

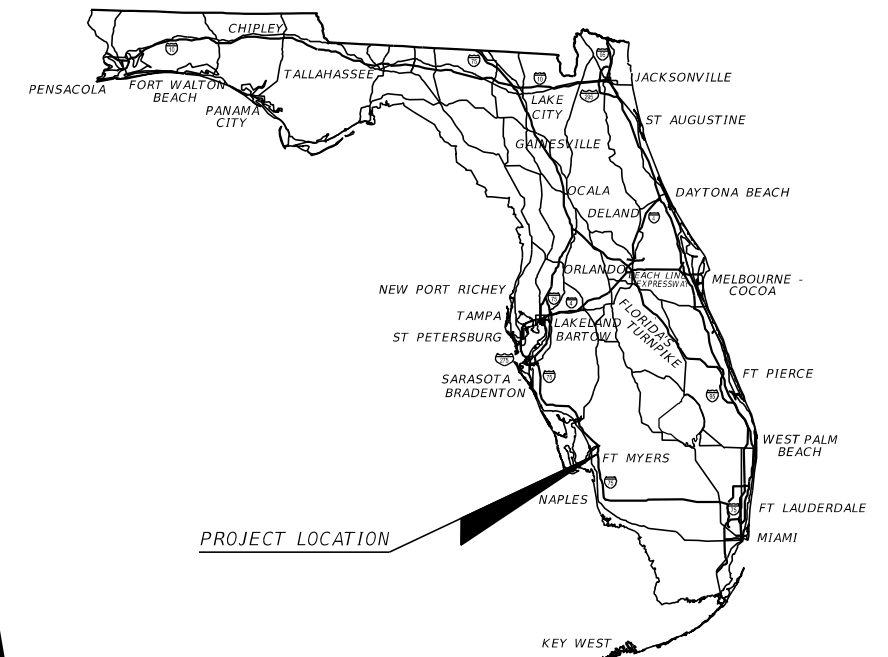
LEE COUNTY UTILITIES

ORTIZ AVENUE WIDENING

FROM SR 884 TO SR 82

LEE COUNTY
COUNTY ROAD NO. 865

UTILITY PLANS



INDEX OF UTILITY PLANS

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LEE COUNTY COMMISSIONERS:

- District 1: Kevin Ruane
- District 2: Cecil Pendergrass
- District 3: Ray Sandelli
- District 4: Brian Hamman
- District 5: Mike Greenwell

COUNTY MANAGER

Roger Desjarlais

ASSISTANT COUNTY MANAGER (Utilities)

Christine Brady

DIRECTOR OF PUBLIC UTILITIES

Pamela Keyes, P.E.

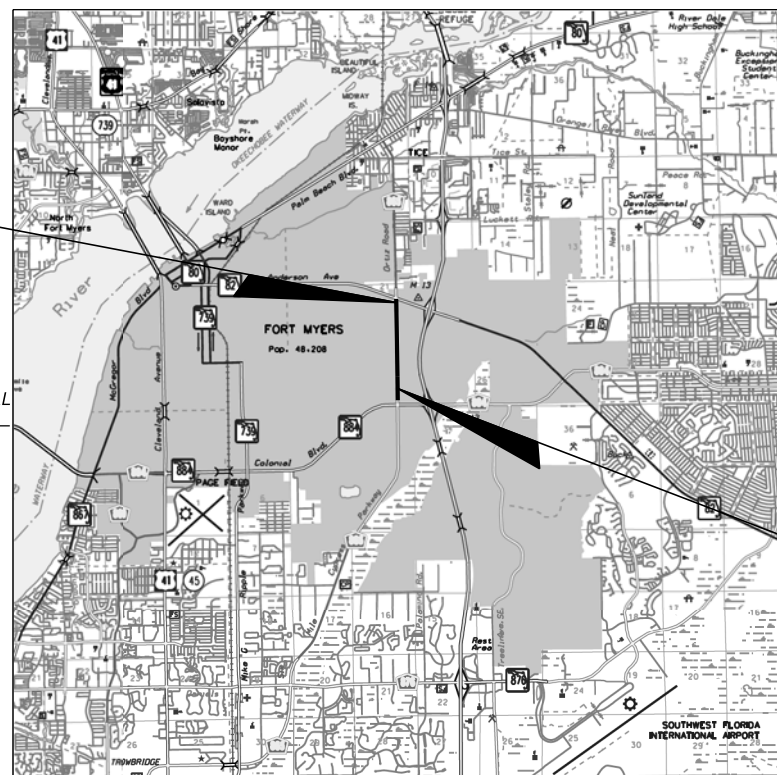
GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY 2023-24 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road Construction and associated IRs are available at the following website: <http://www.fdot.gov/design/standardplans>

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, FY 2023-24 Standard Specifications for Road and Bridge Construction at the following website: <http://www.fdot.gov/programmanagement/Implemented/SpecBooks>



END UTILITY CONST.
STA. 98+50

TO CAPE CORAL

TO LEHIGH ACRES

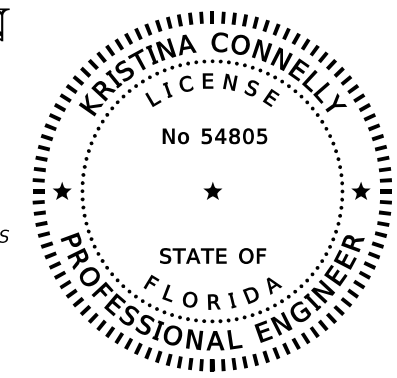
T-44-S
T-45-S

BEGIN UTILITY CONST.
STA. 15+60

R-24-E
R-25-E

TO BONITA
SPRINGS

R-25-E
R-26-E



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ON THE DATE ADJACENT TO THE SEAL
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

KRYSTINA CONNELLY
P.E. LICENSE NUMBER 54805
STANTEC
1821 VICTORIA AVENUE
FORT MYERS, FL 33901

UTILITY PLANS
ENGINEER OF RECORD:



Stantec
1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connelly, P.E. #54805

LCU PROJECT MANAGER:
CHARLIE DUVERGE, P.E.

SHEET NO.

U-1

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SURVEY SYMBOLS LEGEND:

	AIR RELEASE VALVE		FORCE MAIN AIR RELEASE VALVE		SPRINKLER
	AUTO VACUUM / AIR PUMP		GAS PIPELINE MARKER		STEEL POST
	BACKFLOW PREVENTER		GAS VALVE		TELEPHONE BOX OR VAULT
	BACTERIAL SAMPLE POINT		GATE KEY PAD		TELEPHONE CANISTER
	BENCH MARK		GATE ARM ACTUATOR BOX		TELEPHONE (BURIED) MARKER POST
	BOLLARD		GROUND LIGHT		TELEPHONE MANHOLE
	CABLE RISER		GREASE MANHOLE		TELEPHONE RISER
	CABLE TV BOX		GUARD RAIL		TOE OF SLOPE
	CATCH BASIN		GUY POLE		TOP OF BANK
	CENTERLINE		GUY WIRE		TRAFFIC SIGNAL BOX
	CLEANOUT		HANDI-CAP PARKING		TRAFFIC SIGNAL POLE
	COORDINATE NUMBER		HOSE BIB		TRAFFIC SIGNAL LIGHT
	CONCRETE POWER POLE		IRRIGATION BOX		UNKNOWN UTILITY VAULT
	CONCRETE POST		IRRIGATION VALVE		UNKNOWN UTILITY MANHOLE
	DRAINAGE MANHOLE		LIGHT POLE		WATER MANHOLE
	ELECTRICAL BOX		MAIL BOX		WATER LINE FLAG
	ELECTRIC OUTLET		METAL POWER POLE		WATER METER
	ELECTRIC MANHOLE		MITERED END		WATER VALVE
	ELECTRIC METER		WELL OR MONITORING WELL		WOOD POST
	ELECTRIC TRANSFORMER W/ PAD		ELECTRIC FLAG		WOOD SUPPORT POLE
	EXISTING ELEVATION		PARKING PAY METER		YARD DRAIN
	FENCE - BARBED WIRE		POWER POLE		CROSS WALK SIGNAL POLE
	FENCE - CHAIN LINK / U.O.N.		POWER POLE w/RISER		CROSS WALK BUTTON POLE
	FENCE - WOOD / U.O.N.		PROPANE VALVE		BUSH
	FIBER OPTIC MARKER / POST		RECLAIM WATER LINE FLAG		CABBAGE PALM
	FIBER OPTIC BOX		SEWER LINE FLAG		OAK TREE
	FIRE HYDRANT		SEWER MANHOLE		PALM TREE
	FIRE VALVE		SEWER VALVE		PINE TREE
	FLAG POLE		SECURITY SENSOR		SHADE TREE (VARIOUS TYPE)
			SIGN SINGLE POST		
			SIGN DOUBLE POST		

EXISTING UTILITIES LEGEND

	G(B)-	EXISTING GAS MAIN
	G(D)-	EXISTING GAS MAIN
	S(D)-	EXISTING SANITARY
	S(A)-	EXISTING SANITARY
	W(A)-	EXISTING WATER MAIN
	W(B)-	EXISTING WATER MAIN
	W(D)-	EXISTING WATER MAIN
	S(A)-	EXISTING SANITARY FORCE MAIN
	S(B)-	EXISTING SANITARY FORCE MAIN
	S(D)-	EXISTING SANITARY FORCE MAIN
	BE(B)-	EXISTING BURIED ELECTRIC
	BE(D)-	EXISTING BURIED ELECTRIC
	OE	EXISTING OVERHEAD ELECTRIC
	NPW(A)-	EXISTING RECLAIMED WATER
	NPW(B)-	EXISTING RECLAIMED WATER
	NPW(D)-	EXISTING RECLAIMED WATER
	CAS(D)-	EXISTING CONDUIT
	BT(B)-	EXISTING BURIED TELEPHONE
	BT(D)-	EXISTING BURIED TELEPHONE
	OT	EXISTING OVERHEAD TELEPHONE
	BTV(B)-	EXISTING BURIED CABLE TV
	BTV(D)-	EXISTING BURIED CABLE TV
	OTV	EXISTING OVERHEAD CABLE TV
	BFOC(B)-	EXISTING BURIED FIBER OPTIC
	BFOC(D)-	EXISTING BURIED FIBER OPTIC
	-----	EXISTING SIGNAL CABLE

SURVEY ABBREVIATIONS:

AC. = ACRE	MH = MANHOLE
A.C. = AIR CONDITIONER	MHWL = MEAN HIGH WATER LINE
A.K.A. = ALSO KNOWN AS	MISC. = MISCELLANEOUS
ALUM. = ALUMINUM	MON = MONUMENT
APPR. = APPROXIMATE	NAD = NORTH AMERICAN DATUM
ASPH. = ASPHALT	N.A.V.D. = NORTH AMERICAN VERTICAL DATUM
AVE. = AVENUE	NGS = NATIONAL GEODETIC SURVEY
BLDG. = BUILDING	N.G.V.D. = NATIONAL GEODETIC VERTICAL DATUM (1929)
BLVD. = BOULEVARD	No. = NUMBER
BM = BENCHMARK	N.T.S. = NOT TO SCALE
BOC = BACK OF CURB	N.T.T. = NAIL & TIN TAB
BOW = BACK OF WALK	O/H = OVERHANG
BSM = BUREAU OF SURVEYING AND MAPPING	O.H.W.L. = ORDINARY HIGH WATER LINE
(C) = CALCULATED	O.H.W.M. = ORDINARY HIGH WATER MARK
CATV = CABLE TELEVISION	O.R. = OFFICIAL RECORD BOOK / PAGE
CB = CATCH BASIN	(P) = PLAT
CBS = CONCRETE BLOCK STRUCTURE	PB = PLAT BOOK
C.C.R. = CERTIFIED CORNER RECORD	P.C. = POINT OF CURVATURE
CDB = CHORD BEARING	PCP = PERMANENT CONTROL POINT
CH = CHORD	PG (S) = PAGE(S)
CLF = CHAIN LINK FENCE	P.I. = POINT OF INTERSECTION
CM = CONCRETE MONUMENT	PKN&D = PARKER-KALON NAIL & DISK
CMP = CORRUGATED METAL PIPE	PKWY. = PARKWAY
C.O. = CLEANOUT	PL = PROPERTY LINE
CONC. = CONCRETE	PLS = PROFESSIONAL LAND SURVEYOR
CONT. = CONTROL	P.O.B. = POINT OF BEGINNING
CPP = CORRUGATED PLASTIC PIPE	P.O.C. = POINT OF COMMENCEMENT
COR. = CORNER	P.O.T. = POINT OF TERMINUS
CORP. = CORPORATION	PP = POWER POLE
C.P. = CONTROL POINT	P.R.M. = PERMANENT REFERENCE MONUMENT
C.R. = COUNTY ROAD	PROP. = PROPERTY
CT. = COURT	PSM = PROFESSIONAL SURVEYOR AND MAPPER
C.U.E. = COUNTY UTILITY EASEMENT	PT. = POINT
(D) = DEED	P.T. = POINT OF TANGENCY
D.E. = DRAINAGE EASEMENT	P.U.E. = PUBLIC UTILITY EASEMENT
(DESC.) = DESCRIPTION	PVC = POLY VINYL CHLORIDE
DH = DRILL HOLE	R = RADIUS OR RIGHT
DIA. = DIAMETER	(R) = RECORD
DR. = DRIVE	RCP = REINFORCED CONCRETE PIPE
DWG. = DRAWING	RGE = RANGE
EL. = ELEVATION	RLS = REGISTERED LAND SURVEYOR
ELEC. = ELECTRIC	R.R. = RAILROAD
EOP = EDGE OF PAVEMENT	RT = RIGHT
EOW = EDGE OF WATER	RTA = RIGHT ANGLE
ERCOP = ELLIPTICAL REINFORCED CONCRETE PIPE	RTK = REAL TIME KINEMATIC
ESMT. = EASEMENT	R/W = RIGHT-OF-WAY
EXIST. = EXISTING	SEC. = SECTION
(F) = FIELD	S.F. = SQUARE FEET
FDEP = FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	SWFMD = SOUTH FLORIDA WATER MANAGEMENT DISTRICT
FDOT = FLORIDA DEPARTMENT OF TRANSPORTATION	SHT. = SHEET
FEMA = FEDERAL EMERGENCY MANAGEMENT AGENCY	S.R. = STATE ROAD
F.F. = FINISHED FLOOR	S.S. = SANITARY SEWER
FND = FOUND	STA. = STATION
FPL OR FP&L = FLORIDA POWER & LIGHT	ST. = STREET
F.S. = FLORIDA STATUTES	SWFWM = SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
FT. = FOOT / FEET	T = TANGENT
GLO = GENERAL LAND OFFICE	TEL = TELEPHONE
GPS = GLOBAL POSITIONING SYSTEM	TIIF = TRUSTEES OF THE INTERNAL IMPROVEMENT FUND OF THE STATE OF FLORIDA
LD. = IDENTIFICATION	TIITF = BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA
I.D.D. = IONA DRAINAGE DISTRICT	TOB = TOP OF BANK
I.N. = INSTRUMENT NUMBER	TOE = TOE OF SLOPE
INC. = INCORPORATED	T.P. = TRAVERSE POINT
INST. = INSTRUMENT	TRANS. = TRANSITION
INV. = INVERT	TWP = TOWNSHIP
IR = IRON ROD (5/8" DIA. U.O.N.)	TYP = TYPICAL
IRC OR IR&C = IRON ROD & CAP	U.E. = UTILITY EASEMENT
IRR. = IRRIGATION	U.O.N. = UNLESS OTHERWISE NOTED
L = LENGTH	USGS = UNITED STATES GEOLOGICAL SURVEY
LABINS = LAND BOUNDARY INFORMATION SYSTEM (STATE OF FLORIDA)	VRS = VIRTUAL REFERENCE STATION
LAT = LATITUDE	w/ = WITH
LB = LICENSED BUSINESS	Y.D. = YARD DRAIN
LN. = LANE	Δ = DELTA ANGLE
LONG = LONGITUDE	± = MORE OR LESS
LS = LICENSED SURVEYOR	# = NUMBER
LT = LEFT	" " = STAMPING OF CAP OR DISK
(M) = MEASURED	
MAG = MAGNETIC	
ME = MITERED END	

PROPOSED UTILITIES LEGEND

	GGGGGGGG	PROPOSED GAS MAIN
	BFOC BFOC	PROPOSED BURIED FIBER OPTIC
	OFOC OFOC	PROPOSED OVERHEAD FIBER OPTIC
	-----	PROPOSED CONDUIT
	-----	PROPOSED LIGHTING CONDUIT
	WWWWWWW	PROPOSED WATER MAIN
	NPW NPW NPW	PROPOSED NON POTABLE WATER MAIN
	SSSSSSSS	PROPOSED SANITARY FORCE MAIN

PROFILE ABBREVIATIONS:

LCDOT	=	LEE COUNTY DEPARTMENT OF TRANSPORTATION
CC	=	CROWN CASTLE
ITS	=	INTELLIGENCE TRAFFIC SYSTEM
FPL	=	FLORIDA POWER AND LIGHT
CTL	=	CENTURYLINK
SUMMIT	=	SUMMIT BROADBAND
CFM	=	CITY OF FORT MYERS
LCU	=	LEE COUNTY UTILITIES
COMCAST	=	COMCAST
TECO	=	TECO PEOPLES GAS
LL	=	LEE COUNTY LIGHTING
POS	=	PLACE OUT OF SERVICE
FS	=	FIBER SOLUTIONS
KL	=	KCA LIGHTING

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

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1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connelly, P.E. #54805

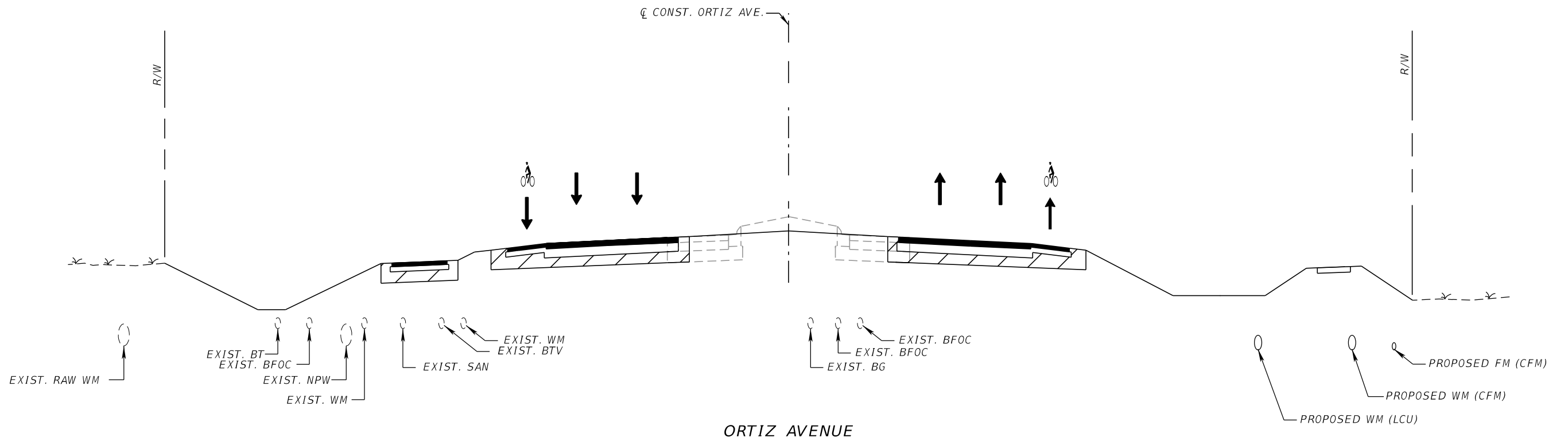
LEE COUNTY UTILITIES

ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

LEGEND, SYMBOLS, & ABBREVIATIONS

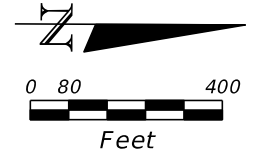
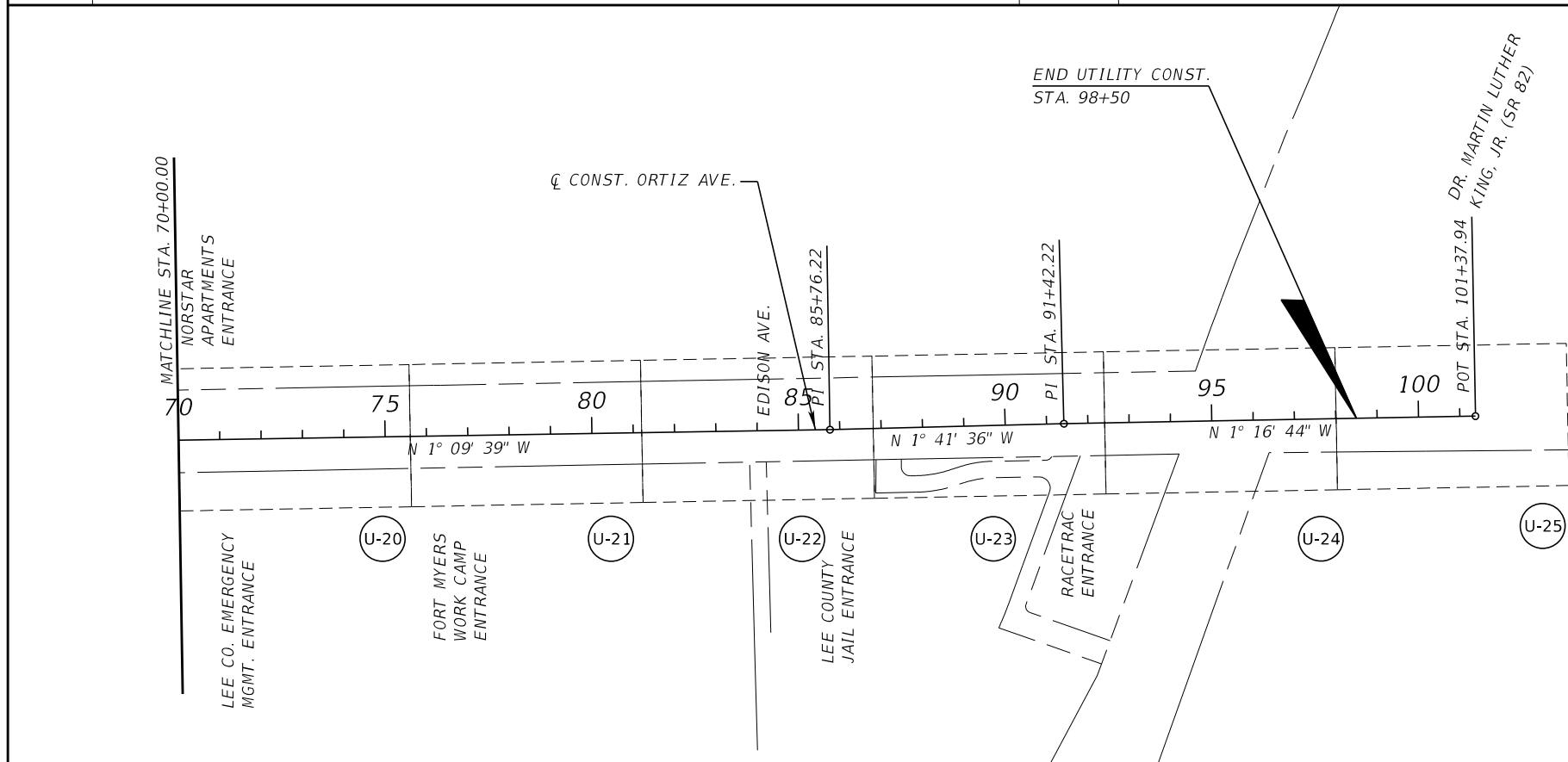
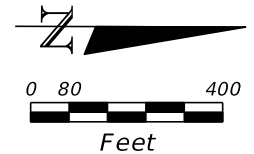
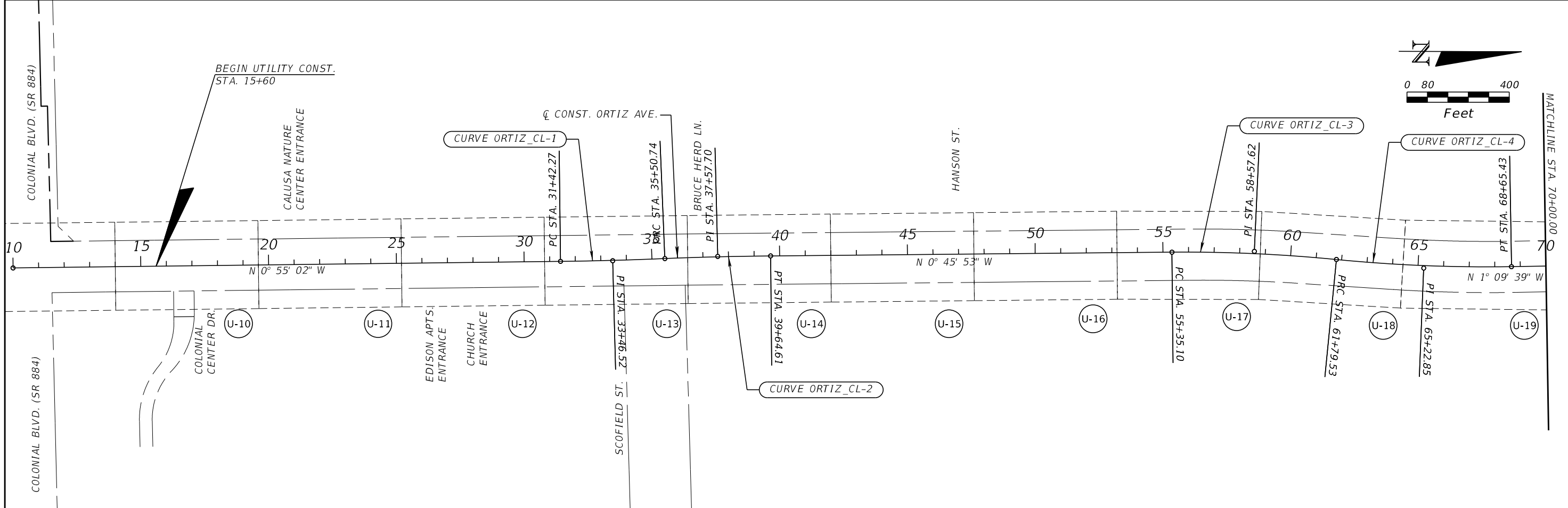
SHEET NO.

