



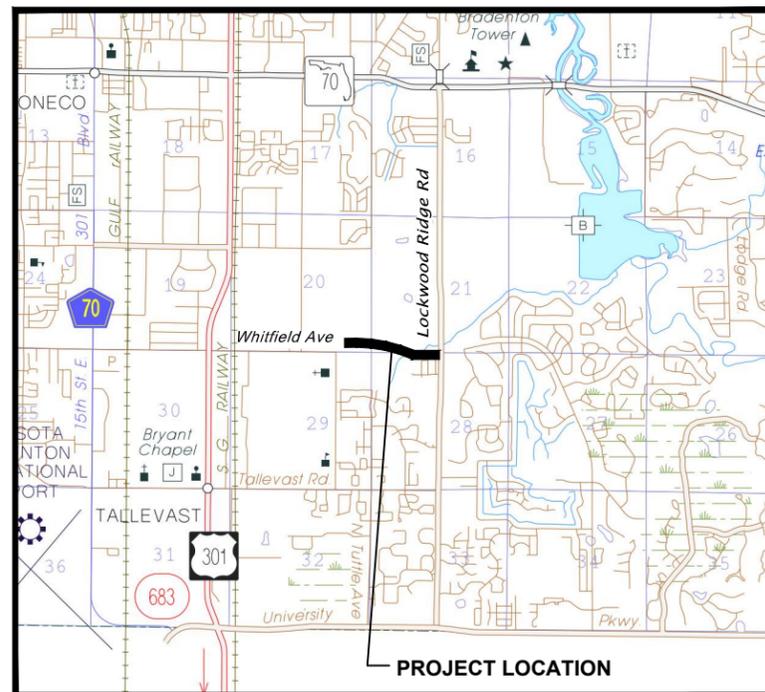
CONTRACT DRAWINGS

WHITFIELD AVENUE 16-INCH WATER MAIN

FOR
MANATEE COUNTY, FLORIDA
COUNTY PROJECT NUMBER: 6040970

INDEX OF SHEETS

SHEET NO	SHEET DESCRIPTION
1	COVER
2	GENERAL NOTES & SYMBOLOGY
3	GEOMETRIC CONTROL SHEET
4 TO 7	PLAN & PROFILE SHEETS
8	SECTION SHEET
9 TO 10	ROADWAY RESTORATION PLANS
11 to 14	DETAIL SHEETS



48 HOURS BEFORE DIGGING
"CALL SUNSHINE"
1-800-432-4770

UTILITY WARNING NOTE

ABOVE GROUND AND / OR UNDERGROUND UTILITIES MAY BE IN THE AREA OF THIS PROJECT - PROCEED WITH CAUTION - THE CONTRACTOR SHALL CALL SUNSHINE STATE "ONE CALL" AT 1-800-432-4770 AND THE UTILITY OWNERS IN ADVANCE OF BEGINNING WORK, IN ACCORDANCE WITH CHAPTER 556, FLORIDA STATUTES.

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

PLANS PREPARED BY:

Cardno
Shaping the Future

CLEARWATER
380 PARK PLACE BLVD, STE 300, CLEARWATER, FL 33759
TEL: (727) 531-3505 (800) 861-8314
www.cardno.com Certificate of Authorization No. 29915

REVISIONS		
DATE	BY	DESCRIPTION

KELLY S. WEHNER, PE
ENGINEER OF RECORD

60273
FL. LICENSE NO.

GENERAL NOTES

1. ALL WORKMANSHIP AND MATERIALS USED IN THE CONSTRUCTION OF THIS PROJECT SHALL BE NEW AND UNUSED AND CONFORM TO, OR EXCEED THE LATEST LOCAL JURISDICTION STANDARDS.
2. CONTACT SUNSHINE STATE ONE CALL FOR UTILITY LOCATES A MINIMUM OF 48-HOURS AND A MAXIMUM OF 5-DAYS PRIOR TO START OF CONSTRUCTION AT 1-800-432-4770.
3. THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS A MINIMUM OF 2-DAYS AND A MAXIMUM OF 5-DAYS PRIOR TO START OF CONSTRUCTION.

UTILITY OWNER	CONTACT NAME	CONTACT NUMBER
COMCAST CABLE	GONZALO ROJAS	(941) 342-3587
FLORIDA POWER AND LIGHT	TRACY STERN	(800) 868-9554
TECO PEOPLES GAS	DANNY SHANAHAN	(941) 342-4006
VERIZON FLORIDA INC.	DAVID WYNNS	(813) 627-8343
CITY OF BRADENTON	ARLAN CUMMINGS	(941) 708-6300 EXT 224
MANATEE COUNTY TRANSPORTATION	KATHY McMAHON	(941) 792-8811 EXT 5002
MANATEE COUNTY UTILITY OPERATIONS	KATHY McMAHON	(941) 792-8811 EXT 5002
BRIGHTHOUSE NETWORKS MANATEE	TOM WRIGHT	(941) 345-1348 EXT 21348

4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT FPL/GTE FOR RESTRAINING OF POLES DURING CONSTRUCTION. ALL ASSOCIATED COSTS WILL BE AT CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO THE LOCAL NOISE ORDINANCE.
6. HOURS OF WORK SHALL BE: NON-FEDERAL HOLIDAYS, MONDAY - FRIDAY 7AM - 5PM. WORK OUTSIDE THESE HOURS MUST BE SCHEDULED 48 HOURS IN ADVANCE AND MAY BE SUBJECT TO REIMBURSEMENT FOR ADDITIONAL INSPECTION SERVICES.
7. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION. THESE MAY INCLUDE:
 - UTILITY CONSTRUCTION PERMIT.
 - R.O.W. USE PERMIT
 - EPA NPDES PERMIT
 - DEWATERING PERMIT (AS REQUIRED)
8. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION SAFETY. SPECIAL PRECAUTIONS MAY BE REQUIRED IN THE VICINITY OF POWER LINES AND OTHER UTILITIES.
9. THE CONTRACTOR SHALL SUBMIT A CERTIFIED MOT PLAN FOR REVIEW AND APPROVAL 2 WEEKS PRIOR TO WORK IN R.O.W.
10. THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL NECESSARY TRAFFIC CONTROL AND SAFETY DEVICES, IN ACCORDANCE WITH THE US DEPARTMENT OF TRANSPORTATION, "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE LATEST FLORIDA DEPARTMENT OF TRANSPORTATION "ROADWAY AND TRAFFIC DESIGN STANDARDS", LATEST EDITION AND CONTRACT SPECIFICATIONS.
11. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN EFFECTIVE BARRICADES, DANGER SIGNALS, SIGNS AND PEDESTRIAN DETOURS IN ALL AREAS WHERE REQUIRED FOR THE PROTECTION OF THE WORK AND THE SAFETY OF THE PUBLIC.
12. THE CONTRACTOR SHALL PROVIDE ACCESS FOR TRAFFIC AT ALL TIMES DURING CONSTRUCTION. CONSTRUCTION SHALL BE CONDUCTED IN SUCH A MANNER THAT RESIDENTS RETAIN ACCESS TO THEIR DRIVEWAYS AT ALL TIMES.
13. REFERENCES TO FDOT INDEXES REFER TO THE MOST RECENT EDITION OF THE FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS."
14. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL AND PREVENT EROSION AND THE TRANSPORTATION OF SEDIMENT TO SURFACE DRAINS AND OUTFALLS.
15. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE A REVIEW OF THE SITE TO DETERMINE EXISTING CONDITIONS AND ANYTHING NOT SHOWN ON THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND SHALL NOT CONSTITUTE AN EXTRA APPROVED BY THE ENGINEER.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY DAMAGED ITEMS INCLUDING, BUT NOT LIMITED TO, DRIVEWAYS, IRRIGATION SYSTEMS, MAILBOXES, SIDEWALKS, STREET SIGNS, AND PRIVATE FENCES AS REQUIRED BY E.O.R./OTHER GOVERNING ENTITIES.
17. ALL OPEN ROAD CUTS SHALL BE FILLED, COMPACTED AND COVERED WITH A TEMPORARY ASPHALT PATCH BEFORE DARK ON A DAILY BASIS DURING CONSTRUCTION. ALL OPEN CUTS SHALL BE RESTORED BY THE CONTRACTOR AS REQUIRED BY F.D.O.T., AND MANATEE COUNTY PUBLIC WORKS.
18. ALL SECTION CORNERS OR PROPERTY CORNERS DISLOCATED OR DISTURBED BY THE CONSTRUCTION ACTIVITIES SHALL BE RESET BY A REGISTERED LAND SURVEYOR AT THE CONTRACTORS EXPENSE.
19. ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER UNLESS OTHERWISE NOTED. FINAL GRADE IS TO GENERALLY BE THE SAME AS EXISTING GRADE. RESTORE UNIFORMLY AND FOR PROPER DRAINAGE GRADE TOWARD ROADWAY.

