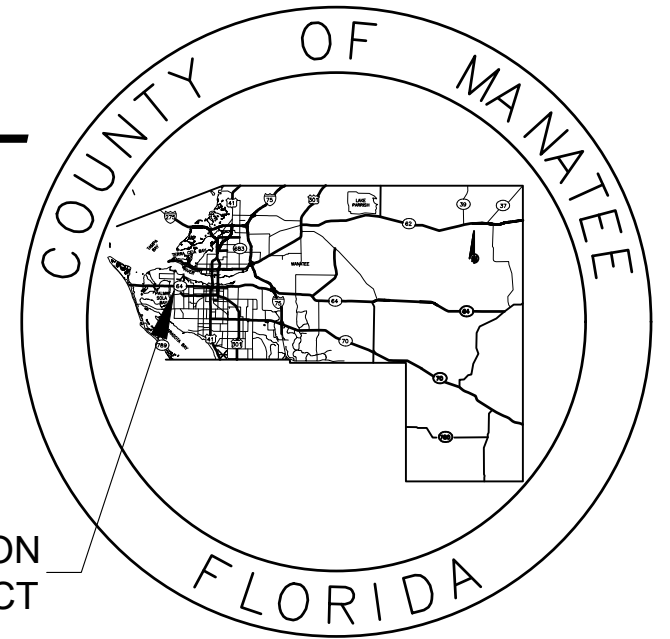


MANATEE COUNTY PUBLIC WORKS DEPARTMENT



LOCATION
OF PROJECT

MANATEE COUNTY PROJECT No: 6108260

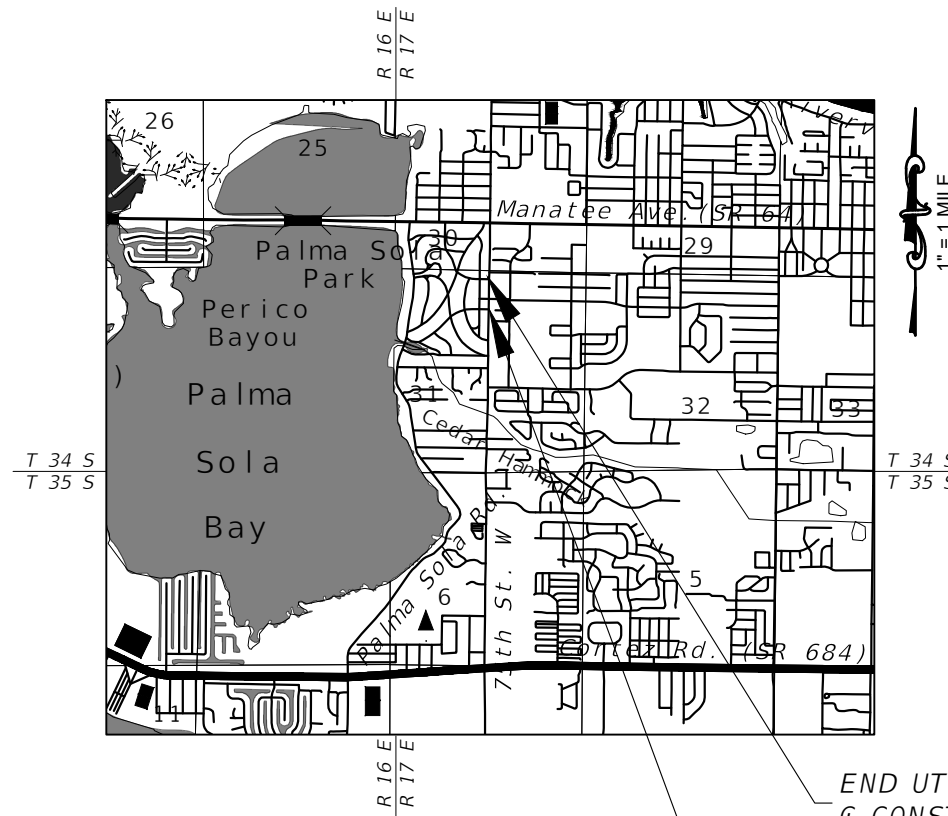
75TH STREET WEST FROM 20TH AVENUE W.
TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATIONS

BRADENTON, FLORIDA

INDEX OF UTILITY RELOCATION PLANS

SHEET NO.	SHEET DESCRIPTION
U-1	KEY SHEET
U-2	SIGNATURE SHEET
U-3	UTILITY RELOCATION NOTES
U-4 - U-5	UTILITY TABULATION OF QUANTITIES
U-6 - U-15	UTILITY RELOCATION PLAN
U-16 - U-29	UTILITY RELOCATION PROFILE
U-30 - U-32	STANDARD UTILITY DETAILS

60% SUBMITTAL
July 2023
(NOT FOR CONSTRUCTION)



END UTILITY RELOCATION
☉ CONST STA. 151+61.46

BEGIN UTILITY RELOCATION
☉ CONST STA. 100+75.02

GOVERNING DESIGN STANDARDS:

FLORIDA DEPARTMENT OF TRANSPORTATION, FY 2023-24 DESIGN STANDARDS eBOOK (DSeB) AND APPLICABLE DESIGN STANDARDS REVISIONS (DSRs) AT THE FOLLOWING WEBSITE:
<https://www.fdot.gov/design/standardplans/sprbc.shtm>

FLORIDA DEPARTMENT OF TRANSPORTATION, 2018 MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS (FLORIDA GREENBOOK) AT THE FOLLOWING WEBSITE:

[HTTPS://www.fdot.gov/roadway](https://www.fdot.gov/roadway)

MANATEE COUNTY PUBLIC WORKS HIGHWAY & TRAFFIC STANDARDS (APRIL 2022)
MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS, FEBRUARY 2020

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>

MANATEE COUNTY, APRIL 2022 PUBLIC WORKS STANDARDS PUBLIC WORKS STANDARDS
http://www.mymanatee.org/departments/public_works/infrastructure_engineering



ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ENLARGED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

ROADWAY PLANS
ENGINEER OF RECORD:

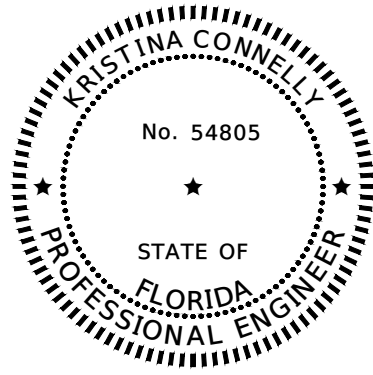
KRISTINA CONNELLY P.E. NO. 54805
STANTEC CONSULTING SERVICES, INC.
1821 VICTORIA AVE.
FORT MYERS FL, 33901



Know what's below
Call before you dig

COUNTY PROJECT MANAGERS:
ANTHONY RUSSO, P.E.
JERRY VARGHESE, PMP, LEED AP, CGC

FISCAL YEAR	SHEET NO.
23	U-1



THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY

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.

STANTEC, INC.
1821 VICTORIA AVE
FORT MYERS FL 33901
PHONE NO. 239-347-5508
KRISTINA CONNELLY, P.E. 54805

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN
ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

PLAN INDEX

- U-1 KEY SHEET
- U-2 SIGNATURE SHEET
- U-3 UTILITY RELOCATION NOTES
- U-4 - U-5 UTILITY TABULATION OF QUANTITIES
- U-6 - U-15 UTILITY RELOCATION PLAN
- U-16 - U-29 UTILITY RELOCATION PROFILE
- U-30 - U-32 STANDARD UTILITY DETAILS

REVISIONS			
DATE	DESCRIPTION	DATE	BY
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KRISTINA CONNELLY, P.E.
P.E. LICENSE NUMBER 54805
1821 VICTORIA AVE.
FORT MYERS, FLORIDA, 33901



**MANATEE COUNTY
PUBLIC WORKS**
COUNTY PROJECT NO:
6108260

75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)

SIGNATURE SHEET



SHEET
NO.

U-2

MANATEE COUNTY UTILITY RELOCATION NOTES:

1. B.M. VERTICAL CONTROL FOR THIS PROJECT WAS ESTABLISHED BY A MINIMUM OF TWO REFERENCE BENCHMARKS DESCRIBED IN THE NORTH AMERICAN VERTICAL DATUM OF 1988, (NAVD 88).
2. INSTALLATION/REMOVAL/PLUGGING OF THE UTILITY PIPELINES IS TO INCLUDE RECORD PLAN INFORMATION FURNISHED TO THE ENGINEER. THE RECORD PLANS MUST IDENTIFY AND SATISFY THE MANATEE COUNTY PUBLIC WORKS AS-BUILT/RECORD DRAWING REQUIREMENTS WHICH INCLUDE VERTICAL AND HORIZONTAL ALIGNMENT, TYPE OF MATERIAL, LOCATIONS OF MATERIAL CHANGES FOR ALL WATER, RECLAIMED 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 FEET 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 AND/OR CORRECTIONS ARE NEEDED.
 PROVIDE GEO-REFERENCED OR STATION/OFFSET REFERENCED DIGITAL PICTURES (NO MORE THAN TWO (2) PER LOCATION) FOR ALL TIE-INS AND FITTINGS PRIOR TO BACKFILL. SUBMIT TO THE ENGINEER ALL AS-BUILT INFORMATION OF CONSTRUCTED WORK ON NO MORE THAN A BI-WEEKLY BASIS. IF DATA IS MISSING AND/OR INACCURATE, RE-EXCAVATE SUBJECT AREA TO OBTAIN REQUIRED INFORMATION AND RESTORE AREA AT NO ADDITIONAL EXPENSE TO THE MANATEE COUNTY PUBLIC WORKS. LIMITS OF RESTORATION WILL BE SUBJECT TO MANATEE COUNTY PUBLIC WORKS APPROVAL.
3. THE LOCATIONS, ELEVATIONS, & DIMENSIONS OF THE EXISTING UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE DESIGNATED VV, VH, AND VVH) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATION APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.
4. RESTRAIN ALL PROPOSED RECLAIMED WATER MAIN, POTABLE WATER MAIN, FORCE MAIN PIPE JOINTS. RESTRAIN ALL EXISTING RECLAIMED WATER MAINS, POTABLE WATER MAINS AND FORCE MAINS THAT ARE BEING TIED INTO BASED ON THE RESTRAINT SCHEDULE SHOWN IN THE DETAILS.
5. EXISTING ACTIVE RECLAIMED WATER MAIN SHALL REMAIN IN SERVICE UNTIL NEW LINE IS CONSTRUCTED AND ACCEPTED BY FDEP AND THE MANATEE COUNTY PUBLIC WORKS.
6. RECLAIMED WATER, POTABLE WATER AND SEWER LINES SHALL REMAIN IN SERVICE TO MAXIMUM EXTENT POSSIBLE. DIVERSIONS THAT REQUIRE SHUT DOWN SHALL BE COORDINATED WITH MANATEE COUNTY.
7. ALL VALVES, FITTINGS, BENDS, HYDRANTS, APPURTENANCES AND RECLAIMED WATERMAIN SHALL MEET MANATEE COUNTY STANDARDS.
8. ALL EXISTING VALVES WITHIN THE PAVEMENT LIMITS SHALL HAVE THE COVER AND BOX ADJUSTED FLUSH WITH FINISHED GRADE PER MANATEE COUNTY STANDARDS.
9. CONTRACTOR TO BE ADVISED UPON REMOVAL OF EXISTING RECLAIMED WATERMAIN, TRENCH AND BEDDING WILL NEED TO BE RE-ESTABLISHED PER COUNTY DETAILS AND SPECIFICATIONS, FOR THE NEW RECLAIMED WATERMAIN, IF AFFECTED BY THE PIPE REMOVAL.
10. EXISTING RECLAIMED WATERMAIN TO BE PLACED OUT OF SERVICE AND GROUT IN PLACE PER MANATEE COUNTY SPECIFICATIONS.
11. ALL RECLAIMED WATER 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.
12. THE CONTRACTOR IS TO VERIFY IN THE FIELD THE LOCATION AND ELEVATION OF ALL EXISTING UTILITY CONNECTION POINTS PRIOR TO STARTING CONSTRUCTION AND WILL IMMEDIATELY NOTIFY THE ENGINEER AND OWNER OF ANY DISCREPANCIES FOUND.
13. THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT THERE MAY BE SOME CONFLICTS WITH UTILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER OF ANY CONFLICTS WITH PROPOSED WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE, PROTECT, AND REPLACE (IF DAMAGED) ANY AND ALL EXISTING UTILITIES ON THIS PROJECT AT THEIR OWN EXPENSE.
14. ALL POTABLE WATER, RECLAIMED WATER, FIRE, IRRIGATION SYSTEM, SANITARY SYSTEM, STORM SYSTEM AND OTHER UTILITIES COMPONENTS ARE TO BE PROTECTED AND WILL HAVE MINIMUM DISRUPTION DURING CONSTRUCTION. THE CONTRACTOR WILL IMMEDIATELY REPAIR ANY DAMAGE TO THE SYSTEMS.
15. DISRUPTIONS TO EXISTING RESIDENTIAL/COMMERCIAL WATER AND SEWER SERVICE WILL BE KEPT TO A MINIMUM. ALL WATER SERVICE INTERRUPTIONS SHALL BE COORDINATED WITH MANATEE COUNTY PUBLIC WORKS PROJECT MANAGER AND IN ACCORDANCE WITH ANY PROCEDURES FOR SHUT DOWNS.
16. AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA AT 1-800-432-4770 OR THE NATIONAL 811 ONE CALL NUMBER WHEN APPLICABLE FOR UTILITY LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITIES FOR THE POSSIBLE RELOCATION OR THE TEMPORARY MOVEMENT OF ANY EXISTING UTILITIES WITHIN THE RIGHT OF WAY.
17. SEPARATE PAYMENT SHALL BE MADE ONLY FOR THE ITEMS OF WORK LISTED AND IDENTIFIED BY APPROPRIATE PAY ITEM ON THE BID FORM. THE COST OF ANY RELATED WORK NOT SPECIFICALLY IDENTIFIED, BUT WHICH IS REQUIRED FOR SATISFACTORY COMPLETION OF THE WORK, SHALL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT PRICE FOR THE APPROPRIATE BID ITEM.
18. ALL MANATEE COUNTY UTILITY WORK SHALL CONFORM TO PUBLIC WORKS STANDARDS PART 1 UTILITIES STANDARDS MANUAL DATED 2020, AND APPROVED PRODUCTS LIST.
19. ALL WATER, RECLAIMED WATER AND SEWER VALVES, MANHOLES AND VALVE PADS SHOULD REMAIN VISIBLE AND ACCESSIBLE THROUGHOUT CONSTRUCTION AND BE BROUGHT TO FINAL GRADE PER COUNTY STANDARDS AT END OF CONSTRUCTION.
20. ANY HYDRANTS, SERVICES AND VALVES THAT ARE IN CONFLICT WILL BE REPLACED AND UP TO CURRENT COUNTY STANDARDS.
21. IF SERVICES OR HYDRANTS ARE HIT/DAMAGED, THEY WILL BE REPLACED TO THE CURRENT COUNTY STANDARDS.

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

DATE	DESCRIPTION	DATE	BY	 Stantec STANTEC CONSULTING SERVICES, INC.	KRISTINA CONNELLY, P.E. P.E. LICENSE NUMBER 54805 1821 VICTORIA AVE. FORT MYERS, FLORIDA, 33901	 MANATEE COUNTY PUBLIC WORKS COUNTY PROJECT NO: 6108260	76TH STREET WEST FROM 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)	SHEET NO.
----	----						UTILITY RELOCATION NOTES	U-3

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS												TOTAL THIS SHEET		GRAND TOTAL			
			U-6		U-7		U-8		U-9		U-10		U-11		U-12		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL						
1050-16004	UTILITY PIPE, REMOVE & DISPOSE, 8"	LF			8		16		8								32			
1050-16005	UTILITY PIPE, GROUT & PLACE OUT OF SERVICE, 8"	LF			334		544		642								1520			
1050-31208	8" PVC DR18 CLASS 235	LF			412		505		454		560		160				2091			
1050-51208	8" DIP CL350	LF					56		106				58				220			
1050-31220	20" DIP CL350	LF	10				20		20		10		10		20		90			
1050-61118	18" STEEL CASING	LF			156												156			
1055-31108	UTILITY FITTINGS, 8" 45° MJ BEND RJ	EA			10		2		8				3				23			
1055-51120	UTILITY FITTINGS, 20" 45° MJ BEND RJ	EA	4				8		8		4		4		8		36			
1055-51206	UTILITY FITTINGS, 8"x6" MJ TEE RJ	EA					1										1			
1055-51208	UTILITY FITTINGS, 8"x8" MJ TEE RJ	EA			1												1			
1080-21108	8" STUB OUT	EA			1												1			
1080-21101	SINGLE 1" SERVICE SHORT	EA			1		2										3			
1080-21101	DBL 1" SERVICE SHORT	EA			1		2		1		3		1				8			
1080-21101	DBL 1" SERVICE LONG	EA			1		4		4		3		1				13			
1080-21102	2" SERVICE	EA					1		1		1						3			
1080-24106	UTILITY FIXTURE, 6" GV W/ BOX, PAD, ID & TRACER	EA					1										1			
1080-24108	UTILITY FIXTURE, 8" GV W/ BOX, PAD, ID & TRACER	EA			1		1		2				1				5			
1644700	FIRE HYDRANT RELOCATE	EA							2						2		4			
1800-1000	ADJUST MH RIM & COVER	EA	1		1		1										3			
1800-1100	ADJUST WM VALVE	EA	2				4		4		1		6		4		21			
1800-1100	ADJUST WM METER	EA							2		2		1				5			
1800-1100	ADJUST RW VALVE	EA					3		3				1		1		8			
1800-1100	ADJUST SS VALVE	EA							1				2				3			
1800-1200	RELOCATE WM VALVE	EA							1								1			
1800-1200	RELOCATE SS VALVE	EA							1		5		3		2		11			

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DATE	DESCRIPTION	DATE	BY
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KRISTINA CONNELLY, P.E.
P.E. LICENSE NUMBER 54805
1821 VICTORIA AVE.
FORT MYERS, FLORIDA, 33901



MANATEE COUNTY
PUBLIC WORKS
COUNTY PROJECT NO:
6108260



76TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
**UTILITY TABULATION OF
QUANTITIES**

