

REVISED

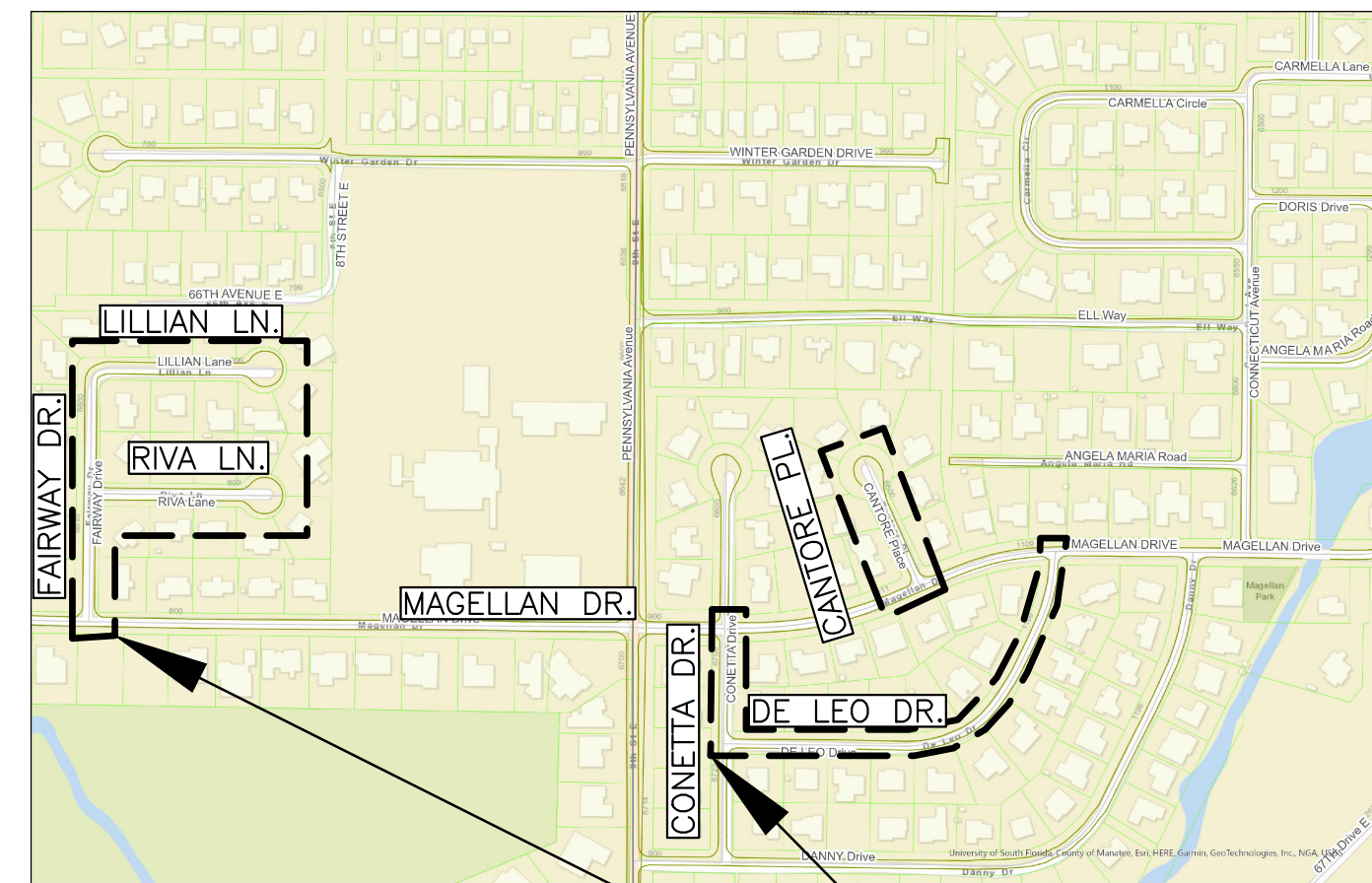


WHITFIELD COUNTRY CLUB HEIGHTS WATER MAIN REPLACEMENT 404.6109570

January, 2023

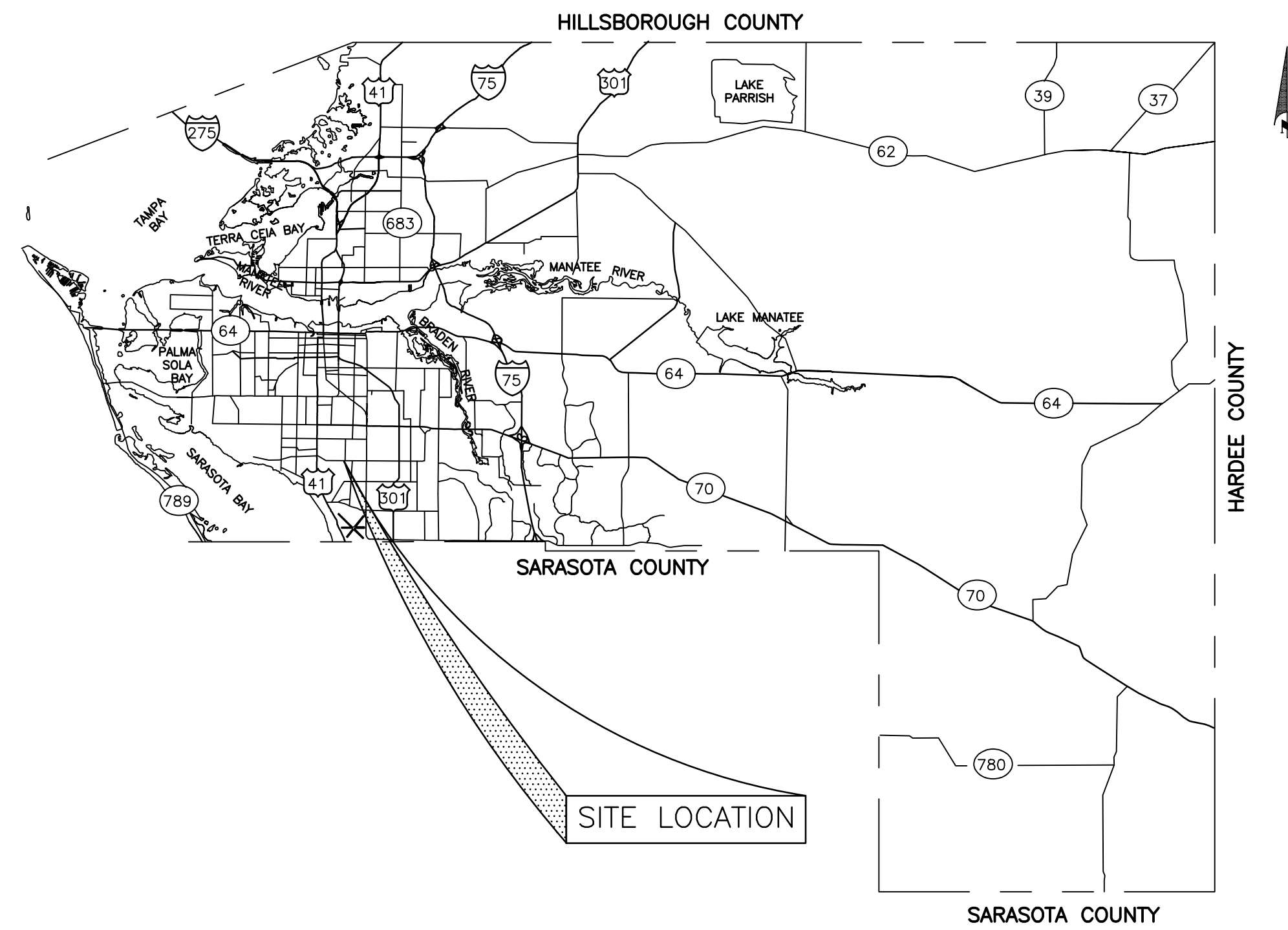
BID PLANS

NO.	SHEET TITLE
1	COVER
2	NOTES & LEGEND
3	KEY SHEET WEST
4	KEY SHEET EAST
5	FAIRWAY DR.
6	RIVA LANE
7	LILLIAN LANE
8	CONTORE PL.
9	CONETTA DR.
10	DE LEO DR. STA 50+00 TO 55+20
11	DE LEO DR. STA 55+20 TO 60+00
12	DETAILS
13	DETAILS
14	DETAILS
15	RESTORATION PLAN EAST
16	RESTORATION PLAN WEST
17	SURVEY CONTROL
18	EROSION CONTROL



VICINITY MAP
N.T.S.

PROJECT SITE



SITE LOCATION

PROJECT DESCRIPTION

PROJECT IS TO REPLACE EXISTING WATER MAINS DUE TO EXCESSIVE NUMBER OF SERVICE BREAKS WITH 6" WATER MAIN & CUL-DE-SAC DESIGNS.



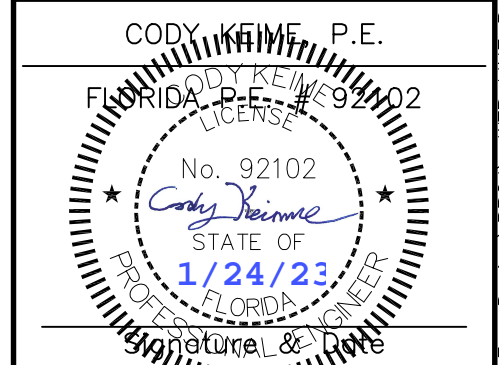
Know what's below
Call before you dig



**WHITFIELD COUNTRY CLUB HEIGHTS
WATER MAIN REPLACEMENT
COVER**

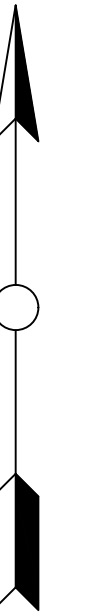
NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	404.6109570
SURVEY #	21-2690
SEC./TWN./RGE	24-35S-17E
SCALE	N.T.S.
BY	DATE
SURVEYED	HSS 02/2022
DESIGNED	CAK 10/2022
DRAWN	CAK 12/2022
CHECKED	CAK 12/2022



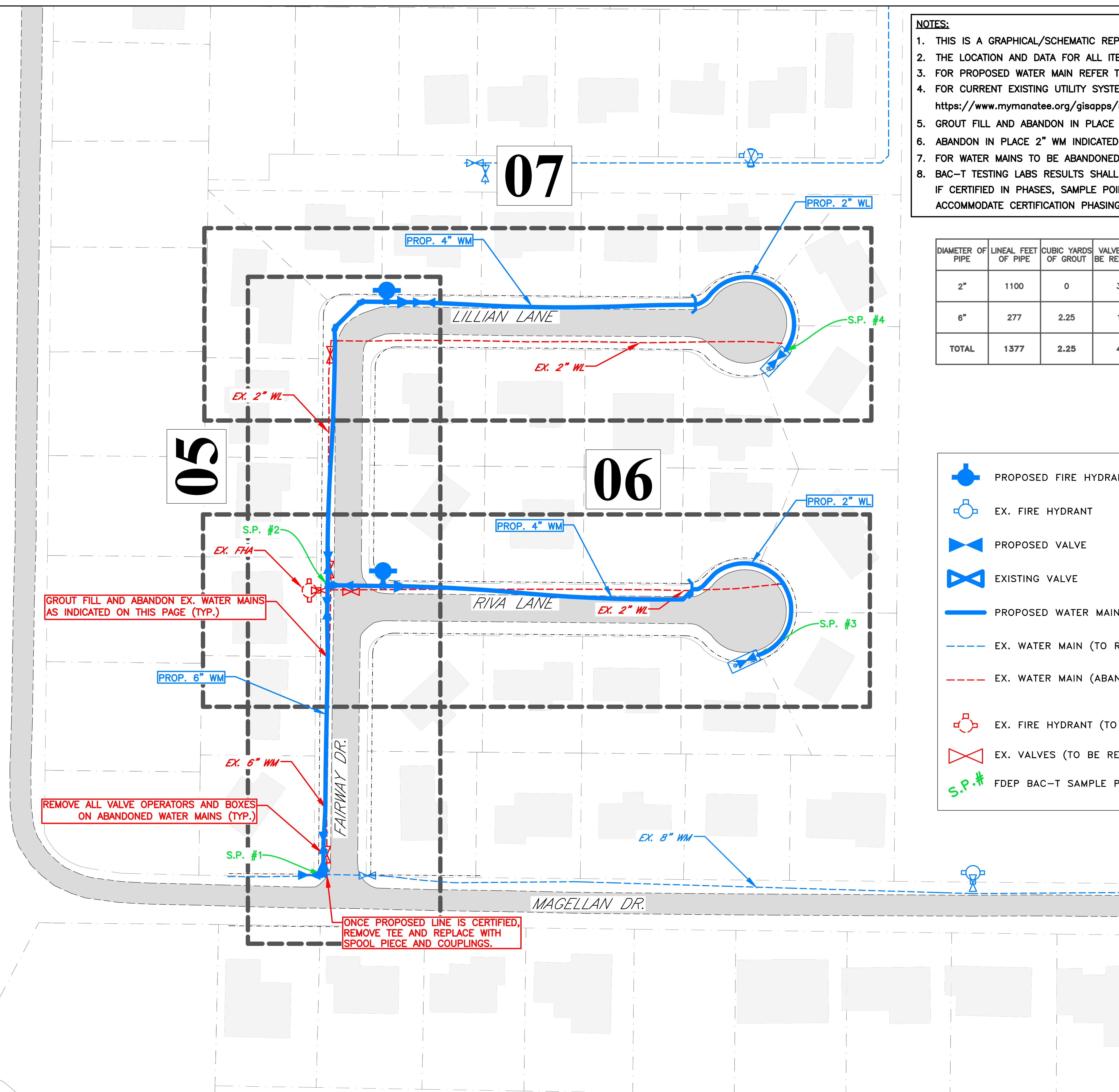
NOTES:

1. THIS IS A GRAPHICAL/SCHEMATIC REPRESENTATION OF EXISTING AND PROPOSED UTILITIES.
2. THE LOCATION AND DATA FOR ALL ITEMS SHOULD BE CONSIDERED APPROXIMATE.
3. FOR PROPOSED WATER MAIN REFER TO THE CONSTRUCTION DRAWINGS.
4. FOR CURRENT EXISTING UTILITY SYSTEM INFORMATION, REFER TO THE COUNTY PUBLIC GIS WEBSITE: <https://www.mymanatee.org/gisapps/mobile/index.html?type=utilities-public>
5. GROUT FILL AND ABANDON IN PLACE 3" AND 6" WM INDICATED ON THIS SHEET.
6. ABANDON IN PLACE 2" WM INDICATED ON THIS SHEET.
7. FOR WATER MAINS TO BE ABANDONED, REMOVE ALL VALVE STEMS AND VALVE BOXES.
8. BAC-T TESTING LABS RESULTS SHALL CORRELATE WITH THE NUMBERING PROVIDED ON THIS SHEET. IF CERTIFIED IN PHASES, SAMPLE POINT LOCATIONS WILL BE REQUIRED TO BE ADJUSTED TO ACCOMMODATE CERTIFICATION PHASING PLAN.



DIAMETER OF PIPE	LINEAL FEET OF PIPE	CUBIC YARDS OF GROUT	VALVES TO BE REMOVED
2"	1100	0	3
6"	277	2.25	1
TOTAL	1377	2.25	4

- PROPOSED FIRE HYDRANT
- EX. FIRE HYDRANT
- PROPOSED VALVE
- EXISTING VALVE
- PROPOSED WATER MAIN
- EX. WATER MAIN (TO REMAIN)
- EX. WATER MAIN (ABANDONED IN PLACE)
- EX. FIRE HYDRANT (TO BE REMOVED)
- EX. VALVES (TO BE REMOVED)
- FDEP BAC-T SAMPLE POINT



WHITFIELD COUNTRY CLUB HEIGHTS WATER MAIN REPLACEMENT KEY SHEET WEST

<p>MANATEE COUNTY FLORIDA</p> <p>PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208</p>	PROJECT #	404.6109570	CODY KEIME, P.E. No. 92102 STATE OF FLORIDA PROFESSIONAL ENGINEER 1/24/23
	SURVEY #	21-2690	
	SEC./TWN./RGE	24-35S-17E	
	SCALE	1" = 50'	
SURVEYED	HSS	02/2022	SHEET 3 OF 18
DESIGNED	CAK	10/2022	
DRAWN	CAK	12/2022	
CHECKED	CAK	12/2022	

R:\US1 Eng Design\PROJ\WTR LINE Proj\Wtr-Whitfield Country Club Heights\DWGS\Key Sheet.dwg, 1/17/2023 10:27 AM, Cody Keime, P.E., ANSI full sheet D (34.00 x 22.00 inches), MC-2018.S18

- NOTES:**
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DIAMETER OF PIPE	LINEAL FEET OF PIPE	CUBIC YARDS OF GROUT	VALVES TO BE REMOVED
3"	1540	2.72	4
TOTAL	1540	2.72	4

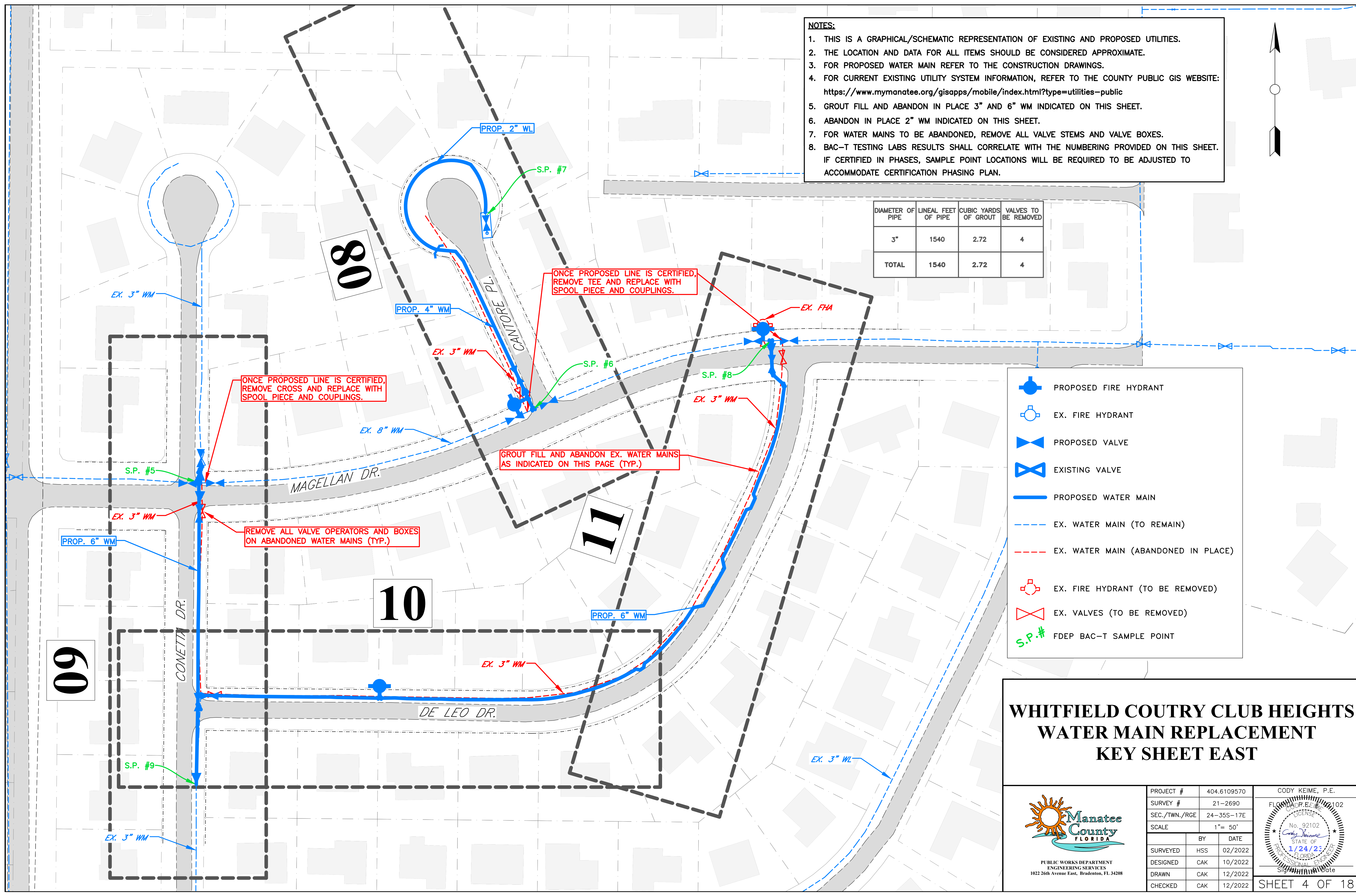
- PROPOSED FIRE HYDRANT
- EX. FIRE HYDRANT
- PROPOSED VALVE
- EXISTING VALVE
- PROPOSED WATER MAIN
- EX. WATER MAIN (TO REMAIN)
- EX. WATER MAIN (ABANDONED IN PLACE)
- EX. FIRE HYDRANT (TO BE REMOVED)
- EX. VALVES (TO BE REMOVED)
- FDEP BAC-T SAMPLE POINT

WHITFIELD COUNTRY CLUB HEIGHTS WATER MAIN REPLACEMENT KEY SHEET EAST

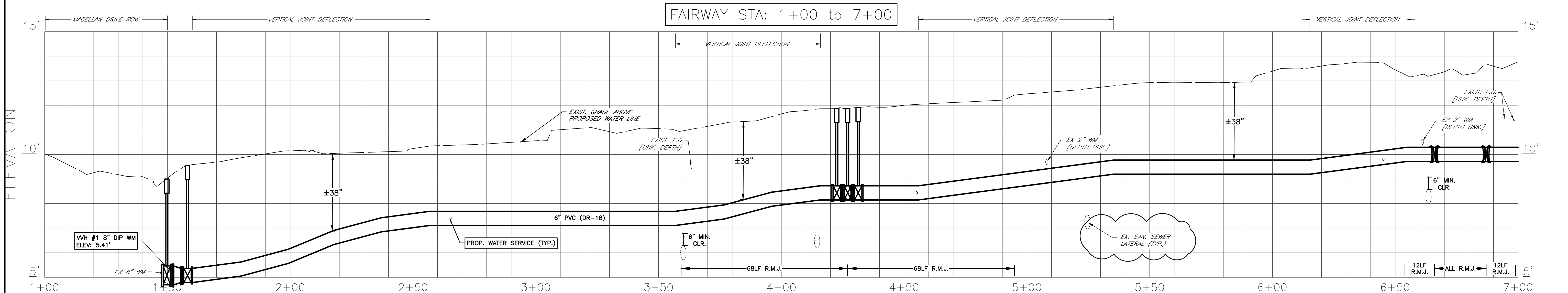
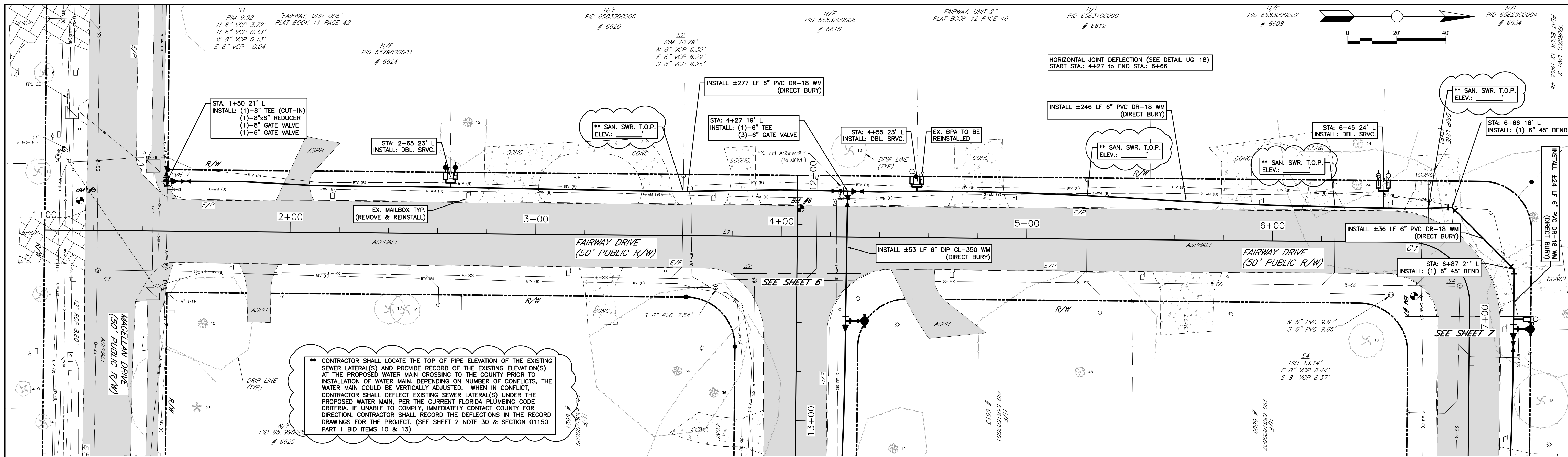


PROJECT #	404.6109570
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SEC./TWN./RGE	24-35S-17E
SCALE	1" = 50'
SURVEYED	HSS 02/2022
DESIGNED	CAK 10/2022
DRAWN	CAK 12/2022
CHECKED	CAK 12/2022

CODY KEIME, P.E.
FLORIDA PROFESSIONAL ENGINEER
No. 92102
STATE OF FLORIDA
1/24/23
PROFESSIONAL ENGINEER



P:\Users\Eng Design\PROJ\WTR LINE Proj\Wtr-Whitfield Country Club Heights\DWGS\P-Key Sheet.dwg, 1/17/2023 10:27 AM Cody Keime, P.E. ANSI full sheet D (34.00 x 22.00 inches), MC-2018.S18



METER BOX AND BPA	INSTALLATION INSTRUCTIONS
	RELOCATE EX. METER BOX (NO BPA)
	INSTALL NEW METER (NO BPA)
	INSTALL NEW METER BOX AND DC BPA
	INSTALL NEW METER BOX AND RPZ BPA
	RELOCATE EX. METER BOX AND INSTALL DC BPA
	RELOCATE EX. METER BOX AND INSTALL RPZ BPA

GENERAL NOTES

- SEE SHEET 8 FOR CONSTRUCTION NOTES THAT ARE APPLICABLE TO ALL PLAN AND PROFILE SHEETS.
- SEE SHEET 17 FOR MORE BENCHMARK & SUE INFORMATION.