20. THE CONTRACTOR SHALL PROVIDE ALL SHEETING, SHORING AND BRACING REQUIRED TO PROTECT ADJACENT STRUCTURES OR TO MINIMIZE TRENCH WIDTH. ALL COSTS WILL BE IN LF OF PIPE.
21. THE CONTRACTOR IS RESPONSIBLE FOR THE DISPOSAL OF ALL CLEARED VEGETATION WITHIN FIVE (5) DAYS OF CLEARING AND GRUBBING WORK.
22. ALL EXCESS SOIL RESULTING FROM CONSTRUCTION ACTIVITIES THAT IS NOT CLAIMED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND PROPERLY DISPOSED OF BY THE CONTRACTOR.
23. ALL VOIDS AFTER PLACEMENT OF SOD SHALL BE FILLED WITH PREPARED SOIL MIX. THE SOD SHALL BE ROLLED TO MEET THE PROPOSED GRADES. SOD PLACED ON SLOPES (3:1 OR STEEPER) SHALL BE PEGGED.
24. AREAS OF EXPOSED EARTH RESULTING FROM CONSTRUCTION SHALL BE SODDED IN KIND AS DIRECTED BY THE ENGINEER UNLESS OTHERWISE NOTED ON PLANS.
25. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS, BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK PRIOR TO CONSTRUCTION.
26. THE CONTRACTOR SHALL VERIFY IN THE FIELD THE LOCATION AND ELEVATION OF ALL EXISTING UTILITY CONNECTION POINTS PRIOR TO STARTING CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OWNER OF ANY DISCREPANCIES FOUND.
27. THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT THERE MAY BE SOME CONFLICTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE, PROTECT, AND REPLACE (IF DAMAGED) ANY AND ALL EXISTING UTILITIES ON THIS PROJECT AT THEIR OWN EXPENSE.
28. THE CONSTRUCTION LIMITS INDICATED IN THESE PLANS ARE APPROXIMATE. ACTUAL LIMITS MAY BE SET IN THE FIELD AS DIRECTED BY THE ENGINEER.
29. ALL POTABLE WATER, FIRE, IRRIGATION SYSTEM, SANITARY SYSTEM, STORM SYSTEM AND OTHER UTILITIES COMPONENTS SHALL BE PROTECTED AND SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ANY DAMAGE TO THE SYSTEMS.
30. DISRUPTIONS TO EXISTING RESIDENTIAL/COMMERCIAL WATER AND SEWER SERVICE SHALL BE KEPT TO A MINIMUM. ALL WATER SERVICE INTERRUPTIONS SHALL BE COORDINATED WITH MANATEE COUNTY PUBLIC WORKS PROJECT MANAGER AND IN ACCORDANCE WITH THE COUNTY'S PROCEDURES FOR SHUT DOWNS.
31. CONTRACTOR SHALL ENSURE THAT EXCAVATIONS ARE FREE OF DEBRIS PRIOR TO BACKFILLING.
32. THE CONTRACTOR SHALL NOT ENTER OR OCCUPY ANY LAND OUTSIDE THE RIGHTS-OF-WAY OR PRIVATE PROPERTY WITHOUT THE WRITTEN CONSENT OF THE PROPERTY OWNER.
33. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING A NPDES NOI PERMIT FROM EPA, AS WELL AS PREPARING AND MAINTAINING A STORMWATER POLLUTION PREVENTION PLAN FOR BOTH ONSITE AND OFFSITE IMPROVEMENTS. THE CONTRACTOR SHALL BECOME FAMILIAR WITH AND COMPLY WITH ALL REQUIREMENTS OF THE EPA NPDES PERMIT FOR THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY STORMWATER DISCHARGE PERMIT AND/OR DEWATERING PLAN, AND SHALL BE RESPONSIBLE TO COMPLY WITH ALL CONDITIONS SET FORTH IN THE PERMIT.
34. THE CONTRACTOR SHALL TAKE ALL REASONABLE MEANS TO ELIMINATE THE TRANSPORT OF DUST FROM THE PROJECT SITE. SPECIAL MEASURES, SUCH AS PERIODICALLY APPLYING WATER TO THE WORK SITE TO PREVENT DUST SHALL BE INCORPORATED INTO THE CONTRACTORS WORK PLAN.
35. WHERE REFERENCED STANDARDS CONFLICT, THE MORE STRINGENT STANDARD SHALL APPLY.
36. CONTRACTOR SHALL SUPPORT AND PROTECT ALL EXISTING UTILITIES AS REQUIRED. THIS SHOULD INCLUDE BY-PASS PUMPING IF REQUIRED.
37. DUE TO THE NATURE OF SOME WORK ELEMENTS, SUCH AS BUT NOT LIMITED TO, PAVEMENT CROSSINGS CONNECTIONS TO EXISTING MAINS, PLUGGING AND CAPPING EXISTING LINES, ETC., MAY REQUIRE WORK DURING NON ROUTINE HOURS SUCH AS NIGHT TIME.

SURVEYOR'S NOTES & SYMBOLOGY

NOTE: EXISTING FEATURES ARE SHOWN LIGHT-LINED AND DASHED

LEGEND

	SITE BENCHMARK		CONCRETE MONUMENT
	WOOD UTILITY POLE		FOUND BOUNDARY MARKER
	GRATE INLET		SPOT ELEVATION (TYP)
	LIGHT POLE		GUY WIRE
	WATER VALVE		UTILITY MANHOLE
	FIRE HYDRANT		SANITARY MANHOLE
	SIGN		FIBER OPTIC MARKER
	UTILITY BOX		IRRIGATION HEAD
	STORM MANHOLE		GEOTECH BORINGS AND PAVEMENT CORES
	TREE		PB PLAT BOOK
	PINE TREE		ORB OFFICIAL RECORDS BOOK
	PALM TREE		PG PAGE
	OAK TREE		DB DEED BOOK
	MAPLE TREE		MES MITERED END SECTION
			INV INVERT
			EL ELEVATION

1. THE FOLLOWING NGS NAVD88 VERTICAL CONTROL MONUMENTS WERE RECOVERED AND UTILIZED FOR THE ELEVATIONS SHOWN HEREIN: MELROSE PARK PID: DO1578 ELEVATION 18.18 FEET AND MIRAMAR PID: DO1579 ELEVATION 14.57 FEET.
2. THIS SURVEY IS REFERENCED TO A PROJECTION OF THE FLORIDA STATE PLANE COORDINATE SYSTEM (WEST ZONE NAD 1983/2011).

SURVEY PROVIDED BY:

Hyatt Survey Services, Inc.
 LB No.: 7203 Geographic Data Specialists
 11007 8th Avenue East Bradenton, Florida 34212
 Phone: (941) 748-4693 Fax: (941) 744-1643

LINE WORK & SYMBOLOGY

	PROPERTY LINE		FENCE LINE
	CENTERLINE		TOE OF SLOPE
	SECTION LINE		TOP OF BANK
	JURISDICTIONAL LINE		WETLAND LINE
	RIGHT-OF-WAY LINE		GUARDRAIL
	EASEMENT LINE		CONTOUR LINE AND ELEV

EXISTING UTILITY LINE WORK SYMBOLOGY

NOTE: PIPES 12-INCHES AND LARGER SHOWN WITH DOUBLE LINES.

	WATER MAIN		BURIED ELECTRIC
	BURIED FIBER OPTIC		BURIED TELEPHONE
	GAS MAIN		SANITARY FORCE MAIN
	BURIED CABLE TV		RECLAIMED WATER MAIN
	UNKNOWN UTILITY		TEST HOLE LOCATION

NOTE:
THE LEGEND LISTED REPRESENT A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE. THEREFORE, NOT ALL OF THE SYMBOLS AND ABBREVIATIONS CONTAINED ON THIS SHEET ARE NECESSARILY USED ON THIS PARTICULAR CONTRACT.

NO.	DESCRIPTION	BY	DATE

MANATEE COUNTY

**WHITFIELD AVENUE 16-INCH
WATER MAIN**

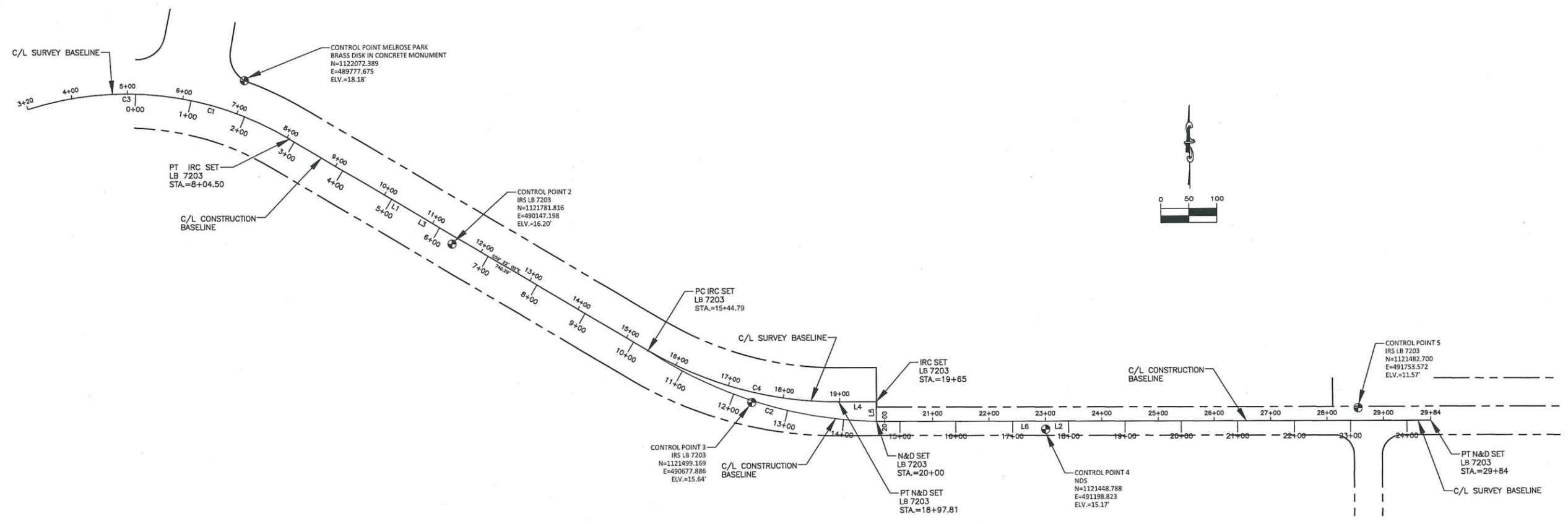


KELLY S. WEHNER, PE DATE
LIC. NO.: 60273

DESIGNED
DRM
DRAWN
DES
Q.C.
APPROVED
DRM
DM

**GENERAL NOTES &
SYMBOLOGY**

PROJECT NO:
00193009.03
DATE:
NOVEMBER 2014
SHEET NO:
2



LINE/CURVE #	PC/BEGIN			PT/END			CC		DELTA	TANGENT	LENGTH	RADIUS	BEARING	DISTANCE	C/L SURVEY BASELINE STATION
	STATION	NORTHING	EASTING	STATION	NORTHING	EASTING	NORTHING	EASTING							
C1	0+00	1122048.918	48582.828	2+89.58	1121968.830	489857.953	1121473.211	489564.462	28° 48' 20"	147.92	289.59	576.00			BEGIN 5+14.92, END 8+04.50
L1	2+89.58	1121968.830	489857.953	10+29.87	1121591.630	490494.940			S 59° 22' 02" E		740.29				BEGIN 8+04.50, END 15+44.79
C2	10+29.87	1121591.630	490494.940	14+48.52	1121464.540	490898.398	1122224.944	490916.120	32° 17' 25"	220.18	428.64	760.58			BEGIN 15+44.79, END 20+00.00
L2	14+48.52	1121464.540	490898.398	24+00	1121459.880	491839.866			S 89° 42' 53" E		941.48				BEGIN 20+00.00, END 29+41.48

LINE/CURVE #	PC/BEGIN			PT/END			CC		DELTA	TANGENT	LENGTH	RADIUS	BEARING	DISTANCE
	STATION	NORTHING	EASTING	STATION	NORTHING	EASTING	NORTHING	EASTING						
C3	3+19.56	1121968.830	489857.953	8+04.50	1122022.232	489390.244	1121473.211	489564.462	45° 14' 18"	257.89	484.95	576.00		
L3	8+04.50	1122022.232	489390.244	15+44.79	1121591.628	490494.936							S 59° 22' 02" E	740.29
C4	15+44.79	1121591.628	490494.936	18+97.81	1121499.525	490831.382	1122159.525	490831.229	30° 38' 46"	180.84	353.02	660.00		
L4	18+97.81	1121499.525	490831.382	19+65.00	1121499.541	490898.571							N 89° 59' 12" E	67.19
L5	19+65.00	1121499.541	490898.571	20+00	1121464.540	490.898.398							S 00° 17' 01" W	35.00
L6	20+00	1121464.540	490.898.398	29+84	1121459.672	491882.003							S 89° 42' 59" E	983.62

