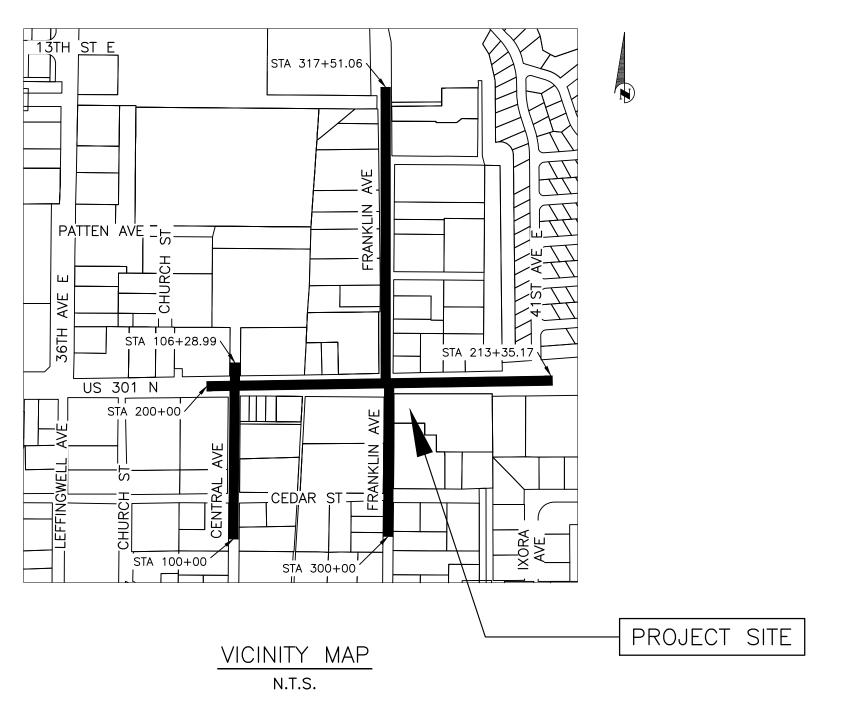
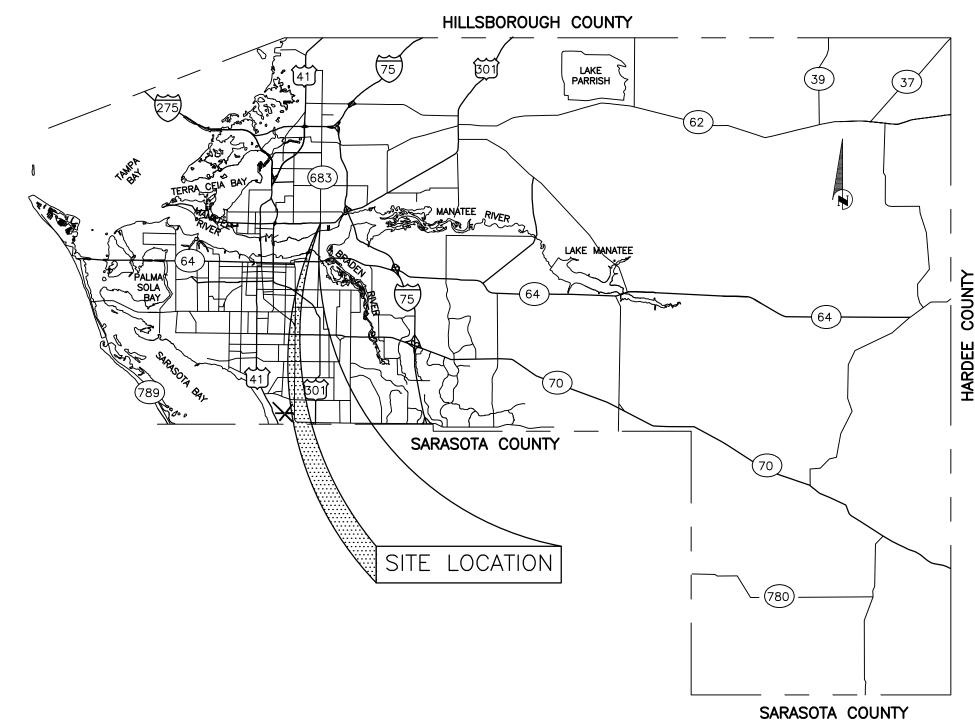


