10" | 5" | 55" | 25" | 15" | 10" | 5" | 90" | 40" | 20" | 10" | 5" | 55" |
| RESTRAINED LENGTH IN FEET EACH SIDE OF | D. I. P. | | | | | | | | | | | | | | | |
| | 90" | 40" | 20" | 10" | 5" | 55" | 25" | 15" | 10" | 5" | 90" | 40" | 20" | 10" | 5" | 55" |
| PIPE DIAMETER (INCHES) | 3" | 4" | 6" | 8" | 10" | 12" | 16" | 20" | 24" | 30" | 36" | 42" | 48" | 54" | 60" | 72" |
| RESTRAINED LENGTHS FOR DEAD ENDS AND BRANCHES FROM TEES SHALL BE THE SAME AS FOR 90° BENDS | | | | | | | | | | | | | | | | |



NOTES

- * 1. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY, VACUUM TYPE SANITARY SEWER, STORM SEWER OR PRESSURE TYPE SANITARY SEWER, WASTEWATER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 BELOW THE OUTSIDE OF THE OTHER PIPELINE. IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
2. AT UTILITY CROSSINGS, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE 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 AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER.
3. CONSTRUCT STANDARD CROSSING NOT TO EXCEED 75% OF THE MANUFACTURERS' MAXIMUM JOINT DEFLECTION.
4. IF USED, TIE RODS ARE TO BE COATED WITH COAL TAR ENAMEL AFTER ASSEMBLY. (2 COATS MINIMUM)
5. OTHER METHODS OF RESTRAINT MAY BE USED AS APPROVED BY IRCUDS ENGINEERING.
6. SEE TRACER WIRE DETAIL. M-14
7. ALL WATER AND SEWER UTILITIES SHALL BE LOCATED A MINIMUM HORIZONTAL SEPARATION EQUAL TO THE DEPTH OF THE PIPE PLUS THE DIAMETER OF THE PIPE FROM ANY PERMANENT ABOVE GROUND STRUCTURES (I.E. WALLS, TREES, TRANSFORMER PADS, ETC.) AND A MINIMUM HORIZONTAL SEPARATION EQUAL TO FOUR (4) FEET FROM ANY UNDERGROUND UTILITIES (I.E. GAS MAINS, TELEPHONE LINES, CABLE LINES, IRRIGATION MAINS, ETC.)

INDIAN RIVER COUNTY
DEPARTMENT OF
UTILITIES SERVICES



TRENCH DETAIL
(UNPAVED EASEMENTS)

SEPTEMBER 2011

DRAWING NO.
M-1

INDIAN RIVER COUNTY
DEPARTMENT OF
UTILITIES SERVICES



TRENCH DETAIL
(PAVED AREAS & SHOULDERS)