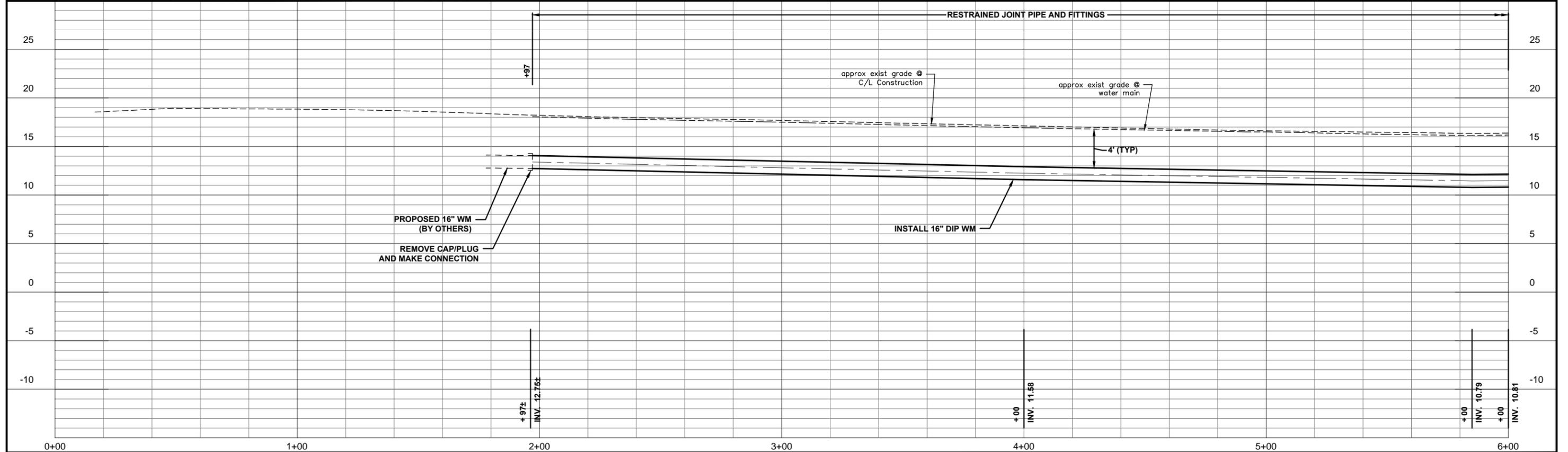
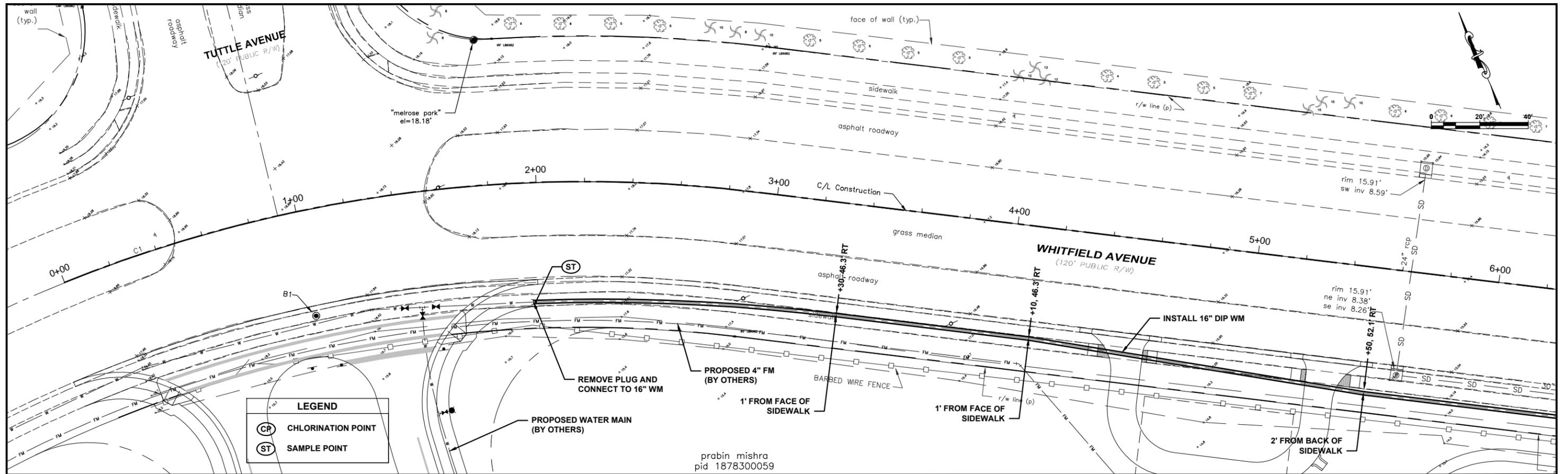
CONTROL AND BASELINE INFORMATION SHOWN HEREON ARE FROM THE TOPOGRAPHIC SURVEY PERFORMED BY HYATT SURVEY SERVICES, INC, JOB NUMBER 13-1817 AND DATED 03/2014. TO PROVIDE EXISTING TOPOGRAPHIC CONDITIONS ALONG WHITFIELD AVENUE FROM THE WEST RIGHT-OF-WAY OF TUTTLE AVENUE TO THE EAST RIGHT-OF-WAY OF 43RD COURT EAST FOR FUTURE IMPROVEMENTS TO THE PUBLIC WATER SYSTEM.

Hyatt Survey Services, Inc.
 LB No.: 7203 Geographic Data Specialists
 11007 8th Avenue East Bradenton, Florida 34212
 Phone: (941) 748-4693 Fax: (941) 744-1643

THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

 RUSSELL P. HYATT, P.S.M.
 FLORIDA SURVEYORS REGISTRATION NO. 5303

MANATEE COUNTY				WHITFIELD AVENUE 16-INCH WATER MAIN				Cardno Shaping the Future SARASOTA 22 SATASOTA CENTER BLVD, SARASOTA, FL 34240 TEL: (941) 870-5740 (800) 861-8314 www.cardno.com Certificate of Authorization No. 23915				DESIGNED _____ DRAWN MIJ Q.C. CBW APPROVED RPH LIC. NO.: _____ DATE _____				GEOMETRIC CONTROL SHEET				PROJECT NO: 00193009.03 DATE: AUGUST 2014 SHEET NO: 3	
NO.	DESCRIPTION	BY	DATE																		



NO.	DESCRIPTION	BY	DATE

MANATEE COUNTY

WHITFIELD AVENUE 16-INCH WATER MAIN

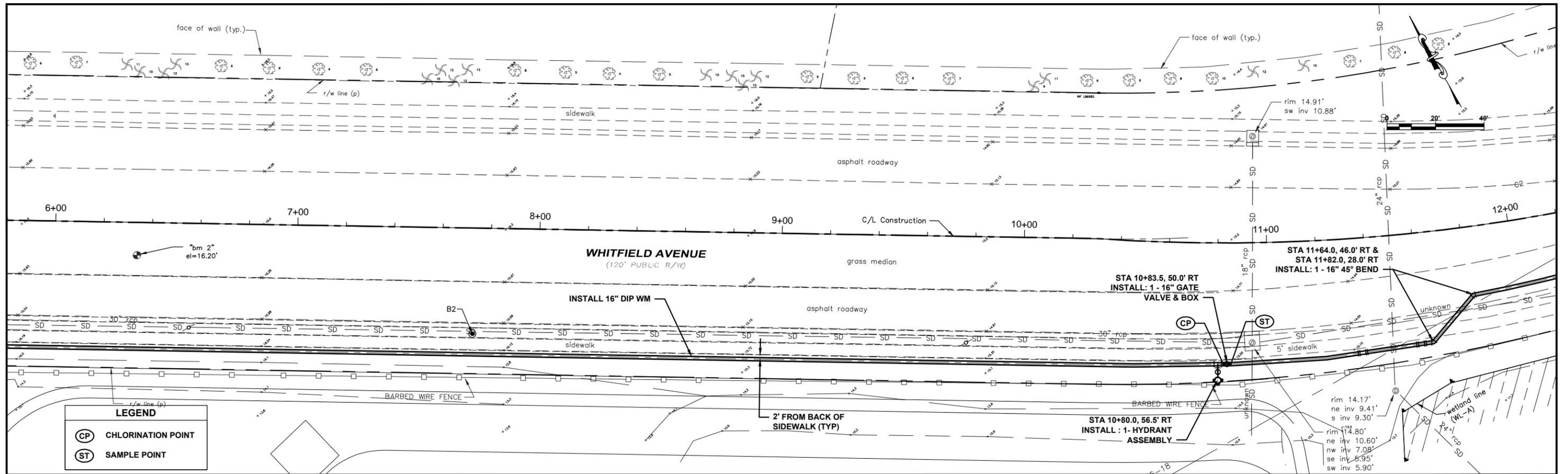
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 Shaping the Future
 CLEARWATER
 380 PARK PLACE BLVD, STE 300, CLEARWATER, FL 33759
 TEL: (727) 531-3505 (800) 861-8314
 www.cardno.com Certificate of Authorization No. 29915

DESIGNED: _____ DATE: _____
 DRAWN: _____
 Q.C.: _____
 APPROVED: _____
 LIC. NO.: 60273

PLAN & PROFILE

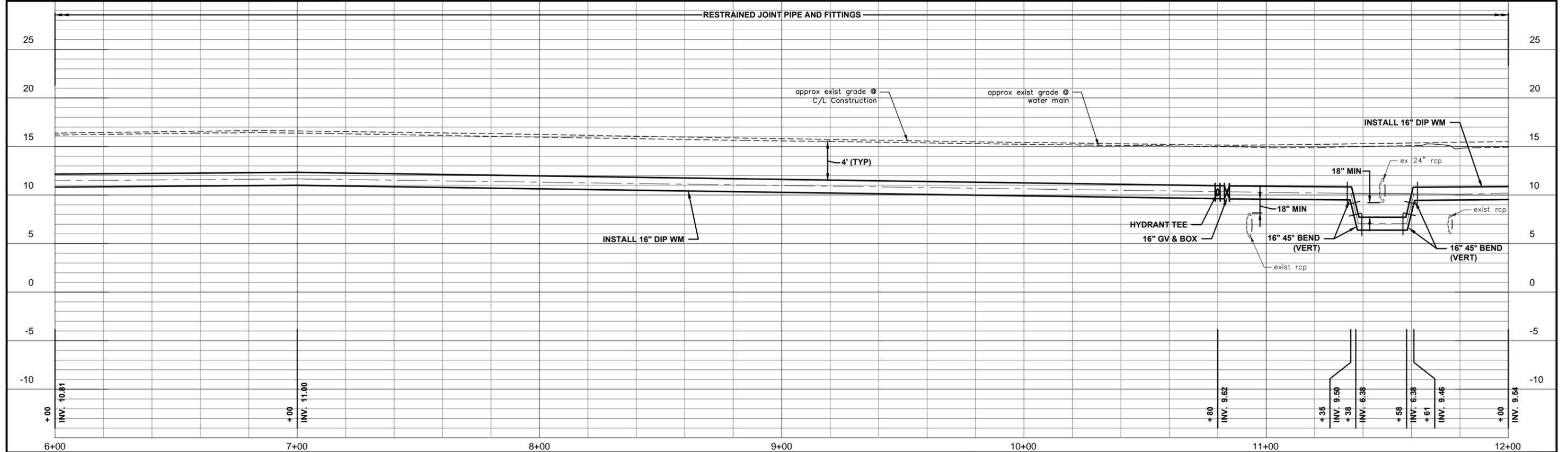
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 DATE: NOVEMBER 2014
 SHEET NO: **4**

