

EXHIBIT 3

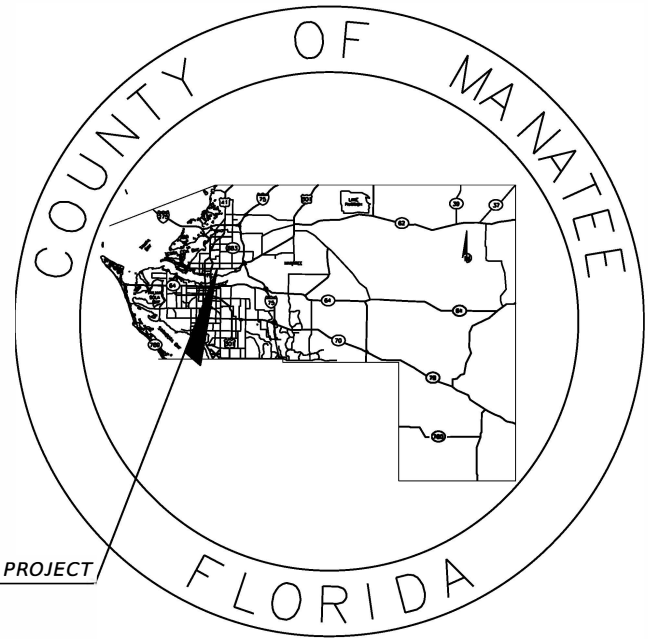
MANATEE COUNTY
PUBLIC WORKS DEPARTMENT

CONTRACT PLANS

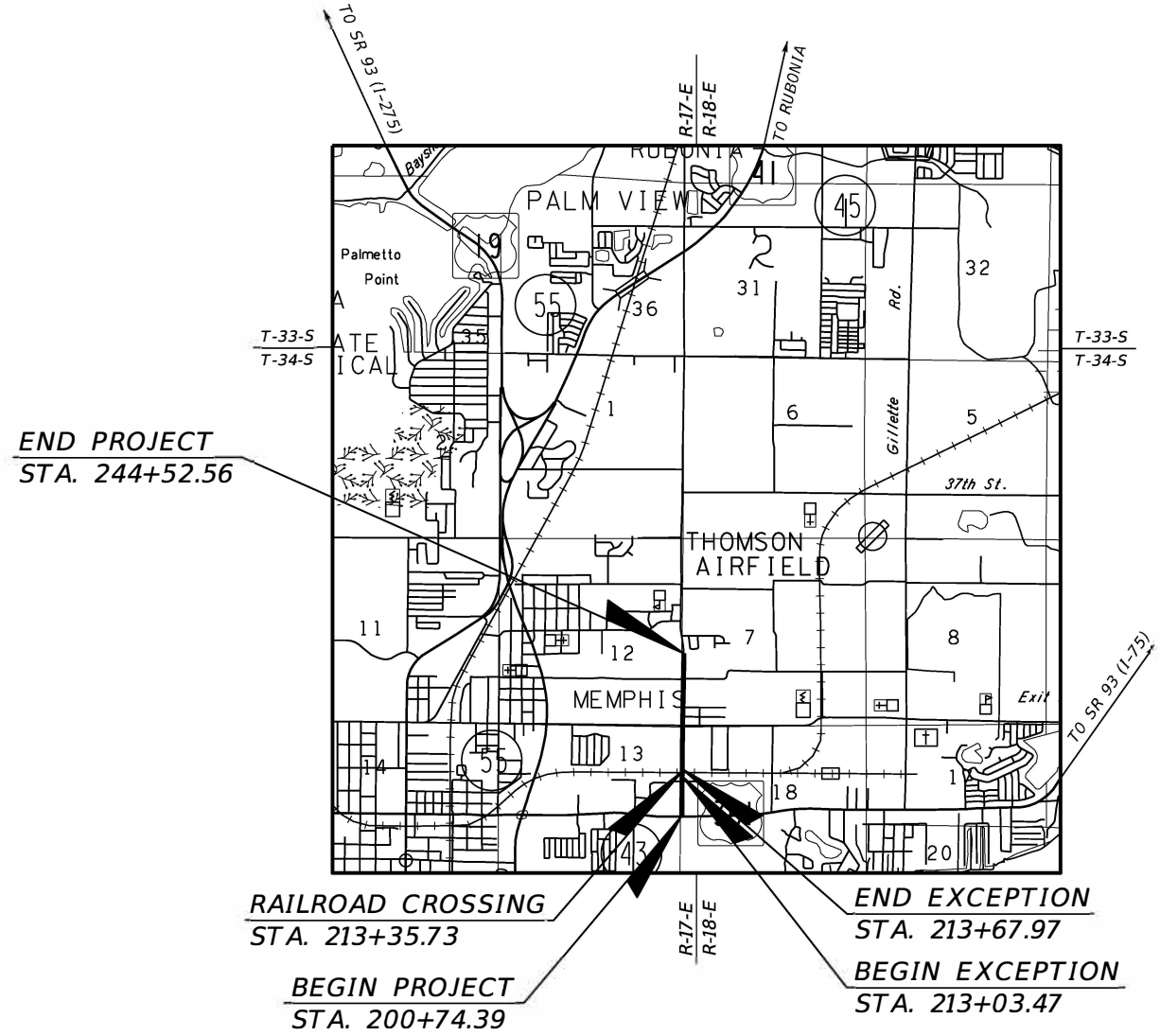
MANATEE COUNTY
PROJECT NUMBER 6094360
CANAL ROAD (16TH AVENUE EAST)
SEGMENT 1 - US 301 TO 17TH STREET EAST
UTILITY RELOCATION PLANS

INDEX OF UTILITY RELOCATION PLANS

SHEET NO.	SHEET DESCRIPTION
U-1	KEY SHEET
U-2	SIGNATURE SHEET
U-3	TABULATION OF QUANTITIES
U-4	PROJECT LAYOUT
U-5	GENERAL NOTES
U-6 THRU U-11	UTILITY RELOCATION PLANS
U-12 THRU U-18	UTILITY DETAILS



LOCATION OF PROJECT



90% SUBMITTAL
12/2021



UTILITY RELOCATION PLANS
ENGINEER OF RECORD:

HEATHER L. MANGANIELLO, P.E.
P.E. NO.: 68385
HDR ENGINEERING, INC.
2601 CATTLEMEN ROAD, SUITE 400
SARASOTA, FLORIDA 34232
VENDOR NO. 47-0680568
CONTRACT NO.: 15-0909JE

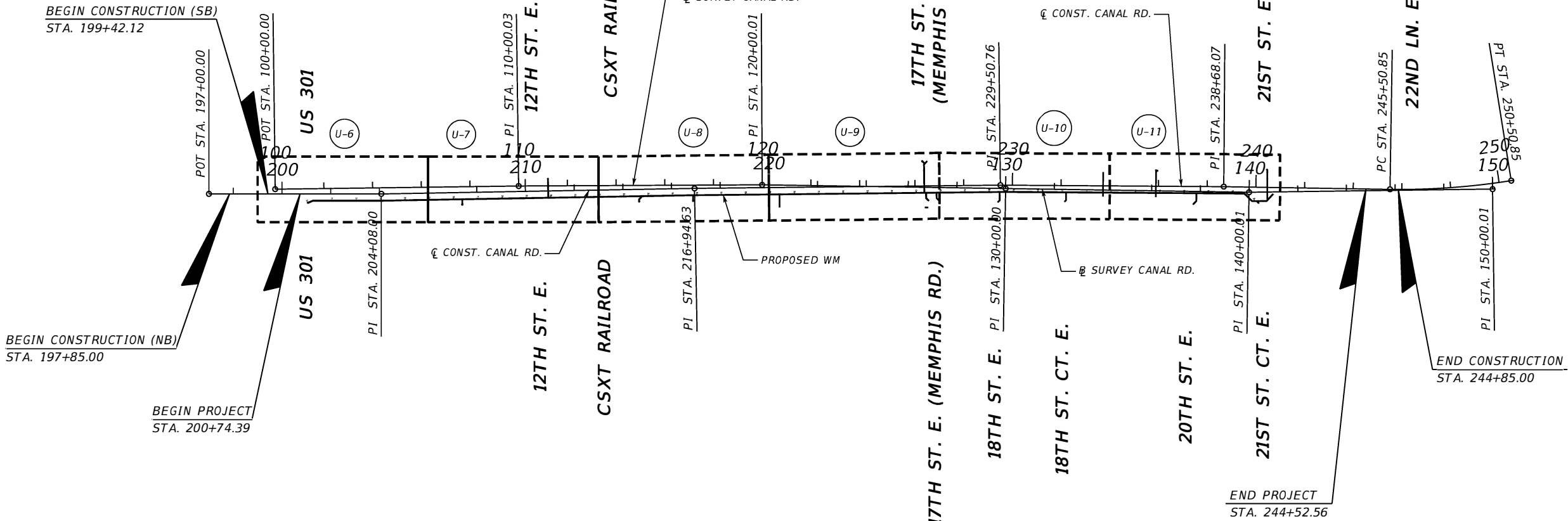
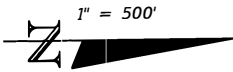
MANATEE CO. PROJECT MANAGER:
MICHAEL L. STURM, P.E.

NOTE: THE SCALE OF THESE PLANS MAY
HAVE CHANGED DUE TO REPRODUCTION.

