

**SECTION 00520**  
**AGREEMENT FORM**

**PART 1 GENERAL**

**1.01**      **THIS AGREEMENT**, made this 6th day of February, 2017, by and between Utilities Inc. of Florida, hereinafter called the Owner, and Environmental Equipment Sales, Inc., whose principal and local address is Brian Spicher; PO Box 2459 Riverview, FL 33568, hereinafter called the Contractor.

**1.02**      **The Owner and Contractor Agree as follows:**

A.      **Contract Documents**

The Contract Documents include the Agreement, Addenda (which pertain to the Contract Documents), Contractor's Bid, Notice to Proceed, the Bonds, the General Conditions, the Supplementary Conditions, the Specifications listed in the Index to the Project Manual, any technical specifications as incorporated by the Project Manual; the Drawings as listed in the Project Manual, all Written Amendments, Change Orders, Work Change Directives, Field Orders, and Engineer's written interpretations and clarifications issued on or after the Effective Date of this Agreement. These form the Contract and all are as fully a part of the Contract as if attached to this Agreement or repeated herein.

B.      **Scope of Work**

The Contractor shall perform all work required by the Contract Documents for the construction of the Sandalhaven Force Main Relocation Project.

C.      **Contract Time**

The Contractor shall begin work after the issuance of a written Notice to Proceed from Owner and shall substantially complete the work within the Contract Time identified in Paragraphs 1.02.C.5 of the Bid Form, which is 120 calendar days. The work shall be finally complete, ready for Final Payment in accordance with the General Conditions, within 30 calendar days from the actual date of substantial completion.

D.      **Liquidated Damages**

OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not substantially complete within the time specified in Paragraph C above, plus any extensions thereof allowed in accordance with the General Conditions. They also recognize the delays, expense and difficulties involved in proving in a legal arbitration proceeding the actual loss suffered by OWNER if the Work is not

substantially complete on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER \$1,000.00 for each calendar day that expires after the time specified in Paragraph C for substantial completion until the work is substantially complete. It is agreed that if this Work is not Finally completed in accordance with the Contract Documents, the CONTRACTOR shall pay the OWNER as liquidated damages for delay, and not as penalty, one-fourth (¼) of the rate set forth above.

E. Contract Price

Lump Sum Contract

The Owner will pay the Contractor in current funds for the performance of the work, subject to additions and deductions by Change Order, the Total Contract Price of One Hundred Ninety-Seven Thousand, Seven Hundred and Ninety Dollars and Forty Cents (\$ 197,790.40). Payments will be made to the Contractor based on the Lump Sum Bid amount, the Schedule of Values included as a part of his Bid, which shall be as fully a part of the Contract as if attached or repeated herein, and subject to completion of the work, in accordance with the Contract Documents.

F. Payments

The Owner will make payments as provided in the General Conditions and Supplementary Conditions.

G. Retainage

The value of each application for payment shall be equal to the total value of the Work performed to date, less an amount retained, and less payments previously made and amounts withheld in accordance with the General Conditions and Supplementary Conditions. Retainage for this project is 10%, to be held by Owner as collateral security to ensure completion of Work. The Owner is not obligated to reduce retainage at any time during the Contract, but may choose to do so at its discretion once the Work is at least 75% complete.

H. Engineer

The Project has been designed by Kimley-Horn and Associate, Inc., referred to in the documents as the Engineer, whose authority during the progress of construction is defined in the General Conditions and Supplementary Conditions.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

CONTRACTOR:

Environmental Equipment Sales, Inc.

Name of Firm

By (Signature)

Brian Spicher, President

Printed Name and Title

(SEAL)

ATTEST:

By (Signature)

Colleen Kleist, Treasurer

OWNER:

Utilities Inc. of Florida

Name of Owner

By (Signature)

Patrick Flynn, Vice President

Printed Name and Title

(SEAL)

ATTEST:

By (Signature)

Michael Wilson Reg. MGR.

Printed Name and Title

END OF SECTION

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SECTION 00510

NOTICE OF AWARD FORM

To: Environmental Equipment Sales, Inc.  
PO Box 2459  
Riverview, FL 33568

Project Name and Bid No.: Sandalhaven Force Main Relocations

The OWNER has considered the BID submitted by you, dated 01/27/17 for the above described WORK in response to the Invitation for Bids and Information for Bidders.

You are hereby notified that your BID has been accepted for BID items in the amount of \$197,790.40.

You are required by the Instructions to Bidder to execute the Agreement and furnish the required CONTRACTOR's Performance Bond, Payment Bond, and certificates of insurance within fourteen (14) calendar days from the date of this Notice to you. If you fail to execute said Agreement and to furnish said Bonds and insurance within fourteen (14) calendar days from receipt of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER's acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this 6th day of February, 2017.

ISSUED BY: Utilities Inc. of Florida  
(Name of OWNER)

Patrick C. Flynn  
By (Signature)

Patrick Flynn, Vice President  
(Printed Name and Title)

ACCEPTANCE OF NOTICE

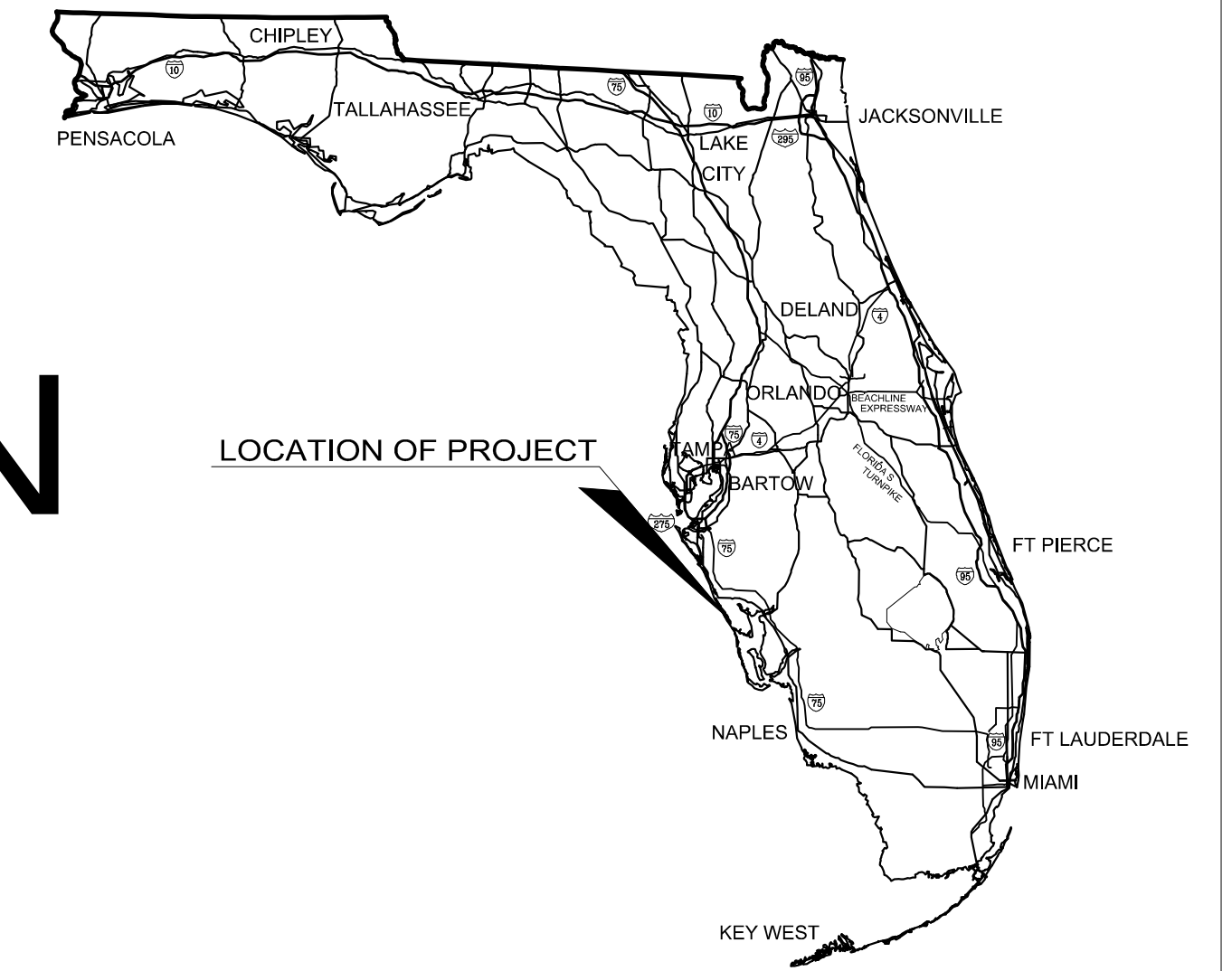
Receipt and acceptance of the above NOTICE OF AWARD is hereby acknowledged by Brian Spicher, President this 6th day of February, 2017.