# FRANKLIN AVE & 301 NORTH WATERMAIN PROJECT CIP# 6092270

April 2023





NO.	SHEET NAME
01	Cover
02	Notes
03	Key Sheet
04	US 301
05	US 301
06	39th Ave (Franklin Ave)
07	Survey, S.U.E. & Sewer Data
08	Details
09	Details
10	Details
11	Details
12	Restoration Areas
13	Erosion Control





# FRANKLIN AVE & 301 NORTH VATER MAIN REPLACEMENT PROJEC

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ALEJANDRO GONZALEZ, P.E

FLORIDA P.E. # 79278

at's below

Signature & Date
SHEET 01 OF 1

PROJECT DESCRIPTION

REPLACE AGED WATERMAIN TO IMPROVE FIRE PROTECTION AND WATER QUALITY.

### **GENERAL**

- ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: ALEX GONZALEZ AND CAN BE REACHED AT 941-708-7450.
- 2. SITE VISITS ARE MANDATORY FOR ALL BIDDERS.
- . ALL CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH **the latest edition of manatee county utility and** TRANSPORTATION STANDARDS AND/OR FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" UNLESS OTHERWISE
- . THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS AND ALL GOVERNING FEDERAL, STATE, AND LOCAL AGENCIES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS THAT ARE NOT PROVIDED IN THE BID DOCUMENTS, AT NO ADDITIONAL COST TO THE OWNER.
- THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATION THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.
- . THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS ON THE PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. SHOULD DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO OBTAIN THE ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH CONSTRUCTION.
- AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA AT 1-800-432-4770 OR THE NATIONAL 811 ONE CALL NUMBER WHEN APPLICABLE FOR UTILITY LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITIES FOR THE POSSIBLE RELOCATION OR THE TEMPORARY MOVEMENT OF ANY EXISTING UTILITIES WITHIN THE RIGHTS-OF-WAY.
- 3. NO WORK, EXCEPT FOR EMERGENCY TYPE, SHALL BE PERFORMED AFTER 7:00 PM AND BEFORE 7:00 AM. FOR ADDITIONAL PROJECT RESTRAINTS, REFER TO SECTION 01310 OF THE SPECIFICATIONS.

### <u>SAFETY</u>

- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT, 90-96, LAWS OF FLORIDA EFFECTIVE OCTOBER 1, 1990 AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS, 29 CFR 1926.650. SUBPART P, AS AMENDED. THE CONTRACTOR SHALL INCLUDE IN THE TOTAL BID PRICE ALL COSTS FOR COMPLIANCE WITH THESE REGULATIONS.
- 10. THE CONTRACTOR SHALL USE SHEET PILING, SHEETING, BRACING, ETC., AS REQUIRED IN ALL EXCAVATION AREAS AND CONFORM TO ALL OSHA REQUIREMENTS.
- II. THE CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND UTILITIES, POWER
- 12. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT ALLEVIATE THE CONTRACTOR FOR PROVIDING A CONTINUOUS SAFE WORKSPACE.