U-2



ORTIZ AVENUE

REVISIONS				Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			UTILITY TYPICAL SECTION	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	PROJECT NO.		U-3
					ORTIZ AVE.	LEE	18-0016		



CURVE DATA		
CURVE DATA ORTIZ_CL-1 PI STA. = 33+46.52 Δ = 1° 40' 18" (LT) D = 0° 24' 33" T = 204.25' L = 408.48' R = 14,000.00' PC STA. = 31+42.27 PT STA. = 35+50.74 e = NC	CURVE DATA ORTIZ_CL-2 PI STA. = 37+57.70 Δ = 1° 49' 27" (RT) D = 0° 26' 27" T = 206.95' L = 413.87' R = 13,000.00' PC STA. = 35+50.74 PT STA. = 39+64.61 e = NC	CURVE DATA ORTIZ_CL-3 PI STA. = 58+57.62 Δ = 6° 09' 14" (RT) D = 0° 57' 18" T = 322.53' L = 644.43' R = 6,000.00' PC STA. = 55+35.10 PRC STA. = 61+79.53 e = NC
CURVE DATA ORTIZ_CL-4 PI STA. = 65+22.85 Δ = 6° 32' 59" (LT) D = 0° 57' 18" T = 343.32' L = 685.90' R = 6,000.00' PRC STA. = 61+79.53 PT STA. = 68+65.43 e = NC		

*NOTE: NC = 0.025

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Stantec
 1821 Victoria Avenue
 Fort Myers, FL 33901
 Ph. 239-337-3330
 Kristina Connolly, P.E. #54805

LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

**UTILITY
PROJECT LAYOUT**

SHEET NO.
U-4

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

LEE COUNTY UTILITIES STANDARD NOTES:

1. ALL WORK SHALL CONFORM TO LATEST REVISION OF THE LCU DESIGN MANUAL WHICH IS AVAILBLE ON OUR WEB-PAGE VIA THE FOLLOWING LINK: [HTTPS://WWW.LEEGOV.COM/UTILITIES/DESIGN-MANUAL](https://www.leegov.com/utilities/design-manual)
2. ALL REGULATORY AND PERMITTING AGENCIES' REQUIREMENTS SHALL BE COMPLIED WITH AS WELL.
3. THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF CONDITIONS THAT MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSION REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.
4. ALL CONSTRUCTION WORK PERFORMED MUST BE DONE BY A CONTRACTOR LICENSED IN THE STATE OF FLORIDA TO DO THE WORK INTENDED.
5. A PRE-CONSTRUCTION MEETING IS REQUIRED BEFORE WORK MAY BEGIN. REQUIRED ATTENDEES INCLUDE BUT ARE NOT LIMITED TO; THE ENGINEER OF RECORD OR HIS DESIGNEE, THE UNDERGROUND CONTRACTOR AND THE LCU INSPECTOR ASSIGNED TO THE PROJECT. LCU IS TO BE NOTIFIED TWO (2) WORKING DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING.
6. ONE COPY OF THE LCU APPROVED/STAMPED CONSTRUCTION PLANS, ALL CONTRACT DOCUMENTS, REFERENCE DOCUMENTS AND TECHNICAL DOCUMENTS SUBMITTED MUST BE KEPT AT THE CONSTRUCTION SITE AND MAINTAINED IN GOOD ORDER AT ALL TIMES. THE CONTRACTOR IS RESPONSIBLE TO READ AND UNDERSTAND ALL PERMITS INCLUDING ALL GENERAL AND SPECIAL CONDITIONS. AT OWNER'S OR ENGINEER'S REQUEST, THE CONTRACTOR SHALL PROVIDE APPROPRIATE DOCUMENTATION THAT ALL CONSTRUCTION RELATED CONDITIONS ARE ADHERED TO.
7. ALL WORK AND MATERIALS, WHICH DO NOT CONFORM TO LCU SPECIFICATIONS, ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
8. ANY WORK PERFORMED WITHOUT THE KNOWLEDGE OF LCU IS SUBJECT TO RE-EXCAVATION, REMOVAL AND REPLACEMENT OF SAME TO BE DONE AT THE CONTRACTOR'S EXPENSE.
9. LCU INSPECTION STAFF IS TO BE PRESENT FOR ALL HOT TAPS, PRESSURE TESTS, AND FOR ANY NECESSARY INSPECTION. THE CONTRACTOR IS TO PROVIDE A MINIMUM OF TWO (2) WORKING DAYS NOTICE PRIOR TO SCHEDULING ANY OF THE ABOVE.
10. TRAFFIC MUST BE MAINTAINED AT ALL TIMES AS PER LEE COUNTY DEPARTMENT OF TRANSPORTATION (LCDOT) AND PER FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. CONTRACTOR TO MAINTAIN EXISTING TRAFFIC/ACCESS, EXISTING DRAINAGE AND EXISTING UTILITIES DURING CONSTRUCTION, UNLESS OTHERWISE APPROVED BY LEE COUNTY.
11. ALL RESIDENTIAL AND COMMERCIAL DRIVEWAYS SHALL BE ACCESSIBLE AT ALL TIMES.
12. THE CONTRACTOR IS TO UNCOVER ALL EXISTING LINES BEING TIED INTO AND VERIFY GRADES BEFORE BEGINNING CONSTRUCTION.
13. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS, BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. LCU WILL NOT GUARANTEE ANY LOCATIONS AS SHOWN ON THESE PLANS OR THOSE OMITTED FROM THESE PLANS.
14. THE CONTRACTOR SHALL VERIFY ALL UTILITIES AND PROVIDE AT LEAST TWO (2) WORKING DAYS NOTICE TO THE INDIVIDUAL UTILITY COMPANIES AND LCDOT PRIOR TO CONSTRUCTION. IT IS OF THE CONTRACTORS RESPONSIBILITY TO COORDINATE CONSTRUCTION SCHEDULE WITH UTILITY COMPANIES.
15. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND TAKE ALL POSSIBLE PRECAUTIONS TO AVOID ANY DAMAGE TO ALL UNDERGROUND PIPELINES, TELEPHONE, CABLE TV, ELECTRIC LINES/CONDUITS AND STRUCTURES IN ADVANCE OF ANY CONSTRUCTION. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES THAT MAY OCCUR DUE TO HIS FAILURE TO EXACTLY LOCATE AND PROTECT EXISTING UTILITIES AND STRUCTURES.
16. CONSTRUCTION STAKING IS THE CONTRACTOR'S RESPONSIBILITY. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THESE SERVICES DURING CONSTRUCTION.
17. ANYTHING NOT SHOWN ON THESE DRAWINGS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND SHALL NOT CONSTITUTE AN EXTRA, UNLESS APPROVED BY THE ENGINEER OF RECORD. DISCREPANCIES IN FIELD CONDITIONS, PLAN CONDITIONS, OR CODES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

18. THE CONTRACTOR SHALL CONTACT THE ENGINEER AND LCU IMMEDIATELY CONCERNING ANY CONFLICTS WITH LCU UTILITIES/STRUCTURES ARISING DURING CONSTRUCTION OF ANY FACILITIES SHOWN ON THESE DRAWINGS.
19. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN ON THE PLANS. IF ANY DISCREPANCIES IN QUANTITIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD AND LCU.
20. PIPE LENGTHS ARE APPROXIMATE. INSTALLATION AND REMOVAL OF UTILITY PIPES ARE MEASURED IN LINEAR FEET TO THE NEAREST FOOT ALONG OF THE CENTERLINE, FROM CENTER OF FITTING TO CENTER OF FITTING. NO DISTINCTION IS MADE ON VERTICAL DEFLECTIONS. ALL MEASUREMENTS STATED ON THE PLAN VIEWS ARE HORIZONTAL LINEAR FEET. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES TO A CONDITION BETTER THAN EXISTING, ABOVE OR BELOW GROUND THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR.
21. GREEN OPEN SPACE ELEVATIONS SHOWN ARE TO TOP OF SOD. FINISH GRADE TO WITHIN 2" OF PAVEMENT ELEVATIONS BEFORE LAYING SOD (STRICTLY ENFORCED). ALL AREAS TO BE GRADED AND SODDED MUST DRAIN WITHOUT ANY NOTICEABLE PONDING. THE CONTRACTOR WILL BE REQUIRED TO REGRADE AND RESOD ANY AREAS WHICH DO NOT COMPLY WITH POSITIVE DRAINAGE WITHOUT PONDING.
22. THE CONTRACTOR SHALL REPLACE ALL PAVEMENT, CURBS, DRIVEWAYS, SIDEWALKS, FENCES, ETC., WITH THE SAME TYPE OF MATERIAL THAT WAS REMOVED DURING CONSTRUCTION OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL RESTORE ALL AREAS AFFECTED BY THE CONSTRUCTION TO ITS ORIGINAL CONDITION, OR BETTER, AT NO ADDITIONAL COST. SOD QUANTITY INCLUDES ONLY THOSE AREAS INTENDED TO BE DISTURBED BY PROPOSED IMPROVEMENTS. OTHER DISTURBED AREAS NOT INTENDED TO BE DISTURBED, INCLUDING BUT NOT LIMITED TO STAGING AREAS, STOCKPILE AREAS, ETC., SHALL BE SODDED AT NO ADDITIONAL COST.
23. WITHIN THE LCDOT RIGHT-OF-WAY, ALL DISTURBED AREAS SHALL RECEIVE GRASSING (SEEDING) OR SODDING MATERIALS IN ACCORDANCE WITH FDOT SPECIFICATIONS. THOSE AREAS THAT ARE CLASSIFIED AS DRAINAGE DITCHES SHALL RECEIVE FULL SOLID SOD.
24. ALL FRAMES, COVERS VALVE BOXES, METER BOXES AND MANHOLES SHALL BE ADJUSTED TO FINISHED GRADE UPON COMPLETION OF PAVING OR RELATED CONSTRUCTION. ALL VALVE PADS SHALL BE POURED IN PLACE. NO PRE-FORMED VALVE PADS WILL BE ALLOWED.
25. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE ROADWAY CONTRACTOR IN REGARD TO DEVELOPING AND MAINTAINING AN EFFECTIVE STORM WATER POLLUTION PREVENTION PLAN.
26. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL MANUAL.
27. AS THE WORK PROGRESSES THE CONTRACTOR SHALL RECORD ALL CHANGES AND DEVIATIONS FROM THE LCU STAMPED/APPROVED CONSTRUCTION PLANS. IN ADDITION, HE SHALL RECORD THE EXACT LOCATION OF ALL CHANGES IN VERTICAL AND HORIZONTAL ALIGNMENT WITH COORDINATES WITH RESPECT TO THE NAVD 1988 STATE PLANE FLORIDA WEST COORDINATE SYSTEM AS WELL AS ALL REQUIREMENTS SET FORTH IN THE LCU DESIGN MANUAL. THIS INFORMATION IS TO BE FORWARDED TO THE ENGINEER OF RECORD WHO PREPARED, SIGNED AND SEALED THE APPROVED CONSTRUCTION PLANS SO THAT HE CAN PREPARE 'RECORD DRAWINGS' PER THE REQUIREMENTS SET FORTH IN THE LCU DESIGN MANUAL.

POTABLE WATER LINE NOTES

1. THE ENDS OF ALL CAPPED POTABLE WATERLINES SHALL BE MARKED WITH ELECTRONIC MARKERS AND 2"x4" STAKES 5' IN LENGTH WITH 2' ABOVE GROUND.
2. ALL PVC POTABLE WATERLINES SHALL BE AWWA C-900, DR18 CLASS 150 PVC PIPE UNLESS NOTED OTHERWISE.
3. ALL WATER SERVICES UNDER ROADWAY SHALL BE PLACED IN A SCHEDULE 40 CLASS 160 PVC CASING PIPE, UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL PROVIDE AND INSTALL REFLECTIVE PAVEMENT MARKERS AS REQUIRED NEAR PROPOSED FIRE HYDRANTS. COST TO BE INCLUDED WITH FIRE HYDRANT ASSEMBLY.
5. ALL NEW VALVES SHALL INCLUDE THE BOX, COVER, PAD AND ID. LOCATE WIRE TEST BOX. SEE DETAILS.
6. ALL EXISTING VALVES AND METERS WITHIN THE AREAS TO BE REGRADED, RESURFACED OR RECONSTRUCTED LIMITS SHALL HAVE THE COVER AND BOX ADJUSTED FLUSH WITH FINISHED GRADE.
7. THE CONTRACTOR SHALL PLACE PROPOSED VALVES AS SHOWN. THE VALVE BOX SHALL NOT BE LOCATED IN PAVEMENT, DRIVEWAY AREAS OR CURB LINES, UNLESS OTHERWISE NOTED.
8. ALL WATERLINES SHALL HAVE A MINIMUM COVER OF 36" BELOW FINISHED GRADE, UNLESS OTHERWISE NOTED.
9. ALL COMPONENTS OF THE POTABLE WATER SYSTEM SHALL BE IN CONFORMANCE WITH AMERICAN NATIONAL STANDARDS INSTITUTE/NSF INTERNATIONAL STANDARD NO. 61. ALL COMPONENTS, INSTALLATION AND TESTING OF THE POTABLE WATER SYSTEM SHALL BE IN ACCORDANCE WITH ALL APPLICABLE AWWA STANDARDS.
10. PER AWWA STANDARDS C651-14, SECTION 4.4.2, THE FLUSHING VELOCITY IN THE MAIN SHALL NOT BE LESS THAN 3.0 FT/SEC. (0.91 M/SEC). CONTRACTOR TO ENSURE MINIMUM VELOCITY REQUIREMENT IS MET DURING FLUSH OF 16" WM. THE RATE OF FLOW REQUIRED TO PRODUCE A VELOCITY OF 3.0 FT/SEC (0.91 M/SEC) IS 1900 GPM FOR THE 16" MAIN. WATER REQUIRED TO FILL THE NEW MAIN FOR HYDROSTATIC PRESSURE TESTING, DISINFECTION, AND FLUSHING SHALL BE SUPPLIED THROUGH A TEMPORARY CONNECTION SIZED AND PROVIDED BY THE CONTRACTOR BETWEEN THE DISTRIBUTION SYSTEM AND THE NEW MAIN OR OTHER APPROVED SUPPLY SOURCE. THE TEMPORARY CONNECTION SHALL INCLUDE AN APPROPRIATE CROSS-CONNECTION CONTROL DEVICE CONSISTENT WITH THE DEGREE OF HAZARD (A DOUBLE CHECK VALVE ASSEMBLY OR A REDUCED PRESSURE ZONE ASSEMBLY) AND SHALL BE DISCONNECTED (PHYSICALLY SEPARATED) FROM THE NEW MAIN DURING THE HYDROSTATIC PRESSURE TEST.
12. IN ADDITION AND CONJUNCTION TO THE FULL BORE FLUSHING, THE 16" DIP WATER TRANSMISSION MAIN WILL REQUIRE A PIG TO BE PLACED THROUGH THE PIPE PRIOR TO PRESSURE TESTING. MULTIPLE RUNS OF THE PIG MAYBE REQUIRED BY THE CONTRACTOR UNTIL ADEQUATE SEDIMENT IS REMOVED AND THE COUNTY'S APPROVAL IS OBTAINED. CONTRACTOR TO SUBMIT A SHOP DRAWING OF THE PIG FOR APPROVAL PRIOR TO USE.
13. ALL WATER AND SEWER SERVICE LINES TO BE PLACED OUT OF SERVICE ARE TO BE CUT AND CAPPED. THE SERVICE LINES WILL NOT BE GROUTED. CUTTING AND CAPPING THE EXISTING SERVICE LINE IS CONSIDERED INCIDENTAL TO THE NEW SERVICE AND NO SEPARATE PAYMENT WILL BE MADE.
14. REMOVAL OF VALVES, FITTINGS, AND APPURTENANCES SHALL BE INCIDENTAL TO THE COST OF THE ASSOCIATED PIPE REMOVAL AND NO ADDITIONAL COMPENSATION WILL BE MADE.

UTILITY OWNERS:

<u>COMPANY</u>	<u>CONTACT</u>	<u>TELEPHONE NO.</u>
AT&T	MICHAEL GAMBOA	863-888-8300
CENTURYLINK	VIVIAN MCKEON	630-217-9384
CITY OF FORT MYERS	ANGELO THOMAS	239-321-7463
COMCAST	SCOTT LETZELTER	239-986-6975
CROWN CASTLE	CHUCK FERGUSON	570-872-6637
FP&L DISTRIBUTION	CHRIS MCJUNKIN	941-423-4833
LEE COUNTY UTILITIES	CHARLIE DUVERGE	239-533-8164
LEE COUNTY TECHNOLOGY	ADAM BOISSIERE	239-533-7371
LEE COUNTY TRAFFIC	MICHAEL PADGETT	239-533-9500
SUMMIT BROADBAND	BETSY BECKER	407-468-5735
TECO PEOPLES'S GAS	ANTHONY BAUBLITZ	941-342-4025

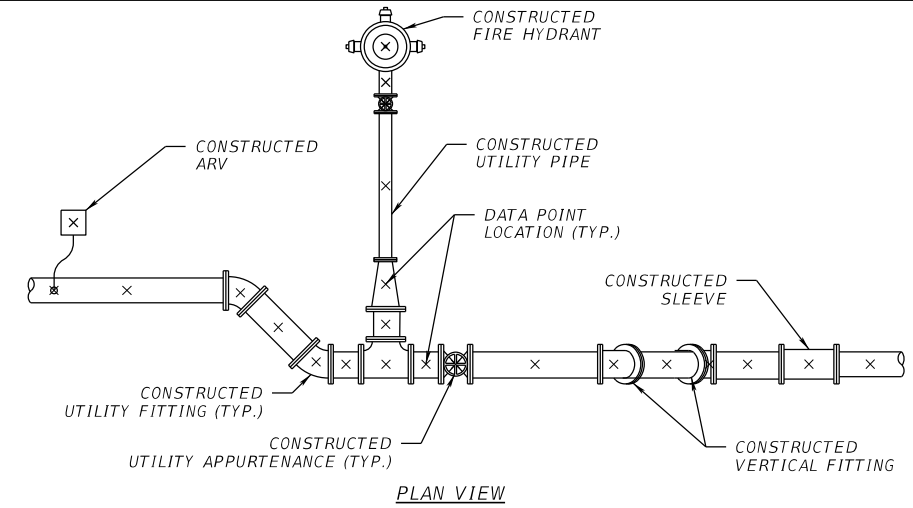
REVISIONS				Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connolly, P.E. #54805	LEE COUNTY UTILITIES			SHEET NO. U-5
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	PROJECT NO.	
					ORTIZ AVE.	LEE	18-0016	

UTILITY NOTES

GENERAL UTILITY NOTES:

1. B.M. DATA IS NATIONAL AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
2. ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE ENGINEER SHOULD NOTIFY LCU WITHOUT DELAY, BY TELEPHONE. THE CONTRACTOR SHALL UTILIZE A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF FLORIDA TO LOCATE AND FLAG ALL PROPERTY CORNERS PRIOR TO CONSTRUCTION AND FINAL ENGINEERING INSPECTION AND CERTIFICATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE PROPERTY CORNERS, WHICH HAVE BEEN LOST DURING CONSTRUCTION, REESTABLISHED BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF FLORIDA. ALL (P.R.M.'S) IRONS AND MONUMENTS SHOWN ON THE PLANS OR FOUND SHALL BE PRESERVED.
3. THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS OF ANY EXCAVATION OR DEMOLITION ACTIVITY THROUGH SUNSHINE ONE-CALL OF FLORIDA, INC. (1-800-432-4770) AND SHALL ALSO NOTIFY THOSE UTILITY OWNERS/AGENCIES LISTED WITHIN OR IMPACTED BY THESE PLANS, NOT LESS THAN (2) FULL BUSINESS DAYS IN ADVANCE OF THE BEGINNING OF CONSTRUCTION ON THE JOB SITE.
4. SHOP DRAWINGS FOR ALL WATER SYSTEM MATERIALS, STRUCTURES, AND TEST ARE REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER IN CONJUNCTION WITH LCU FOR APPROVAL PRIOR TO ORDERING THE MATERIALS REQUIRED FOR CONSTRUCTION. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. ALL SHOP DRAWINGS ARE TO BE REVIEWED AND APPROVED BY CONTRACTOR SIGNATURE PRIOR TO SUBMITTAL TO THE OWNER'S ENGINEER.
5. ALL PROPOSED WATER MAINS AND RELATED SERVICES MUST BE INSTALLED, CHLORINATED, TESTED, CERTIFIED BY ENGINEER OF RECORD TO L.C.D.O.H. OR F.D.E.P. AND PLACED INTO SERVICE PRIOR TO EXISTING LINES BEING PLACED OUT OF SERVICE AND/OR REMOVED. CONTRACTOR SHALL MAINTAIN WATER SERVICES TO THE EXISTING RESIDENCE AND BUSINESSES AT ALL TIMES.
6. CONTRACTOR SHALL BE AWARE OF EXISTING UTILITIES TO REMAIN ALONG THE PROJECT CORRIDOR, CARE SHALL BE TAKEN NOT TO DAMAGE THESE FACILITIES DURING CONSTRUCTION.
7. LEE COUNTY AND FDOT RIGHT OF WAY PERMITS WILL BE REQUIRED PRIOR TO ANY UTILITY WORK BEING PERFORMED WITHIN THE LEE COUNTY AND FDOT RIGHT OF WAY. THE LEE COUNTY RIGHT OF WAY PERMIT APPLICATION WILL REQUIRE A LDO APPROVED STAMPED SET OF PLANS TO BE PROVIDED BY LEE COUNTY UTILITIES. PERMIT FEES AND BONDING COSTS ARE AT THE CONTRACTOR'S EXPENSE WITH NO COMPENSATION FROM THE UTILITY OWNER.
8. THE CONTRACTOR AND/OR SUBCONTRACTOR MUST MEET OSHA, NEC AND ANY OTHER GOVERNING CRITERIA REGARDING CLEARANCE REQUIREMENTS FOR ENERGIZED POWER LINES.
9. THESE DRAWINGS DO NOT INCLUDE INSTRUCTIONS FOR THE CONTRACTOR REGARDING CONSTRUCTION SAFETY. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED BY THE CONTRACTOR. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE PUBLIC AND THE SAFETY OF HIS PERSONNEL.
10. IF THE CONTRACTOR CHOOSES TO IMPLEMENT APPURTENANCES OR TECHNIQUES SUCH AS TRENCH BOXES, SHEET PILING, DEWATERING, FLATTEN TRENCH SLOPES, ETC. TO FACILITATE CONSTRUCTION, THESE ITEMS SHALL BE INCORPORATED INTO THE COST OF THE RELATED AVAILABLE PAY ITEM. CONTRACTOR SHALL ANTICIPATE DEWATERING FOR PIPE INSTALLATION IS NECESSARY. NO DEWATERING PERMIT HAS BEEN PURSUED BY THE ENGINEER/COUNTY FOR THE PROPOSED CONSTRUCTION. IN THE EVENT DEWATERING IS REQUIRED THE CONTRACTOR SHALL APPLY FOR ALL APPLICABLE WATER USE PERMITS AT THAT TIME. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CONSTRUCTION RELATED PERMITTING. PAYMENT FOR ACQUISITION OF CONSTRUCTION RELATED PERMITS SHALL BE INCIDENTAL TO THE COST OF CONSTRUCTION RELATED ACTIVITIES. COST FOR DEWATERING SHALL BE INCLUDED IN THE COST OF THE WATERMAIN ITEMS. TRENCH BACKFILL INSTALLATION AND DEWATERING SHALL BE IN ACCORDANCE WITH LCU SPECIFICATIONS. NO ADDITIONAL PAYMENT SHALL BE MADE.
11. CONTRACTOR TO NOTIFY LEE COUNTY IMMEDIATELY IF UNSUITABLE SUBSOIL CONDITIONS ARE ENCOUNTERED.
12. THE CONTRACTOR SHALL BE AWARE OF THE POSSIBLE PRESENCE OF ROCK WITHIN THE PROJECTS LIMITS THAT MAY BE ENCOUNTERED WHILE PERFORMING EXCAVATIONS AND UNDERGROUND INSTALLATIONS. GEOTECHNICAL REPORTS WITH BORINGS ARE INCLUDED IN THE CONTRACT DOCUMENTS FOR INFORMATIONAL PURPOSES ONLY, AS THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR FINAL SUBSURFACE DETERMINATION. THE CONTRACTOR SHALL CONSIDER THE INCREASE IN COST FOR ALL UNDERGROUND WORK ACTIVITIES AND INCLUDE SUCH COSTS IN HIS BID. ALL COSTS ASSOCIATED WITH ENCOUNTERED ROCK OR ROCK-LIKE MATERIAL SHALL BE INCLUDED IN THE APPROPRIATE ITEMS OF WORK CONTAINED WITHIN THE CONTRACT. NO ADDITIONAL COMPENSATION WILL BE MADE.

13. CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT. SHOULD THE CONTRACTOR REQUIRE SUCH FOR PERFORMING THE CONTRACTED WORK, THE CONTRACTOR SHALL REQUEST, IN WRITING, WRITTEN PERMISSION FROM THE COUNTY PROJECT MANAGER. THE CONTRACTOR SHALL PROVIDE THE LEE COUNTY PROJECT MANAGER WITH A COPY OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AND INTENDED FOR EQUIPMENT USE AS A HAZARDOUS MATERIAL, SUCH PRODUCTS DO NOT NEED AN MSDS SUBMITTAL. ANY KNOWN OR SUSPECTED HAZARDOUS MATERIAL FOUND ON THE PROJECT BY THE CONTRACTOR SHALL BE IMMEDIATELY REPORTED TO THE COUNTY PROJECT MANAGER, WHO SHALL DIRECT THE CONTRACTOR TO PROTECT THE AREA OF KNOW OR SUSPECTED CONTAMINATION FROM FURTHER ACCESS. THE LEE COUNTY PROJECT MANAGER WILL ARRANGE FOR INVESTIGATION, IDENTIFICATION, AND REMEDIATION OF THE HAZARDOUS MATERIAL. THE CONTRACTOR SHALL NOT RETURN TO THE AREA OF CONTAMINATION UNTIL APPROVAL IS PROVIDED BY THE COUNTY PROJECT MANAGER.
14. PRIOR TO INCORPORATION INTO THE PROJECT, A CERTIFICATION FROM THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES DIVISION OF PLANT INDUSTRY, STATING THAT THE SOD, HAY, STRAW AND MULCH MATERIALS ARE FREE OF NOXIOUS WEEDS, INCLUDING TROPICAL SODA APPLE, SHALL BE FURNISHED TO THE LEE COUNTY PROJECT MANAGER BY THE CONTRACTOR. ALL SOD MATERIALS SHALL BE SUBJECT TO INSPECTION BY THE COUNTY OR APPOINTED REPRESENTATIVE PRIOR TO PLACEMENT. ANY SOD WITH NOXIOUS WEEDS AND GRASSES, INCLUDING TROPICAL SODA APPLE, SHALL BE REJECTED FOR USE ON THE PROJECT.



AS-BUILT COLLECTION NOTES:

1. CONTRACTOR SHALL COLLECT POINT DATA AT:
 - ALL CONSTRUCTED UTILITY PIPE FITTINGS, APPURTENANCES, CHANGE IN DIRECTION, ETC.
 - ALL CONSTRUCTED UTILITY PIPE BETWEEN FITTINGS, APPURTENANCES, ETC.
 - ALONG CONSTRUCTED UTILITY PIPE AT NO MORE THAN 100' INTERVALS ALONG CONTINUOUS CONSTRUCTED UTILITY PIPE TO REPRESENT HORIZONTAL AND VERTICAL LOCATION.
 2. ALL COLLECTED POINT DATA SHALL INCLUDE UTILITY PIPE SIZE, TYPE, WALL THICKNESS (I.E. DR14, DR18, DR9, CL200, ETC.) & VERTICAL ELEVATION AS WELL AS MANUFACTURER AND DATE INSTALLED.
- NOTE:
THE ABOVE SAMPLE EXHIBIT IS FOR REFERENCE ONLY, AS-BUILT POINT DATA COLLECTION SHALL COMPLY WITH TECHNICAL SPECS PROVIDED IN THE CONTRACT DOCUMENTS AND UTILITY COMPANY'S REQUIRED SPECIFICATIONS, WHICHEVER IS MORE INCLUSIVE.

AS-BUILT POINT COLLECTION LOCATION

AS-BUILT REQUIREMENTS:

1. AT THE SITE KEEP AND MAINTAIN ONE RECORD COPY OF ALL CONTRACT DOCUMENTS, REFERENCE DOCUMENTS AND ALL TECHNICAL DOCUMENTS SUBMITTED IN GOOD ORDER. AS THE WORK PROGRESSES THE CONTRACTOR IS TO RECORD ONE SET OF REPRODUCIBLE DRAWINGS NOTING ALL CHANGES AND DEVIATIONS FROM THE ORIGINAL PLANS.
2. INSTALLATION/REMOVAL/PLUGGING OF THE UTILITY PIPELINES IS TO INCLUDE AS-BUILT PLAN INFORMATION FURNISHED TO THE ENGINEER. THE AS-BUILT PLANS MUST IDENTIFY AND SATISFY THE LEE COUNTY AS-BUILT/RECORD DRAWING REQUIREMENTS WHICH INCLUDE VERTICAL AND HORIZONTAL ALIGNMENT, TYPE OF MATERIAL, AND LOCATIONS OF MATERIAL CHANGES FOR ALL WATER, RECLAIMED WATER, AND SEWER LINES, CASINGS, VALVES, TEES, BENDS, REDUCERS, HYDRANTS, CASINGS, SERVICE SIZE CONNECTIONS, GROUTING LIMITS, METER BOXES AND/OR PAD, AND OTHER PERTINENT STRUCTURES. PIPELINE RUNS IN EXCESS OF 100 FEET, WITHOUT FITTINGS, ARE TO INCLUDE VERTICAL ALIGNMENT INFORMATION AT 100 FOOT INTERVALS. SAID ALIGNMENT IS TO BE TIED TO STATE PLANE COORDINATES AND IS TO BE CERTIFIED BY A PROFESSIONAL LAND SURVEYOR, LICENSED IN THE STATE OF FLORIDA. ALL POINTS (X,Y,Z) PROVIDED ARE TO INDICATE THE SIZE, ELEVATION AND TYPE AND MATERIAL (INCLUDING CLASS OR DR) OF ITEM BEING IDENTIFIED. THE CONTRACTOR IS TO CONNECT THE AS-BUILT POINTS AND ENSURE THE ACCURACY OF THE DATA PRIOR TO PROVIDING THE DATA/DRAWINGS TO THE ENGINEER. CONTRACTOR SHALL PERFORM A QUALITY CONTROL REVIEW OF ALL INFORMATION PROVIDED TO THE ENGINEER. ENGINEER WILL RETURN ALL DRAWINGS AND DATA TO THE CONTRACTOR IF ANY INACCURACIES ARE FOUND AN/OR CORRECTIONS ARE NEEDED.
3. AS-BUILTS WILL NOT BE DETERMINED ACCEPTABLE UNTIL LEE COUNTY ACCEPTS THE RECORD DRAWINGS. PAYMENT FOR AS-BUILTS WILL NOT BE MADE UNTIL LEE COUNTY ACCEPTANCE OCCURS. PAYMENT FOR THE AS-BUILTS WILL BE REDUCED IN ACCORDANCE WITH TIME SPENT BY THE ENGINEER TO PROVIDE A QA/QC ON THE CONTRACTORS INFORMATION BEYOND THE INITIAL RECEIPT & REVIEW OF THE INFORMATION AND DATA.
4. PROVIDE GEO-REFERENCED OR STATION/OFFSET REFERENCED DIGITAL PICTURES (NO MORE THAN TWO PER LOCATION) FOR ALL TIE-INS AND FITTINGS PRIOR TO BACK FILL. SUBMIT TO THE ENGINEER ALL AS-BUILT INFORMATION OF CONSTRUCTED WORK ON NO MORE THAN A BIWEEKLY BASIS. IF DATA IS MISSING AND/OR INACCURATE, RE-EXCAVATE SUBJECT AREA TO OBTAIN REQUIRED INFORMATION AND RESTORE AREA AT NO ADDITIONAL EXPENSE TO LEE COUNTY. LIMITS OF RESTORATION WILL BE SUBJECT LEE COUNTY APPROVALS.