Brian Spicher  
By Brian Spicher, President  
Printed Name and Title

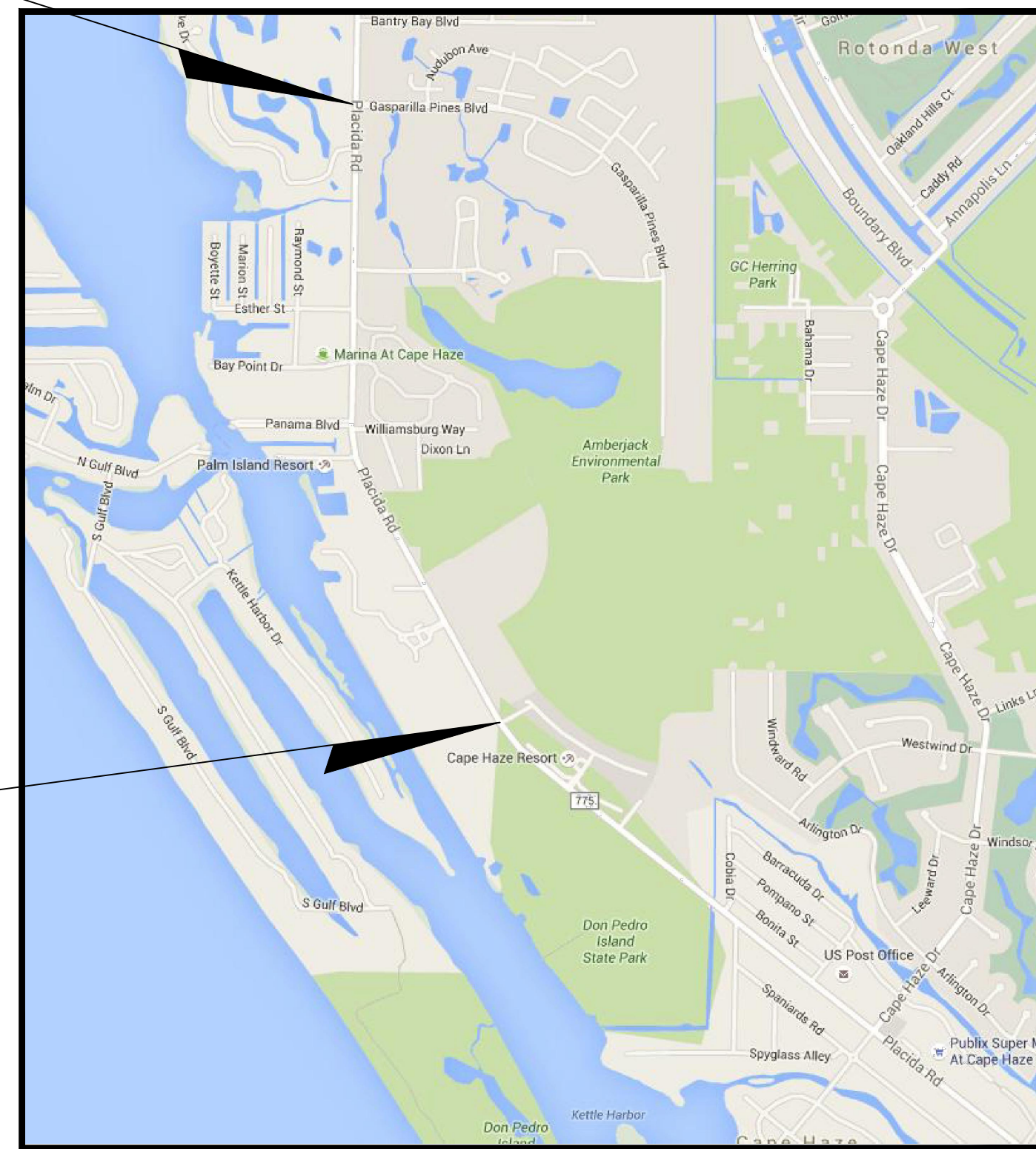
# UTILITIES, INC. OF SANDALHAVEN FORCE MAIN RELOCATION

## CHARLOTTE COUNTY C.R. 775 (PLACIDA ROAD)

MAY 2016



END PROJECT  
STA. 269+00.00



BEGIN PROJECT  
STA. 181+00.00



### INDEX OF DRAWINGS

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10	DETAIL SHEET

### PREPARED FOR:

UTILITIES, INC. OF SANDALHAVEN  
200 WEATHERSFIELD AVENUE  
ALTAMONTE SPRINGS, FLORIDA 32714  
CONTACT: MR. MIKE WILSON

### ENGINEER:

KIMLEY-HORN AND ASSOCIATES, INC.  
655 NORTH FRANKLIN STREET, SUITE 150,  
TAMPA, FL 33602  
PHONE (813) 635-5583  
CONTACT: WILLIAM W. WOOD, P.E.

### VICINITY MAP

PREPARED BY  
**Kimley»Horn**

© 2014 KIMLEY-HORN AND ASSOCIATES, INC.  
655 NORTH FRANKLIN STREET, SUITE 150,  
TAMPA, FL 33602  
PHONE (813) 635-5583  
WWW.KIMLEY-HORN.COM CA 00000696

W. WADE WOOD, P.E.  
No. 69051

**GENERAL PROJECT DATA**

**EXISTING UTILITY LOCATION**

THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS TO THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED. ANY COST, DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE RELOCATION OF VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT, AND NO EXTRA COMPENSATION WILL BE ALLOWED. THE CONTRACTOR IS TO CONTACT THE SUNSHINE STATE ONE CALL CENTER AT LEAST TWO (2) AND NO MORE THAN FIVE (5) WORKING DAYS PRIOR TO THE SPECIFIC CONSTRUCTION ACTIVITY FOR FIELD LOCATION. NOTE THAT NOT ALL UTILITIES PARTICIPATE IN THIS PROGRAM. THE CONTRACTOR SHOULD CONTACT NON-PARTICIPATING UTILITIES SEPARATELY FOR THEIR FIELD LOCATION OF FACILITIES. PER FLORIDA STATUTE 553.851, THE CONTRACTOR OR EXCAVATOR IS REQUIRED TO NOTIFY THE GAS COMPANY TWO (2) WORKING DAYS PRIOR TO STARTING EXCAVATION.

**SANITARY SEWER SYSTEM**

**OWNER/OPERATOR**

THE ENTITY THAT WILL OPERATE AND MAINTAIN THE SEWER SYSTEM SHOWN ON THESE PLANS IS UTILITIES INC. OF SANDALHAVEN.

**CONSTRUCTION METHODS**

IN LAYING OUT THE SANITARY SEWER IN THE FIELD, THE CONTRACTOR SHALL USE THE STREET C/L OR PROPERTY LINE OFFSETS FOR LOCATING THE SANITARY SEWER MANHOLES AND INVERT ELEVATIONS GIVEN ON THE PLAN AND PROFILE SHEET. IN THE EVENT OF ANY MINOR DIFFERENCES IN ACTUAL LENGTHS OF THE SANITARY SEWER LINES BETWEEN MANHOLES FOR THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL ADJUST THE MANHOLE INVERTS TO MAINTAIN A MINIMUM GRADE AS SHOWN. UNDER NO CIRCUMSTANCES WILL PIPE GRADES LESS THAN 0.28% FOR 8" PIPE OR 0.28% FOR 10" PIPE BE ACCEPTED.

THE CONTRACTOR SHALL STAMP AN "S" IN THE CURB TOP AT EACH SANITARY SERVICE LOCATION. STAMPED "S" SHALL BE HIGHLIGHTED WITH GREEN PAINT. SEE ALSO SEWER DETAIL SHEET FOR SEWER LATERAL MARKING. "SAW" CUTS ARE NOT PERMISSIBLE.

CONTRACTOR SHALL BE RESPONSIBLE TO INSURE ALL MANHOLE TOPS ARE ADJUSTED AS NECESSARY TO MATCH FINAL GRADES.

TRENCH CUTS AND RESTORATION ACROSS ROADWAY SHALL BE IN ACCORDANCE WITH FDOT 2010 DESIGN STANDARDS INDEX 307.

**DEWATERING**

IN THE EVENT THAT GROUNDWATER IS ENCOUNTERED DURING THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM, DEWATERING SHALL BE CONDUCTED. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, INSTALLATION, OPERATION, AND SUBSEQUENT REMOVAL OF DEWATERING SYSTEMS AND THEIR SAFETY AND CONFORMITY WITH LOCAL COUNTY, STATE AND FEDERAL CODES AND REGULATIONS.

AT ALL TIMES DURING CONSTRUCTION, KEEP EXCAVATIONS FREE FROM STANDING WATER. SUMPS, IF REQUIRED, SHALL BE LOCATED OUTSIDE OF LOAD BEARING AREAS SO THAT BEARING SURFACES WILL NOT BE DISTURBED. WATER PUMPED FROM THE EXCAVATION SHALL BE DISCHARGED TO PREVENT RE-ENTRY INTO THE SOIL STRATA BEING DEWATERED. WATER CONTAINING SILT IN SUSPENSION SHALL NOT BE PUMPED INTO SEWER LINES OR ADJACENT STREAMS. THE METHOD OF DISPOSING OF WATER PUMPED FROM THE EXCAVATION SHALL BE APPROVED BY THE ENGINEER, PRIOR TO ACTUAL DISPOSAL.

**PIPE EMBEDMENT**

SANITARY SEWER PIPE MUST BE BEDDED TRUE TO LINE AND GRADE WITH UNIFORM AND CONTINUOUS LONGITUDINAL SUPPORT FROM A FIRM BASE. BLOCKING MAY NOT BE USED TO BRING THE PIPE TO GRADE. PIPE BED SHALL BE UNDISTURBED EARTH AND, IN THE EVENT OF OVER-EXCAVATION, THE CONTRACTOR SHALL REPLACE OVER EXCAVATION WITH CLEAN GRANULAR BACKFILL, AS NOTED BELOW, AND COMPACTED TO A DENSITY OF 98% OF THE AASHTO T-180 MAXIMUM DENSITY AND SHAPED TO FIT THE PIPE SO AS TO GIVE IT CONTINUOUS AND UNIFORM LONGITUDINAL SUPPORT.