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LEGEND

	CHLORINATION POINT
	SAMPLE POINT



NO.	DESCRIPTION	BY	DATE

MANATEE COUNTY

WHITFIELD AVENUE 16-INCH WATER MAIN

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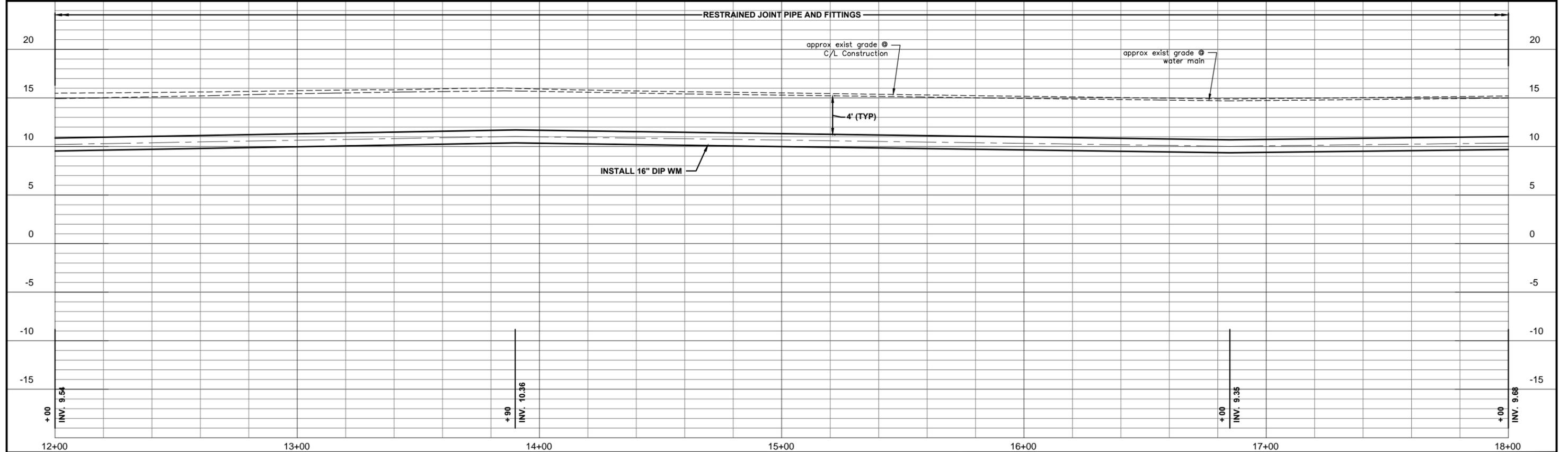
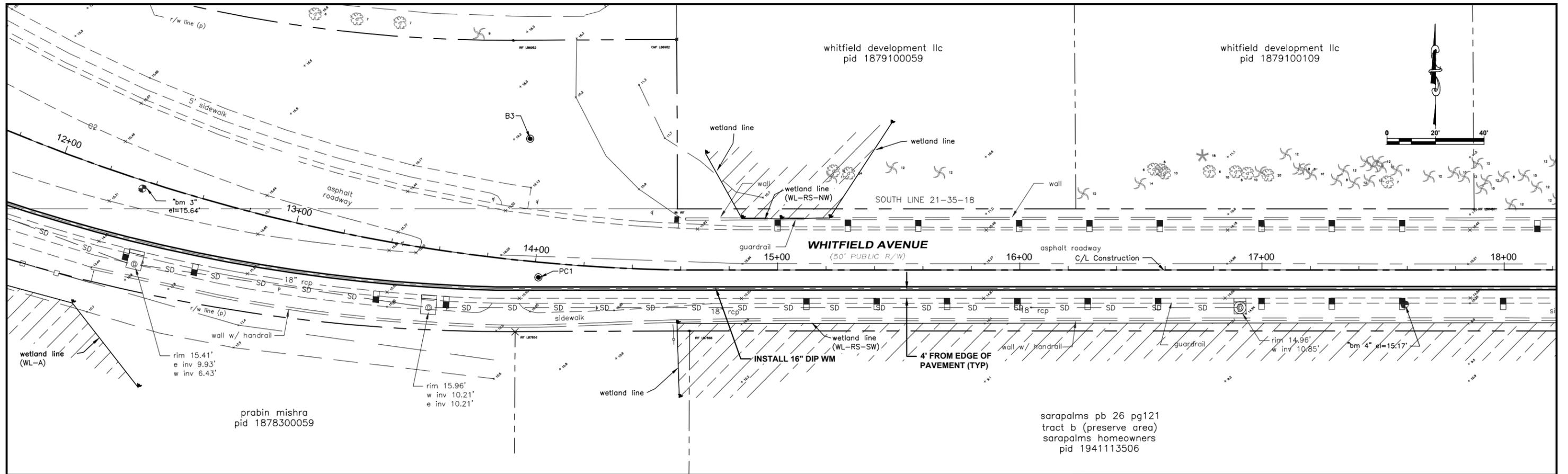
KELLY S. WEHNER, PE
LIC. NO.: 60273

DESIGNED: DRM
DRAWN: DES
Q.C.:
APPROVED: DRM
DATE: DM

PLAN & PROFILE

PROJECT NO:
00193009.03
DATE:
NOVEMBER 2014
SHEET NO:
5

FILE: J:\00193009\03\ACAD\dwg\Sheets\PlanProf\UT-(1).dwg LAST SAVED: Wed, 11/19/14 8:44a PLOTTED: Thu, 11/20/14 8:45a BY: Dave Shively



NO.	DESCRIPTION	BY	DATE

MANATEE COUNTY

WHITFIELD AVENUE 16-INCH WATER MAIN

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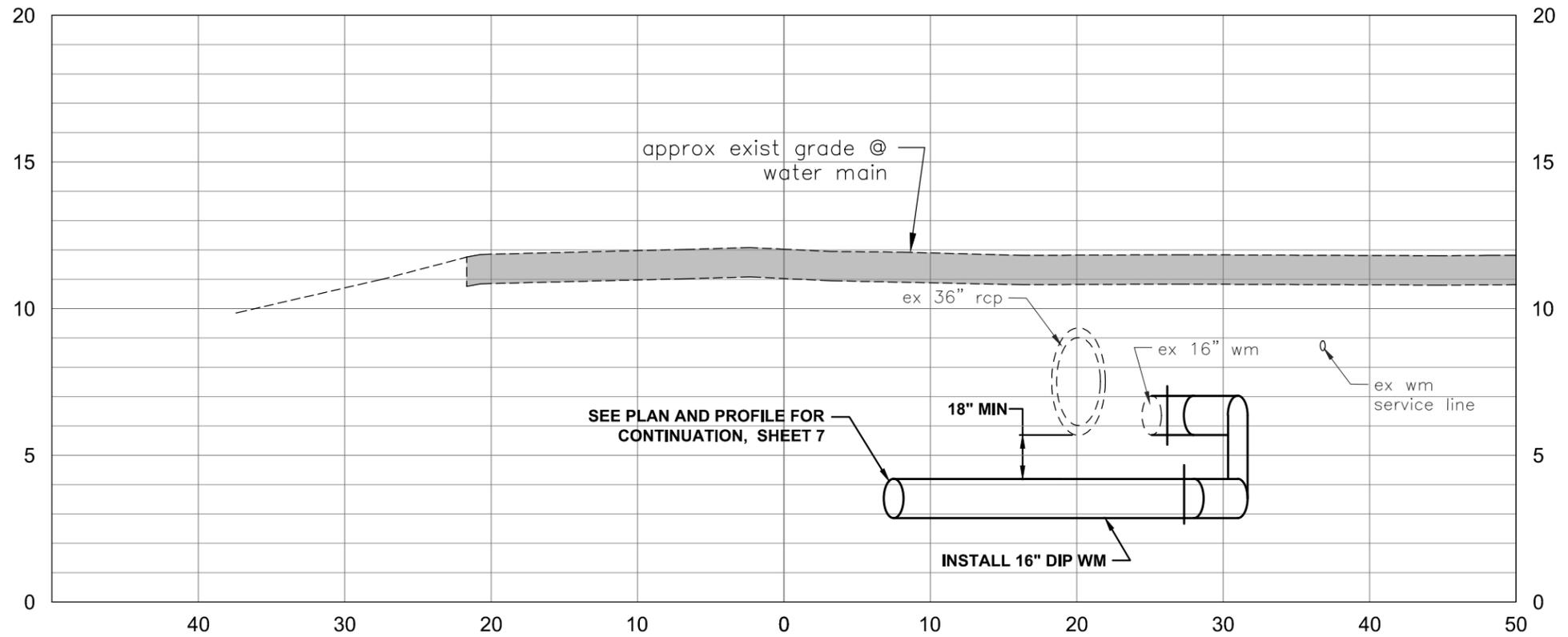
KELLY S. WEHNER, PE
LIC. NO.: 60273