REVISIONS				Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			SHEET NO. UTILITY NOTES U-6
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	PROJECT NO.	
					ORTIZ AVE.	LEE	18-0016	

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			U-10		U-11		U-12		U-13		U-14		U-15		U-16		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL				
1010-10	3" CL250 DIP WATERMAIN	LF																		
1010-20	8" CL250 DIP WATERMAIN	LF																		
1010-25	10" CL250 DIP WATERMAIN	LF																		
1010-30	12" CL250 DIP WATERMAIN	LF																		
1010-40	16" CL250 DIP WATERMAIN	LF	533		578		569		560		437						2677			
1020-00	UTILITY FITTING - 16" X 6" MJ REDUCER (RJ)	EA	1														1			
1020-10	UTILITY FITTING - 20" X 16" MJ REDUCER (RJ)	EA									1						1			
1020-20	UTILITY FITTING - 12" X 8" MJ REDUCER (RJ)	EA																		
1020-30	UTILITY FIXTURE - 4" X 3" MJ REDUCER (RJ)	EA																		
1030-00	UTILITY FITTING - 6" X 45 MJ BEND (RJ)	EA	2						2								4			
1030-02	UTILITY FITTING - 3" X 45 MJ BEND (RJ)	EA																		
1030-05	UTILITY FITTING - 8" X 45 MJ BEND (RJ)	EA																		
1030-07	UTILITY FITTING - 10" X 45 MJ BEND (RJ)	EA																		
1030-10	UTILITY FITTING - 12" X 45 MJ BEND (RJ)	EA																		
1030-20	UTILITY FITTING - 16" X 45 MJ BEND (RJ)	EA	7		13		14		6		8						48			
1040-05	UTILITY FIXTURE - 4" GV W/BOX, PAD & ID	EA																		
1040-10	UTILITY FIXTURE - 8" GV W/BOX, PAD & ID	EA																		
1040-20	UTILITY FIXTURE - 10" GV W/BOX, PAD & ID	EA																		
1040-30	UTILITY FIXTURE - 12" GV W/BOX, PAD & ID	EA																		
1040-40	UTILITY FIXTURE - 16" GV W/BOX, PAD & ID	EA	2														2			
1050-05	UTILITY FIXTURE - 16" X 4" MJ TEE (RJ)	EA																		
1050-10	UTILITY FITTING - 16" X 6" MJ TEE (RJ)	EA							1								1			
1050-15	UTILITY FIXTURE - 16" X 8" MJ TEE (RJ)	EA																		
1050-17	UTILITY FIXTURE - 16" X 10" MJ TEE (RJ)	EA																		
1050-20	UTILITY FITTING - 16" X 12" MJ TEE (RJ)	EA																		
1050-30	UTILITY FITTING - 16" X 16" MJ TEE (RJ)	EA	1														1			
1050-40	UTILITY FITTING - 16" X 16" MJ CROSS (RJ)	EA	1														1			
1050-45	UTILITY FIXTURE - 10" MJ CAP (RJ)	EA																		
1050-50	UTILITY FITTING - 16" MJ CAP (RJ)	EA	2														2			
1050-55	UTILITY FITTING - 8" MJ CAP (RJ)	EA																		
1060-10	AIR/VAC VALVE ASSEMBLY W/VAULT	EA	1		1		1				1						4			
1070-10	FIRE HYDRANT ASSEMBLY	EA	1						1								2			
1080-05	3" CUT IN CONNECTION	EA																		
1080-10	8" CUT IN CONNECTION	EA																		
1080-12	10" CUT IN CONNECTION	EA																		
1080-15	12" CUT IN CONNECTION	EA																		
1080-20	16" CUT IN CONNECTION	EA	1														1			
1080-30	CONNECTION TO EXISTING 20" WATERMAIN VALVE	EA									1						1			
1900-00	2" WATERMAIN W/ FITTINGS TO BE PLACED OUT OF SERVICE, REMOVAL & DISPOSAL	LF			32												32			
1090-10	2" WATERMAIN TO BE PLACED OUT OF SERVICE AND GROUTED	CY					0.03				0.03						0.06			
1090-20	8" WATERMAIN W/ FITTINGS TO BE PLACED OUT OF SERVICE, REMOVAL & DISPOSAL	LF																		
1090-30	16" WATERMAIN W/ FITTINGS TO BE PLACED OUT OF SERVICE, REMOVAL & DISPOSAL	LF	20				115		190								325			
1090-40	8" WATERMAIN TO BE PLACED OUT OF SERVICE AND GROUTED	CY																		
1090-50	16" WATERMAIN TO BE PLACED OUT OF SERVICE AND GROUTED	CY	18.6		28.9		23.1		19.2		29.0		29.0		29.0		176.8			
1100-10	UTILITY PIPE - STEEL F&I, CASING, 30" - OPEN CUT	LF																		
1100-20	UTILITY PIPE - STEEL F&I, CASING, 30" - JACK AND BORE	LF	105														105			

<table border="1"> <thead> <tr> <th colspan="4">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>4-5-23</td> <td>ADDED PAY ITEMS & QTY'S FOR WM CONNECTIONS PER LCU COMMENTS. </td> <td></td> <td></td> </tr> </tbody> </table>				REVISIONS				DATE	DESCRIPTION	DATE	DESCRIPTION	4-5-23	ADDED PAY ITEMS & QTY'S FOR WM CONNECTIONS PER LCU COMMENTS.			Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES <table border="1"> <tr> <th>ROAD NAME</th> <th>COUNTY</th> <th>PROJECT NO.</th> </tr> <tr> <td>ORTIZ AVE.</td> <td>LEE</td> <td>18-0016</td> </tr> </table>	ROAD NAME	COUNTY	PROJECT NO.	ORTIZ AVE.	LEE	18-0016	UTILITY TABULATION OF QUANTITIES	SHEET NO. U-7
REVISIONS																									
DATE	DESCRIPTION	DATE	DESCRIPTION																						
4-5-23	ADDED PAY ITEMS & QTY'S FOR WM CONNECTIONS PER LCU COMMENTS.																								
ROAD NAME	COUNTY	PROJECT NO.																							
ORTIZ AVE.	LEE	18-0016																							

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			U-17		U-18		U-19		U-20		U-21		U-22		U-23		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL				
1010-10	3" CL250 DIP WATERMAIN	LF											11				11			
1010-20	8" CL250 DIP WATERMAIN	LF											35				35			
1010-25	10" CL250 DIP WATERMAIN	LF													25		25			
1010-30	12" CL250 DIP WATERMAIN	LF							39		28						67			
1010-40	16" CL250 DIP WATERMAIN	LF	300		559		568		562		561		567		561		3678			
1020-00	UTILITY FIXTURE - 16" X 6" MJ REDUCER (RJ)	EA																		
1020-10	UTILITY FIXTURE - 20" X 16" MJ REDUCER (RJ)	EA	1														1			
1020-20	UTILITY FIXTURE - 12" X 8" MJ REDUCER (RJ)	EA							1								1			
1020-30	UTILITY FIXTURE - 4" X 3" MJ REDUCER (RJ)	EA											1				1			
1030-08	UTILITY FITTING - 6" X 45 MJ BEND (RJ)	EA																		
1030-02	UTILITY FITTING - 3" X 45 MJ BEND (RJ)	EA											2				2			
1030-05	UTILITY FITTING - 8" X 45 MJ BEND (RJ)	EA											2				2			
1030-07	UTILITY FITTING - 10" X 45 MJ BEND (RJ)	EA													2		2			
1030-10	UTILITY FITTING - 12" X 45 MJ BEND (RJ)	EA							4		2						6			
1030-20	UTILITY FITTING - 16" X 45 MJ BEND (RJ)	EA	6		4		8		10		10		9		8		55			
1040-05	UTILITY FIXTURE - 4" GV W/ BOX, PAD & ID	EA											1				1			
1040-10	UTILITY FIXTURE - 8" GV W/BOX, PAD & ID	EA											1				1			
1040-20	UTILITY FIXTURE - 10" GV W/BOX, PAD & ID	EA													1		1			
1040-30	UTILITY FIXTURE - 12" GV W/BOX, PAD & ID	EA							1		1						2			
1040-40	UTILITY FIXTURE - 16" GV W/BOX, PAD & ID	EA																		
1050-05	UTILITY FIXTURE - 16" X 4" MJ TEE (RJ)	EA											1				1			
1050-10	UTILITY FIXTURE - 16" X 6" MJ TEE (RJ)	EA																		
1050-15	UTILITY FIXTURE - 16" X 8" MJ TEE (RJ)	EA											1				1			
1050-17	UTILITY FIXTURE - 16" X 10" MJ TEE (RJ)	EA													1		1			
1050-20	UTILITY FIXTURE - 16" X 12" MJ TEE (RJ)	EA							1		1						2			
1050-30	UTILITY FIXTURE - 16" X 16" MJ TEE (RJ)	EA																		
1050-40	UTILITY FIXTURE - 16" X 16" MJ CROSS (RJ)	EA																		
1050-45	UTILITY FIXTURE - 10" MJ CAP (RJ)	EA																		
1050-50	UTILITY FIXTURE - 16" MJ CAP (RJ)	EA																		
1050-55	UTILITY FIXTURE - 8" MJ CAP (RJ)	EA																		
1060-10	AIR/VAC VALVE ASSEMBLY W/VAULT	EA					1		1		2				1		6			
1070-10	FIRE HYDRANT ASSEMBLY	EA																		
1080-05	3" CUT IN CONNECTION	EA																		
1080-10	8" CUT IN CONNECTION	EA							1											
1080-12	10" CUT IN CONNECTION	EA																		
1080-15	12" CUT IN CONNECTION	EA																		
1080-20	16" CUT IN CONNECTION	EA																		
1080-30	CONNECTION TO EXISTING 20" WATERMAIN VALVE	EA	1														1			
1900-00	2" WATERMAIN W/ FITTINGS TO BE PLACED OUT OF SERVICE, REMOVAL & DISPOSAL	LF												36			36			
1090-10	2" WATERMAIN TO BE PLACED OUT OF SERVICE AND GROUTED	CY			0.03						0.03		0.03				0.09			
1090-20	8" WATERMAIN W/ FITTINGS TO BE PLACED OUT OF SERVICE, REMOVAL & DISPOSAL	LF							75								75			
1090-30	16" WATERMAIN W/ FITTINGS TO BE PLACED OUT OF SERVICE, REMOVAL & DISPOSAL	LF	40								40		40				120			
1090-40	8" WATERMAIN TO BE PLACED OUT OF SERVICE AND GROUTED	CY							1.2								1.2			
1090-50	16" WATERMAIN TO BE PLACED OUT OF SERVICE AND GROUTED	CY	27.0		29.1		28.8		29.0		27.0		26.8		36.8		204.5			
1100-10	UTILITY PIPE - STEEL F&I, CASING, 30" - OPEN CUT	LF							80		165		71				316			
1100-20	UTILITY PIPE - STEEL F&I, CASING, 30" - JACK AND BORE	LF																		

REVISIONS		DATE	DESCRIPTION	DATE	DESCRIPTION
4-5-23	ADDED PAY ITEMS & QTY'S FOR WM CONNECTIONS PER LCU COMMENTS.				

Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			UTILITY TABULATION OF QUANTITIES	SHEET NO. U-8
	ROAD NAME	COUNTY	PROJECT NO.		
	ORTIZ AVE.	LEE	18-0016		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			U-24		U-25												PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL				
1010-10	3" CL250 DIP WATERMAIN	LF																	11	
1010-20	8" CL250 DIP WATERMAIN	LF																	35	△
1010-25	10" CL250 DIP WATERMAIN	LF																	25	
1010-30	12" CL250 DIP WATERMAIN	LF																	67	
1010-40	16" CL250 DIP WATERMAIN	LF	566		54												620		6975	
1020-00	UTILITY FIXTURE - 16" X 6" MJ REDUCER (RJ)	EA																	1	
1020-10	UTILITY FIXTURE - 20" X 16" MJ REDUCER (RJ)	EA																	2	
1020-20	UTILITY FIXTURE - 12" X 8" MJ REDUCER (RJ)	EA																	1	
1020-30	UTILITY FIXTURE - 4" X 3" MJ REDUCER (RJ)	EA																	1	△
1030-08	UTILITY FITTING - 6" X 45 MJ BEND (RJ)	EA																	2	△
1030-02	UTILITY FITTING - 3" X 45 MJ BEND (RJ)	EA																	2	△
1030-05	UTILITY FITTING - 8" X 45 MJ BEND (RJ)	EA																	2	△
1030-07	UTILITY FITTING - 10" X 45 MJ BEND (RJ)	EA																	2	
1030-10	UTILITY FITTING - 12" X 45 MJ BEND (RJ)	EA																	8	
1030-20	UTILITY FITTING - 16" X 45 MJ BEND (RJ)	EA	6		2												8		111	
1040-05	UTILITY FIXTURE - 4" GV W/BOX, PAD & ID	EA																	1	△
1040-10	UTILITY FIXTURE - 8" GV W/BOX, PAD & ID	EA																	1	△
1040-20	UTILITY FIXTURE - 10" GV W/BOX, PAD & ID	EA																	1	
1040-30	UTILITY FIXTURE - 12" GV W/BOX, PAD & ID	EA																	2	
1040-40	UTILITY FIXTURE - 16" GV W/BOX, PAD & ID	EA			1												1		3	
1050-05	UTILITY FIXTURE - 16" X 4" MJ TEE (RJ)	EA																	1	△
1050-10	UTILITY FIXTURE - 16" X 6" MJ TEE (RJ)	EA			1												1		2	
1050-15	UTILITY FIXTURE - 16" X 8" MJ TEE (RJ)	EA																	1	
1050-17	UTILITY FIXTURE - 16" X 10" MJ TEE (RJ)	EA																	1	
1050-20	UTILITY FIXTURE - 16" X 12" MJ TEE (RJ)	EA																	2	
1050-30	UTILITY FIXTURE - 16" X 16" MJ TEE (RJ)	EA																	1	
1050-40	UTILITY FIXTURE - 16" X 16" MJ CROSS (RJ)	EA																	1	△
1050-45	UTILITY FIXTURE - 10" MJ CAP (RJ)	EA																	2	△
1050-50	UTILITY FIXTURE - 16" MJ CAP (RJ)	EA																	2	△
1050-55	UTILITY FIXTURE - 8" MJ CAP (RJ)	EA																	2	
1060-10	AIR/VAC VALVE ASSEMBLY W/VAULT	EA																	10	
1070-10	FIRE HYDRANT ASSEMBLY	EA			1												1		3	△
1080-05	3" CUT IN CONNECTION	EA																	2	
1080-10	8" CUT IN CONNECTION	EA																	2	△
1080-12	10" CUT IN CONNECTION	EA																	1	
1080-15	12" CUT IN CONNECTION	EA																	1	
1080-20	16" CUT IN CONNECTION	EA			1												1		2	
1080-30	CONNECTION TO EXISTING 20" WATERMAIN VALVE	EA																	2	
1900-00	2" WATERMAIN W/ FITTINGS TO BE PLACED OUT OF SERVICE, REMOVAL & DISPOSAL	LF																	68	
1090-10	2" WATERMAIN TO BE PLACED OUT OF SERVICE AND GROUTED	CY																	0.2	
1090-20	8" WATERMAIN W/ FITTINGS TO BE PLACED OUT OF SERVICE, REMOVAL & DISPOSAL	LF																	75	
1090-30	16" WATERMAIN W/ FITTINGS TO BE PLACED OUT OF SERVICE, REMOVAL & DISPOSAL	LF	70														70		515	
1090-40	8" WATERMAIN TO BE PLACED OUT OF SERVICE AND GROUTED	CY																	1.2	
1090-50	16" WATERMAIN TO BE PLACED OUT OF SERVICE AND GROUTED	CY	25.3		2.5												27.8		409.1	
1100-10	UTILITY PIPE - STEEL F&I, CASING, 30" - OPEN CUT	LF																	316	
1100-20	UTILITY PIPE - STEEL F&I, CASING, 30" - JACK AND BORE	LF																	105	

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
4-5-23	ADDED PAY ITEMS & QTY'S FOR WM CONNECTIONS PER LCU COMMENTS. △		

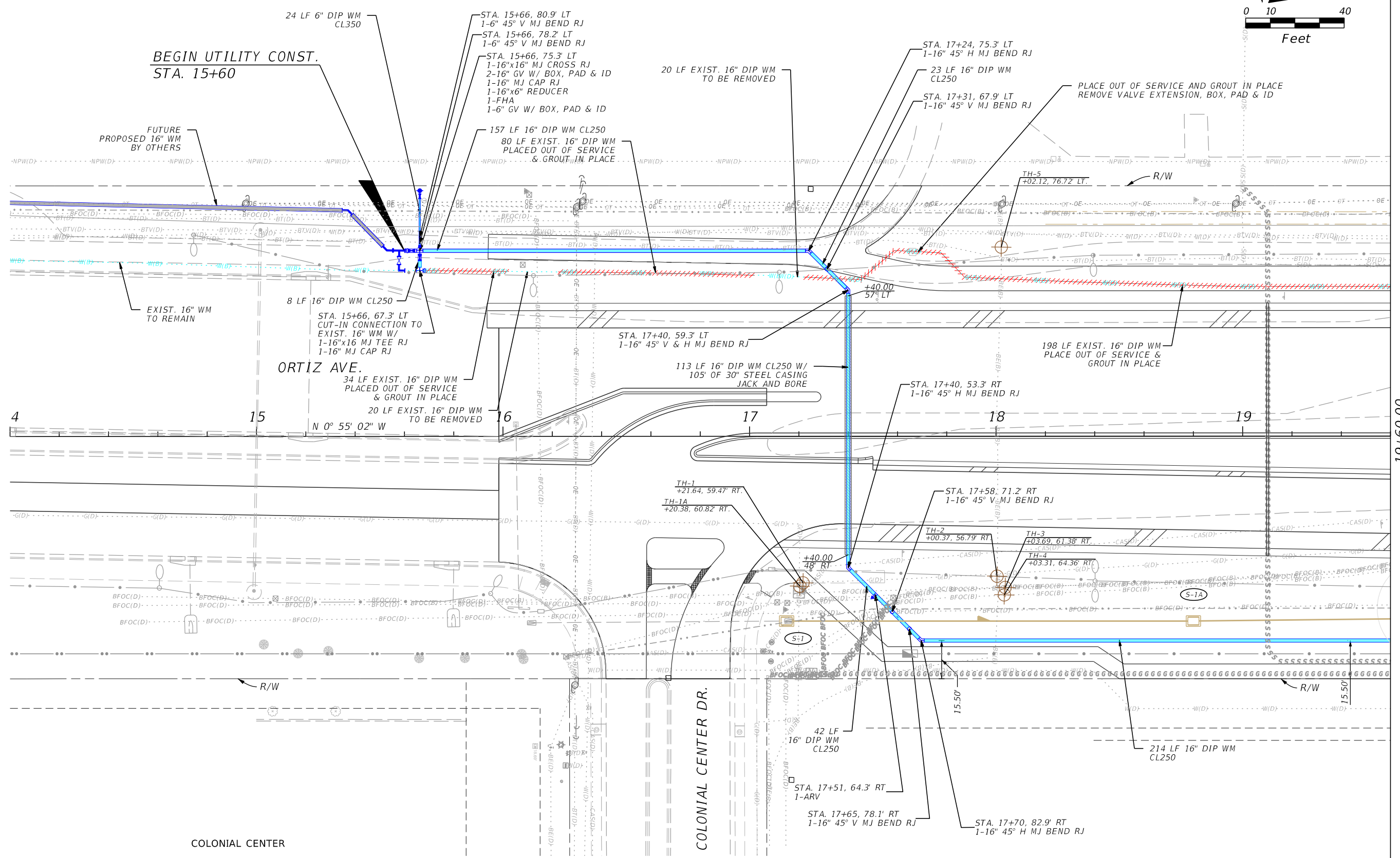
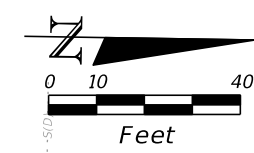
Stantec
1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connelly, P.E. #54805

LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY
TABULATION OF QUANTITIES

SHEET NO.
U-9

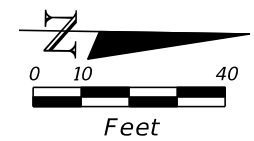
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19+60.00

REVISIONS		REVISIONS		DATE	DESCRIPTION	DATE	DESCRIPTION	Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION						ROAD NAME	COUNTY	PROJECT NO.	
									ORTIZ AVE.	LEE	18-0016	U-10

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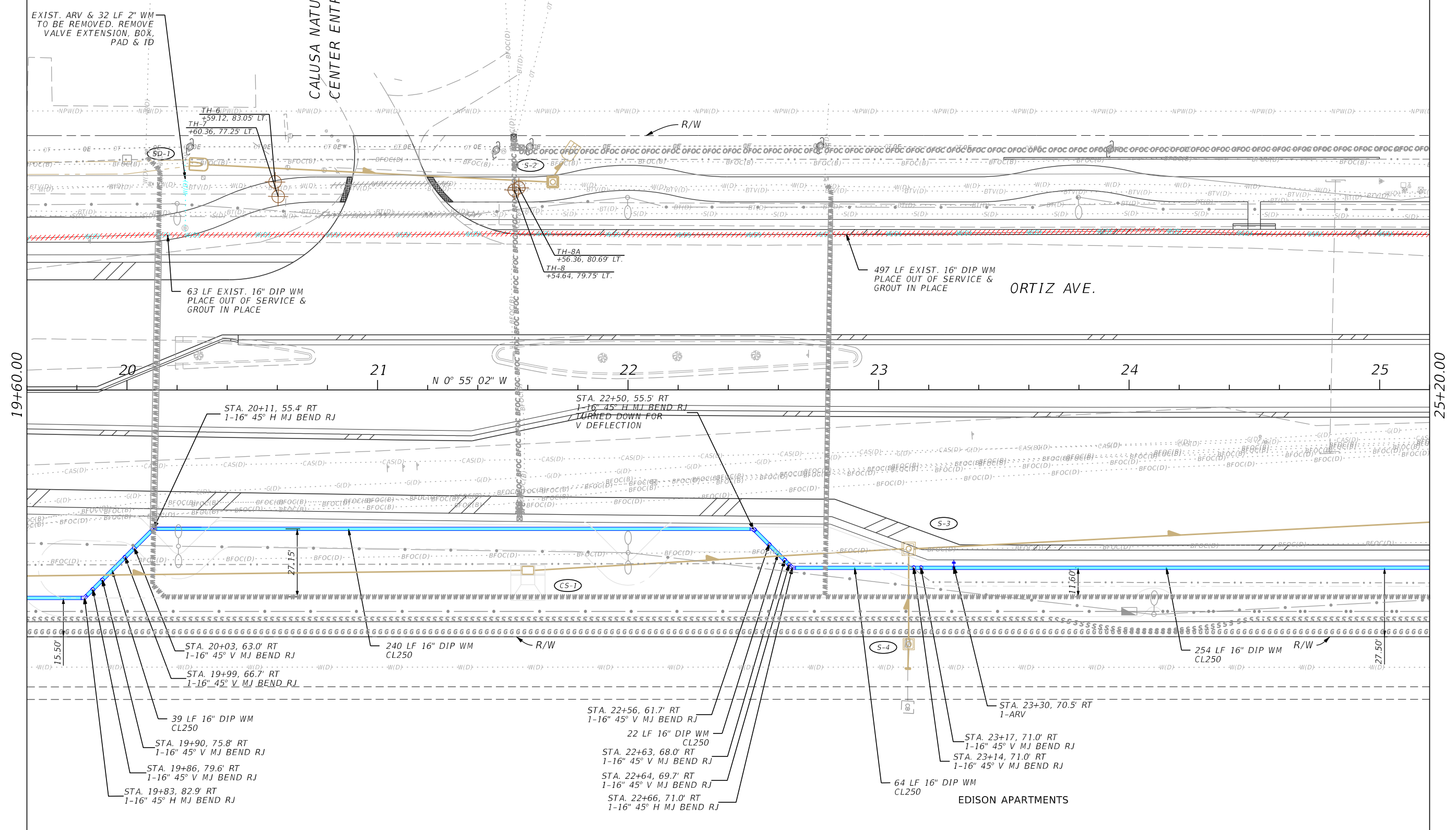


CALUSA NATURE CENTER

CALUSA NATURE CENTER ENTRANCE

ORTIZ AVE.

EDISON APARTMENTS



19+60.00

25+20.00

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Stantec
1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connelly, P.E. #54805

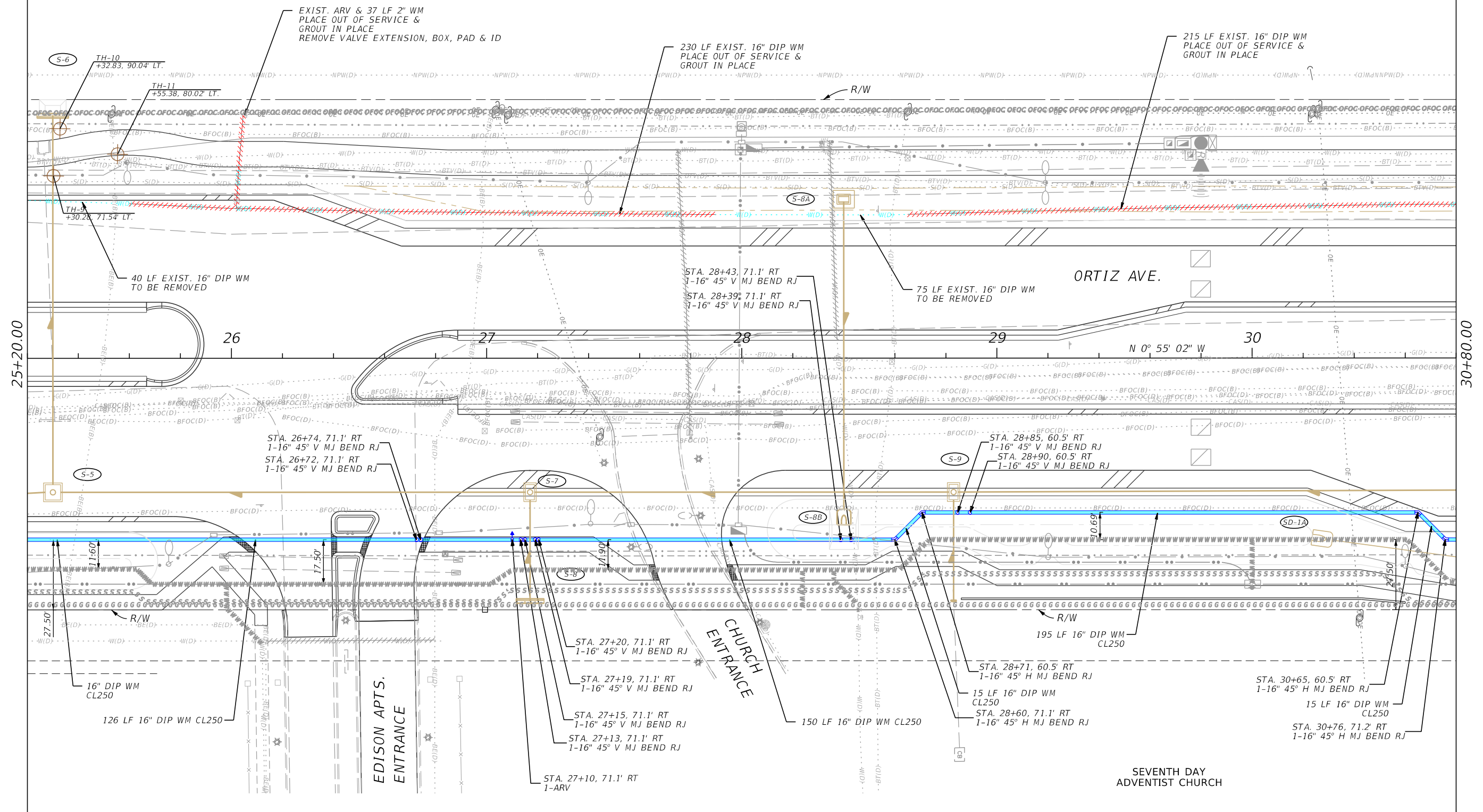
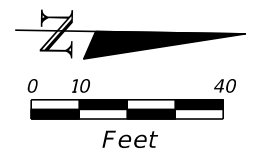
LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PLAN

SHEET NO.
U-11

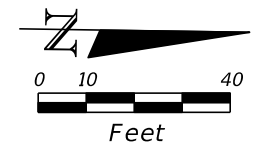
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CALUSA NATURE CENTER

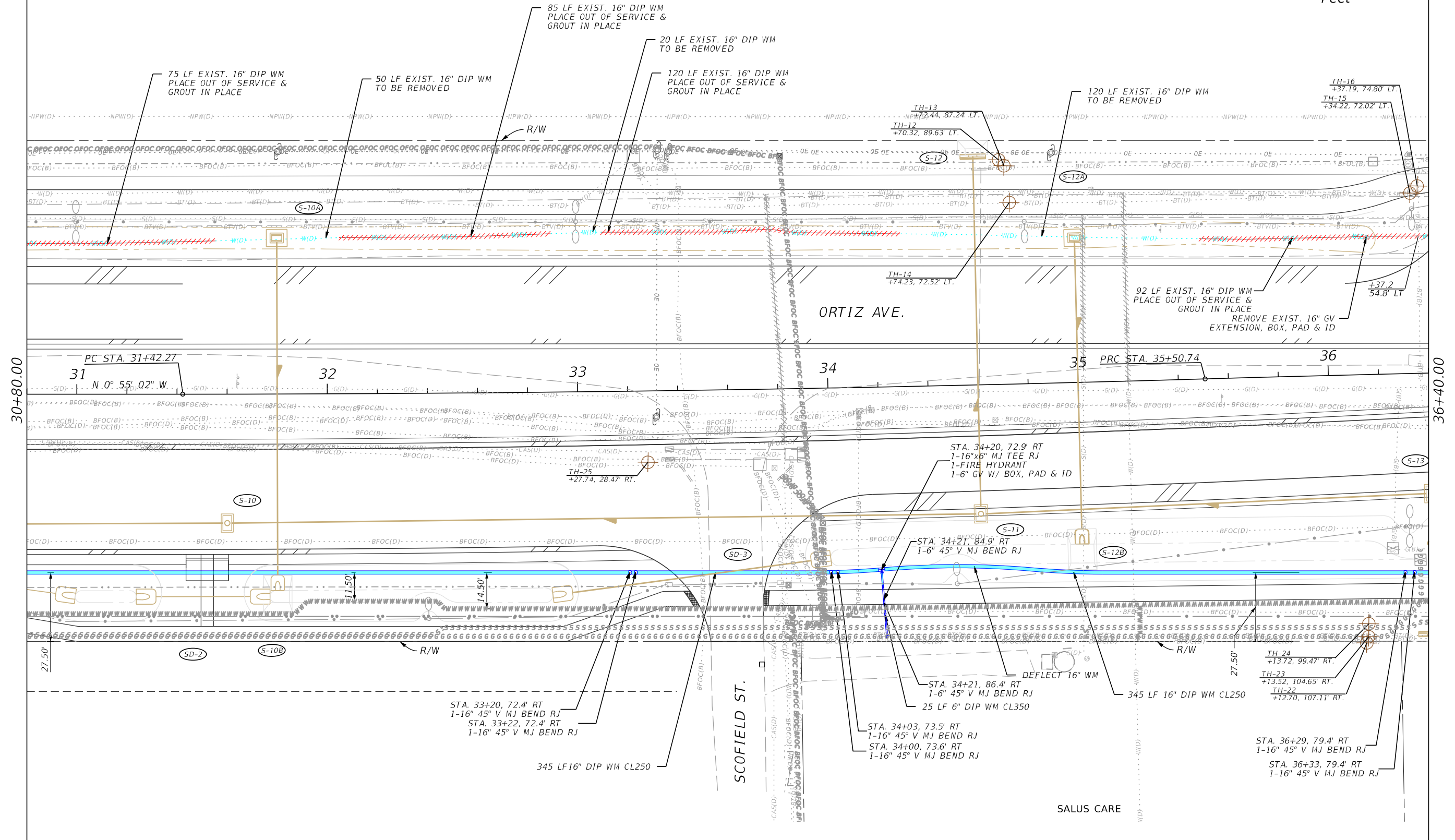


REVISIONS				DATE	DESCRIPTION	STANTEC 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connolly, P.E. #54805	LEE COUNTY UTILITIES			SHEET NO. U-12
DATE	DESCRIPTION	DATE	DESCRIPTION				ROAD NAME	COUNTY	PROJECT NO.	
							ORTIZ AVE.	LEE	18-0016	UTILITY PLAN

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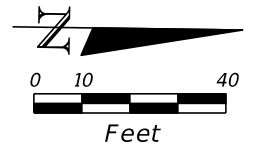
30+80.00

36+40.00

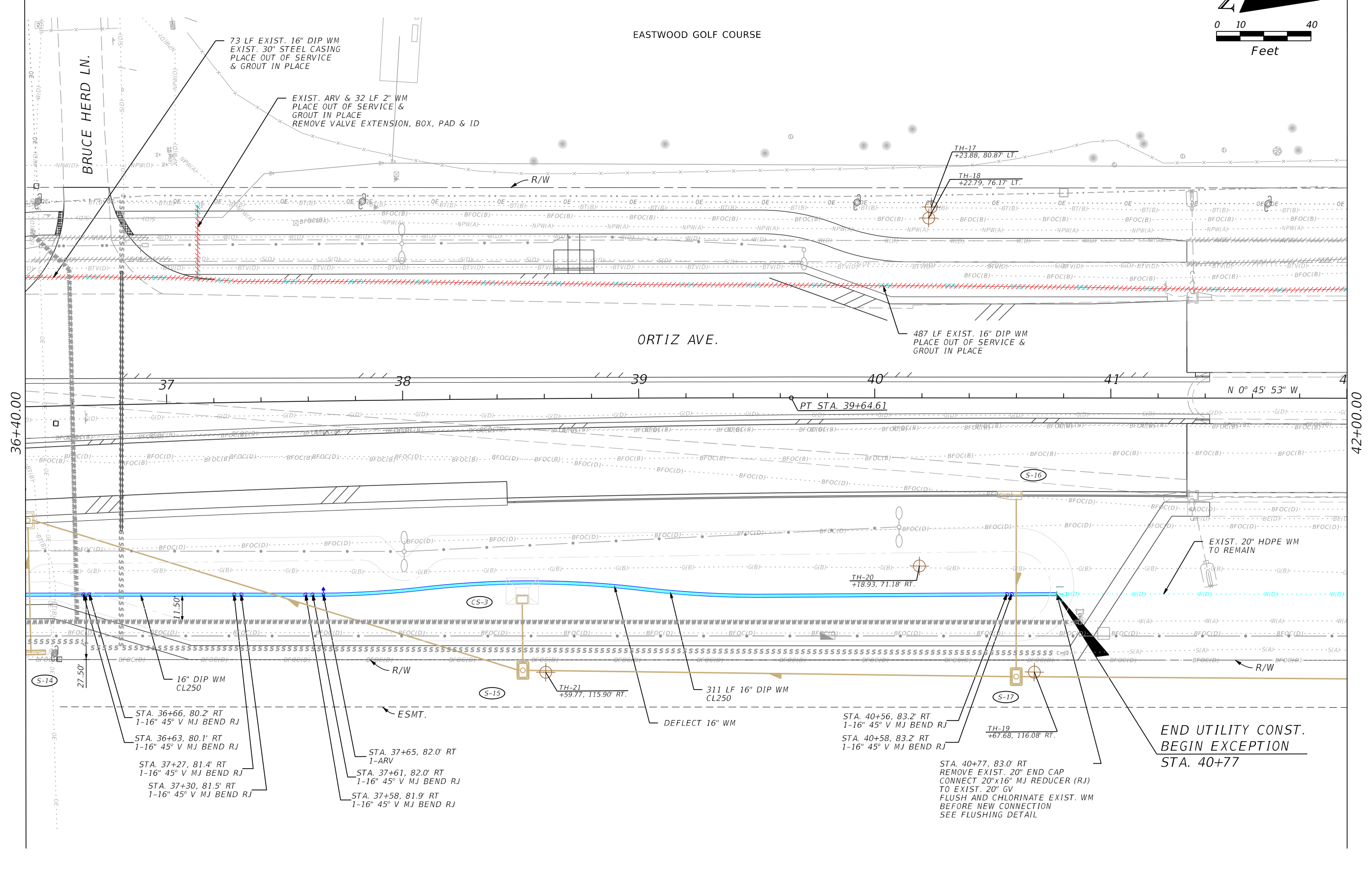
REVISIONS				Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			SHEET NO. U-13
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	PROJECT NO.	
					ORTIZ AVE.	LEE	18-0016	

UTILITY PLAN

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EASTWOOD GOLF COURSE



36+40.00

42+00.00

73 LF EXIST. 16" DIP WM
EXIST. 30" STEEL CASING
PLACE OUT OF SERVICE
& GROUT IN PLACE

EXIST. ARV & 32 LF 2" WM
PLACE OUT OF SERVICE &
GROUT IN PLACE
REMOVE VALVE EXTENSION, BOX, PAD & ID

TH-17
+23.88, 80.87' LT.