FISCAL YEAR	SHEET NO.
21	U-1

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

16TH AVE. E. (CANAL RD.)



U-X

UTILITY PLAN SHEET

				SCALE	AS NOTED		HDR Engineering, Inc. 2601 Cattlemen Road Suite 400 Sarasota, FL 34232-6233	DATE	12/2021		MANATEE COUNTY PUBLIC WORKS	DESIGN ENGINEER	HEATHER L. MANGANIELLO	PROJECT LAYOUT	SHEET NO.			
				DESIGNED BY	HLM			PROJECT NO.	6094360			FL. LICENSE NO.	68385		U-4			
				DRAWN BY	JTT													
				CHECKED BY	HEH													
1	90% SUBMITTAL	12/2021	JTT															
No.	REVISIONS	DATE	BY															

GENERAL NOTES

1. THE LOCATION(S) OF THE 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/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.
2. RECORD DRAWING INFORMATION SHALL BE SUPPLIED IN ACCORDANCE WITH THE MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS INCLUDING, BUT NOT LIMITED TO FINISHED GRADE ELEVATIONS, TIES TO MAINS, VALVES, FITTINGS, ELEVATIONS OF PIPES, AND LOCATIONS OF SAMPLE POINTS FOR COMPLIANCE TESTING, LOCATIONS, DIMENSIONS, AND ELEVATIONS OF ALL OTHER CONSTRUCTION COMPONENTS WHICH VARY FROM THE DESIGN.
3. RESPECTIVE PROPERTY OWNERS SHALL BE NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE OF ANY AND ALL WORK REQUIRING DISRUPTION OF ACCESS, POTABLE WATER, RECLAIMED WATER, AND WASTEWATER SERVICE. DISRUPTION IN SERVICE TO ANY PROPERTY OWNER SHALL NOT EXCEED 2 HOURS FOR WATER AND WASTEWATER.
4. MAINTAIN AND PROTECT THE INTEGRITY OF THE UTILITY POLES DURING CONSTRUCTION.
5. ALL WATER COLLECTED AND PUMPED DURING TRENCH DEWATERING ACTIVITIES SHALL COMPLY WITH AND BE PERFORMED IN ACCORDANCE WITH NPDES REQUIREMENTS.
6. COVER AS MEASURED FROM FINISHED (PROPOSED) GRADE TO TOP OF THE PIPELINE SHALL BE A MINIMUM OF 36 INCHES UNLESS OTHERWISE INDICATED.
7. PIPELINE ALIGNMENTS SHALL BE ADJUSTED (AS REQUIRED) HORIZONTALLY AND/OR VERTICALLY TO AVOID CONFLICTS WITH ACTUAL FIELD CONDITIONS AS UNCOVERED DURING CONSTRUCTION. FIELD ADJUSTMENT SHALL BE COORDINATED WITH, AND APPROVED BY, THE ENGINEER.
8. ALL FITTINGS, VALVES, PIPE AND APPURTENANCES TO BE RESTRAINED VIA MECHANICAL RESTRAINTS OR INTERNAL JOINT RESTRAINTS PER DETAIL UG-9. THRUST BLOCKS TO BE FURNISH AND INSTALLED IN ADDITION TO MECHANICAL RESTRAINTS WHERE NOTED.
9. REFER TO FDEP REQUIREMENTS AND TO AWWA CHAPTER C651-05 WHEN CONNECTING TO, AND DISINFECTING NEW AND EXISTING WATER MAINS. ALL FIRE HYDRANT ASSEMBLIES AND CONNECTING PIPES MUST BE INSPECTED, CLEANED, FLUSHED, AND DISINFECTED BEFORE THEY ARE CONNECTED TO THE NEWLY-INSTALLED PIPING. CLEARANCE MUST BE RECEIVED PRIOR TO TIE-ING TO EXISTING MAINS.
10. CONTRACTOR TO COORDINATE WITH COUNTY PUBLIC WORKS DEPARTMENT AND FIRE MARSHALL WHEN TAKING FIRE HYDRANTS OFFLINE. CONTRACTOR MUST RECEIVE APPROVAL FROM THE FIRE MARSHALL PRIOR TO TAKING FIRE HYDRANTS OUT OF SERVICE.
11. PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP EXCAVATIONS DRY AND SHALL PROVIDE ALL SHORING, SHEETING, AND BRACING NECESSARY TO PROTECT WORKMEN, ADJACENT STRUCTURES, UTILITIES, EXISTING PAVEMENT, OR TO MINIMIZE TRENCH WIDTH. PROVIDE ADEQUATE TRENCH SAFETY FOR TRENCH EXCAVATIONS, AND COMPLY WITH OSHA AND THE STATE OF FLORIDA TRENCH SAFETY REGULATIONS. THE COST OF DEWATERING SHALL BE INCLUDED IN THE PIPING PAY ITEMS.
12. CONTRACTOR TO COORDINATE WITH FPL AND/OR OTHER POWER COMPANIES PRESENT WITHIN RIGHT-OF-WAY FOR POWER POLE STABILIZATION AND DE-ENERGIZING OF POWER LINES DURING CONSTRUCTION. CONTRACTOR TO SUPPORT POWER POLES AND OTHER UTILITIES DURING CONSTRUCTION.
13. JACK AND BORE OF STEEL PIPE SHALL ALSO COMPLY WITH MANATEE COUNTY STANDARDS DETAIL UG-3.

14. ARV(S) ARE SHOWN IN LOCATIONS BASED ON DESIGN PROFILE. ARV(S) ARE TO BE INSTALLED AT ALL HIGH POINTS CREATED DURING CONSTRUCTION. LOCATIONS TO BE APPROVED BY COUNTY PRIOR TO CONSTRUCTION OF ARV.
15. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER AND SEWER LINES, STORM DRAINS, UTILITIES, DRIVEWAYS, SIDEWALKS, SIGNS, MAILBOXES, FENCES, TREES, LANDSCAPING, AND ANY OTHER IMPROVEMENT OR FACILITY IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DAMAGED ITEMS DUE TO CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.

SPECIAL CONDITIONS

1. BENCH MARK DATUM IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
2. CONSTRUCT HORIZONTAL AND VERTICAL TRANSITION OF PIPELINE BY DEFLECTION OF PIPE JOINTS USING NOT MORE THAN 75% OF THE MAXIMUM DEFLECTION RECOMMENED BY THE MANUFACTURER. SHOP DRAWINGS SHALL BE FURNISHED FOR APPROVAL OF ALL PIPE CONNECTIONS, TRANSITIONS, AND SPECIAL FITTINGS PRIOR TO FABRICATION OR DELIVERY TO JOB SITE.
3. PROVIDE TEMPORARY THRUST RESTRAINT, BRACING, TESTING PLUGS, AND OTHER DEVICES NECESSARY TO SUCCESSFULLY COMPLETE PRESSURE TESTING OF PIPING SYSTEMS.
4. ALL PROPOSED PIPE AND FITTINGS WITHIN PROJECT LIMITS SHALL BE RESTRAINED JOINT PER DETAIL UG-9. DUCTILE IRON PIPE AND FITTINGS ARE TO BE WRAPPED IN BLUE (WATER), PURPLE (RECLAIMED), OR GREEN (WASTERWATER) POLYETHYLENE WRAP IN ACCORDANCE WITH AWWA STANDARD C-105. POLYETHYLENE WRAP SHALL BE INCLUDED IN THE PRICE OF THE PIPE. EXISTING MAINS TO BE POST RESTRAINED PER DETAIL UG-9.
5. ALL EXISTING WATER MAINS, WASTEWATER FORCE MAINS, AND RECLAIMED WATER MAINS IDENTIFIED TO BE REMOVED OR PLACED OUT OF SERVICE CANNOT BE REMOVED OR PLACED OUT OF SERVICE UNTIL PROPOSED FACILITIES HAVE BEEN CONSTRUCTED, TESTED, CLEARED, AND PLACED IN SERVICE.
6. WATER, RECLAIMED, AND WASTEWATER SERVICE CONVEYANCE MUST BE MAINTAINED FOR ALL CUSTOMERS AT ALL TIMES, EXCEPT FOR MINOR DISRUPTIONS DURING CONNECTIONS/CHANGEOVERS. COORDINATE ALL SYSTEM SHUT DOWNS WITH COUNTY OPERATIONS STAFF AND AS REQUIRED IN THE SPECIFICATIONS.
7. ALL UTILITY RELOCATION MUST BE IN PLACE, TESTED, CLEARED AND OPERATIONAL PRIOR TO ROADWAY CONSTRUCTION THAT IMPACTS EXISTING UTILITIES.
8. PROPOSED PIPE SYMBOLOGY

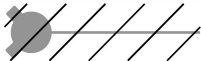
PROPOSED WATER MAINS, RECLAIMED, AND WASTEWATER



PROPOSED CASING



REMOVE, RELOCATE, AND/OR ABANDON



⌀ CONST. CANAL RD.
— OFFSET DISTANCE FROM
⌀ CONST. CANAL RD.
STA 344+56, 124.6 LT

PROPOSED FITTING:  (EXAMPLE)

PROPOSED GATE VALVE: 

PROPOSED PLUG VALVE: 

VVH BY MANATEE COUNTY: 