AT ALL LOCATIONS WHERE PIPING IS TO BE INSTALLED IN AN AREA WHERE MUCK WAS NOTED IN THE SOILS TESTING OR AT ANY OTHER LOCATIONS WHERE MUCK OR ORGANIC SOILS ARE ENCOUNTERED, THE TRENCH SHALL BE OVER-EXCAVATED TO REMOVE ALL MUCK OR ORGANIC SOILS, GRANULAR BACKFILL OR AS NOTED BELOW, PLACED AND COMPACTED IN THE TRENCH BOTTOM TO THE ELEVATIONS AND LOCATIONS NOTED ON THE PLANS. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM DENSITY OF 98% OF THE AASHTO T-180 MAXIMUM DENSITY.

**TRENCH OR EXCAVATION BOTTOM STABILIZATION MATERIAL**

A. SAND  
SAND SHALL BE WELL GRADED, ORGANIC FREE, DURABLE, GRANULAR MATERIAL, AND SHALL PASS NO. 4 SIEVE. NOT MORE THAN 10% SHALL PASS A NO. 200 SIEVE.

B. PIT RUN GRAVEL  
PIT RUN GRAVEL SHALL BE ORGANIC FREE AND SHALL PASS A 3/4-INCH SIEVE.

C. GRANULAR MATERIAL  
GRANULAR MATERIAL SHALL BE WELL GRADED, ORGANIC AND TOPSOIL FREE, DURABLE AGGREGATE AND SHALL PASS A 3/4-INCH SIEVE. NOT MORE THAN 10% SHALL PASS A NO. 200 SIEVE.

**TRENCH SAFETY**

THE CONTRACTOR SHALL RECOGNIZE AND ABIDE BY ALL OSHA EXCAVATION SAFETY STANDARDS, INCLUDING THE FLORIDA TRENCH SAFETY ACT (90-96, LAWS OF FLORIDA). ANY MATERIAL, CONSTRUCTION METHODS, OR MATERIAL COST TO COMPLY WITH THESE LAWS SHALL BE INCIDENTAL TO THIS CONTRACT.

MINIMUM COVER OVER ALL PIPES SHALL BE 36" FROM TOP OF PIPE TO FINISHED GRADE. SEE PLAN AND PROFILE SHEETS FOR REQUIRED DEPTH.

**LEGEND:**

- = Found 4"x4" Concrete Monument (number noted if any)
- = Found No. 5 Rebar (I.D. noted if any)
- ▲ = Found P.K. Nail and Disc (I.D. noted if any)
- ▲ 32' = Spot Elevation
- = Set 4"x4" Concrete Monument with Cap L.B. #3943
- = Set No. 5 Rebar with Cap L.B. #3943
- △ = Set P.K. Nail and Disc L.B. #3943
- ⊗ = Utility Box
- ⊙ = Utility Pole
- = Guy Wire Anchor
- Ⓣ = Telephone Pedestal
- Ⓜ = Water Meter
- ⊗ = Valve
- ⊗ = Valve
- Ⓜ = Fire Hydrant
- #— = Overhead Utility Line
- x—x— = Barb Wire or Wire Fence
- o—o— = Chain Link Fence
- = Wood Privacy Fence
- SEW— = Existing Sewer
- WTR— = Existing Water
- ELEC— = Existing Buried Electric
- FOC— = Existing Buried Fiber Optic Cable
- TEL— = Existing Buried Telephone
- — — — = Property Line
- — — — = Right-of-Way
- Ⓜ #215 = Softdig Location w/ hole i.d.#

**ABBREVIATIONS:**

- A.=Arc
- Alum.=Aluminum
- Approx.=Approximate
- B.M.=Bench Mark
- (C)=Calculated data
- C.=Chord dimension
- C.B.=Chord Bearing
- C.M.=Concrete Monument
- Conc.=Concrete
- (D)=Deed data, Description data
- D.E.P.=Department of Environmental Protection
- D.N.R.=Department of Natural Resources
- D.O.T.=Department of Transportation
- Drain.=Drainage
- El.=Elevation
- Es'mt=Easement
- (F)=Field data
- Fin. Fl.=Finished Floor
- Fnd.=Found
- Gar. Fl.=Garage Floor
- Inv.=Invert
- L.B.=Land Surveying Business
- L.S.=Land Surveyor
- (M)=Measured data
- M.H.W.L.=Mean High Water Line
- M.P.=Metal Pipe
- M.R.=Metal Rod
- N.A.V.D.=North American Vertical Datum 1988
- N.G.V.D.=National Geodetic Vertical Datum 1929
- O.R.=Official Records
- (P)=Plat data
- P.C.=Point of Curvature
- P.C.C.=Point of Compound Curvature
- P.C.P.=Permanent Control Point
- P.I.=Point of Intersection
- P.K.=PARKER-KALON
- P.L.S.=Professional Land Surveyor
- P.O.B.=Point of Beginning
- P.O.C.=Point of Commencement
- P.O.L.=Point on Line
- P.O.T.=Point of Terminus
- P.R.C.=Point of Reverse Curvature
- P.R.M.=Permanent Reference Monument
- P.S.M.=Professional Surveyor and Mapper
- P.T.=Point of Tangency
- R.=Radius
- R/W=Right-of-Way
- S.F.=Square Feet
- Sta.=Station
- Struc.=Structure
- T.B.M.=Temporary Bench Mark
- Typ.=Typical
- (U)=Unrecorded data
- U.S.G.S.=United States Geodetic Survey
- Util.=Utility
- Wit. Cor.=Witness Corner
- WTWY=Waterway
- Ⓢ = Centerline
- Ⓢ = Property Line

**UTILITY OWNERS:**

**WATER & SANITARY SEWER**

CHARLOTTE COUNTY UTILITIES  
BRUCE R. BULLERT, P.E.  
25550 HARBORVIEW ROAD, UNIT 1  
PORT CHARLOTTE, FL. 33980  
PHONE: (941) 764-4509

**TELEPHONE/ FIBER OPTIC**

CENTURY LINK  
BRUCE HERRINGTON  
3301 DEL PRADO BLVD. S.  
CAPE CORAL, FL. 33904  
PHONE: (239) 984-7009

**TRAFFIC SIGNAL/ STREET LIGHTING**

CHAR. CO. COMM. DEV., TRAFFIC OPER.  
ANDY AMENDOLA  
7000 FLORIDA ST.  
PUNTA GORDA, FL. 33950-5798  
PHONE: (941) 575-3648

**ELECTRIC**

FLORIDA POWER & LIGHT CO.  
DAVID ALVAREZ  
2243 MURPHY COURT  
NORTH PORT, FL. 34289  
PHONE: (941) 423-4909

**CABLE TELEVISION**

XFINITY/COMCAST CABLE  
GARY HILL  
3490 TECHNOLOGY DRIVE  
VENICE, FL. 34275  
PHONE: (941) 342-3586

**SEWER**

UTILITIES INC OF SANDALHAVEN  
MICHAEL WILSON  
200 WEATHERSFIELD AVE.  
ALTAMONTE SPRINGS, FL 32714  
PHONE: (321) 972-0374  
CELL: (407) 468-3268

Drawing name: K:\TAM\_Civil\40005 - Utilities, Inc. of FtL\Files\Sandalhaven FM Relocation\Plan Sheets\C2 GENERAL NOTES.dwg, May 19, 2016 7:27am janson borraes

No.	REVISIONS	DATE	BY



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655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602  
PHONE: 813-620-1460  
WWW.KIMLEY-HORN.COM CA 00000696