TH-18
+22.79, 76.17' LT.

487 LF EXIST. 16" DIP WM
PLACE OUT OF SERVICE &
GROUT IN PLACE

16" DIP WM
CL250

STA. 36+66, 80.2' RT
1-16" 45° V MJ BEND RJ

STA. 36+63, 80.1' RT
1-16" 45° V MJ BEND RJ

STA. 37+27, 81.4' RT
1-16" 45° V MJ BEND RJ

STA. 37+30, 81.5' RT
1-16" 45° V MJ BEND RJ

ESMT.

STA. 37+65, 82.0' RT
1-ARV

STA. 37+61, 82.0' RT
1-16" 45° V MJ BEND RJ

STA. 37+58, 81.9' RT
1-16" 45° V MJ BEND RJ

TH-21
+59.77, 115.90' RT.

311 LF 16" DIP WM
CL250

DEFLECT 16" WM

STA. 40+56, 83.2' RT
1-16" 45° V MJ BEND RJ

STA. 40+58, 83.2' RT
1-16" 45° V MJ BEND RJ

TH-19
+67.68, 116.08' RT.

STA. 40+77, 83.0' RT
REMOVE EXIST. 20" END CAP
CONNECT 20"x16" MJ REDUCER (RJ)
TO EXIST. 20" GV
FLUSH AND CHLORINATE EXIST. WM
BEFORE NEW CONNECTION
SEE FLUSHING DETAIL

EXIST. 20" HDPE WM
TO REMAIN

END UTILITY CONST.
BEGIN EXCEPTION
STA. 40+77

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Stantec
1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connelly, P.E. #54805

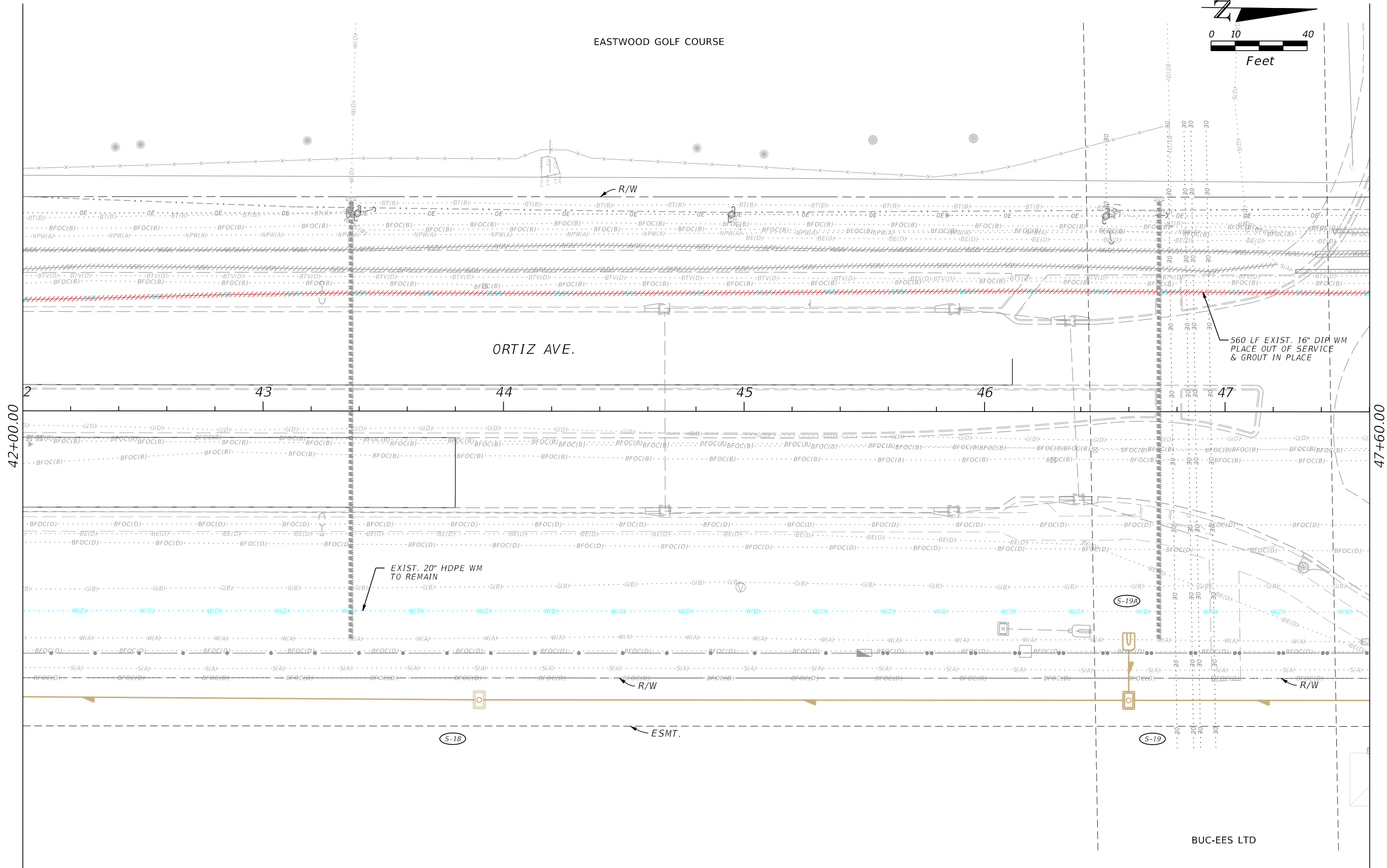
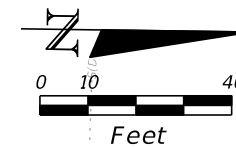
LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PLAN

SHEET NO.
U-14

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EASTWOOD GOLF COURSE



REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

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1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connelly, P.E. #54805

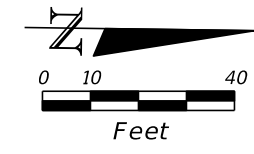
LEE COUNTY UTILITIES

ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PLAN

SHEET NO.
U-15

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EASTWOOD GOLF COURSE

ORTIZ AVE.

N 0° 45' 53" W

47+60.00

53+20.00

48

49

50

51

52

53

560 LF EXIST. 16" DIP WM
PLACE OUT OF SERVICE
& GROUT IN PLACE

EXIST. 20" HDPE WM
TO REMAIN

R/W

ESMT.

BUC-EES LTD

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

Stantec
1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connolly, P.E. #54805

LEE COUNTY UTILITIES

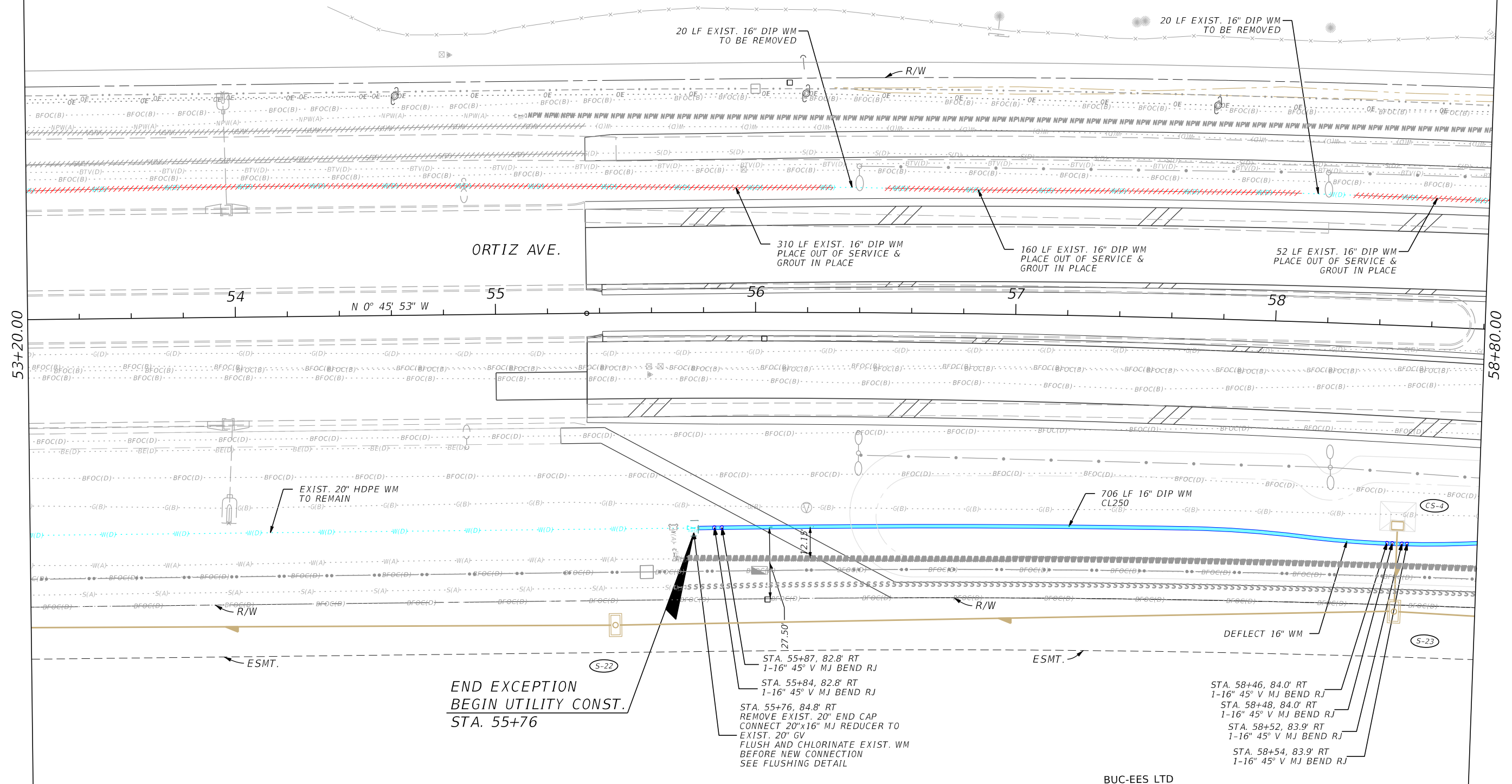
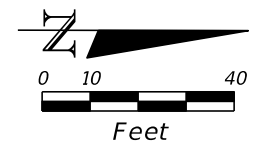
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PLAN

SHEET NO.
U-16

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EASTWOOD GOLF COURSE



END EXCEPTION
BEGIN UTILITY CONST.
STA. 55+76

STA. 55+87, 82.8' RT
1-16" 45° V MJ BEND RJ
STA. 55+84, 82.8' RT
1-16" 45° V MJ BEND RJ
STA. 55+76, 84.8' RT
REMOVE EXIST. 20" END CAP
CONNECT 20"x16" MJ REDUCER TO
EXIST. 20" GV
FLUSH AND CHLORINATE EXIST. WM
BEFORE NEW CONNECTION
SEE FLUSHING DETAIL

STA. 58+46, 84.0' RT
1-16" 45° V MJ BEND RJ
STA. 58+48, 84.0' RT
1-16" 45° V MJ BEND RJ
STA. 58+52, 83.9' RT
1-16" 45° V MJ BEND RJ
STA. 58+54, 83.9' RT
1-16" 45° V MJ BEND RJ

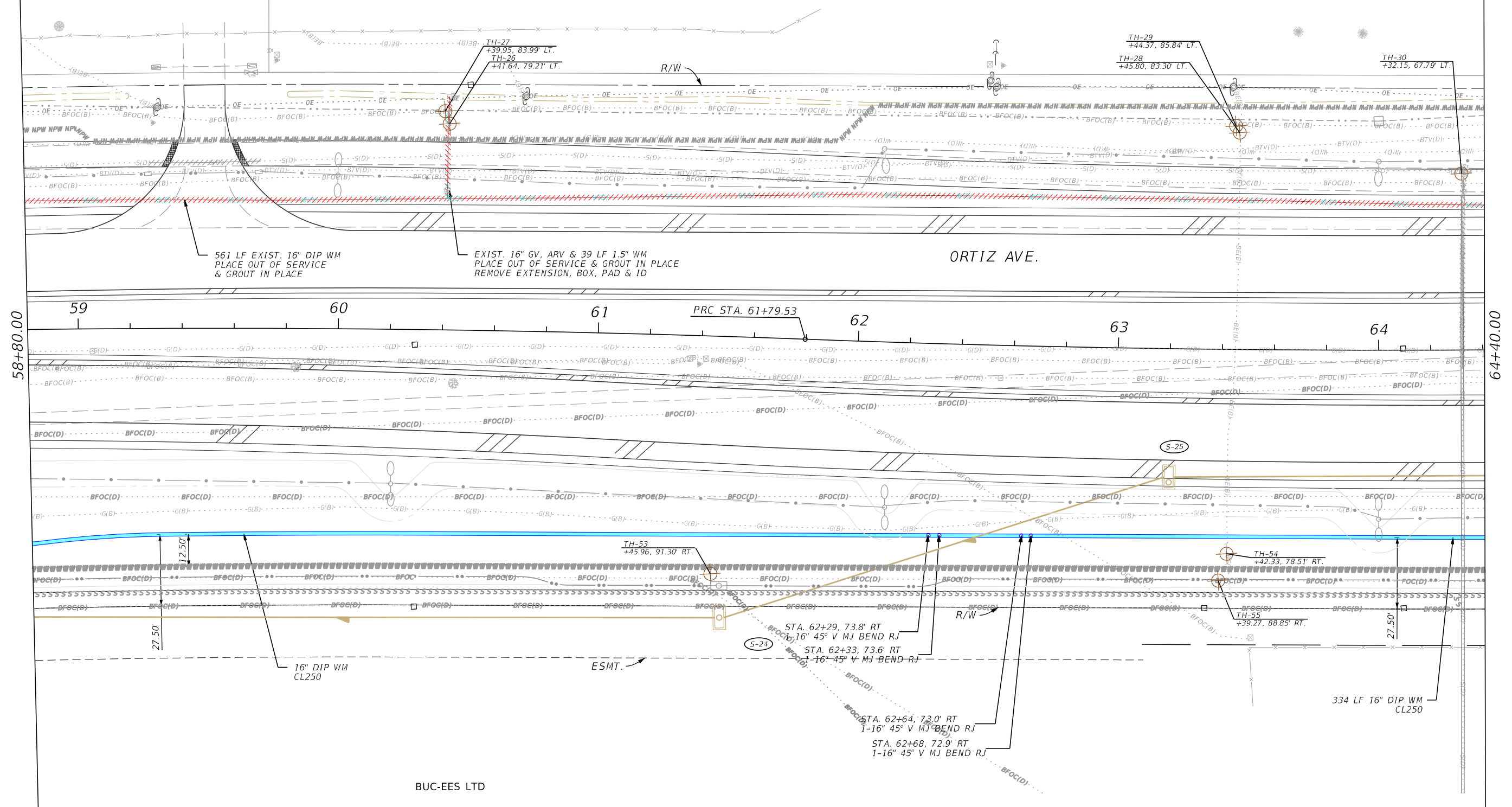
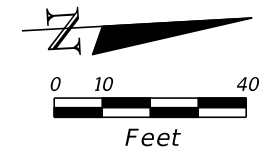
BUC-EES LTD

REVISIONS				Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			SHEET NO. U-17
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	PROJECT NO.	
					ORTIZ AVE.	LEE	18-0016	

UTILITY PLAN

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EASTWOOD GOLF COURSE



561 LF EXIST. 16" DIP WM
PLACE OUT OF SERVICE
& GROUT IN PLACE

EXIST. 16" GV, ARV & 39 LF 1.5" WM
PLACE OUT OF SERVICE & GROUT IN PLACE
REMOVE EXTENSION, BOX, PAD & ID

ORTIZ AVE.

16" DIP WM
CL250

334 LF 16" DIP WM
CL250

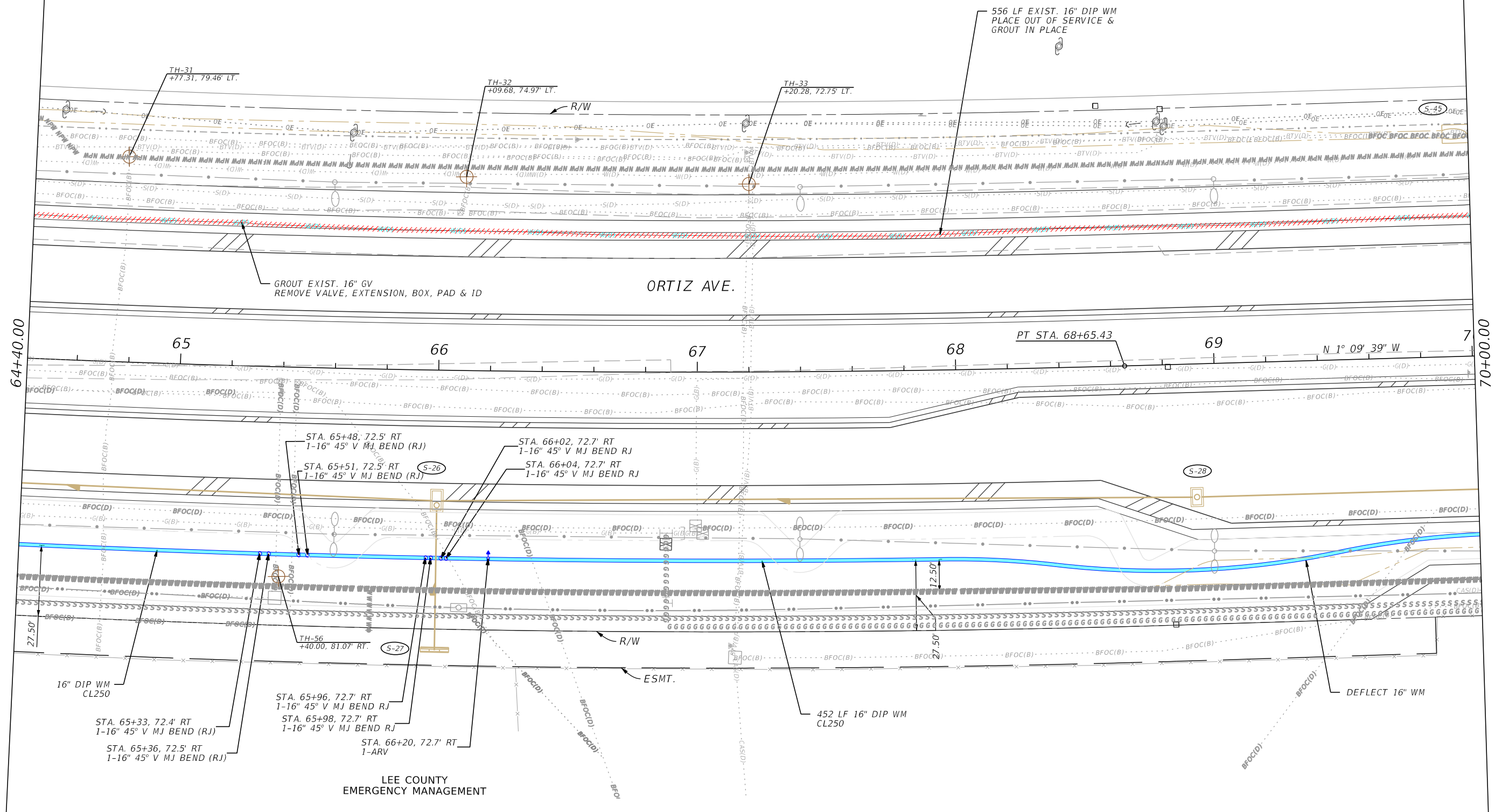
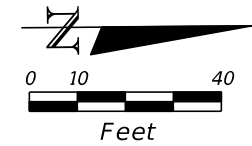
BUC-EES LTD

REVISIONS				Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			SHEET NO. U-18
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	PROJECT NO.	
					ORTIZ AVE.	LEE	18-0016	

UTILITY PLAN

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EASTWOOD GOLF COURSE



GROUT EXIST. 16" GV
REMOVE VALVE, EXTENSION, BOX, PAD & ID

556 LF EXIST. 16" DIP WM
PLACE OUT OF SERVICE &
GROUT IN PLACE

ORTIZ AVE.

STA. 65+48, 72.5' RT
1-16" 45° V MJ BEND (RJ)

STA. 65+51, 72.5' RT
1-16" 45° V MJ BEND (RJ)

STA. 66+02, 72.7' RT
1-16" 45° V MJ BEND RJ

STA. 66+04, 72.7' RT
1-16" 45° V MJ BEND RJ

TH-56
+40.00, 81.07' RT.

STA. 65+33, 72.4' RT
1-16" 45° V MJ BEND (RJ)

STA. 65+36, 72.5' RT
1-16" 45° V MJ BEND (RJ)

STA. 65+96, 72.7' RT
1-16" 45° V MJ BEND RJ

STA. 65+98, 72.7' RT
1-16" 45° V MJ BEND RJ

STA. 66+20, 72.7' RT
1-ARV

LEE COUNTY
EMERGENCY MANAGEMENT

452 LF 16" DIP WM
CL250

DEFLECT 16" WM

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Stantec
1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connelly, P.E. #54805

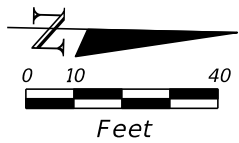
LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PLAN

SHEET NO.
U-19

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NORSTAR APARTMENTS

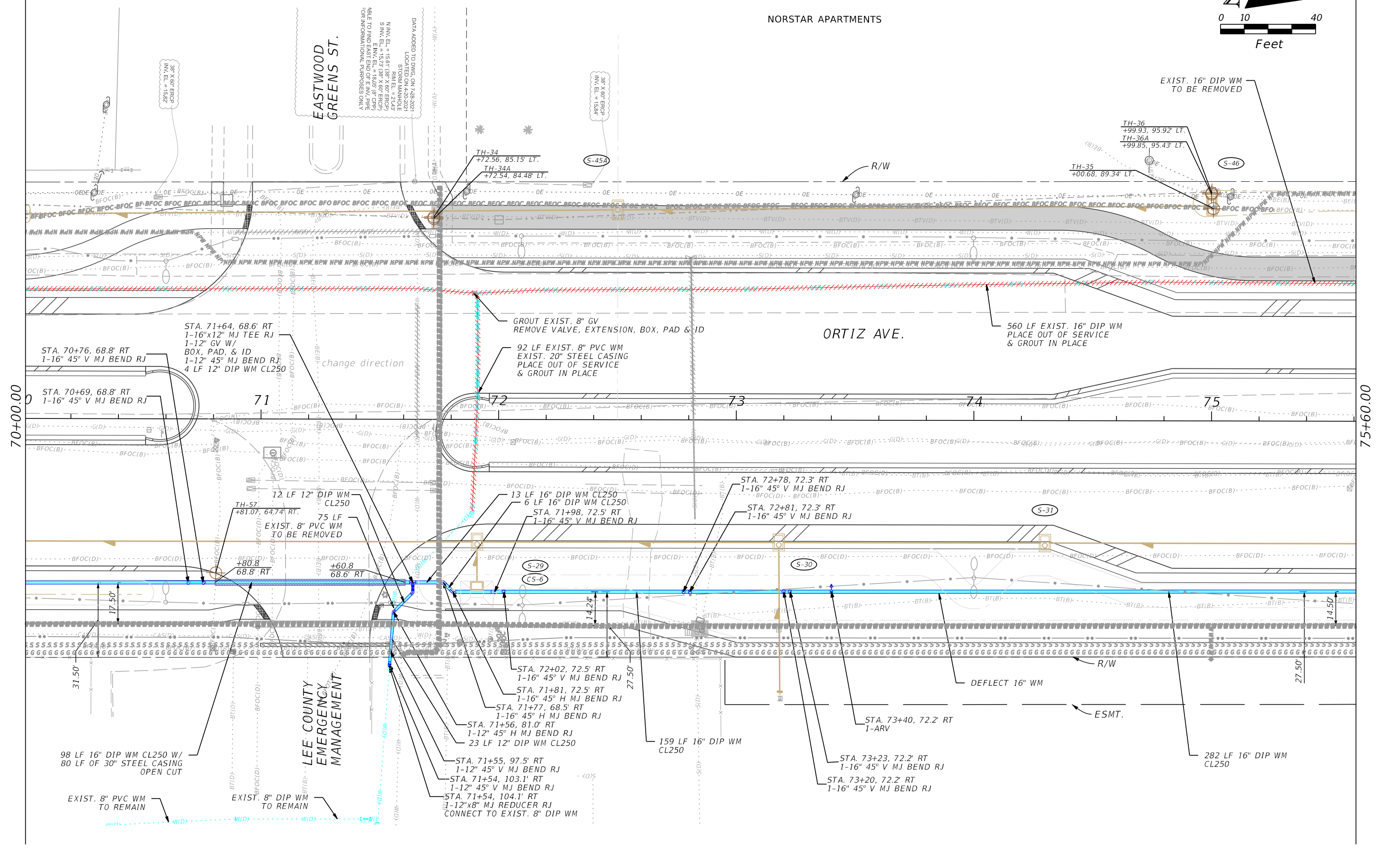


EASTWOOD GREENS ST.

ORTIZ AVE.