9. IN THE EVENT OF A WATER OR SEWER MAIN BREAK, CALL 24 HOUR EMERGENCY NUMBER (941) 792-8811 EXT. 5216
10. ALL CONCRETE SHOWN IN THESE DRAWINGS, UNLESS OTHERWISE NOTED, SHALL CONFORM TO CLASS NS CONCRETE.
11. THESE CONTRACT DOCUMENTS INCLUDE BY REFERENCE THE MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS APPROVED FEBRUARY 2020.
12. SUBMIT WATER MAIN BACTERIOLOGICAL SAMPLING PLAN FOR REVIEW. SAMPLE LOCATIONS INCLUDE, AT A MINIMUM, ALL POINTS OF CONNECTION TO EXISTING WATER MAIN. ALL TERMINAL ENDS AND MAXIMUM INTERVALS OF 1,200 FEET BETWEEN TWO SAMPLING LOCATIONS. SAMPLE POINT FURNISH AND INSTALLATION AND REMOVAL COST TO BE INCORPORATED INTO COST OF NEW MAINS. NOTE SAMPLE POINT CORPORATION STOP LOCATIONS ON AS-BUILTS. COST FOR SAMPLING PLAN(S) DEVELOPMENT TO BE INCORPORATED INTO COST OF POTABLE WATER MAIN.
13. SUBMIT AND OBTAIN APPROVAL OF SHOP DRAWINGS, CONSTRUCTION SCHEDULE AND THE FOLLOWING PLANS PRIOR TO BEGINNING CONSTRUCTION (NOT LIMITED TO):

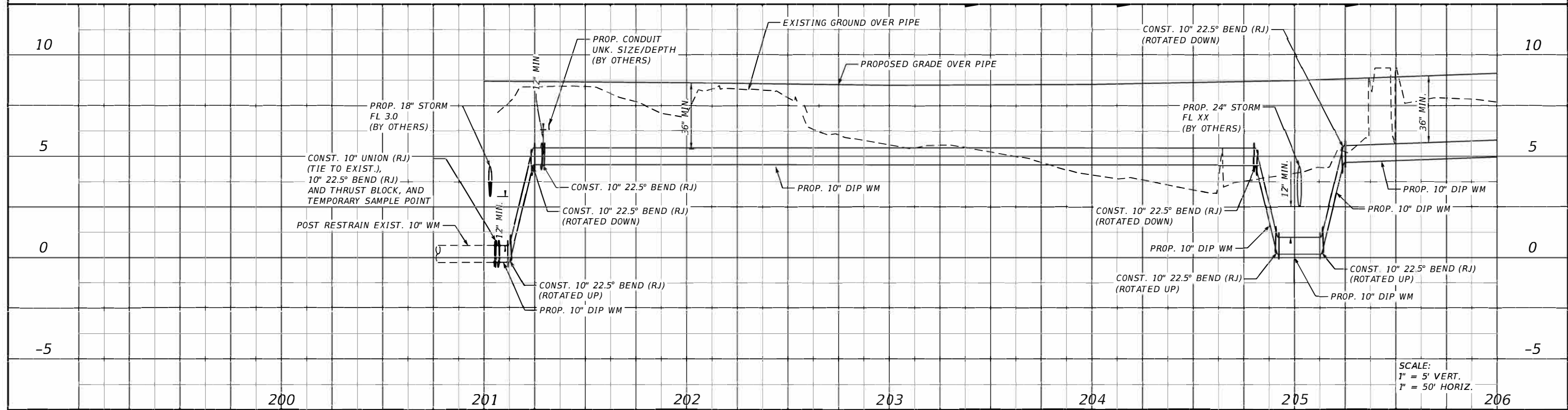
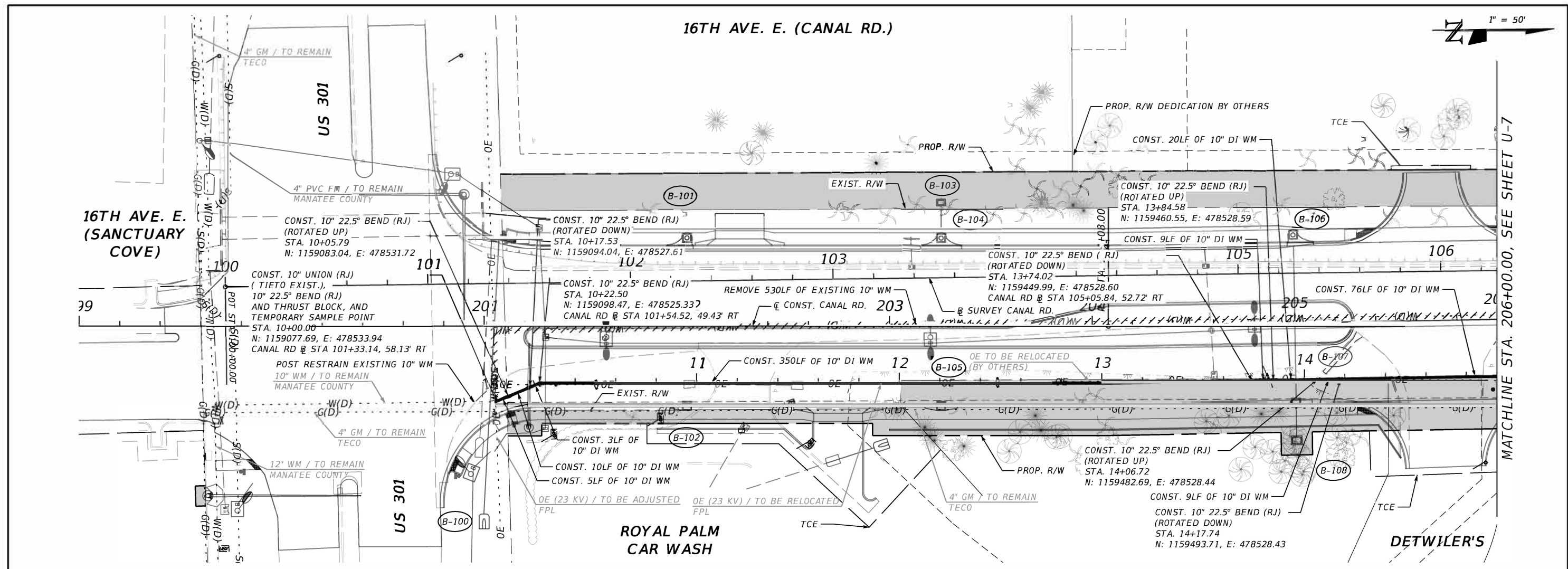
A. SHUTDOWN SCHEDULE AND PLAN TO INCLUDE BUT NOT LIMITED TO PIPE DEWATERING AND DISPOSAL PLANS; FOR WASTEWATER, POTABLE WATER, AND RECLAIMED WATER MAIN CONNECTION SCHEDULE FOR MAINS (INCLUDING LINES TOPS); WATER MAIN SAMPLING PLAN AND LOCATIONS FOR BACTRIOLOGICAL TESTING; PRESSURE TESTING SCHEDULE; LINES TOP LOCATIONS.

B. EROSION CONTROL AND STORMWATER POLLUTION PROTECTION PLANS TO BE COORDINATED WITH ROADWAY PROJECT.

C. COST FOR PLANS DEVELOPMENT TO BE INCORPORATED INTO COST OF PROPOSED MAINS.
14. ALL CONCRETE THRUST BLOCKS INSTALLED FOR TESTING PROCESS SHALL BE REMOVED AND DISPOSED OF PRIOR TO FINAL ACCEPTANCE.
15. ADJUST ALL VALVES (LIDS AND STEMS), ARVS, MANHOLE LIDS, VAULT ACCESS HATCHES, AND FIRE HYDRANTS WITHIN PROJECT LIMITS TO NEW/PROPOSED GRADE. COST TO BE INCORPORATED INTO INITIAL BID PRICE.