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DATE	
SCALE	AS SHOWN
DESIGNED BY	WWW
DRAWN BY	---
CHECKED BY	WWW

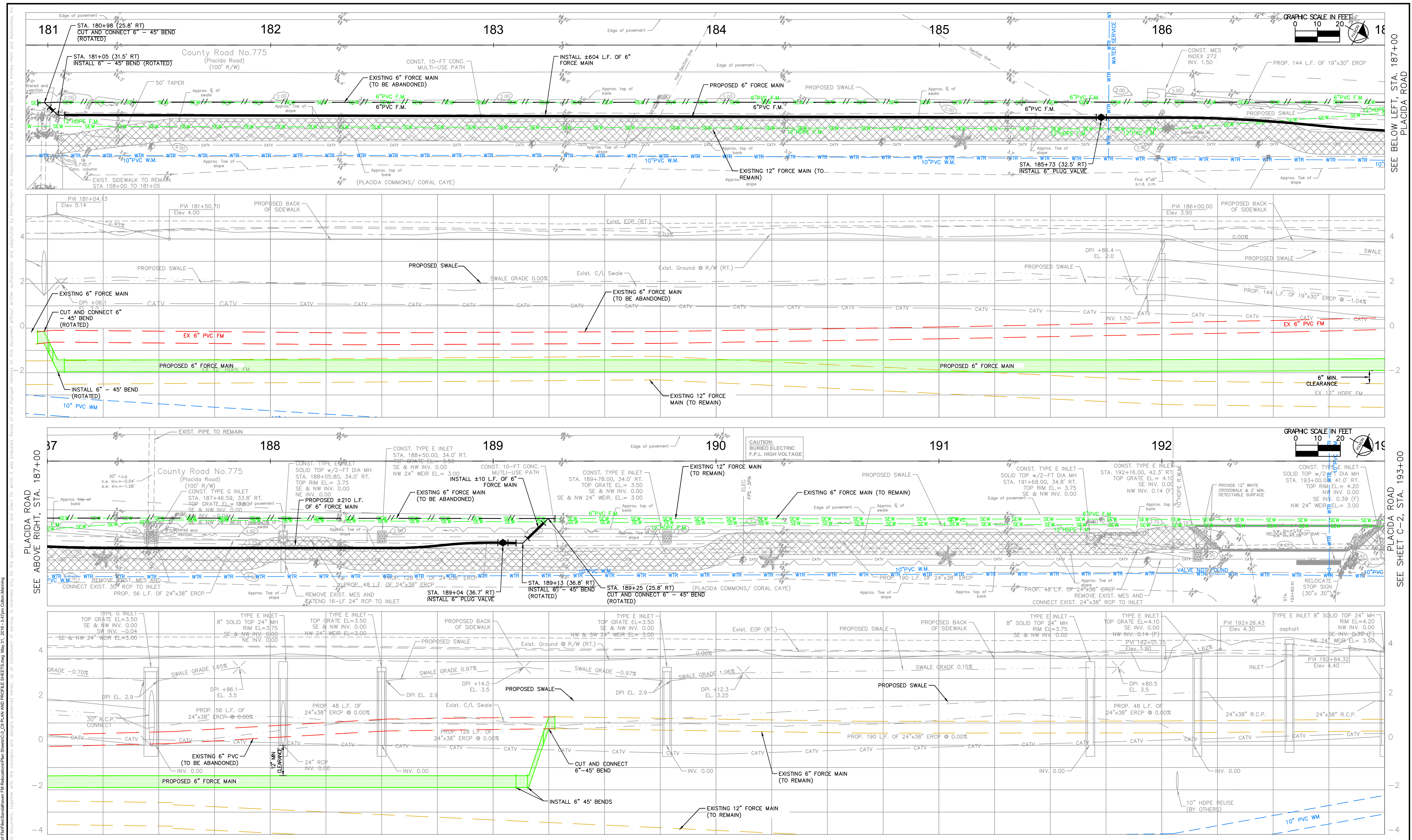
**SANDALHAVEN FORCE MAIN  
RELOCATION**

FL CHARLOTTE COUNTY

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

**GENERAL NOTES**

SHEET NUMBER  
**C-2**



No.	REVISIONS	DATE	BY

**Kimley»Horn**

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KHA PROJECT  
140056  
DATE  
SCALE AS SHOWN  
DESIGNED BY WWW  
DRAWN BY ---  
CHECKED BY WWW

SANDALHAVEN FORCE MAIN  
RELOCATION  
FL. DATE:

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

PLAN AND PROFILE  
STA 181+00 TO 193+00  
SHEET NUMBER  
C-3

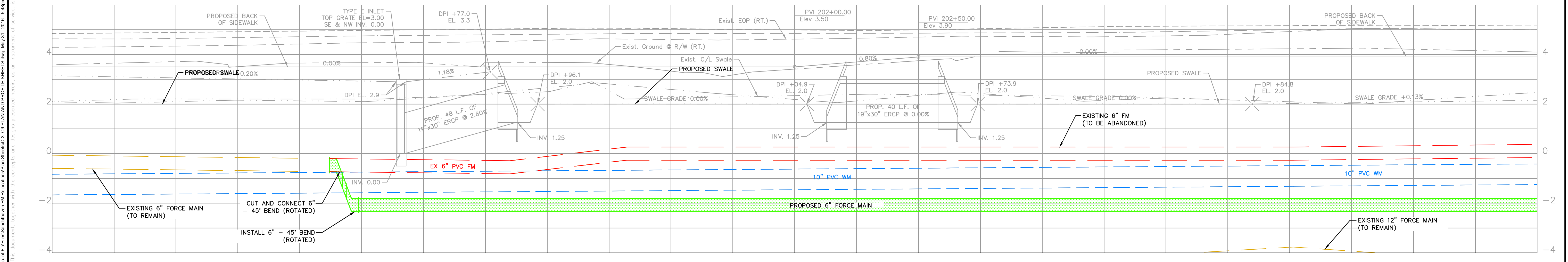
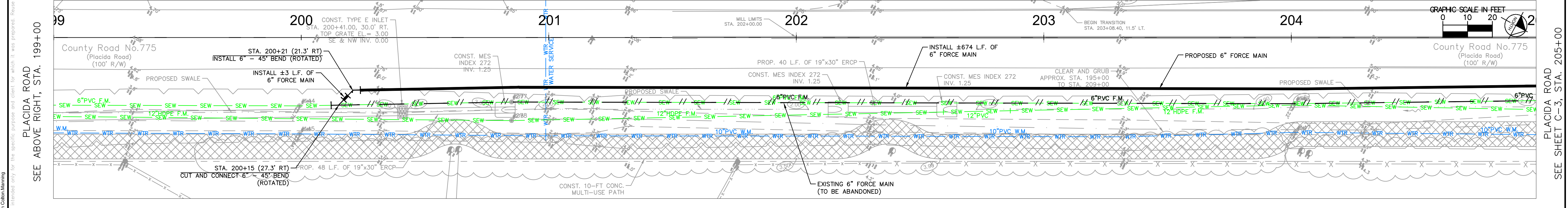
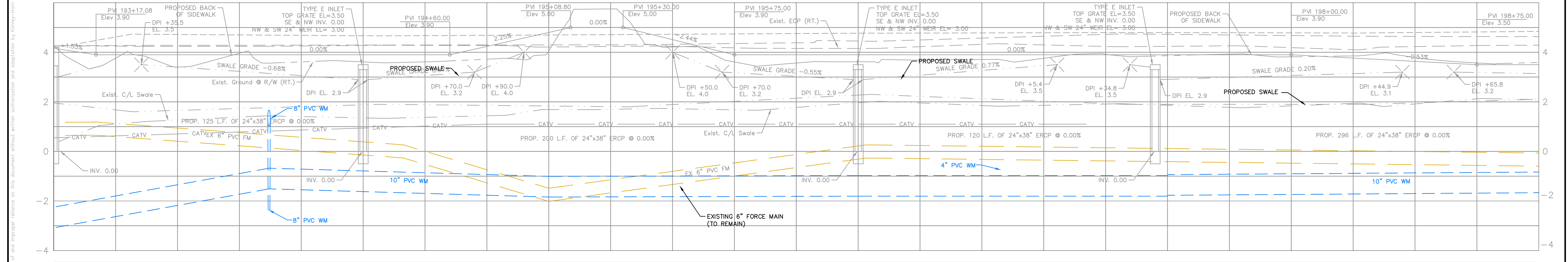
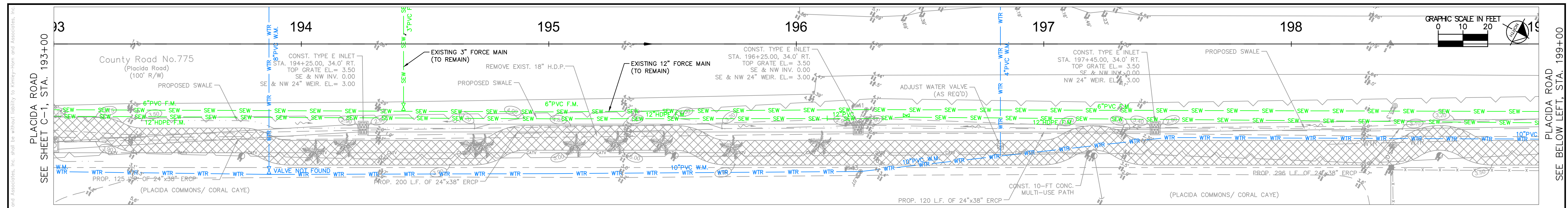
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PLACIDA ROAD STA. 193+00  
SEE SHEET C-2.

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No.	REVISIONS	DATE	BY

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 PHONE: 813-620-1460  
 WWW.KIMLEY-HORN.COM CA 00000696

KHA PROJECT 140056
DATE
SCALE AS SHOWN
DESIGNED BY WWW
DRAWN BY ---
CHECKED BY WWW

**SANDALHAVEN FORCE MAIN  
RELOCATION**

FL. DATE:

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

**PLAN AND PROFILE  
STA 193+00 TO 205+00**

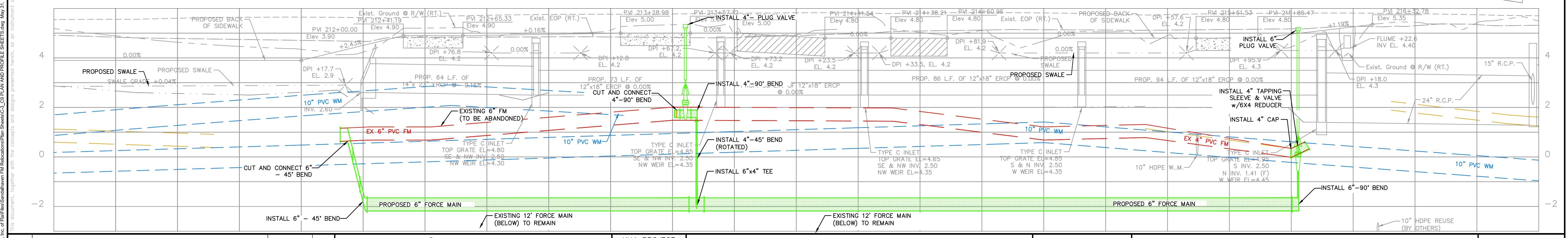
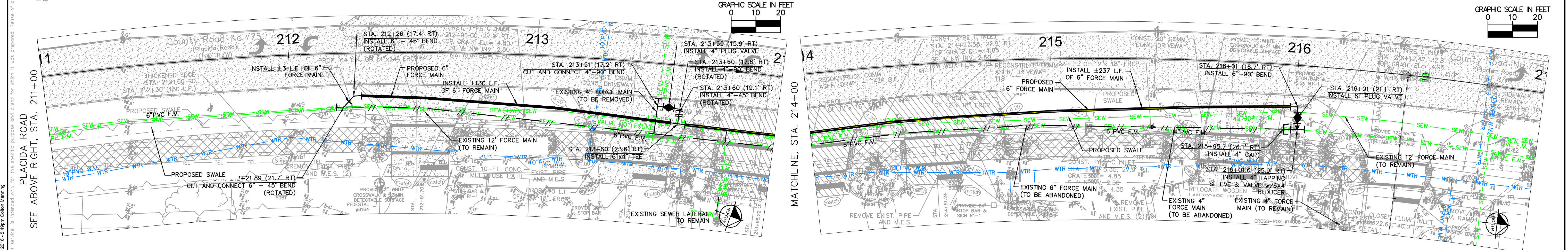
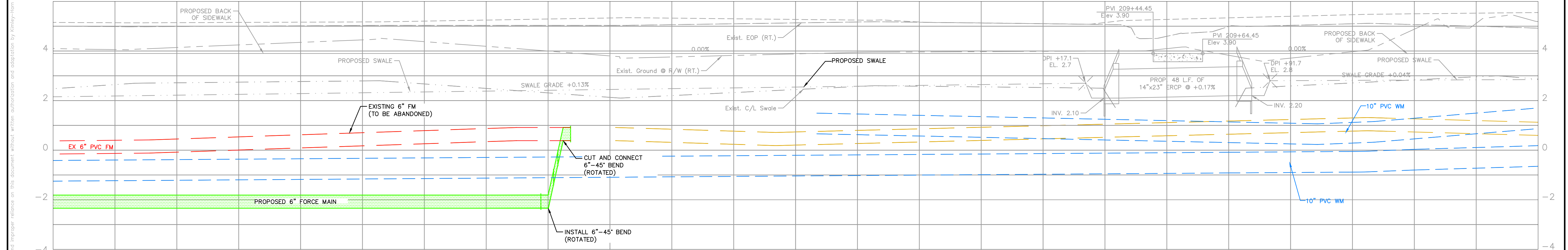
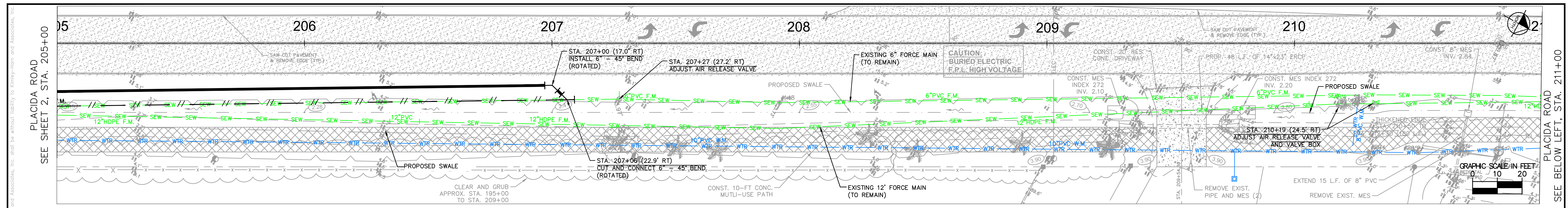
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PLACIDA ROAD  
SEE BELOW LEFT, STA. 199+00

PLACIDA ROAD  
SEE ABOVE RIGHT, STA. 199+00

PLACIDA ROAD  
SEE BELOW LEFT, STA. 205+00



No.	REVISIONS	DATE	BY

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 PHONE: 813-620-1460  
 WWW.KIMLEY-HORN.COM CA 00000696

KHA PROJECT  
140056

DATE

SCALE AS SHOWN

DESIGNED BY WWW

DRAWN BY ---

CHECKED BY WWW

CHARLOTTE COUNTY

**SANDLHAVEN FORCE MAIN  
RELOCATION**

LICENSED PROFESSIONAL

W. WADE WOOD, P.E.

FL LICENSE NUMBER  
69051

FL DATE:

PLAN AND PROFILE  
STA 205+00 TO 217+00

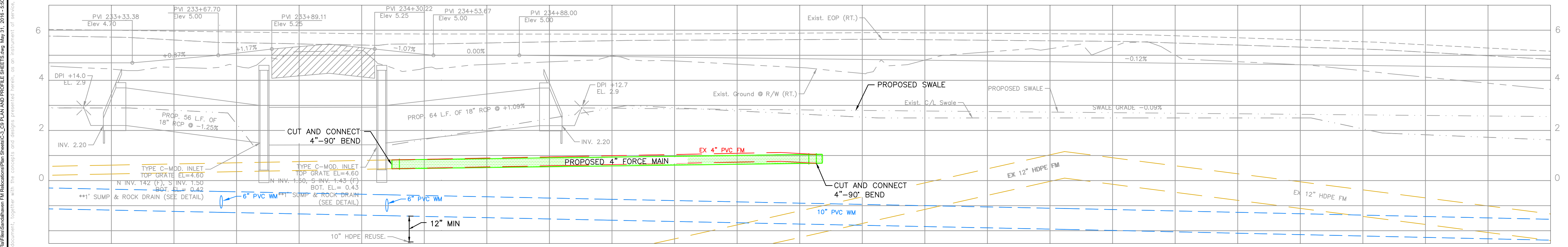
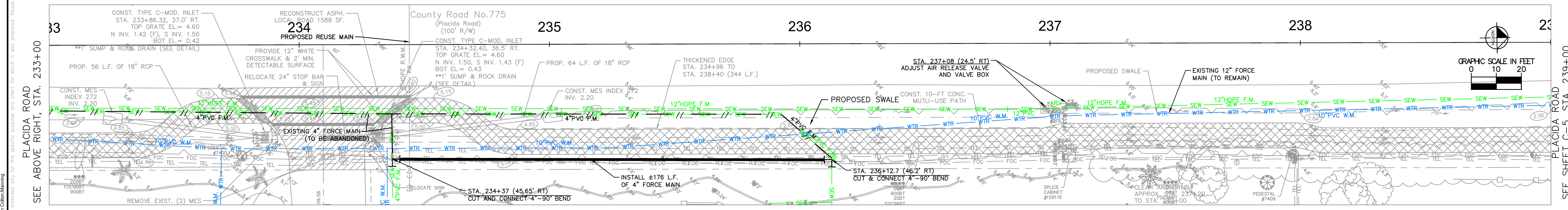
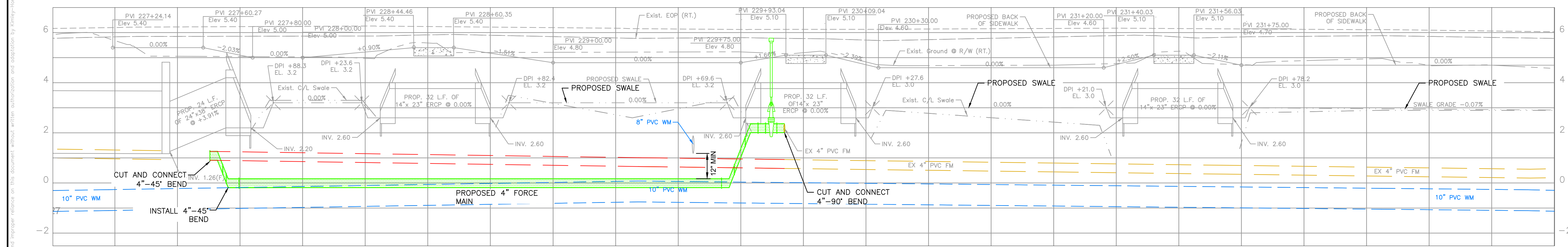
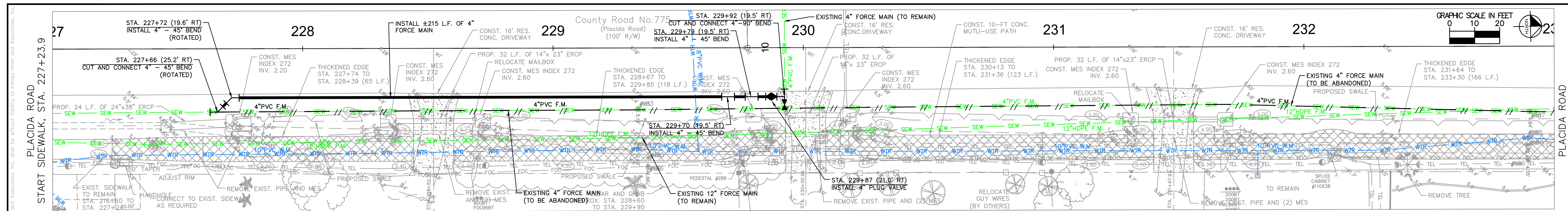
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PLACIDA ROAD STA. 211+00