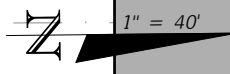
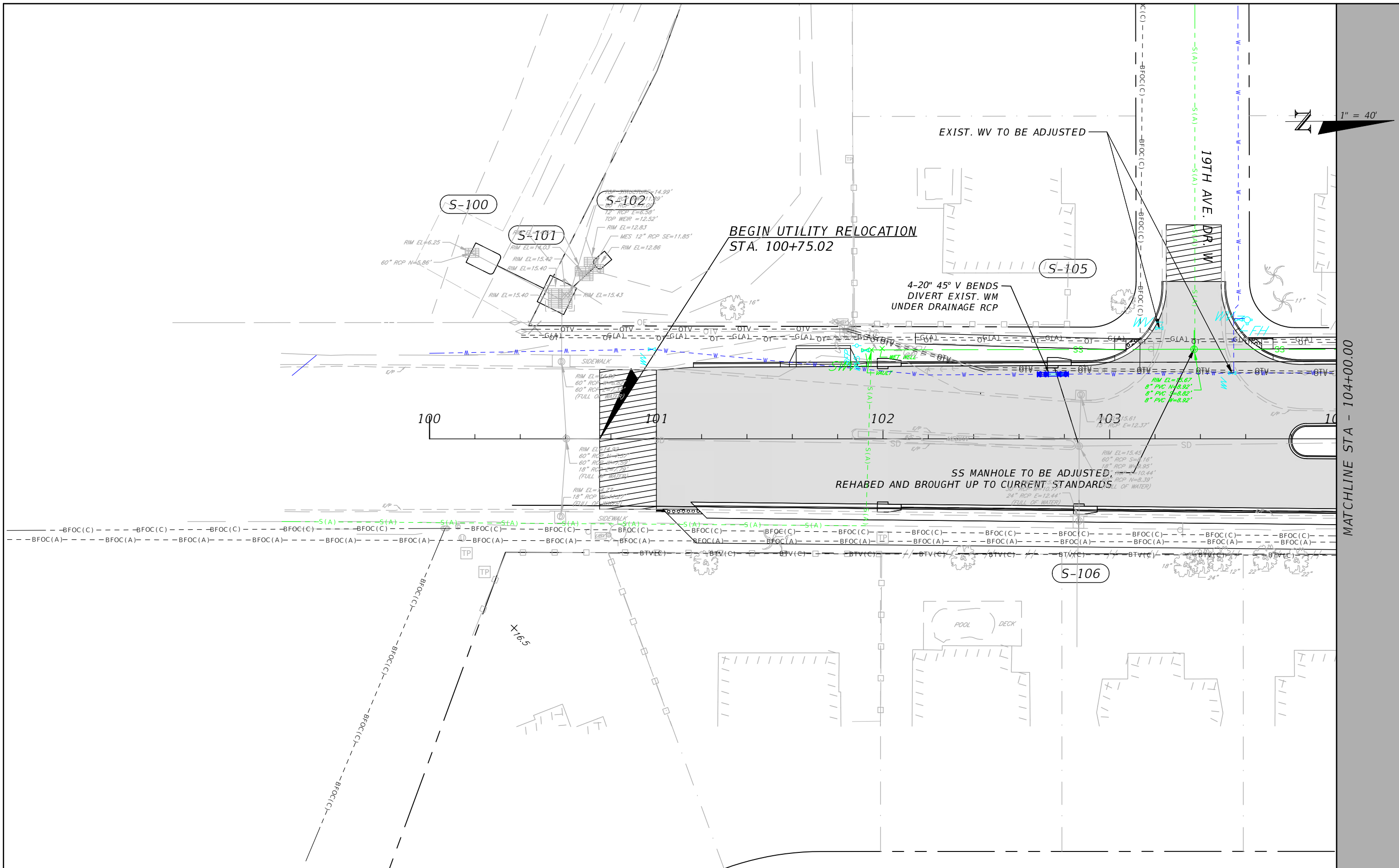
SHEET NO.
U-4

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
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			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL				
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1050-51208	8" DIP CL350	LF																	220	
1050-51220	20"DIP CL350	LF	20				10									30			120	
1050-61118	18" STEEL CASING	LF																	156	
1055-31108	UTILITY FITTINGS, 8" 45° MJ BEND RJ	EA																	23	
1055-51120	UTILITY FITTINGS, 20" 45° MJ BEND RJ	EA	8				4									12			48	
1055-51206	UTILITY FITTINGS, 8"x6" MJ TEE RJ	EA																	1	
1055-51208	UTILITY FITTINGS, 8"x8" MJ TEE RJ	EA																	1	
1080-21108	8" STUB OUT	EA																	1	
1080-21101	SINGLE 1" SERVICE SHORT	EA																	3	
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1080-24108	UTILITY FIXTURE, 8" GV W/ BOX, PAD, ID & TRACER	EA																	5	
1644700	FIRE HYDRANT RELOCATE	EA	1		1		1									3			7	
1800-1000	ADJUST MH RIM & COVER	EA																	3	
1800-1100	ADJUST WM VALVE	EA	6				3									9			30	
1800-1100	ADJUST WM METER	EA					1									1			6	
1800-1100	ADJUST RW VALVE	EA	2													2			10	
1800-1100	ADJUST SS VALVE	EA																	3	
1800-1200	RELOCATE WM VALVE	EA																	1	
1800-1200	RELOCATE SS VALVE	EA																	11	

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DATE	DESCRIPTION	DATE	BY	 Stantec STANTEC CONSULTING SERVICES, INC.	KRISTINA CONNELLY, P.E. P.E. LICENSE NUMBER 54805 1821 VICTORIA AVE. FORT MYERS, FLORIDA, 33901	 MANATEE COUNTY PUBLIC WORKS COUNTY PROJECT NO: 6108260	76TH STREET WEST FROM 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64) UTILITY TABULATION OF QUANTITIES	SHEET NO.
----	----							U-5



MATCHLINE STA - 104+00.00

REVISIONS			
NO.	DESCRIPTION	DATE	BY



KRISTINA CONNELLY, P.E.
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1821 VICTORIA AVE.
FORT MYERS, FLORIDA, 33901

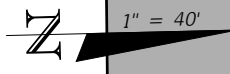
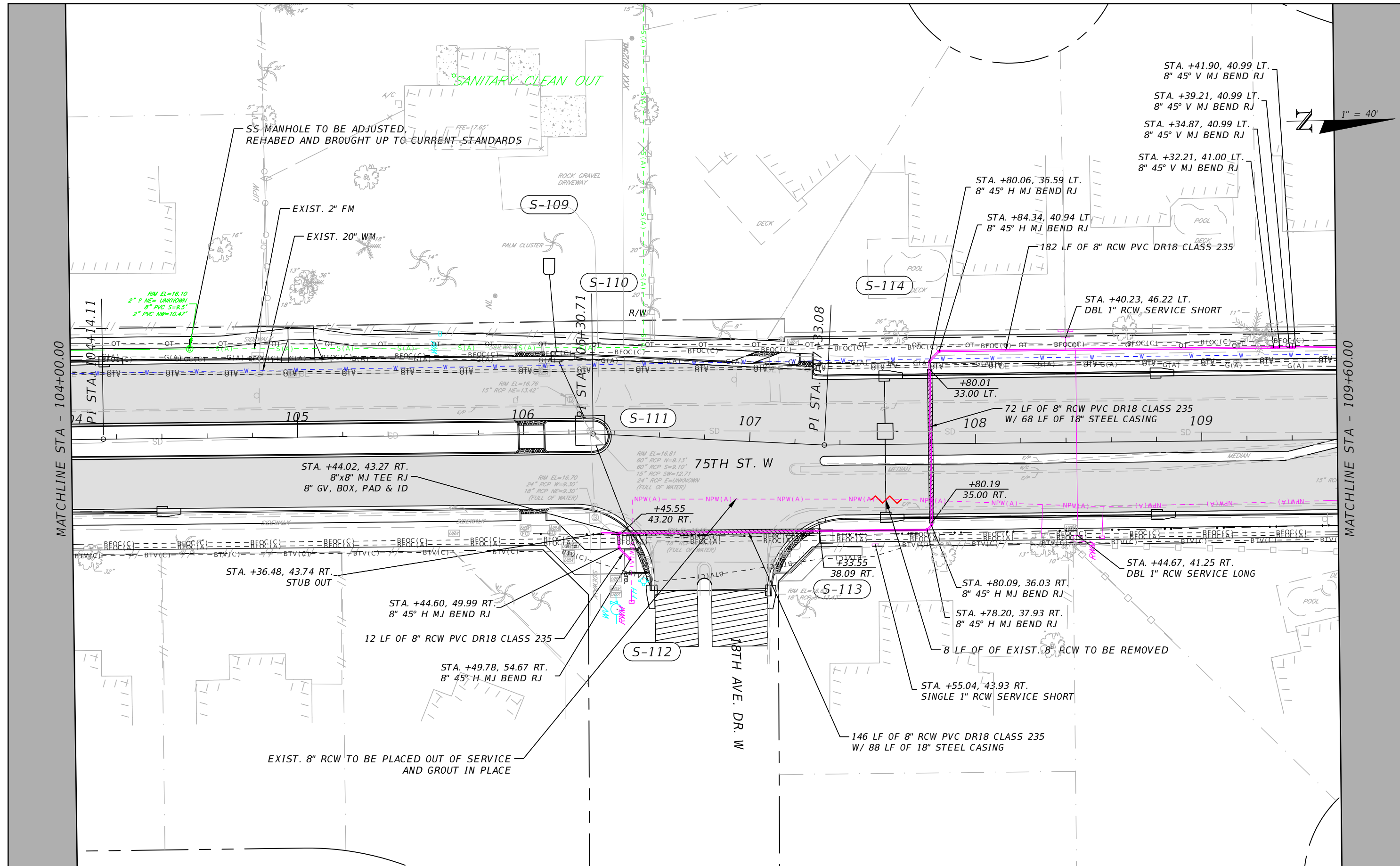


MANATEE COUNTY
PUBLIC WORKS
COUNTY PROJECT NO:
6108260

75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATION PLAN

SHEET NO.
U-6

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MATCHLINE STA - 104+00.00

MATCHLINE STA - 109+60.00

REVISIONS			
NO.	DESCRIPTION	DATE	BY



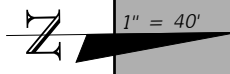
KRISTINA CONNELLY, P.E.
 P.E. LICENSE NUMBER 54805
 1821 VICTORIA AVE.
 FORT MYERS, FLORIDA, 33901



75TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATION PLAN

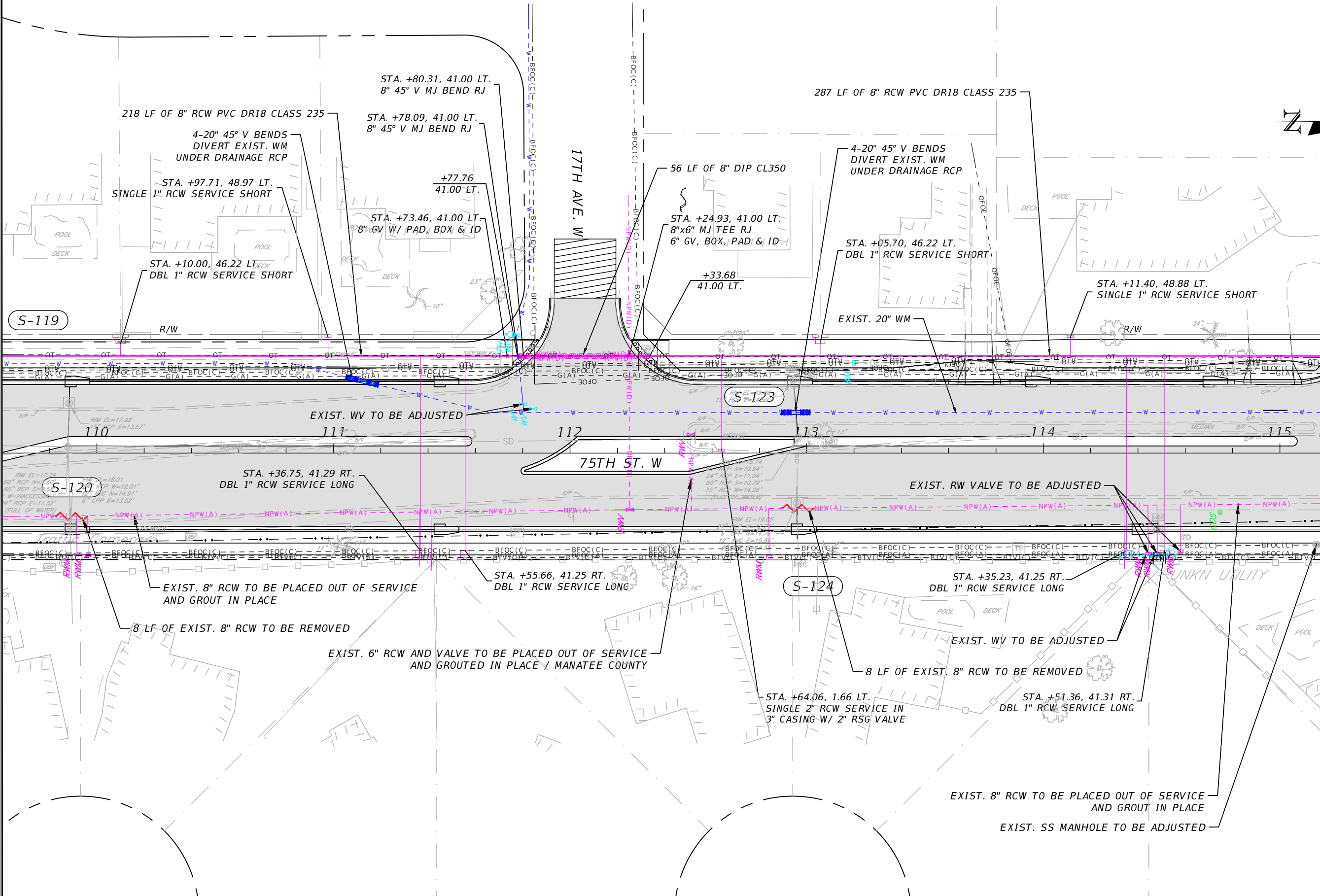
SHEET NO.
 U-7

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MATCHLINE STA - 109+60.00

MATCHLINE STA - 115+20.00



REVISIONS			
NO.	DESCRIPTION	DATE	BY



KRISTINA CONNELLY, P.E.
P.E. LICENSE NUMBER 54805
1821 VICTORIA AVE.
FORT MYERS, FLORIDA, 33901

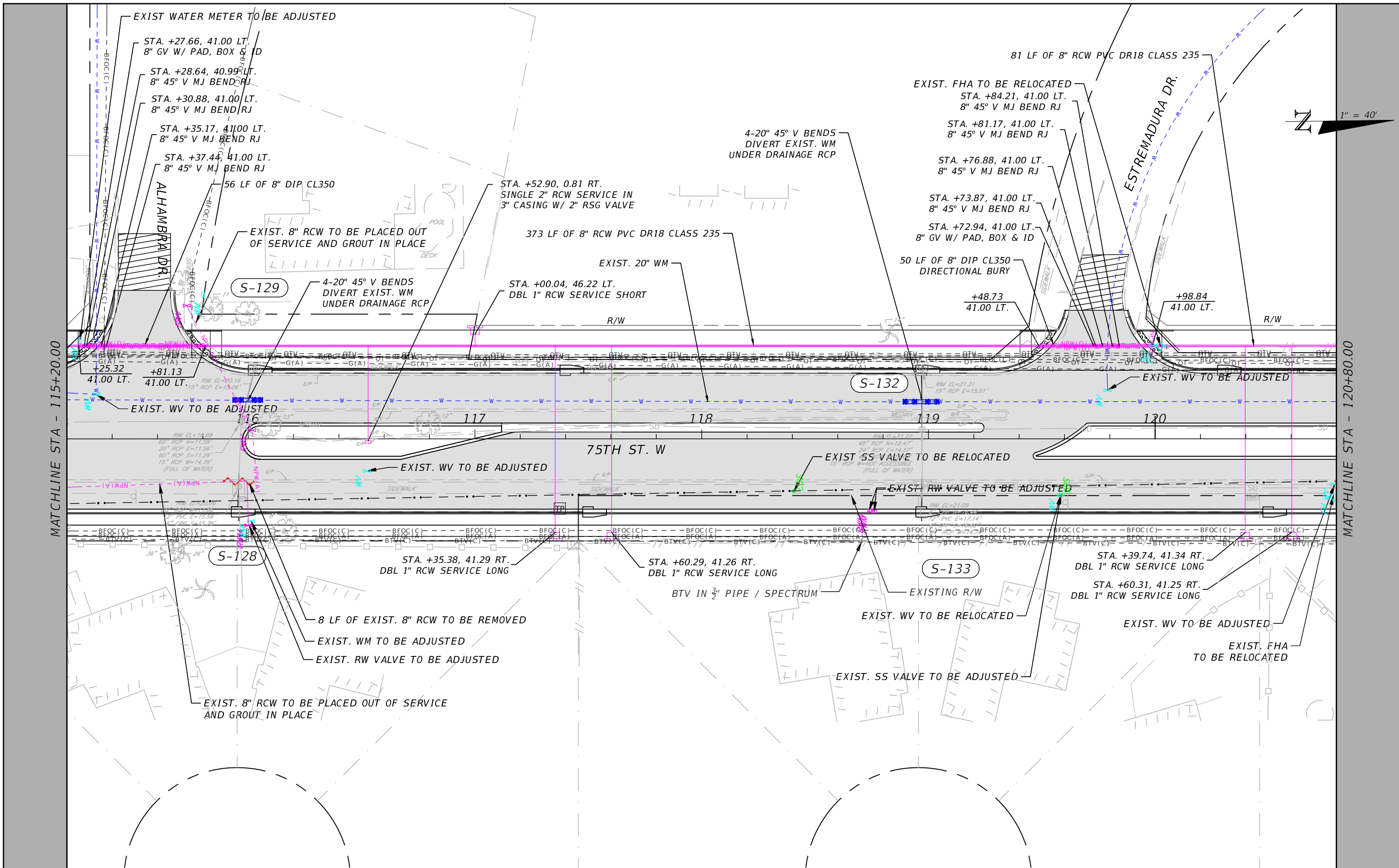


75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)

UTILITY RELOCATION PLAN

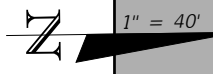
SHEET NO.
U-8

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



MATCHLINE STA - 115+20.00

MATCHLINE STA - 120+80.00



REVISIONS			
NO.	DESCRIPTION	DATE	BY



KRISTINA CONNELLY, P.E.
 P.E. LICENSE NUMBER 54805
 1821 VICTORIA AVE.
 FORT MYERS, FLORIDA, 33901

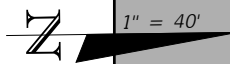


MANATEE COUNTY
 PUBLIC WORKS
 COUNTY PROJECT NO:
 6108260

75TH STREET WEST FROM
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UTILITY RELOCATION PLAN

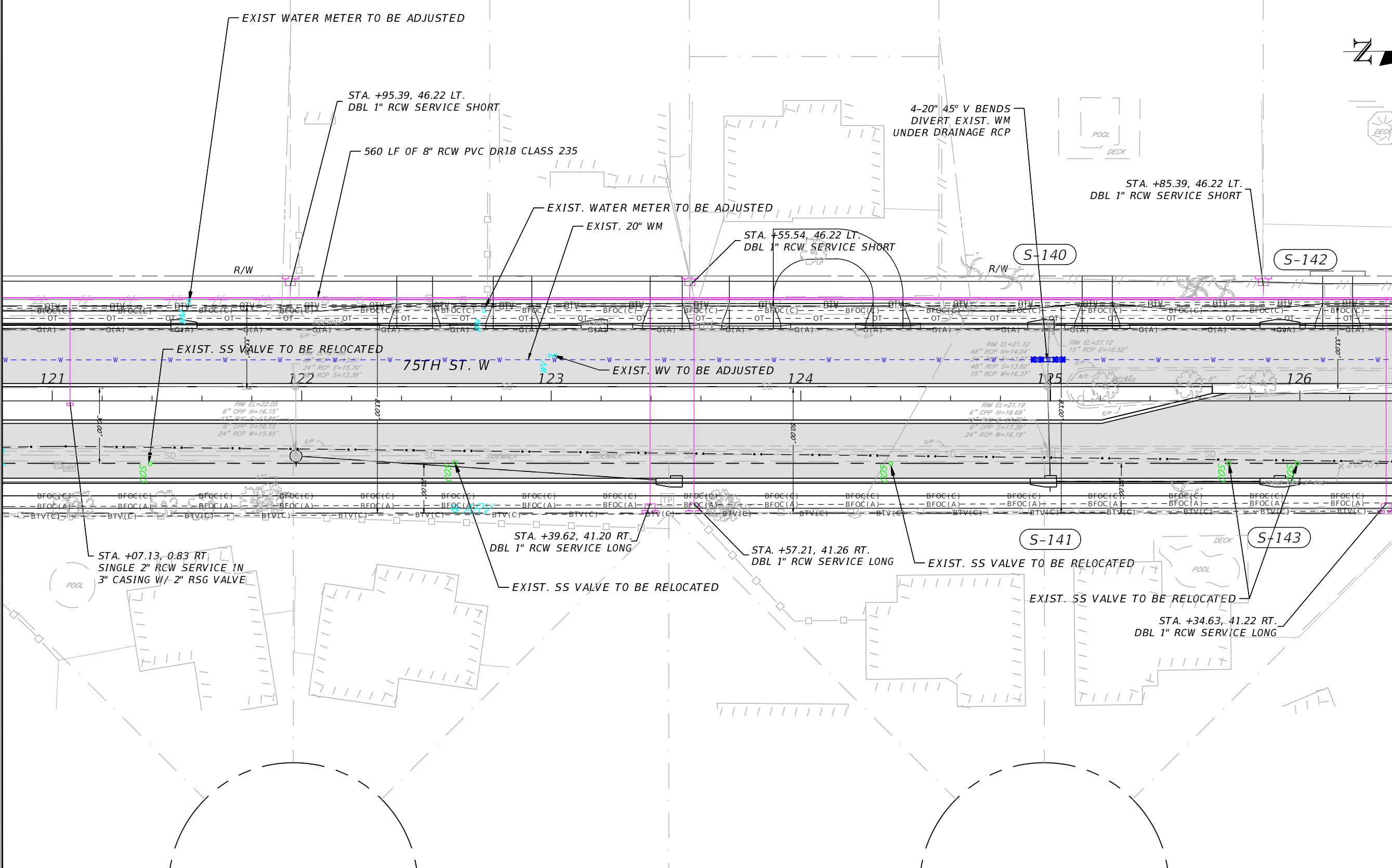
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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