DESIGNED: DRM
DRAWN: DES
Q.C.
APPROVED: DRM
DM

PLAN & PROFILE

PROJECT NO: 00193009.03
DATE: NOVEMBER 2014
SHEET NO: 6

23+20.00



NO.	DESCRIPTION	BY	DATE

MANATEE COUNTY

**WHITFIELD AVENUE 16-INCH
WATER MAIN**

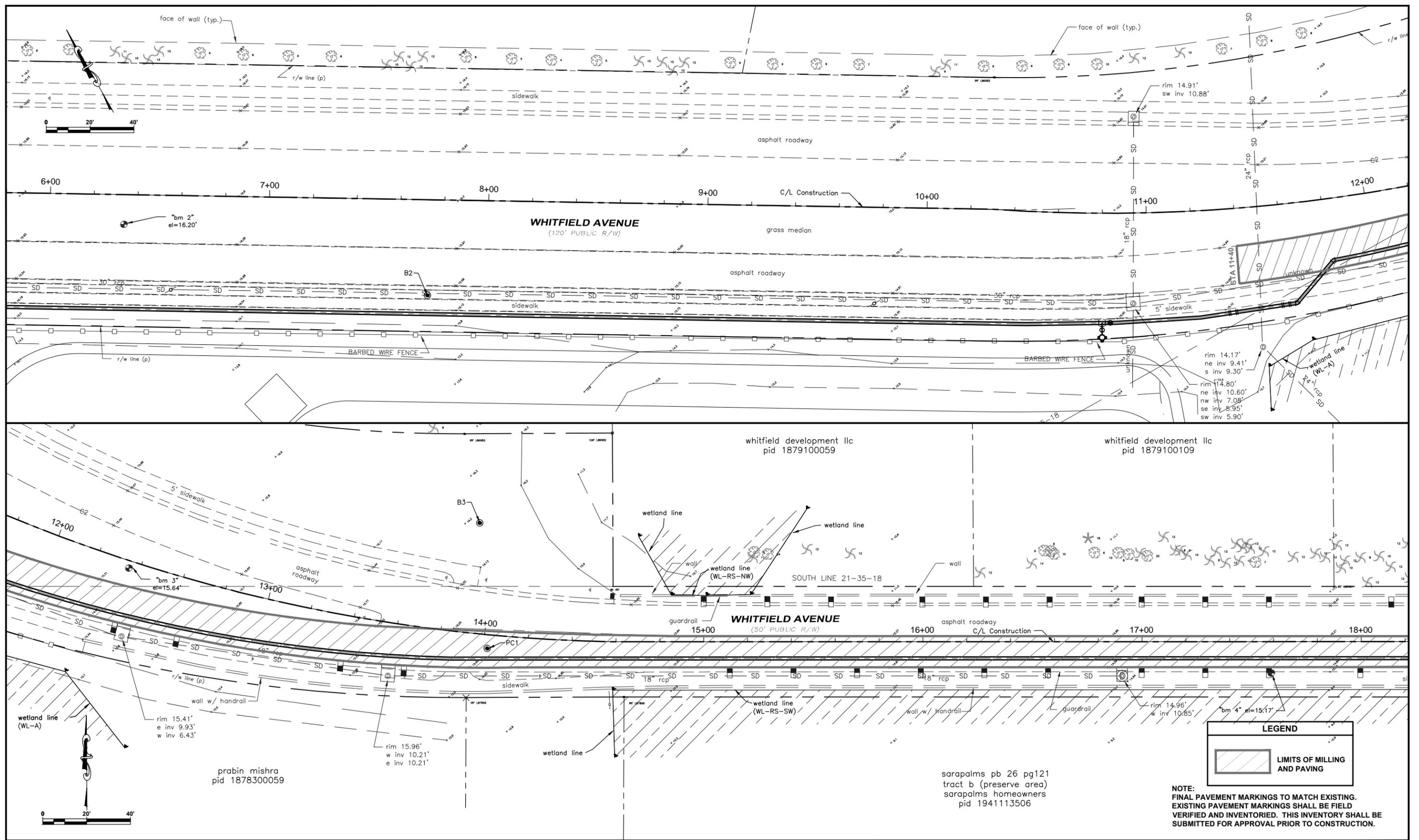
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www.cardno.com Certificate of Authorization No. 29915

KELLY S. WEHNER, PE
LIC. NO.: 60273
DATE

DESIGNED
DRAWN
Q.C.
APPROVED

SECTION

PROJECT NO:
00193009.03
DATE:
NOVEMBER 2014
SHEET NO:
8



LEGEND

 LIMITS OF MILLING AND PAVING

NOTE:
 FINAL PAVEMENT MARKINGS TO MATCH EXISTING.
 EXISTING PAVEMENT MARKINGS SHALL BE FIELD
 VERIFIED AND INVENTORIED. THIS INVENTORY SHALL BE
 SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION.

NO.	DESCRIPTION	BY	DATE

MANATEE COUNTY

**WHITFIELD AVENUE 16-INCH
 WATER MAIN**

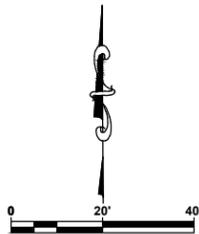

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KELLY S. WEHNER, PE
 LIC. NO.: 60273

DESIGNED: DRM
 DRAWN: DES
 Q.C.:
 APPROVED: DRM
 DM

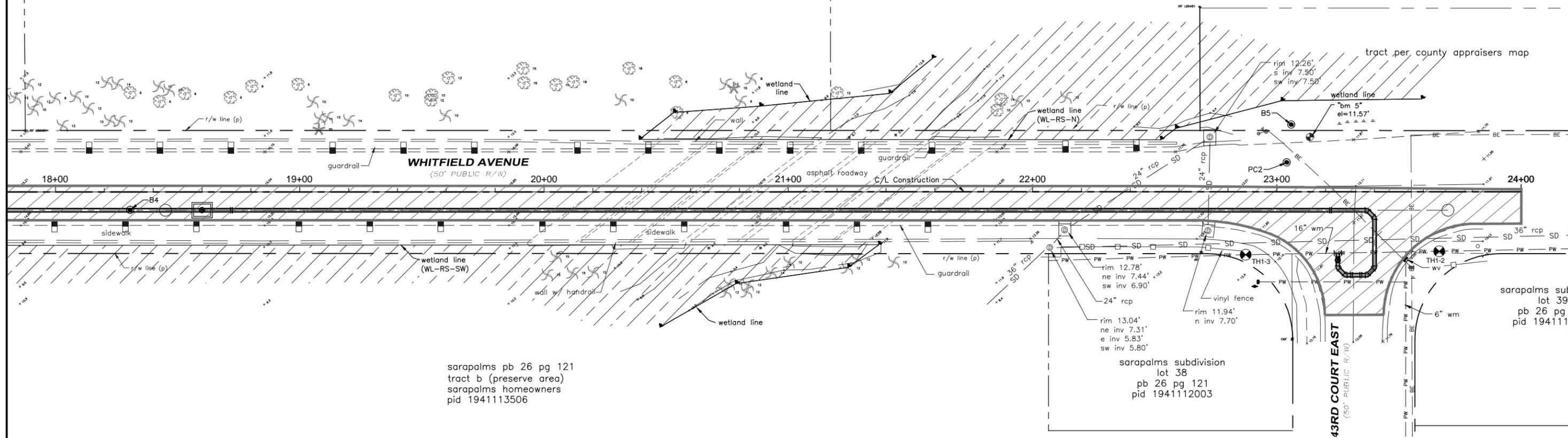
**ROADWAY RESTORATION
 PLAN**

PROJECT NO:
 00193009.03
 DATE:
 NOVEMBER 2014
 SHEET NO:
9



c mila bibler
db 1603 pg 0312
pid 1879110003

lizabeth s bibler
db 1540 pg 7254
pid 1879110052



sarapalms pb 26 pg 121
tract b (preserve area)
sarapalms homeowners
pid 1941113506

sarapalms subdivision
lot 38
pb 26 pg 121
pid 1941112003

sarapalms sub
lot 39
pb 26 pg
pid 194111

LEGEND	
	LIMITS OF MILLING AND PAVING

NOTE:
FINAL PAVEMENT MARKINGS TO MATCH EXISTING.
EXISTING PAVEMENT MARKINGS SHALL BE FIELD
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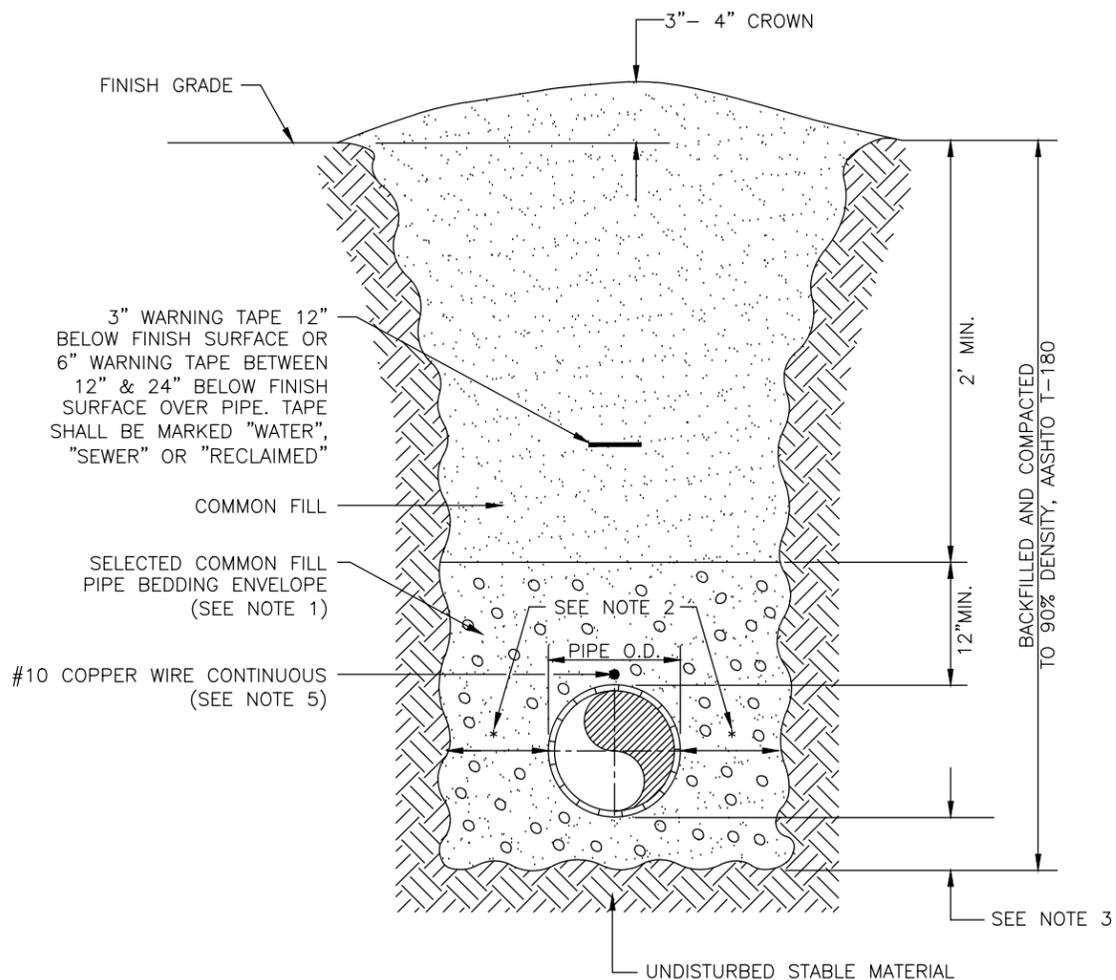
DESIGNED	DRM
DRAWN	DES
Q.C.	DRM
APPROVED	DM

**ROADWAY RESTORATION
PLAN**

PROJECT NO:	00193009.03
DATE:	NOVEMBER 2014
SHEET NO:	10

NOTES:

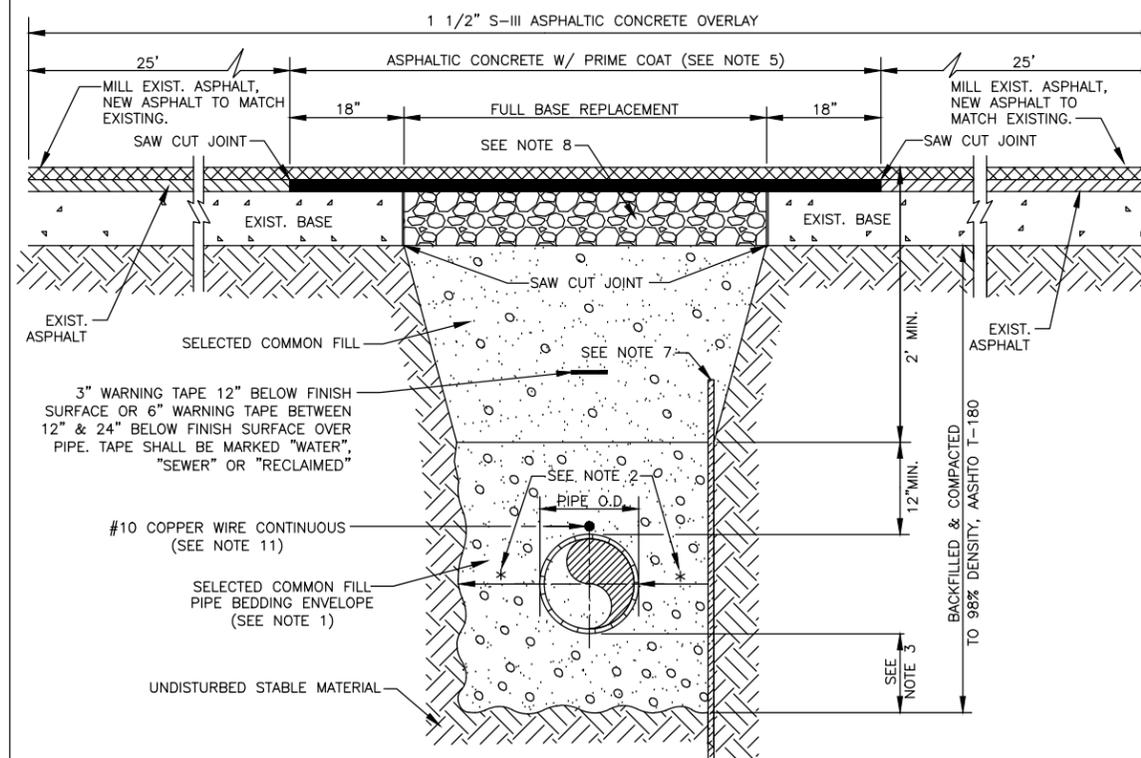
1. USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS. THE MAXIMUM WIDTH OF THE EXCAVATED TRENCH SHALL NOT EXCEED 8 FEET.
3. TYPICALLY 4" TO 6".
4. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
5. TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH UNIMPROVED SURFACE TYPE A-1 PIPE BEDDING	UG-11
REV. BY WRT/KE	DATE 03/11		
MAY 10, 2011 DATE OF APPROVAL		PAGE 111	

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. THE MAXIMUM WIDTH OF THE EXCAVATED TRENCH SHALL NOT EXCEED 8 FEET.
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		TRENCH WITH ASPHALT PAVEMENT SURFACE TYPE A-1 PIPE BEDDING	UG-12
REV. BY WRT/KE	DATE 03/11		
MAY 10, 2011 DATE OF APPROVAL		PAGE 112	

NO.	DESCRIPTION	BY	DATE

MANATEE COUNTY

**WHITFIELD AVENUE
16-INCH WATER MAIN**

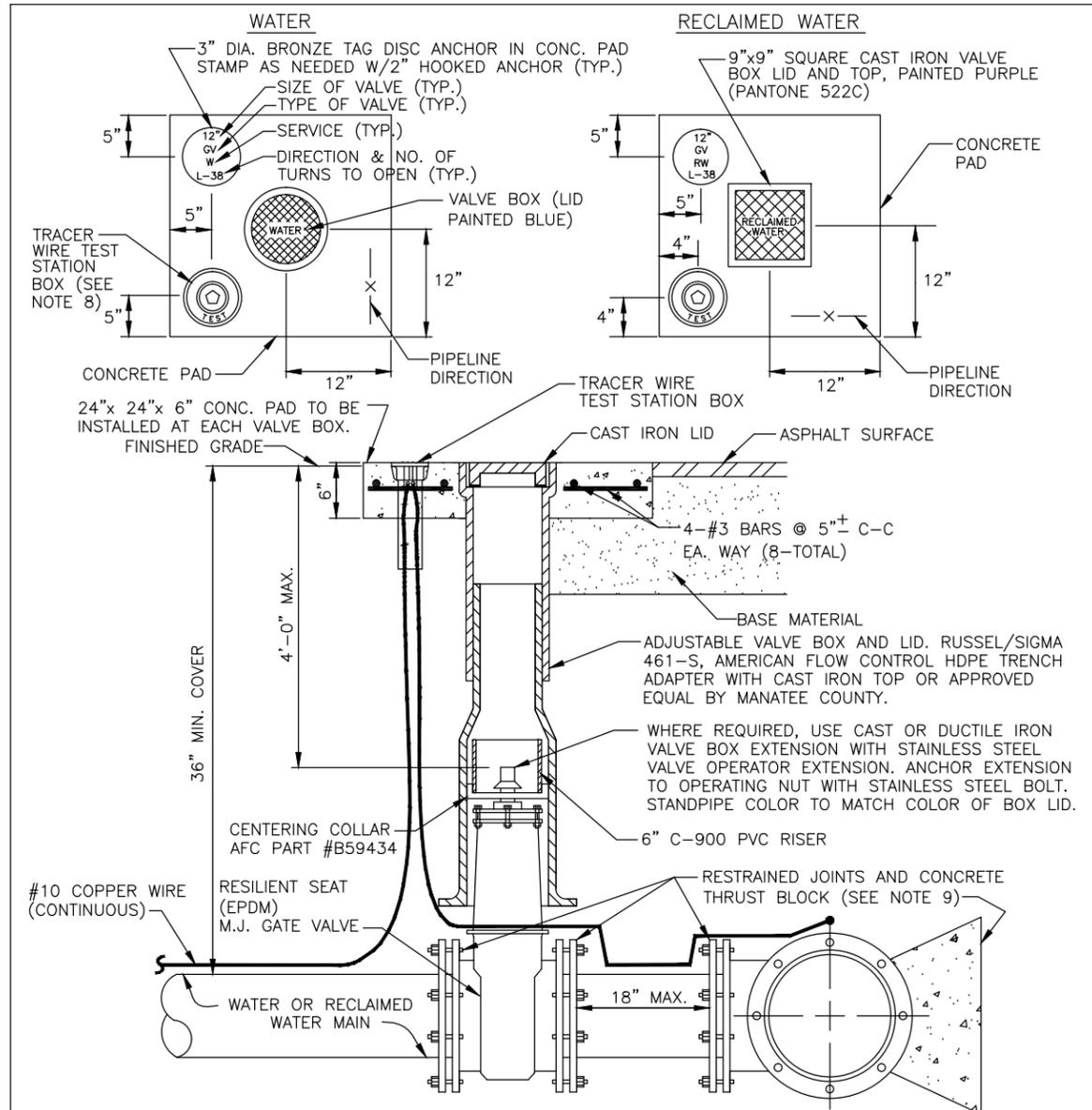


KELLY S. WEHNER, PE
LIC. NO.: 60273

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Q.C.	DRM
APPROVED	DM

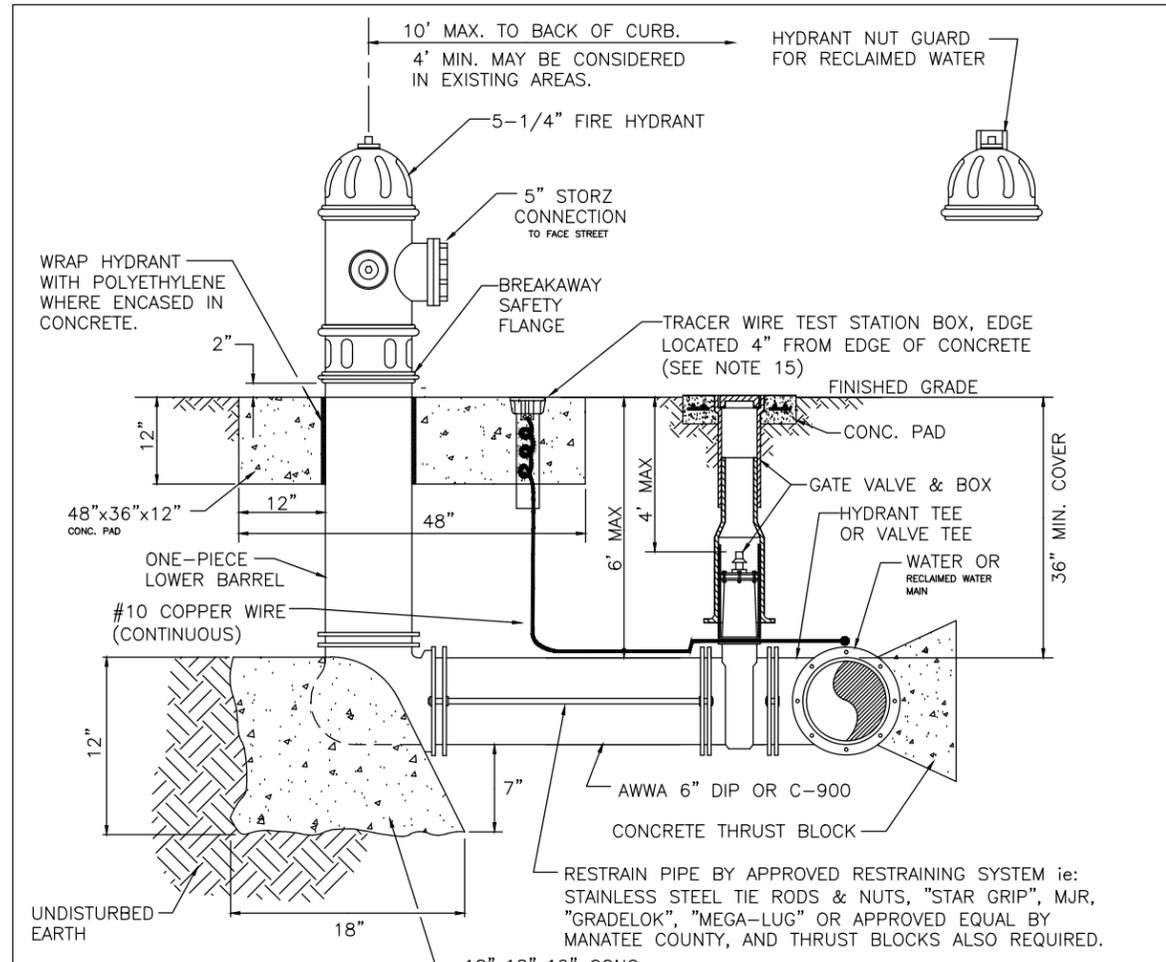
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PROJECT NO:	00193009.03
DATE:	NOVEMBER 2014
SHEET NO:	11