NO.	REVISION DESCRIPTION	BY	DATE
1	REVISED CALLOUTS AND NOTES PERTAINING TO EXISTING SEWER LATERALS.	CAK	3/20/23

WHITFIELD COUNTRY CLUB HEIGHTS

WATER MAIN REPLACEMENT

FAIRWAY DR.



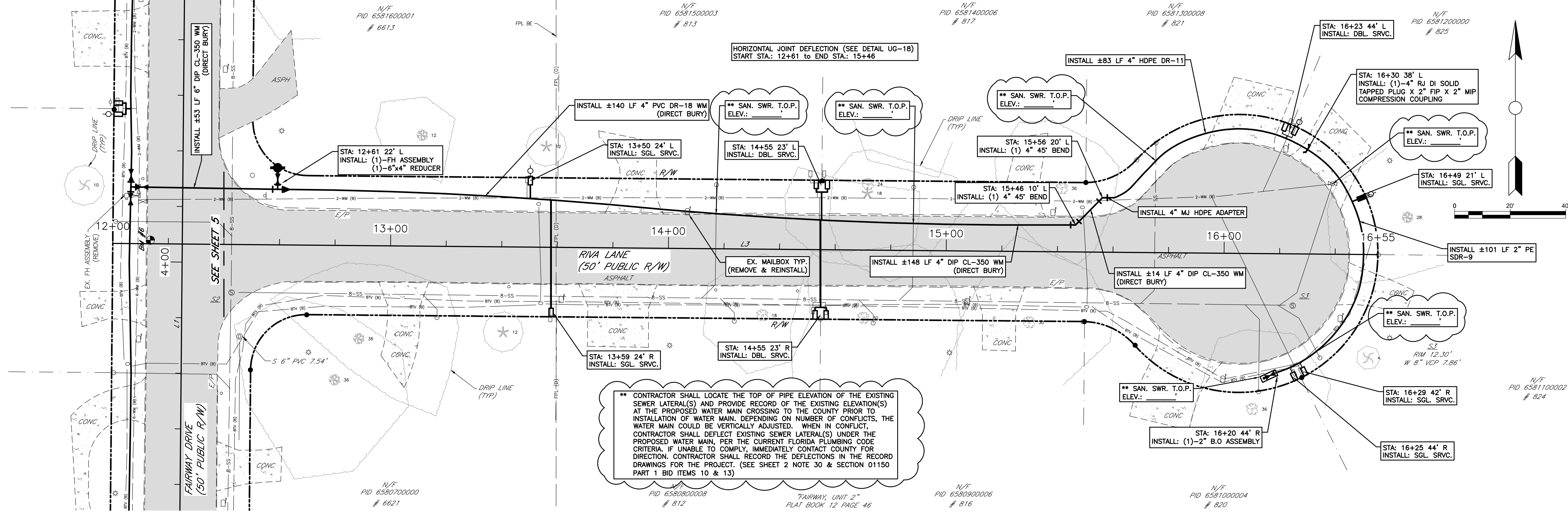
PROJECT #	404.6109570	CODY KEIME, P.E.
SURVEY #	21-2690	FLORIDA REGISTERED PROFESSIONAL ENGINEER
SEC./TWN./RGE	24-35S-17E	No. 92102
SCALE	SEE PLAN	DATE OF 3/20/23
SURVEYED	HSS 02/2022	STATE OF FLORIDA
DESIGNED	CAK 10/2022	PROFESSIONAL ENGINEER
DRAWN	CAK 12/2022	Signature
CHECKED	CAK 12/2022	

FAIRWAY, UNIT 2"
PLAT BOOK 12 PAGE 46

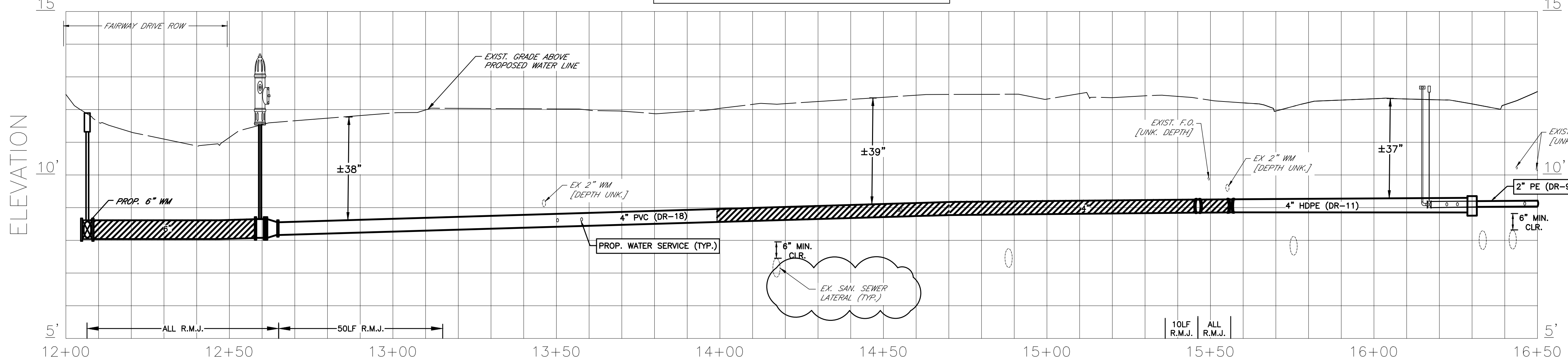
N/F
PID 6581200008
821

SS
R/W 10.79'
N 8° VCP 6.30'
E 8° VCP 6.29'
S 8° VCP 6.25'

N/F
PID 6581300006
822



RIVA STA: 12+00 to 16+50



- GENERAL NOTES**
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LIKE WISE THE SEWER CLEAN OUTS (AND SERVICE LINES) ILLUSTRATED IN PLAN MAY OR MAY NOT BE AT THE LOCATION SHOWN. IN ALL CASES THE INSTALLATION OF NEW WATER SERVICE CONNECTIONS MUST MEET THE CLEARANCE REQUIREMENTS OF MANATEE COUNTY STANDARD DETAIL UW-21.

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1	REVISED CALLOUTS AND NOTES PERTAINING TO EXISTING SEWER LATERALS.	CAK	3/20/23

WHITFIELD COUNTRY CLUB HEIGHTS

WATER MAIN REPLACEMENT

RIVA LANE



PROJECT #	404.6109570
SURVEY #	21-2690
SEC./TWN./RGE	24-35S-17E
SCALE	SEE PLAN
SURVEYED	HSS 02/2022
DESIGNED	CAK 10/2022
DRAWN	CAK 12/2022
CHECKED	CAK 12/2022

CODY KEIME, P.E.

FLORIDA PROFESSIONAL ENGINEER

No. 92102

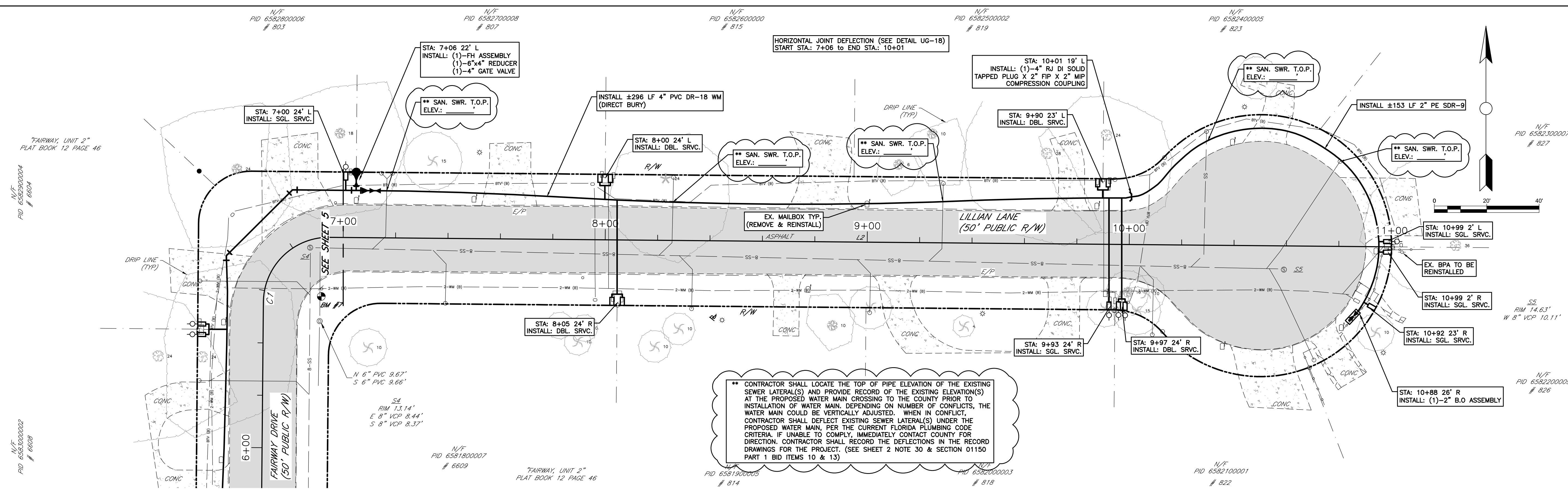
3/20/23

STATE OF FLORIDA

Professional Engineer

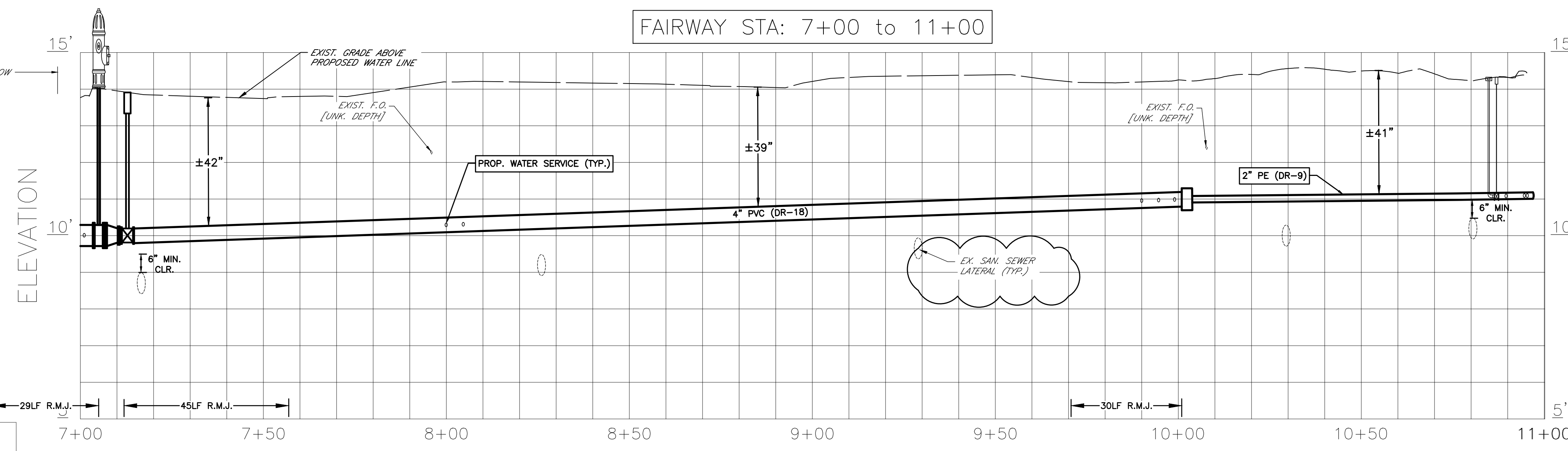
Signed [Signature]

SHEET 6 OF 18



** CONTRACTOR SHALL LOCATE THE TOP OF PIPE ELEVATION OF THE EXISTING SEWER LATERAL(S) AND PROVIDE RECORD OF THE EXISTING ELEVATION(S) AT THE PROPOSED WATER MAIN CROSSING TO THE COUNTY PRIOR TO INSTALLATION OF WATER MAIN. DEPENDING ON NUMBER OF CONFLICTS, THE WATER MAIN COULD BE VERTICALLY ADJUSTED. WHEN IN CONFLICT, CONTRACTOR SHALL DEFLECT EXISTING SEWER LATERAL(S) UNDER THE PROPOSED WATER MAIN, PER THE CURRENT FLORIDA PLUMBING CODE CRITERIA. IF UNABLE TO COMPLY, IMMEDIATELY CONTACT COUNTY FOR DIRECTION. CONTRACTOR SHALL RECORD THE DEFLECTIONS IN THE RECORD DRAWINGS FOR THE PROJECT. (SEE SHEET 2 NOTE 30 & SECTION 01150 PART 1 BID ITEMS 10 & 13)

FAIRWAY STA: 7+00 to 11+00



- GENERAL NOTES
- SEE SHEET 8 FOR CONSTRUCTION NOTES THAT ARE APPLICABLE TO ALL PLAN AND PROFILE SHEETS.
 - SEE SHEET 17 FOR MORE BENCHMARK & SUE INFORMATION.

METER BOX AND BPA	INSTALLATION INSTRUCTIONS
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	INSTALL NEW METER (NO BPA)
	INSTALL NEW METER BOX AND DC BPA
	INSTALL NEW METER BOX AND RPZ BPA
	RELOCATE EX. METER BOX AND INSTALL DC BPA
	RELOCATE EX. METER BOX AND INSTALL RPZ BPA

BENCHMARK #7
STA: 6+72 OFF. 21.20' R

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1	REVISED CALLOUTS AND NOTES PERTAINING TO EXISTING SEWER LATERALS.	CAK	3/20/23

WHITFIELD COUNTRY CLUB HEIGHTS

WATER MAIN REPLACEMENT

LILLIAN LANE



PROJECT #	404.6109570
SURVEY #	21-2690
SEC./TWN./RGE	24-35S-17E
SCALE	SEE PLAN
SURVEYED	HSS 02/2022
DESIGNED	CAK 10/2022
DRAWN	CAK 12/2022
CHECKED	CAK 12/2022

CODY KEIME, P.E.

FLORIDA PROFESSIONAL ENGINEER

No. 92102

3/20/23

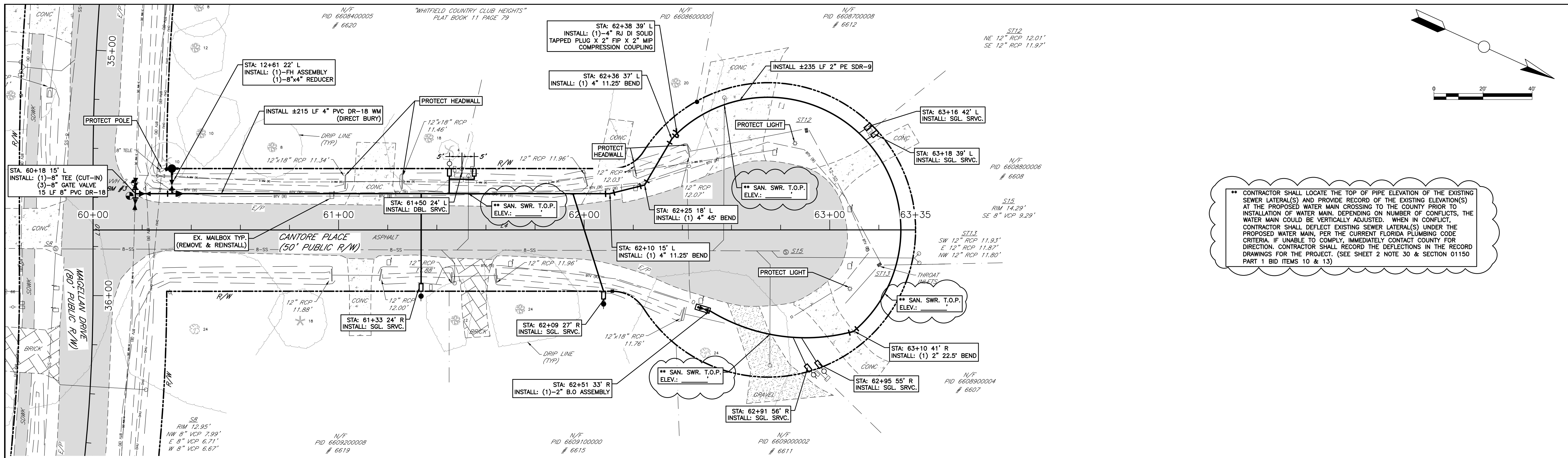
STATE OF FLORIDA

PROFESSIONAL ENGINEER

Signature:

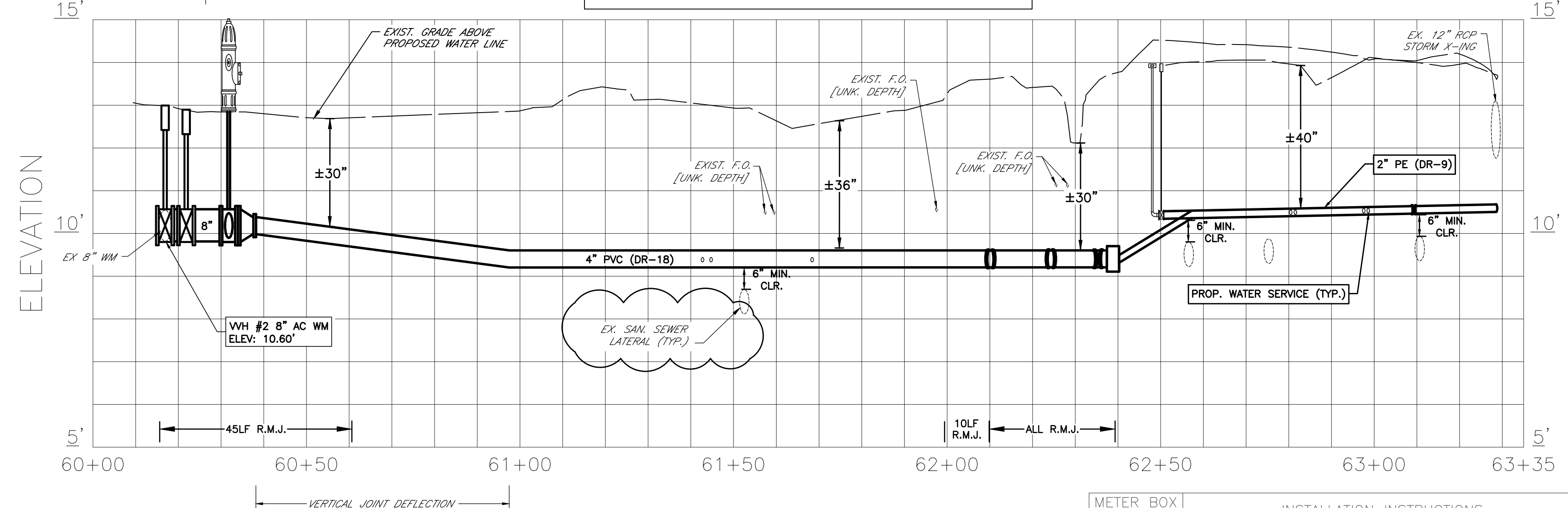
SHEET 7 OF 18

PROJECT: 20220301-Whitfield Country Club Heights Water Main Replacement, Lillian Lane, 1/27/2023 12:53 PM, Cady Keime, P.E., ANSI Full Block D (34.00" x 22.00" inches), UC-2018.S18



CONTRACTOR SHALL LOCATE THE TOP OF PIPE ELEVATION OF THE EXISTING SEWER LATERAL(S) AND PROVIDE RECORD OF THE EXISTING ELEVATION(S) AT THE PROPOSED WATER MAIN CROSSING TO THE COUNTY PRIOR TO INSTALLATION OF WATER MAIN. DEPENDING ON NUMBER OF CONFLICTS, THE WATER MAIN COULD BE VERTICALLY ADJUSTED. WHEN IN CONFLICT, CONTRACTOR SHALL DEFLECT EXISTING SEWER LATERAL(S) UNDER THE PROPOSED WATER MAIN, PER THE CURRENT FLORIDA PLUMBING CODE CRITERIA. IF UNABLE TO COMPLY, IMMEDIATELY CONTACT COUNTY FOR DIRECTION. CONTRACTOR SHALL RECORD THE DEFLECTIONS IN THE RECORD DRAWINGS FOR THE PROJECT. (SEE SHEET 2 NOTE 30 & SECTION 01150 PART 1 BID ITEMS 10 & 13)

CANTORE STA: 60+00 to 63+35



CONSTRUCTION NOTES (APPLICABLE TO ALL PLAN AND PROFILE SHEETS):

- ALL METER BOXES PROPOSED AND/OR RELOCATED SHALL BE INSTALLED PER UW-21, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL COORDINATE ALL WATER SERVICE LINE INSTALLATIONS WITH THE UTILITY DEPARTMENT (JAMES LEE @ 941-792-8811 x5055) PRIOR TO INSTALLATION. THE CONTRACTOR SHALL INSTALL 3/4-INCH REDUCE PRESSURE BACKFLOW PREVENTION ASSEMBLIES (BPA'S) (WILKINS 975XL2 OR APOLLO VALVE RPLF4A) WITH VACUUM BREAKERS ON ALL EXTERIOR HOSE BIBBS, UNLESS OTHERWISE NOTED.
- WATER SERVICE TAPS SHALL NOT BE LOCATED UNDER DRIVEWAYS.
- INSTALLATION OF THE PROPOSED PIPE SHALL BE AS SHOWN IN THE PLAN AND PROFILE VIEWS, UNLESS REVISIONS ARE APPROVED BY THE COUNTY. THE DEPTH OF BURY OR TOP OF PIPE ELEVATION ARE TO BE AS INDICATED BY THE ELEVATION GRID, UNLESS OTHERWISE STATED ON THE PLANS BY ELEVATION CALLOUTS OR SPOT GRADES. IT IS EXPECTED THE INSTALLATION OF THE PIPE OR APPURTENANCES SHALL MATCH THE ELEVATIONS SHOWN IN THE CONSTRUCTION PLANS.
- ALL NECESSARY DEVIATIONS BEYOND THE ACCEPTED TOLERANCES WILL NOT BE ACCEPTED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE COUNTY.
- INSTALLATION VERTICAL AND HORIZONTAL TOLERANCES SHALL BE AS STATED IN THE SPECIFICATION DOCUMENT, SECTION 02617, 3.03.H. PIPE PLACED OUT OF TOLERANCE IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO COST TO THE COUNTY.
- CONTRACTOR SHALL EXPOSE AND SURVEY THE EXISTING TOP OF "PIPE" ELEVATION AT ALL PROPOSED UTILITY CROSSINGS. THIS INFORMATION SHALL BE PROVIDED ON THE RECORD DRAWINGS.
- CONTRACTOR SHALL USE A TAPE MEASURE AND PROVIDE PHOTOGRAPHIC EVIDENCE THAT ALL MINIMUM REQUIRED HORIZONTAL OR VERTICAL DISTANCES HAVE BEEN PROVIDED. THESE PHOTOS SHALL BECOME PART OF THE PROJECT FILE. PHOTOS SHALL BE LABELED WITH THE BASELINE STATION NUMBERING AND UPLOADED TO @BUILDER WITHIN 1 TO 2 DAYS OF THE CROSSING INSTALLATIONS. THESE REQUIREMENTS SHALL APPLY TO ALL CROSSINGS. THESE PHOTOS SHALL BE USED TO SUPPORT THE AS-BUILT RECORD INFORMATION.
- ALL EXISTING, UNDAMAGED, ROME 1910 CAST IRON METER BOXES MAY BE REUSED. REPLACE ALL OTHERS WITH CURRENT STANDARD.
- CONTRACTOR SHALL NOT USE LEVERAGE OR MECHANICAL MEANS TO ALIGN THE PIPE AND/OR FITTINGS FOR ATTACHMENT. THE PIPE SHALL NOT BE "SPRING-LOADED".
- ALL DISTURBED EX. DRAINAGE DITCHES/SWALES SHALL BE RE-GRADED TO ORIGINAL CONDITION TO PROVIDE POSITIVE DRAINAGE.
- ALL COST TO RESTORE PROPERTY IN THE ROW DURING PIPE INSTALLATION SHALL BE INCLUDED IN THE COST OF THE PIPE BID ITEM, IF NOT SPECIFICALLY ADDRESSED BY OTHER BID ITEMS.
- THERE SHALL BE 3-FOOT MINIMUM HORIZONTAL SEPARATION BETWEEN THE PROPOSED WATER MAIN AND EXISTING/PROPOSED STRUCTURES.
- ANY PROPOSED AIR RELEASE VALVES (ARV) SHALL BE INSTALLED AFTER THE FIRST DRAFT OF THE RECORD DRAWINGS ARE REVIEWED TO ENSURE THE ARVS ARE INSTALLED AT THE ACTUAL HIGH POINTS OF THE NEW INSTALLED MAINS.
- LOCATION OF EXISTING UTILITIES ARE APPROXIMATE. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY ALL EXISTING UTILITY LOCATIONS BOTH HORIZONTALLY AND VERTICALLY ALONG THE PROPOSED WATER MAIN ALIGNMENT AND MARK THEIR LOCATION (HORIZ. & VERT.) ON THE PLANS AND NOTIFY THE COUNTY OF ANY CONFLICTS WITH THE PLAN ELEVATIONS IMMEDIATELY. 6-INCH MIN. VERTICAL CLEARANCE IS REQUIRED FROM THE WATER MAIN. THE REDLINE DRAWINGS SHALL BE SUBMITTED TO THE COUNTY FOR RECORD. ALL EXISTING UTILITIES SHALL BE REFLECTED IN THE RECORD DRAWINGS OF THE PROJECT.