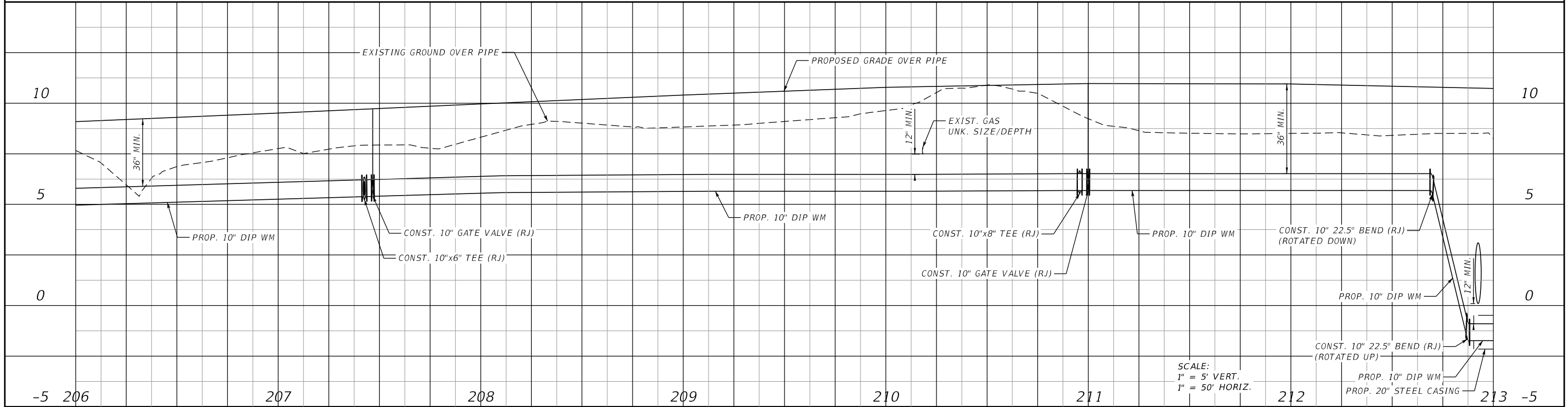
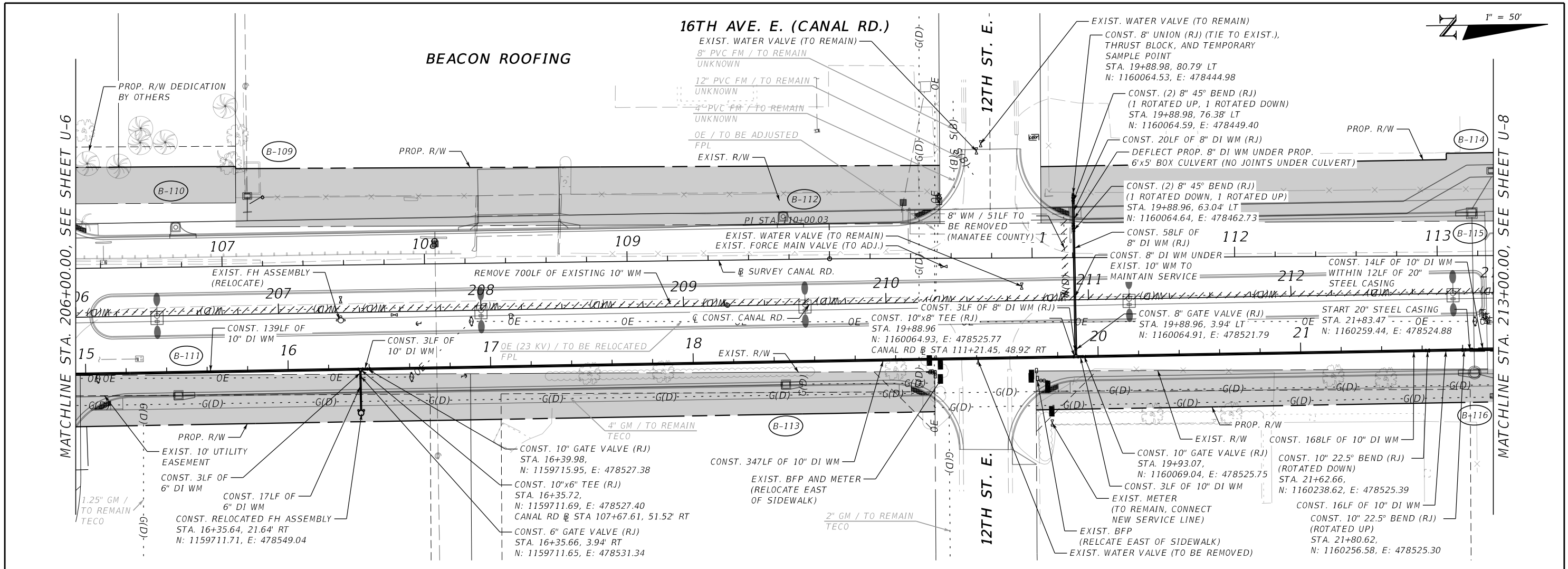
ABBREVIATIONS

AC	ASBESTOS CEMENT
ADJ.	ADJUST
APPROX.	APPROXIMATE
ARV	AIR RELEASE VALVE
BL	BASELINE
CI	CAST IRON
CL	CENTERLINE
CONST.	CONSTRUCT
DI	DUCTILE IRON
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
EL	ELEVATION
ELEV.	ELEVATION
EOP.	EDGE OF PAVEMENT
EXIST.	EXISTING
FH	FIRE HYDRANT
FL	FLOW LINE
FM	FORCE MAIN
GM	GAS MAIN
GR	GRADE
GS	GRAVITY SEWER
HDD	HORIZONTAL DIRECTIONAL DRILL
HDPE	HIGH DENSITY POLYETHYLENE
INV.	INVERT
LA	LIMITED ACCESS
LT	LEFT
MCU	MANATEE COUNTY UTILITIES
MIN	MINIMUM
NPW	NON-POTABLE WATER MAIN (RECLAIMED)
PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
P.E.	POLYETHYLENE
P&F	PLUG AND FILL
PROP.	PROPOSED
PVC	POLYVINYL CHLORIDE
RWM	RECLAIMED WATER MAIN
R/W	RIGHT OF WAY
RJ	RESTRAINED JOINT
RT	RIGHT
SD	STORM DRAIN
STA.	STATION
TOP	TOP OF PIPE
TYP	TYPICAL
WM	WATER MAIN
W/	WITH
W/IN	WITH IN



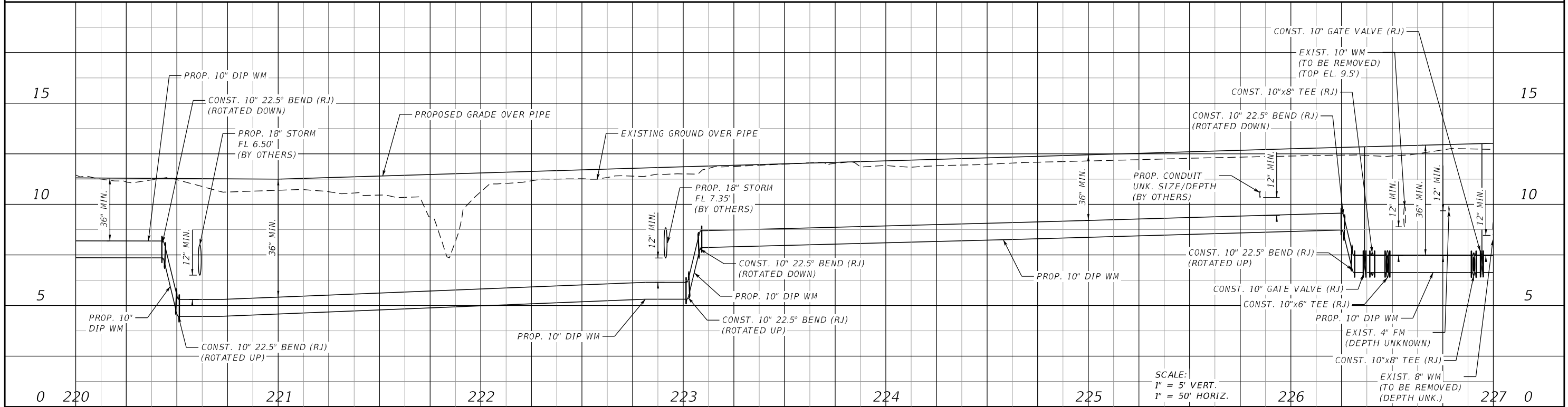
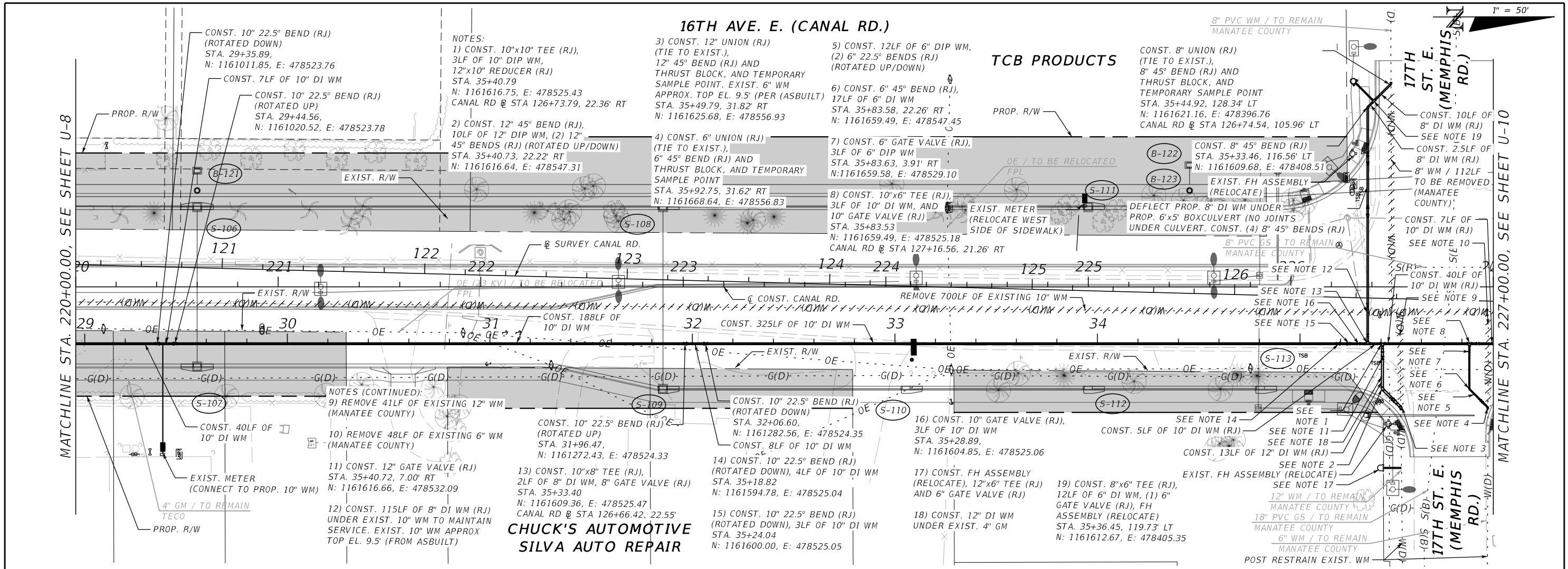
			SCALE	AS NOTED		HDR Engineering, Inc. 2601 Cattlemen Road Suite 400 Sarasota, FL 34232-6233	DATE	8/2021		MANATEE COUNTY PUBLIC WORKS	DESIGN ENGINEER	HEATHER L. MANGANIELLO	<i>UTILITY RELOCATION PLANS (I)</i>	SHEET NO.	
			DESIGNED BY	HLM			PROJECT NO.	6094360			FL. LICENSE NO.	68385		U-6	
			DRAWN BY	JTT											
			CHECKED BY	HEH											
1			90% SUBMITTAL		12/2021	JTT									
No.			REVISIONS		DATE	BY									