MATCHLINE, STA. 214+00

SEE BELOW LEFT, STA. 211+00



No.	REVISIONS	DATE	BY

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 PHONE: 813-620-1460  
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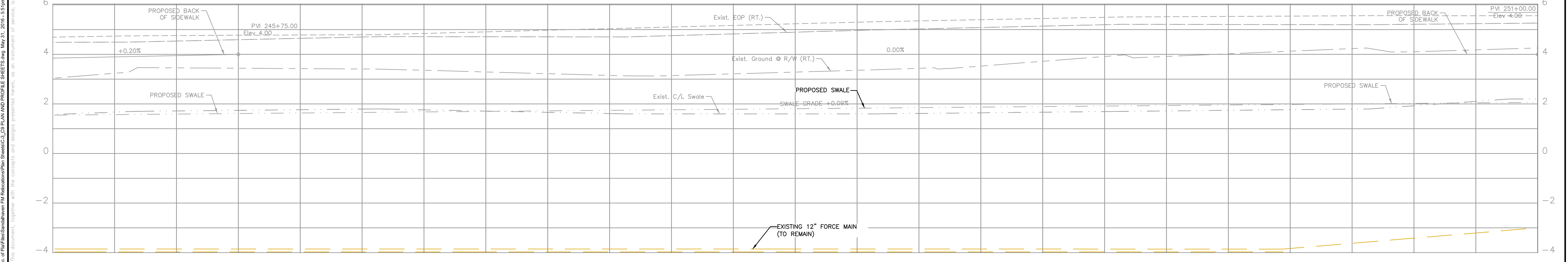
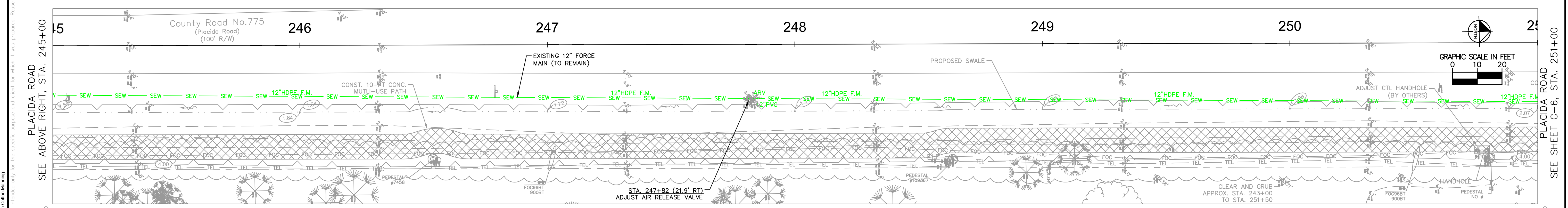
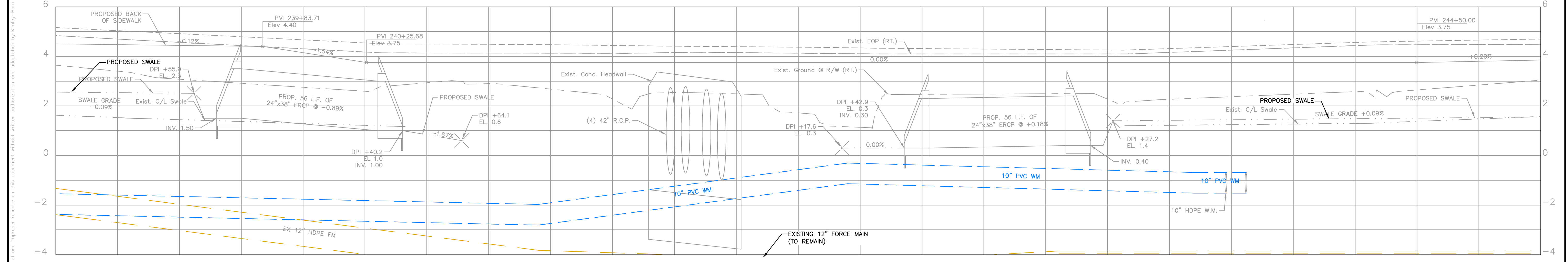
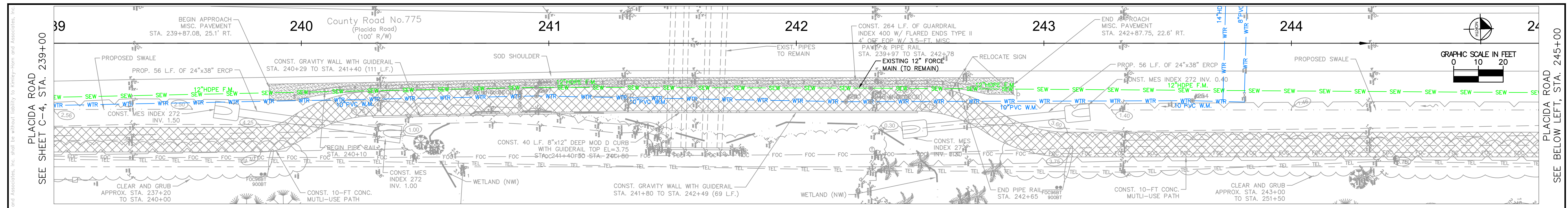
KHA PROJECT  
 140056  
 DATE  
 SCALE AS SHOWN  
 DESIGNED BY WWW  
 DRAWN BY ---  
 CHECKED BY WWW CHARLOTTE COUNTY

SANDALHAVEN FORCE MAIN  
 RELOCATION

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

SHEET NUMBER  
 PLAN AND PROFILE  
 STA 227+00 TO 239+00  
 C-6

Drawing name: K:\TAM\140056 - Utilities, Inc. of F&W\SanDahlhaven\Plan\Revisions\Sheet\CO\_2D\_PLAN\_AND\_PROFILE\_SHEETS.dwg, May 31, 2016 - 4:50pm Colton Manning  
 This document, together with the contracts and drawings, represents the entire agreement between the parties and shall not be modified, amended, or otherwise changed in any way without the written consent of Kimley-Horn and Associates, Inc. and F&W Engineering and Associates, Inc.



No.	REVISIONS	DATE	BY

**Kimley»Horn**

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 655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602  
 PHONE: 813-620-1460  
 WWW.KIMLEY-HORN.COM CA 00000696

KHA PROJECT 140056
DATE
SCALE AS SHOWN
DESIGNED BY WWW
DRAWN BY ---
CHECKED BY WWW

**SANDLHAVEN FORCE MAIN  
RELOCATION**

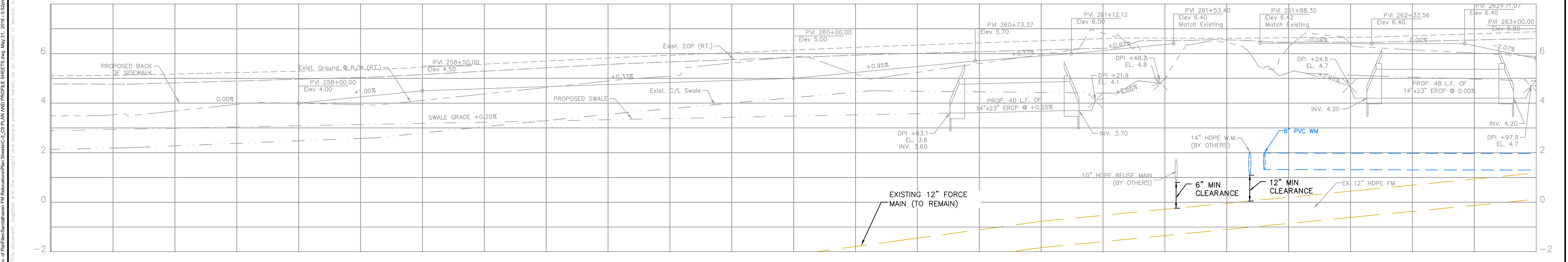
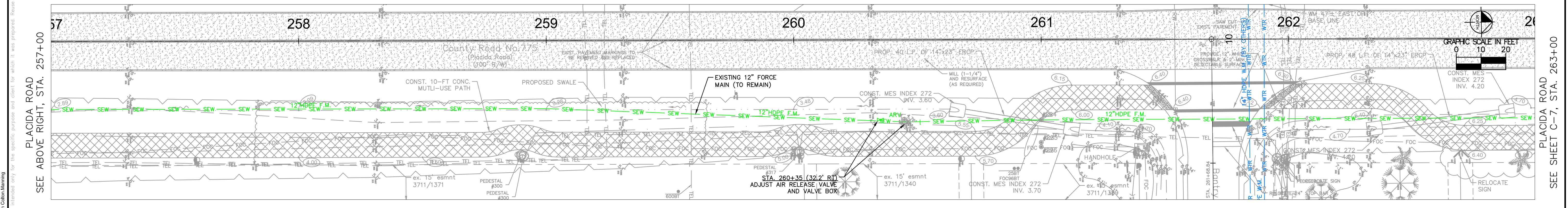
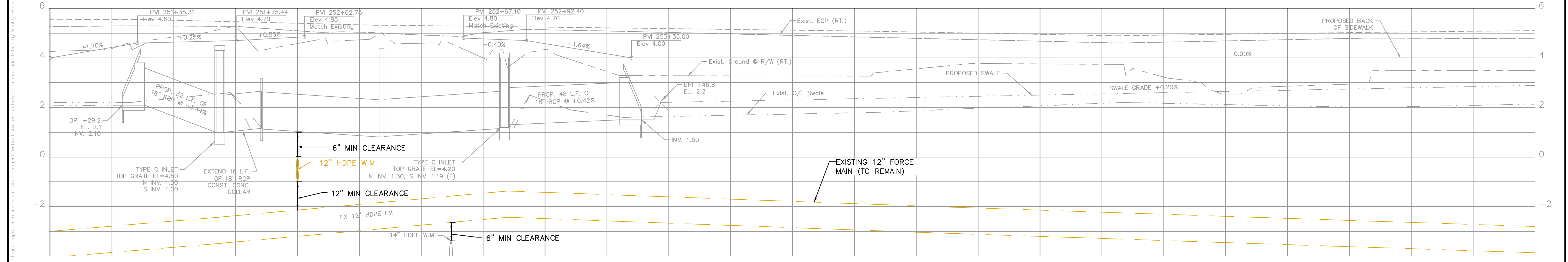
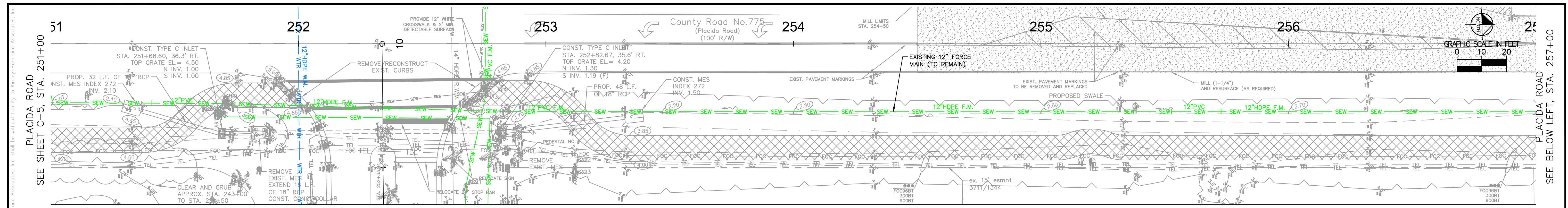
FL. CHARLOTTE COUNTY