SEPTEMBER 2011

DRAWING NO.
M-2

INDIAN RIVER COUNTY
DEPARTMENT OF
UTILITIES SERVICES



RESTRAINING
SCHEDULE AND NOTES

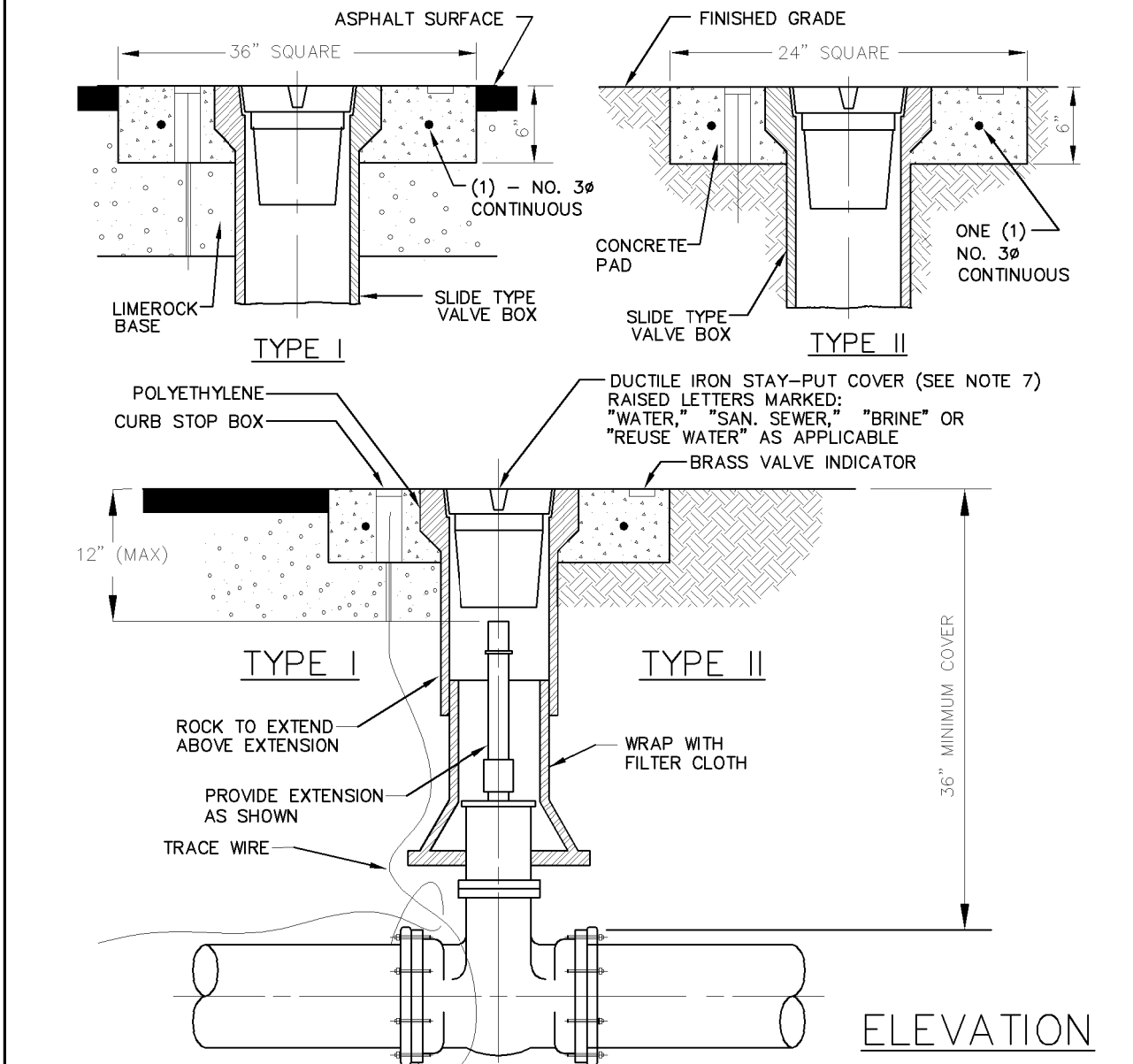
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M-3