MATCHLINE STA - 120+80.00

MATCHLINE STA - 126+40.00



REVISIONS			
NO.	DESCRIPTION	DATE	BY



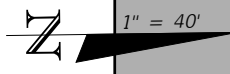
KRISTINA CONNELLY, P.E.
P.E. LICENSE NUMBER 54805
1821 VICTORIA AVE.
FORT MYERS, FLORIDA, 33901



75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATION PLAN

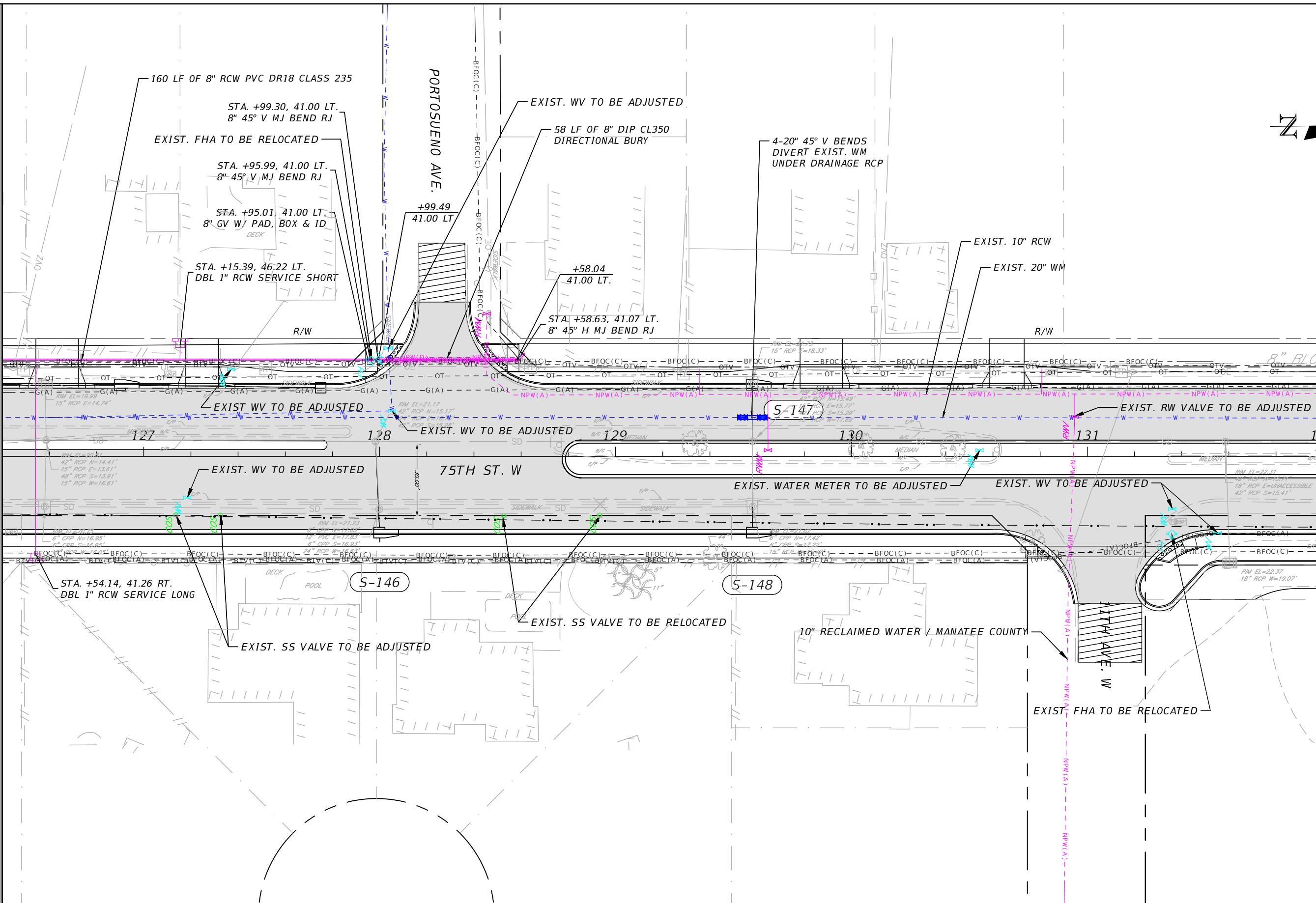
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U-10

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MATCHLINE STA - 126+40.00

MATCHLINE STA - 132+00.00



REVISIONS			
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KRISTINA CONNELLY, P.E.
 P.E. LICENSE NUMBER 54805
 1821 VICTORIA AVE.
 FORT MYERS, FLORIDA, 33901

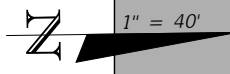
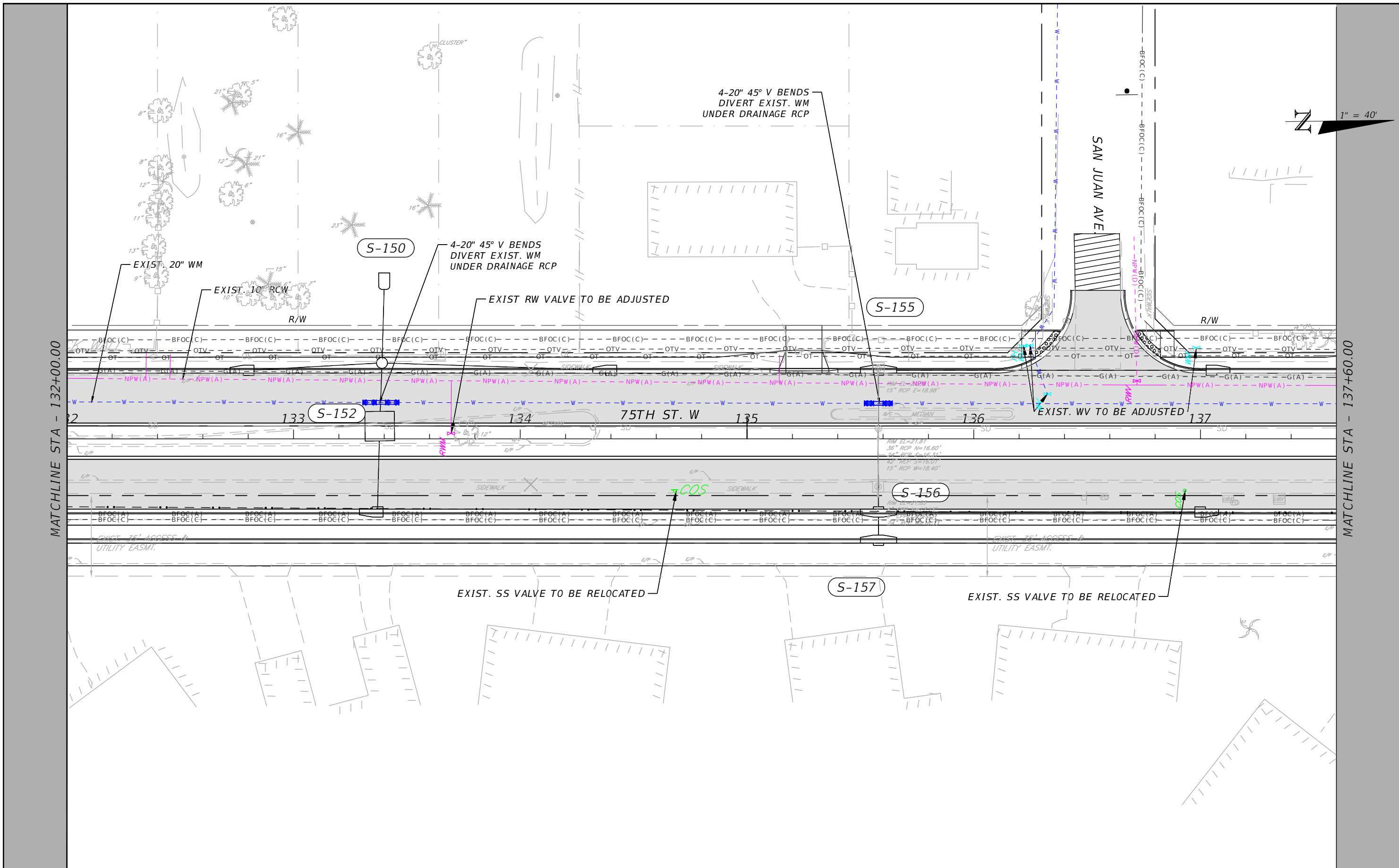


75TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)

UTILITY RELOCATION PLAN

SHEET NO.
 U-11

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MATCHLINE STA - 132+00.00

MATCHLINE STA - 137+60.00

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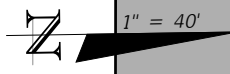
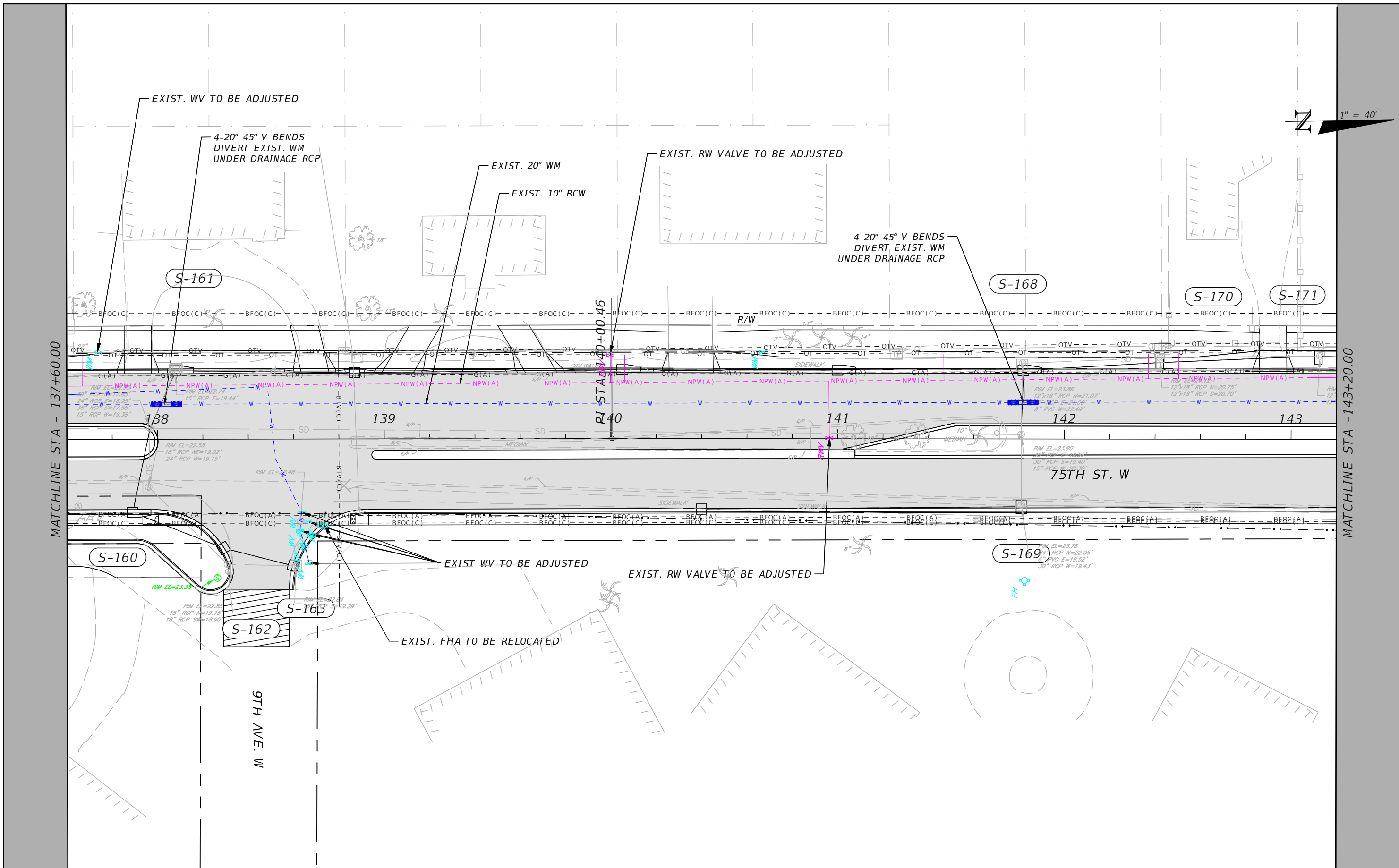
MANATEE COUNTY
 PUBLIC WORKS
 COUNTY PROJECT NO:
 6108260

75TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)

UTILITY RELOCATION PLAN

SHEET NO.
 U-12

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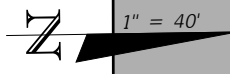
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75TH STREET WEST FROM
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UTILITY RELOCATION PLAN

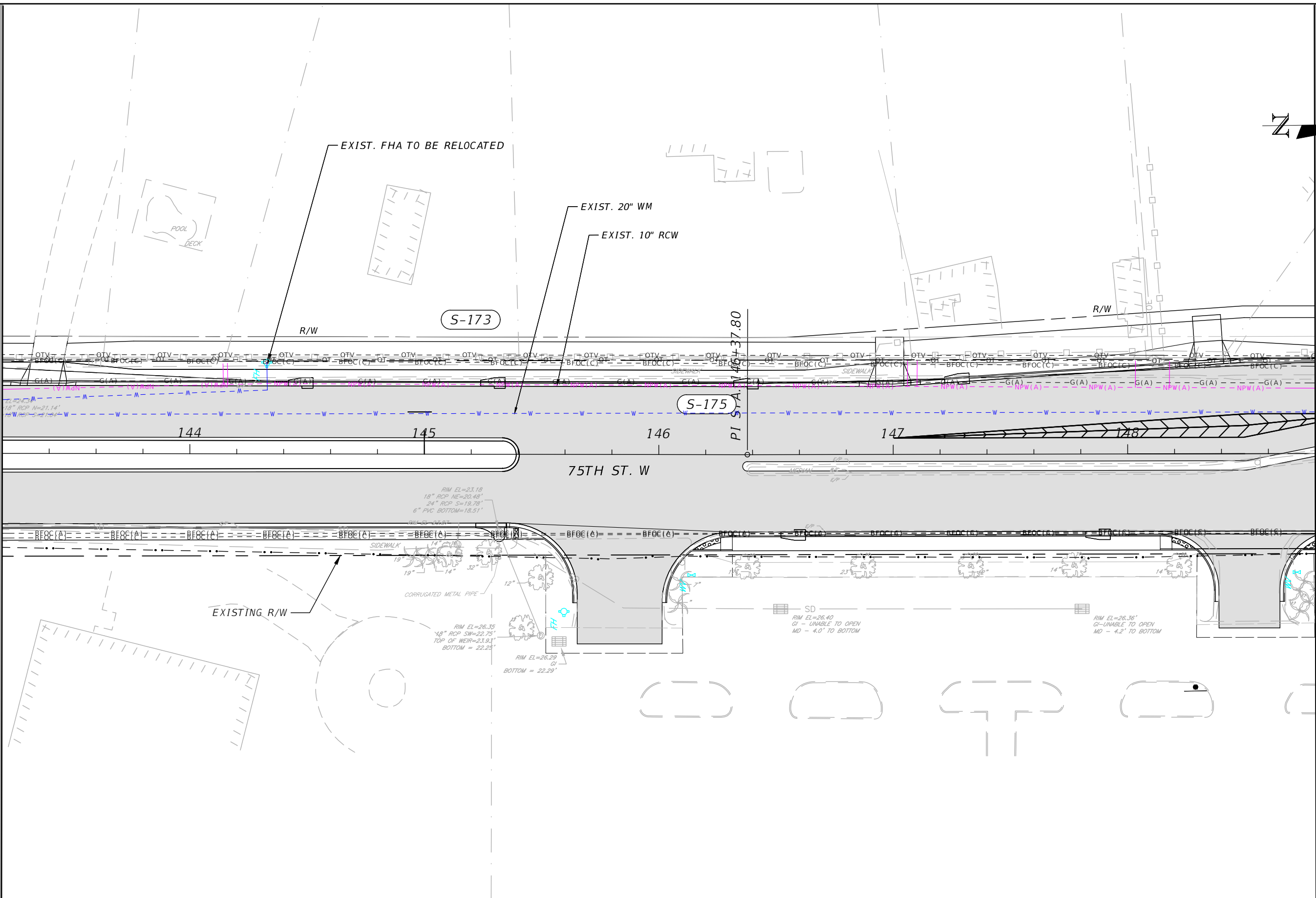
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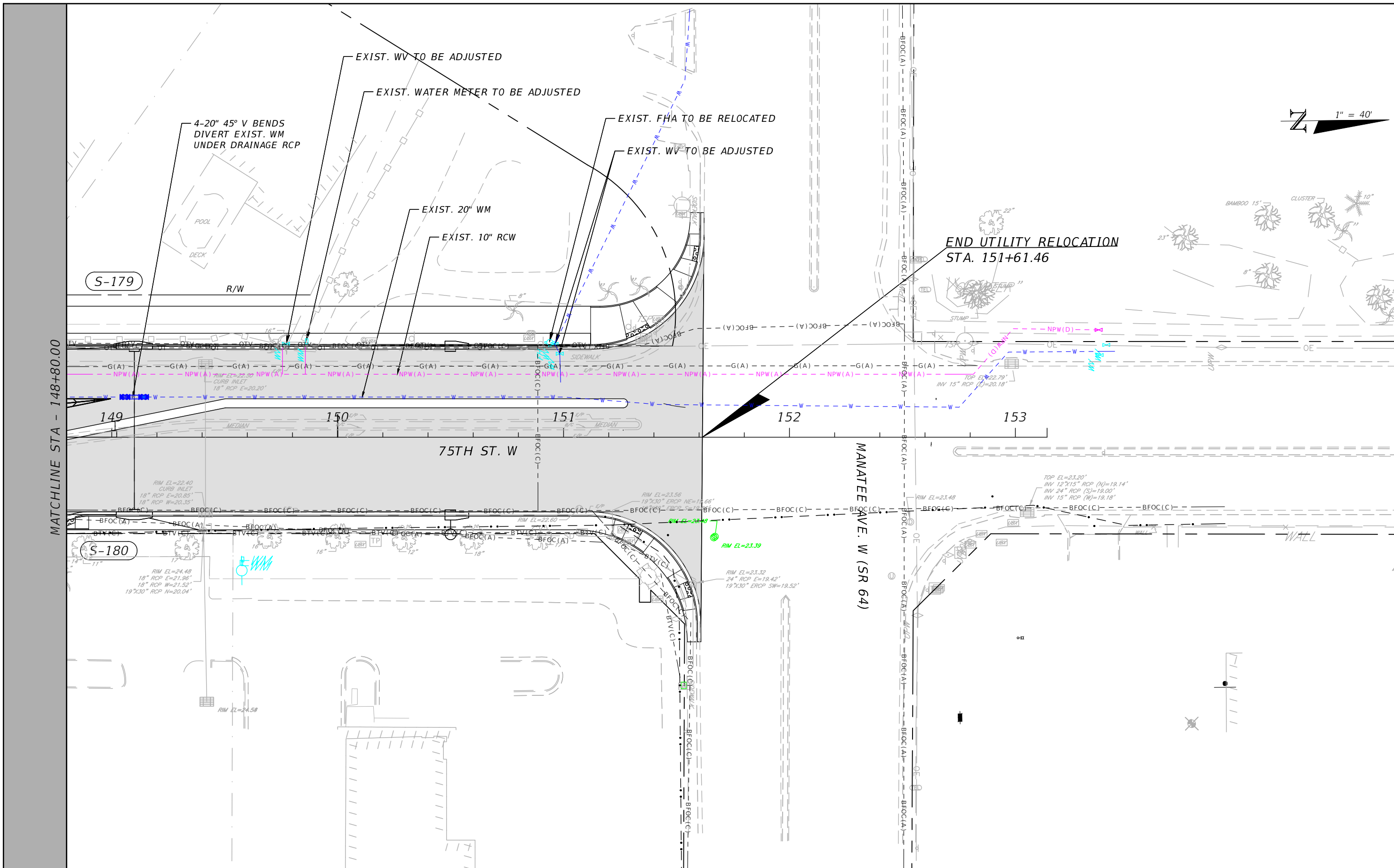
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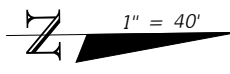
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UTILITY RELOCATION PLAN