70+00.00

75+60.00



REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

Stantec
1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connelly, P.E. #54805

LEE COUNTY UTILITIES

ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

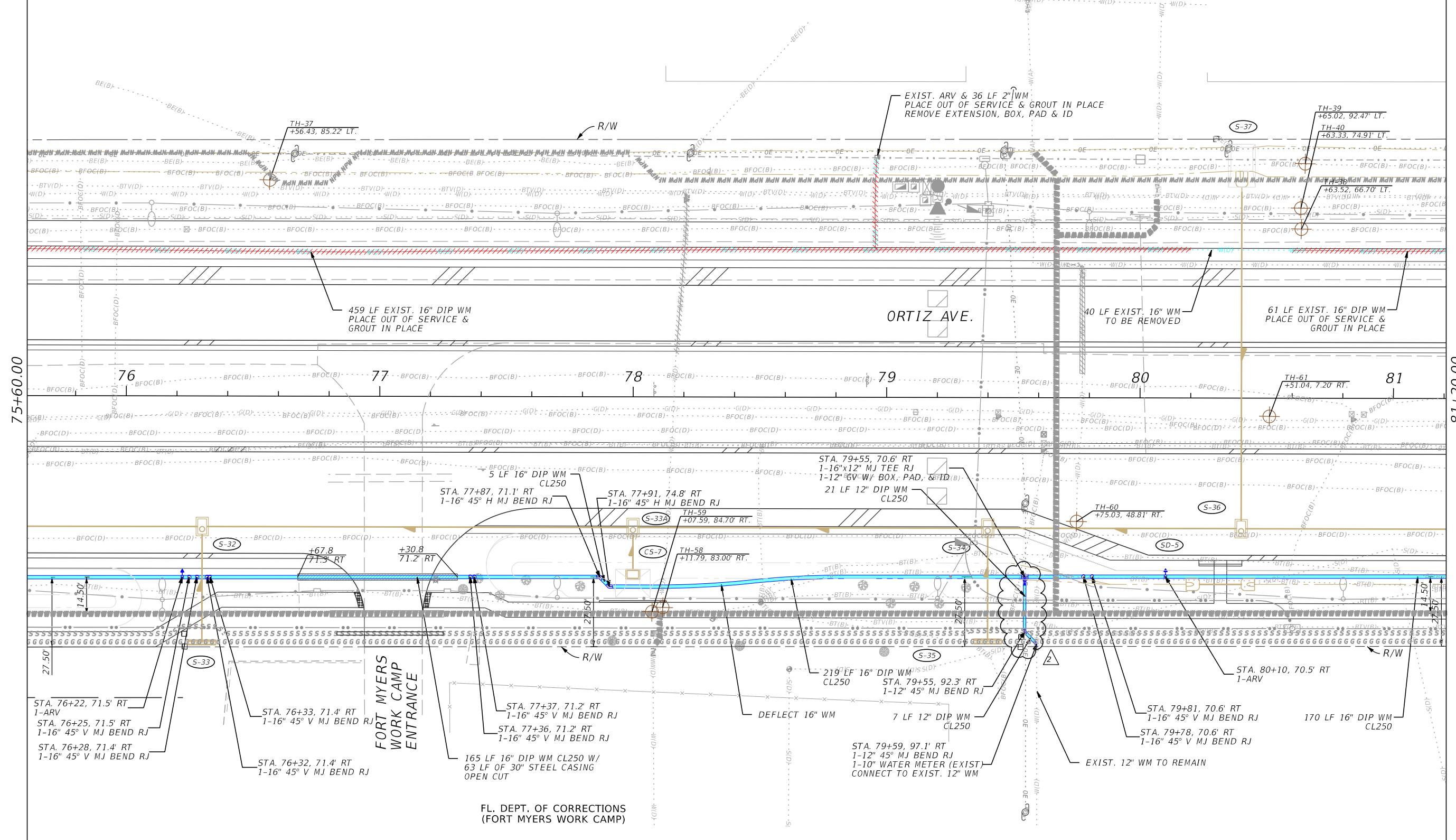
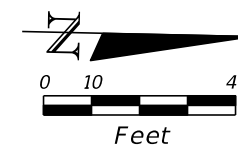
UTILITY PLAN

SHEET NO.

U-20

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NORSTAR APARTMENTS



75+60.00

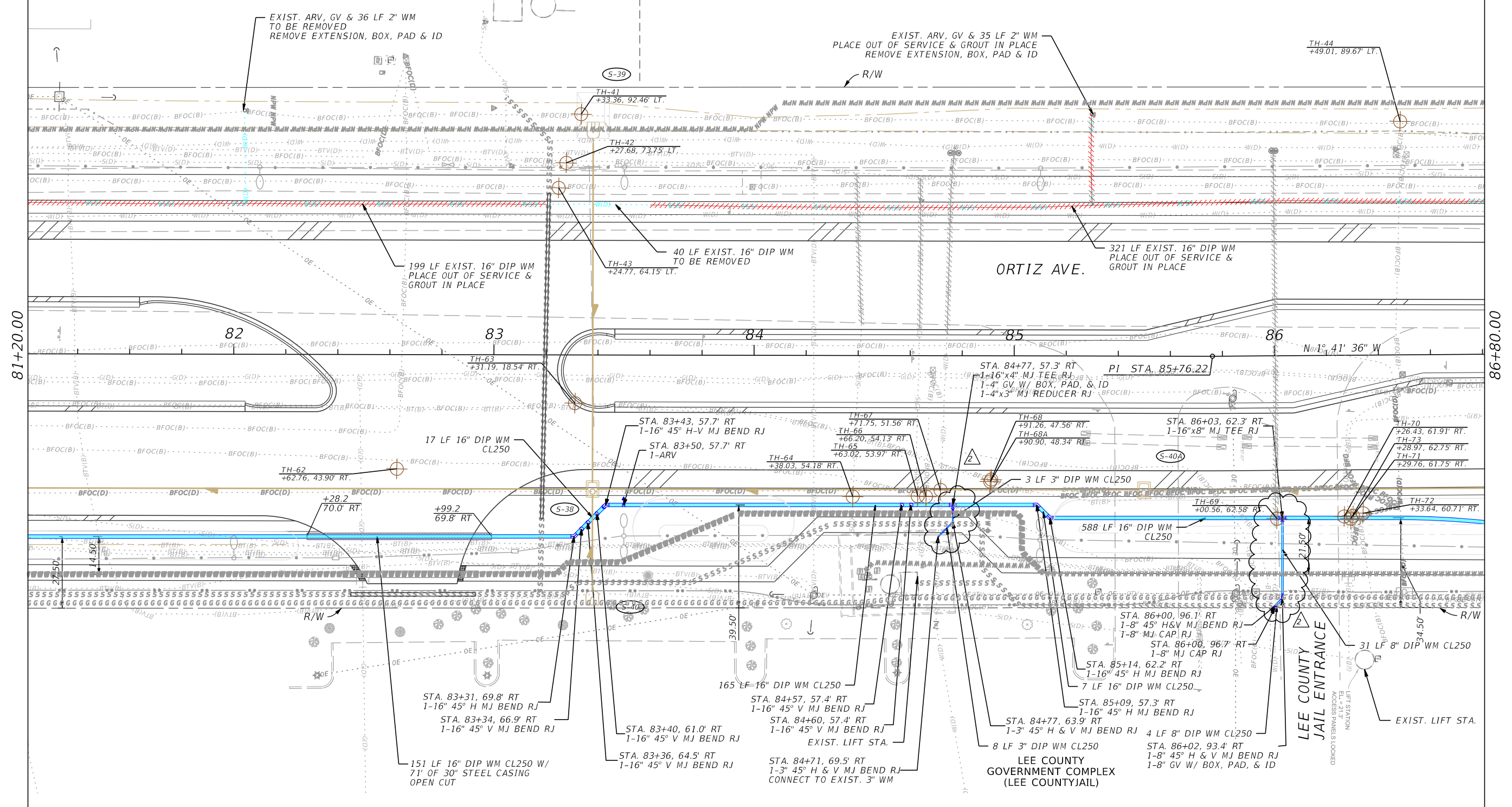
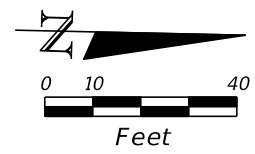
81+20.00

REVISIONS		DATE	DESCRIPTION	Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			SHEET NO.
DATE	DESCRIPTION				ROAD NAME	COUNTY	PROJECT NO.	
4-5-23	ADDED 12" WM CONNECTION PER LCU COMMENTS.				ORTIZ AVE.	LEE	18-0016	U-21

UTILITY PLAN

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NORSTAR APARTMENTS



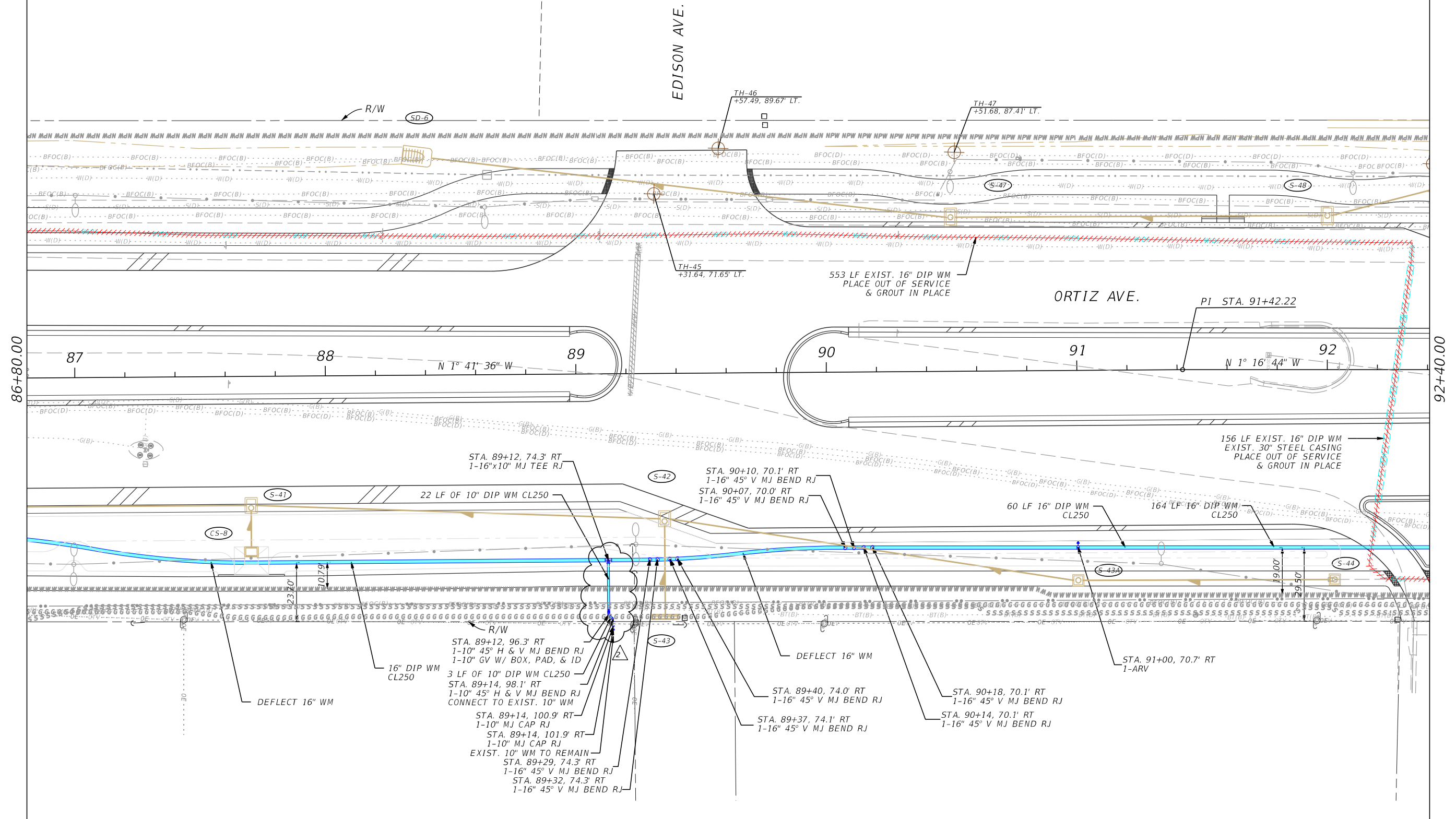
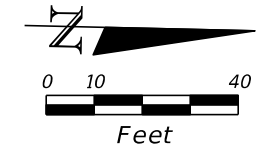
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
4-5-23	ADDED 12" WM CONNECTION PER LCU COMMENTS.		

Stantec
 1821 Victoria Avenue
 Fort Myers, FL 33901
 Ph. 239-337-3330
 Kristina Connelly, P.E. #54805

LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PLAN	
DATE	SHEET NO.
7/27/2023	U-22

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
4-5-23	ADDED 12" WM CONNECTION PER LCU COMMENTS.		

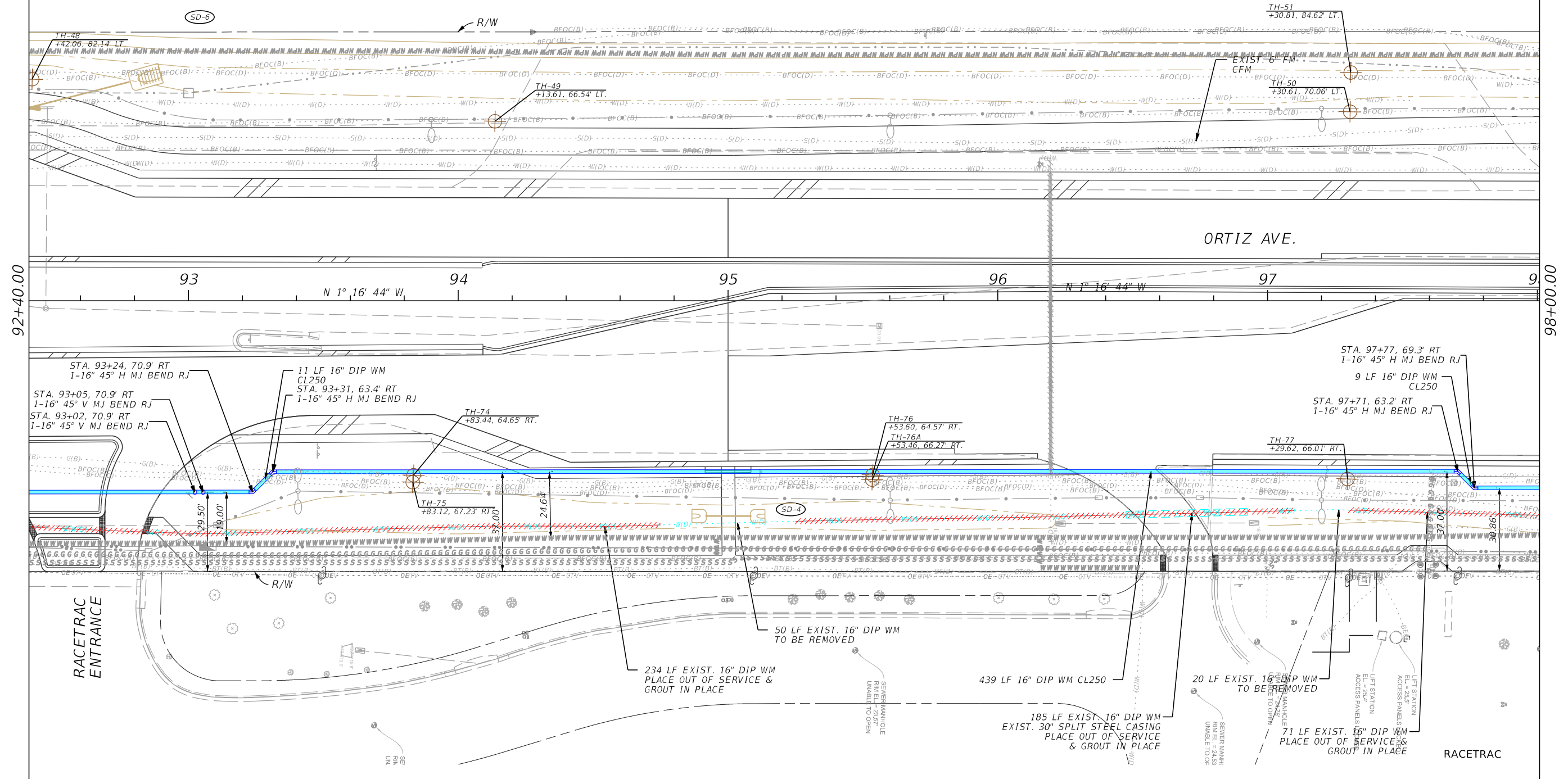
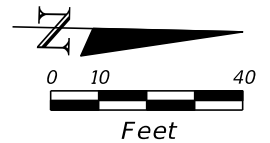
Stantec
 1821 Victoria Avenue
 Fort Myers, FL 33901
 Ph. 239-337-3330
 Kristina Connelly, P.E. #54805

LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PLAN

SHEET NO.
U-23

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

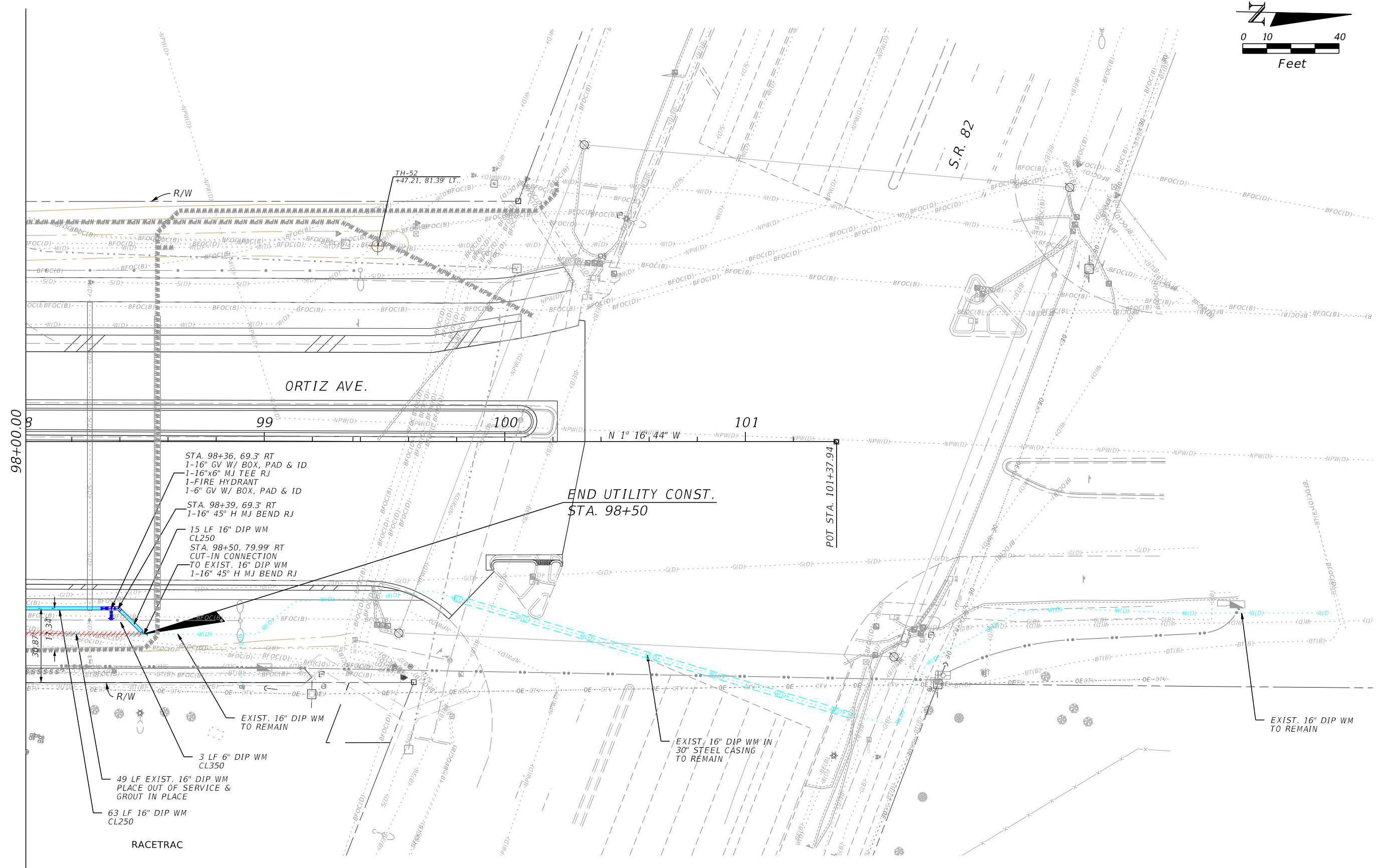
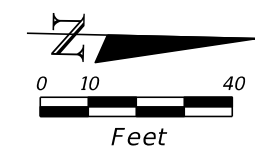
Stantec
 1821 Victoria Avenue
 Fort Myers, FL 33901
 Ph. 239-337-3330
 Kristina Connelly, P.E. #54805

LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PLAN

SHEET NO.
U-24

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



- STA. 98+36, 69.3' RT
1-16" GV W/ BOX, PAD & ID
1-16"x6" MJ TEE RJ
1-FIRE HYDRANT
1-6" GV W/ BOX, PAD & ID
- STA. 98+39, 69.3' RT
1-16" 45° H MJ BEND RJ
- 15 LF 16" DIP WM
CL250
- STA. 98+50, 79.99' RT
CUT-IN CONNECTION
TO EXIST. 16" DIP WM
1-16" 45° H MJ BEND RJ

END UTILITY CONST.
STA. 98+50

- EXIST. 16" DIP WM
TO REMAIN
- 3 LF 6" DIP WM
CL350
- 49 LF EXIST. 16" DIP WM
PLACE OUT OF SERVICE &
GROUT IN PLACE
- 63 LF 16" DIP WM
CL250

EXIST. 16" DIP WM IN
30" STEEL CASING
TO REMAIN

EXIST. 16" DIP WM
TO REMAIN

RACETRAC

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

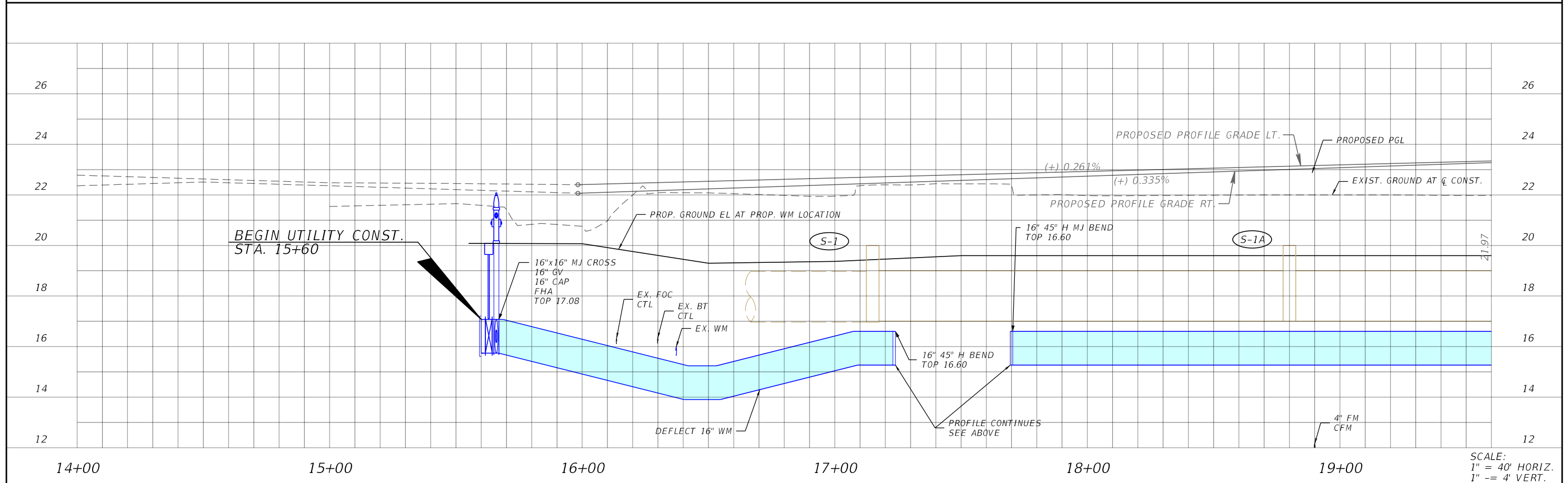
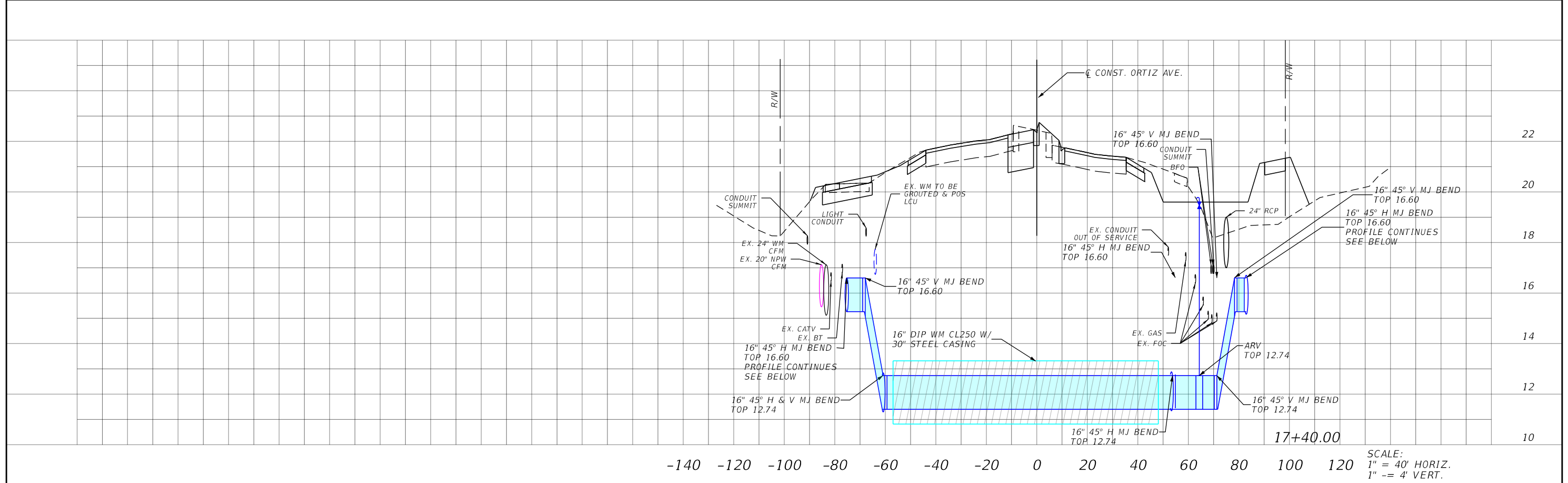
Stantec
1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connolly, P.E. #54805

LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PLAN

SHEET NO.
U-25

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



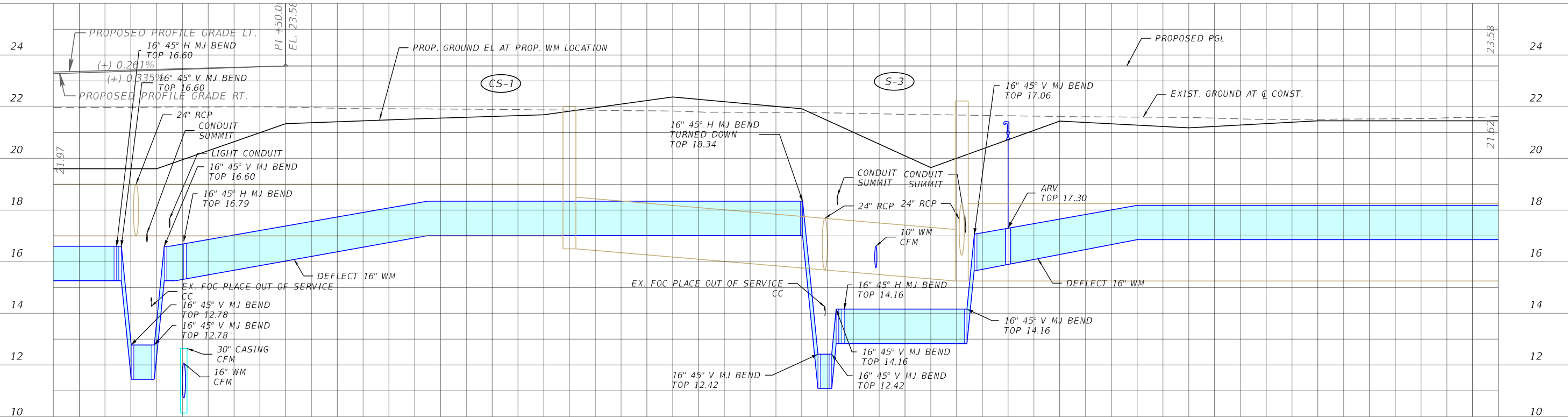
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Stantec
 1821 Victoria Avenue
 Fort Myers, FL 33901
 Ph. 239-337-3330
 Kristina Connelly, P.E. #54805

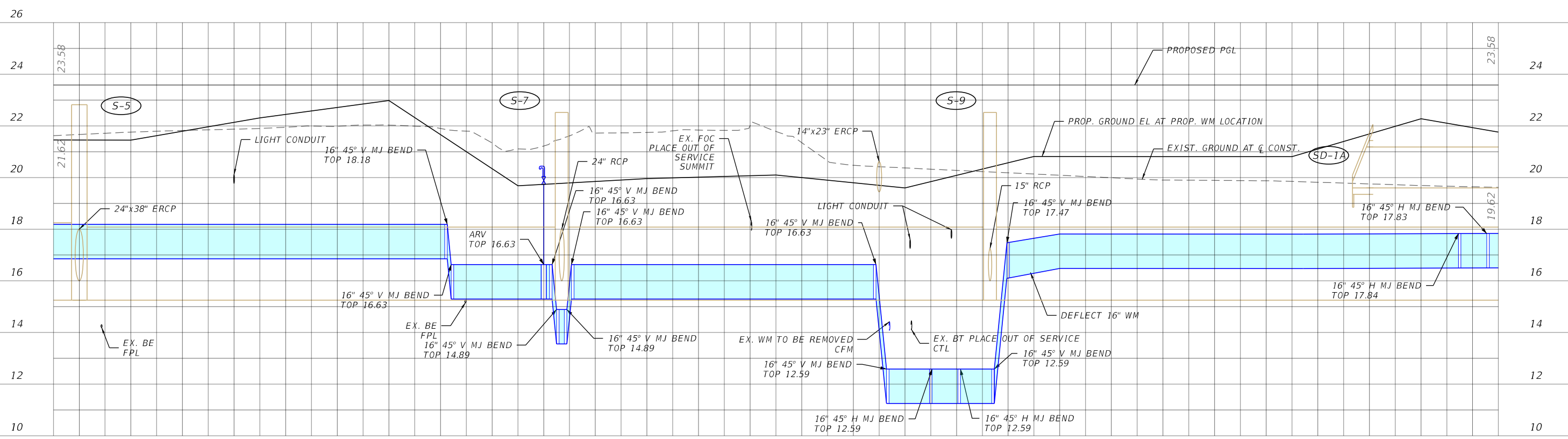
LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PROFILE	SHEET NO. U-26
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20+00 21+00 22+00 23+00 24+00 25+00 SCALE: 1" = 40' HORIZ. 1" = 4' VERT.