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



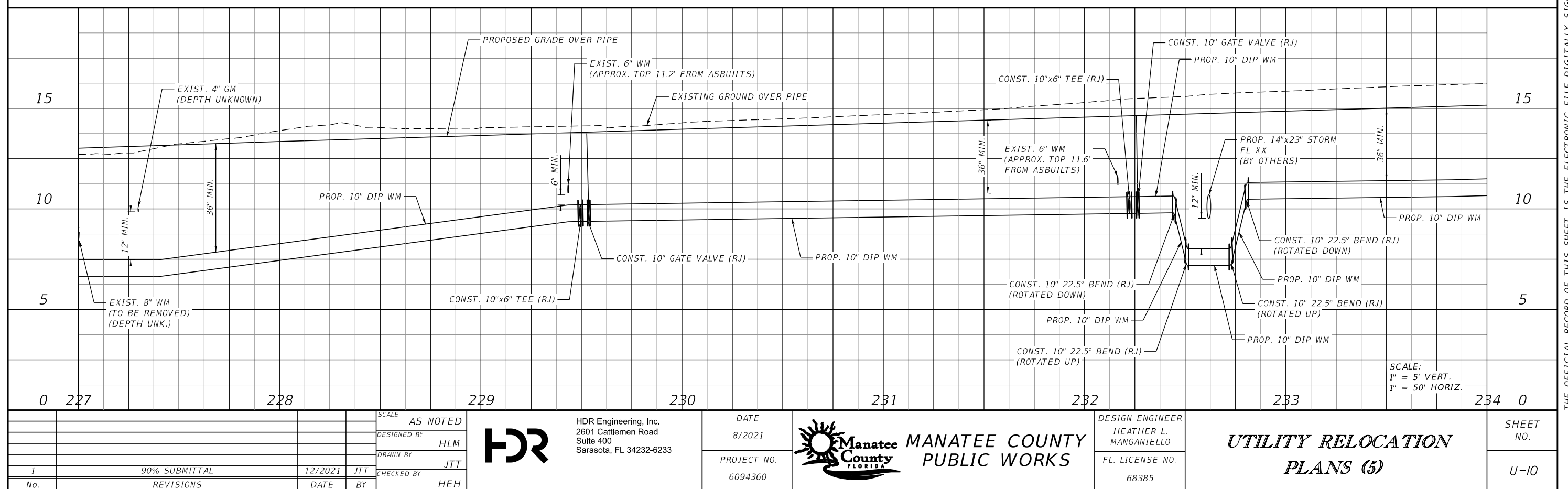
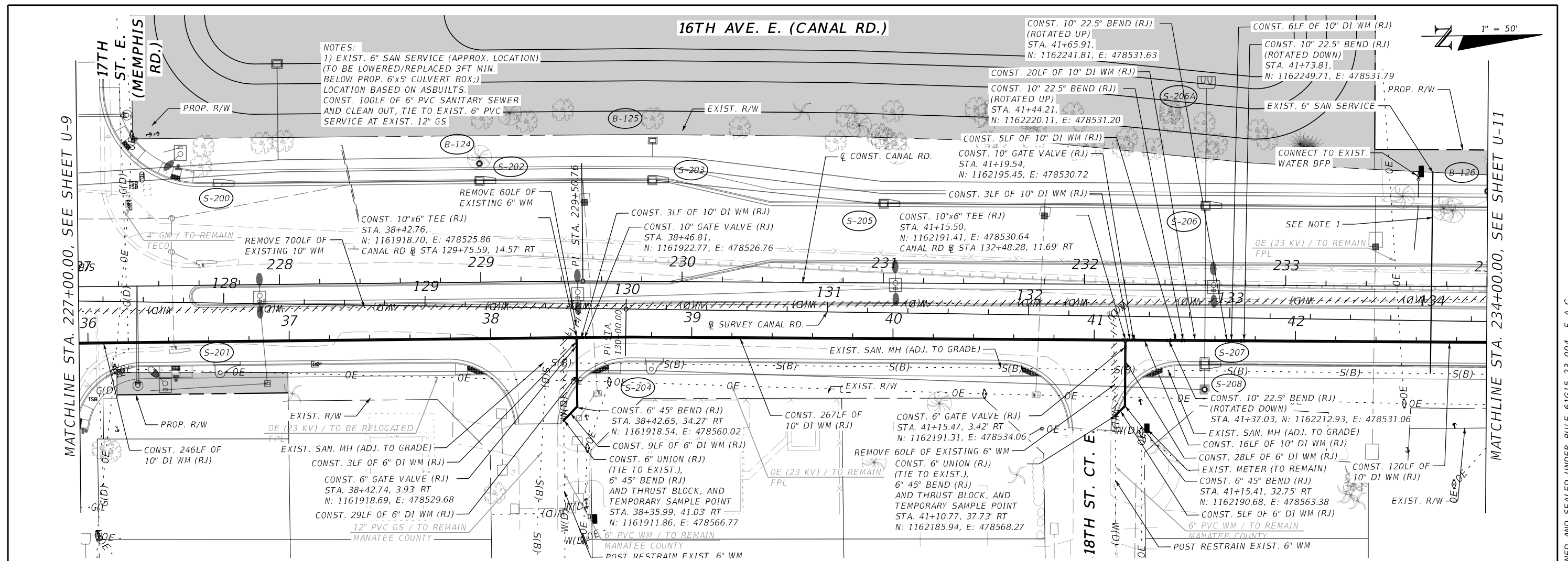
				SCALE	AS NOTED		HDR Engineering, Inc. 2601 Cattlemen Road Suite 400 Sarasota, FL 34232-6233	DATE	8/2021		MANATEE COUNTY PUBLIC WORKS	DESIGN ENGINEER	HEATHER L. MANGANIELLO	<i>UTILITY RELOCATION PLANS (2)</i>	SHEET NO.
				DESIGNED BY	HLM			PROJECT NO.	6094360			FL. LICENSE NO.	68385		U-7
1	90% SUBMITTAL	12/2021	JTT	DRAWN BY	JTT			CHECKED BY	HEH						
No.	REVISIONS	DATE	BY												