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

**PLAN AND PROFILE  
STA 239+00 TO 251+00**

SHEET NUMBER  
**C-7**

Drawing name: K:\TAM\140056 - Utilities, Inc. of Flt\Pls\Sandhaven FM Relocation\Plan Sheets\C-7 PLAN AND PROFILE SHEETS.dwg, May 31, 2016 - 3:51pm Colleen Manning



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KHA PROJECT 140056
DATE
SCALE AS SHOWN
DESIGNED BY WWW
DRAWN BY ---
CHECKED BY WWW

SANDLHAVEN FORCE MAIN  
RELOCATION

CHARLOTTE COUNTY

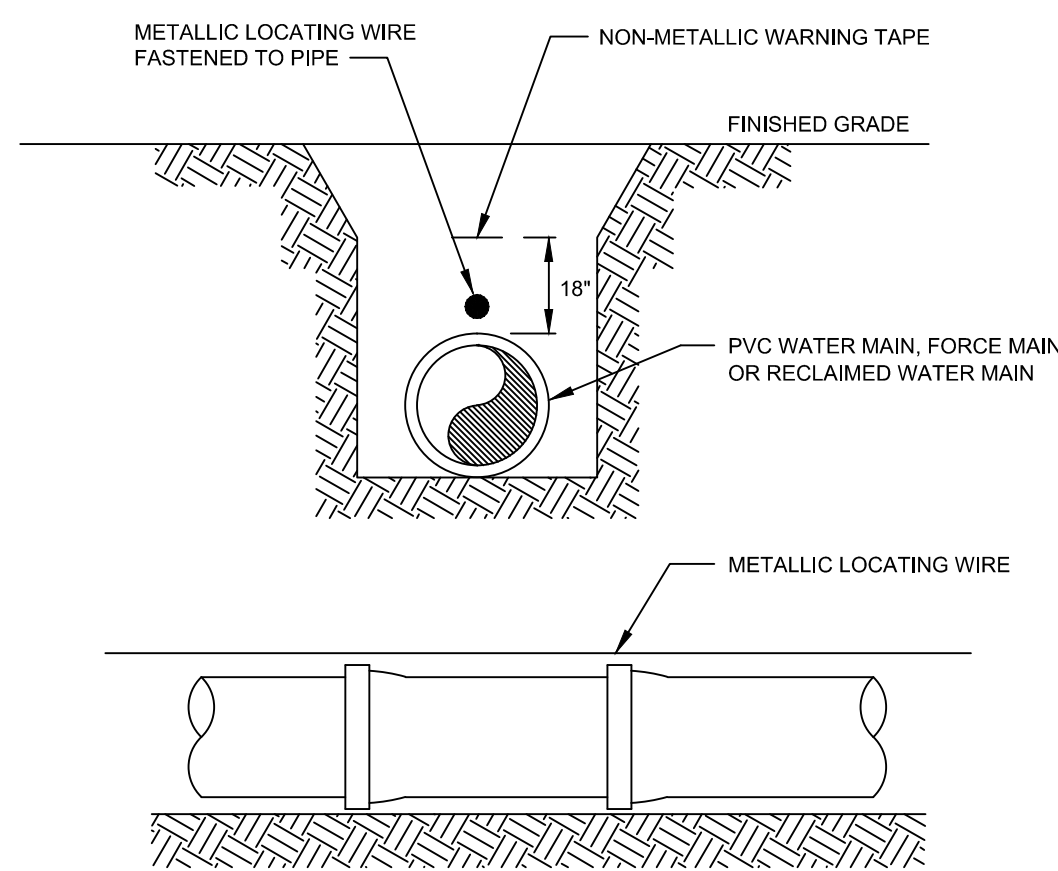
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W. WADE WOOD, P.E.  
FL LICENSE NUMBER  
69051

PLAN AND PROFILE  
STA 251+00 TO 263+00

SHEET NUMBER  
C-8

Drawing name: K:\TAM\140056 - Utilities, Inc. of F&E\Substation\Plan Sheets\C-8 PLAN AND PROFILE SHEETS.dwg May 31, 2016 - 5:52pm Colton Manning

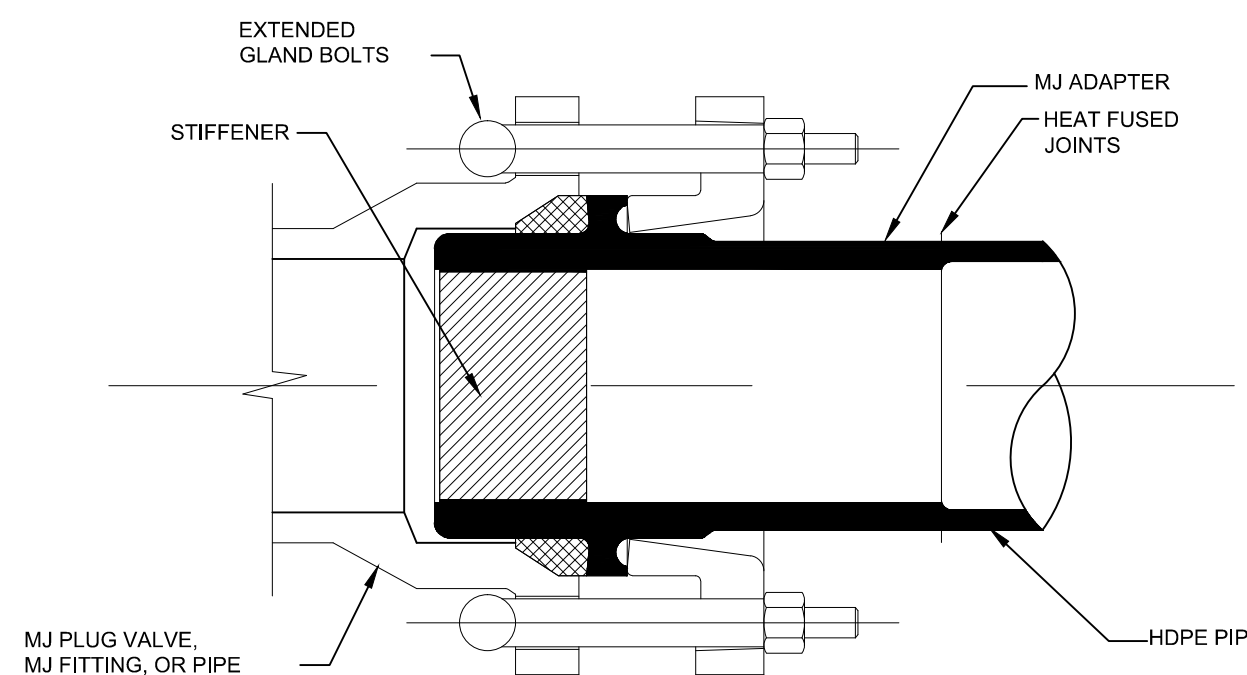




- NOTES:
1. ALL NON-METALLIC PIPE SHALL REQUIRE CONTINUOUS INSULATED METALLIC LOCATING WIRE (14 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE.
  2. THE TRACING WIRE SHALL BE CENTERED ON ALL PIPE (INCLUDING SERVICES) AND TIED INTO ALL HYDRANTS, VALVE BOXES AND METER BOXES. TESTING FOR CONTINUITY IS REQUIRED.
  3. USE VINYL TIE-STRAPS AS NECESSARY TO HOLD WIRE DIRECTLY ON THE TOP OF THE PIPE. DUCT TAPE SHALL NOT BE USED.
  4. WIRE CONNECTIONS MUST BE CLAMPED TOGETHER AND SEALED FOR MOISTURE.
  5. ALL WIRE SPLICE LOCATIONS SHALL BE SHOWN ON THE AS-BUILT DRAWINGS.
  6. WIRE AND WARNING TYPE SHALL BE COLOR CODED AS FOLLOWS  
WATER: BLUE  
SEWER: GREEN  
RECLAIMED: PURPLE