26+00 27+00 28+00 29+00 30+00 SCALE: 1" = 40' HORIZ. 1" = 4' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

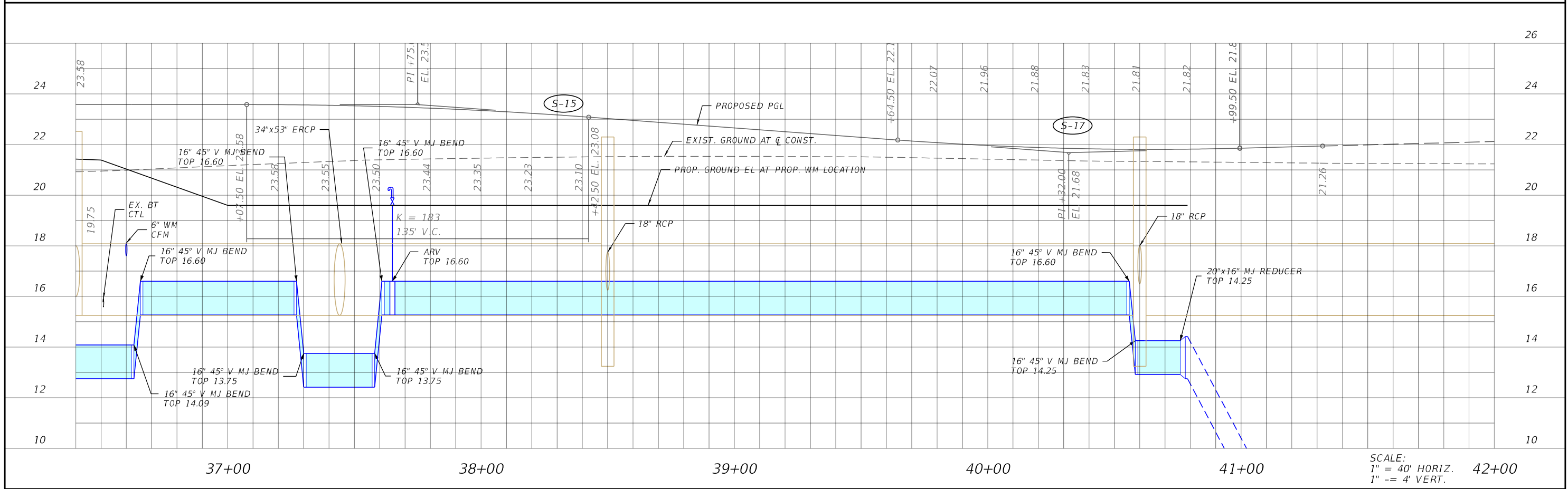
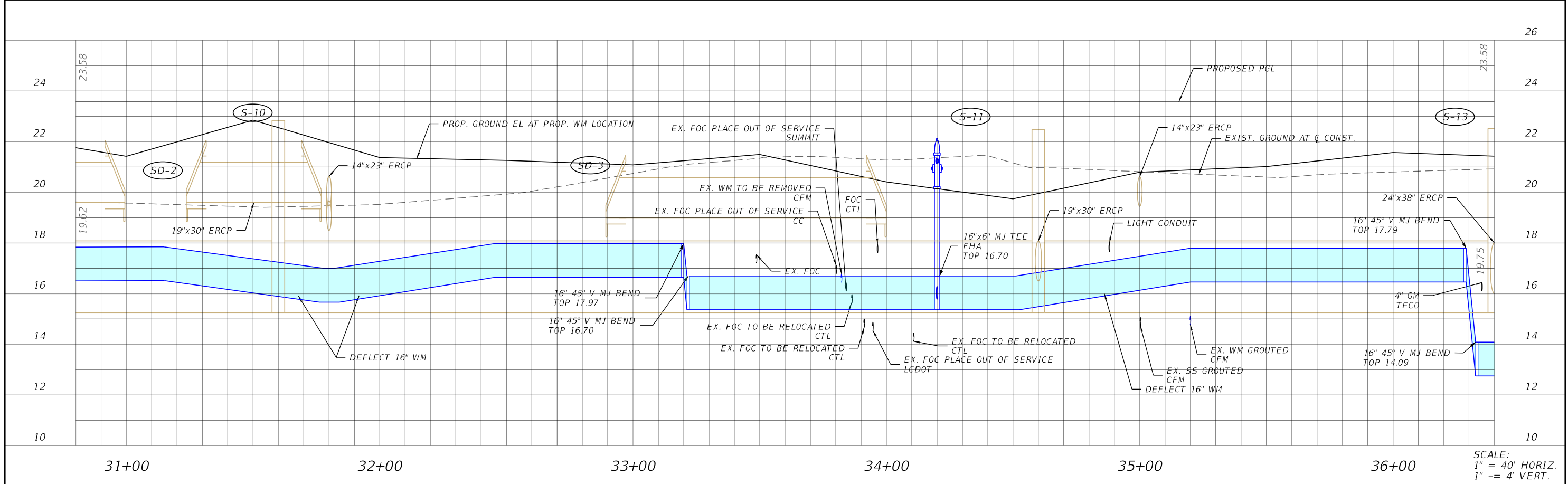
Stantec
1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connelly, P.E. #54805

LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PROFILE

SHEET NO.
U-27

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

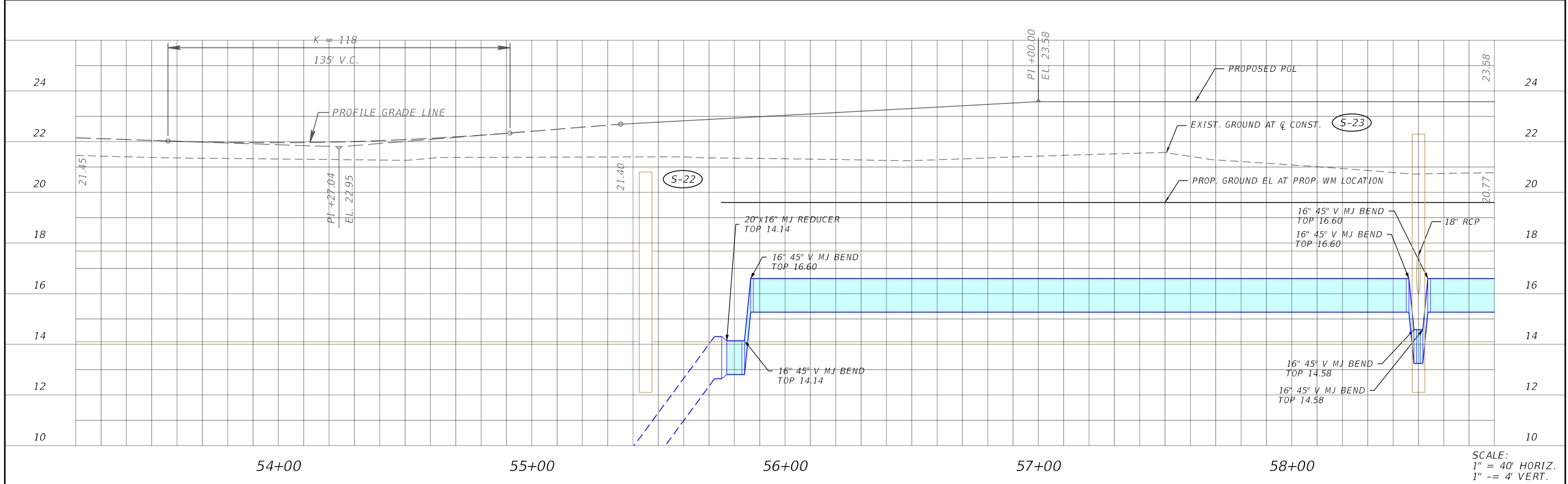
Stantec
 1821 Victoria Avenue
 Fort Myers, FL 33901
 Ph. 239-337-3330
 Kristina Connelly, P.E. #54805

LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

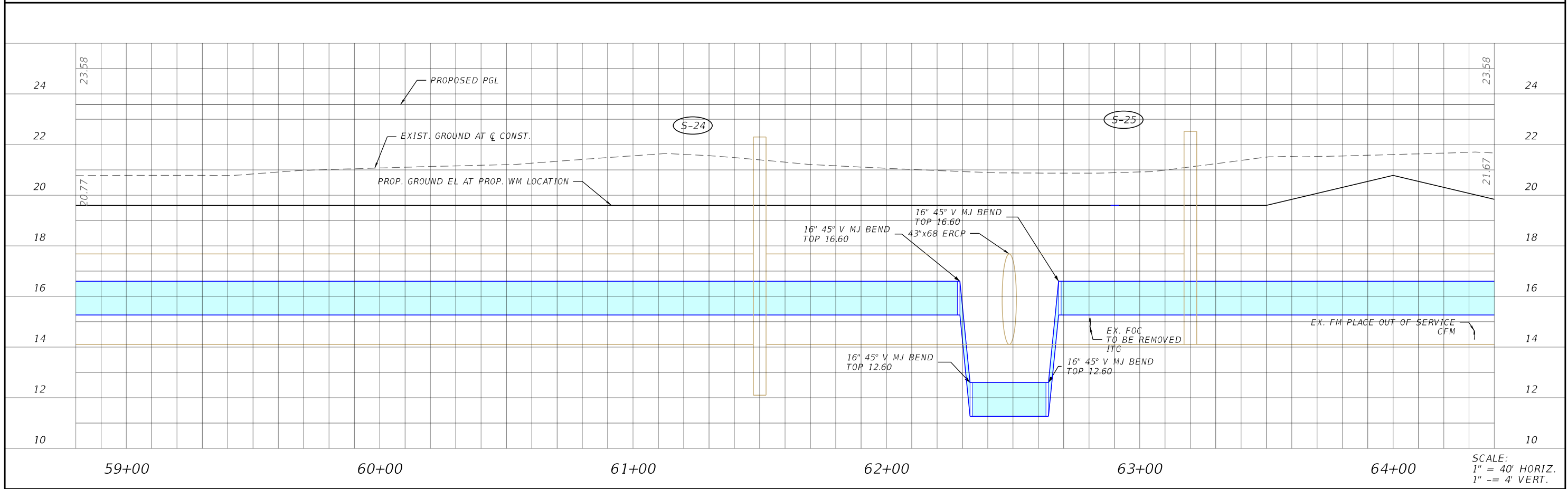
UTILITY PROFILE

SHEET NO.
U-28

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



SCALE:
1" = 40' HORIZ.
1" = 4' VERT.



SCALE:
1" = 40' HORIZ.
1" = 4' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

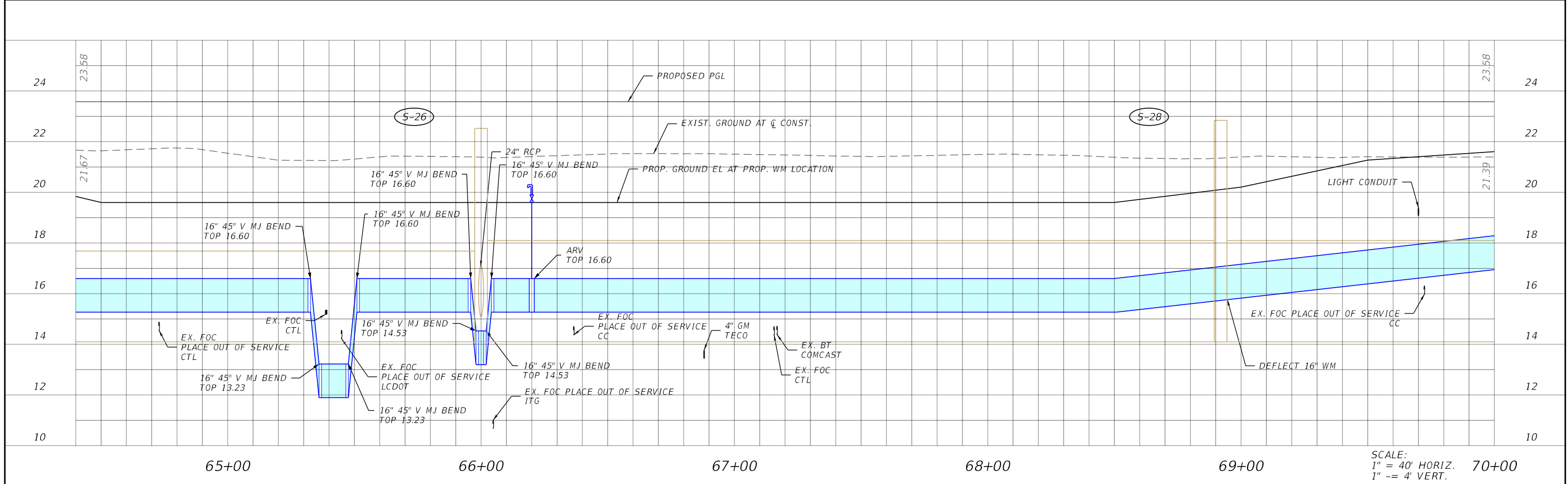
Stantec
1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connelly, P.E. #54805

LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

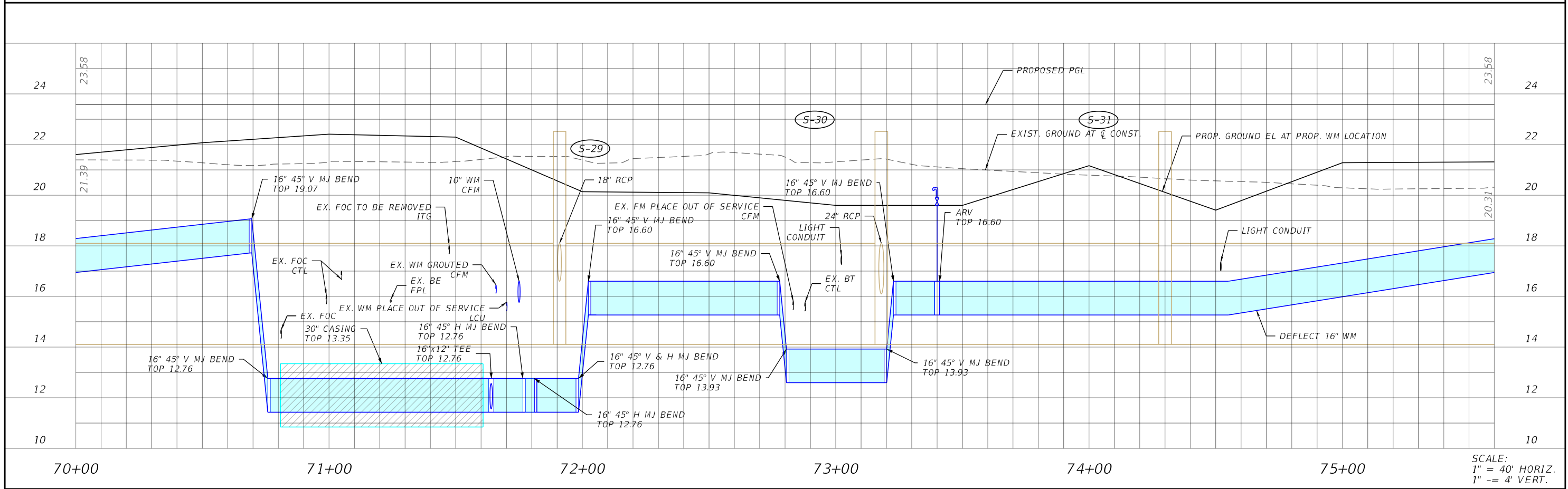
UTILITY PROFILE

SHEET NO.
U-29

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



SCALE:
 1" = 40' HORIZ.
 1" = 4' VERT.



SCALE:
 1" = 40' HORIZ.
 1" = 4' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

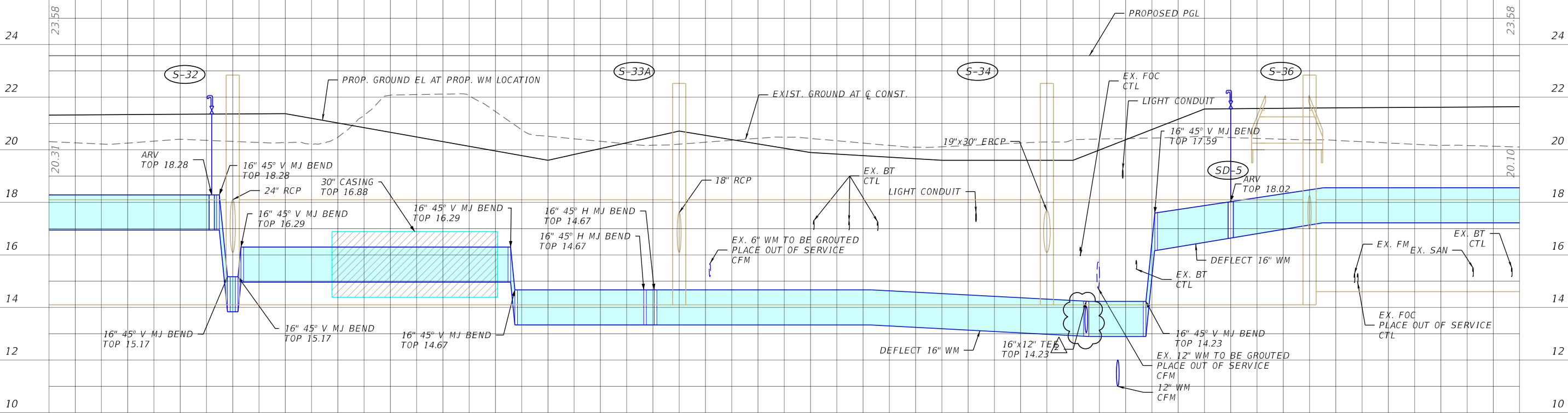
Stantec
 1821 Victoria Avenue
 Fort Myers, FL 33901
 Ph. 239-337-3330
 Kristina Connelly, P.E. #54805

LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PROFILE

SHEET NO.
U-30

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



76+00

77+00

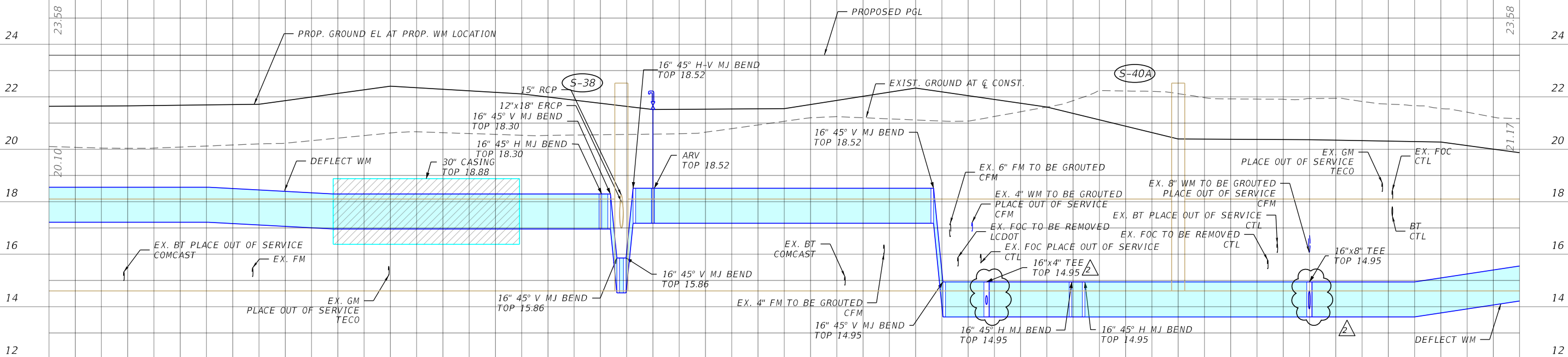
78+00

79+00

80+00

81+00

SCALE:
 1" = 40' HORIZ.
 1" = 4' VERT.



82+00

83+00

84+00

85+00

86+00

SCALE:
 1" = 40' HORIZ.
 1" = 4' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
4-5-23	UTILITY WM CONNECTIONS SHEET ADDED PER LCU COMMENTS.		

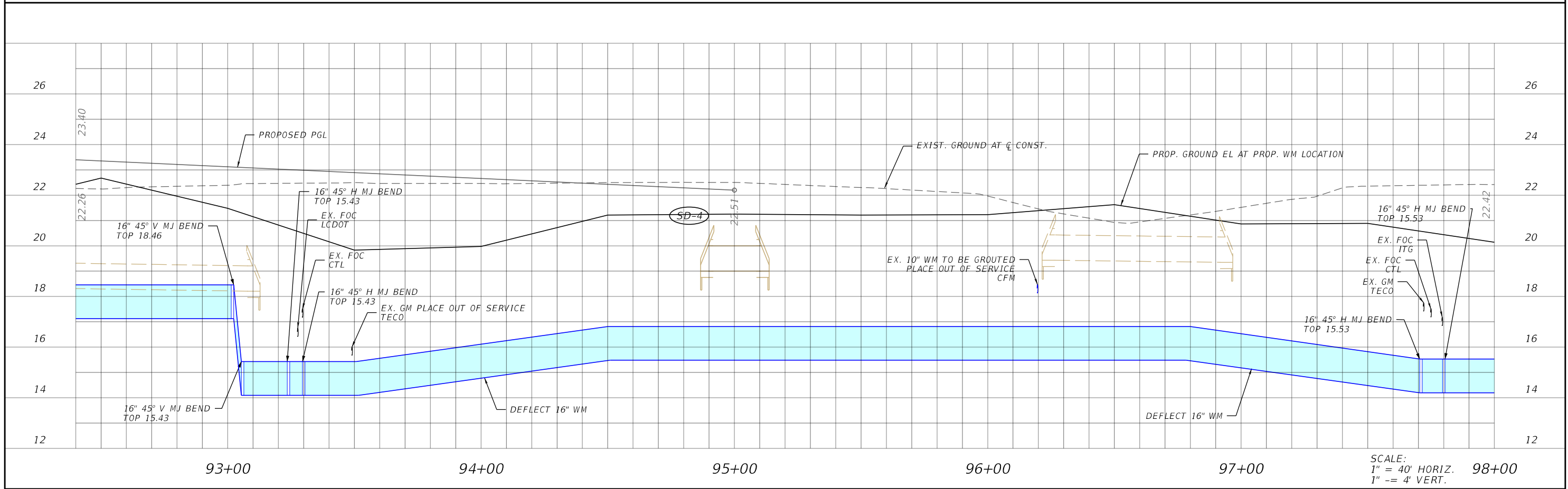
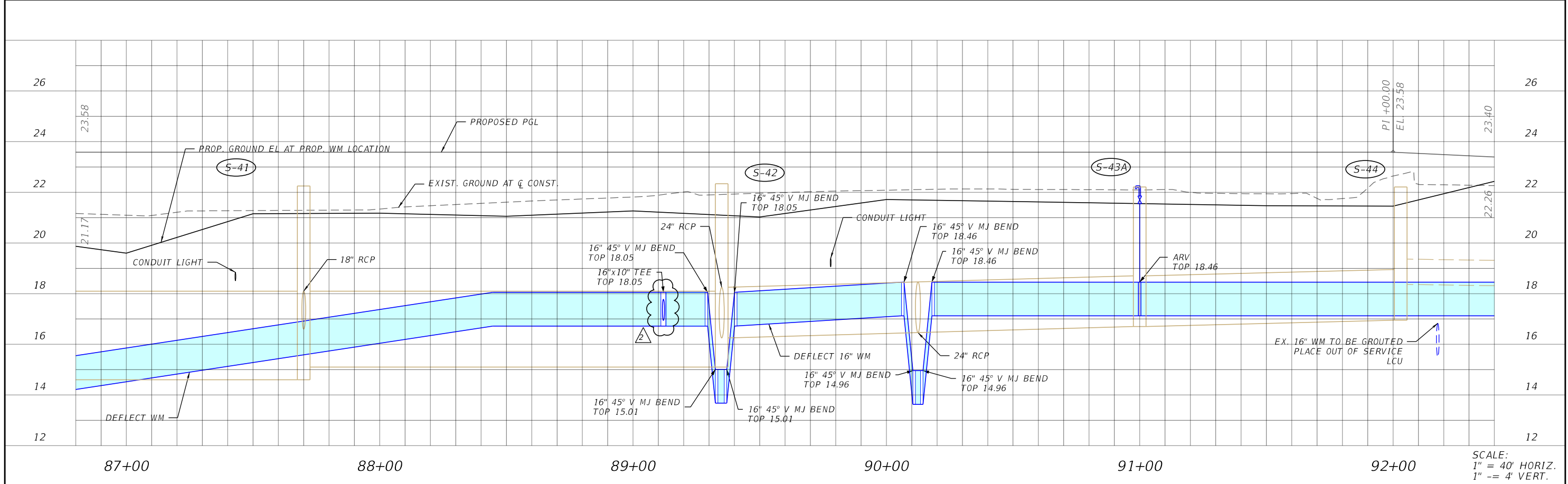
Stantec
 1821 Victoria Avenue
 Fort Myers, FL 33901
 Ph. 239-337-3330
 Kristina Connolly, P.E. #54805

LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PROFILE

SHEET NO.
U-31

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
4-5-23	UTILITY WM CONNECTIONS SHEET ADDED PER LCU COMMENTS.		

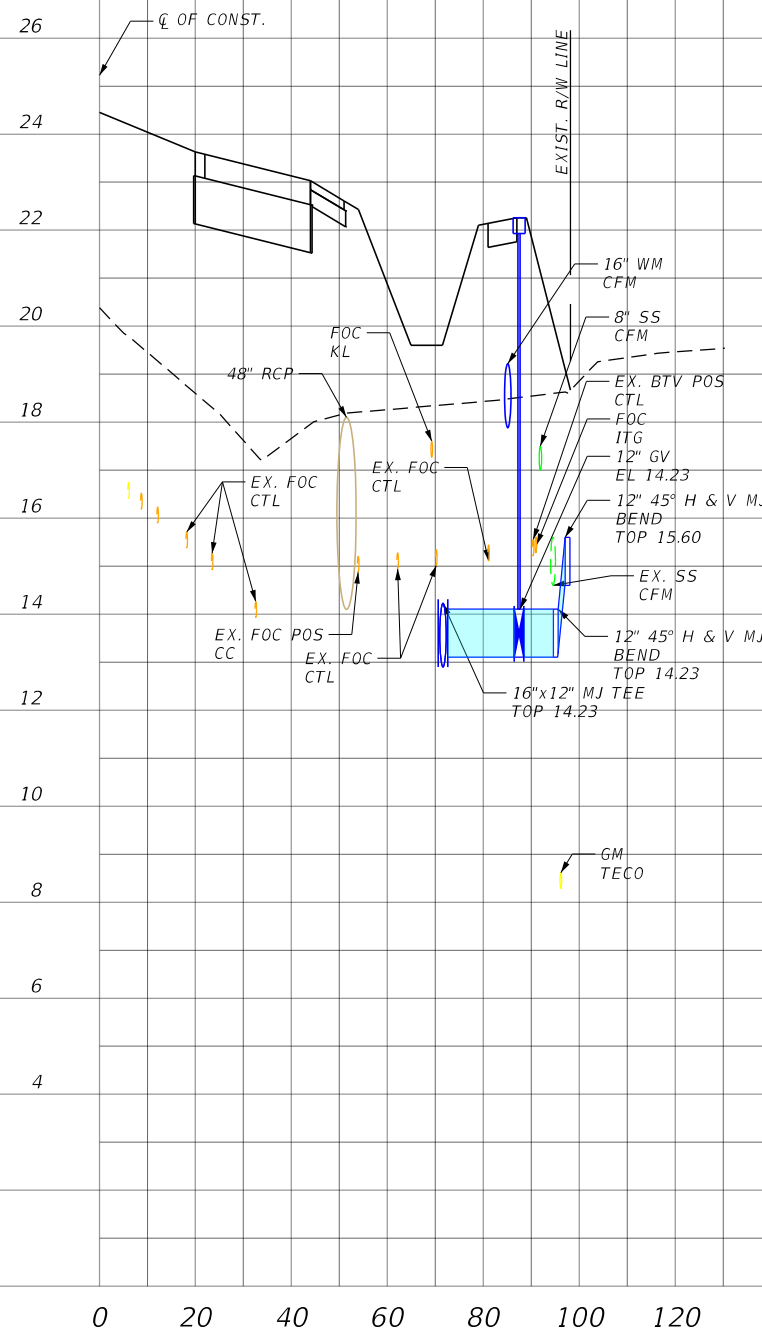
Stantec
 1821 Victoria Avenue
 Fort Myers, FL 33901
 Ph. 239-337-3330
 Kristina Connelly, P.E. #54805

LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

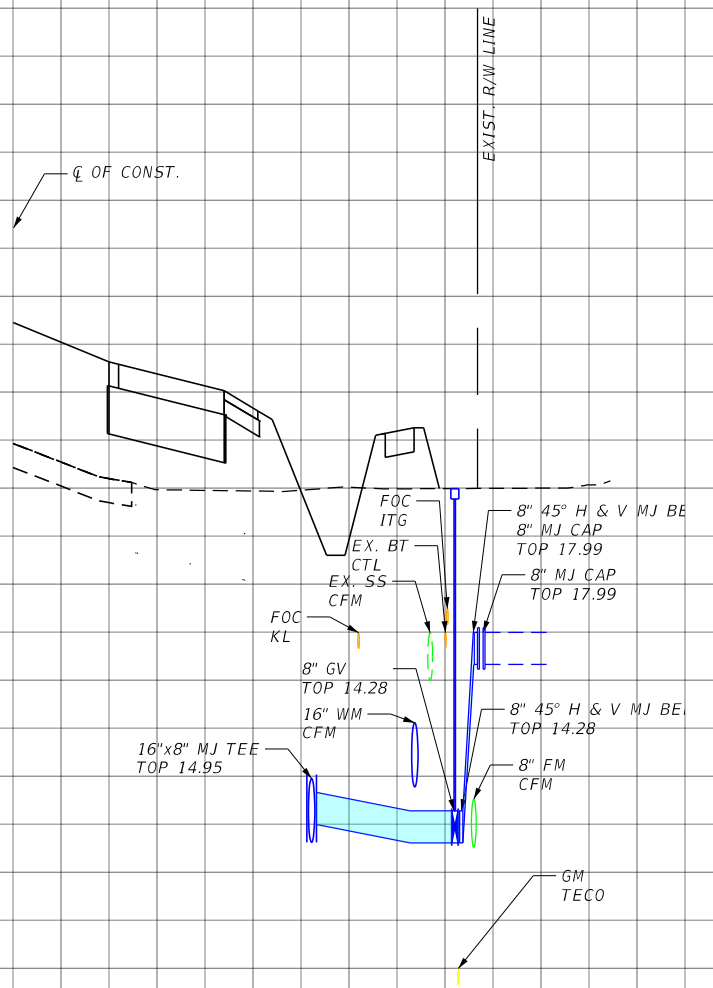
UTILITY PROFILE

SHEET NO.
U-32

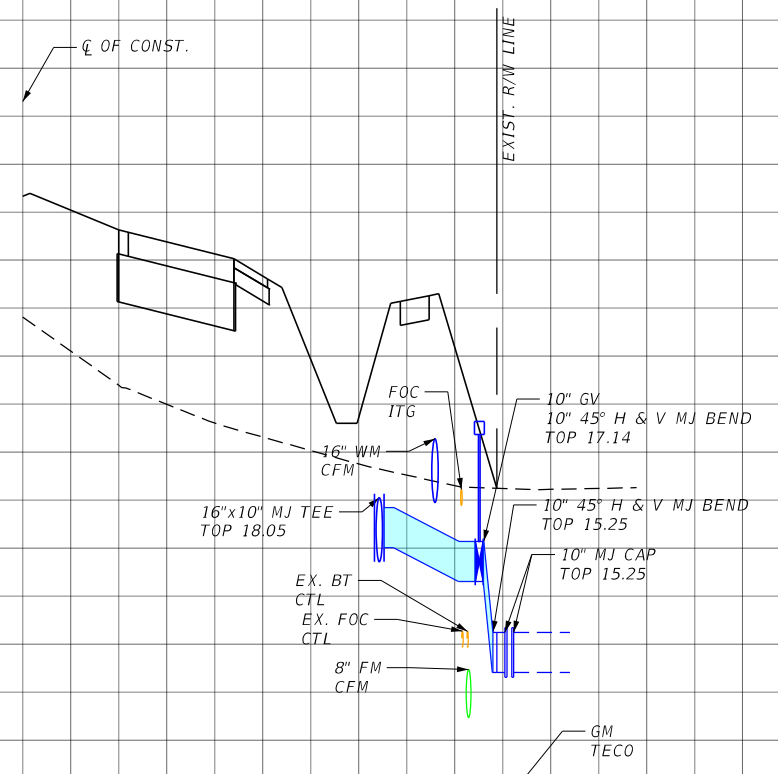
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WATER MAIN 79+55



WATER MAIN 86+03



WATER MAIN 89+12

SCALE:
1" = 40' HORIZ.
1" = 4' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
4-5-23	UTILITY WM CONNECTIONS SHEET ADDED PER LCU COMMENTS.		