INDIAN RIVER COUNTY
DEPARTMENT OF
UTILITIES SERVICES



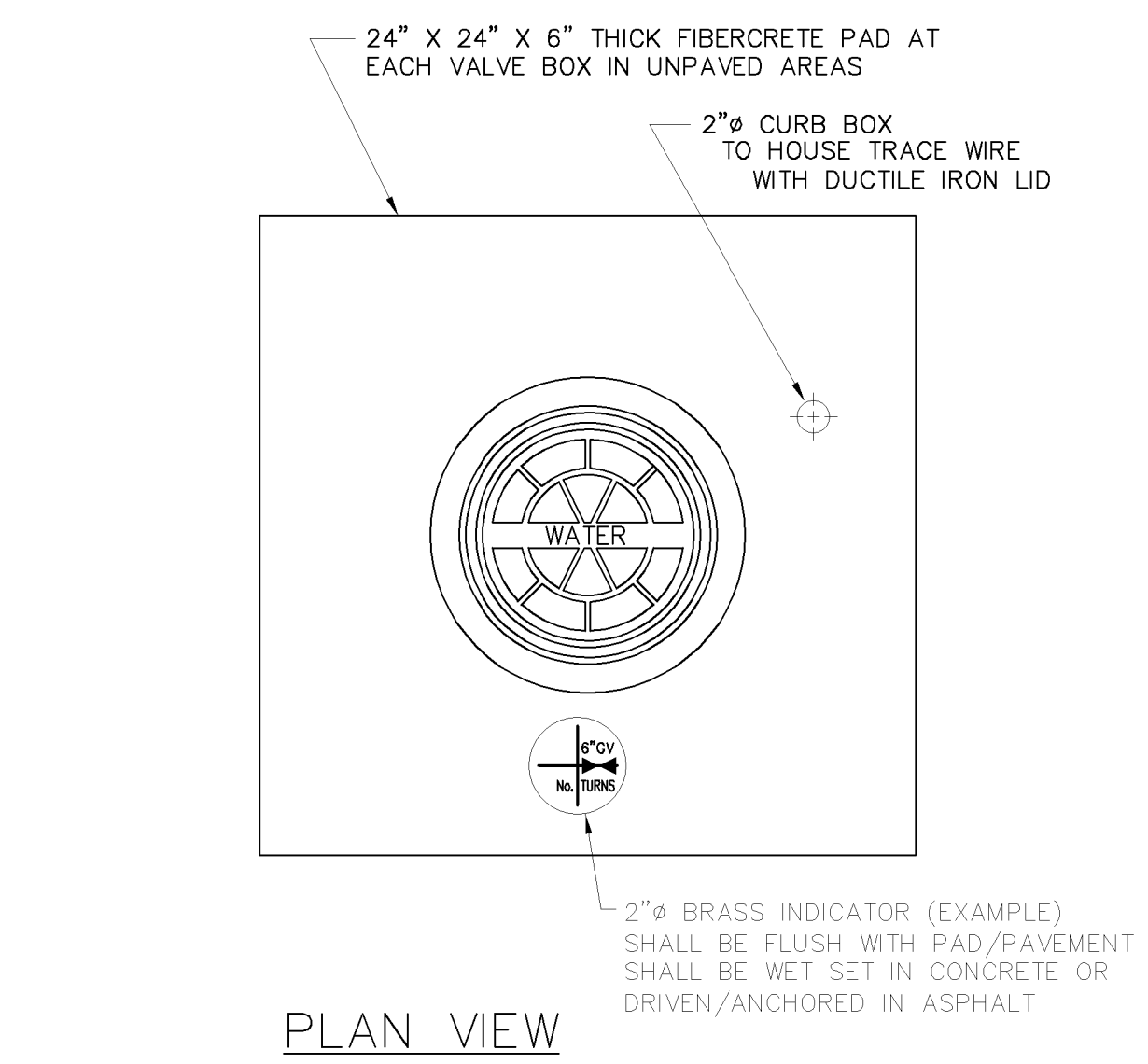
UTILITY CROSSING

DRAWING NO.
M-4



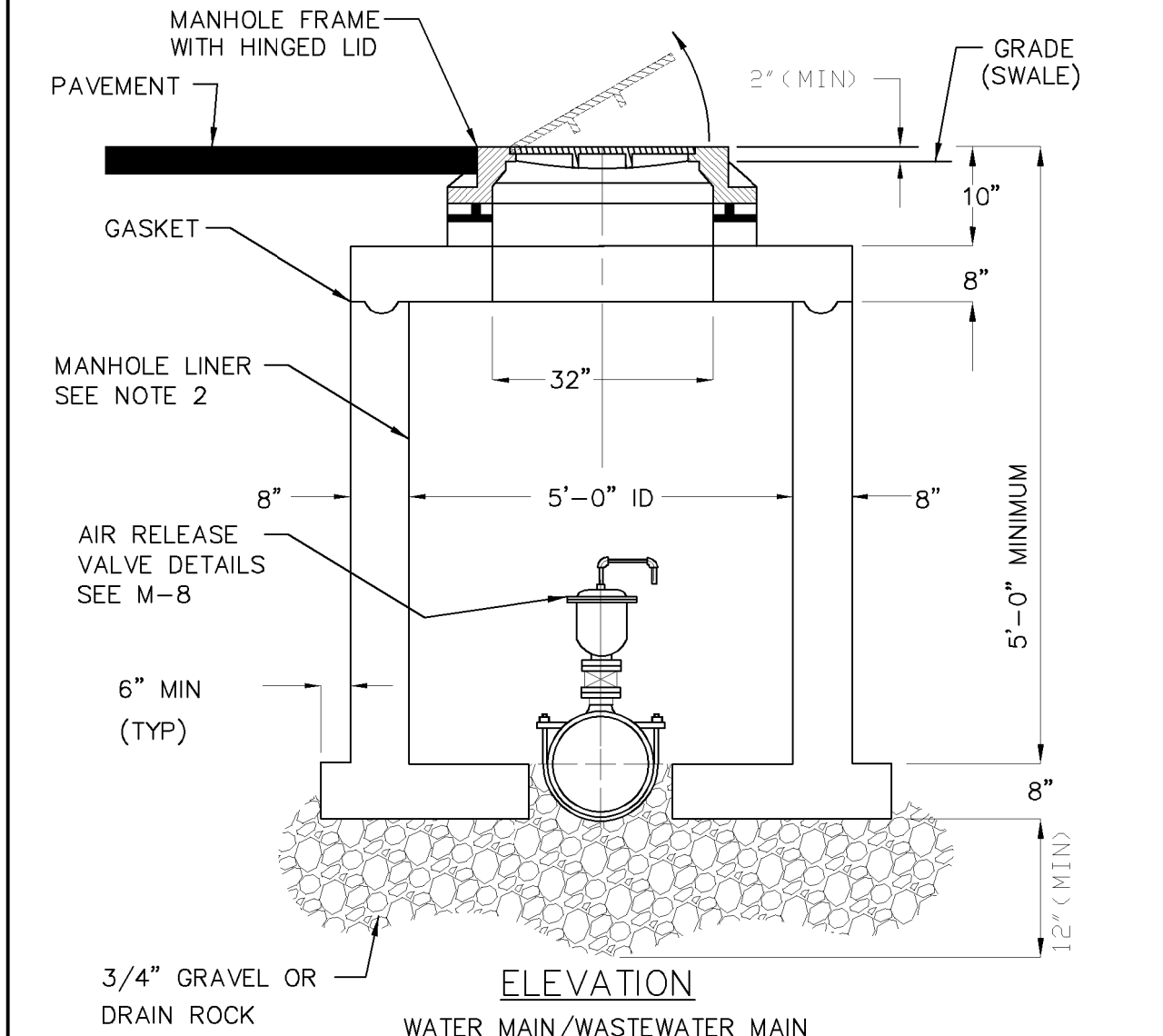
NOTES

1. ALL VALVE BOLTS SHALL BE STAINLESS STEEL WITH BRASS NUTS
2. PERMANENT LAND MARKERS ARE TO BE USED OVER ALL F.M. VALVES (SEE M-11)
3. ALL VALVES REQUIRE A LAT & LONG IN DEGREES & MINUTES
4. SEE TRACER WIRE DETAIL. M-14
5. RPMS ARE TO BE LOCATED IN ROADWAY FOR ALL WATER VALVES. (SEE M-1)
6. REFLECTIVE MARKERS FOR: FIRE HYDRANT (WATER) - BLUE
WATER MAIN VALVE - WHITE
FORCE MAIN VALVE - GREEN
REUSE MAIN VALVE - PURPLE
BRINE - ORANGE
7. VALVE BOX LID SHALL BE A MINIMUM 24 LBS. WITH A MINIMUM 6" (LONG THROAT) LID.
8. VALVE BOX SHALL COMPLY WITH FDOT STANDARDS IF APPLICABLE.