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 U-14

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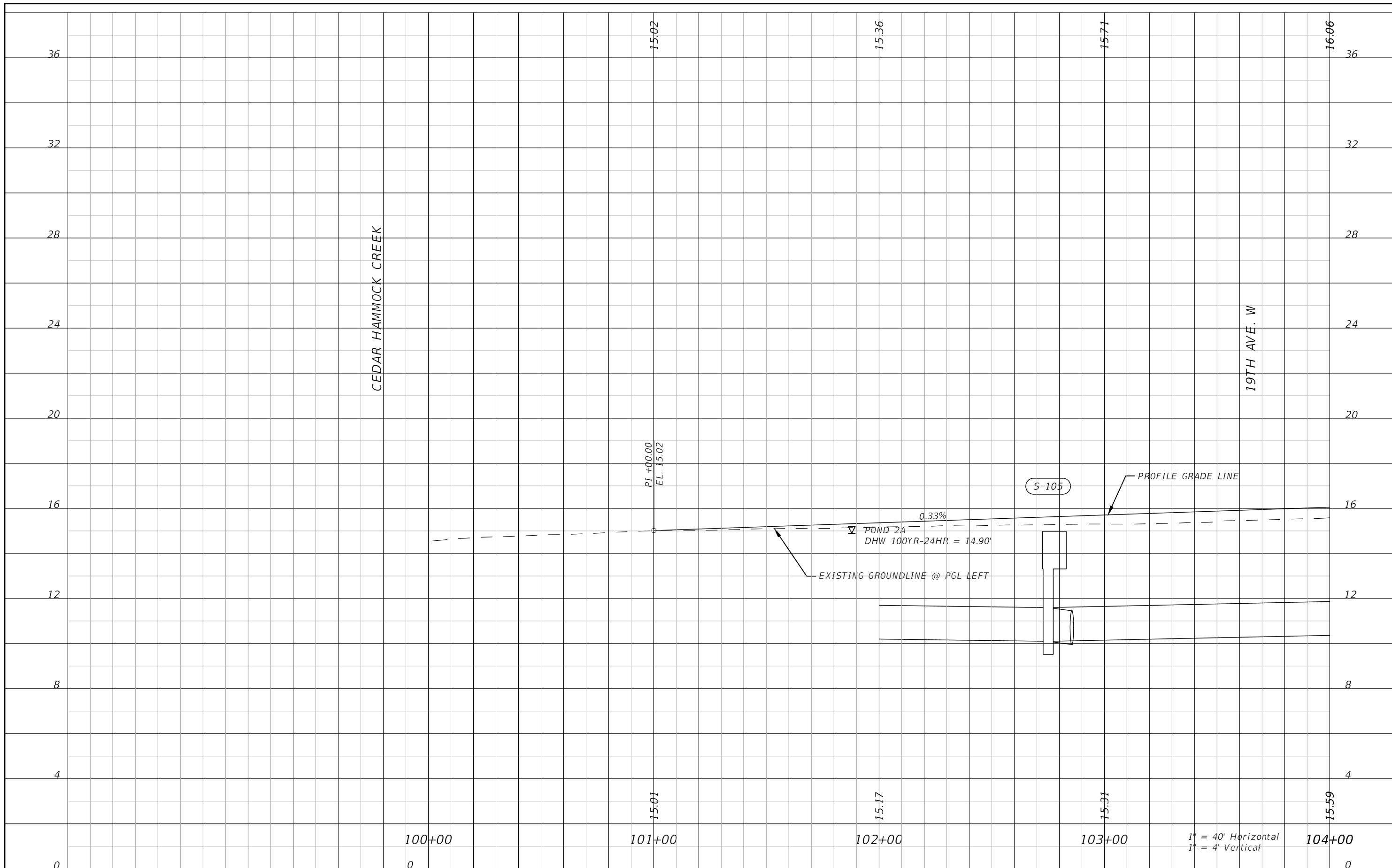
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75TH STREET WEST FROM
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UTILITY RELOCATION PLAN

SHEET NO.
 U-15



REVISIONS			
NO.	DESCRIPTION	DATE	BY
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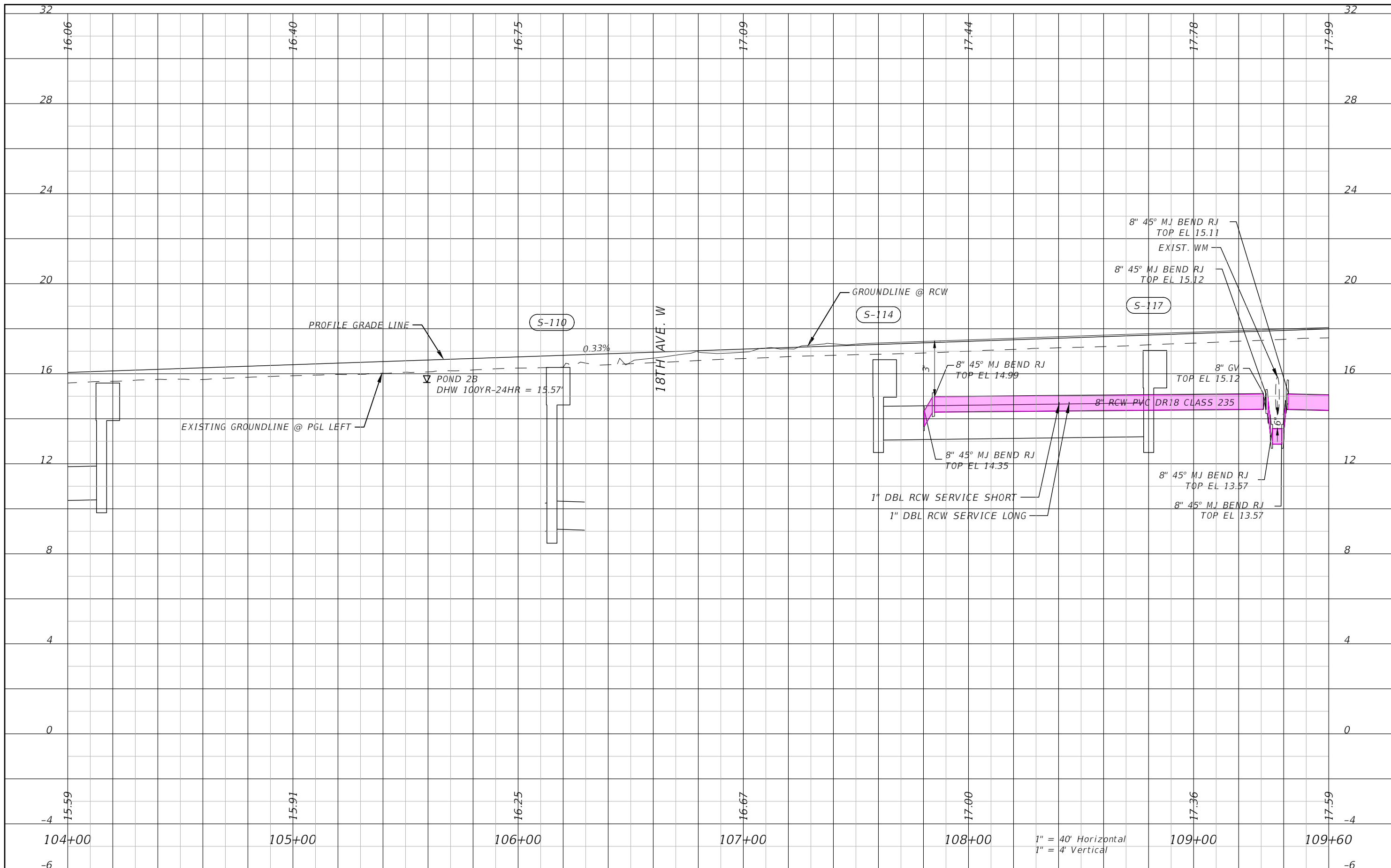
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76TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATION PROFILE

SHEET NO.
 U-16

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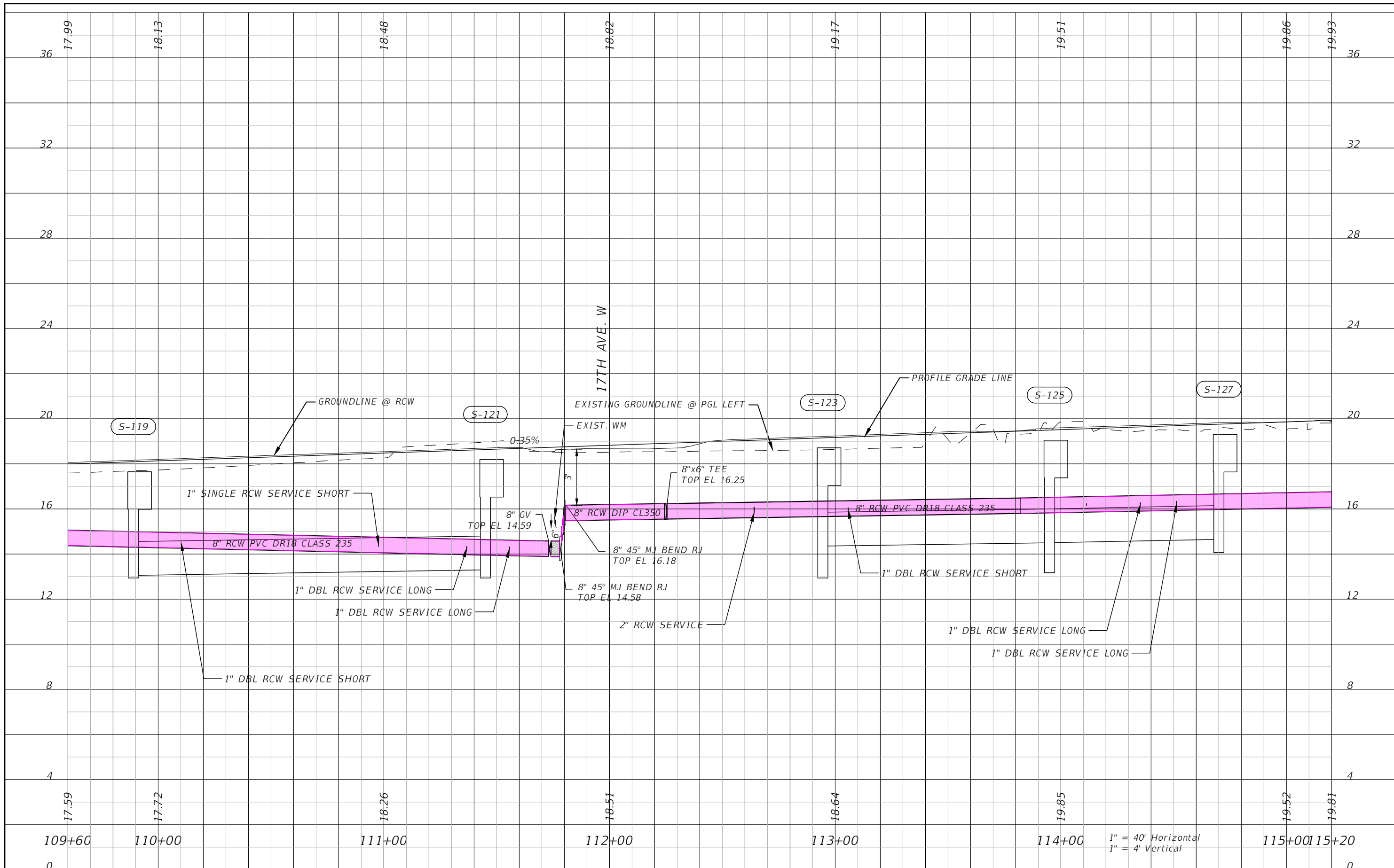
MANATEE COUNTY
PUBLIC WORKS
COUNTY PROJECT NO:
6108260

76TH STREET WEST FROM
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UTILITY RELOCATION PROFILE

SHEET
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U-17

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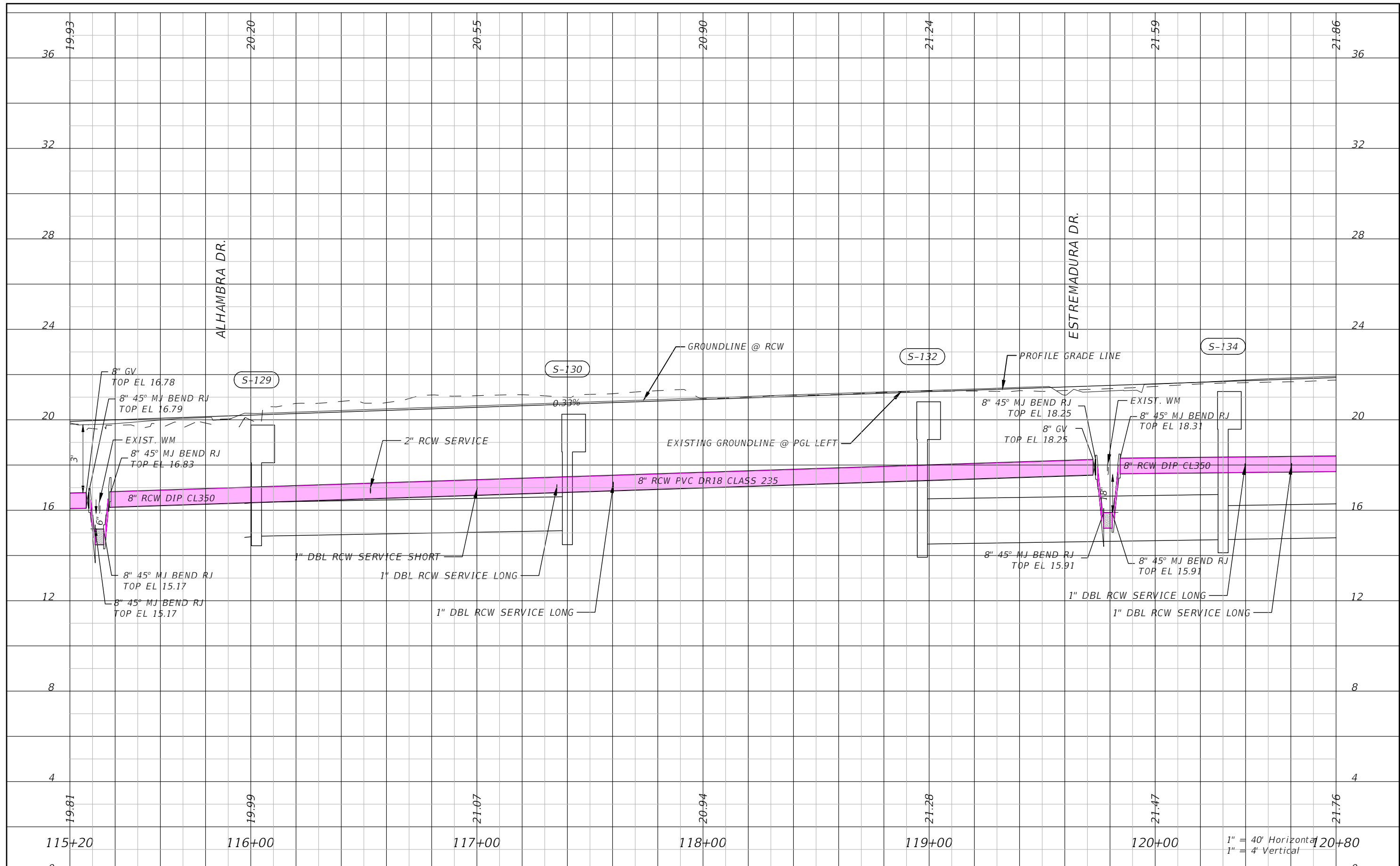


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76TH STREET WEST FROM
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UTILITY RELOCATION PROFILE

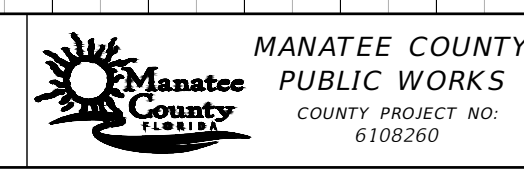
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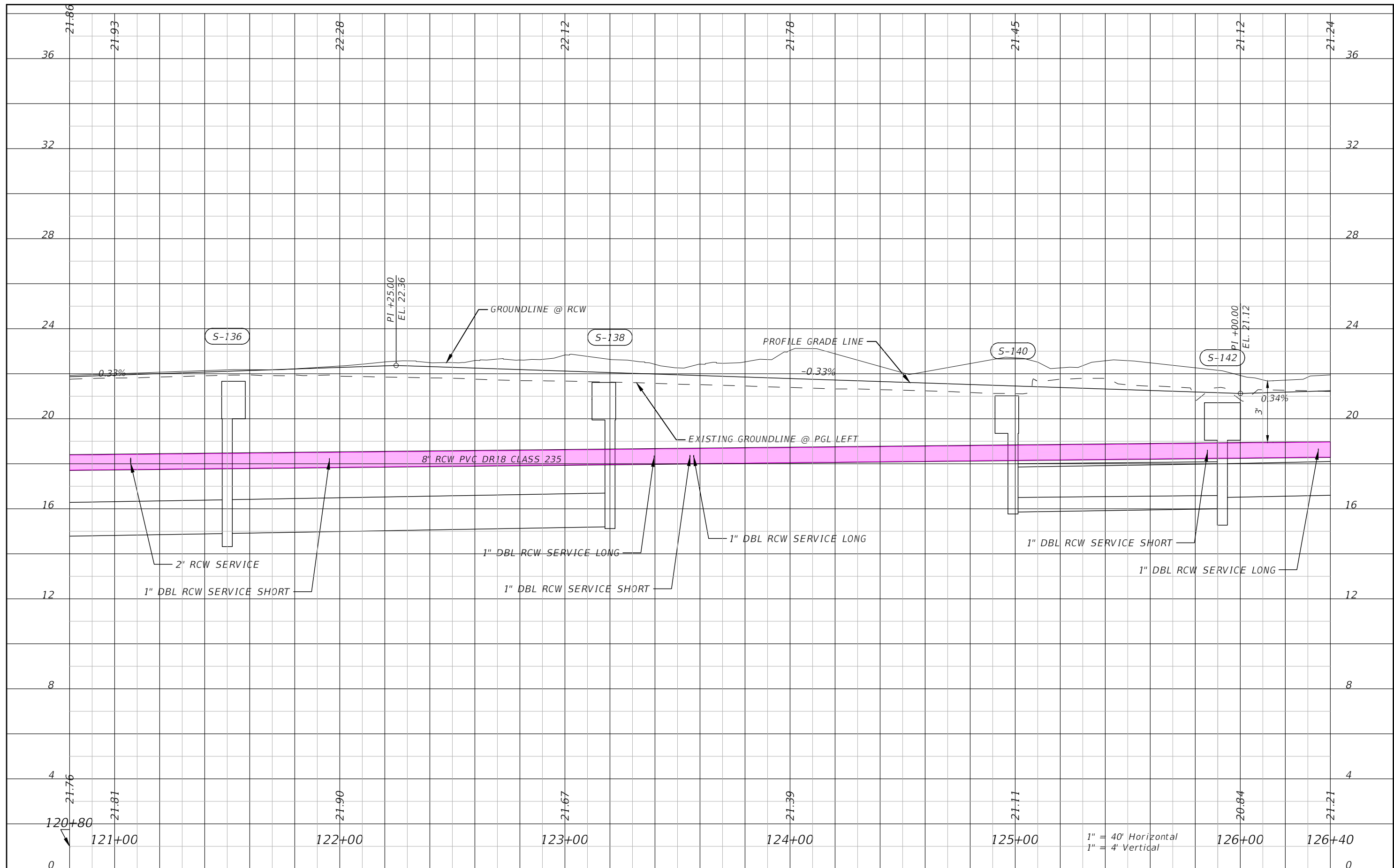
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76TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATION PROFILE