- NOTES:**
- "WV" OR "RWV" TO BE IMPRESSED INTO THE NEWLY-POURED CONCRETE CURB, ALONG WITH DISTANCE IN FEET TO THE VALVE. IF NO CURB, INSTALL A BLUE DISC WITH "WV" OR PURPLE DISC WITH "RWV" AND A 1/8"x1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE FOOTAGE FROM THE DISC TO THE VALVE.
 - ALL EXISTING AND PROPOSED VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADES AS DETERMINED IN THE FIELD.
 - WATER VALVES SHALL NOT BE PLACED IN HANDICAPPED RAMPS.
 - PRECAST CONCRETE PADS & THRUST BLOCKS SHALL NOT BE USED.
 - ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
 - FOR VALVES 16" AND LARGER, USE BUTTERFLY VALVES.
 - PIPELINE DIRECTION TO BE IMPRESSED INTO NEWLY POURED CONCRETE PAD.
 - TRACER WIRE TEST STATION BOX IS NOT REQUIRED IN VALVE BOX PAD IF THE GATE VALVE IS LOCATED WITHIN 200 FEET OF A WATER SERVICE, BLOW-OFF, BACKFLOW PREVENTER OR FIRE HYDRANT THAT HAS A TRACER WIRE BOX.
 - WHERE THRUST BLOCK NOT USED, RESTRAINED JOINTS MUST THEN EXTEND FROM TEE FULL LENGTH SPECIFIED FOR "TEES."
 - BINGHAM & TAYLOR P200NFG FOR NORMAL YARD SERVICE. WHERE VALVE WILL BE IN STREET OR PARKING UNDER VEHICLE TRAFFIC, USE P525RD CENTERED IN SEPARATE CONCRETE PAD SIMILAR TO STANDARD VALVE BOX PAD.

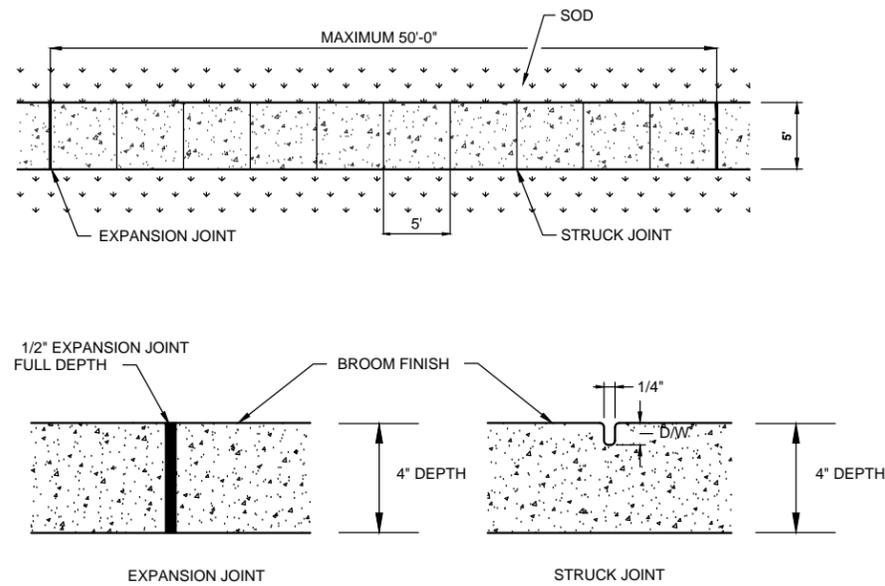
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		GATE VALVE, BOX, LID AND TAG	UW-2
REV. BY CLB/KE	DATE 11/10		
MAY 10, 2011 DATE OF APPROVAL		PAGE 120	



- NOTES:**
- WEEPHOLES SHALL BE EXCLUDED FROM THE FIRE HYDRANT.
 - FIRE HYDRANTS SHALL BE A MINIMUM OF 6' OFF EDGE OF PAVEMENT AND 10' MAX. FROM BACK OF CURB. WHERE POSSIBLE AND WHERE SIDEWALK IS TO BE INSTALLED, FIRE HYDRANT SHALL BE LOCATED BETWEEN SIDEWALK AND RIGHT-OF-WAY LINE.
 - HYDRANTS SHALL BE FUSION BONDED EPOXY COATED SAFETY YELLOW FOR WATER AND PURPLE (PANTONE 522C) FOR RECLAIMED WATER. HYDRANT SHALL BE DUCTILE IRON CONSTRUCTION.
 - FIRE HYDRANTS SHALL BE PLACED SO THAT STORM WATER FLOWS AWAY FROM THE HYDRANT.
 - FIRE HYDRANTS SHALL BE CONSTRUCTED WITH "GROUND LINE" SET TO FINISHED GRADES AS ESTABLISHED IN THE FIELD. NORMAL BURY IS 3 FEET OF COVER FOR ALL WATER LINES.
 - FIRE HYDRANTS MAY BE CONSTRUCTED WITH "GRADELOK" OFFSET FITTING.
 - RAISED REFLECTIVE PAVEMENT MARKER (BLUE) FOR POTABLE WATER (PURPLE) FOR RECLAIMED WATER. SHALL BE INSTALLED AT CENTERLINE OF PAVEMENT ADJACENT TO EACH HYDRANT.
 - PRECAST CONCRETE THRUST BLOCKS & PADS SHALL NOT BE USED.
 - ALL EXPOSED EDGES OF CONCRETE SHALL HAVE 1/2" CHAMFER.
 - FIRE HYDRANT VALVE SHALL BE FASTENED DIRECTLY TO TEE.
 - IN-LINE VALVES SHOULD BE LOCATED AT HYDRANT TEES.
 - HYDRANTS SHALL BE LOCATED ON SAME SIDE OF ROAD AS WATER MAIN UNLESS OTHERWISE APPROVED.
 - THERE MUST BE A CLEARANCE OF 7 1/2 FEET FROM FRONT AND BOTH SIDES, AND FOUR FEET TO THE REAR OF THE HYDRANT, TO ABOVE GRADE OBSTRUCTIONS INCLUDING POSTS, FENCES, TREES, ETC, PER THE FLORIDA FIRE PREVENTION CODE.
 - SEE STANDARD DETAIL GATE VALVE, BOX, LID AND TAG.
 - SHOULD THE FIRE HYDRANT'S CONCRETE PAD OVERLAP THE SIDEWALK, THE TRACER WIRE TEST STATION BOX SHALL NOT BE LOCATED WITHIN THE SIDEWALK.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		FIRE HYDRANT ASSEMBLY	UW-5
REV. BY CLB/KE	DATE 11/10		
MAY 10, 2011 DATE OF APPROVAL		PAGE 123	

MANATEE COUNTY		WHITFIELD AVENUE 16-INCH WATER MAIN				DESIGNED: DRM DRAWN: DES Q.C.: APPROVED: DRM DM		PROJECT NO: 00193009.03 DATE: NOVEMBER 2014 SHEET NO: 12	
NO.	DESCRIPTION	BY	DATE	KELLY S. WEHNER, PE LIC. NO.: 60273		DETAIL SHEET			

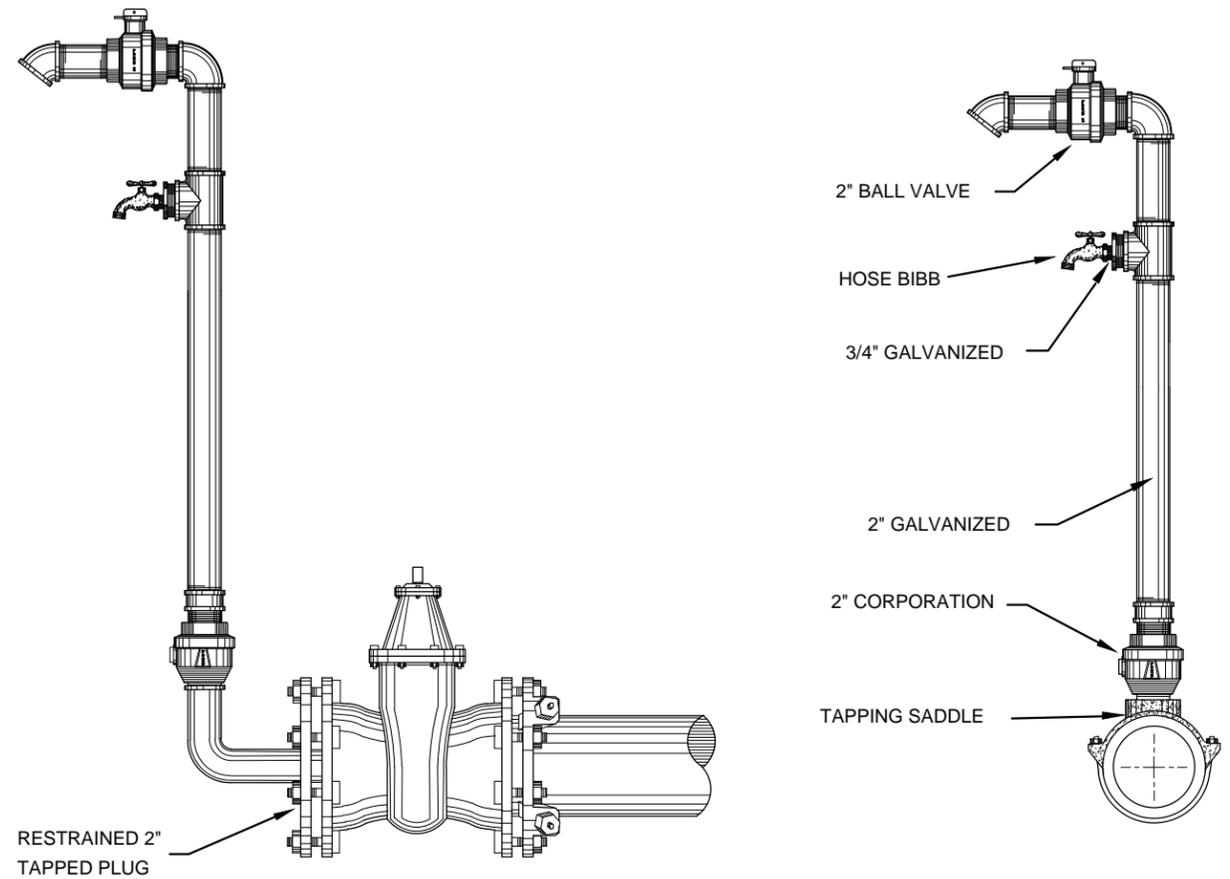


NOTES:

1. SIDEWALK SHALL BE CONSTRUCTED WITH 3,000 PSI CONCRETE PER FDOT DESIGN STANDARDS S22.
2. SIDEWALK ACROSS DRIVEWAYS SHALL BE RESTORED WITH 6 INCHES OF 3,000 PSI CONCRETE WITH W2.5, W2.5, 6x6 WIRE MESH.
3. SIDEWALK EXPANSION JOINTS TO BE AT ALL TIES TO CONCRETE OTHER THAN DRIVEWAYS. MAXIMUM SPACING SHALL BE 50'.
4. EXPANSION JOINT MATERIAL SHALL BE ASPHALT FIBER IMPREGNATED PERFORMED JOINT FILLER, TO FULL DEPTH OF CONCRETE.
5. SOD SHALL BE REPLACED IN KIND.