THE VERTICAL ALIGNMENT OF THE WATER MAIN MAY BE SLIGHTLY VARIED BY ALLOWABLE JOINT DEFLECTIONS BASED ON THE PIPE MANUFACTURER'S RECOMMENDATIONS PER UG-18. FITTINGS SHALL NOT BE USED TO DEFLECT AROUND THE EXISTING UTILITIES. IF A CONFLICT CANNOT BE AVOIDED BY UTILIZING PIPE JOINT DEFLECTIONS, THEN THE EXISTING UTILITIES SHALL BE RELOCATED TO ALLOW CLEARANCE FOR THE WATER MAIN TO PASS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE EXISTING UTILITY PRIOR TO RELOCATION.

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	INSTALL NEW METER (NO BPA)
	INSTALL NEW METER BOX AND DC BPA
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GENERAL NOTE

- SEE SHEET 17 FOR MORE BENCHMARK & SUE INFORMATION.

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WHITFIELD COUNTRY CLUB HEIGHTS

WATER MAIN REPLACEMENT

CONTORE PL.



PROJECT #	404.6109570
SURVEY #	21-2690
SEC./TWN./RGE	24-35S-17E
SCALE	SEE PLAN
SURVEYED	HSS 02/2022
DESIGNED	CAK 10/2022
DRAWN	CAK 12/2022
CHECKED	CAK 12/2022

CODY KEIME, P.E.

FLORIDA REGISTERED PROFESSIONAL ENGINEER

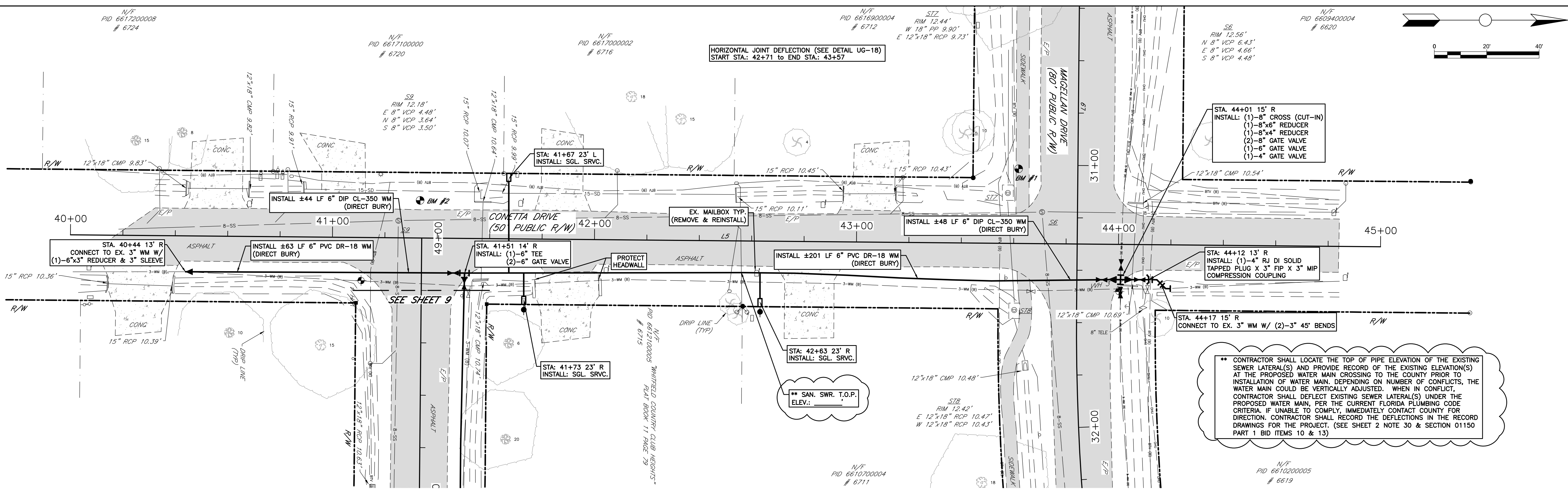
No. 92102

STATE OF FLORIDA

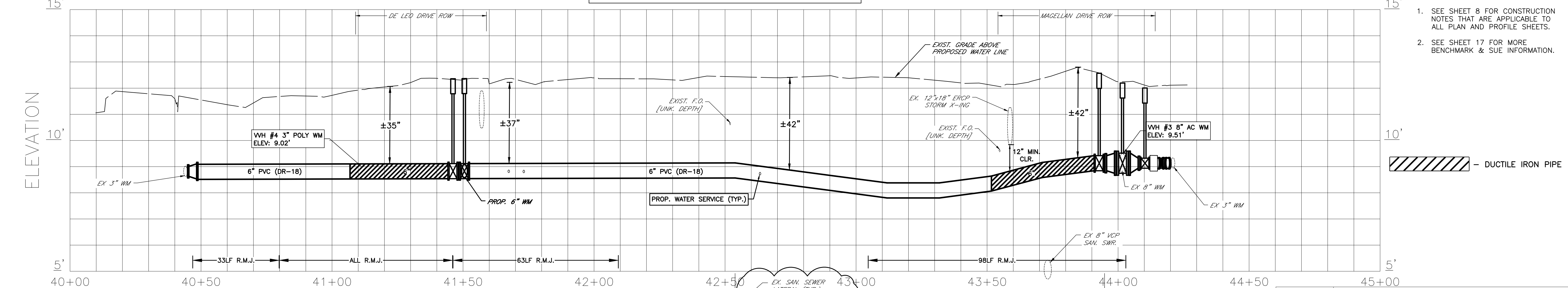
3/20/23

Professional Engineer

Signature: _____



CONETTA STA: 40+00 to 45+00



- GENERAL NOTES**
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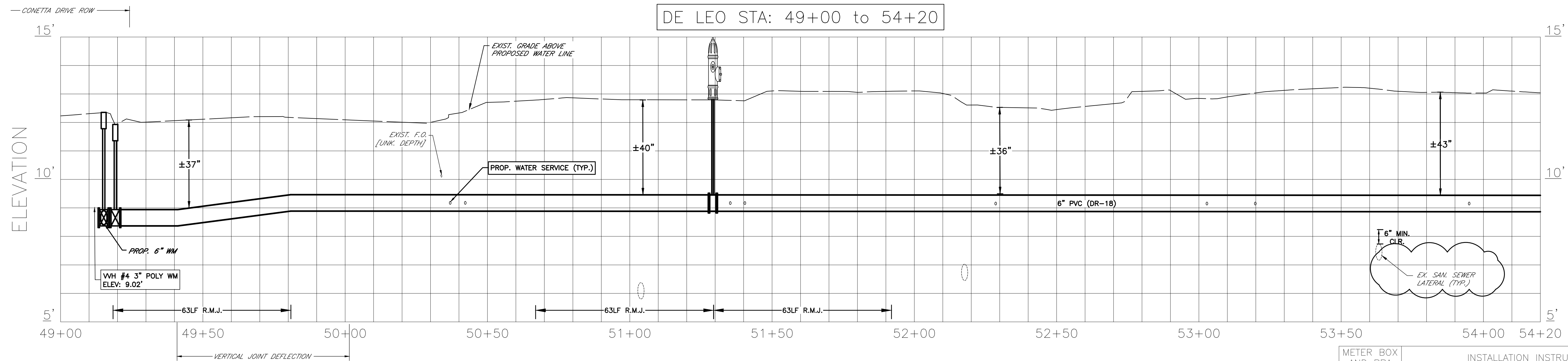
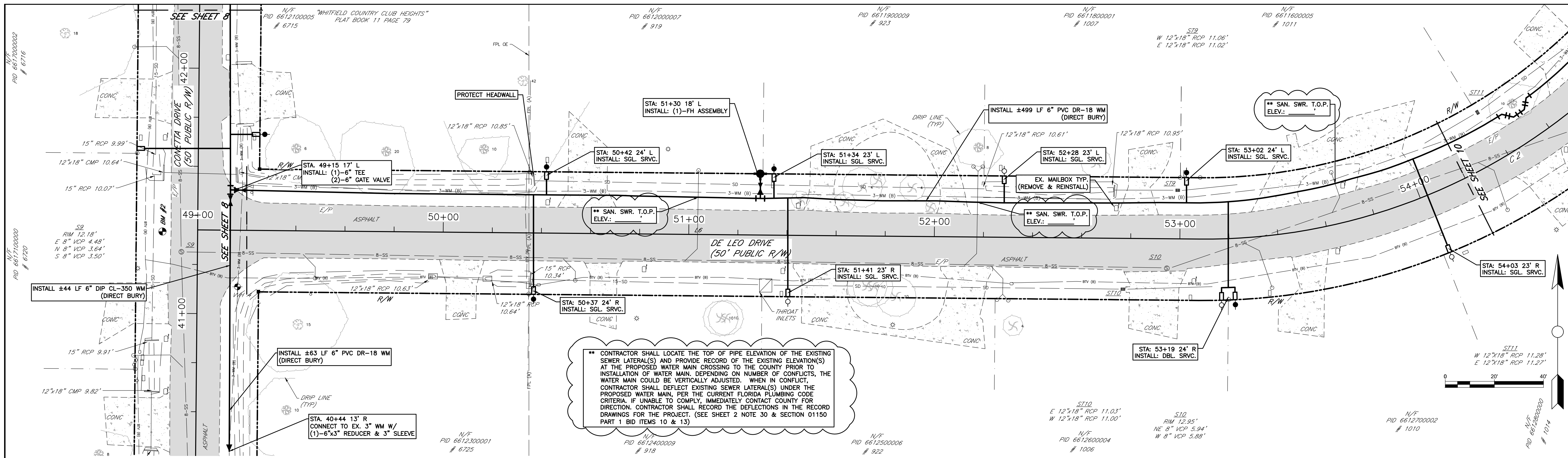
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WHITFIELD COUNTRY CLUB HEIGHTS WATER MAIN REPLACEMENT CONETTA DR.



PROJECT #	404.6109570	
SURVEY #	21-2690	
SEC./TWN./RGE	24-35S-17E	
SCALE	SEE PLAN	
SURVEYED	HSS 02/2022	
DESIGNED	CAK 10/2022	
DRAWN	CAK 12/2022	
CHECKED	CAK 12/2022	



BENCHMARK #2
STA. 41.33 OFF. 14.32' L

GENERAL NOTES

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- SEE SHEET 17 FOR MORE BENCHMARK & SUE INFORMATION.

THE SEWER SERVICE LINES ILLUSTRATED IN THIS PROFILE ARE FROM OLD RECORD DRAWINGS. THEY ARE DRAWN AT THE ELEV. OF THE SEWER MAIN. THE ELEV. THAT THEY CROSS THE PROPOSED WATERMAIN IS UNKNOWN.

LIKE WISE THE SEWER CLEAN OUTS (AND SERVICE LINES) ILLUSTRATED IN PLAN MAY OR MAY NOT BE AT THE LOCATION SHOWN. IN ALL CASES THE INSTALLATION OF NEW WATER SERVICE CONNECTIONS MUST MEET THE CLEARANCE REQUIREMENTS OF MANATEE COUNTY STANDARD DETAIL UW-21.

METER BOX AND BPA	INSTALLATION INSTRUCTIONS
	RELOCATE EX. METER BOX (NO BPA)
	INSTALL NEW METER (NO BPA)
	INSTALL NEW METER BOX AND DC BPA
	INSTALL NEW METER BOX AND RPZ BPA
	RELOCATE EX. METER BOX AND INSTALL DC BPA
	RELOCATE EX. METER BOX AND INSTALL RPZ BPA

NO.	REVISION DESCRIPTION	BY	DATE
1	REVISED CALLOUTS AND NOTES PERTAINING TO EXISTING SEWER LATERALS.	CAK	3/20/23

WHITFIELD COUNTRY CLUB HEIGHTS

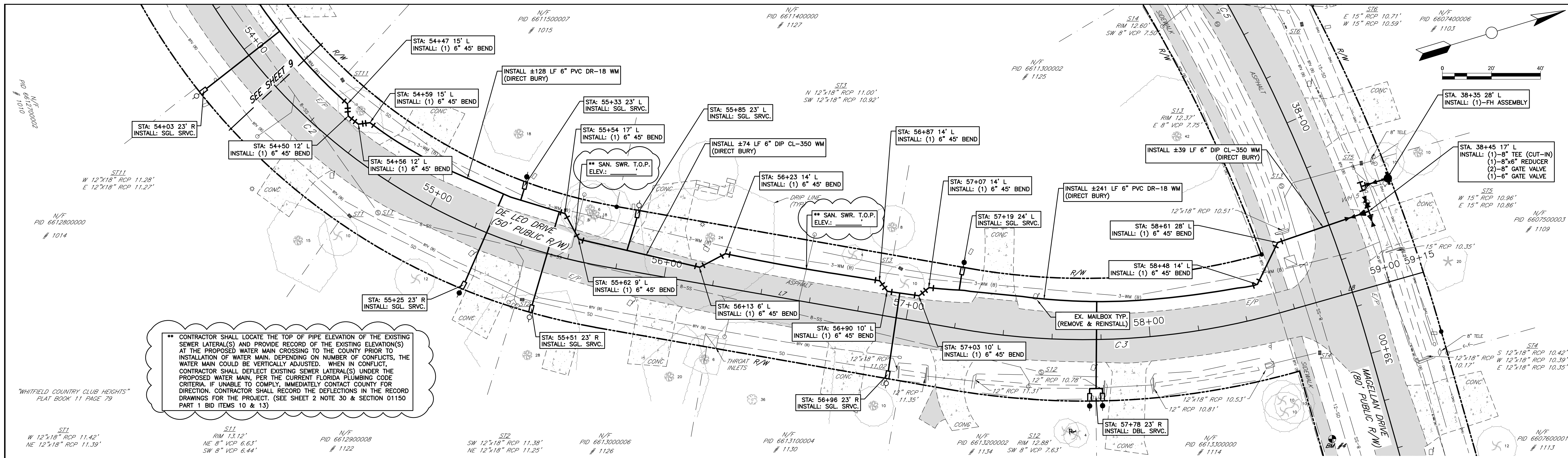
WATER MAIN REPLACEMENT

DE LEO DR. STA 49+00 TO 54+20



PROJECT #	404.6109570
SURVEY #	21-2690
SEC./TWN./RGE	24-35S-17E
SCALE	SEE PLAN
SURVEYED	HSS 02/2022
DESIGNED	CAK 10/2022
DRAWN	CAK 12/2022
CHECKED	CAK 12/2022

CODY KEIME, P.E.
FLORIDA PROFESSIONAL ENGINEER
No. 92102
DATE 3/20/23
STATE OF FLORIDA
Professional Engineer
Signature: [Signature]



CONTRACTOR SHALL LOCATE THE TOP OF PIPE ELEVATION OF THE EXISTING SEWER LATERAL(S) AND PROVIDE RECORD OF THE EXISTING ELEVATION(S) AT THE PROPOSED WATER MAIN CROSSING TO THE COUNTY PRIOR TO INSTALLATION OF WATER MAIN. DEPENDING ON NUMBER OF CONFLICTS, THE WATER MAIN COULD BE VERTICALLY ADJUSTED. WHEN IN CONFLICT, CONTRACTOR SHALL DEFLECT EXISTING SEWER LATERAL(S) UNDER THE PROPOSED WATER MAIN, PER THE CURRENT FLORIDA PLUMBING CODE CRITERIA. IF UNABLE TO COMPLY, IMMEDIATELY CONTACT COUNTY FOR DIRECTION. CONTRACTOR SHALL RECORD THE DEFLECTIONS IN THE RECORD DRAWINGS FOR THE PROJECT. (SEE SHEET 2 NOTE 30 & SECTION 01150 PART 1 BID ITEMS 10 & 13)

WHITFIELD COUNTRY CLUB HEIGHTS PLAT BOOK 11 PAGE 79

ST11 W 12'x18" RCP 11.28' E 12'x18" RCP 11.27'

ST11 RIM 13.12' NE 8" VCP 6.63' SW 8" VCP 6.44'

ST12 SW 12'x18" RCP 11.36' NE 12'x18" RCP 11.25'

N/F PID 6613000006 # 1126

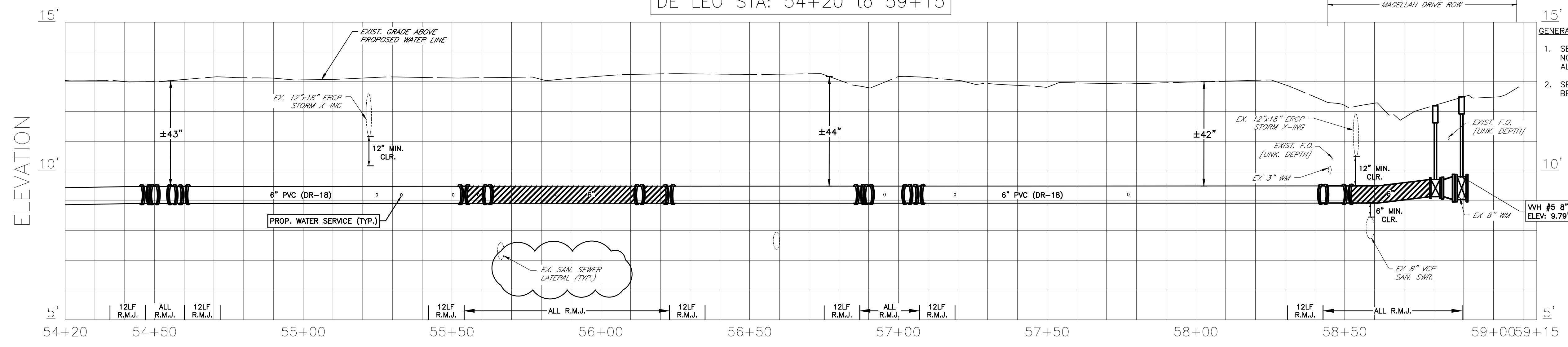
N/F PID 6613100004 # 1130

N/F PID 6613200002 RIM 12.88' SW 8" VCP 7.63'

N/F PID 6613300000 # 1114

N/F PID 6607600001 # 1113

DE LEO STA: 54+20 to 59+15



- GENERAL NOTES
- SEE SHEET 8 FOR CONSTRUCTION NOTES THAT ARE APPLICABLE TO ALL PLAN AND PROFILE SHEETS.
 - SEE SHEET 17 FOR MORE BENCHMARK & SUE INFORMATION.

THE SEWER SERVICE LINES ILLUSTRATED IN THIS PROFILE ARE FROM OLD RECORD DRAWINGS. THEY ARE DRAWN AT THE ELEV. OF THE SEWER MAIN. THE ELEV. THAT THEY CROSS THE PROPOSED WATERMAIN IS UNKNOWN.

LIKE WISE THE SEWER CLEAN OUTS (AND SERVICE LINES) ILLUSTRATED IN PLAN MAY OR MAY NOT BE AT THE LOCATION SHOWN. IN ALL CASES THE INSTALLATION OF NEW WATER SERVICE CONNECTIONS MUST MEET THE CLEARANCE REQUIREMENTS OF MANATEE COUNTY STANDARD DETAIL UW-21.

DUPLICATE IRON PIPE

METER BOX AND BPA	INSTALLATION INSTRUCTIONS
	RELOCATE EX. METER BOX (NO BPA)
	INSTALL NEW METER (NO BPA)
	INSTALL NEW METER BOX AND DC BPA
	INSTALL NEW METER BOX AND RPZ BPA
	RELOCATE EX. METER BOX AND INSTALL DC BPA
	RELOCATE EX. METER BOX AND INSTALL RPZ BPA

BENCHMARK #4 STA. 58+60 OFF. 55.27' R

NO.	REVISION DESCRIPTION	BY	DATE
1	REVISED CALLOUTS AND NOTES PERTAINING TO EXISTING SEWER LATERALS.	CAK	3/20/23

WHITFIELD COUNTRY CLUB HEIGHTS

WATER MAIN REPLACEMENT

DE LEO DR. STA 54+20 TO 59+15



PROJECT #	404.6109570
SURVEY #	21-2690
SEC./TWN./RGE	24-35S-17E
SCALE	SEE PLAN
SURVEYED	HSS 02/2022
DESIGNED	CAK 10/2022
DRAWN	CAK 12/2022
CHECKED	CAK 12/2022

CODY KEIME, P.E.

FLORIDA PROFESSIONAL ENGINEER

No. 92102

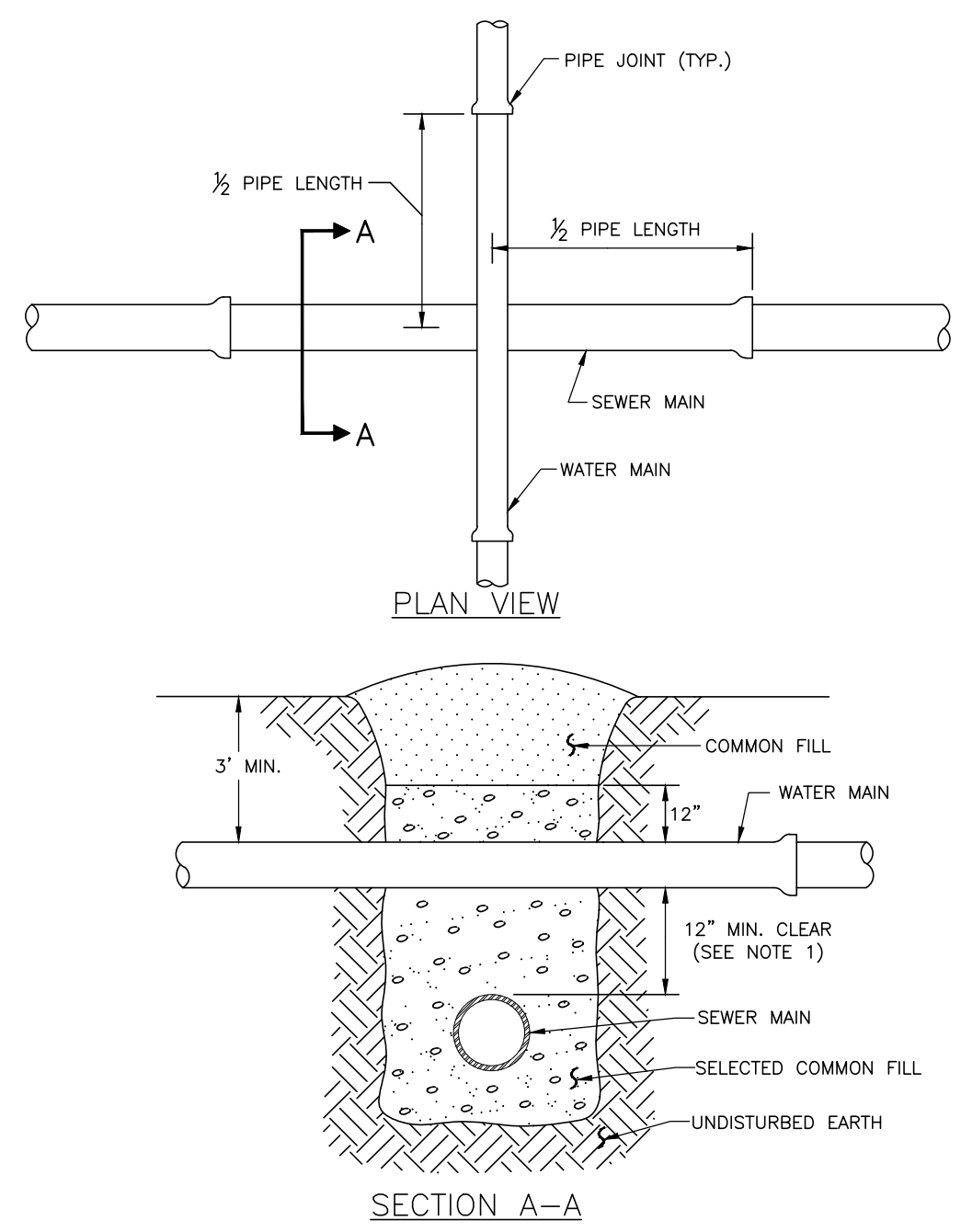
STATE OF FLORIDA

3/20/23

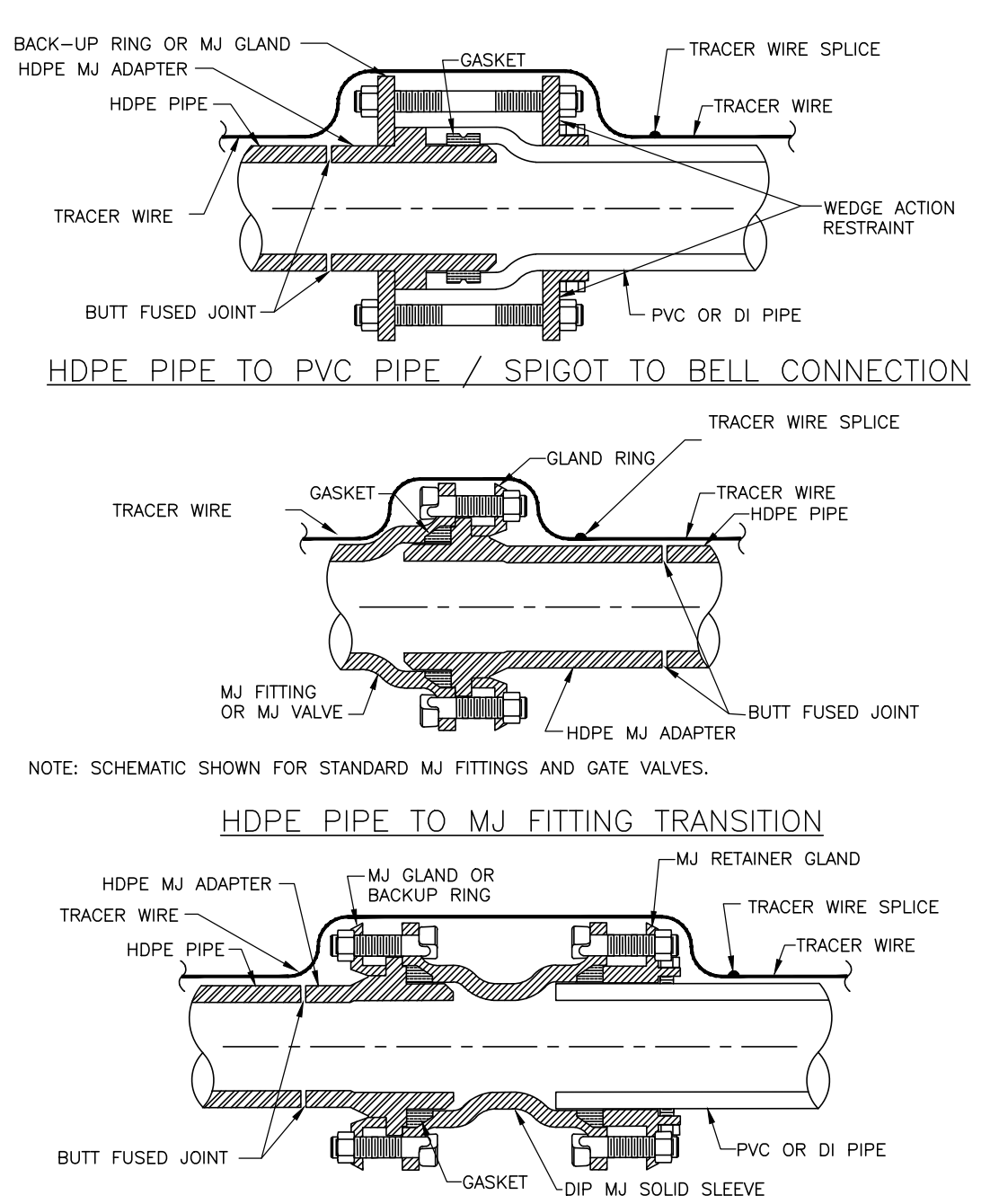
PROFESSIONAL ENGINEER

Signature: [Signature]

SHEET 11 OF 18



NOTES:
 1. CLEARANCE MAY BE REDUCED TO 6" FOR GRAVITY SEWER WHERE WATER MAIN IS DUCTILE IRON.
 2. 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.