SHEET NO.
 U-19

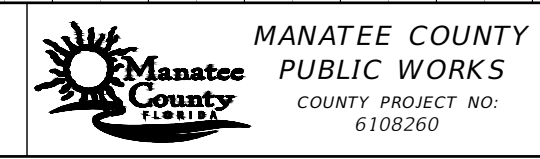
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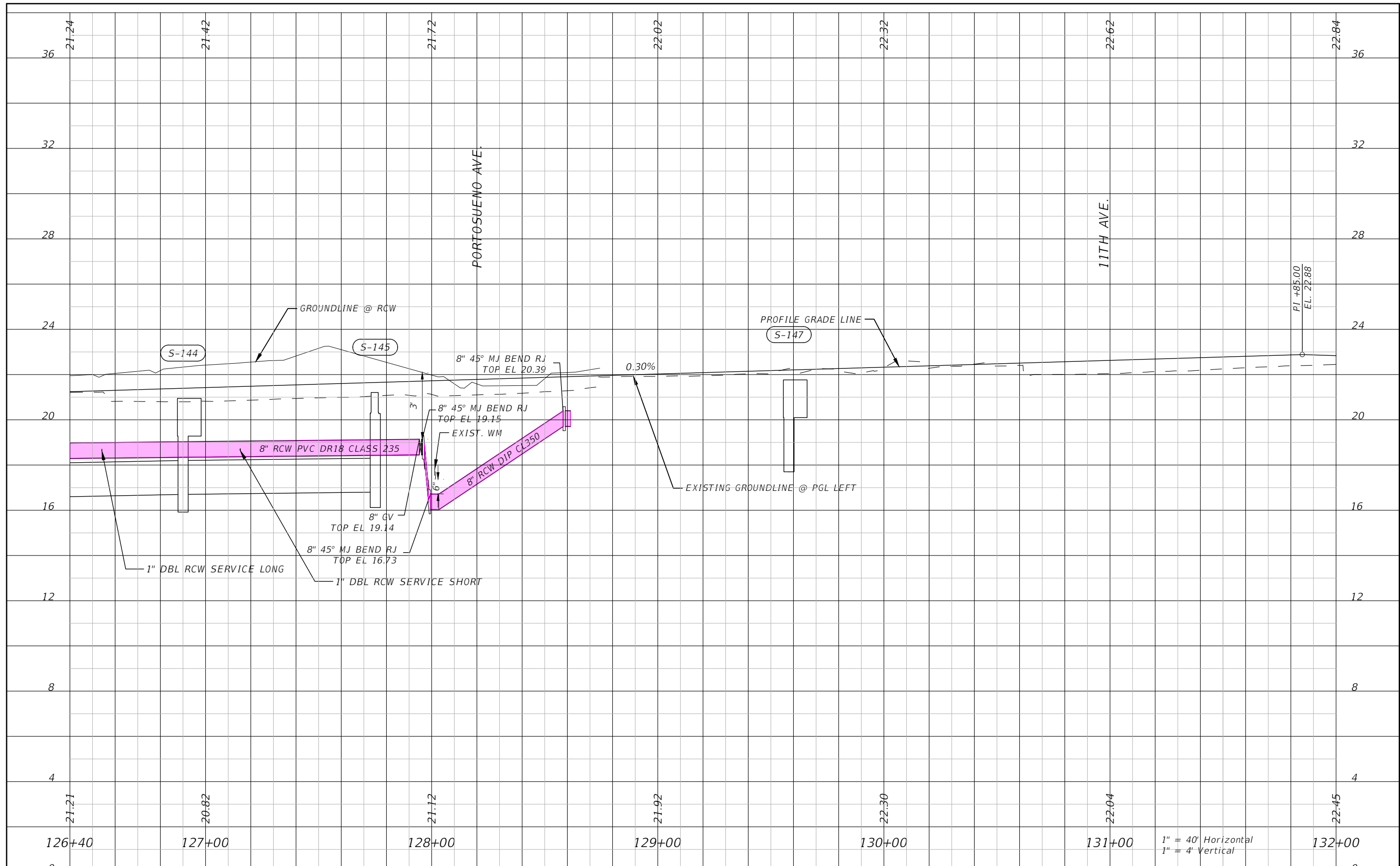
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76TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATION PROFILE

SHEET NO.
 U-20

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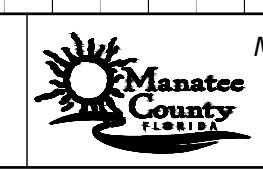


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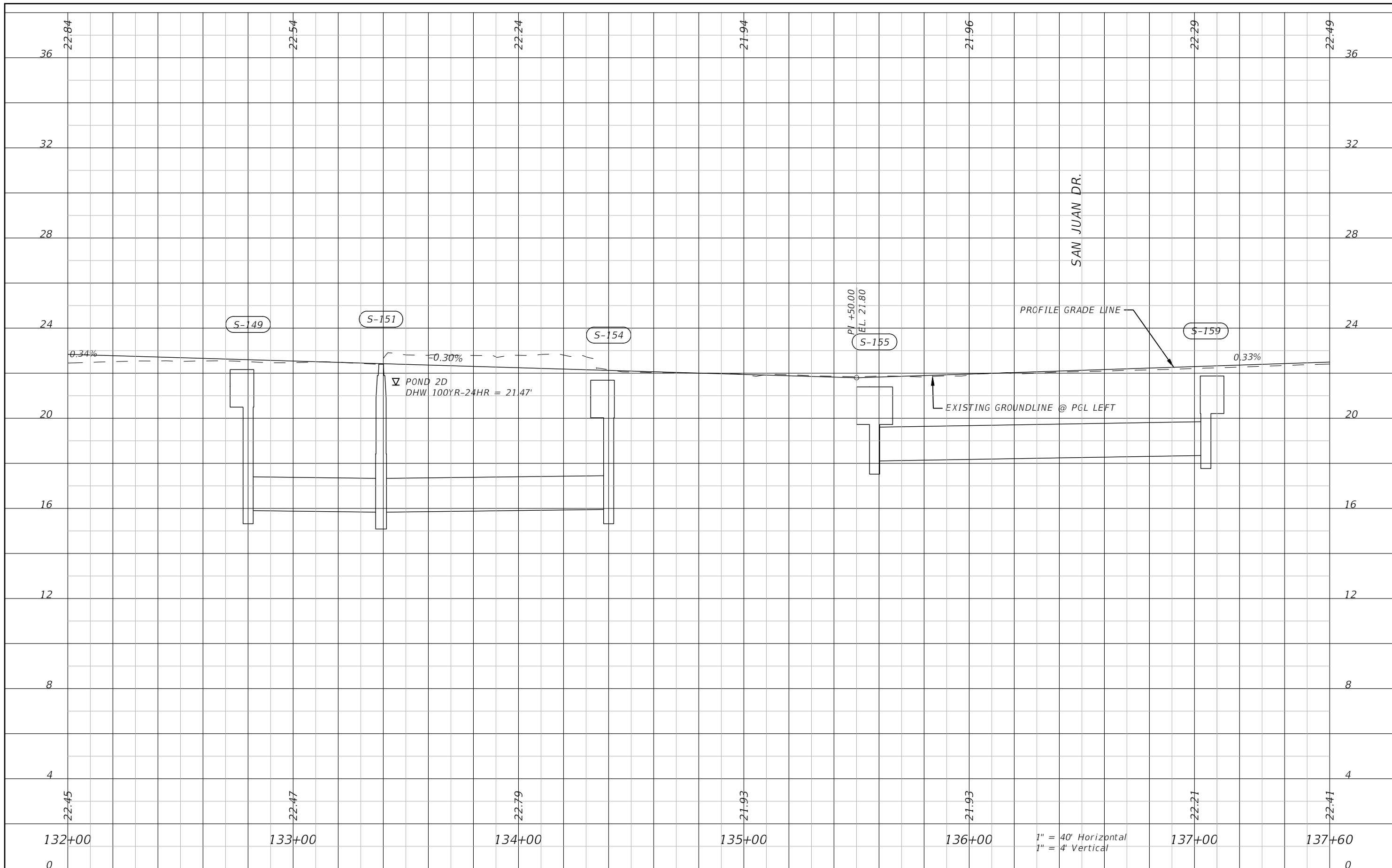
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MANATEE COUNTY
 PUBLIC WORKS
 COUNTY PROJECT NO:
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76TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATION PROFILE

SHEET NO.
 U-21



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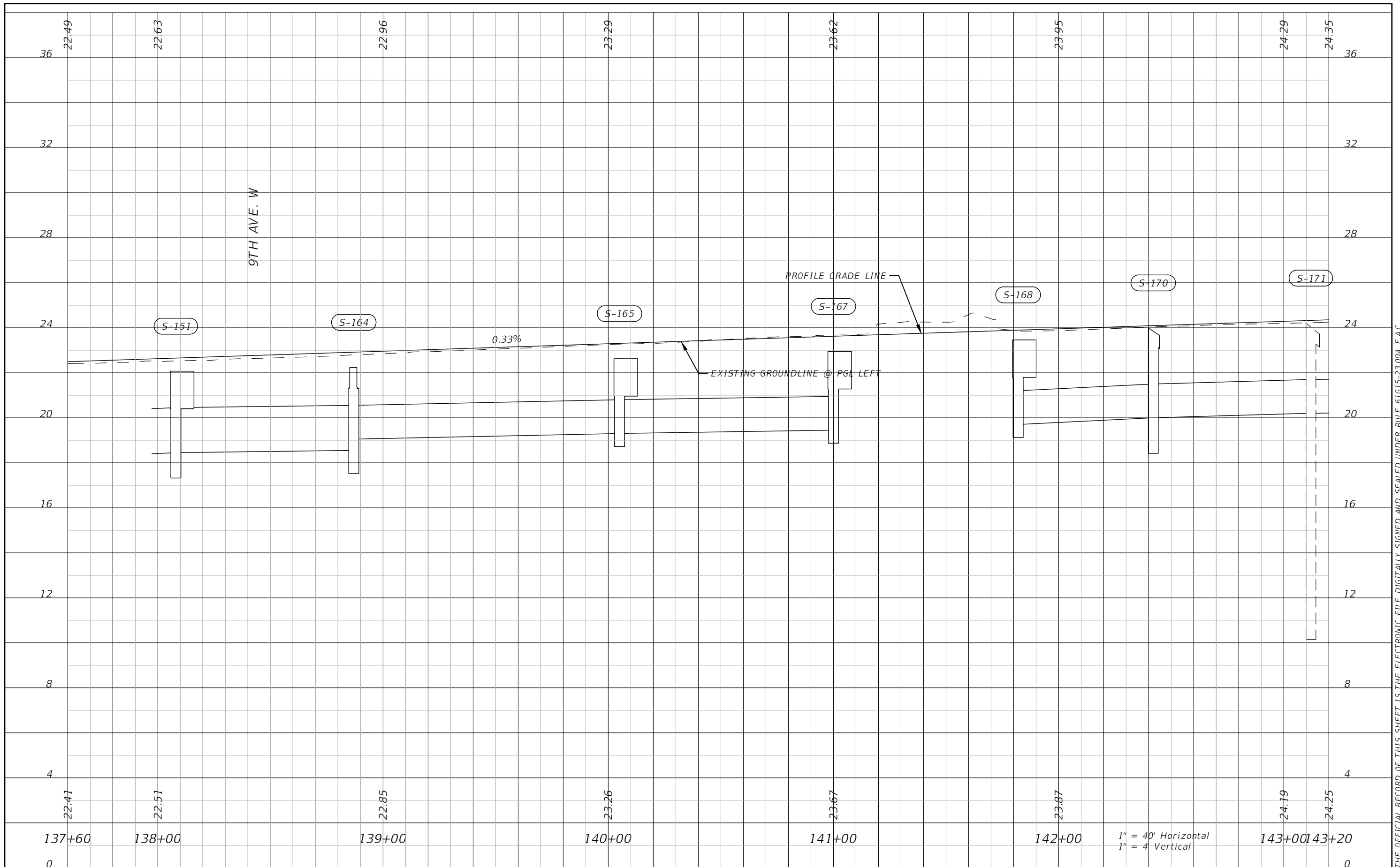
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MANATEE COUNTY
 PUBLIC WORKS
 COUNTY PROJECT NO:
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76TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATION PROFILE

SHEET NO.
 U-22



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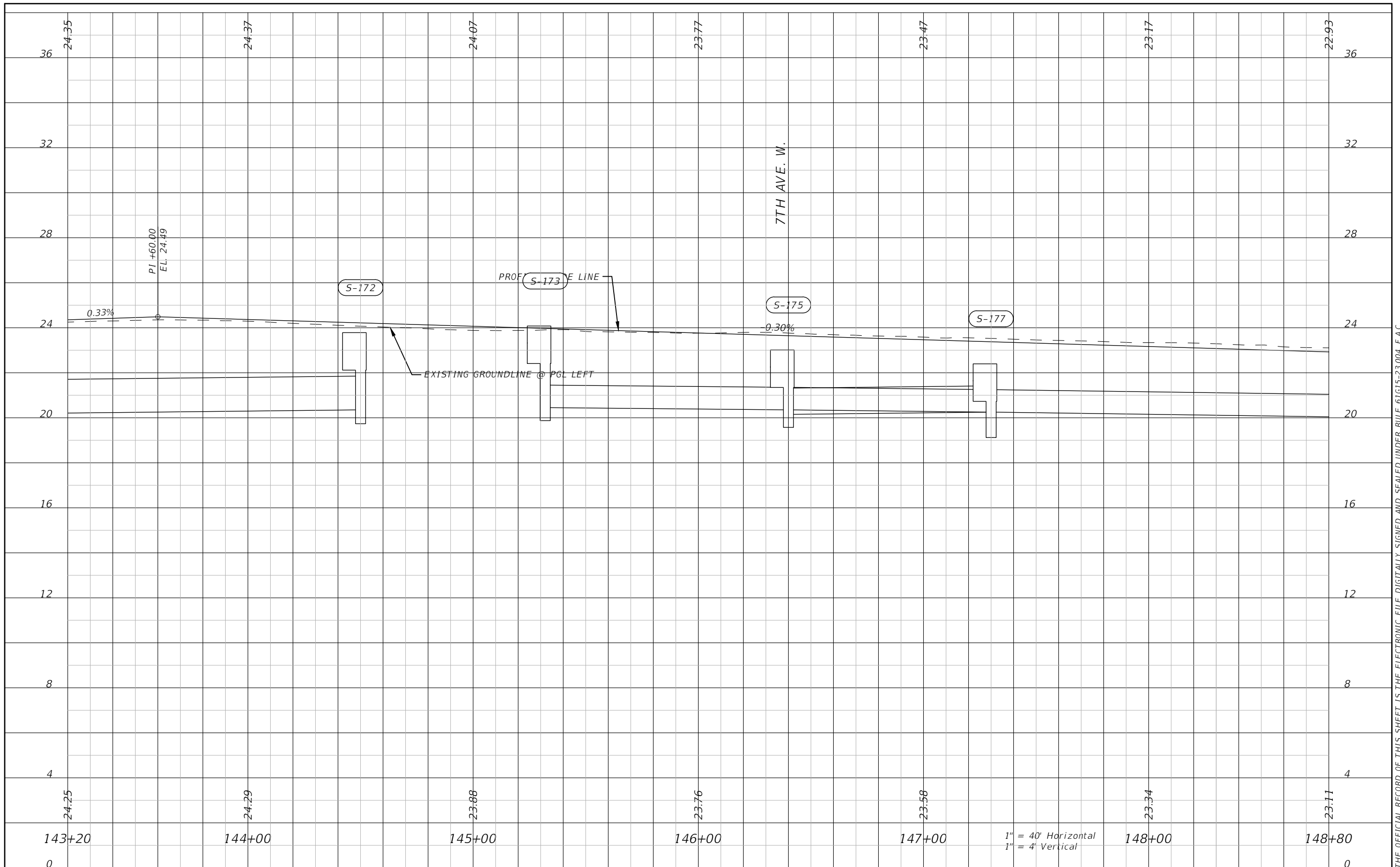
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MANATEE COUNTY
PUBLIC WORKS
COUNTY PROJECT NO:
6108260

76TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATION PROFILE

SHEET
NO.
U-23



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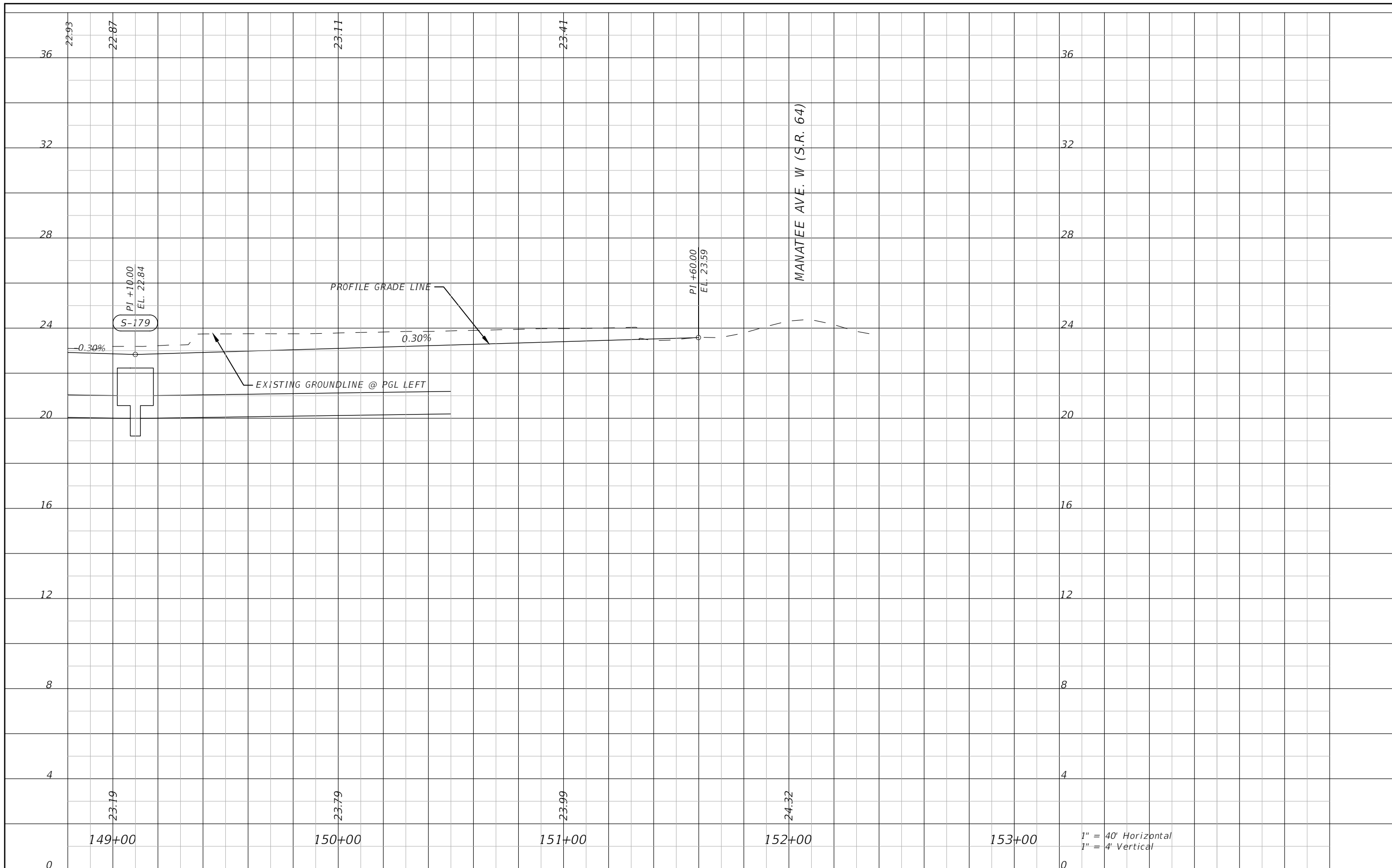
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MANATEE COUNTY
 PUBLIC WORKS
 COUNTY PROJECT NO:
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76TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATION PROFILE