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

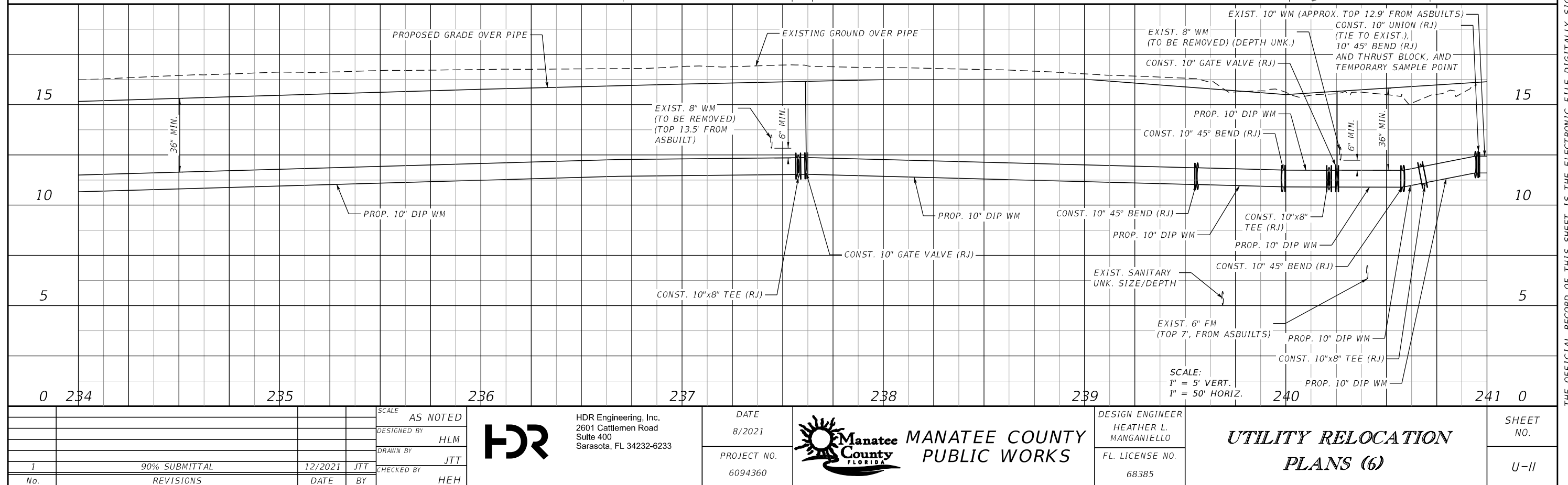
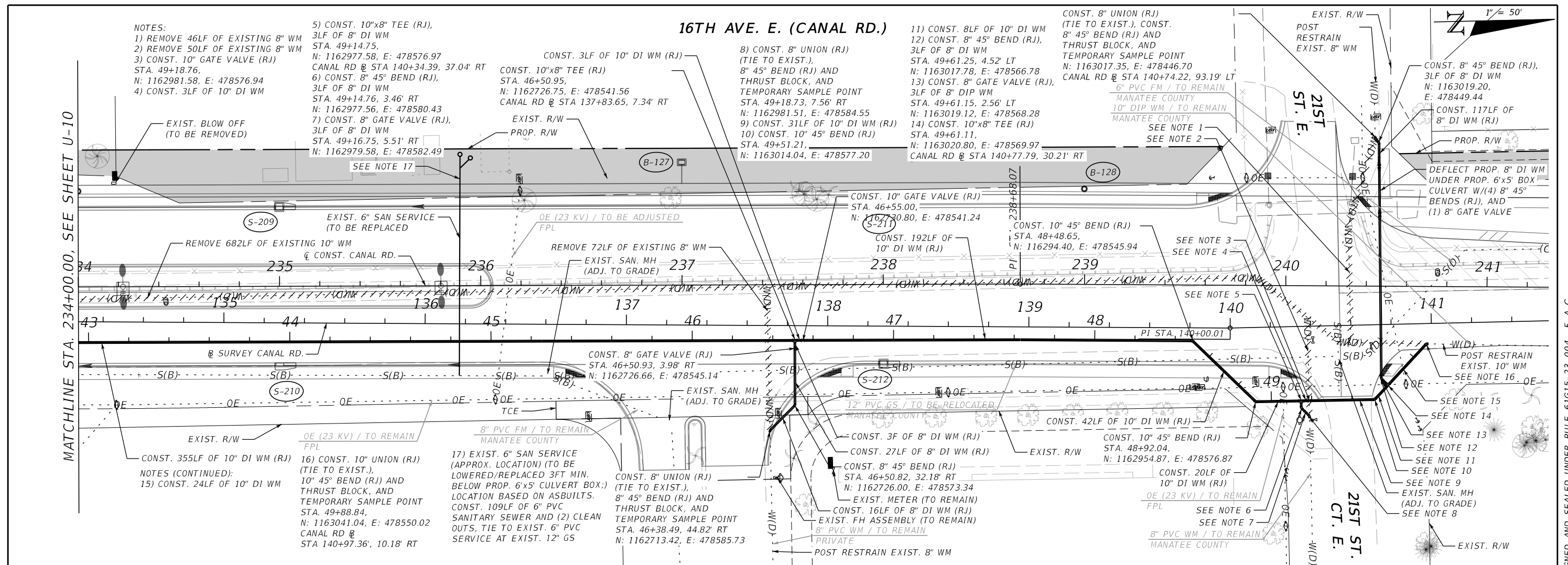


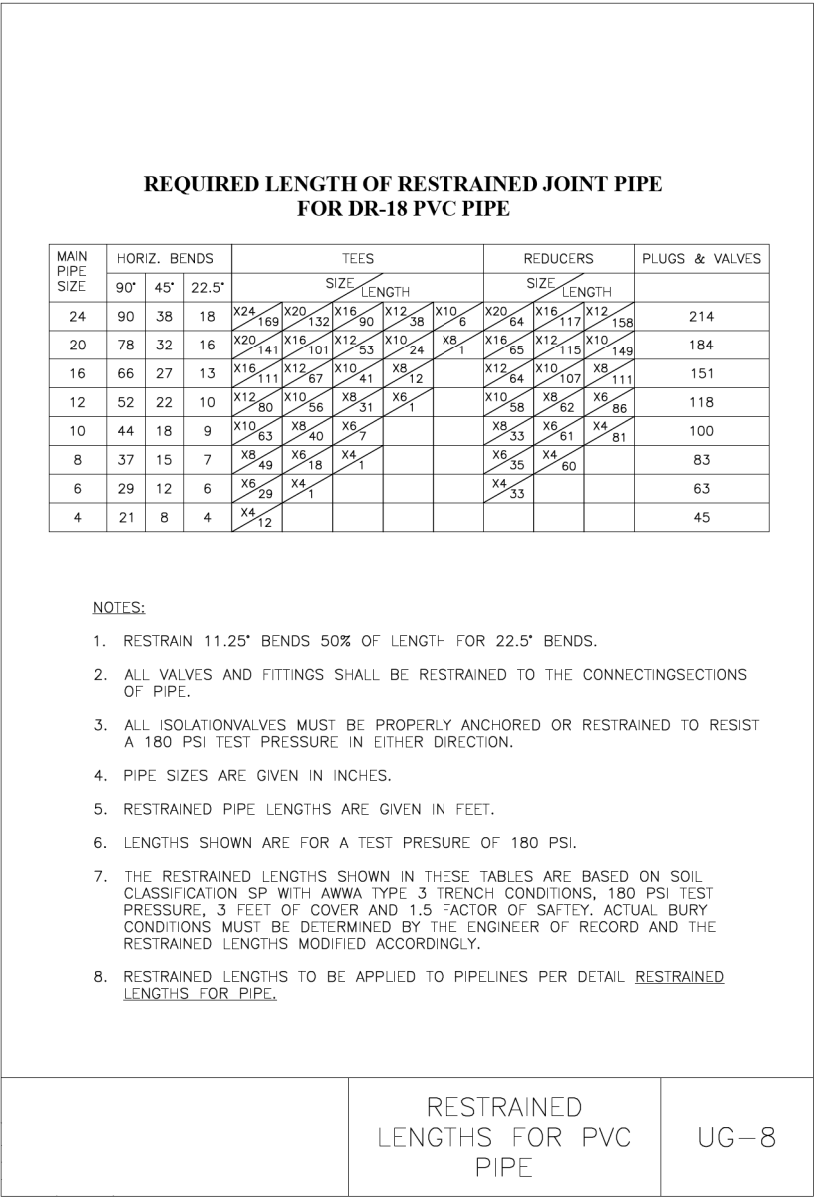
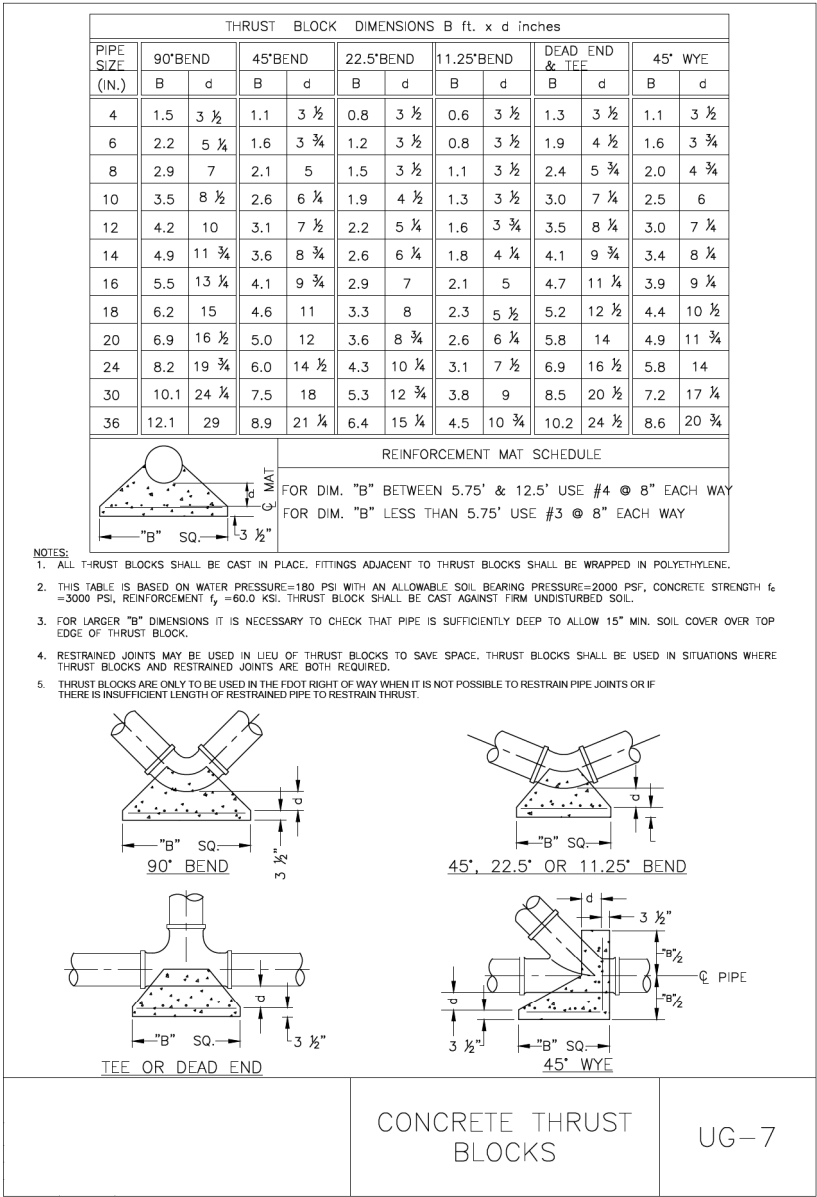
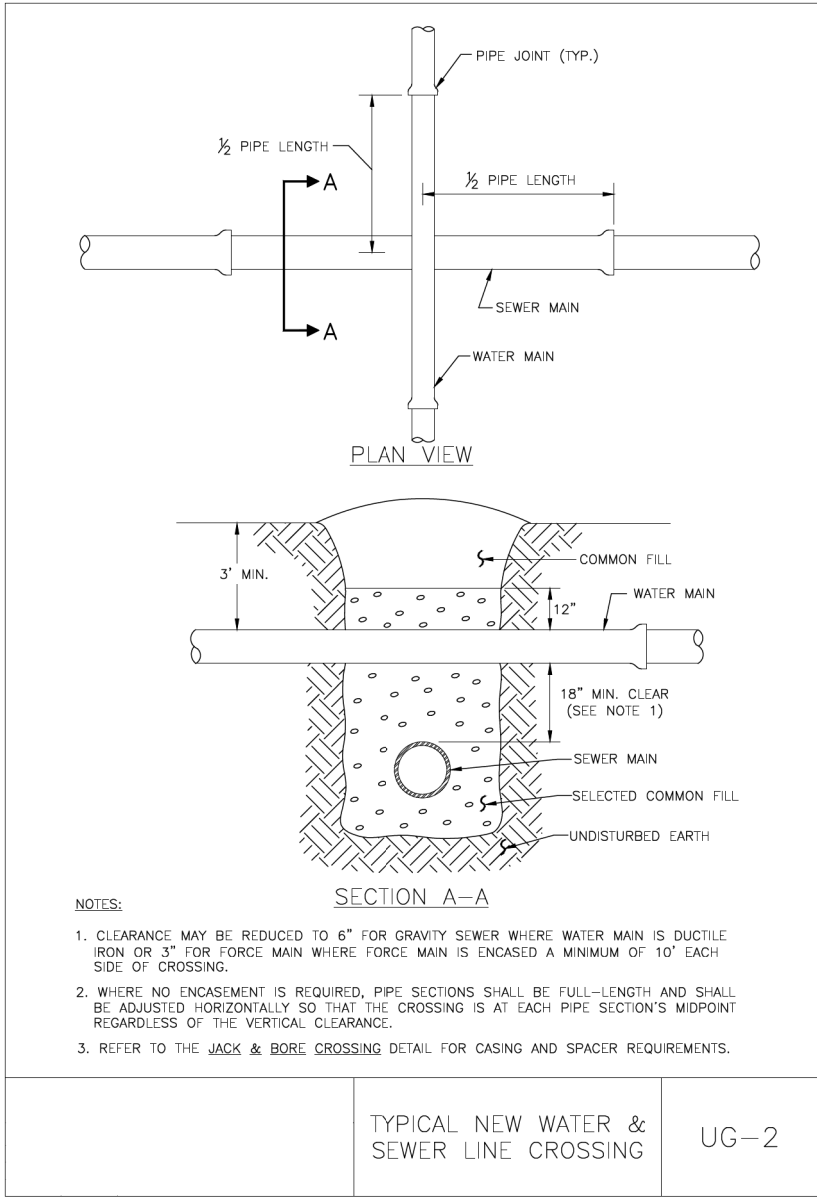
				SCALE	AS NOTED		HDR Engineering, Inc. 2601 Cattlemen Road Suite 400 Sarasota, FL 34232-6233	DATE	8/2021		MANATEE COUNTY PUBLIC WORKS	DESIGN ENGINEER	HEATHER L. MANGANIELLO	<i>UTILITY RELOCATION PLANS (4)</i>	SHEET NO. U-9
				DESIGNED BY	HLM			PROJECT NO.	6094360			FL. LICENSE NO.	68385		
				DRAWN BY	JTT										
				CHECKED BY	HEH										
1	90% SUBMITTAL	12/2021	JTT												
No.	REVISIONS	DATE	BY												