NOTE: SCHEMATIC SHOWN FOR STANDARD MJ FITTINGS AND GATE VALVES.

1. ONE TRACER WIRE SHALL BE SECURED TO THE PIPE FOR ALL TYPES OF PIPELINE INSTALLATIONS.

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

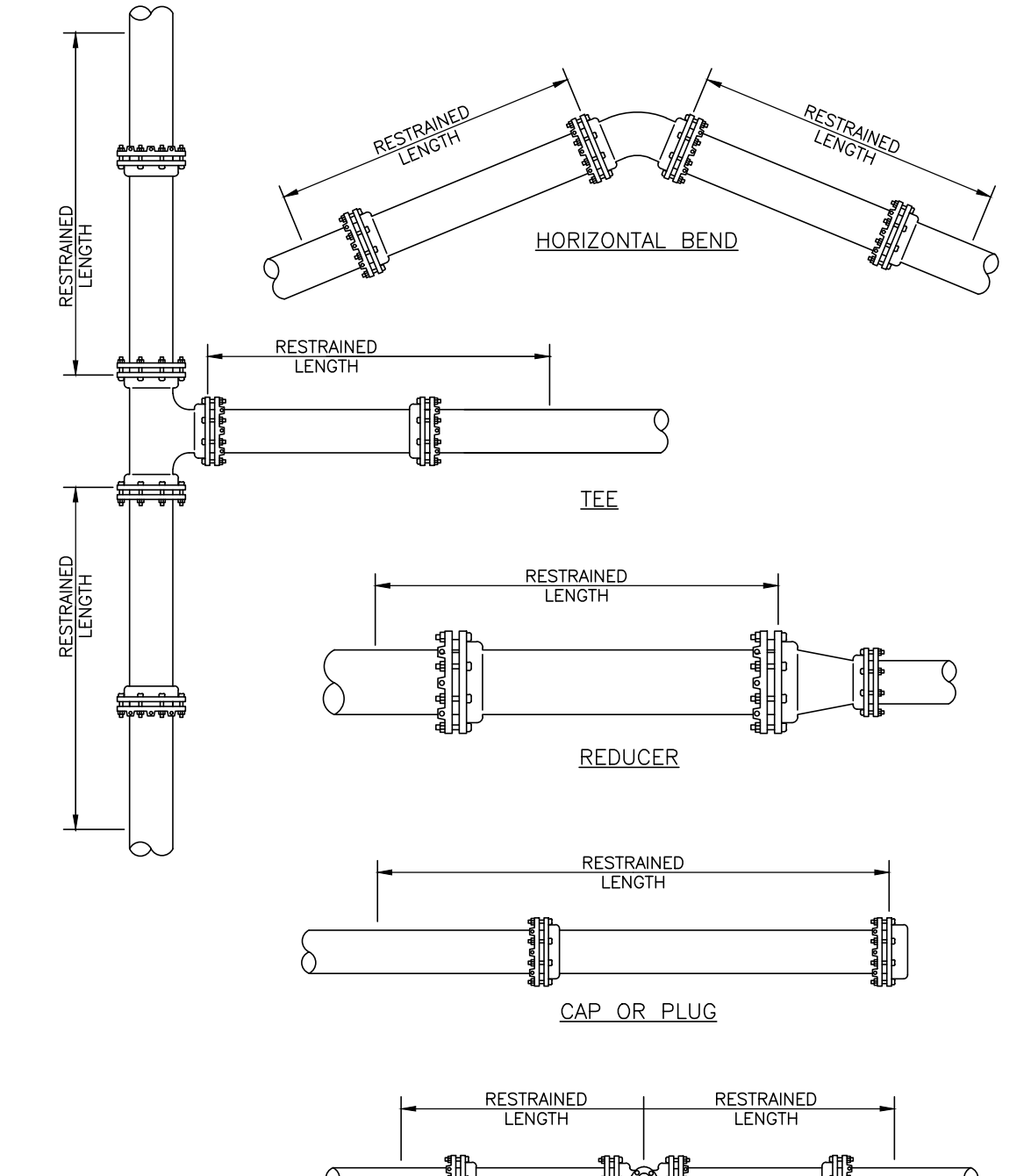
MAIN PIPE SIZE	HORIZ. BENDS			TEES			REDUCERS			PLUGS & VALVES			
	90°	45°	22.5°	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH
36	142	59	28	X36	393	X36	318	X36	232	X36	165	X36	84
30	124	51	25	X30	333	X30	252	X30	189	X30	115	X30	51
24	106	44	21	X24	270	X24	211	X24	143	X24	81	X24	30
20	92	38	18	X20	225	X20	161	X20	85	X20	39	X20	18
16	77	32	15	X16	177	X16	107	X16	55	X16	19	X16	11
12	61	25	12	X12	127	X12	89	X12	50	X12	1	X12	5
10	52	22	10	X10	101	X10	67	X10	38	X10	1	X10	1
8	44	18	9	X8	78	X8	49	X8	26	X8	1	X8	1
6	34	14	7	X6	46	X6	29	X6	18	X6	1	X6	1
4	24	10	5	X4	19	X4	12	X4	8	X4	1	X4	1

NOTES:
 1. RESTRAIN 11.25' BENDS 50% OF LENGTH FOR 22.5° BENDS.
 2. ALL VALVES AND FITTINGS SHALL BE RESTRAINED TO THE CONNECTING SECTIONS OF PIPE.
 3. ALL ISOLATION VALVES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI TEST PRESSURE IN EITHER DIRECTION.
 4. PIPE SIZES ARE GIVEN IN INCHES.
 5. RESTRAINED PIPE LENGTHS ARE GIVEN IN FEET.
 6. LENGTHS SHOWN ARE FOR A TEST PRESSURE OF 180 PSI.
 7. THE RESTRAINED LENGTHS SHOWN IN THESE TABLES ARE BASED ON SOIL CLASSIFICATION SP WITH AWWA 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.
 8. RESTRAINED LENGTHS TO BE APPLIED TO PIPELINES PER DETAIL UG-10 RESTRAINED LENGTHS FOR PIPE.
 9. ALL RESTRAINED JOINT HARDWARE SHALL CONFORM TO 1.11.17 OF THE PUBLIC WORKS UTILITIES STANDARDS MANUAL.
 10. ALL THREE "LEGS" OF TEES SHALL BE RESTRAINED PER THE STATED LENGTH IN THE TABLE.

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	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH
36	142	59	28	X36	393	X36	318	X36	232	X36	165	X36	84
30	124	51	25	X30	333	X30	252	X30	189	X30	115	X30	51
24	106	44	21	X24	270	X24	211	X24	143	X24	81	X24	30
20	92	38	18	X20	225	X20	161	X20	85	X20	39	X20	18
16	77	32	15	X16	177	X16	107	X16	55	X16	19	X16	11
12	61	25	12	X12	127	X12	89	X12	50	X12	1	X12	5
10	52	22	10	X10	101	X10	67	X10	38	X10	1	X10	1
8	44	18	9	X8	78	X8	49	X8	26	X8	1	X8	1
6	34	14	7	X6	46	X6	29	X6	18	X6	1	X6	1
4	24	10	5	X4	19	X4	12	X4	8	X4	1	X4	1

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.



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

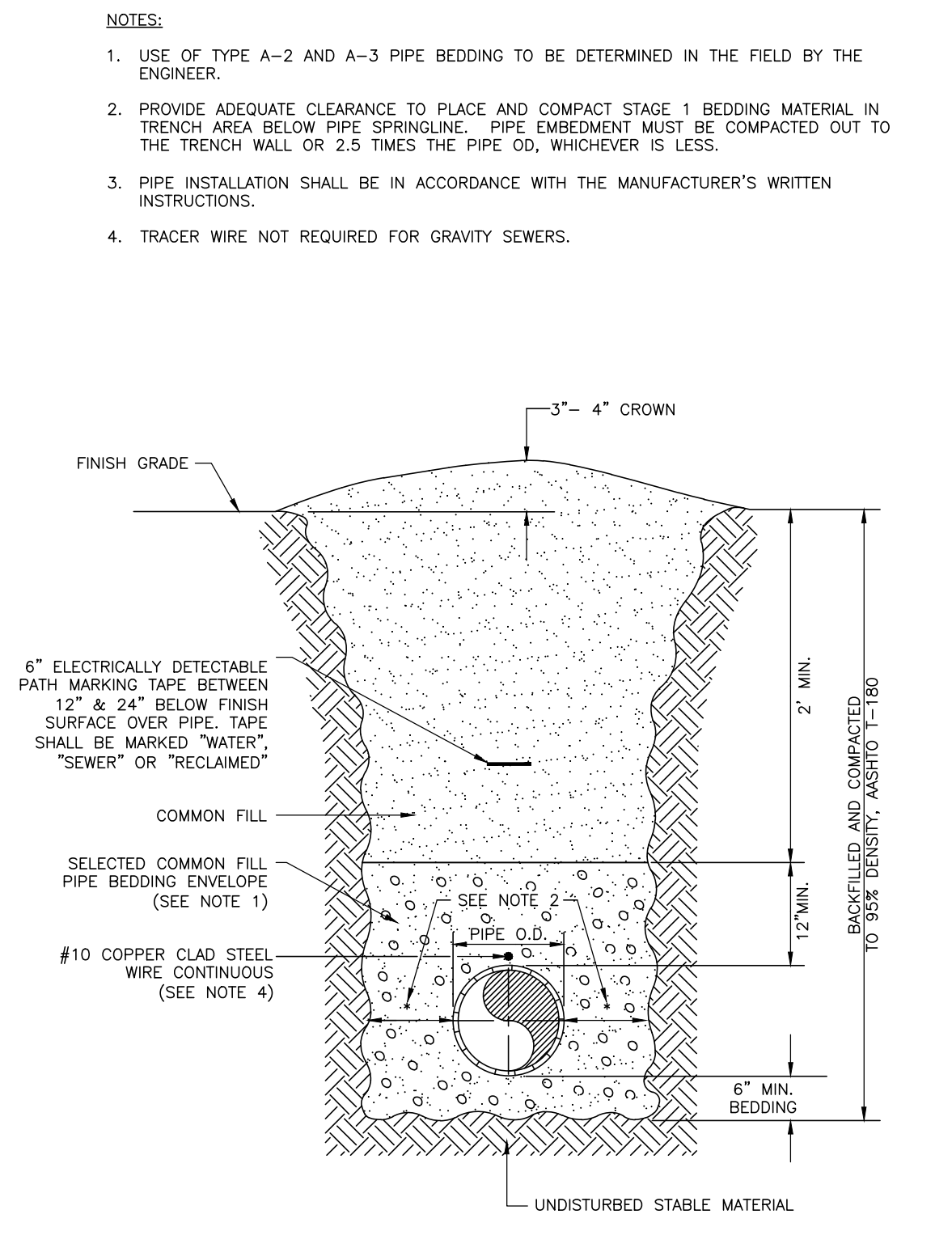
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TYPICAL NEW WATER & SEWER LINE CROSSING	UG-2
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		HDPE TO PVC OR DI PIPE ADAPTER	UG-6
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL

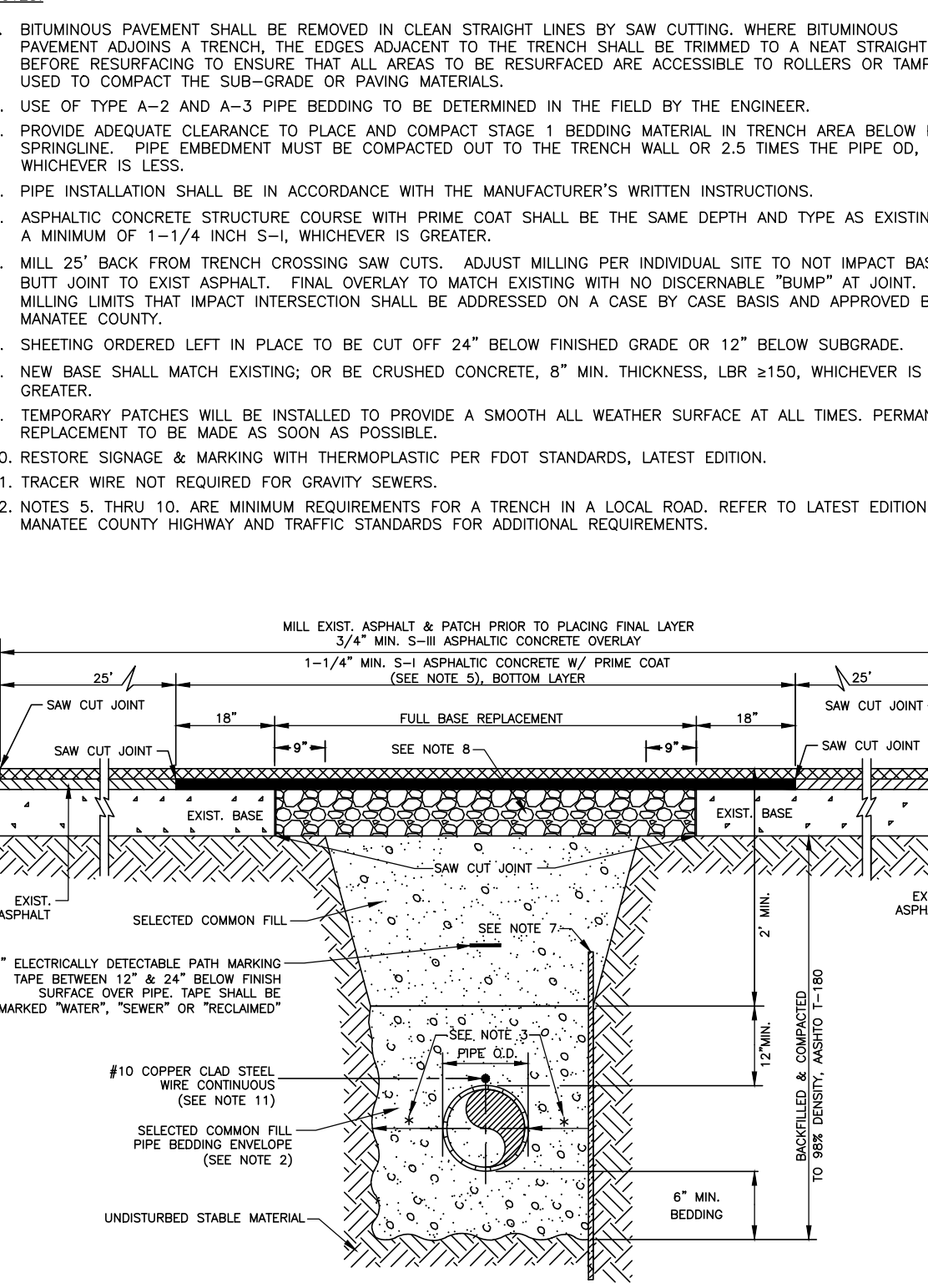
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		RESTRAINED LENGTHS FOR PVC PIPE	UG-8
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL

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

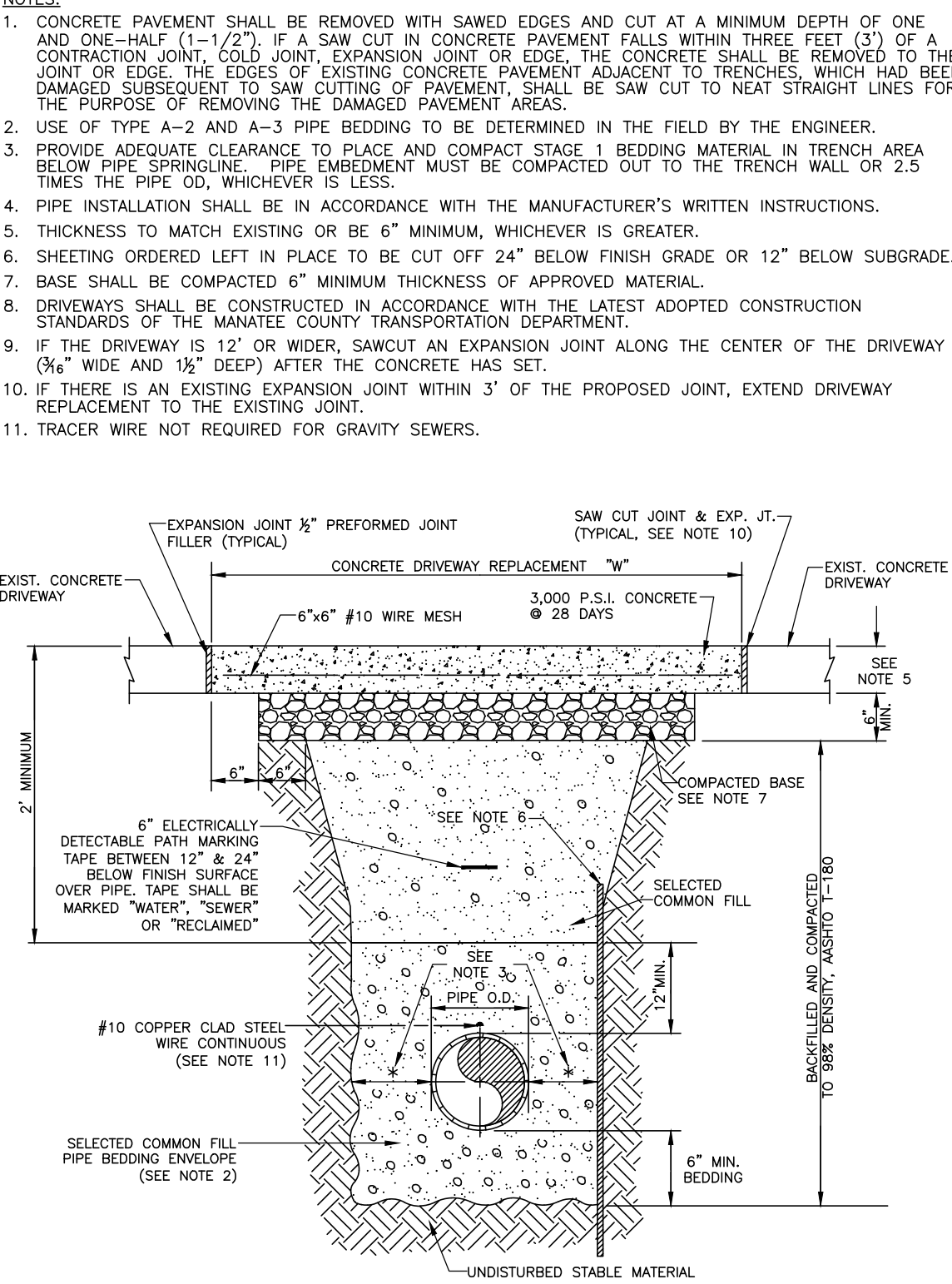
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		RESTRAINED LENGTHS FOR PIPE	UG-10
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL



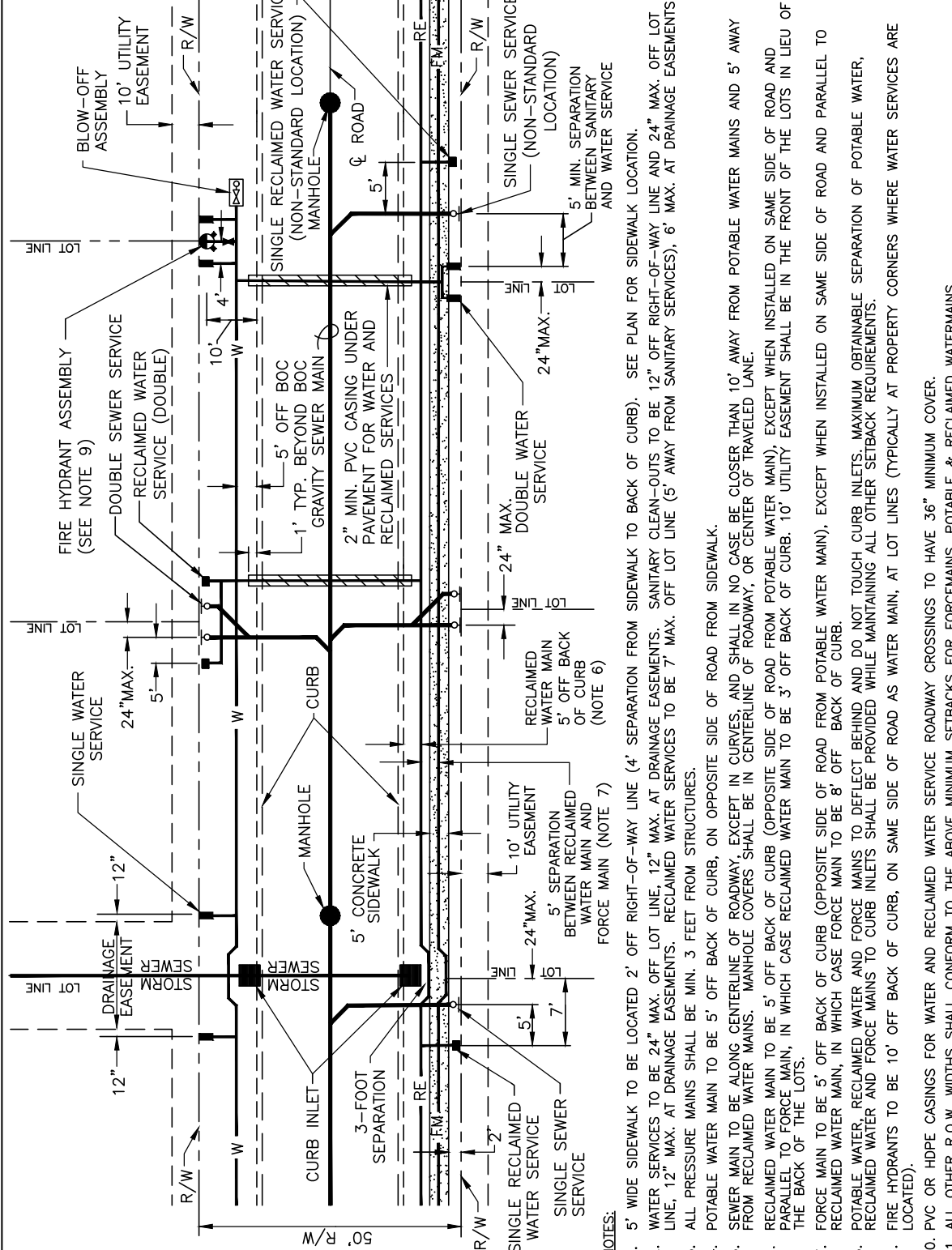
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH UNIMPROVED SURFACE TYPE A-1 PIPE BEDDING	UG-11
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL



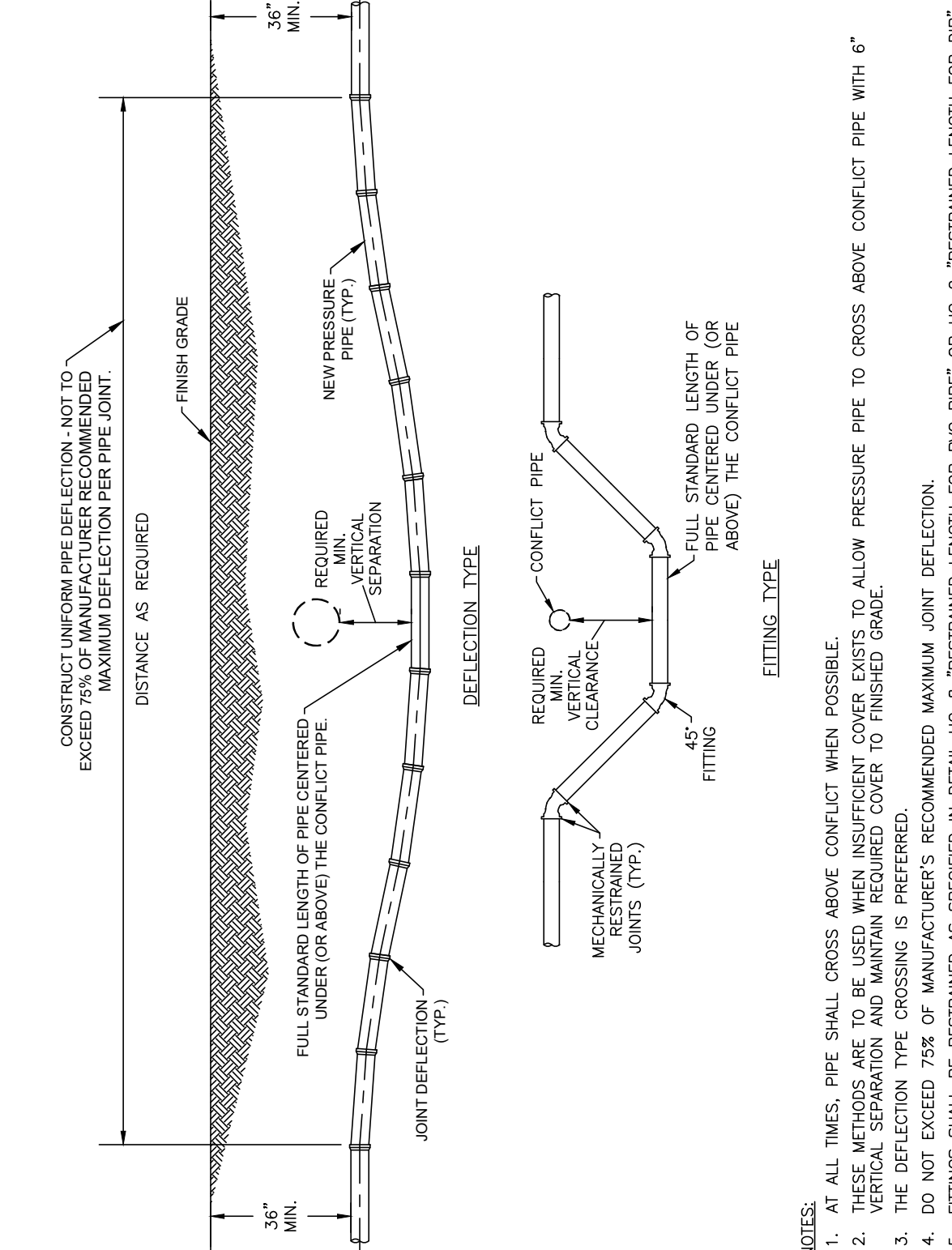
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH ASPHALT PAVEMENT SURFACE TYPE A-1 PIPE BEDDING (CROSSING)	UG-12
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL



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



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		UTILITY LAYOUT FOR 50' R/W	UG-17
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL



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

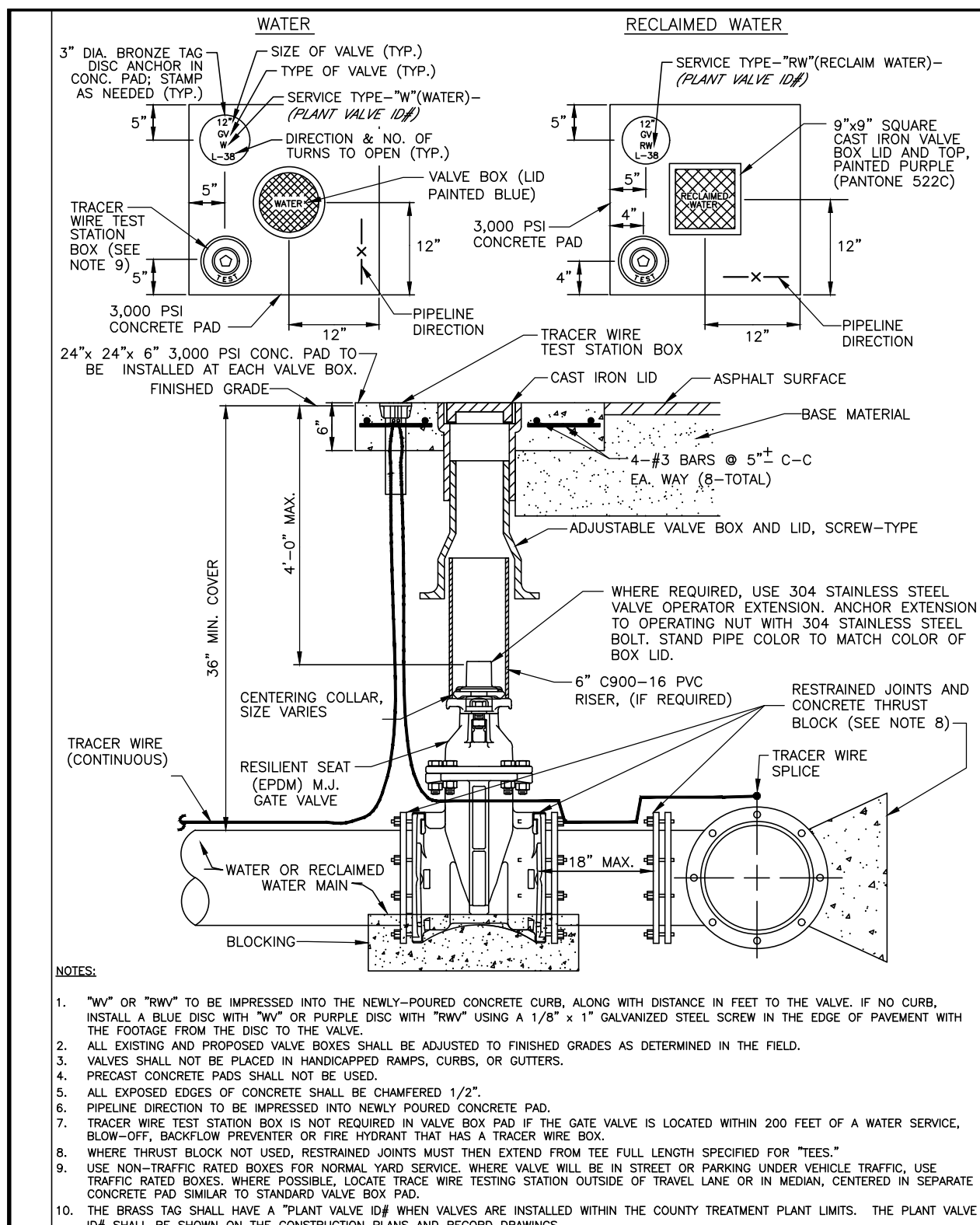
NO.	REVISION DESCRIPTION	BY	DATE

WHITFIELD COUNTRY CLUB HEIGHTS WATER MAIN REPLACEMENT DETAILS

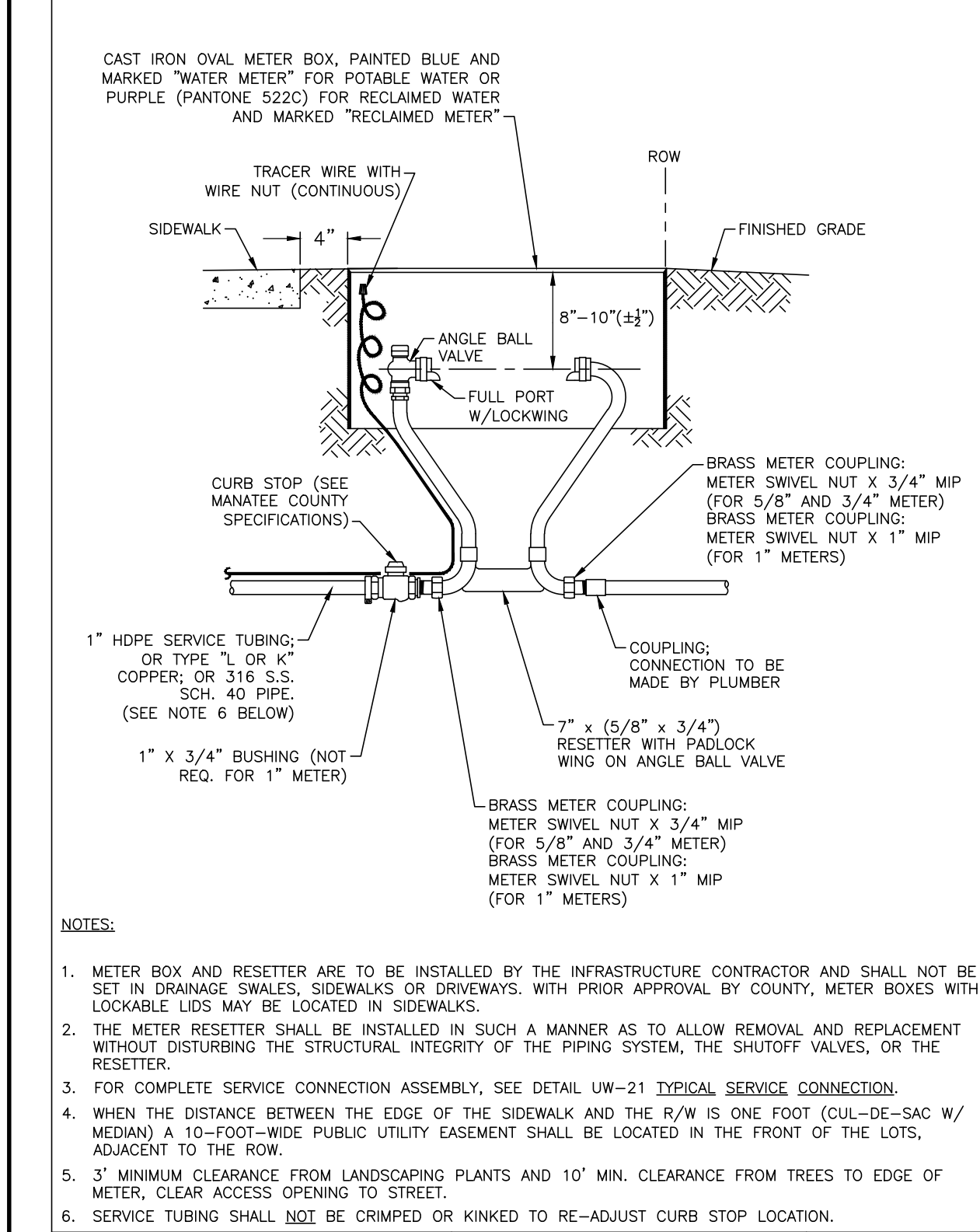


PROJECT #	404.6109570
SURVEY #	21-2690
SEC./TWN./RGE	24-355-17E
SCALE	N.T.S.
SURVEYED	HSS 02/2022
DESIGNED	CAK 10/2022
DRAWN	CAK 12/2022
CHECKED	CAK 12/2022

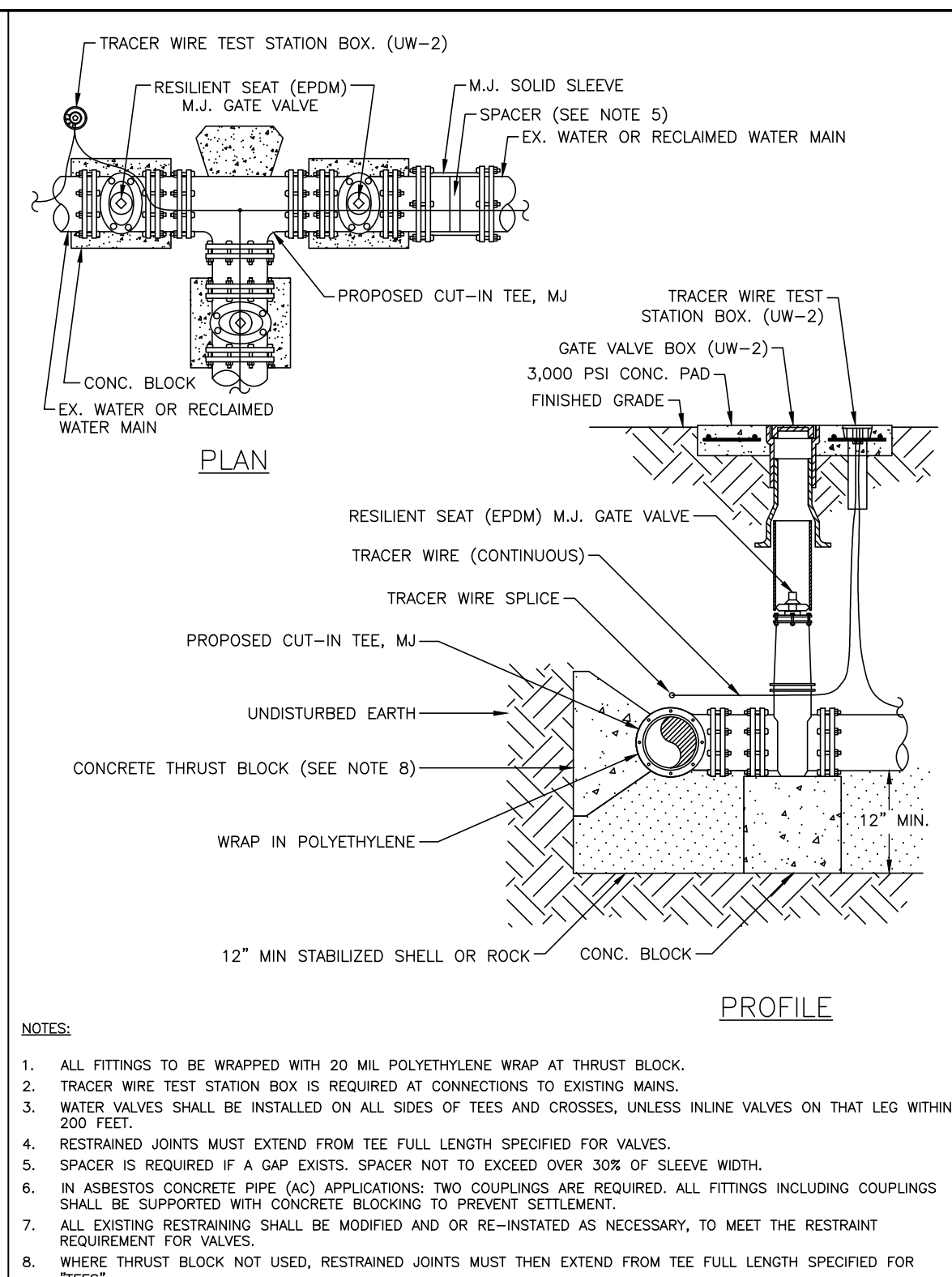
CODY KEIME, P.E.
 No. 92102
 1/24/23
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER



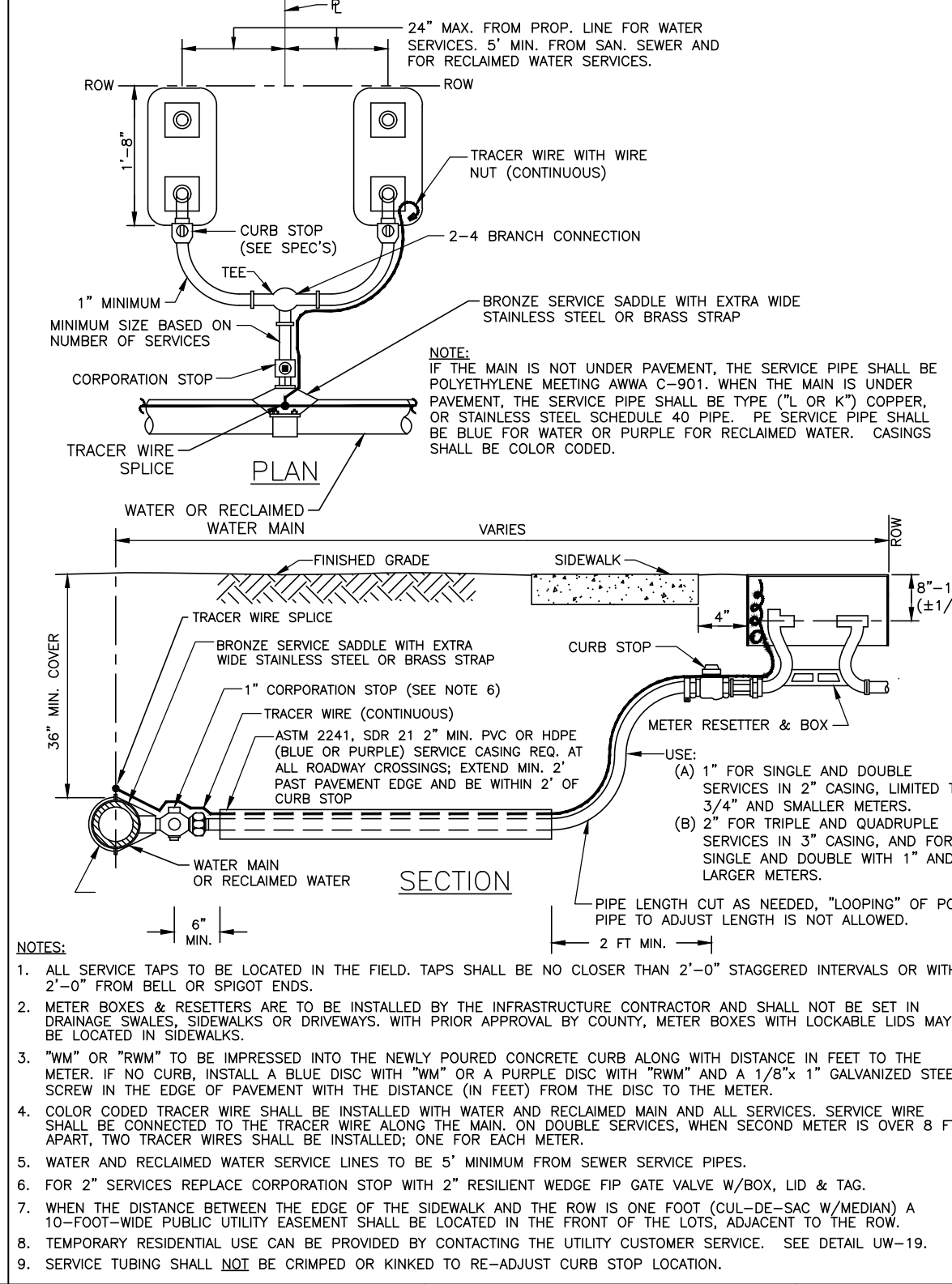
REV. BY	DATE	DESCRIPTION	UW-2
	February 25, 2020	GATE VALVE, BOX, LID AND TAG	



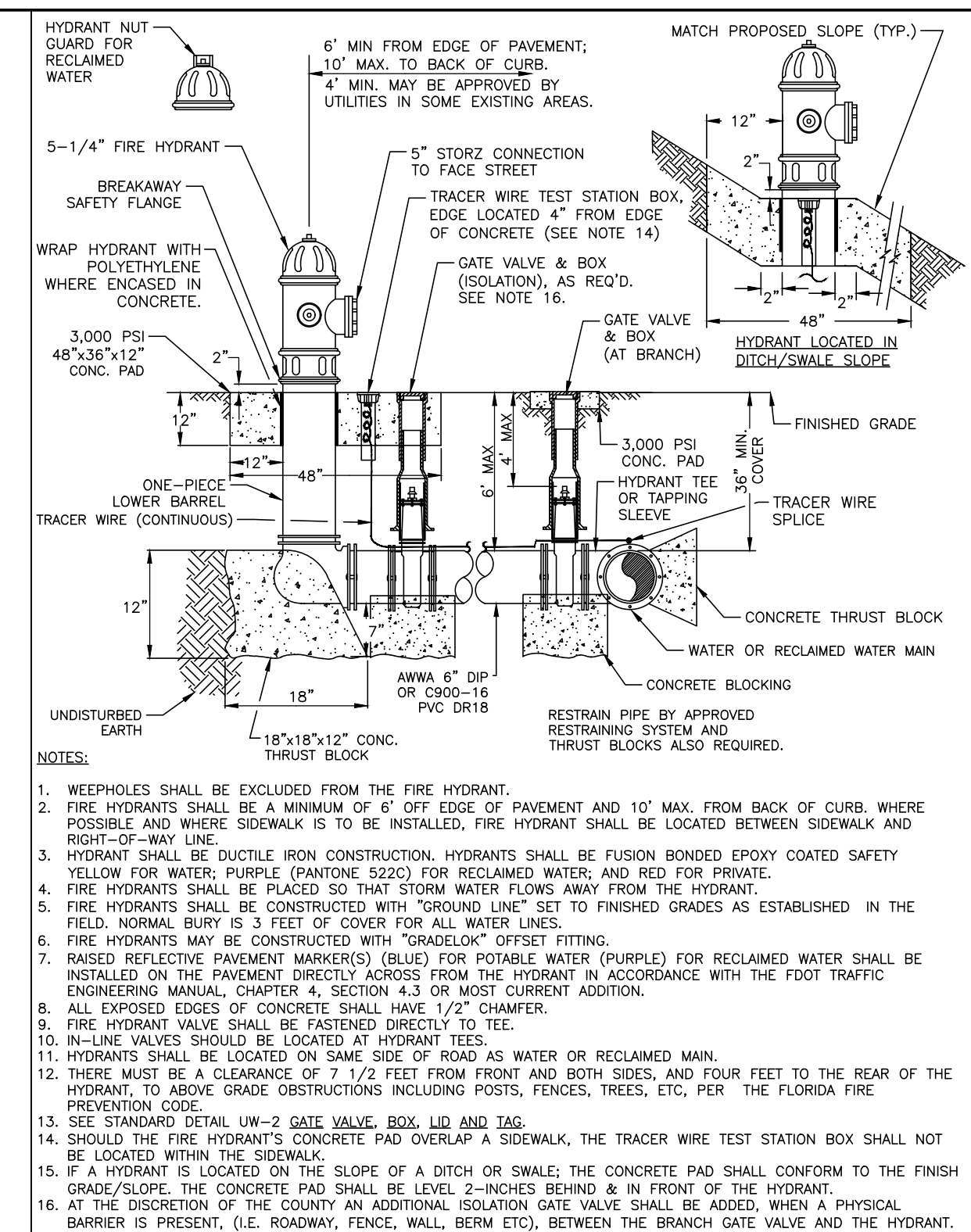
REV. BY	DATE	DESCRIPTION	UW-18
	February 25, 2020	METER BOX ASSEMBLY FOR 5/8" X 3/4"; 3/4"; AND 1" METERS	



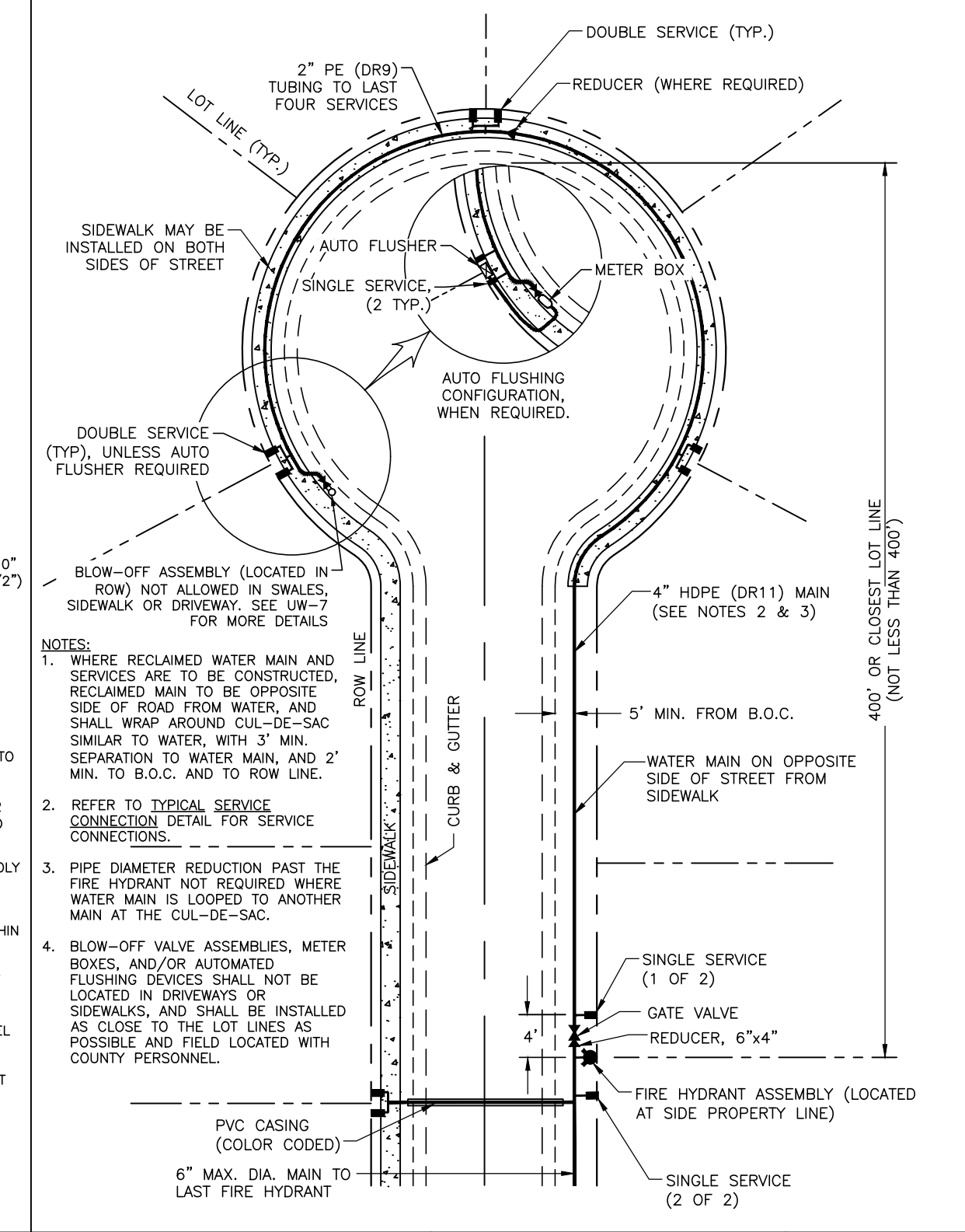
REV. BY	DATE	DESCRIPTION	UW-4
	February 25, 2020	CUT-IN TEE	