SHEET NO.
 U-24



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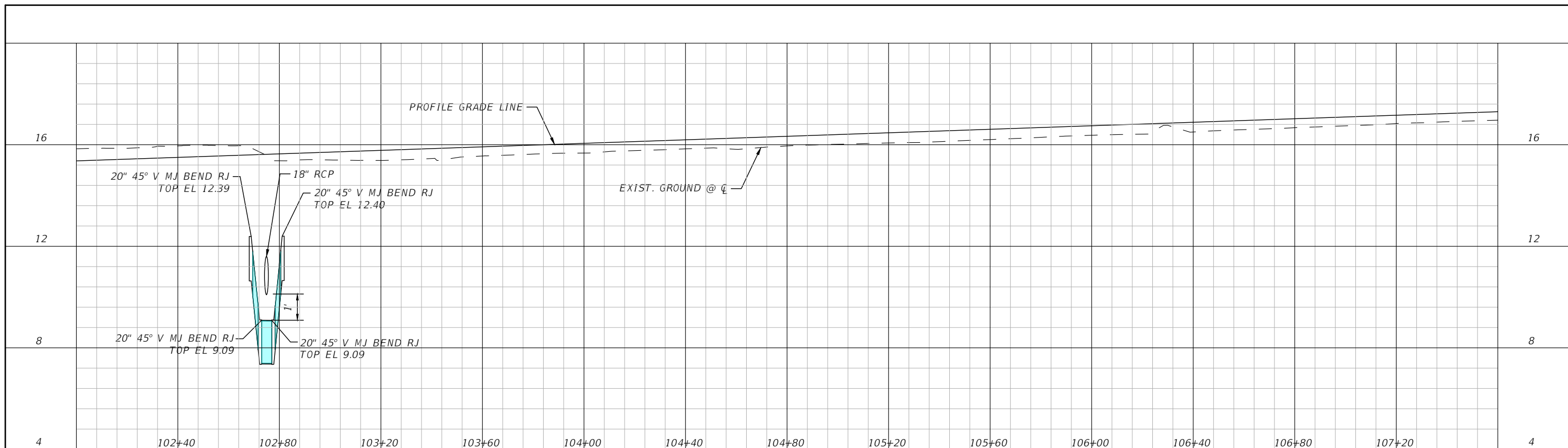
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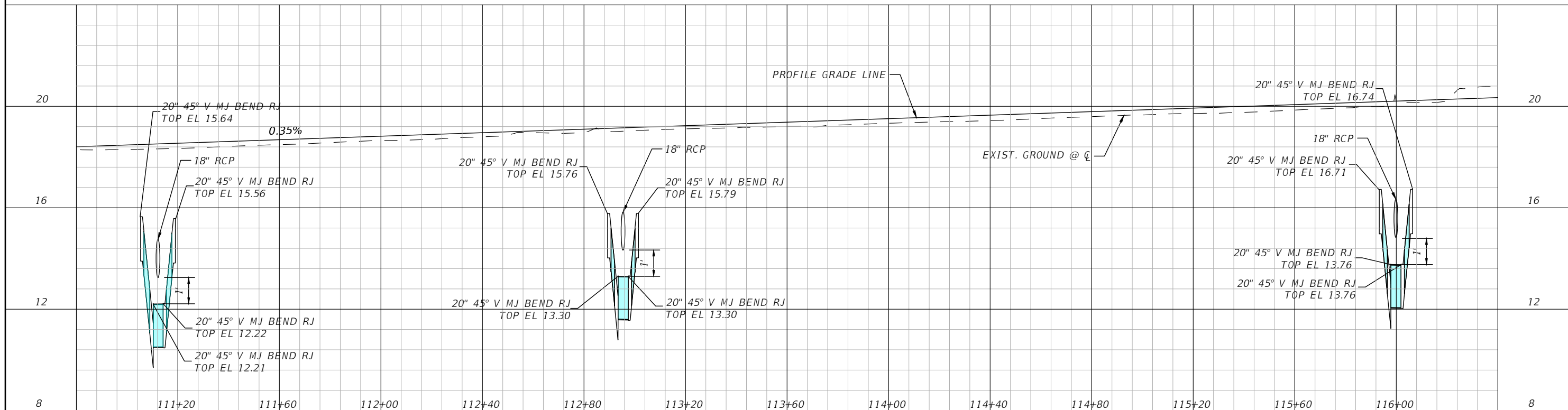
MANATEE COUNTY
 PUBLIC WORKS
 COUNTY PROJECT NO:
 6108260

76TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATION PROFILE

SHEET NO.
 U-25



1" = 40' Horizontal
1" = 4' Vertical



1" = 40' Horizontal
1" = 4' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	BY
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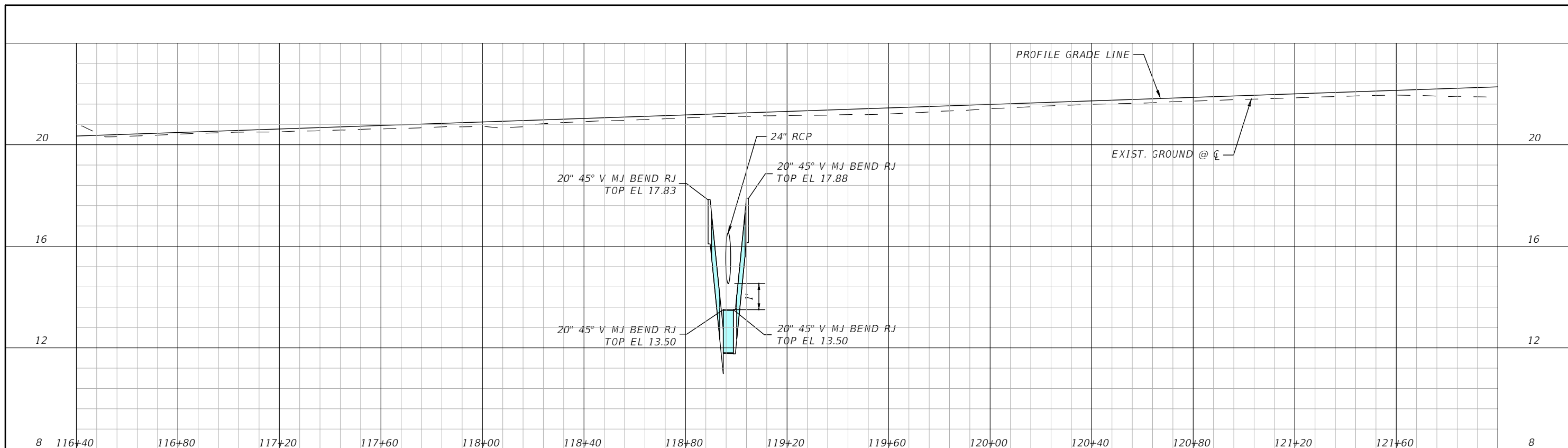
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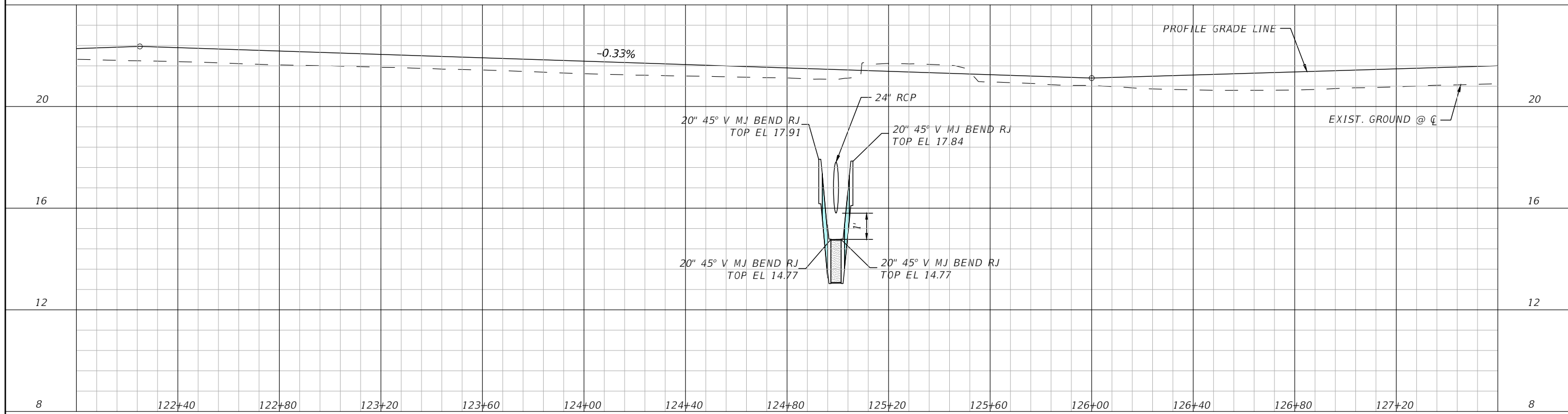
MANATEE COUNTY
PUBLIC WORKS
COUNTY PROJECT NO:
6108260

76TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATION PROFILE

SHEET NO.
U-26



1" = 40' Horizontal
1" = 4' Vertical



1" = 40' Horizontal
1" = 4' Vertical

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DATE	DESCRIPTION	DATE	BY
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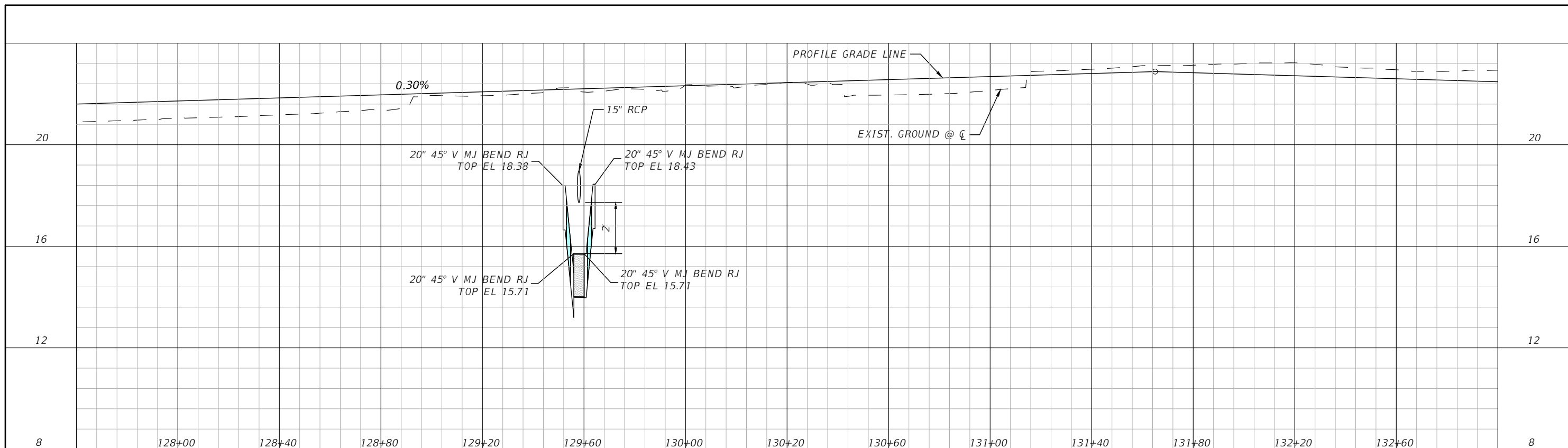


MANATEE COUNTY
PUBLIC WORKS
COUNTY PROJECT NO:
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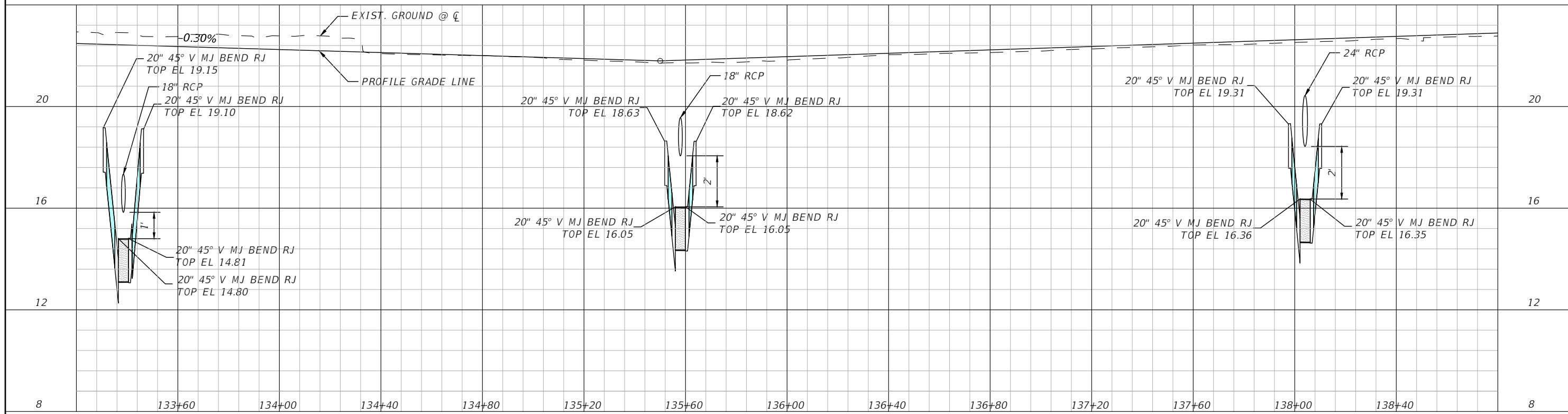
76TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATION PROFILE

SHEET NO.
U-27

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1" = 40' Horizontal
1" = 4' Vertical



1" = 40' Horizontal
1" = 4' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	BY
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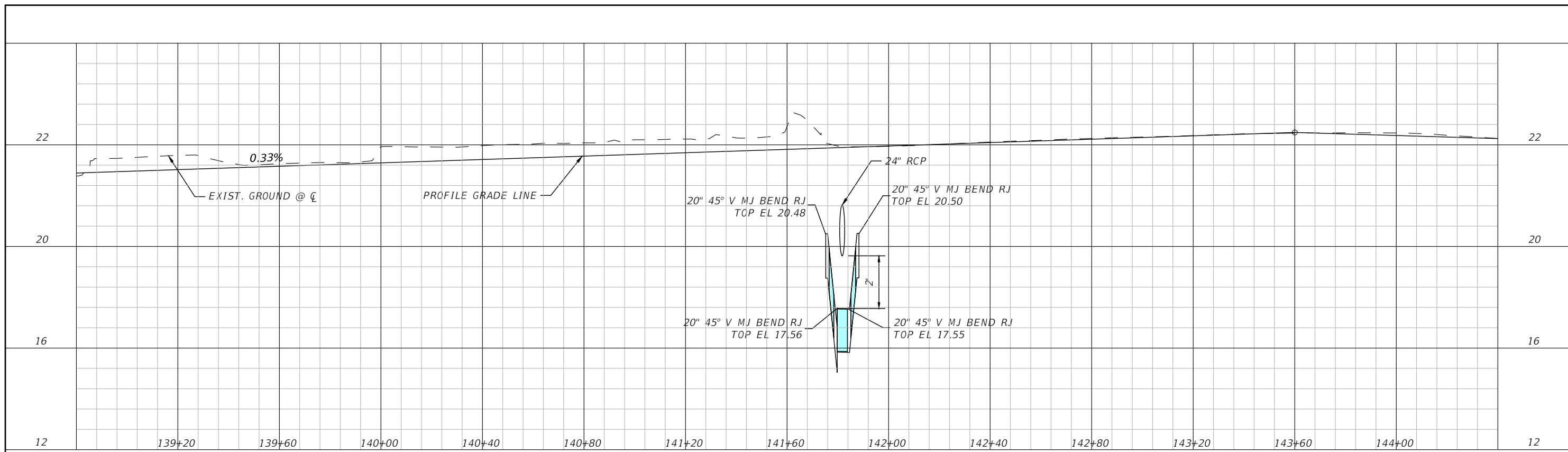


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PUBLIC WORKS
COUNTY PROJECT NO:
6108260

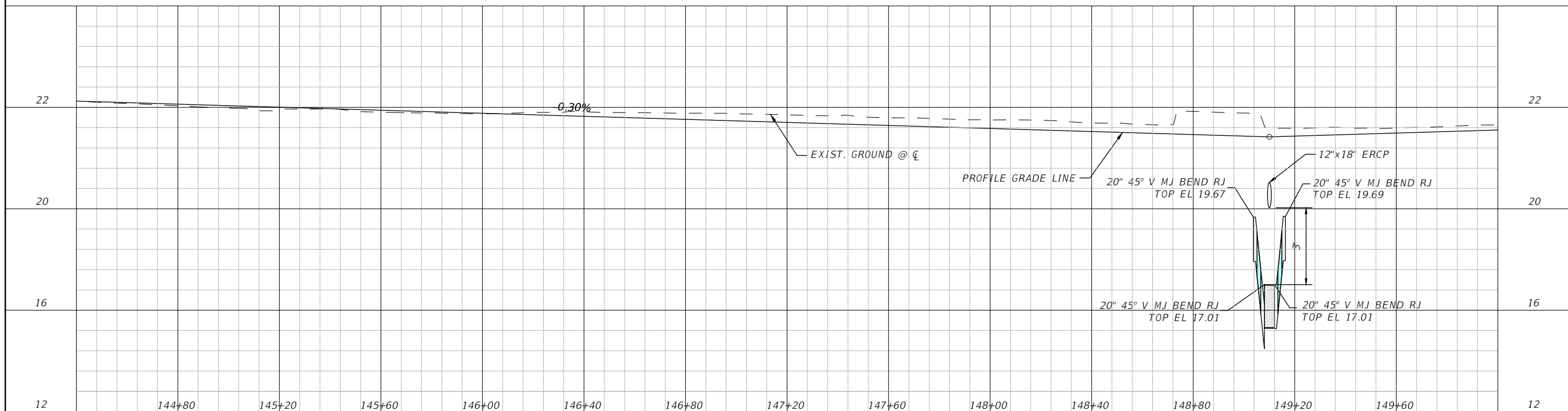
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UTILITY RELOCATION PROFILE

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U-28

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1" = 40' Horizontal
1" = 4' Vertical