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



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY STIGNED AND SEALED UNDER RULE 61013-25.004, F.A.C.



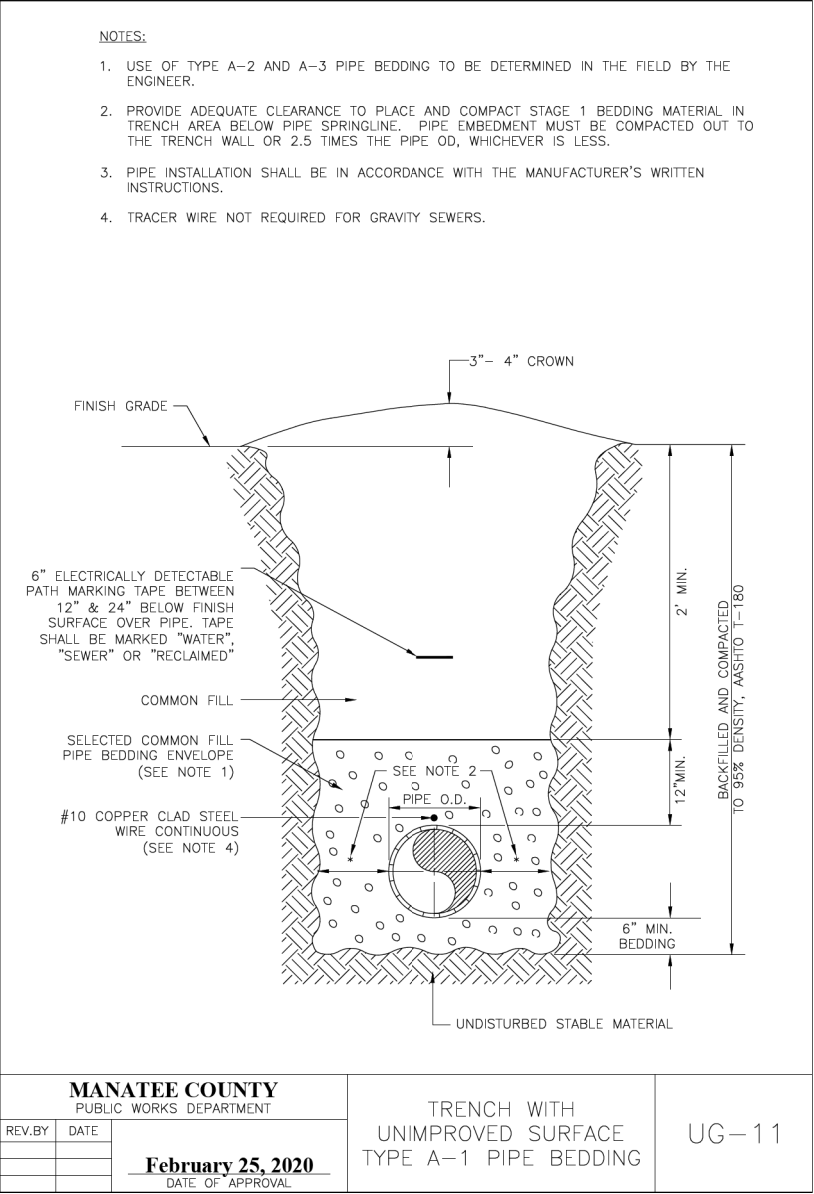
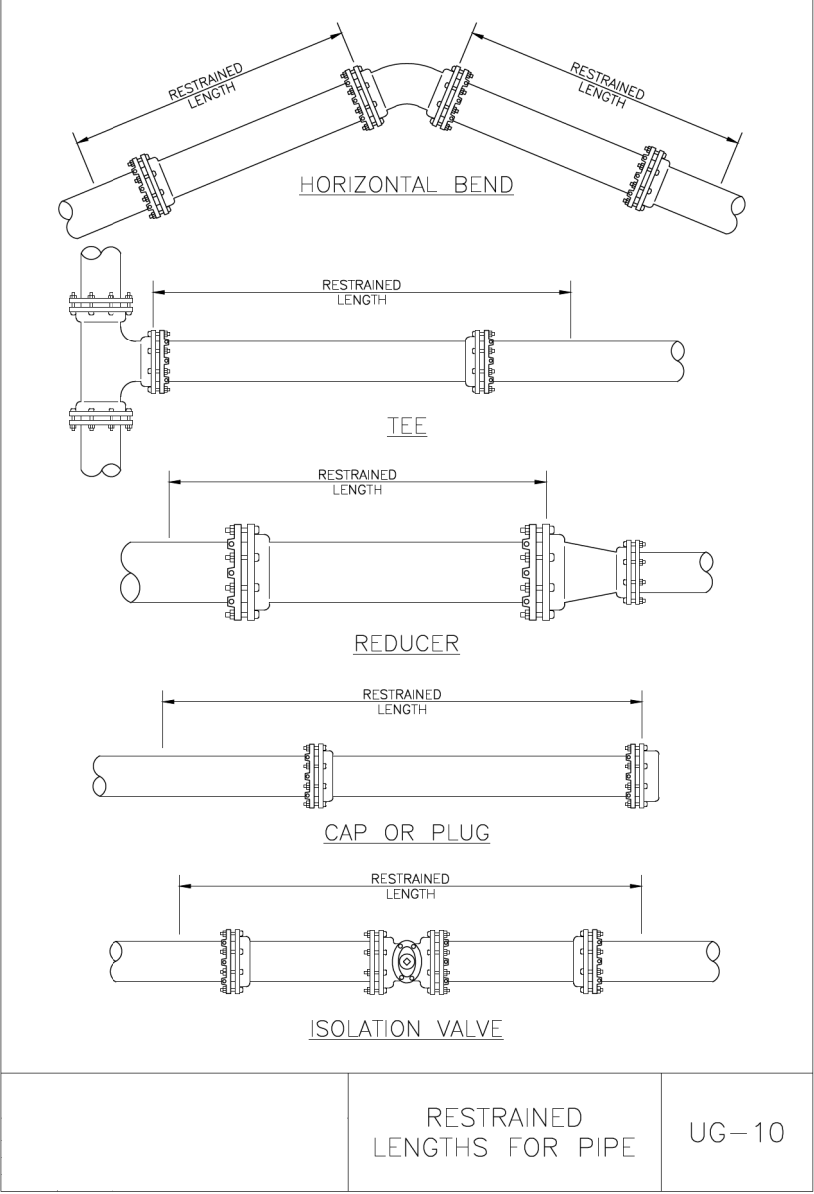


REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR DIP (POLY-WRAPPED)																
MAIN PIPE SIZE	HORIZ. BENDS			TEES							REDUCERS					PLUGS & VALVES
	90°	45°	22.5°	SIZE			LENGTH				SIZE		LENGTH			
36	142	59	28	x36 393	x30 318	x24 232	x20 165	x16 84	x12 1	x10 1	x30 137	x24 247	x20 309	x16 359	453	
30	124	51	25	x30 333	x24 252	x20 189	x16 115	x12 23	x10 1	x8 1	x24 137	x20 213	x16 276		391	
24	106	44	21	x24 270	x20 211	x16 143	x12 61	x10 10	x8 1	x6 1	x20 98	x16 178	x12 241		327	
20	92	38	18	x20 225	x16 161	x12 85	x10 39	x8 1			x16 98	x12 176	x10 227		280	
16	77	32	15	x16 177	x12 107	x10 65	x8 19	x6 1			x12 98	x10 163	x8 169		231	
12	61	25	12	x12 127	x10 89	x8 50	x6 1				x10 88	x8 96	x6 131		181	
10	52	22	10	x10 101	x8 64	x6 11					x8 51	x6 94	x4 125		153	
8	44	18	9	x8 78	x6 30	x4 1					x6 54	x4 92			128	
6	34	14	7	x6 46	x4 1						x4 50				98	
4	24	10	5	x4 19											69	

NOTE:

1. 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		



NOTES:
1. USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. 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.
3. TYPICALLY 4" TO 6".
4. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
5. ASPHALTIC CONCRETE STRUCTURE COURSE WITH PRIME COAT SHALL BE THE SAME DEPTH AND TYPE AS EXISTING OR A MINIMUM OF 1 1/4 INCH, WHICHEVER IS GREATER.
6. MILL 25' BACK FROM TRENCH SAW CUT. ADJUST MILLING PER INDIVIDUAL SITE TO NOT IMPACT BASE. BUTT JOINT TO EXIST ASPHALT. FINAL OVERLAY LIMITS ARE FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT. 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.
7. SHEETING ORDERED LEFT IN PLACE TO BE CUT OFF 24" BELOW FINISHED GRADE OR 12" BELOW SUBGRADE.
8. BASE SHALL BE 8" MINIMUM THICKNESS CRUSHED CONCRETE.
9. TEMPORARY PATCHES WILL BE INSTALLED TO PROVIDE A SMOOTH ALL WEATHER SURFACE AT ALL TIMES. PERMANENT REPLACEMENT TO BE MADE AS SOON AS POSSIBLE.
10. RESTORE SIGNAGE & MARKING WITH THERMOPLASTIC PER FDOT STANDARDS, LATEST EDITION.
11. TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.
12. NOTES 5, THRU 10, ARE MINIMUM REQUIREMENTS FOR A TRENCH IN A ROAD. REFER TO LATEST EDITION OF MANATEE COUNTY HIGHWAY AND TRAFFIC STANDARDS FOR ADDITIONAL REQUIREMENTS.

MANATEE COUNTY
PUBLIC WORKS DEPARTMENT

REV. BY DATE
WRT/KE 03/11
MAY 10, 2011
DATE OF APPROVAL

TRENCH WITH ASPHALT
PAVEMENT SURFACE TYPE
A-1 PIPE BEDDING

UG-12
PAGE 112

REMOVE & REPLACE EX. CURB AS REQUIRED
SAW CUT
EX. SUB-BASE
EX. PAVEMENT
SAW CUT
ELECTRICALLY DETECTABLE
PATH MARKING TAPE
SELECT COMMON FILL
TRACER WIRE
UNDISTURBED SOIL
WATER, SEWER, OR RECLAIM PIPE TO BE INSTALLED

CONDITION 1: TRENCH AND
BASE REPAIRS ARE LOCATED
ADJACENT TO EOP OR CURB.

SAW CUT
EX. SUB-BASE
EX. PAVEMENT
SAW CUT
ELECTRICALLY DETECTABLE
PATH MARKING TAPE
SELECT COMMON FILL
TRACER WIRE
UNDISTURBED SOIL
WATER, SEWER, OR RECLAIM PIPE TO BE INSTALLED

CONDITION 2: TRENCH AND
BASE REPAIRS ARE LOCATED
IN THE MIDDLE OF THE
TRAVEL LANE.

SAW CUT
EX. SUB-BASE
EX. PAVEMENT
SAW CUT
ELECTRICALLY DETECTABLE
PATH MARKING TAPE
SELECT COMMON FILL
TRACER WIRE
UNDISTURBED SOIL
WATER, SEWER, OR RECLAIM PIPE TO BE INSTALLED

CONDITION 3: TRENCH AND
BASE REPAIRS ARE ALSO
LOCATED IN THE ADJACENT
TRAVEL LANE.

A = MILL EXIST. ASPHALT & PLACE 3/4" MIN. S-III ASPHALTIC CONCRETE OVERLAY.
B = 1-1/4" MIN. S-I ASPHALTIC CONCRETE W/ PRIME COAT.
C = FULL BASE REPLACEMENT.
D = 9 INCHES
NOTE:
1. THIS DETAIL IS BASED ON A TWO-LANE ROADWAY AND SHALL BE FOLLOWED WHEN A PIPE IS INSTALLED WITHIN THE LIMITS OF A ROADWAY AND RUNS PARALLEL WITH THE EDGE OF PAVEMENT. THIS DETAIL CAN ALSO BE UTILIZED FOR RESTORATION NEEDS OF ROADWAYS WITH ADDITIONAL LANES. CONDITION 3 ONLY EXTENDS TO NEXT ADJACENT LANE ON MULTI-LANE ROADS.
2. THE MILL AND OVERLAY SHALL BE FIELD ADJUSTED TO MEET THE NEEDS FOR PAVEMENT RESTORATION DUE TO CONSTRUCTION ACTIVITIES AND SHALL BE COORDINATED WITH THE COUNTY.
3. SEE TRENCH WITH ASPHALT PAVEMENT TYPE A-1 PIPE BEDDING (CROSSING) DETAIL FOR NOTES 1 TO 12 THAT ARE ALSO APPLICABLE TO ASPHALT PAVEMENT RESTORATION.

EX. PAVEMENT
UNDISTURBED SOIL
EX. BASE
SELECT COMMON FILL
BASE REPLACEMENT
S-III
NEW CURB

MANATEE COUNTY
PUBLIC WORKS DEPARTMENT

REV. BY DATE
February 25, 2020
DATE OF APPROVAL

TRENCH WITH ASPHALT
PAVEMENT SURFACE
TYPE A-1 PIPE
BEDDING (LONGITUDINAL)

UG-12B

NOTES:
1. 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, COLD 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.
2. USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
3. 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.
4. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
5. THICKNESS TO MATCH EXISTING OR BE 6" MINIMUM, WHICHEVER IS GREATER.
6. SHEETING ORDERED LEFT IN PLACE TO BE CUT OFF 24" BELOW FINISH GRADE OR 12" BELOW SUBGRADE.
7. BASE SHALL BE COMPACTED 6" MINIMUM THICKNESS OF APPROVED MATERIAL.
8. DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADOPTED CONSTRUCTION STANDARDS OF THE MANATEE COUNTY TRANSPORTATION DEPARTMENT.
9. IF THE DRIVEWAY IS 12' OR WIDER, SAWCUT AN EXPANSION JOINT ALONG THE CENTER OF THE DRIVEWAY (3/8" WIDE AND 1 1/2" DEEP) AFTER THE CONCRETE HAS SET.
10. IF THERE IS AN EXISTING EXPANSION JOINT WITHIN 3' OF THE PROPOSED JOINT, EXTEND DRIVEWAY REPLACEMENT TO THE EXISTING JOINT.
11. TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.

MANATEE COUNTY
PUBLIC WORKS DEPARTMENT

REV. BY DATE
February 25, 2020
DATE OF APPROVAL

TRENCH WITH CONCRETE
DRIVEWAY SURFACE TYPE
A-1 PIPE BEDDING

UG-14