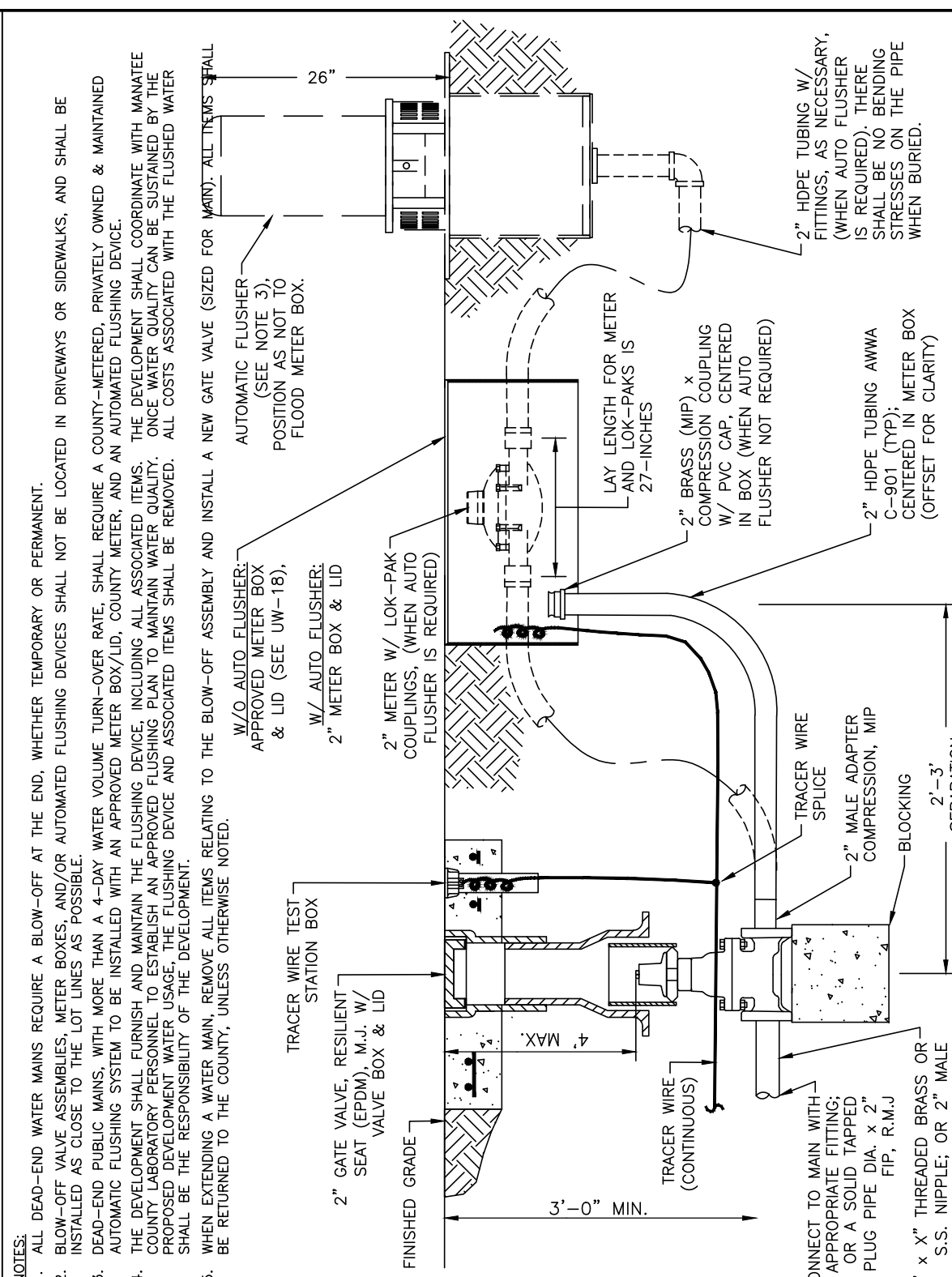
REV. BY	DATE	DESCRIPTION	UW-21
	February 25, 2020	TYPICAL SERVICE CONNECTION	



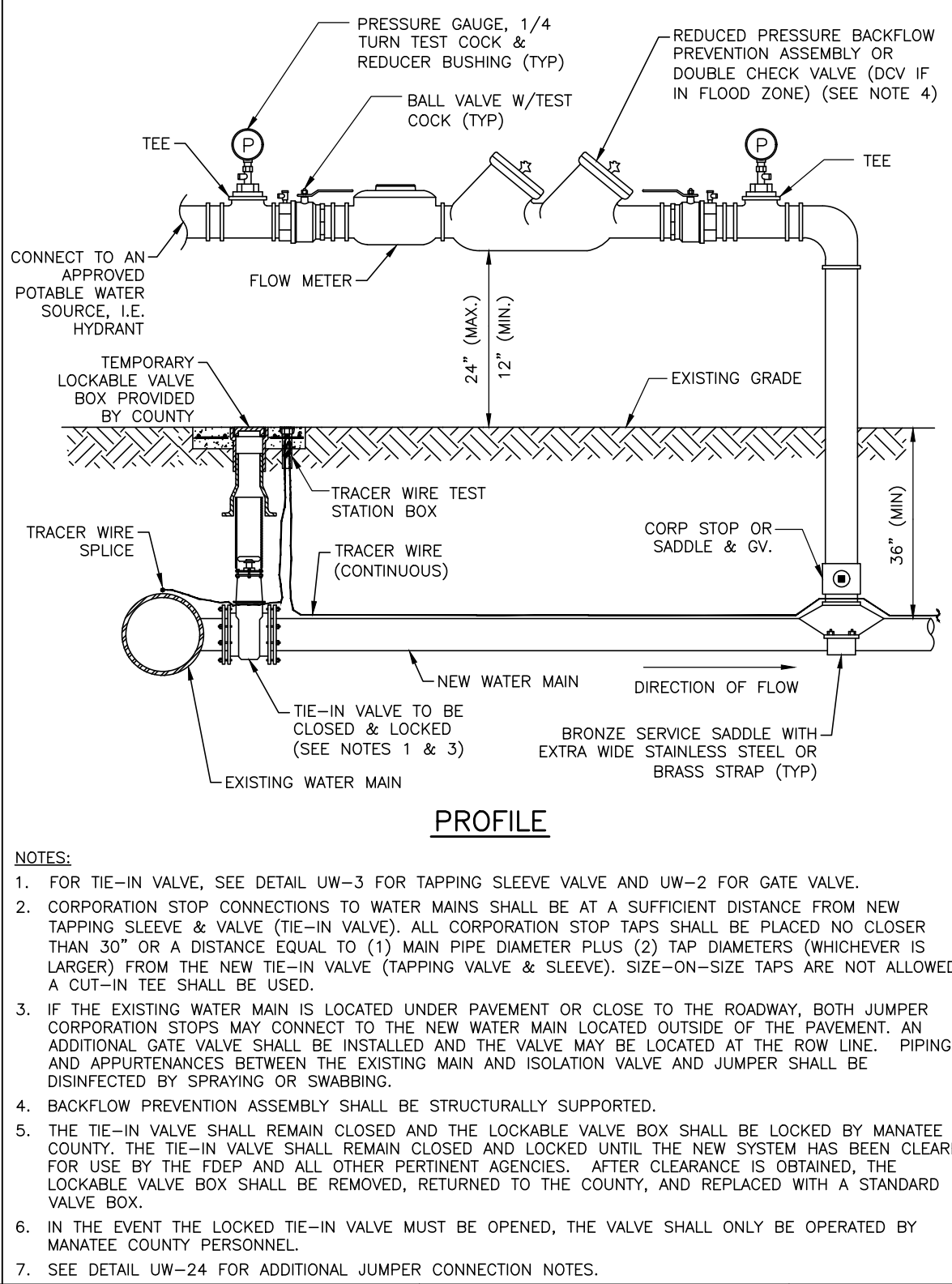
REV. BY	DATE	DESCRIPTION	UW-5
	February 25, 2020	FIRE HYDRANT ASSEMBLY	



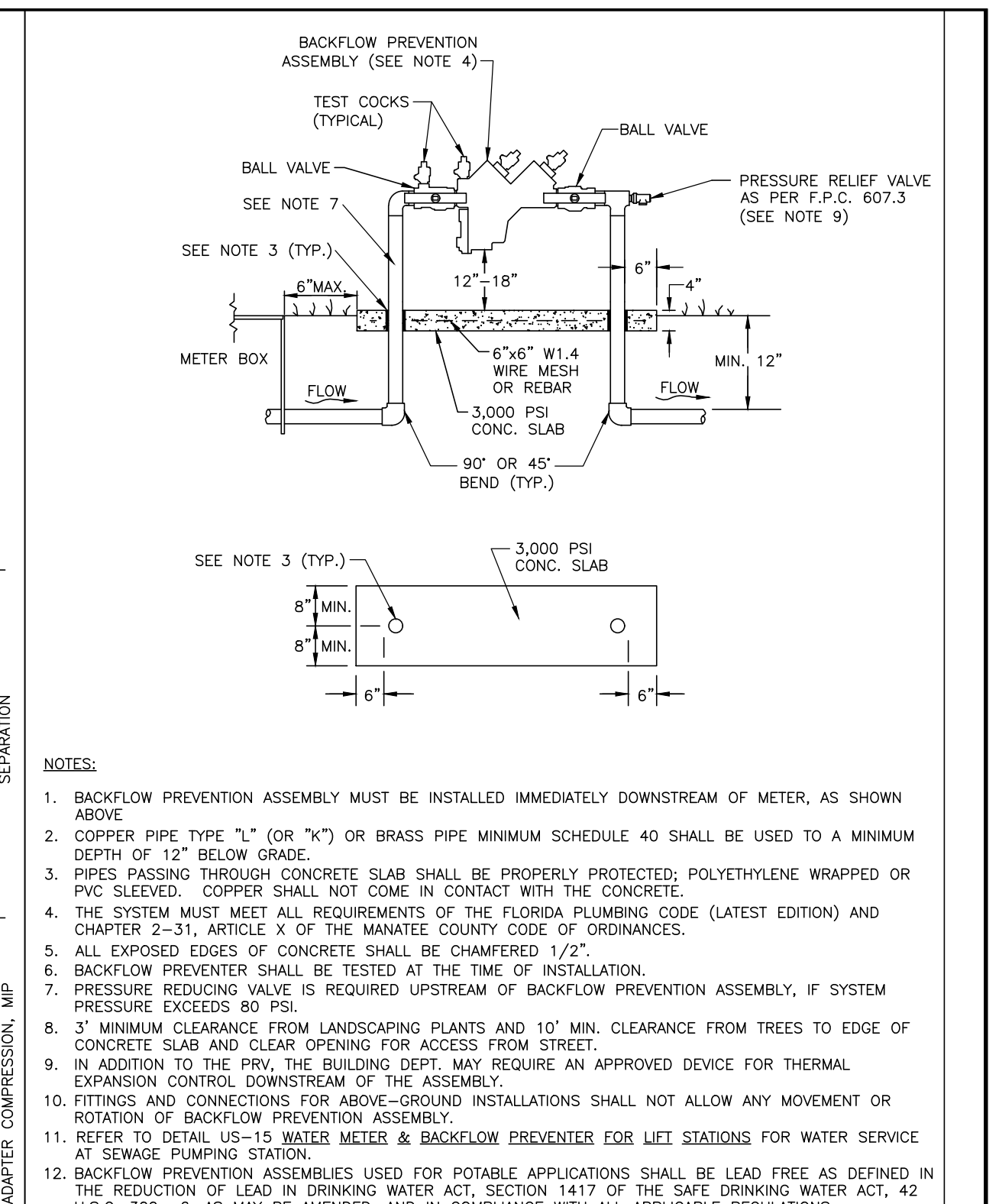
REV. BY	DATE	DESCRIPTION	UW-22
	February 25, 2020	CUL-DE-SAC MAINS	



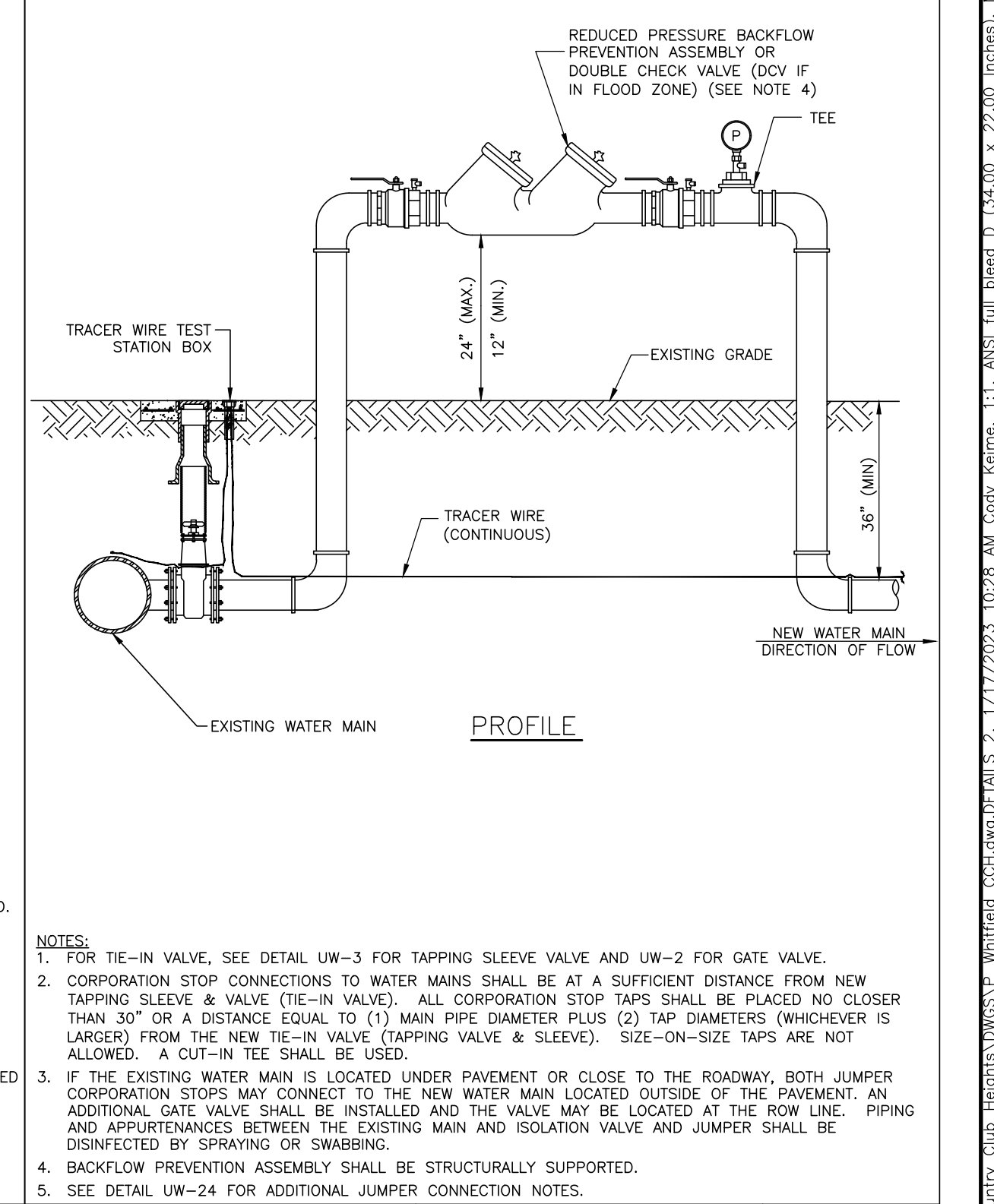
REV. BY	DATE	DESCRIPTION	UW-8
	February 25, 2020	2" BLOW-OFF ASSEMBLY	



REV. BY	DATE	DESCRIPTION	UW-23A
	February 25, 2020	TEMPORARY JUMPER CONNECTION - HYDRANT AVAILABLE	



REV. BY	DATE	DESCRIPTION	UW-13
	February 25, 2020	3/4" & 1" BACKFLOW PREVENTION ASSEMBLY	



REV. BY	DATE	DESCRIPTION	UW-23B
	February 25, 2020	TEMPORARY JUMPER CONNECTION - NO HYDRANT AVAILABLE	

NO.	REVISION DESCRIPTION	BY	DATE

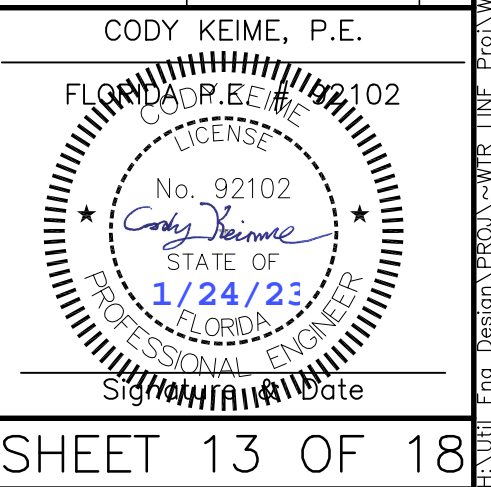
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WHITFIELD COUNTRY CLUB HEIGHTS WATER MAIN REPLACEMENT DETAILS



PROJECT #	404.6109570	CODY KEIME, P.E.
SURVEY #	21-2690	
SEC./TWN./RGE	24-355-17E	
SCALE	N.T.S.	
SURVEYED	HSS	02/2022
DESIGNED	CAK	10/2022
DRAWN	CAK	12/2022
CHECKED	CAK	12/2022

1. A 2-INCH MINIMUM TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE POTABLE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS WITH THE FOLLOWING EXCEPTIONS:
 - a. PROJECTS THAT INCLUDE A PERMANENT BACKFLOW PREVENTER AT THE RIGHT-OF-WAY WHICH IS ADJACENT TO THE EXISTING WATER MAIN;
 - b. PROJECTS THAT INCLUDE NEW WATER MAINS THAT ARE LESS THAN OR EQUAL TO 18 LINEAR FEET IN LENGTH; OR
 - c. OTHER PROPOSED CASES THAT ARE APPROVED BY MANATEE COUNTY AND THE CONSTRUCTION DRAWINGS SPECIFICALLY STATE THAT A TEMPORARY JUMPER CONNECTION IS NOT REQUIRED.
2. A TEMPORARY JUMPER SHALL BE USED AND BE CONNECTED TO AN APPROVED POTABLE WATER SOURCE (E.G., EXISTING FIRE HYDRANT, EXISTING MAIN, EXISTING SERVICE TAP OR TANK TRUCK, ETC.) AS SHOWN IN THE STANDARD TEMPORARY JUMPER DETAIL UW-23A OR UW-23B.

A TEMPORARY JUMPER SHALL BE USED FOR FILLING, FLUSHING AND FOR DISINFECTION OF ANY NEW MAIN OF ANY SIZE. THE TEMPORARY JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER THE FILLING, FLUSHING, TESTING AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) HAS BEEN OBTAINED.
3. THE LOCATION AND ORIENTATION OF TEMPORARY JUMPERS ASSOCIATED WITH CONNECTIONS TO EXISTING WATER MAINS THAT ARE LOCATED UNDER THE ROADWAY PAVEMENT SHALL BE APPROVED ON A CASE-BY-CASE BASIS.
4. PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH ANWA C651, LATEST EDITION, UNLESS APPROVED OTHERWISE. THE TAPPING SLEEVE, AND EXTERIOR OF THE EXISTING MAIN TO BE TAPPED, PIPING WITHIN THE JUMPER, AND NEW PIPING SHOWN ON STANDARD TEMPORARY JUMPER DETAIL UW-23A OR UW-23B SHALL BE DISINFECTED BY SPRAYING OR SWABING PER SECTION 4.6 OF ANWA C651.
5. THE JUMPER SHALL INCLUDE A FLOW METER TO ENSURE THAT THE FLOW FROM THE SUPPLY SOURCE IS AT A CONSTANT MEASURED RATE WHILE CHLORINATING THE NEW MAIN. THE CHLORINE CONCENTRATION SHALL BE MEASURED AT REGULAR INTERVALS TO ENSURE THAT IT IS FED AT A CONSTANT RATE OF NOT LESS THAN 25 MILLIGRAMS PER LITER (MG/L) OF FREE CHLORINE.
6. THE JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI IN THE NEW MAINS CONTINUOUSLY AFTER DISINFECTION AND UNTIL FDEP CLEARANCE LETTER IS OBTAINED.
7. ALL TEMPORARY BACKFLOW PREVENTION ASSEMBLY OR "JUMPERS" UTILIZED DURING PIPELINE CONSTRUCTION MUST SHOW CERTIFICATION THAT THEY HAVE BEEN TESTED ANNUALLY AND PASSED ACCORDING TO THE FLORIDA BUILDING CODE, PLUMBING SECTION, CHAPTER 3, SECTION 312.9.1, 312.9.2, CHAPTER 6, SECTION 608, AND RESOLUTION R87-125. ANNUAL CERTIFICATION MUST BE VALID AT TIME OF INSTALLATION AND PROVIDED TO THE MANATEE COUNTY INSPECTOR UPON REQUEST.
8. ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACKFLOW PREVENTION ASSEMBLY, FLOW METER, FITTINGS, VALVES, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
9. TEMPORARY JUMPER SIZE DEPENDS ON THE SITUATION: JUMPERS LARGER THAN 2-INCHES MAY BE USED FOR FLUSHING PURPOSES OR IF PARTIAL FIRE PROTECTION IS REQUIRED DURING INITIAL CONSTRUCTION, AS DETERMINED BY THE ENGINEER OF RECORD OR FIRE DEPARTMENT.
10. PRIOR TO REMOVAL OF THE TEMPORARY JUMPER, THE NEWLY-CONSTRUCTED WATER SYSTEM SHALL HAVE RECEIVED CLEARANCE FROM THE FDEP.
11. AFTER RECEIPT OF CLEARANCE FOR USE BY FDEP, MANATEE COUNTY, AND ALL OTHER PERTINENT AGENCIES, THE CONTRACTOR SHALL REMOVE THE TEMPORARY JUMPER CONNECTION AND COMPLETE THE WATER MAIN. ALL CORPORATION STOPS LEFT-IN-PLACE ARE TO BE CLOSED AND PLUGGED WITH 2-INCH BRASS.
12. IF THE TEMPORARY JUMPER IS LOCATED WITHIN A STANDARD PIPE LENGTH AWAY FROM THE PROPOSED TIE-IN AND A SINGLE STANDARD LENGTH OF PIPE IS USED FOR COMPLETING THE CONNECTION, THEN THE COUNTY WILL PERFORM A VISUAL INSPECTION AND A SEPARATE HYDROSTATIC TEST MAY NOT BE REQUIRED.

IF MULTIPLE LENGTHS OF PIPES ARE USED TO COMPLETE THE CONNECTION, THEN A SEPARATE HYDROSTATIC TEST WILL BE REQUIRED. THE HYDROSTATIC TEST SHALL BE PERFORMED BETWEEN THE PROPOSED TIE-IN VALVE AND THE FIRST DOWNSTREAM VALVE FROM THE TEMPORARY JUMPER LOCATION.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TEMPORARY JUMPER CONNECTION NOTES	UW-24
REV. BY	DATE		
	<u>February 25, 2020</u>		
	DATE OF APPROVAL		

NO.	REVISION DESCRIPTION	BY	DATE

WHITFIELD COUNTRY CLUB HEIGHTS WATER MAIN REPLACEMENT DETAILS

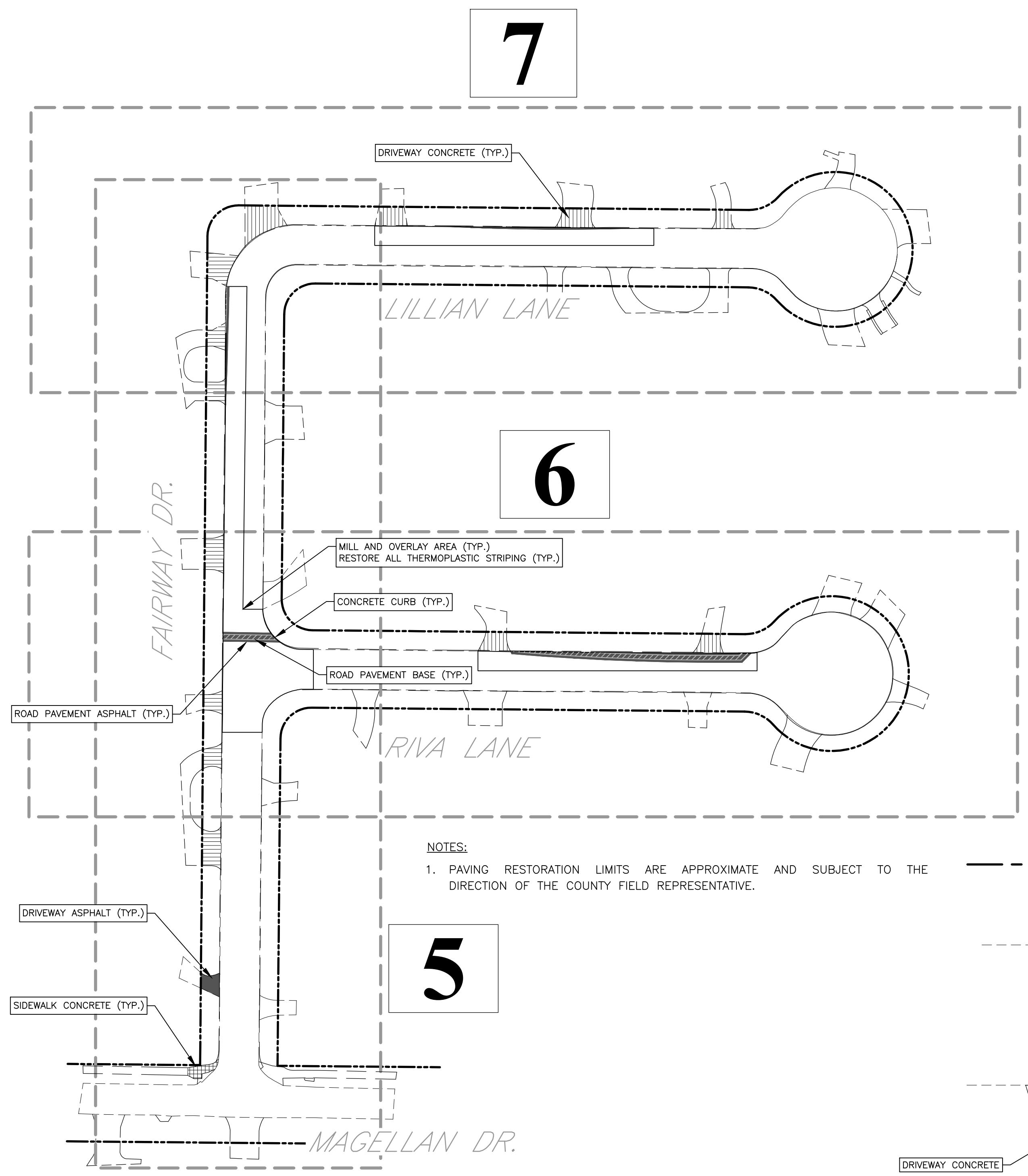
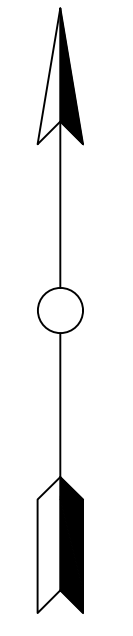


PROJECT #	404.6109570
SURVEY #	21-2690
SEC./TWN./RGE	24-35S-17E
SCALE	N.T.S.
SURVEYED	HSS 02/2022
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DRAWN	CAK 12/2022
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CODY KEIME, P.E.