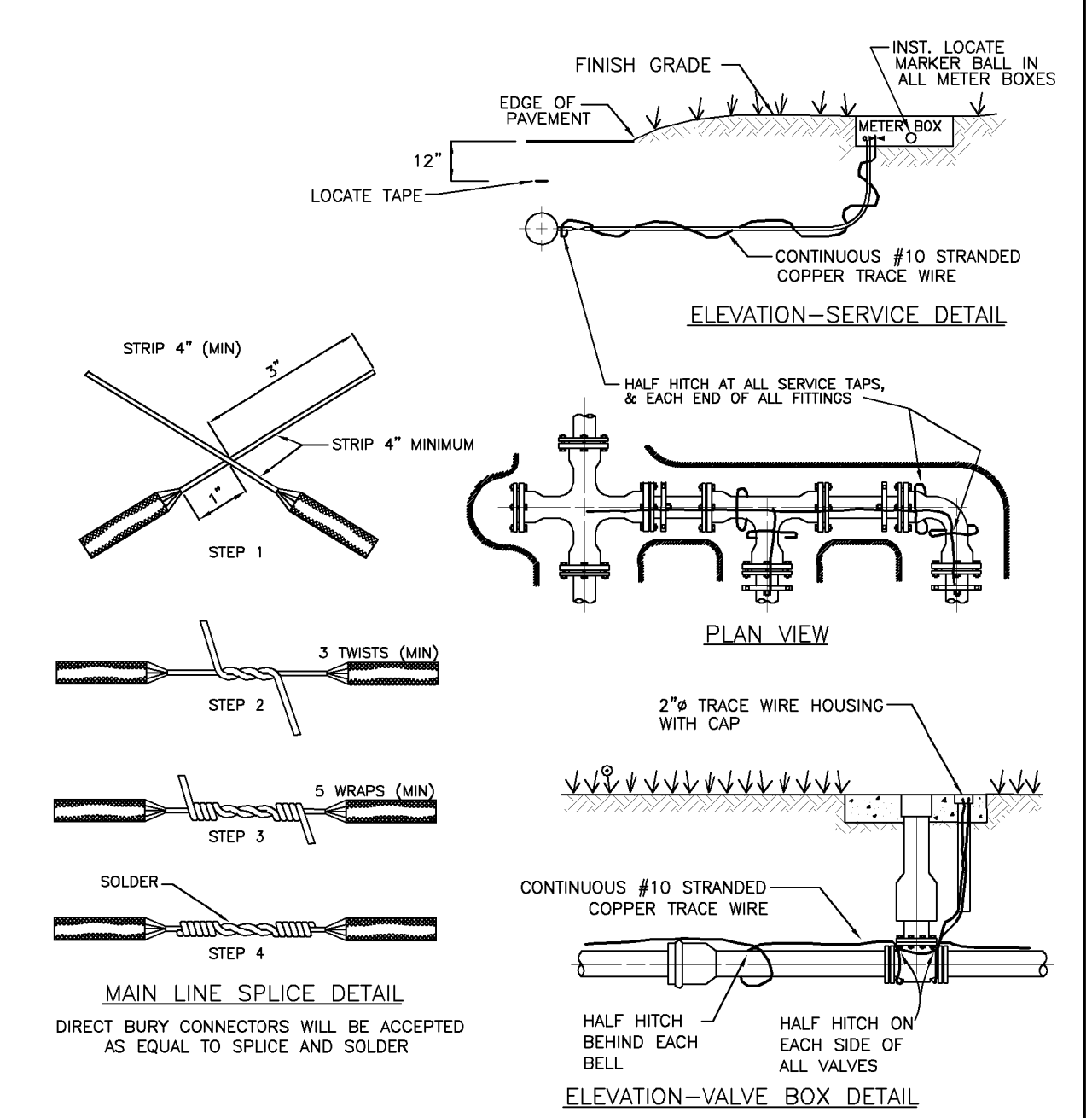
NOTES

1. VALVE BOX LID SHALL BE PAINTED: BLUE - WATER
GREEN - FORCE MAINS
PURPLE - REUSE WATER
BRINE - ORANGE
2. BRASS VALVE INDICATOR TO BE PROVIDED WITH ENGRAVED DIAGRAM OF VALVE LOCATION AND DESCRIPTION. (SEE EXAMPLE)
INDICATOR SHALL BE FLUSH WITH PAD/PAVEMENT.
3. VALVE BOX LID SHALL BE A MINIMUM 24 LBS. WITH A MINIMUM 6" THROAT.
4. VALVE BOX SHALL COMPLY WITH FDOT STANDARDS IF APPLICABLE.



NOTES

1. AIR RELEASE VALVE IS TO BE LOCATED INSIDE A CONCRETE MANHOLE WITH HINGED LID. ALL MATERIALS PER IRCUDS APPROVED MANUFACTURERS' PRODUCT LIST.
2. MANHOLES FOR SEWER FORCE MAINS SHALL BE LINED. ALL LINING MATERIAL SHALL BE PER INDIAN RIVER COUNTY APPROVED MANUFACTURES' PRODUCT LIST.
3. SEE AIR RELEASE VALVE DETAIL (M-8)
4. SEE TRACER WIRE DETAIL. (M-14)



NOTES

1. TRACE WIRE IS REQUIRED ON ALL PIPES.
2. INCLUDE ALL COST OF MATERIAL & LABOR IN PRICE OF PIPE.
3. CONTRACTOR RESPONSIBLE FOR CONTINUITY THROUGHOUT ENTIRE PROJECT OF ALL TRACE WIRE.
4. ALL SPlice CONNECTIONS ARE TO BE HOT SOLDERED (50/50 RESIN CORE), WRAP W/5 ALTERNATING LAYERS TAPE, COVER WITH WATERPROOFING COMPOUND AND HEAT SHRINK WRAP.