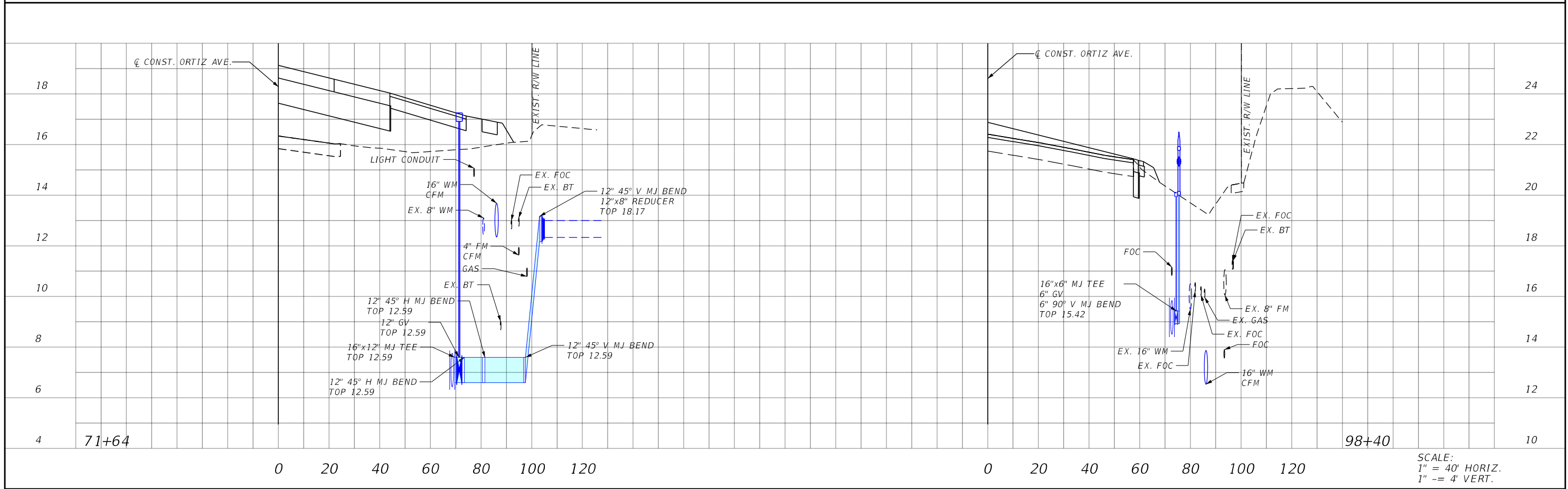
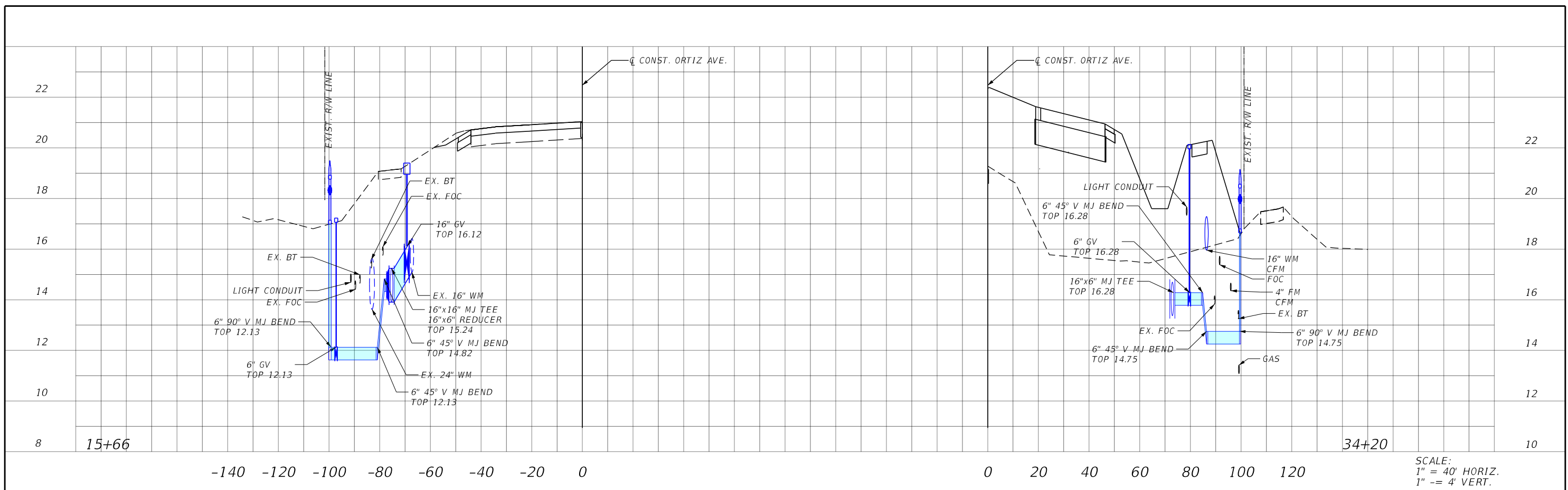
Stantec
1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connelly, P.E. #54805

LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PROFILE
WATER MAIN CONNECTIONS

SHEET NO.
U-33A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Stantec
 1821 Victoria Avenue
 Fort Myers, FL 33901
 Ph. 239-337-3330
 Kristina Connelly, P.E. #54805

LEE COUNTY UTILITIES		
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY PROFILE DETAIL

SHEET NO.
U-34

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

T2 UES, Inc

5670 Zip Drive, Fort Myers, FL 33905
Phone: 239 277 0722 / Fax: 239 277 7179

Subsurface Utility Engineering Test Hole Field Data

T2 Project No.: 190901 / CR107002.00
Client Project No.:
Proj. Road Name: Ortiz
Proj. Location: Fort Myers
City, County, State: Lee, Florida

Date: 3/3/2021
Vac Truck/Trailer No.: 55589
SUE Crew: R.P., J.A.
Prepared By: A.C.
Checked By: S.U.
Units: U.S. Survey Feet
Datum(s): Horizontal: NAD 83/11 Vertical: NAVD 88

Utility Material:		Utility Type:		Station & Offset Measured From:	
AC (Transite)	CMP (Corrugated Metal Pipe)	BE - Electrical	BT - Buried Telephone	30 - Edge Of Pavement	31 - "X" in Concrete
CI (Cast Iron)	CPP (Corrugated Plastic Pipe)	EXP - Exploratory	CTV - Cable Television	32 - Survey B/L	33 - C/L of Construction
Conc. (Concrete)	DBC (Direct Buried Cable)	FL - Fuel Line	CW - Chilled Water	34 - Back of Curb	35 - Swing Tie
Copper	DIP (Ductile Iron Pipe)	FM - Force Main	FOC - Fiber Optic Cable	Surface Type:	
Duct	HDPE (High Density PE)	GM - Gas Line	RAW - Raw Water	A - Asphalt B - Brick C - Concrete G - Gravel NG - Natural Ground	
Fg (Fiberglass)	PE (Polyethylene Pipe)	HW - Hot Water	RCW - Reclaimed Water	RR - Riprap R - Rock S - Shell	
Galv. (Galvanized)	PVC (Polyvinyl Chloride)	IRR - Irrigation	SAN - Sanitary Sewer	Identified By :	
Lead	RCP (Reinforced Concrete Pipe)	SL - Street Light	STM - Storm Sewer	20 - Sleeve 21 - Hub/Lathe 22 - Nail/Disk (See below)	
STL (Steel)	VCP (Vitrified Clay Pipe)	TS - Traffic Signal	WM - Water Main	23 - "X" in Concrete 24 - Iron Rod & Cap (See below)	
UNK (Unknown)	PL Petroleum	UNK - Unknown		* Note: 22 = Set Nail and Disk Stamped "T2 Test Hole"	
				* Note: 24 = Set Iron Rod & Cap Stamped "T2 Test Hole"	

Utility Owner	Test Hole Date	Test Hole Number	Utility Size, Material & Type (Size measured in inches and is O.D.)	Northing	Easting	Ground Elevation	Manual Depth (Top)	Utility Elevation (Top)	Offset From	Cross Sectional View	Utility Direction	ID'd By	Surface Type	Pavement Thickness (Inches)
	03/03/21	1	2.5", STL, GAS	829168.35	717874.48	20.25	4.40	15.85	N/A	●	↔	23	NG	N/A
	03/03/21	1A	.5", DBC, FOC	829167.11	717875.85	20.04	1.40	18.64	N/A	●	↕	24	NG	N/A
	03/03/21	2	POSSIBLE 6", PVC, BE	829247.02	717870.54	18.69	5.33	13.36	N/A	●	↔	24	NG	N/A
	03/03/21	3	FOUR 1.5", HDPE, FOC	829250.42	717875.07	18.44	1.83	16.61	N/A	●	↔	24	NG	N/A
	03/03/21	4	2", PVC, FOC	829250.08	717878.06	18.04	1.72	16.32	N/A	●	↔	24	NG	N/A
	03/03/21	5	6", HDPE, BE	829246.64	717737.02	19.56	3.43	16.13	N/A	●	↕	24	NG	N/A
	03/03/21	6	6", PVC, WM	829503.50	717726.57	19.36	3.55	15.81	N/A	●	↕	24	NG	N/A
	03/03/21	7	4", PVC, UNK	829504.83	717732.35	20.24	3.80	16.44	N/A	●	↔	22	NG	N/A

↑ NORTH

REVISIONS				Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			<i>SUMMARY OF VERIFIED UTILITIES</i>	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	PROJECT NO.		U-35
					ORTIZ AVE.	LEE	18-0016		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

T2 UES, Inc.

5670 Zip Drive, Fort Myers, FL 33905
Phone: 239 277 0722 / Fax: 239 277 7179

Subsurface Utility Engineering Test Hole Field Data

T2 Project No.: 190901 / CR107002.00
Client Project No.:
Proj. Road Name: Ortiz Ave
Proj. Location:
City, County, State: Fort Myers, Lee, Florida

Date: 3/4/2021
Vac Truck/Trailer No.: 55589
SUE Crew: R.P., A.A., J.A.
Prepared By: A.C.
Checked By: S.U.
Units: U.S. Survey Feet
Datum(s): Horizontal: NAD 83/11 Vertical: NAVD 88

Utility Material:		Utility Type:		Station & Offset Measured From:		
AC (Transite)	CMP (Corrugated Metal Pipe)	BE - Electrical	BT - Buried Telephone	30 - Edge Of Pavement	31 - "X" in Concrete	32 - Survey B/L
CI (Cast Iron)	CPP (Corrugated Plastic Pipe)	EXP - Exploratory	CTV - Cable Television	33 - C/L of Construction	34 - Back of Curb	35 - Swing Tie
Conc. (Concrete)	DBC (Direct Buried Cable)	FL - Fuel Line	CW - Chilled Water	Surface Type:		
Copper	DIP (Ductile Iron Pipe)	FM - Force Main	FOC - Fiber Optic Cable	A - Asphalt B - Brick C - Concrete G - Gravel NG - Natural Ground		
Duct	HDPE (High Density PE)	GM - Gas Line	RAW - Raw Water	RR - Riprap R - Rock S - Shell		
Fg (Fiberglass)	PE (Polyethylene Pipe)	HW - Hot Water	RCW - Reclaimed Water	Identified By :		
Galv. (Galvanized)	PVC (Polyvinyl Chloride)	IRR. - Irrigation	SAN - Sanitary Sewer	20 - Sleeve 21 - Hub/Lathe 22 - Nail/Disk (See below)		
Lead	RCP (Reinforced Concrete Pipe)	SL - Street Light	STM - Storm Sewer	23 - "X" in Concrete 24 - Iron Rod & Cap (See below)		
STL (Steel)	VCP (Vitrified Clay Pipe)	TS - Traffic Signal	WM - Water Main	* Note: 22 = Set Nail and Disk Stamped "T2 Test Hole"		
UNK (Unknown)	PL Petroleum	UNK - Unknown		* Note: 24 = Set Iron Rod & Cap Stamped "T2 Test Hole"		

↑ NORTH

Utility Owner	Test Hole Date	Test Hole Number	Utility Size, Material & Type (Size measured in inches and is O.D.)	Northing	Easting	Ground Elevation	Manual Depth (Top)	Utility Elevation (Top)	Offset From	Cross Sectional View	Utility Direction	ID'd By	Surface Type	Pavement Thickness (Inches)
	03/04/21	8	4", PVC, UNK	829599.06	717728.35	18.73	3.10	15.63	N/A	●	↔	24	NG	N/A
	03/04/21	8A	2.5", PVC UNK	829600.77	717727.38	18.72	1.74	16.98	N/A	●	↕	24	NG	N/A
	03/04/21	9	4", PVC, UNK	829974.79	717730.54	19.65	3.88	15.77	N/A	●	↔	22	A	4"
	03/04/21	10	24", CONC CAP, FOC	829977.04	717712.00	17.93	4.56	13.37	N/A	●	↕	24	NG	N/A
	03/04/21	11	TWO-2", HDPE, BE	829999.75	717721.66	18.75	1.85	16.90	N/A	●	↖	24	NG	N/A
	03/04/21	12	1", DBC, BT	830912.22	717693.62	18.17	2.76	15.41	N/A	●	↔	24	NG	N/A
	03/04/21	13	2", PVC, FOC	830914.42	717695.93	18.56	4.39	14.17	N/A	●	↕	24	NG	N/A

REVISIONS				Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			SUMMARY OF VERIFIED UTILITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	PROJECT NO.		
					ORTIZ AVE.	LEE	18-0016		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

T2 UES, Inc.

5670 Zip Drive, Fort Myers, FL 33905
Phone: 239 277 0722 / Fax: 239 277 7179

Subsurface Utility Engineering Test Hole Field Data

T2 Project No.: 190901 / CR107002.00
Client Project No.:
Proj. Road Name: Ortiz Ave
Proj. Location:
City, County, State: Fort Myers, Lee, Florida

Date: 3/5/2021
Vac Truck/Trailer No.: 55589
SUE Crew: R.P., J.A., A.A.
Prepared By: A.C.
Checked By: S.U.
Units: U.S. Survey Feet
Datum(s): **Horizontal:** NAD 83/11 **Vertical:** NAVD 88

Utility Material:		Utility Type:		Station & Offset Measured From:	
AC (Transite)	CMP (Corrugated Metal Pipe)	BE - Electrical	BT - Buried Telephone	30 - Edge Of Pavement	31 - "X" in Concrete
CI (Cast Iron)	CPP (Corrugated Plastic Pipe)	EXP - Exploratory	CTV - Cable Television	32 - Survey B/L	33 - C/L of Construction
Conc. (Concrete)	DBC (Direct Buried Cable)	FL - Fuel Line	CW - Chilled Water	34 - Back of Curb	35 - Swing Tie
Copper	DIP (Ductile Iron Pipe)	FM - Force Main	FOC - Fiber Optic Cable	Surface Type:	
Duct	HDPE (High Density PE)	GM - Gas Line	RAW - Raw Water	A - Asphalt B - Brick C - Concrete G - Gravel NG - Natural Ground	
Fg (Fiberglass)	PE (Polyethylene Pipe)	HW - Hot Water	RCW - Reclaimed Water	RR - Riprap R - Rock S - Shell	
Galv. (Galvanized)	PVC (Polyvinyl Chloride)	IRR - Irrigation	SAN - Sanitary Sewer	Identified By :	
Lead	RCP (Reinforced Concrete Pipe)	SL - Street Light	STM - Storm Sewer	20 - Sleeve 21 - Hub/Lathe 22 - Nail/Disk (See below)	
STL (Steel)	VCP (Vitrified Clay Pipe)	TS - Traffic Signal	WM - Water Main	23 - "X" in Concrete 24 - Iron Rod & Cap (See below)	
UNK (Unknown)	PL Petroleum	UNK - Unknown		* Note: 22 = Set Nail and Disk Stamped "T2 Test Hole"	
				* Note: 24 = Set Iron Rod & Cap Stamped "T2 Test Hole"	

↑ NORTH

Utility Owner	Test Hole Date	Test Hole Number	Utility Size, Material & Type (Size measured in inches and is O.D.)	Northing	Easting	Ground Elevation	Manual Depth (Top)	Utility Elevation (Top)	Offset From	Cross Sectional View	Utility Direction	ID'd By	Surface Type	Pavement Thickness (Inches)
	03/05/21	14	4", PVC, UNK	830916.79	717710.57	19.71	2.82	16.89	N/A	●	↕	22	A	5"
	03/05/21	15	6", PVC, WM	831076.72	717704.31	20.14	3.53	16.61	N/A	●	↕	24	NG	N/A
	03/05/21	16	1", DBC, BT	831079.60	717701.42	20.14	2.68	17.46	N/A	●	↔	24	NG	N/A
	03/05/21	17	1", DBC, BT	831467.97	717686.02	18.12	3.65	14.47	N/A	●	↔	24	NG	N/A
	03/05/21	18	EXP	831466.94	717690.73	18.39								
	03/05/21	19	4", PVC, FOC	831514.39	717882.37	18.36	2.53	15.83	N/A	●	↕	24	NG	N/A
	03/05/21	20	4", STL, GAS	831465.05	717838.12	18.37	3.92	14.45	N/A	●	↕	24	NG	N/A
	03/05/21	21	4", PVC, FOC	831307.44	717885.37	18.07	2.60	15.47	N/A	●	↔	24	NG	N/A
	03/05/21	22	1", DBC, BT	831062.34	717884.15	18.25	2.08	16.17	N/A	●	↕	24	NG	N/A
	03/05/21	23	1", DBC, BT	831063.05	717881.66	18.25	2.73	15.52	N/A	●	↕	24	NG	N/A
	03/05/21	24	4", HDPE, FOC	831063.04	717876.48	17.82	1.80	16.02	N/A	●	↕	24	NG	N/A

REVISIONS				Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			SUMMARY OF VERIFIED UTILITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	PROJECT NO.		
					ORTIZ AVE.	LEE	18-0016		U-37

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

T2 UES, Inc.

5670 Zip Drive, Fort Myers, FL 33905
Phone: 239 277 0722 / Fax: 239 277 7179

Subsurface Utility Engineering Test Hole Field Data

T2 Project No.: 190901 / CR107002.00
Client Project No.:
Proj. Road Name: Ortiz Ave
Proj. Location:
City, County, State: Fort Myers, Lee, Florida

Date: 3/8/2021
Vac Truck/Trailer No.: 55589
SUE Crew: A.A., J.A., T.A.
Prepared By: A.C.
Checked By: S.U..
Units: U.S. Survey Feet
Datum(s): **Horizontal:** NAD 83/11 **Vertical:** NAVD 88

Utility Material:		Utility Type:		Station & Offset Measured From:		
AC (Transite)	CMP (Corrugated Metal Pipe)	BE - Electrical	BT - Buried Telephone	30 - Edge Of Pavement	31 - "X" in Concrete	32 - Survey B/L
CI (Cast Iron)	CPP (Corrugated Plastic Pipe)	EXP - Exploratory	CTV - Cable Television	33 - C/L of Construction	34 - Back of Curb	35 - Swing Tie
Conc. (Concrete)	DBC (Direct Buried Cable)	FL - Fuel Line	CW - Chilled Water	Surface Type:		
Copper	DIP (Ductile Iron Pipe)	FM - Force Main	FOC - Fiber Optic Cable	A - Asphalt	B - Brick	C - Concrete
Duct	HDPE (High Density PE)	GM - Gas Line	RAW - Raw Water	G - Gravel	NG - Natural Ground	
Fg (Fiberglass)	PE (Polyethylene Pipe)	HW - Hot Water	RCW - Reclaimed Water	RR - Riprap	R - Rock	S - Shell
Galv. (Galvanized)	PVC (Polyvinyl Chloride)	IRR. - Irrigation	SAN - Sanitary Sewer	Identified By :		
Lead	RCP (Reinforced Concrete Pipe)	SL - Street Light	STM - Storm Sewer	20 - Sleeve	21 - Hub/Lathe	22 - Nail/Disk (See below)
STL (Steel)	VCP (Vitrified Clay Pipe)	TS - Traffic Signal	WM - Water Main	23 - "X" in Concrete	24 - Iron Rod & Cap (See below)	↑ NORTH
UNK (Unknown)	PL Petroleum	UNK - Unknown		* Note: 22 = Set Nail and Disk Stamped "T2 Test Hole"		
				* Note: 24 = Set Iron Rod & Cap Stamped "T2 Test Hole"		

Utility Owner	Test Hole Date	Test Hole Number	Utility Size, Material & Type (Size measured in inches and is O.D.)	Northing	Easting	Ground Elevation	Manual Depth (Top)	Utility Elevation (Top)	Offset From	Cross Sectional View	Utility Direction	ID'd By	Surface Type	Pavement Thickness (Inches)
	03/08/21	25	EXP.	830774.10	717816.54	17.63	5.50							
	03/08/21	26	1.5", PVC, WM	833491.94	717682.31	19.33	2.09	17.24	N/A	●	↔	24	NG	N/A
	03/08/21	27	1', CONC CAP, FOC	833490.57	717677.42	18.90	3.97	14.93	N/A	⊐	↕	24	NG	N/A

REVISIONS				Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			SUMMARY OF VERIFIED UTILITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	PROJECT NO.		
					ORTIZ AVE.	LEE	18-0016		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

T2 UES, Inc.

5670 Zip Drive, Fort Myers, FL 33905
Phone: 239 277 0722 / Fax: 239 277 7179

Subsurface Utility Engineering Test Hole Field Data

T2 Project No.: 190901 / CR107002.00
Client Project No.:
Proj. Road Name: Ortiz Ave
Proj. Location:
City, County, State: Fort Myers, Lee, Florida

Date: 3/11/2021
Vac Truck/Trailer No.: 55589
SUE Crew: R.P., J.A., A.A.
Prepared By: A.C.
Checked By: S.U.
Units: U.S. Survey Feet
Datum(s): **Horizontal:** NAD 83/11 **Vertical:** NAVD 88

Utility Material:		Utility Type:		Station & Offset Measured From:	
AC (Transite)	CMP (Corrugated Metal Pipe)	BE - Electrical	BT - Buried Telephone	30 - Edge Of Pavement	31 - "X" in Concrete
CI (Cast Iron)	CPP (Corrugated Plastic Pipe)	EXP - Exploratory	CTV - Cable Television	32 - Survey B/L	33 - C/L of Construction
Conc. (Concrete)	DBC (Direct Buried Cable)	FL - Fuel Line	CW - Chilled Water	34 - Back of Curb	35 - Swing Tie
Copper	DIP (Ductile Iron Pipe)	FM - Force Main	FOC - Fiber Optic Cable	Surface Type:	
Duct	HDPE (High Density PE)	GM - Gas Line	RAW - Raw Water	A - Asphalt B - Brick C - Concrete G - Gravel NG - Natural Ground	
Fg (Fiberglass)	PE (Polyethylene Pipe)	HW - Hot Water	RCW - Reclaimed Water	RR - Riprap R - Rock S - Shell	
Galv. (Galvanized)	PVC (Polyvinyl Chloride)	IRR - Irrigation	SAN - Sanitary Sewer	Identified By :	
Lead	RCP (Reinforced Concrete Pipe)	SL - Street Light	STM - Storm Sewer	20 - Sleeve 21 - Hub/Lathe 22 - Nail/Disk (See below)	
STL (Steel)	VCP (Vitrified Clay Pipe)	TS - Traffic Signal	WM - Water Main	23 - "X" in Concrete 24 - Iron Rod & Cap (See below)	
UNK (Unknown)	PL Petroleum	UNK - Unknown		* Note: 22 = Set Nail and Disk Stamped "T2 Test Hole"	
				* Note: 24 = Set Iron Rod & Cap Stamped "T2 Test Hole"	

↑ NORTH

Utility Owner	Test Hole Date	Test Hole Number	Utility Size, Material & Type (Size measured in inches and is O.D.)	Northing	Easting	Ground Elevation	Manual Depth (Top)	Utility Elevation (Top)	Offset From	Cross Sectional View	Utility Direction	ID'd By	Surface Type	Pavement Thickness (Inches)
	03/11/21	34	12", CONC CAP, FOC	834614.13	717706.64	21.07	5.34	15.73	N/A	Π	↕	24	NG	N/A
	03/11/21	34A	1", DBC, UNK	834614.12	717707.30	20.95	5.34	15.61	N/A	●	↕	24	NG	N/A
	03/11/21	35	Possible 24", CONC CAP, FOC	834942.10	717695.80	18.09	3.84	14.25	N/A	Π	↕	24	NG	N/A
	03/11/21	36	Two 3", PVC, BE	834941.21	717689.23	17.99	2.24	15.75	N/A	●●	↕	24	NG	N/A
	03/11/21	36A	1", PVC, BE	834941.15	717689.73	17.96	0.00	17.96	N/A	●	↕	24	NG	N/A
	03/11/21	37	12", WOOD CAP, FOC	835097.90	717696.76	18.46	3.10	15.36	N/A	Π	↕	24	NG	N/A
	03/11/21	38	4", PVC, FOC	835505.28	717707.03	20.47	3.28	17.19	N/A	●	↕	22	A	5"
	03/11/21	39	10", WOOD CAP, FOC	835506.26	717681.23	17.84	3.23	14.61	N/A	Π	↕	24	NG	N/A
	03/11/21	40	4", PVC, UNK	835504.93	717698.83	19.90	4.29	15.61	N/A	●	↕	24	NG	N/A
	03/11/21	41	10", WOOD CAP, FOC	835774.54	717675.81	17.67	3.62	14.05	N/A	Π	↕	24	NG	N/A
	03/11/21	42	4", PVC, UNK	835769.24	717694.63	19.10	3.35	15.75	N/A	●	↕	24	NG	N/A
	03/11/21	43	4", PVC, FOC	835766.53	717704.29	20.42	3.05	17.37	N/A	●	↕	24	A	7"
	03/11/21	44	10", WOOD CAP, FOC	836089.33	717671.55	18.42	3.70	14.72	N/A	Π	↕	24	NG	N/A

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

Stantec
1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connelly, P.E. #54805

LEE COUNTY UTILITIES

ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

SUMMARY OF
VERIFIED UTILITIES

SHEET NO.

U-40

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

T2 UES, Inc.

5670 Zip Drive, Fort Myers, FL 33905
Phone: 239 277 0722 / Fax: 239 277 7179

Subsurface Utility Engineering Test Hole Field Data

T2 Project No.: 190901 / CR107002.00
Client Project No.:
Proj. Road Name: Ortiz Ave
Proj. Location:
City, County, State: Fort Myers, Lee, Florida

Date: 3/12/2021
Vac Truck/Trailer No.: 55589
SUE Crew: R.P., J.A., A.A.
Prepared By: A.C.
Checked By: S.U.
Units: U.S. Survey Feet
Datum(s): **Horizontal:** NAD 83/11 **Vertical:** NAVD 88

Utility Material:

AC (Transite) CMP (Corrugated Metal Pipe)
CI (Cast Iron) CPP (Corrugated Plastic Pipe)
Conc. (Concrete) DBC (Direct Buried Cable)
Copper DIP (Ductile Iron Pipe)
Duct HDPE (High Density PE)
Fg (Fiberglass) PE (Polyethylene Pipe)
Galv. (Galvanized) PVC (Polyvinyl Chloride)
Lead RCP (Reinforced Concrete Pipe)
STL (Steel) VCP (Vitrified Clay Pipe)
UNK (Unknown) PL Petroleum

Utility Type:

BE - Electrical BT - Buried Telephone
EXP - Exploratory CTV - Cable Television
FL - Fuel Line CW - Chilled Water
FM - Force Main FOC - Fiber Optic Cable
GM - Gas Line RAW - Raw Water
HW - Hot Water RCW - Reclaimed Water
IRR - Irrigation SAN - Sanitary Sewer
SL - Street Light STM - Storm Sewer
TS - Traffic Signal WM - Water Main
UNK - Unknown

Station & Offset Measured From:

30 - Edge Of Pavement 31 - "X" in Concrete 32 - Survey B/L
33 - C/L of Construction 34 - Back of Curb 35 - Swing Tie

Surface Type:

A - Asphalt B - Brick C - Concrete G - Gravel NG - Natural Ground
RR - Riprap R - Rock S - Shell

Identified By :

20 - Sleeve 21 - Hub/Lathe 22 - Nail/Disk (See below)
23 - "X" in Concrete 24 - Iron Rod & Cap (See below) ↑ NORTH
* Note: 22 = Set Nail and Disk Stamped "T2 Test Hole"
* Note: 24 = Set Iron Rod & Cap Stamped "T2 Test Hole"

Utility Owner	Test Hole Date	Test Hole Number	Utility Size, Material & Type (Size measured in inches and is O.D.)	Northing	Easting	Ground Elevation	Manual Depth (Top)	Utility Elevation (Top)	Offset From	Cross Sectional View	Utility Direction	ID'd By	Surface Type	Pavement Thickness (Inches)
	03/12/21	45	4", PVC, UNK	836372.37	717681.21	19.67	4.45	15.22	N/A	●	↕	24	NG	N/A
	03/12/21	46	UNK, UNK CAP, FOC	836397.68	717662.43	18.55	5.00	13.55	N/A	∏	↕	24	NG	N/A
	03/12/21	47	10", WOOD CAP, FOC	836491.90	717661.91	17.90	2.65	15.25	N/A	∏	↕	24	NG	N/A
	03/12/21	48	10", CONC CAP, FOC	836682.96	717662.26	18.42	4.05	14.37	N/A	∏	↕	24	NG	N/A
	03/12/21	49	4", PVC, UNK	836854.82	717674.02	19.42	3.89	15.53	N/A	●	↕	24	NG	N/A
	03/12/21	50	4", PVC, UNK	837171.66	717663.43	18.80	3.19	15.61	N/A	●	↕	22	A	1"
	03/12/21	51	EXP	837171.53	717648.87	18.34	6.00							
	03/12/21	52	Possible 6", PVC, FOC	837387.95	717647.27	19.81	4.40	15.41	N/A	●	↕	24	NG	N/A

REVISIONS				Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			SUMMARY OF VERIFIED UTILITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	PROJECT NO.		
					ORTIZ AVE.	LEE	18-0016		U-41

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

T2 UES, Inc.