FLORIDA PROFESSIONAL ENGINEER
No. 92102
STATE OF FLORIDA
1/24/23
PROFESSIONAL ENGINEER
Signature: _____ Date: _____

I:\Projects\2023\17172023\1028 AM Casey Keime\17172023\Whitfield Country Club Heights\DWG\DWG\Whitfield_Country_Club_Heights_UW24.dwg, DETAILS 3, 1/17/2023 10:28 AM Casey Keime, 171, ANSI, 011 Brees D (34.00 x 22.00 inches), UC-2018.S18

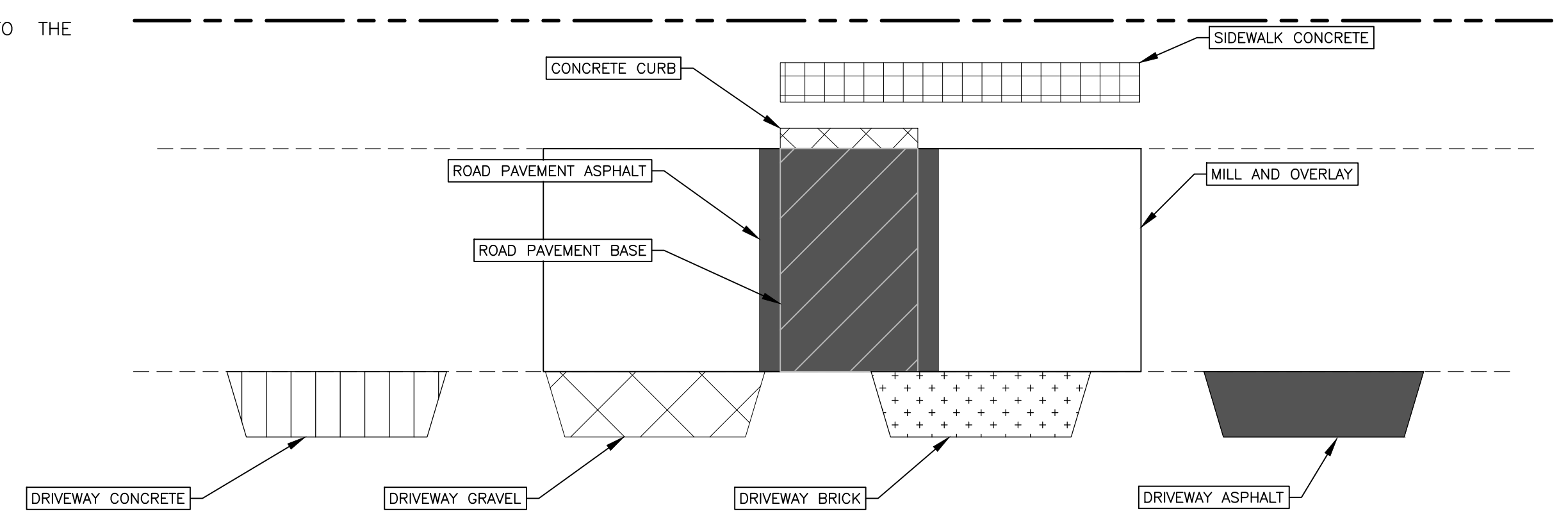


THERMOPLASTIC STRIPING RESTORATION	QTYS.	UNITS
STOP BAR, WHITE, 24"	0	LF
WHITE, 6"	0	LF
DOUBLE YELLOW, 6"	0	LF
CROSS WALK, SPECIAL EMPHASIS FDOT 77-001	0	LF

RESTORATION QUANTITIES

AREA	PAVEMENT RESTORATION	QTYS.	UNITS
	CONCRETE CURB	90	LF
	ROAD PAVEMENT BASE	55	SY
	ROAD PAVEMENT ASPHALT	124	SY
	MILL & OVERLAY	1123	SY
	SIDEWALK CONCRETE	13	SY
	DRIVEWAY CONCRETE	314	SY
	DRIVEWAY GRAVEL	0	SY
	DRIVEWAY ASPHALT	15	SY
	SOD	1,380	SY

TYPICAL HATCH PATTERNS



NOTES:
1. PAVING RESTORATION LIMITS ARE APPROXIMATE AND SUBJECT TO THE DIRECTION OF THE COUNTY FIELD REPRESENTATIVE.

NO.	REVISION DESCRIPTION	BY	DATE

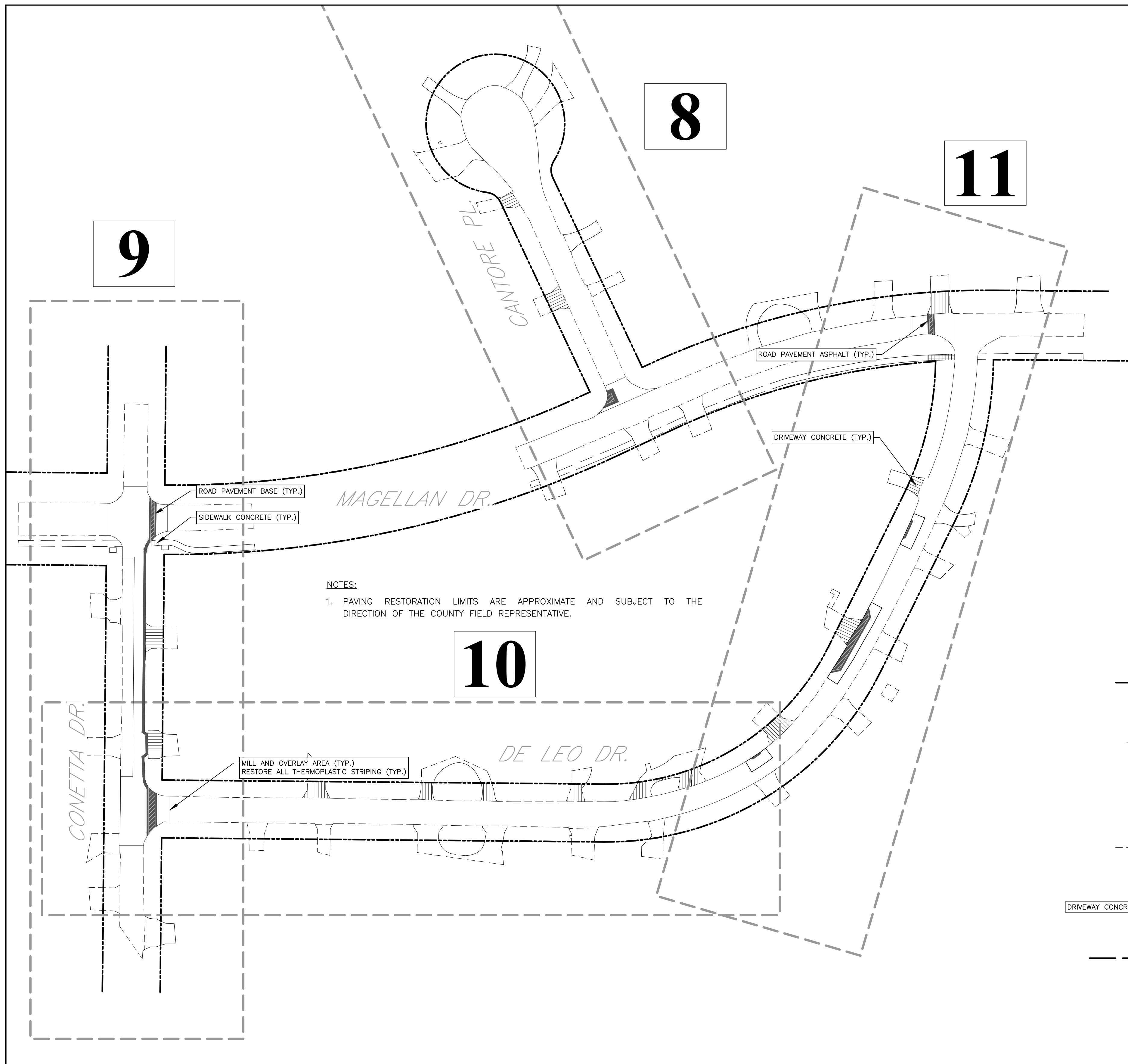
**WHITFIELD COUNTRY CLUB HEIGHTS
WATER MAIN REPLACEMENT
RESTORATION PLAN WEST**



PROJECT #	404.6109570
SURVEY #	21-2690
SEC./TWN./RGE	24-35S-17E
SCALE	1"=50'
SURVEYED	HSS 02/2022
DESIGNED	CAK 10/2022
DRAWN	CAK 12/2022
CHECKED	CAK 12/2022

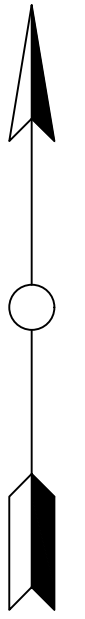
CODY KEIME, P.E.
FLORIDA PROFESSIONAL ENGINEER
No. 92102
STATE OF FLORIDA
1/24/23
PROFESSIONAL ENGINEER
Signature: _____ Date: _____

I:\Projects\2023\10-25 AM Casey Keime, P.E.\17772023 10-25 AM Casey Keime, P.E.\ANSI (all sizes) (14.00 x 22.00 inches)_10-2018.rvt



NOTES:
 1. PAVING RESTORATION LIMITS ARE APPROXIMATE AND SUBJECT TO THE DIRECTION OF THE COUNTY FIELD REPRESENTATIVE.

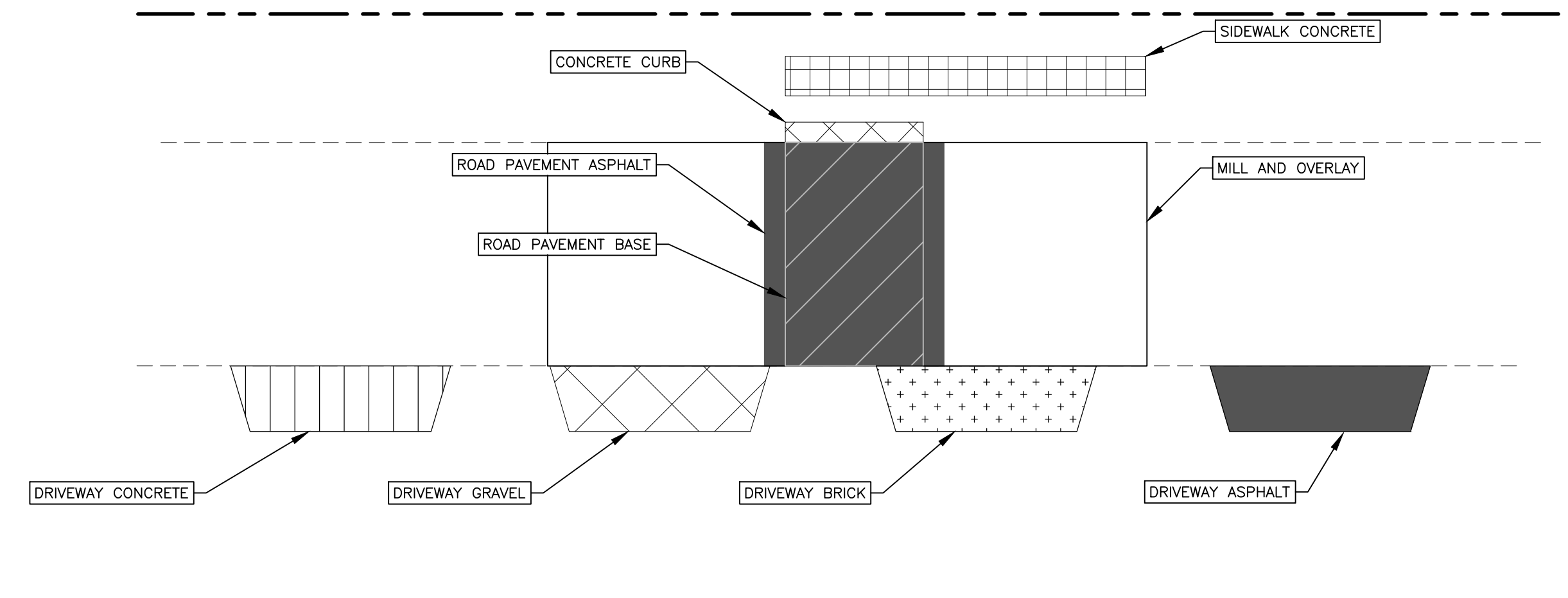
THERMOPLASTIC STRIPING RESTORATION	QTYS.	UNITS
STOP BAR, WHITE, 24"	0	LF
WHITE, 6"	0	LF
DOUBLE YELLOW, 6"	45	LF
CROSS WALK, SPECIAL EMPHASIS FDOT 77-001	0	LF



RESTORATION QUANTITIES

AREA	PAVEMENT RESTORATION	QTYS.	UNITS
	CONCRETE CURB	0	LF
	ROAD PAVEMENT BASE	75	SY
	ROAD PAVEMENT ASPHALT	175	SY
	MILL & OVERLAY	980	SY
	SIDEWALK CONCRETE	17	SY
	DRIVEWAY CONCRETE	384	SY
	DRIVEWAY GRAVEL	0	SY
	DRIVEWAY ASPHALT	0	SY
	SOD	2207	SY

TYPICAL HATCH PATTERNS



NO.	REVISION DESCRIPTION	BY	DATE

**WHITFIELD COUNTRY CLUB HEIGHTS
 WATER MAIN REPLACEMENT
 RESTORATION PLAN EAST**



PROJECT #	404.6109570
SURVEY #	21-2690
SEC./TWN./RGE	24-35S-17E
SCALE	1"=50'
SURVEYED	HSS 02/2022
DESIGNED	CAK 10/2022
DRAWN	CAK 12/2022
CHECKED	CAK 12/2022

CODY KEIME, P.E.
 FLORIDA PROFESSIONAL ENGINEER
 No. 92102
 STATE OF FLORIDA
 1/24/23
 PROFESSIONAL ENGINEER
 Signature: _____ Date: _____

I:\Projects\2023\10-25 AM Casey Keime, P.E.\17772023 10-25 AM Casey Keime, P.E.\ANSI.dwg (14.00 x 22.00 inches) 10-20-23

THE INFORMATION BELOW IS EXTRACTED FROM THE SURVEYORS REPORT PROVIDED BY HYATT SURVEYING SERVICES INC. FOR THE PURPOSE OF CONSTRUCTION. THE FULL SURVEYORS REPORT AND CAD DELIVERABLES ARE AVAILABLE UPON REQUEST, FROM THE MANATEE COUNTY, PUBLIC WORKS DEPARTMENT, UTILITY ENGINEERING DIVISION.

BASELINE HORIZONTAL CONTROL TABLE

Topographic Survey

In Section 24, Township 35 South, Range 17 East
Manatee County, Florida

SURVEY CREATED BY: HYATT SURVEYING SERVICES INC.

SURVEYOR'S REPORT:

1. THE FOLLOWING NATIONAL GEODETIC SURVEY VERTICAL CONTROL MONUMENT WAS RECOVERED AND UTILIZED FOR THE ELEVATIONS INDICATED HEREIN: "JOHN P APTHORP" NAVD 1988 ELEVATION 13.96'.
2. A VALUE OF +1.00' SHOULD BE APPLIED TO ALL ELEVATIONS FOR AN APPROXIMATE CONVERSION TO THE NGVD 1929 DATUM.
3. THIS SURVEY IS REFERENCED TO A GRID PROJECTION OF THE FLORIDA STATE PLANE COORDINATE SYSTEM (WEST ZONE NAD 1983/2011 ADJUSTMENT).
4. THIS IS NOT A BOUNDARY SURVEY. TITLE WORK WAS NOT PROVIDED.
5. THIS SURVEY IS SUBJECT TO PERTINENT EASEMENTS, RIGHTS-OF-WAY AND RESTRICTIONS OF RECORD, IF ANY.
6. SUBJECT SITES INDICATED HEREIN LIE WITHIN ZONE "AE" PER FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD PANEL MAP 12081C 0316 F EFFECTIVE AUGUST 10, 2021.
7. THIS SURVEY DRAWING WAS PREPARED FOR THE EXCLUSIVE USE OF THE PARTY OR PARTIES CERTIFIED TO BELOW FOR THE EXPRESS PURPOSE STATED HEREON AND/OR CONTAINED IN THE CONTRACT BETWEEN HYATT SURVEY SERVICES, INC. AND THE CLIENT FOR THIS PROJECT. COPYING, DISTRIBUTING AND/OR USING THIS DRAWING, IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN ORIGINALLY INTENDED WITHOUT WRITTEN CONSENT FROM HYATT SURVEY SERVICES, INC. IS STRICTLY PROHIBITED AND RENDERS THE SURVEYOR'S CERTIFICATION, SIGNATURE AND SEAL NULL AND VOID. ANY QUESTIONS CONCERNING THE CONTENT OR PURPOSE OF THIS DRAWING SHOULD BE DIRECTED TO HYATT SURVEY SERVICES, INC.

SITE CONTROL:

DESIGNATION	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM #1	1122922.921	476305.302	12.59'	ND LB 7203
BM #2	1122694.493	476317.379	12.38'	IR LB 7203
BM #3	1123046.696	476743.669	13.11'	ND LB 7203
BM #4	1123088.691	477106.540	12.46'	ND LB 7203
BM #5	1122947.306	474936.695	9.48'	IR LB 7203
BM #6	1123240.796	474939.935	10.97'	ND LB 7203
BM #7	1123490.667	474975.732	13.00'	IR LB 7203

SUE WORK:

POINT NAME	DIAMETER	MATERIAL	TYPE	EASTING	NORTHING	SURFACE	T.O.P ELEVATION
VH 1	8"	DIP	WM	474929.11	1122982.42	9.14'	5.41'
VH 2	8"	AC	WM	476738.00	1123046.23	13.06'	10.60'
VH 3	8"	AC	WM	476352.19	1122961.23	12.32'	9.51'
VH 4	3"	POLY	WM	476347.95	1122671.98	12.08'	9.02'
VH 5	8"	POLY	WM	477018.08	1123129.2	12.60'	9.79'

Contore											
SEGMENT	LINE/CHORD	LENGTH	CHORD LENGTH	RADIUS	TANGENT	START STATION	END STATION	START NORTHING	START EASTING	END NORTHING	END EASTING
L4	N25° 14' 05.05"W	334.96'				60+00.00	63+34.96	1123039.17	476762.54	1123342.17	476619.74
Conetta											
L5	N00° 31' 26.95"E	500.00'				40+00.00	45+00.00	1122561.08	476330.51	1123061.06	476335.08
De Leo											
L6	S89° 28' 33.05"E	407.94'				49+00.00	53+07.94	1122695.16	476331.73	1122691.43	476739.66
C2	N58° 24' 12.95"E	267.91'	254.09'	238.94'	150.01'	53+07.94	55+75.85	1122691.43	476739.66	1122824.55	476956.09
L7	N26° 16' 58.95"E	145.79'				55+75.85	57+21.64	1122824.55	476956.09	1122955.27	477020.64
C3	N13° 23' 08.25"E	133.33'	132.21'	296.16'	67.82'	57+21.64	58+54.97	1122955.27	477020.64	1123083.89	477051.25
L8	N00° 29' 17.54"E	59.55'				58+54.97	59+14.52	1123083.89	477051.25	1123143.44	477051.76
Fairway											
L1	N00° 30' 37.16"E	555.50'				1+00.00	6+55.50	1122932.95	474948.71	1123488.43	474953.66
C1	N45° 30' 37.16"E	39.27'	35.36'	25.00'	25.00'	6+55.50	6+94.77	1123488.43	474953.66	1123513.21	474978.88
L2	S89° 29' 22.84"E	405.37'				6+94.77	11+00.14	1123513.21	474978.88	1123509.60	475384.24
Magellan											
L9	S89° 28' 33.05"E	154.99'				30+00.00	31+54.99	1122946.50	476204.03	1122945.08	476359.01
C4	N77° 38' 42.08"E	393.25'	389.95'	874.69'	200.01'	31+54.99	35+48.24	1122945.08	476359.01	1123028.51	476739.93
L10	N64° 45' 54.95"E	50.00'				35+48.24	35+98.24	1123028.51	476739.93	1123049.83	476785.16
C5	N77° 38' 40.95"E	300.83'	298.30'	669.14'	153.00'	35+98.24	38+99.07	1123049.83	476785.16	1123113.66	477076.55
L11	S89° 28' 33.05"E	99.11'				38+99.07	39+98.18	1123113.66	477076.55	1123112.75	477175.66
Riva											
L3	S89° 29' 22.84"E	455.37'				12+00.00	16+55.37	1123239.66	474926.44	1123235.61	475381.80

NO.	REVISION DESCRIPTION	BY	DATE

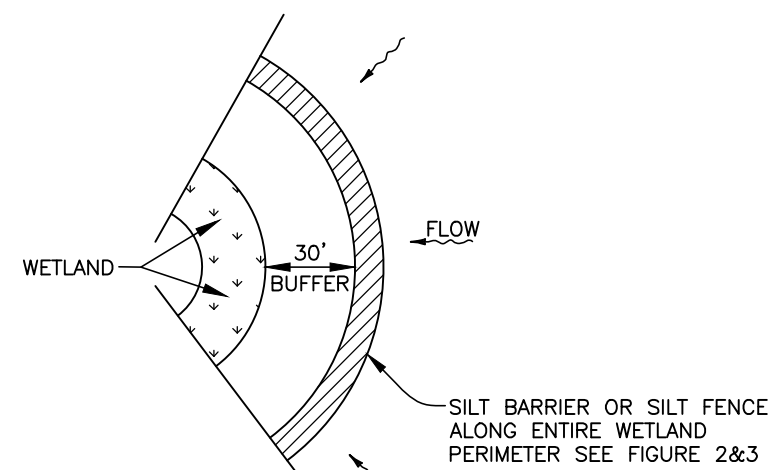
WHITFIELD COUNTRY CLUB HEIGHTS WATER MAIN REPLACEMENT SURVEY CONTROL



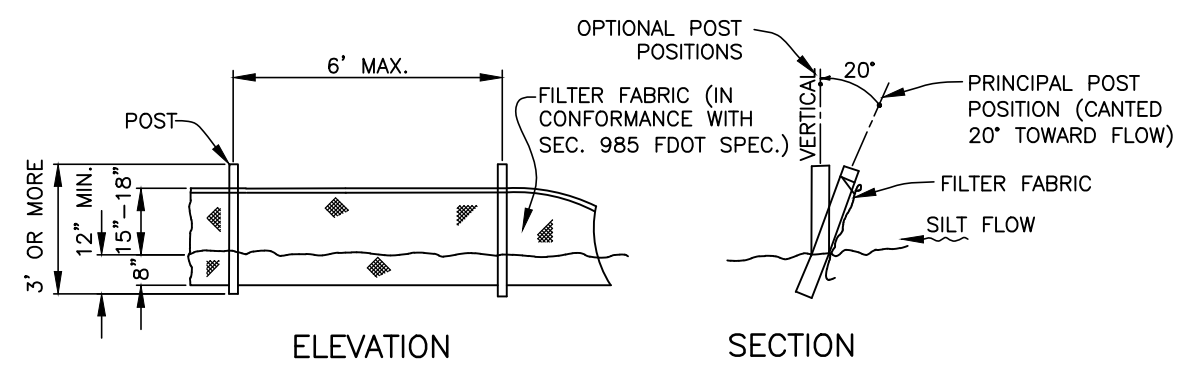
PROJECT #	404.6109570		
SURVEY #	21-2690		
SEC./TWN./RGE	24-35S-17E		
SCALE	N.T.S.		
SURVEYED	HSS	DATE	02/2022
DESIGNED	CAK	DATE	10/2022
DRAWN	CAK	DATE	12/2022
CHECKED	CAK	DATE	12/2022

SHEET 17 OF 18

C:\Users\eng\Desktop\PROJ\WHITFIELD_Country Club Heights\UNRES\P_Whitfield_Country Club Heights_SURVEY CONTROL_17172023 10:25 AM Cady Keime, P.E. ANSI Full Sized D (34.00 x 22.00 inches) 10/2/2023

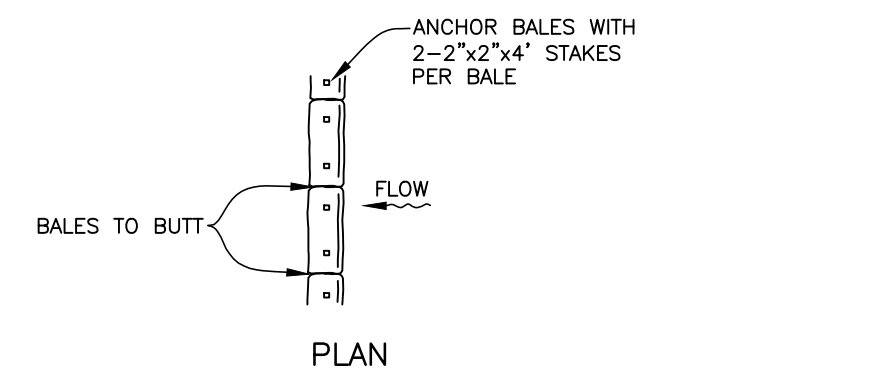


WETLAND BUFFER
FIGURE 1

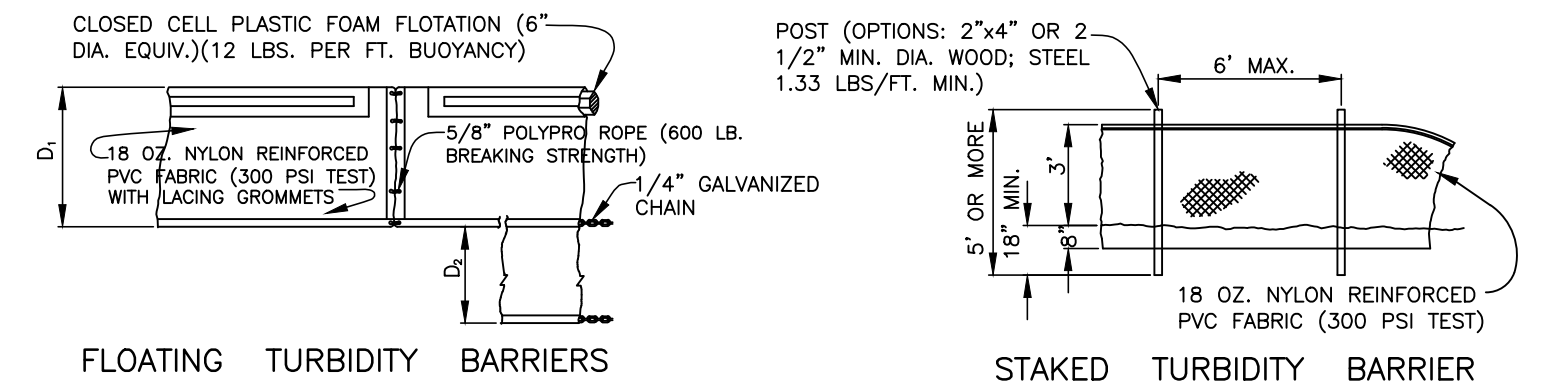


TYPICAL SILT FENCE
FIGURE 2

NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).