1" = 40' Horizontal
1" = 4' Vertical

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DATE	DESCRIPTION	DATE	BY
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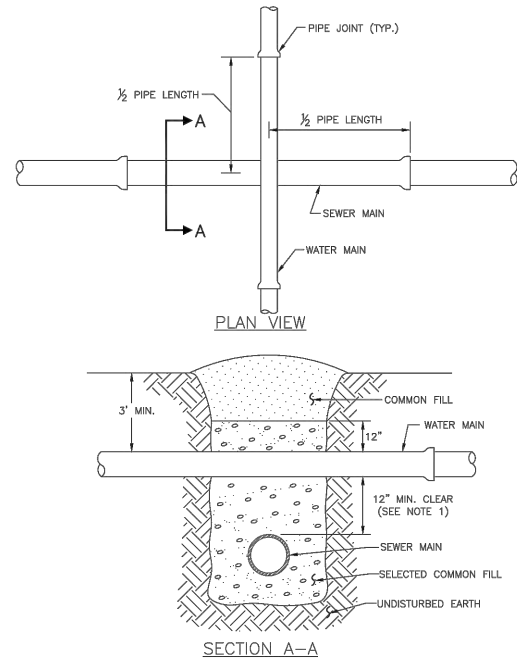


MANATEE COUNTY
PUBLIC WORKS
COUNTY PROJECT NO:
6108260

76TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
UTILITY RELOCATION PROFILE

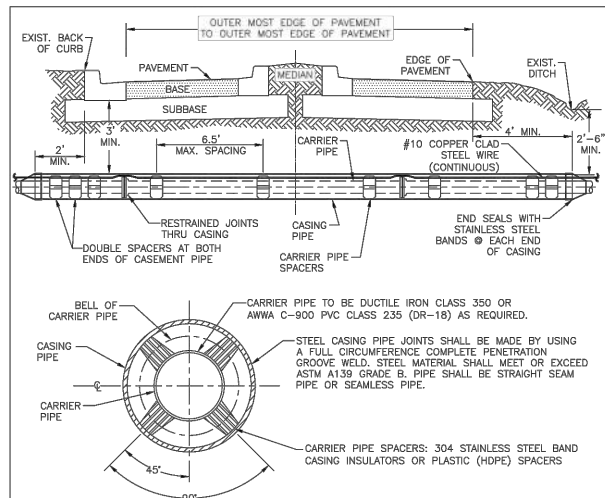
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- NOTES:**
- CLEARANCE MAY BE REDUCED TO 6" FOR GRAVITY SEWER WHERE WATER MAIN IS DUCTILE IRON.
 - PIPE SECTIONS SHALL BE FULL-LENGTH AND SHALL BE ADJUSTED HORIZONTALLY, SO THAT THE CROSSING IS AT EACH PIPE SECTION'S MIDPOINT REGARDLESS OF THE VERTICAL CLEARANCE.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TYPICAL NEW WATER & SEWER LINE CROSSING	UG-2
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		



CARRIER SIZE & MINIMUM CASING SIZE	
CARRIER	4" 6" 8" 10" 12" 16" 18" 20"
CASING	12" 14" 18" 20" 24" 30" 36" 36"
CASING / WALL THICKNESS	0.188 0.188 0.250 0.250 0.344 0.406 0.406 0.406

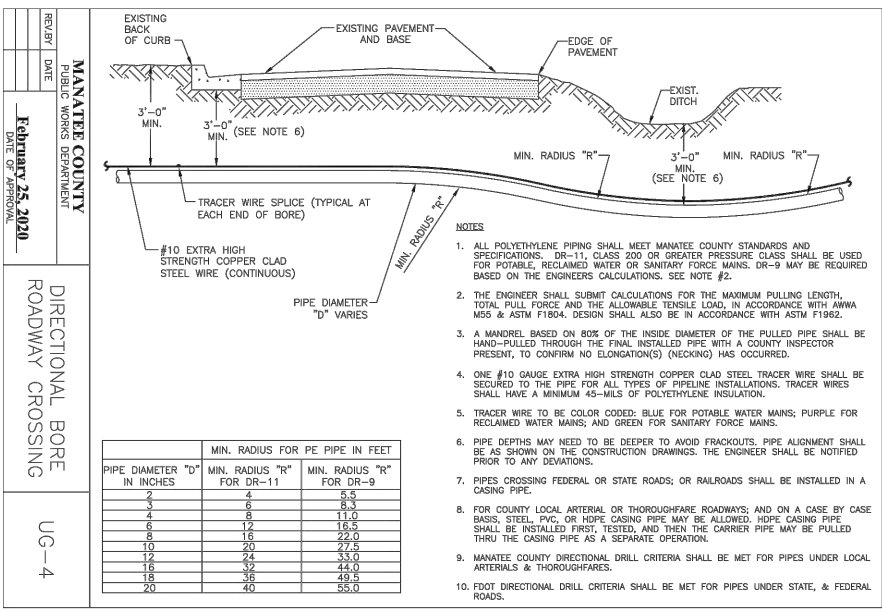
STEEL CASING SIZES	
CARRIER	4" 6" 8" 10" 12" 16" 18" 20"
CASING	8" 12" 18" 20" 24" 30" 36" 36"

CARRIER SIZE & MINIMUM CASING SIZE	
CARRIER	4" 6" 8" 10" 12" 16" 18" 20"
CASING	8" 12" 18" 20" 24" 30" 36" 36"

PVC/HDPE CASING SIZES

- NOTES:**
- THE ENGINEER OF RECORD MAY SELECT A LARGER CASING DIAMETERS, INCREASE WALL THICKNESS, AND/OR INCREASE DEPTH OF BURY DUE TO EXTERNAL LOADS WITH COUNTY APPROVAL PRIOR TO PERFORMING THE WORK.
 - ALL PIPES CROSSINGS OF FEDERAL OR STATE ROADS; OR RAILROADS SHALL BE INSTALLED IN A CASING PIPE.
 - ALL PIPES CROSSINGS OF COUNTY LOCAL ARTERIAL AND THROUGHFARE ROADWAYS SHALL BE IN A CASING PIPE.
 - SPLIT-STEEL CASINGS MAY BE USED ON EXISTING COUNTY MAINS ONLY.
 - FOR JACK & BORE SPECIFICATIONS UNDER STATE ROADS AND RAILROADS, REFER TO THE F.D.O.T. UTILITY ACCOMMODATION MANUAL, LATEST EDITION.
 - HDPE CASING SHALL HAVE ALL WELD BEADS REMOVED FROM THE INSIDE SURFACE SUCH THAT THE JOINT SURFACES SHALL BE SMOOTH.
 - *14-INCH DIAMETER MAINS ARE NOT TO BE INSTALLED.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		CASING CROSSING	UG-3
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		



- NOTES:**
- ALL POLYETHYLENE PIPING SHALL MEET MANATEE COUNTY STANDARDS AND SPECIFICATIONS. DR-11, CLASS 200 OR GREATER PRESSURE CLASS SHALL BE USED FOR POTABLE, RECLAIMED WATER OR SANITARY FORCE MAINS. DR-9 MAY BE REQUIRED BASED ON THE ENGINEER'S CALCULATIONS. SEE NOTE #2.
 - THE ENGINEER SHALL SUBMIT CALCULATIONS FOR THE MAXIMUM PULLING LENGTH, TOTAL PULL FORCE AND THE ALLOWABLE TENSILE LOAD, IN ACCORDANCE WITH ANWVA MMS & ASTM F1964. DESIGN SHALL ALSO BE IN ACCORDANCE WITH ASTM F1962.
 - A MANDREL BASED ON 80% OF THE INSIDE DIAMETER OF THE PULLED PIPE SHALL BE HAND-PULLED THROUGH THE FINAL INSTALLED PIPE WITH A COUNTY INSPECTOR PRESENT, TO CONFIRM NO ELONGATION(S) (NECKING) HAS OCCURRED.
 - ONE #10 GAUGE EXTRA HIGH STRENGTH COPPER CLAD STEEL TRACER WIRE SHALL BE SECURED TO THE PIPE FOR ALL TYPES OF PIPELINE INSTALLATIONS. TRACER WIRES SHALL HAVE A MINIMUM 45-MILS OF POLYETHYLENE INSULATION.
 - TRACER WIRE TO BE COLOR CODED: BLUE FOR POTABLE WATER MAINS; PURPLE FOR RECLAIMED WATER MAINS; AND GREEN FOR SANITARY FORCE MAINS.
 - PIPE DEPTHS MAY NEED TO BE DEEPER TO AVOID FRACKOUTS. PIPE ALIGNMENT SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS. THE ENGINEER SHALL BE NOTIFIED PRIOR TO ANY DEVIATIONS.
 - PIPES CROSSING FEDERAL OR STATE ROADS; OR RAILROADS SHALL BE INSTALLED IN A CASING PIPE.
 - FOR COUNTY LOCAL ARTERIAL OR THROUGHFARE ROADWAYS; AND ON A CASE BY CASE BASIS, STEEL, PVC, OR HDPE CASING PIPE MAY BE ALLOWED. HDPE CASING PIPE SHALL BE INSTALLED FIRST, TESTED, AND THEN THE CARRIER PIPE MAY BE PULLED THRU THE CASING PIPE AS A SEPARATE OPERATION.
 - MANATEE COUNTY DIRECTIONAL DRILL CRITERIA SHALL BE MET FOR PIPES UNDER LOCAL ARTERIALS & THROUGHFARES.
 - FOOT DIRECTIONAL DRILL CRITERIA SHALL BE MET FOR PIPES UNDER STATE, & FEDERAL ROADS.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		DIRECTIONAL BORE	UG-4
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		

REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR C900-16 PVC PIPE (DR-18)

MAIN PIPE SIZE	HORIZ. BENDS			TEES		REDUCERS		PLUGS & VALVES
	90°	45°	22.5°	SIZE	LENGTH	SIZE	LENGTH	
24	90	38	18	X24	X20	X18	X16	214
20	78	32	16	X20	X18	X16	X14	184
16	66	27	13	X16	X14	X12	X10	151
12	52	22	10	X12	X10	X8	X6	118
10	44	18	9	X10	X8	X6	X4	100
8	37	15	7	X8	X6	X4	X3	83
6	29	12	6	X6	X4	X3	X2	63
4	21	8	4	X4	X3	X2	X1	45

- NOTES:**
- RESTRAIN 11.25° BENDS 50% OF LENGTH FOR 22.5° BENDS.
 - ALL VALVES AND FITTINGS SHALL BE RESTRAINED TO THE CONNECTING SECTIONS OF PIPE.
 - ALL ISOLATION VALVES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI TEST PRESSURE IN EITHER DIRECTION.
 - PIPE SIZES ARE GIVEN IN INCHES.
 - RESTRAINED PIPE LENGTHS ARE GIVEN IN FEET.
 - LENGTHS SHOWN ARE FOR A TEST PRESSURE OF 180 PSI.
 - THE RESTRAINED LENGTHS SHOWN IN THESE TABLES ARE BASED ON SOIL CLASSIFICATION SP WITH ANWVA TYPE 3 TRENCH CONDITIONS, 180 PSI TEST PRESSURE, 3 FEET OF COVER AND 1.5 FACTOR OF SAFETY. ACTUAL BURY CONDITIONS MUST BE DETERMINED BY THE ENGINEER OF RECORD AND THE RESTRAINED LENGTHS MODIFIED ACCORDINGLY.
 - RESTRAINED LENGTHS TO BE APPLIED TO PIPELINES PER DETAIL UG-10 RESTRAINED LENGTHS FOR PIPE.
 - ALL RESTRAINED JOINT HARDWARE SHALL CONFORM TO 1.11.17 OF THE PUBLIC WORKS UTILITIES STANDARDS MANUAL.
 - ALL THREE "LEGS" OF TEES SHALL BE RESTRAINED PER THE STATED LENGTH IN THE TABLE.

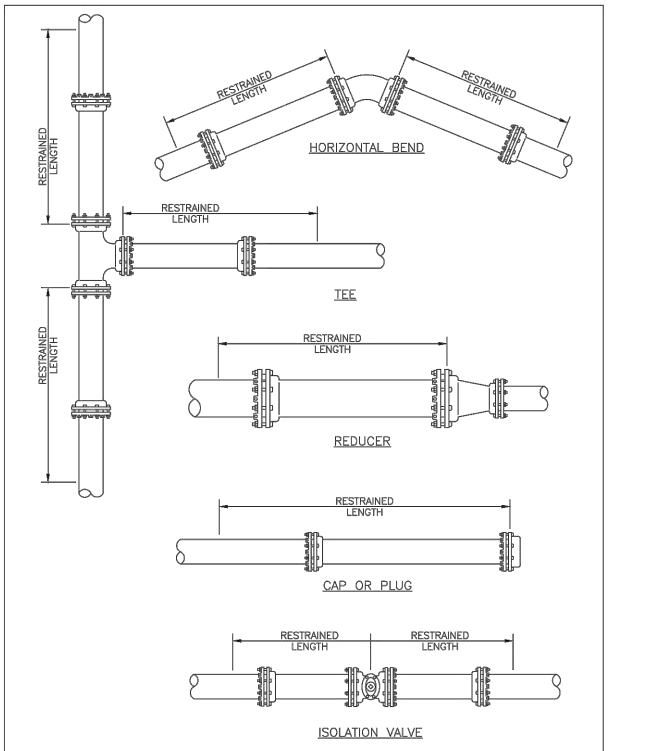
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		RESTRAINED LENGTHS FOR PVC PIPE	UG-8
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		

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

MAIN PIPE SIZE	HORIZ. BENDS			TEES		REDUCERS		PLUGS & VALVES
	90°	45°	22.5°	SIZE	LENGTH	SIZE	LENGTH	
36	142	59	28	X36	X30	X24	X18	453
30	124	51	25	X30	X24	X18	X12	391
24	106	44	21	X24	X18	X12	X8	327
20	92	38	18	X20	X15	X10	X6	280
16	77	32	15	X16	X12	X8	X4	231
12	61	25	12	X12	X9	X6	X3	181
10	52	22	10	X10	X7	X4	X2	153
8	44	18	9	X8	X6	X4	X2	128
6	34	14	7	X6	X4	X3	X1	98
4	24	10	5	X4	X3	X2	X1	69

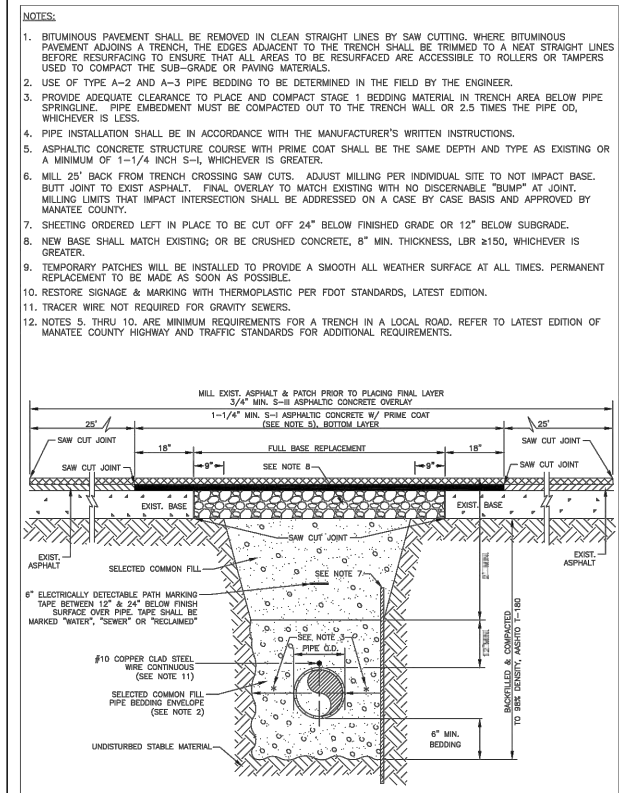
- NOTE:**
- SEE UG-8, RESTRAINED LENGTHS FOR PVC PIPE DETAIL FOR NOTES 1 THROUGH 9 THAT ARE ALSO APPLICABLE TO RESTRAINED LENGTHS FOR DIP.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		RESTRAINED LENGTHS FOR DIP	UG-9
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		



- NOTE:**
- SEE DETAIL UG-8 RESTRAINED LENGTHS FOR PVC PIPE FOR NOTES 1 THROUGH 9 THAT ARE ALSO APPLICABLE TO RESTRAINED LENGTHS FOR PIPE.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		RESTRAINED LENGTHS FOR PIPE	UG-10
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		



- NOTES:**
- BITUMINOUS PAVEMENT SHALL BE REMOVED IN CLEAN STRAIGHT LINES BY SAW CUTTING. WHERE BITUMINOUS PAVEMENT ADJACENT TO THE TRENCH SHALL BE TRIMMED TO A NEAT STRAIGHT LINE BEFORE RESURFACING TO ENSURE THAT ALL AREAS TO BE RESURFACED ARE ACCESSIBLE TO ROLLERS OR TAMPERS USED TO COMPACT THE SUB-GRADE OR PAVING MATERIALS.
 - USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
 - PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
 - PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - ASPHALTIC CONCRETE STRUCTURE COURSE WITH PRIME COAT SHALL BE THE SAME DEPTH AND TYPE AS EXISTING OR A MINIMUM OF 1-1/4 INCH S-L, WHICHEVER IS GREATER.
 - MILL 25' BACK FROM TRENCH CROSSING SAW CUTS. ADJUST MILLING PER INDIVIDUAL SITE TO NOT IMPACT BASE. BUTT JOINT TO EXIST ASPHALT. FINAL OVERLAY TO MATCH EXISTING WITH NO DISCERNABLE "BUMP" AT JOINT. MILLING LIMITS THAT IMPACT INTERSECTION SHALL BE ADDRESSED ON A CASE BY CASE BASIS AND APPROVED BY MANATEE COUNTY.
 - SHEETING ORDERED LEFT IN PLACE TO BE CUT OFF 24" BELOW FINISHED GRADE OR 12" BELOW SUBGRADE.
 - NEW BASE SHALL MATCH EXISTING; OR BE CRUSHED CONCRETE, 6" MIN. THICKNESS, LBR ≥150, WHICHEVER IS GREATER.
 - TEMPORARY PATCHES WILL BE INSTALLED TO PROVIDE A SMOOTH ALL WEATHER SURFACE AT ALL TIMES. PERMANENT REPLACEMENT TO BE MADE AS SOON AS POSSIBLE.
 - RESTORE SIGNAGE & MARKING WITH THERMOPLASTIC PER FOOT STANDARDS, LATEST EDITION.
 - TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.
 - NOTES 5, THRU 10, ARE MINIMUM REQUIREMENTS FOR A TRENCH IN A LOCAL ROAD. REFER TO LATEST EDITION OF MANATEE COUNTY HIGHWAY AND TRAFFIC STANDARDS FOR ADDITIONAL REQUIREMENTS.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH ASPHALT PAVEMENT SURFACE TYPE A-1 PIPE BEDDING (CROSSING)	UG-12
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		

DATE	DESCRIPTION	DATE	BY
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KRISTINA CONNELLY, P.E.
P.E. LICENSE NUMBER 54805
1821 VICTORIA AVE.
FORT MYERS, FLORIDA, 33901



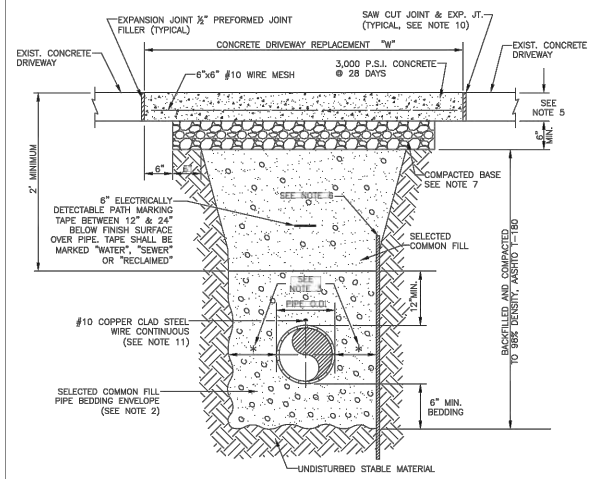
75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
STANDARD UTILITY DETAILS

SHEET NO.
U-30

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NOTES:

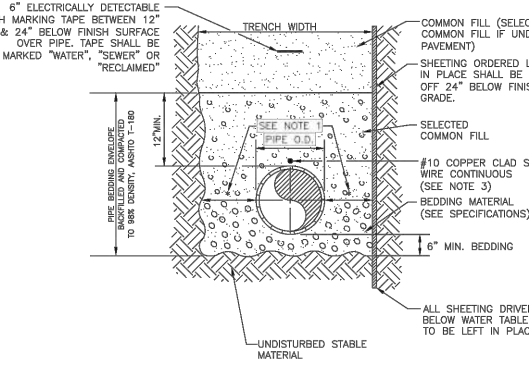
- CONCRETE PAVEMENT SHALL BE REMOVED WITH SAWED EDGES AND CUT AT A MINIMUM DEPTH OF ONE AND ONE-HALF (1-1/2"). IF A SAW CUT IN CONCRETE PAVEMENT FALLS WITHIN THREE FEET (3') OF A CONTRACTION JOINT, COOLD JOINT, EXPANSION JOINT OR EDGE, THE CONCRETE SHALL BE REMOVED TO THE JOINT OR EDGE. THE EDGES OF EXISTING CONCRETE PAVEMENT ADJACENT TO TRENCHES, WHICH HAD BEEN DAMAGED SUBSEQUENT TO SAW CUTTING OF PAVEMENT, SHALL BE SAW CUT TO NEAT STRAIGHT LINES FOR THE PURPOSE OF REMOVING THE DAMAGED PAVEMENT AREAS.
- USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
- PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- THICKNESS TO MATCH EXISTING OR BE 6" MINIMUM, WHICHEVER IS GREATER.
- SHEETING ORDERED LEFT IN PLACE TO BE CUT OFF 24" BELOW FINISH GRADE OR 12" BELOW SUBGRADE.
- BASE SHALL BE COMPACTED 6" MINIMUM THICKNESS OF APPROVED MATERIAL.
- DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADOPTED CONSTRUCTION STANDARDS OF THE MANATEE COUNTY TRANSPORTATION DEPARTMENT.
- IF THE DRIVEWAY IS 12" OR WIDER, SAWCUT AN EXPANSION JOINT ALONG THE CENTER OF THE DRIVEWAY (3/16" WIDE AND 1/8" DEEP) AFTER THE CONCRETE HAS SET.
- IF THERE IS AN EXISTING EXPANSION JOINT WITHIN 3' OF THE PROPOSED JOINT, EXTEND DRIVEWAY REPLACEMENT TO THE EXISTING JOINT.
- TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.