SIDEWALK REPLACEMENT DETAIL

NTS



END CONNECTION

TOP CONNECTION

TEMPORARY BLOW-OFF AND SAMPLE TAP ASSEMBLY

NTS

NO.	DESCRIPTION	BY	DATE

MANATEE COUNTY

**WHITFIELD AVENUE 16-INCH
WATER MAIN**

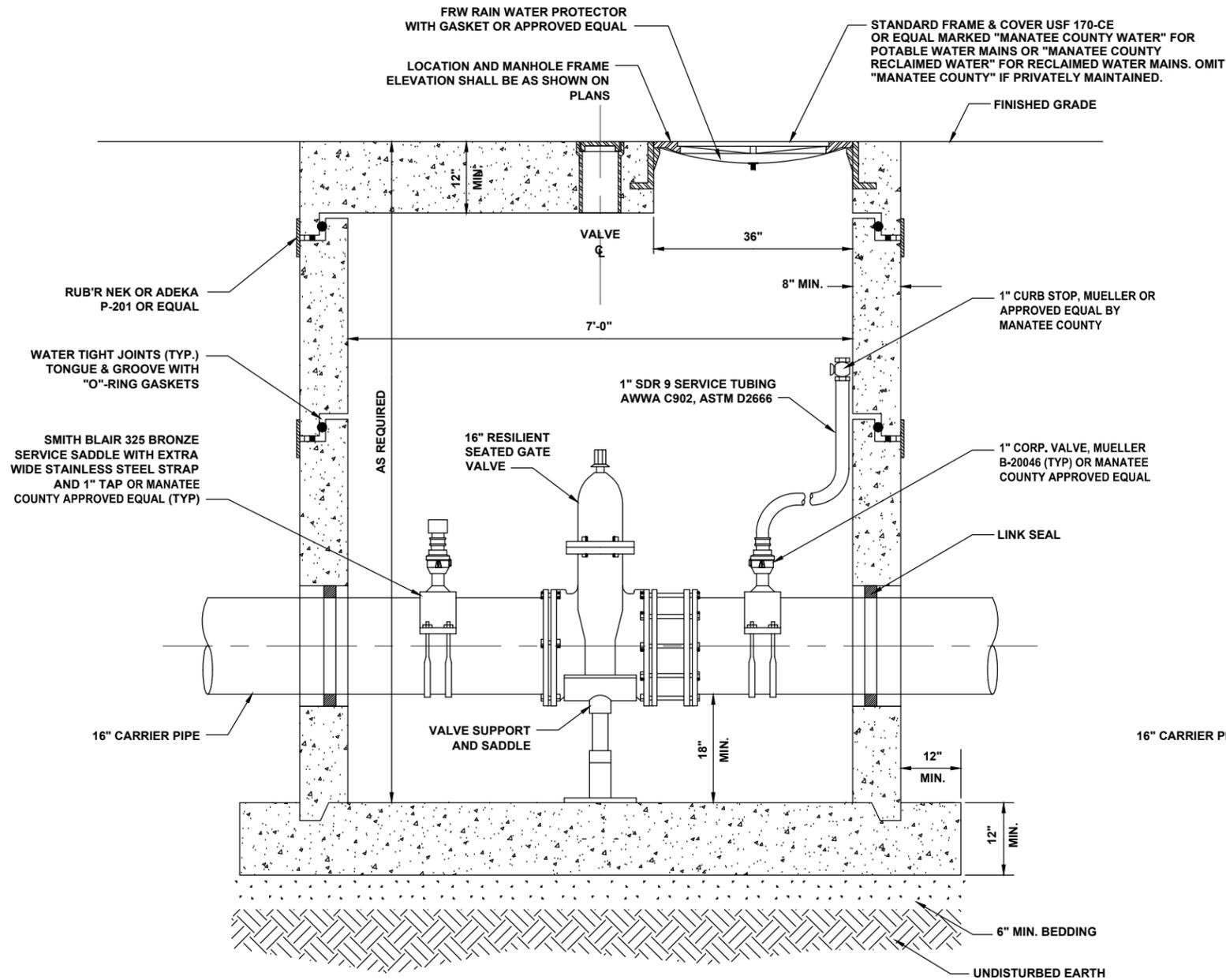
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380 PARK PLACE BLVD, STE 300, CLEARWATER, FL 33759
TEL: (727) 531-3505 (800) 861-8314
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KELLY S. WEHNER, PE DATE
LIC. NO.: 60273

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Q.C.	
APPROVED	DRM
	DM

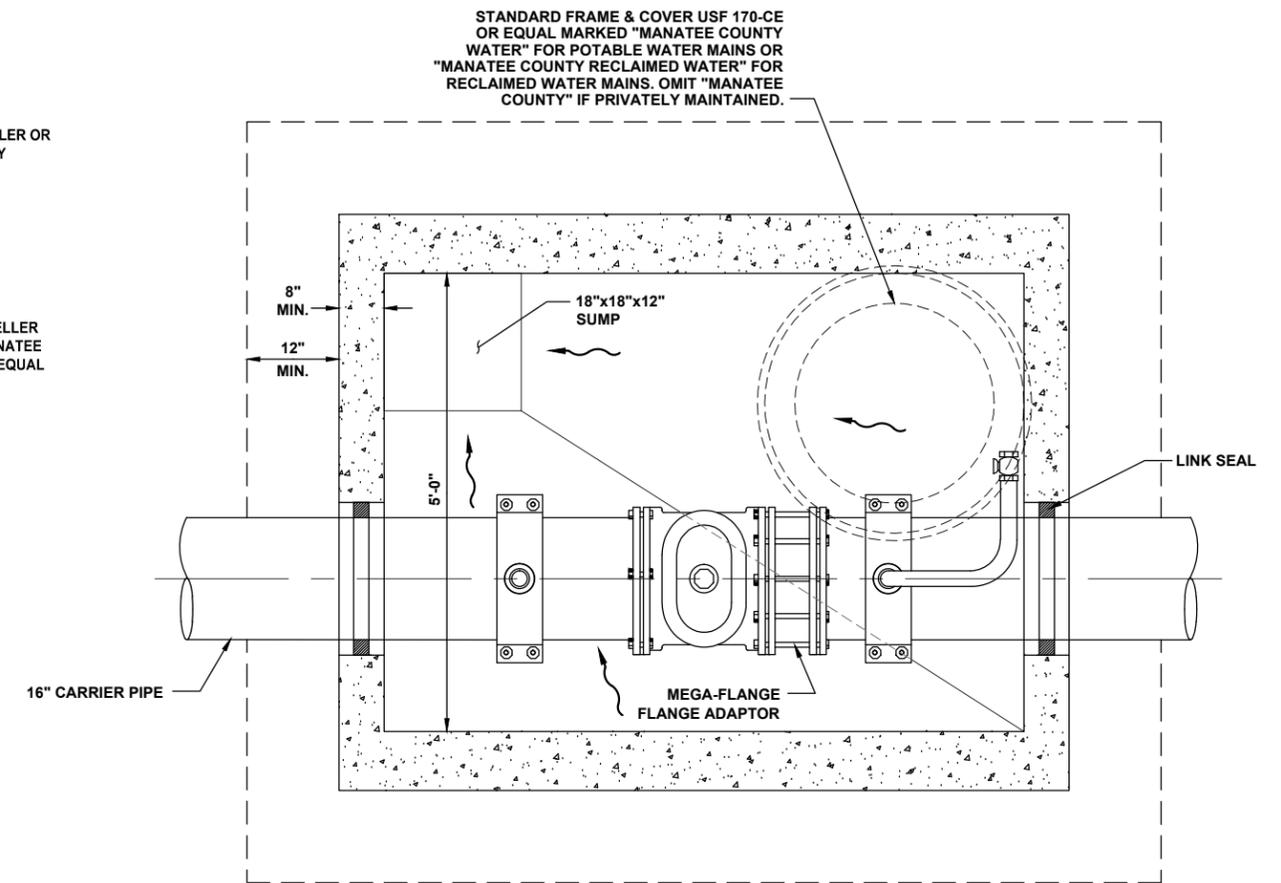
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PROJECT NO:	00193009.03
DATE:	NOVEMBER 2014
SHEET NO:	13



SECTION VIEW

NTS



PLAN VIEW

NTS

NOTES:

1. AUTOMATIC AIR RELEASE VALVES SHALL NOT BE INSTALLED BELOW GRADE.
2. SADDLE STRAPS, NUTS, BOLTS AND WASHERS TO BE STAINLESS STEEL.
3. MANUALLY OPERATED AIR RELEASE VALVES TO BE INSTALLED AT HIGH POINTS OF MAIN WHERE SPECIFICALLY INDICATED ON THE PLANS.
4. ALL PIPES PENETRATING VAULT SHALL HAVE RESILIENT PIPE TO MANHOLE SEALS PER ASTM C-923, XP BY A-LOK OR EQUAL.
5. PRECAST CONCRETE VAULT SHALL BE DESIGNED PER ASTM C478 REQUIREMENTS BY MANUFACTURER.
6. THICKNESSES SHOWN ARE A MINIMUM AND MUST BE VERIFIED BY MANUFACTURER.
7. THE MINIMUM THICKNESSES SHOWN ARE INTENDED TO PROVIDE A STRUCTURE THAT IS NON-BUOYANT AFTER BEING FULLY CONSTRUCTED. THE CONTRACTOR SHALL PROTECT THE STRUCTURE AS NECESSARY FROM FLOATATION UNTIL IT IS FULLY CONSTRUCTED.
8. THE TOP SLAB, FRAME AND COVER SHALL BE DESIGNED TO ACCOMMODATE H20 LOADING.

ISOLATION VALVE AND VAULT

NTS

NO.	DESCRIPTION	BY	DATE

MANATEE COUNTY

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PROJECT NO:	00193009.03
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SHEET NO:	14