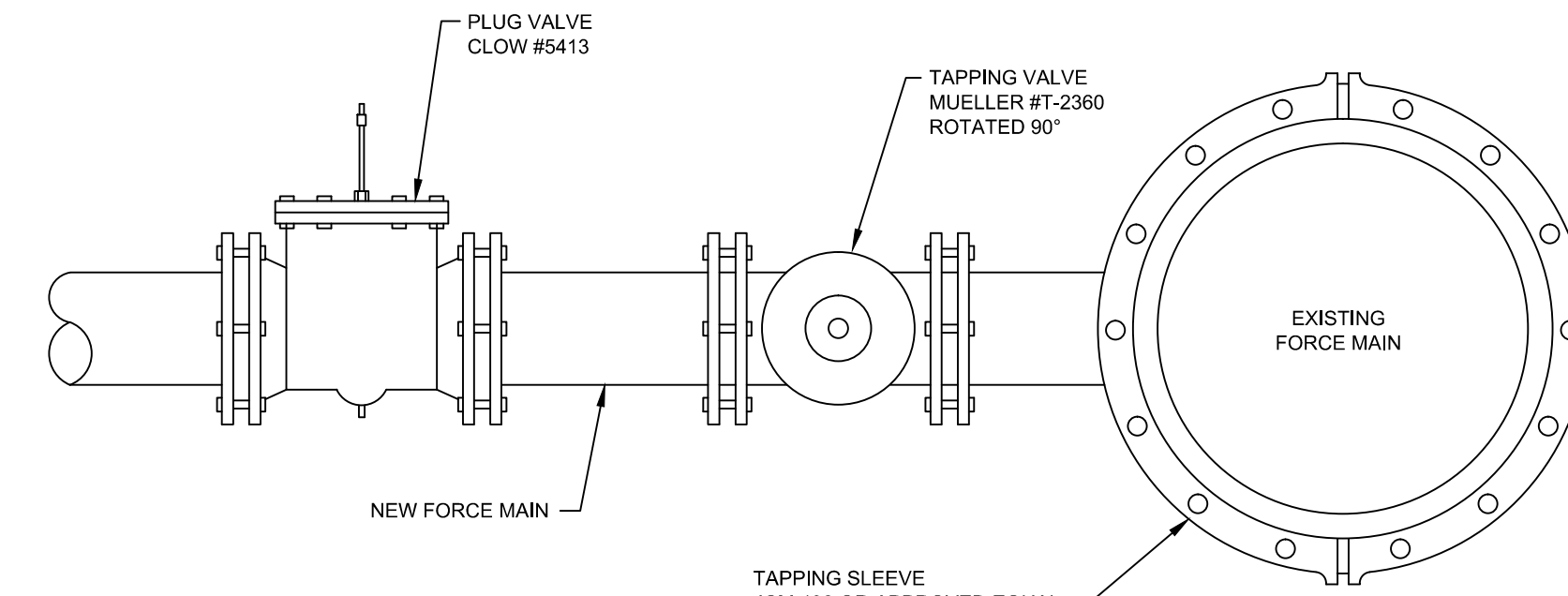
PIPE LOCATING WIRE DETAIL  
N.T.S.

<p>UTILITIES, INC. of FLORIDA 200 WEATHERFIELD AVE. ALTIMONTE SPRINGS, FL 32714 407-869-1919</p>	SCALE: NONE	GENERAL DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02 FILE: PIPE-LOC.DWG	PIPE LOCATING WIRE DETAIL	G-10

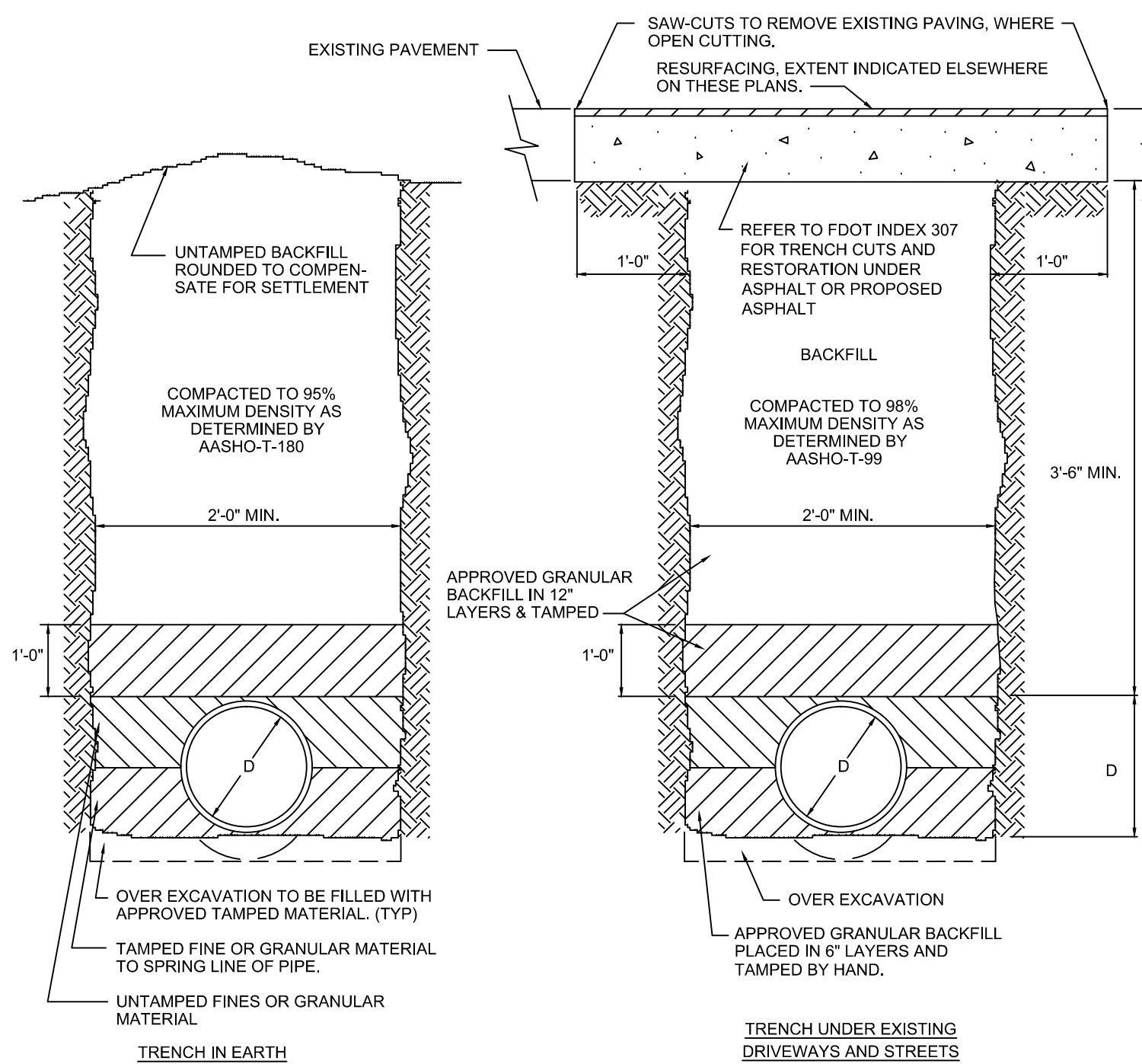


NOTE: PAYMENT OF MJ ADAPTER IS TO BE INCLUDED IN THE UNIT COST OF THE HDPE PIPE.

MJ ADAPTER DETAIL  
(DRISCOPEX MJ ADAPTER OR EQUIVALENT)  
N.T.S.



CONNECTION DETAIL  
NEW FORCE MAIN TO EXISTING  
N.T.S.



NOTE: TRENCHES SHALL BE AS NARROW AS POSSIBLE TO ALLOW FOR SAFE AND PROPER PIPE INSTALLATION. TRENCH SIDES SHALL BE VERTICAL TO A POINT 1'-0" ABOVE THE TOP OF THE PIPE. ABOVE THIS POINT SLOPED SIDES MAY BE USED IF CONDITIONS PERMIT, BUT SHOULD BE KEPT AS NEARLY VERTICAL AS POSSIBLE.

TRENCH DETAILS  
N.T.S.

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

Other Pipe	Horizontal Separation	Crossings (1)	Joint Spacing @ Crossings (Full Joint Centered)
Storm Sewer, Stormwater Force Main, Reclaimed Water (2)	Water Main 3 ft. minimum	Water Main 12 inches is the minimum, except for storm sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 3 ft. minimum Water Main
Vacuum Sanitary Sewer	Water Main 10 ft. preferred 3 ft. minimum	Water Main 12 inches preferred 6 inches minimum	Alternate 3 ft. minimum Water Main
Gravity or Pressure Sanitary Sewer, Sanitary Sewer Force Main, Reclaimed Water (4)	Water Main 10 ft. preferred 6 ft. minimum (3)	Water Main 12 inches is the minimum, except for gravity sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 6 ft. minimum Water Main
On-Site Sewage Treatment & Disposal System	10 ft. minimum	---	---

- (1) Water main should cross above other pipe. When water main must be below other pipe, the minimum separation is 12 inches.  
(2) Reclaimed water regulated under Part III of Chapter 62-610, F.A.C.  
(3) 3 ft. for gravity sanitary sewer where the bottom of the water main is laid at least 6 inches above the top of the gravity sanitary sewer.  
(4) Reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.

Disclaimer - This document is provided for your convenience only. Please refer to F.A.C. Rule 62-555.314 for additional construction requirements.

The separation notes shall include the minimum vertical and horizontal separation between potable water and sanitary sewer mains to comply with Rules 62-604.400(2)(g) - (i), F.A.C. and 62-604.400 (3), F.A.C. as noted below.

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. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY 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 WATER MAIN 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 CROSSINGS DESCRIBED 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, 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.

Drawing name: K:\TAM\14005- Utilities, Inc. of Florida\Sandalhaven FM Relocation\Pin Sheets\G-10 DETAIL SHEET.dwg Date: May 19, 2016 - 7:27am jimbob@kimley-horn.com

No.	REVISIONS	DATE	BY

**Kimley»Horn**

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KHA PROJECT 140056
DATE
SCALE AS SHOWN
DESIGNED BY WWW
DRAWN BY ---
CHECKED BY WWW

SANDALHAVEN FORCE MAIN  
RELOCATION  
CHARLOTTE COUNTY

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

DETAIL SHEET

SHEET NUMBER

G-10