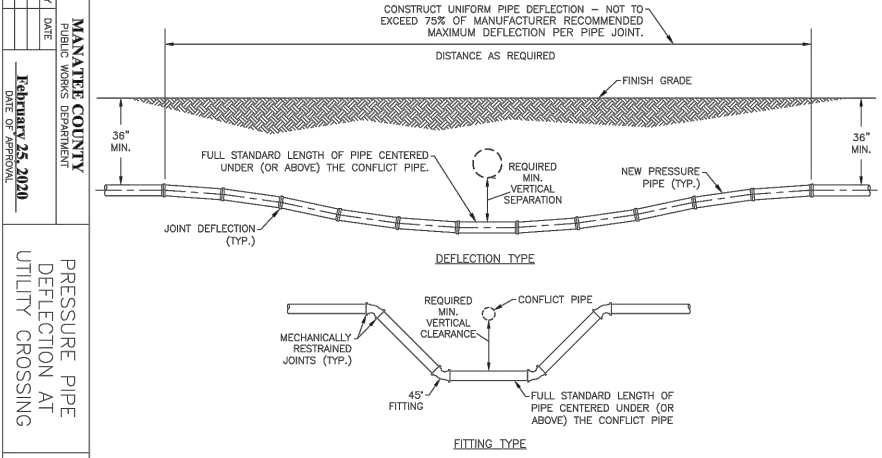
MANATEE COUNTY
PUBLIC WORKS DEPARTMENT
TRENCH WITH CONCRETE DRIVEWAY SURFACE TYPE A-1 PIPE BEDDING
REV. BY DATE
February 25, 2020
DATE OF APPROVAL
UG-14

NOTES:

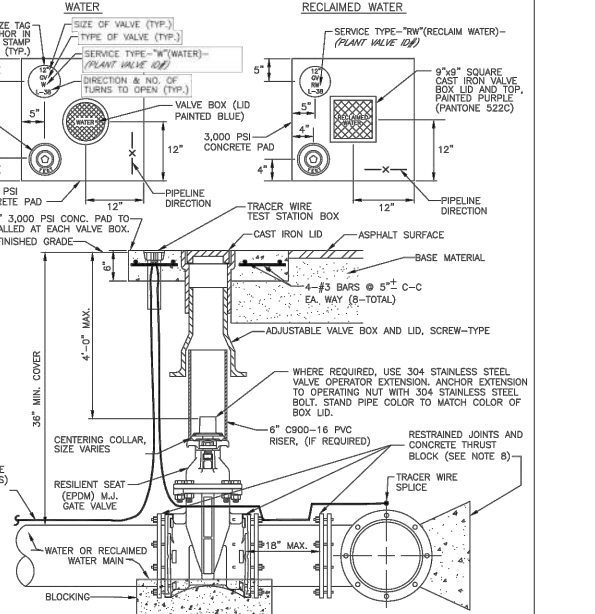
- PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
- PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
- TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.



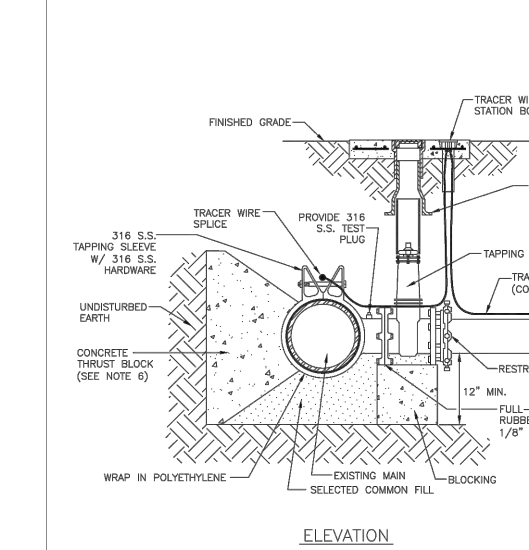
MANATEE COUNTY
PUBLIC WORKS DEPARTMENT
TRENCH WITH TYPE A-2 PIPE BEDDING
REV. BY DATE
February 25, 2020
DATE OF APPROVAL
UG-15



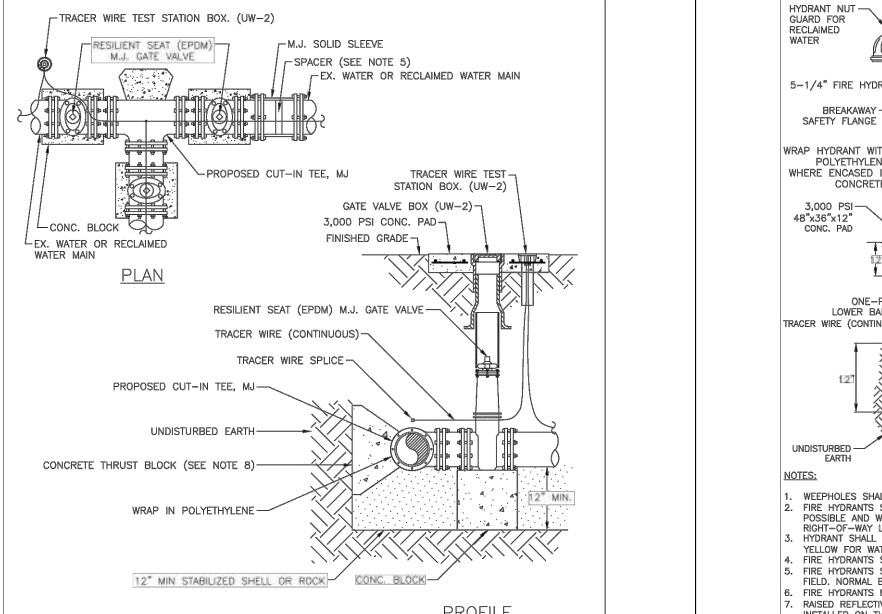
MANATEE COUNTY
PUBLIC WORKS DEPARTMENT
PRESSURE PIPE DEFLECTION AT UTILITY CROSSING
REV. BY DATE
February 25, 2020
DATE OF APPROVAL
UG-18



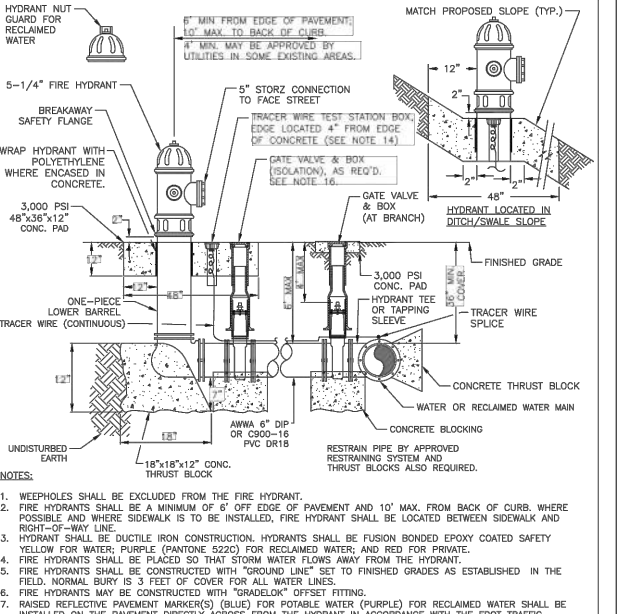
MANATEE COUNTY
PUBLIC WORKS DEPARTMENT
GATE VALVE, BOX, LID AND TAG
REV. BY DATE
February 25, 2020
DATE OF APPROVAL
UW-2



MANATEE COUNTY
PUBLIC WORKS DEPARTMENT
TAPPING SLEEVE AND VALVE (WATER/RECLAIM)
REV. BY DATE
February 25, 2020
DATE OF APPROVAL
UW-3



MANATEE COUNTY
PUBLIC WORKS DEPARTMENT
CUT-IN TEE
REV. BY DATE
February 25, 2020
DATE OF APPROVAL
UW-4



MANATEE COUNTY
PUBLIC WORKS DEPARTMENT
FIRE HYDRANT ASSEMBLY
REV. BY DATE
February 25, 2020
DATE OF APPROVAL
UW-5

DATE	DESCRIPTION	DATE	BY
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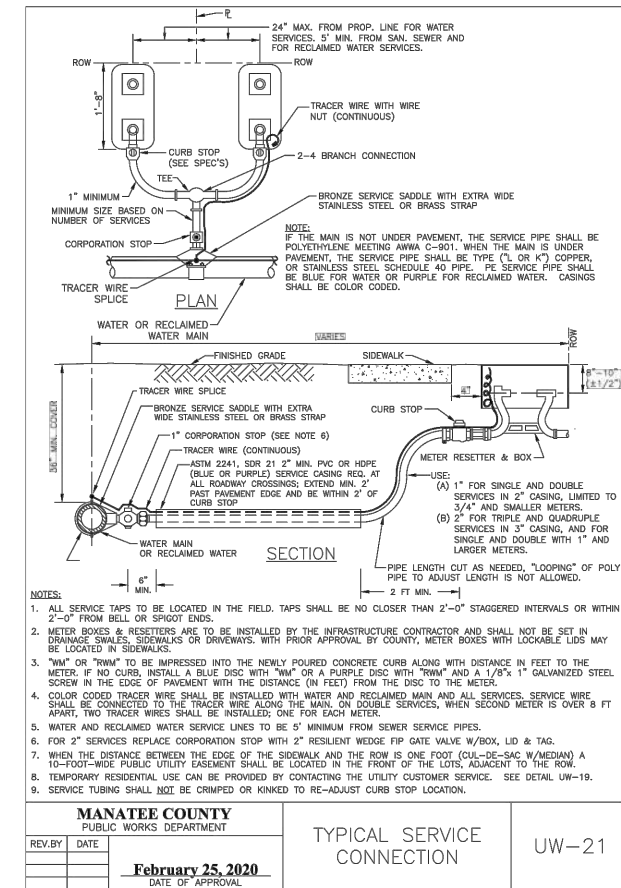
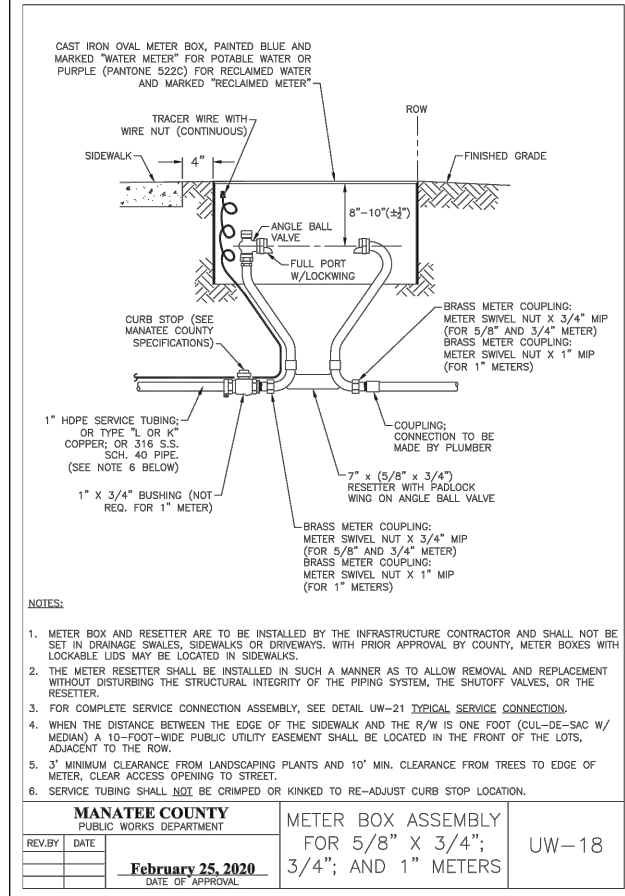
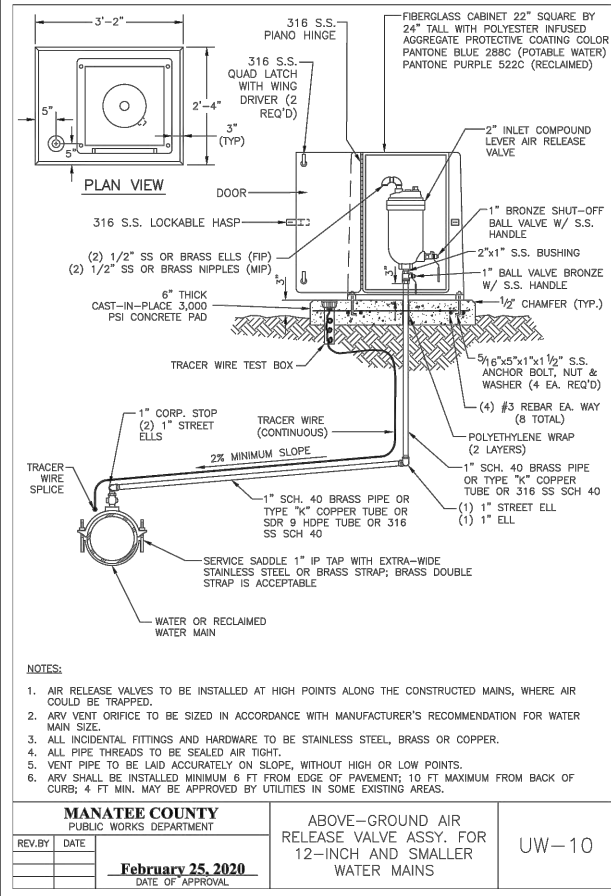
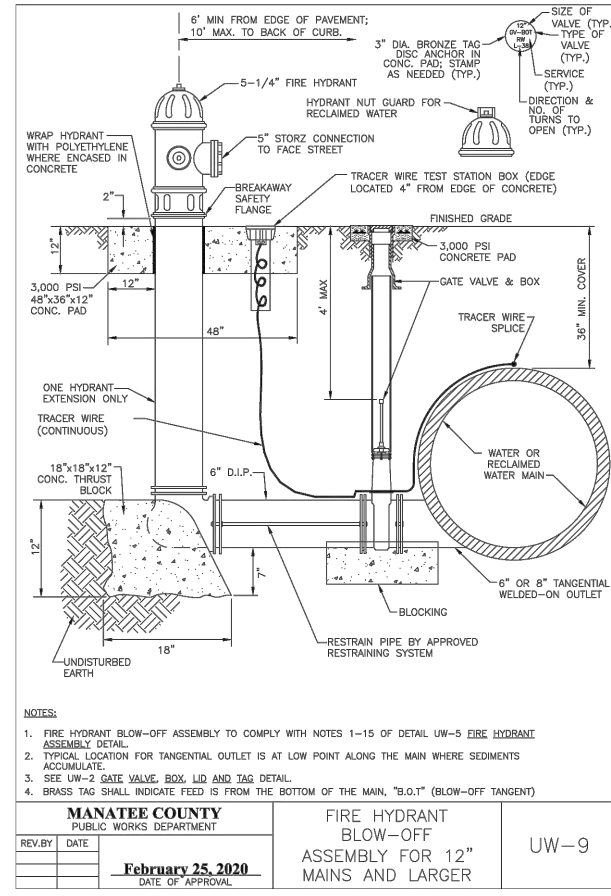
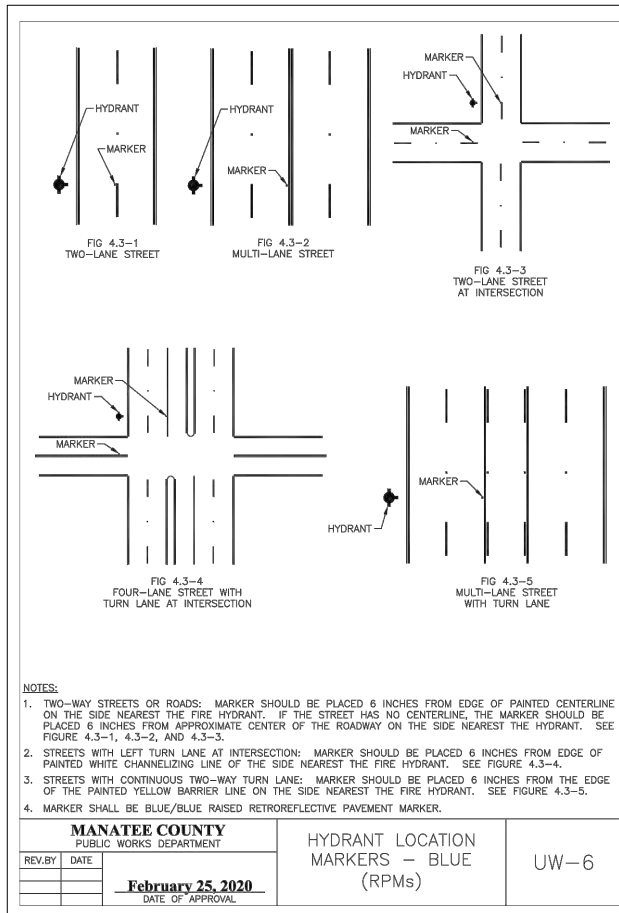
Stantec
STANTEC CONSULTING SERVICES, INC.

KRISTINA CONNELLY, P.E.
P.E. LICENSE NUMBER 54805
1821 VICTORIA AVE.
FORT MYERS, FLORIDA, 33901

Manatee County
PUBLIC WORKS
COUNTY PROJECT NO: 6108260

75TH STREET WEST FROM
20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
STANDARD UTILITY DETAILS
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.



DATE	DESCRIPTION	DATE	BY
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KRISTINA CONNELLY, P.E.
 P.E. LICENSE NUMBER 54805
 1821 VICTORIA AVE.
 FORT MYERS, FLORIDA, 33901



75TH STREET WEST FROM
 20TH AVENUE W. TO MANATEE AVENUE W. (SR 64)
 STANDARD UTILITY DETAILS

SHEET NO.
 U-32

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