TYPICAL BALE SILT BARRIER
FIGURE 3

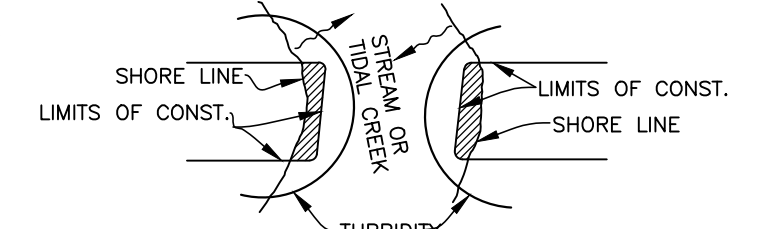


FLOATING TURBIDITY BARRIERS

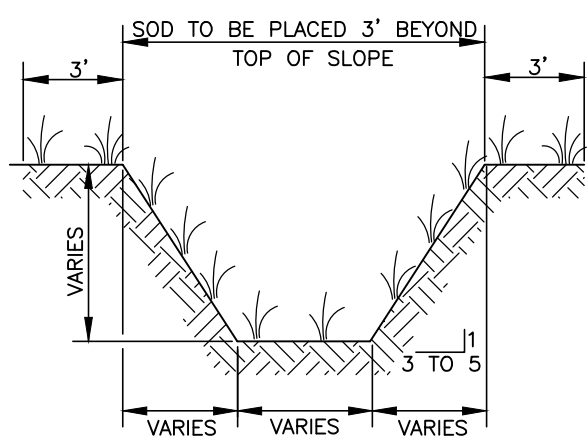
STAKED TURBIDITY BARRIER

$D_1 = 5'$ STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS). $D_2 = 5'$ STD. (ADDITIONAL PANEL FOR DEPTHS > 5'). CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO(2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

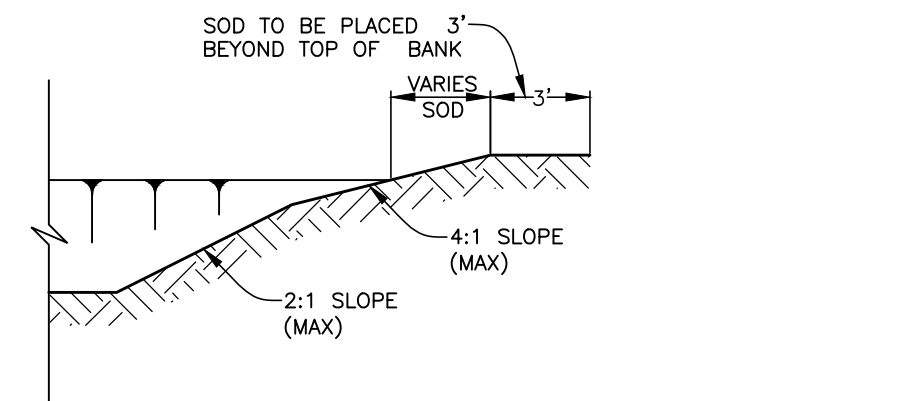
NOTE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.



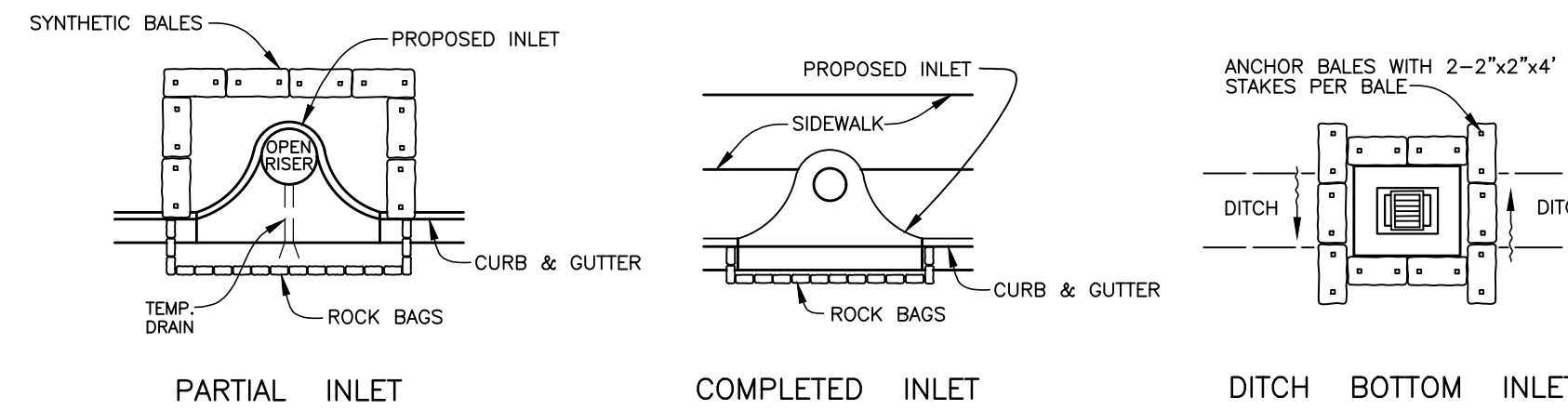
TURBIDITY BARRIERS
FIGURE 4



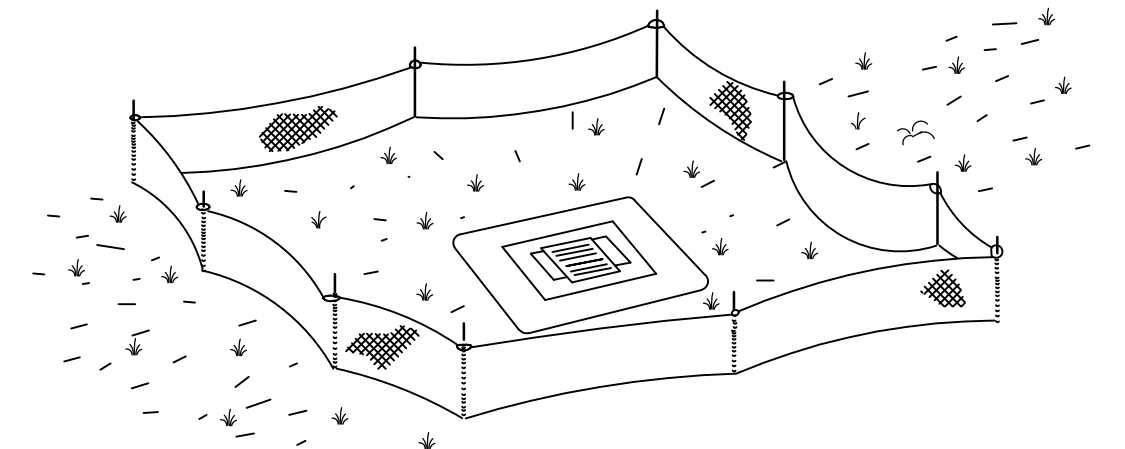
TYPICAL SWALE SECTION
FIGURE 5



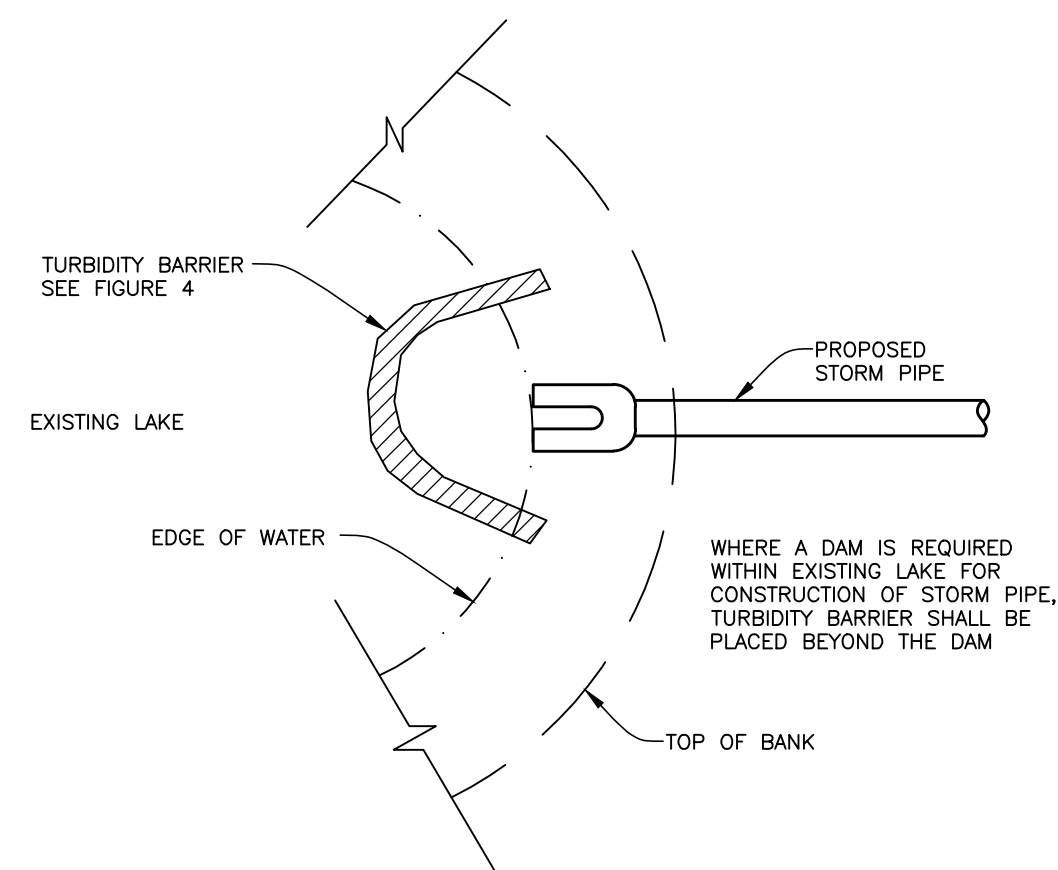
TYPICAL RETENTION/DETECTION POND SECTION
FIGURE 6



SYNTHETIC BALE PROTECTION AROUND INLETS OR SIMILAR STRUCTURES
FIGURE 7

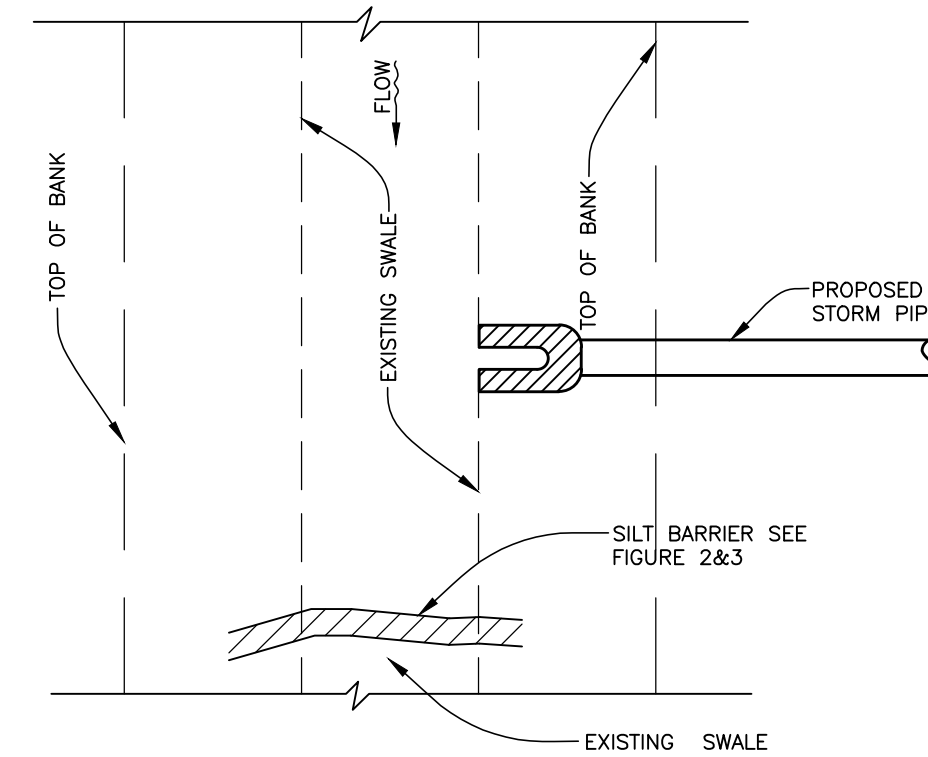


TYPE III SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS
STAKED SILT BARRIER OR SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS
FIGURE 8

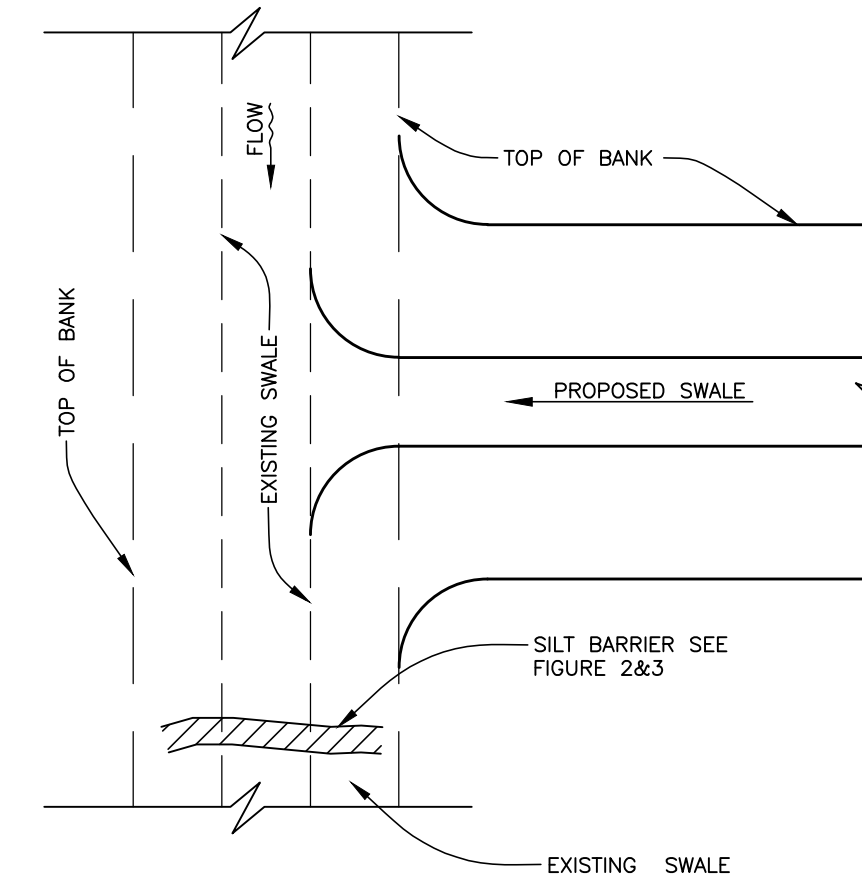


TURBIDITY BARRIER AT CONNECTION OF STORM PIPE TO EXISTING LAKE
FIGURE 9

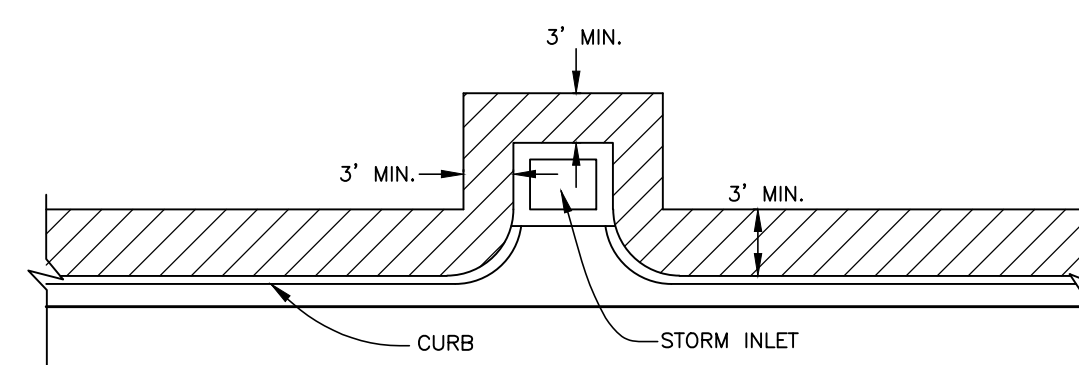
WHERE A DAM IS REQUIRED WITHIN EXISTING LAKE FOR CONSTRUCTION OF STORM PIPE, TURBIDITY BARRIER SHALL BE PLACED BEYOND THE DAM



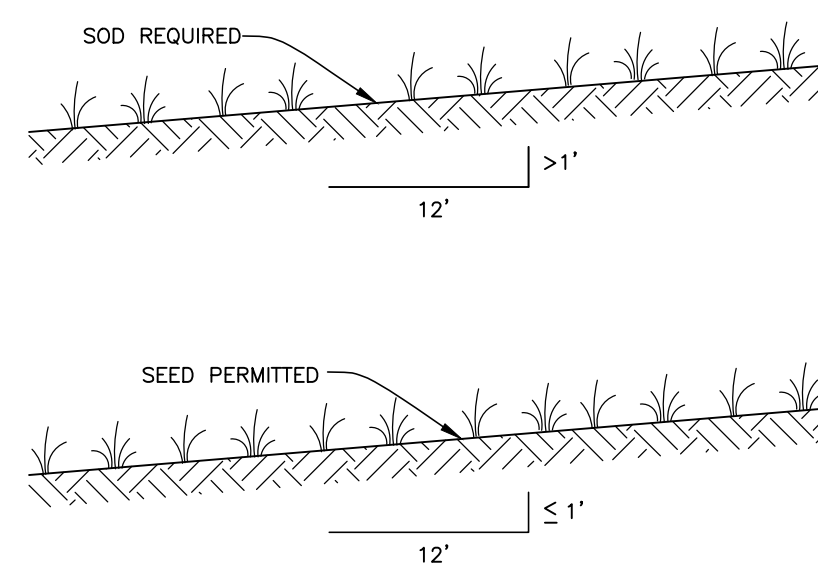
SILT BARRIER AT CONNECTION OF STORM PIPE TO EXISTING SWALE
FIGURE 10



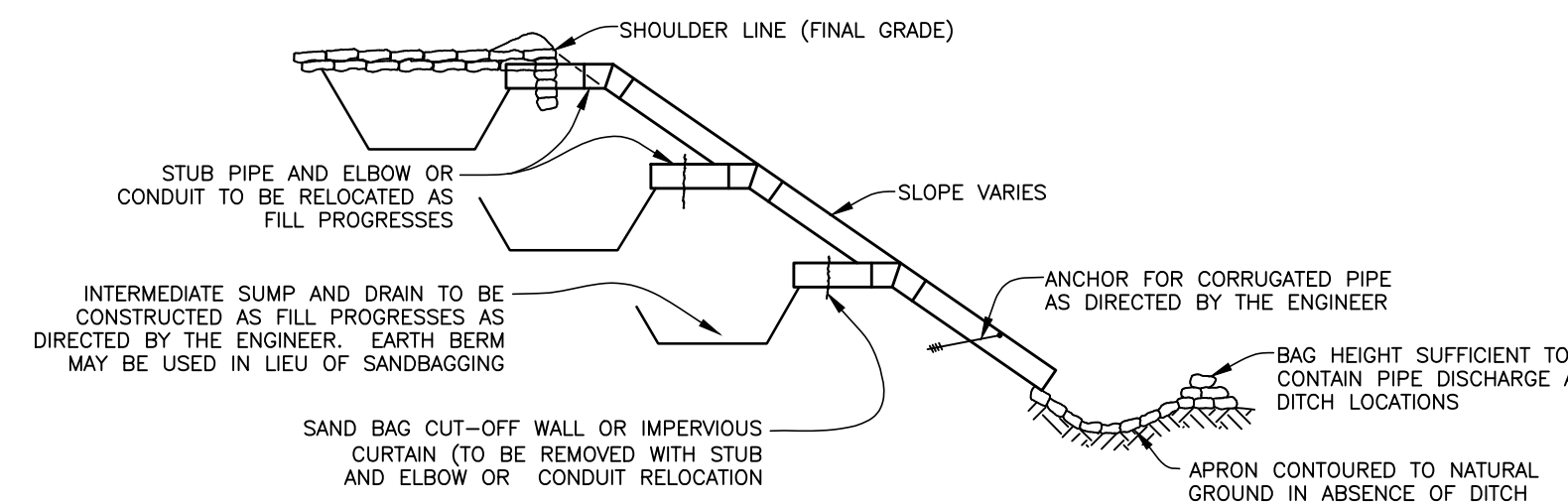
SILT BARRIER AT CONNECTION OF SWALE TO EXISTING SWALE
FIGURE 11



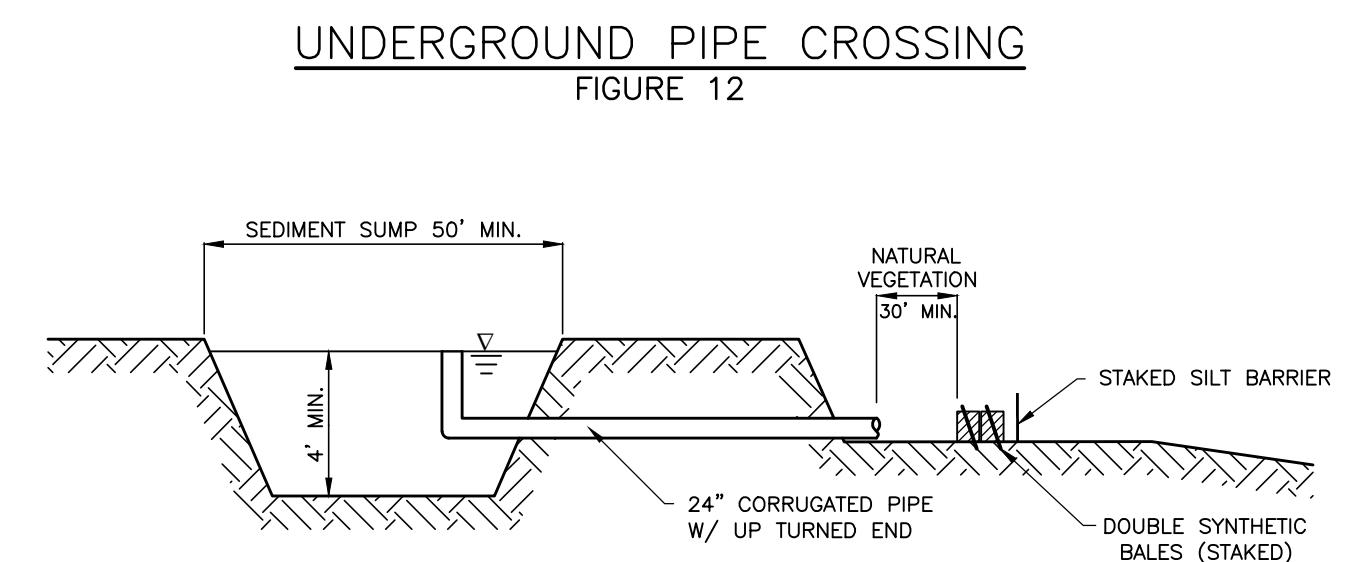
SOD ALONG CURB AND AROUND INLET
FIGURE 14



GRASS SLOPES
FIGURE 13



SECTION AA
TEMPORARY SLOPE DRAIN
FIGURE 15



UNDERGROUND PIPE CROSSING
FIGURE 12

SEDIMENT SUMP SECTION
FIGURE 16

NOTE: REFERENCE THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL, LATEST EDITION, FOR ALL TEMPORARY EROSION CONTROL MEASURES

NO.	REVISION DESCRIPTION	BY	DATE

WHITFIELD COUNTRY CLUB HEIGHTS
WATER MAIN REPLACEMENT
EROSION CONTROL



PROJECT #	404.6109570
SURVEY #	21-2690
SEC./TWN./RGE	24-35S-17E
SCALE	N.T.S.
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CODY KEIME, P.E.
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Signature: _____ Date: _____