5. ALL SOLDER JOINTS WILL BE WATERPROOFED WITH HEAT SHRINK WRAP.
6. ALL MATERIALS ARE TO BE PER IRCUDS APPROVED MANUFACTURERS' PRODUCT LIST.
7. DIRECT BURY TRACE WIRE CONNECTION LUGS WILL BE ACCEPTED PER IRCUDS ENGINEERING APPROVAL.

INDIAN RIVER COUNTY
DEPARTMENT OF
UTILITIES SERVICES



VALVE AND BOX

DRAWING NO.
M-5

INDIAN RIVER COUNTY
DEPARTMENT OF
UTILITIES SERVICES



VALVE BOX PAD

DRAWING NO.
M-6

INDIAN RIVER COUNTY
DEPARTMENT OF
UTILITIES SERVICES



AIR RELEASE VALVE MANHOLE
(AUTOMATIC - WATER/WASTEWATER)

DRAWING NO.
M-7

INDIAN RIVER COUNTY
DEPARTMENT OF
UTILITIES SERVICES



TRACE WIRE
DETAILS

DRAWING NO.
M-14

Kimley»Horn

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WWW.KIMLEY-HORN.COM CA 00000696

KHA PROJECT
044572041
DATE
MAR 2019
SCALE AS SHOWN
DESIGNED BY MT
DRAWN BY DJM
CHECKED BY MM

ROSELAND EST PUMP STATION
PREPARED FOR
INDIAN RIVER COUNTY

INDIAN RIVER
COUNTY

FLORIDA

LICENSED PROFESSIONAL

MARK MILLER

FLORIDA LICENSE NUMBER
45320

DATE: _____

IRCU STANDARD DETAILS

SHEET NUMBER

D-2