5670 Zip Drive, Fort Myers, FL 33905
Phone: 239 277 0722 / Fax: 239 277 7179

Subsurface Utility Engineering Test Hole Field Data

T2 Project No.: 190901 / CR107002.00
Client Project No.:
Proj. Road Name: Ortiz Ave
Proj. Location:
City, County, State: Fort Myers, Lee, Florida

Date: 3/13/2021
Vac Truck/Trailer No.: 55589
SUE Crew: R.P., J.A., A.A.
Prepared By: A.C.
Checked By: S.U.
Units: U.S. Survey Feet
Datum(s): **Horizontal:** NAD 83/11 **Vertical:** NAVD 88

Utility Material:		Utility Type:		Station & Offset Measured From:		
AC (Transite)	CMP (Corrugated Metal Pipe)	BE - Electrical	BT - Buried Telephone	30 - Edge Of Pavement	31 - "X" in Concrete	32 - Survey B/L
CI (Cast Iron)	CPP (Corrugated Plastic Pipe)	EXP - Exploratory	CTV - Cable Television	33 - C/L of Construction	34 - Back of Curb	35 - Swing Tie
Conc. (Concrete)	DBC (Direct Buried Cable)	FL - Fuel Line	CW - Chilled Water	Surface Type:		
Copper	DIP (Ductile Iron Pipe)	FM - Force Main	FOC - Fiber Optic Cable	A - Asphalt	B - Brick	C - Concrete
Duct	HDPE (High Density PE)	GM - Gas Line	RAW - Raw Water	G - Gravel	NG - Natural Ground	
Fg (Fiberglass)	PE (Polyethylene Pipe)	HW - Hot Water	RCW - Reclaimed Water	RR - Riprap	R - Rock	S - Shell
Galv. (Galvanized)	PVC (Polyvinyl Chloride)	IRR - Irrigation	SAN - Sanitary Sewer	Identified By :		
Lead	RCP (Reinforced Concrete Pipe)	SL - Street Light	STM - Storm Sewer	20 - Sleeve	21 - Hub/Lathe	22 - Nail/Disk (See below)
STL (Steel)	VCP (Vitrified Clay Pipe)	TS - Traffic Signal	WM - Water Main	23 - "X" in Concrete	24 - Iron Rod & Cap (See below)	↑ NORTH
UNK (Unknown)	PL Petroleum	UNK - Unknown		* Note: 22 = Set Nail and Disk Stamped "T2 Test Hole"		
				* Note: 24 = Set Iron Rod & Cap Stamped "T2 Test Hole"		

Utility Owner	Test Hole Date	Test Hole Number	Utility Size, Material & Type (Size measured in inches and is O.D.)	Northing	Easting	Ground Elevation	Manual Depth (Top)	Utility Elevation (Top)	Offset From	Cross Sectional View	Utility Direction	ID'd By	Surface Type	Pavement Thickness (Inches)
	03/13/21	53	Four 2", HDPE, FOC	833582.23	717860.58	18.05	1.61	16.44	N/A	●	↕	24	NG	N/A
	03/13/21	54	EXP	833780.75	717864.12	17.91	6.00							
	03/13/21	55	Four 2", HDPE, FOC	833776.96	717874.23	18.09	1.79	16.30	N/A	●●●●	↕	24	NG	N/A
	03/13/21	56	Four 2", HDPE, FOC	833980.65	717876.78	17.84	2.49	15.35	N/A	●●●●	↔	24	NG	N/A
	03/13/21	57	Two 4", PVC, FOC	834525.69	717858.34	17.59	2.91	14.68	N/A	●●	↔	24	NG	N/A
	03/13/21	58	8", PVC, WM	835256.63	717861.80	18.77	2.69	16.08	N/A	●	↔	24	NG	N/A
	03/13/21	59	1", DBC, BT	835252.47	717863.58	18.60	1.79	16.81	N/A	●	↕	24	NG	N/A
	03/13/21	60	12", PVC, WM	835419.15	717824.31	18.14	2.43	15.71	N/A	●	↔	24	NG	N/A
	03/13/21	61	Two 2", HDPE, FOC	835494.30	717781.17	19.62	2.82	16.80	N/A	●	↕	24	NG	N/A
	03/13/21	62	EXP	835706.72	717813.57	17.95	6.00	11.95	N/A				NG	N/A

REVISIONS				Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			SUMMARY OF VERIFIED UTILITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	PROJECT NO.		
					ORTIZ AVE.	LEE	18-0016		U-42

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

T2 UES, Inc.

5670 Zip Drive, Fort Myers, FL 33905
Phone: 239 277 0722 / Fax: 239 277 7179

Subsurface Utility Engineering Test Hole Field Data

T2 Project No.: 190901 / CR107002.00
Client Project No.:
Proj. Road Name: Ortiz Ave
Proj. Location:
City, County, State: Fort Myers, Lee, Florida

Date: 3/15/2021
Vac Truck/Trailer No.: 55589
SUE Crew: R.P., T.A., A.A.
Prepared By: A.C.
Checked By: S.U.
Units: U.S. Survey Feet
Datum(s): **Horizontal:** NAD 83/11 **Vertical:** NAVD 88

Utility Material:		Utility Type:		Station & Offset Measured From:		
AC (Transite)	CMP (Corrugated Metal Pipe)	BE - Electrical	BT - Buried Telephone	30 - Edge Of Pavement	31 - "X" in Concrete	32 - Survey B/L
CI (Cast Iron)	CPP (Corrugated Plastic Pipe)	EXP - Exploratory	CTV - Cable Television	33 - C/L of Construction	34 - Back of Curb	35 - Swing Tie
Conc. (Concrete)	DBC (Direct Buried Cable)	FL - Fuel Line	CW - Chilled Water	Surface Type:		
Copper	DIP (Ductile Iron Pipe)	FM - Force Main	FOC - Fiber Optic Cable	A - Asphalt	B - Brick	C - Concrete
Duct	HDPE (High Density PE)	GM - Gas Line	RAW - Raw Water	G - Gravel	NG - Natural Ground	
Fg (Fiberglass)	PE (Polyethylene Pipe)	HW - Hot Water	RCW - Reclaimed Water	RR - Riprap	R - Rock	S - Shell
Galv. (Galvanized)	PVC (Polyvinyl Chloride)	IRR - Irrigation	SAN - Sanitary Sewer	Identified By :		
Lead	RCP (Reinforced Concrete Pipe)	SL - Street Light	STM - Storm Sewer	20 - Sleeve	21 - Hub/Lathe	22 - Nail/Disk (See below)
STL (Steel)	VCP (Vitrified Clay Pipe)	TS - Traffic Signal	WM - Water Main	23 - "X" in Concrete	24 - Iron Rod & Cap (See below)	↑ NORTH
UNK (Unknown)	PL Petroleum	UNK - Unknown		* Note: 22 = Set Nail and Disk Stamped "T2 Test Hole"		
				* Note: 24 = Set Iron Rod & Cap Stamped "T2 Test Hole"		

Utility Owner	Test Hole Date	Test Hole Number	Utility Size, Material & Type (Size measured in inches and is O.D.)	Northing	Easting	Ground Elevation	Manual Depth (Top)	Utility Elevation (Top)	Offset From	Cross Sectional View	Utility Direction	ID'd By	Surface Type	Pavement Thickness (Inches)
	03/15/21	63	Two 4", PVC, FOC	835774.62	717786.83	18.64	3.52	15.12	N/A	●●	↕	24	NG	N/A
	03/15/21	64	4", PVC, Possible FM	835882.16	717820.30	18.11	1.75	16.36	N/A	●	↔	24	NG	N/A
	03/15/21	65	6", PVC, FM	835907.14	717819.58	18.72	1.55	17.17	N/A	●	↔	24	NG	N/A
	03/15/21	66	EXP	835910.33	717819.68	18.68	6.00							
	03/15/21	67	4", DIP, WM	835915.82	717817.00	18.69	1.48	17.21	N/A	●	↔	24	NG	N/A
	03/15/21	68	4", PVC, FOC	835935.25	717812.60	18.31	2.49	15.82	N/A	●	↕	24	NG	N/A
	03/15/21	68A	4", PVC, FOC	835934.90	717813.39	18.37	2.53	15.84	N/A	●	↕	24	NG	N/A
	03/15/21	69	8", PVC, UNK	836045.41	717825.16	21.06	4.32	16.74	N/A	●	↔	24	NG	N/A
	03/15/21	70	1", PVC, UNK	836071.24	717823.73	21.23	0.92	20.31	N/A	●	↔	24	NG	N/A
	03/15/21	71	4", PVC, FOC	836074.57	717823.47	21.11	2.69	18.42	N/A	●	↔	24	NG	N/A

REVISIONS				Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			SUMMARY OF VERIFIED UTILITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	PROJECT NO.		
					ORTIZ AVE.	LEE	18-0016		U-43

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

T2 UES, Inc.

5670 Zip Drive, Fort Myers, FL 33905
Phone: 239 277 0722 / Fax: 239 277 7179

Subsurface Utility Engineering Test Hole Field Data

T2 Project No.: 190901 / CR107002.00
Client Project No.:
Proj. Road Name: Ortiz Ave
Proj. Location:
City, County, State: Fort Myers, Lee, Florida

Date: 3/16/2021
Vac Truck/Trailer No.: 55589
SUE Crew: R.P., J.A., A.A.
Prepared By: A.C.
Checked By: S.U.
Units: U.S. Survey Feet
Datum(s): **Horizontal:** NAD 83/11 **Vertical:** NAVD 88

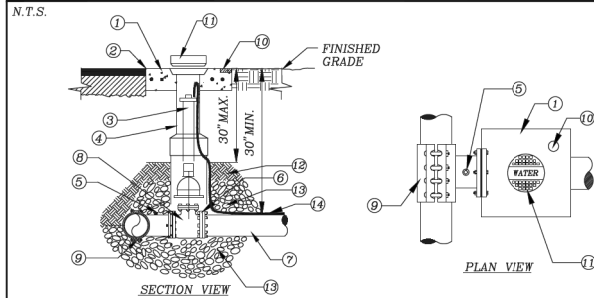
Utility Material:		Utility Type:		Station & Offset Measured From:		
AC (Transite)	CMP (Corrugated Metal Pipe)	BE - Electrical	BT - Buried Telephone	30 - Edge Of Pavement	31 - "X" in Concrete	32 - Survey B/L
CI (Cast Iron)	CPP (Corrugated Plastic Pipe)	EXP - Exploratory	CTV - Cable Television	33 - C/L of Construction	34 - Back of Curb	35 - Swing Tie
Conc. (Concrete)	DBC (Direct Buried Cable)	FL - Fuel Line	CW - Chilled Water	Surface Type:		
Copper	DIP (Ductile Iron Pipe)	FM - Force Main	FOC - Fiber Optic Cable	A - Asphalt	B - Brick	C - Concrete
Duct	HDPE (High Density PE)	GM - Gas Line	RAW - Raw Water	G - Gravel	NG - Natural Ground	
Fg (Fiberglass)	PE (Polyethylene Pipe)	HW - Hot Water	RCW - Reclaimed Water	RR - Riprap	R - Rock	S - Shell
Galv. (Galvanized)	PVC (Polyvinyl Chloride)	IRR - Irrigation	SAN - Sanitary Sewer	Identified By :		
Lead	RCP (Reinforced Concrete Pipe)	SL - Street Light	STM - Storm Sewer	20 - Sleeve	21 - Hub/Lathe	22 - Nail/Disk (See below)
STL (Steel)	VCP (Vitrified Clay Pipe)	TS - Traffic Signal	WM - Water Main	23 - "X" in Concrete	24 - Iron Rod & Cap (See below)	↑ NORTH
UNK (Unknown)	PL Petroleum	UNK - Unknown		* Note: 22 = Set Nail and Disk Stamped "T2 Test Hole"		
				* Note: 24 = Set Iron Rod & Cap Stamped "T2 Test Hole"		

Utility Owner	Test Hole Date	Test Hole Number	Utility Size, Material & Type (Size measured in inches and is O.D.)	Northing	Easting	Ground Elevation	Manual Depth (Top)	Utility Elevation (Top)	Offset From	Cross Sectional View	Utility Direction	ID'd By	Surface Type	Pavement Thickness (Inches)
	03/16/21	72	EXP	836078.42	717822.32	20.26	8.00							
	03/16/21	73	2", PVC, GAS	836073.81	717824.49	21.05	2.33	18.72	N/A	●	↔	24	NG	N/A
	03/16/21	74	4", STL, GAS	836827.58	717805.85	19.53	3.77	15.76	N/A	●	↕	24	NG	N/A
	03/16/21	75	4", PVC, FOC	836827.32	717808.44	19.00	2.39	16.61	N/A	●	↕	24	NG	N/A
	03/16/21	76	4", STL, GAS	836997.70	717801.98	20.22	3.23	16.99	N/A	●	↕	24	NG	N/A
	03/16/21	76A	4", PVC, FOC	836997.60	717803.68	19.71	2.98	16.73	N/A	●	↕	24	NG	N/A
	03/16/21	77	4", PVC, FOC	837173.71	717799.49	20.67	3.81	16.86	N/A	●	↕	24	NG	N/A

REVISIONS				Stantec 1821 Victoria Avenue Fort Myers, FL 33901 Ph. 239-337-3330 Kristina Connelly, P.E. #54805	LEE COUNTY UTILITIES			SUMMARY OF VERIFIED UTILITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NAME	COUNTY	PROJECT NO.		
					ORTIZ AVE.	LEE	18-0016		U-44

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

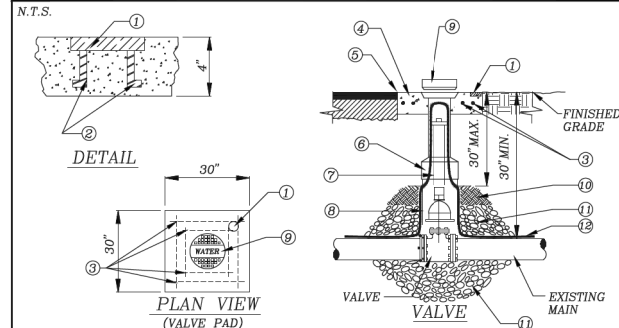
**STANDARD DETAIL NO. 6.1
LEE COUNTY UTILITIES
TAPPING SLEEVE AND VALVE**



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

REV: 12/10/2015

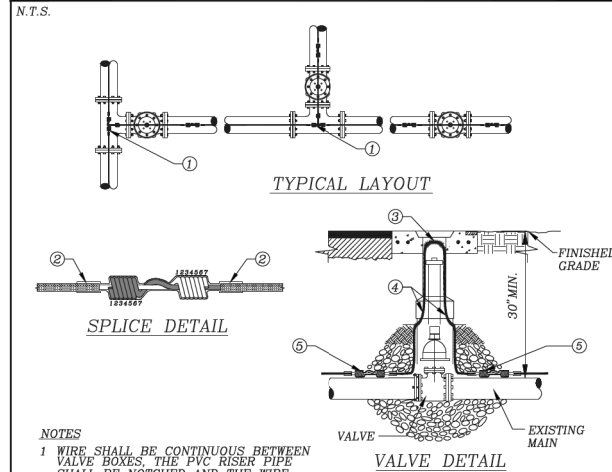
**STANDARD DETAIL NO. 6.2
LEE COUNTY UTILITIES
VALVE INSTALLATION**



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

REV: 12/10/2015

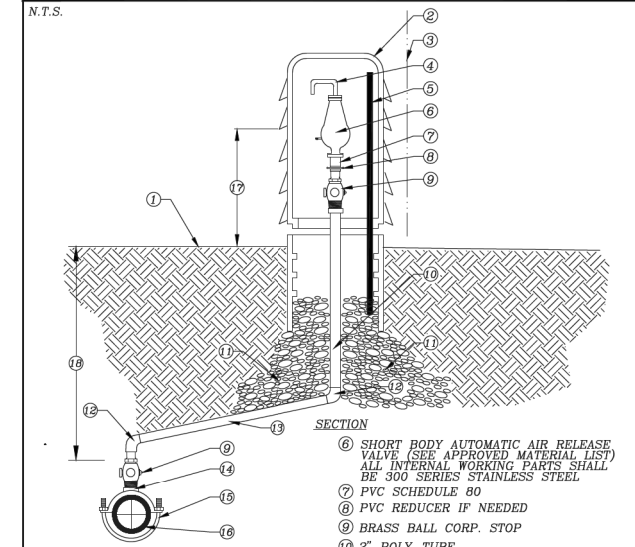
**STANDARD DETAIL NO. 6.3
LEE COUNTY UTILITIES
LOCATING WIRE FOR PRESSURE MAINS**



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

REV: 12/10/2015

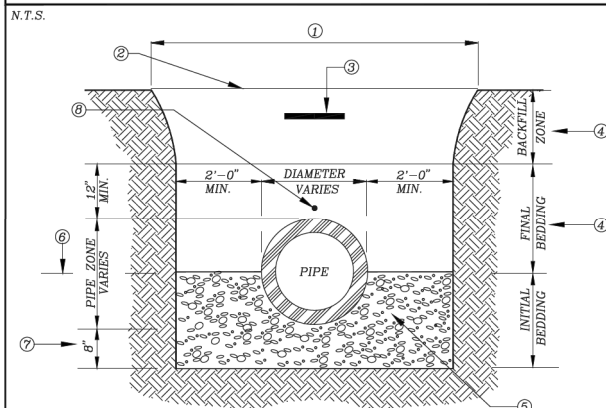
**STANDARD DETAIL NO. 6.4
LEE COUNTY UTILITIES
AUTOMATIC AIR RELEASE VALVE**



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

REV: 12/10/2015

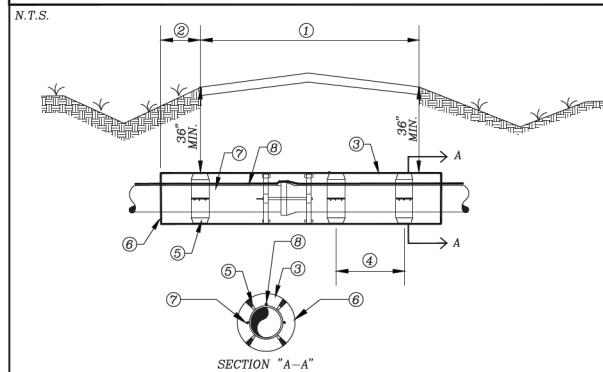
**STANDARD DETAIL NO. 6.5
LEE COUNTY UTILITIES
TRENCH CROSS SECTION**



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

REV: 12/10/2015

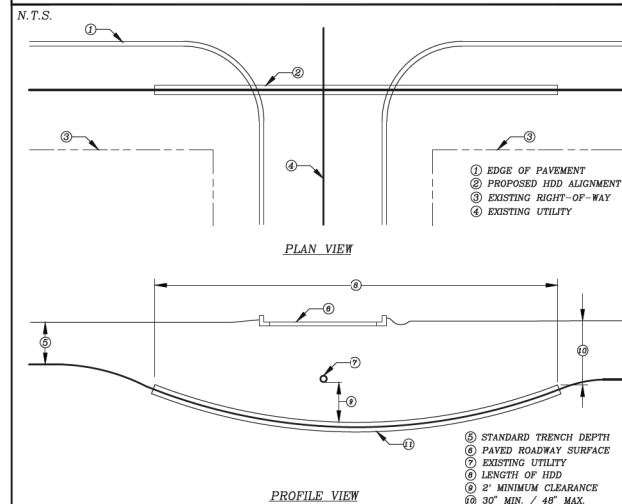
**STANDARD DETAIL NO. 6.6
LEE COUNTY UTILITIES
JACK AND BORE**



- 1 LIMITS OF PAVEMENT
- 2 EXTEND CASING 4' MIN. BEYOND E.O.P. AND/OR BACK OF CURB FOR L.C.D.O.T. MAINTAINED R.O.W. AND 8' MIN. FOR F.D.O.T. MAINTAINED R.O.W.
- 3 STEEL CASING PIPE CONFORMING TO ASTM A-139
- 4 70°C. MAX OR AS PER MANUFACTURER'S RECOMMENDATION
- 5 L.C.U. APPROVED CASING SPACERS
- 6 SEAL CASING ENDS WITH: 8" WALL OF BRICK MASONRY WITH WEEP HOLE INSTALLED NEAR BOTTOM, OR APPROVED EQUAL
- 7 ALL JOINTS OF THE CARRIER PIPE SHALL HAVE BELL RESTRAINTS
- 8 12 GAUGE DOUBLE INSULATED COPPER WIRE (SEE LCU STANDARD DETAIL)

REV: 12/10/2015

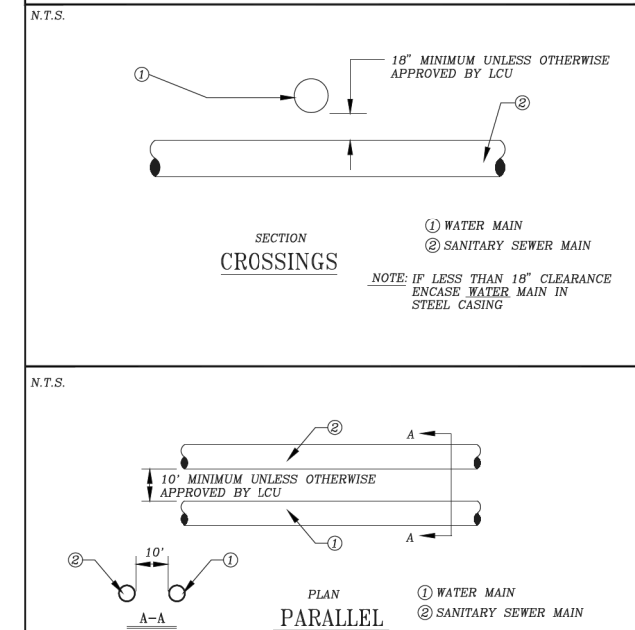
**STANDARD DETAIL NO. 6.7
LEE COUNTY UTILITIES
HORIZONTAL DIRECTIONAL DRILL UNDER A ROADWAY**



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

REV: 12/10/2015

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



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

REV: 12/10/2015

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

Stantec
1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connelly, P.E. #54805

LEE COUNTY UTILITIES

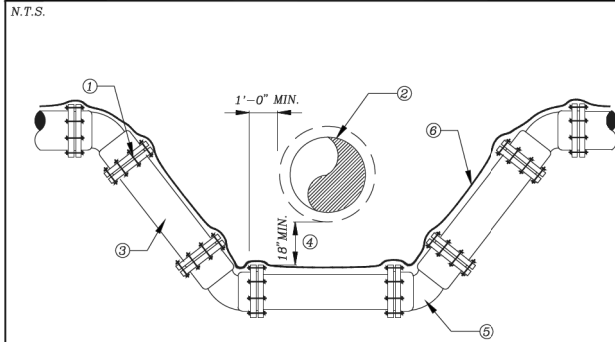
ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY DETAILS

SHEET NO.

U-45

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



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

REV: 12/10/2015

**STANDARD DETAIL NO. 6.12
LEE COUNTY UTILITIES
RESTRAINED LENGTH SCHEDULE**

N.T.S.

DUCTILE IRON PIPE

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

PVC PIPE

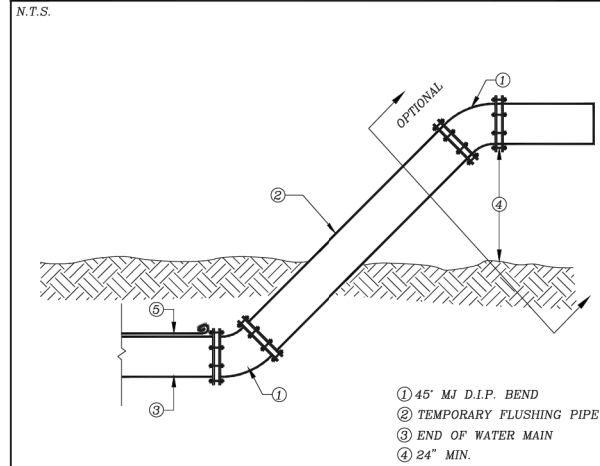
PIPE SIZE (Inches)	MINIMUM RESTRAINED PIPE LENGTH (FEET)				DEAD END	HORIZONTAL TEE
	90°	45°	22-1/2'	11-1/4'		
4	20	8	4	2	45	8
6	29	12	6	3	63	25
8	36	15	8	4	83	43
10	44	18	9	5	99	58
12	51	21	11	5	116	74
16	63	26	13	7	149	103
24	87	36	18	9	208	158
30	102	42	21	10	248	194

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

LENGTH FIGURES BASED ON FOLLOWING:
Pressure = 150 psi, FS = 1.5, trench type = 3, 30" cover on Bare pipe, Soil type = GP & SP

REV: 12/10/2015

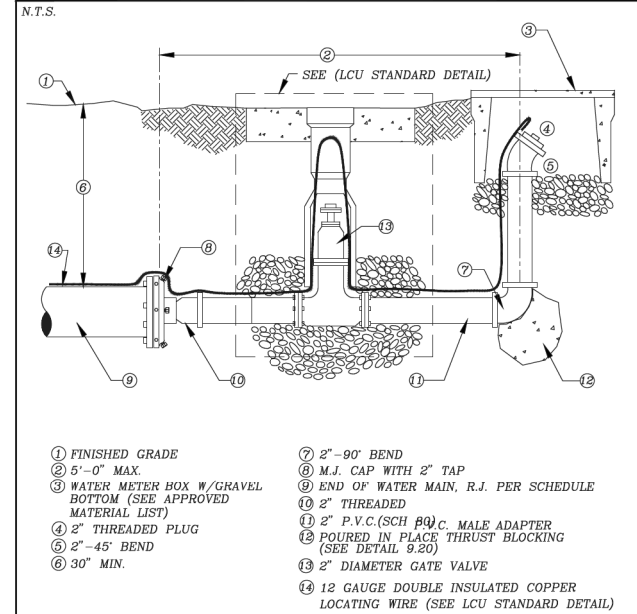
**STANDARD DETAIL NO. 6.13
LEE COUNTY UTILITIES
WATER MAIN FLUSHING DETAIL**



- ① 45° M.J. D.I.P. BEND
② TEMPORARY FLUSHING PIPE
③ END OF WATER MAIN
④ 24" MIN.
- NOTES:
- FLUSHING DETAIL TO BE USED ON WATER LINES 8" DIAMETER OR GREATER.
 - FLUSHING PIPE SHALL BE THE SAME DIAMETER AS WATER MAIN.
 - CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE FOR FLUSHED WATER.
 - PROVIDE M.J. CAP IF ASSEMBLY IS LEFT IN PLACE UNATTENDED.
 - 12 GAUGE DOUBLE INSULATED COPPER LOCATING WIRE (SEE LCU STANDARD DETAIL)

REV: 12/10/2015

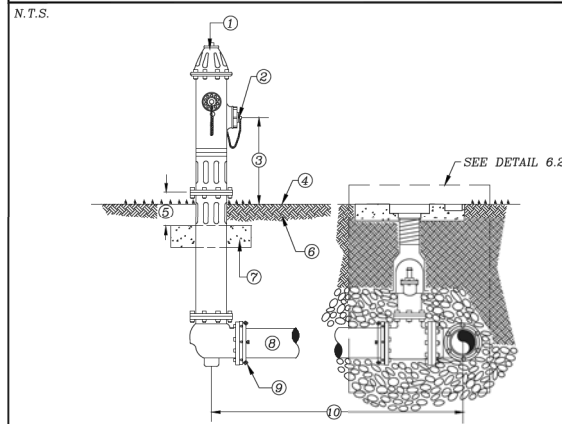
**STANDARD DETAIL NO. 6.14
LEE COUNTY UTILITIES
BLOW OFF DETAIL**



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

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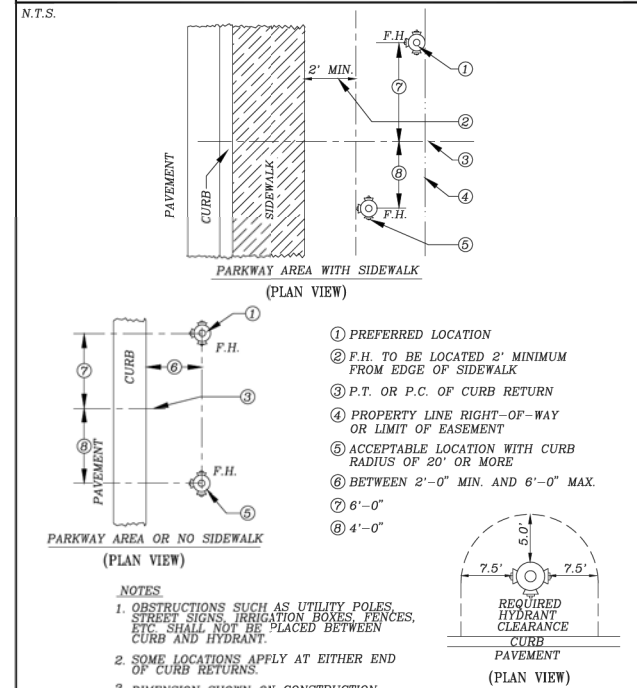
**STANDARD DETAIL NO. 6.24
LEE COUNTY UTILITIES
FIRE HYDRANT ASSEMBLY**



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

REV: 12/10/2015

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



REV: 12/10/2015

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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1821 Victoria Avenue
Fort Myers, FL 33901
Ph. 239-337-3330
Kristina Connolly, P.E. #54805

LEE COUNTY UTILITIES

ROAD NAME	COUNTY	PROJECT NO.
ORTIZ AVE.	LEE	18-0016

UTILITY DETAILS

SHEET NO.

U-46