- 13. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY STORM WATER, EROSION, AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THE FDEP "FLORIDA STORM WATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT TO SURFACE DRAINS AND TO DITCHES DURING CONSTRUCTION.
- 14. STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON—SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILES IS REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY STOCKPILED MATERIAL REMAIN AFTER THIRTY (30) CALENDAR DAYS.
- 15. STORM WATER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION. THIS WILL BE MAINTAINED TO PREVENT DEGRADATION OF THE WATERS OF THE COUNTY AND STATE.
- 16. SEDIMENT BASINS AND TRAPS, PERIMETER BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING BODIES OF WATER, MUST BE INSTALLED, CONSTRUCTED, OR IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTHEN STRUCTURES INCLUDING BUT NOT LIMITED TO BERMS, EARTH FILTERS, DAMS OR DIKES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE (1) WEEK OF INSTALLATION.
- 17. ALL SWALES, DITCHES, AND CHANNELS LEADING FROM THE SITE SHALL BE PROTECTED FROM SILTATION AND EROSION DURING CONSTRUCTION AND BE SODDED WITHIN THREE (3) DAYS OF EXCAVATION.
- 18. SOIL DISPLACED BY CONSTRUCTION WILL BE REMOVED. EROSION CONTROL SHALL BE IMPLEMENTED IN AREAS WHICH ARE CONSIDERED ENVIRONMENTALLY SENSITIVE. EROSION CONTROL SYSTEMS SHALL BE REQUIRED FOR ALL WORK WITHIN JURISDICTIONAL AREAS. THESE SYSTEMS MAY INCLUDE STAKED HAY BALES, SILT SCREENS, FILTER FABRIC, AND TURBIDITY SCREENS.
- 19. ALL EROSION AND POLLUTION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND SHALL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
- 20. THE CONTRACTOR SHALL NOT ENTER UPON OR IN ANY WAY ALTER WETLAND AREAS THAT MAY BE ON OR NEAR THE CONSTRUCTION SITE. ALL WORK IN THE VICINITY OF OPEN WATER AND/OR WETLANDS IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL REGULATIONS AND/OR PERMITS FOR THE SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINES RESULTING FROM HIS VIOLATION OF ANY REGULATIONS OR PERMIT CONDITIONS.
- 21. FOR MORE INFORMATION, SEE THE EROSION CONTROL DETAIL SHEET INCLUDED IN THE PLANS.

- 22. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT-OF-WAY AND/OR EASEMENTS SHOWN ON THE
- 23. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO REFERENCE AND RESTORE PROPERTY CORNER MONUMENTS, PINS, AND LANDMARKS THAT MAY BE DISTURBED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- 24. THE CONTRACTOR. PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC. MUST OBTAIN A RIGHTS—OF—WAY USE PERMIT AND A TRAFFIC CONTROL PLAN. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM OTHER GOVERNMENTAL AGENCIES HAVING RELEVANT JURISDICTION. ALL MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION "MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES". A TRAFFIC CONTROL PLAN SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.
- 25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL DAMAGED STORM WATER STRUCTURES, PIPING, ENTRANCE PIPE AND HEADWALLS WHETHER SHOWN ON THE PLANS OR NOT. THE HEADWALLS SHALL BE REPLACED IN ACCORDANCE WITH F.D.O.T. STANDARDS.
- 26. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH IN THE FIELD THE RIGHT-OF-WAY LINES, BASE LINES, BENCH MARKS (ELEV.), CENTER LINES, AND STATIONING AS REQUIRED TO CONSTRUCT THIS PROJECT
- 27. THE CONTRACTOR SHALL COORDINATE THE CUTTING OF DRIVEWAYS WITH THE PROPERTY OWNER PRIOR TO CUT. ALL DRIVEWAYS WILL BE IN PASSABLE CONDITION AT THE END OF THE WORK DAY AND FULLY RESTORED PER SECTION 02575.
- 28. A RIGHT OF ENTRY AGREEMENT SHALL BE OBTAINED BY THE PROJECT MANAGER FROM THE PROPERTY OWNER BEFORE ANY DRIVEWAY CONSTRUCTION WORK IS DONE OUTSIDE OF THE RIGHT-OF-WAY OR EASEMENT.

SWIMMING POOL,

- 29. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC. WHICH ARE WITHIN THE PROJECT AREA AND WHICH HAVE NOT BEEN LOCATED OR IDENTIFIED, MAY NOT BE IN THE EXACT LOCATION SHOWN OR RELOCATED SINCE THE PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES STRUCTURES AND OTHER FEATURES (WHETHER OR NOT SHOWN ON THE PLANS) THAT MAY EFFECT HIS WORK. ALL EXISTING UTILITIES TO BE EXTENDED, CROSSED OR CONNECTION POINTS SHALL BE EXPOSED PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND ELEVATION. ANY DISCREPANCIES OR CONFLICTS FOUND SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION.
- 30. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER AND SEWER LINES, STORM DRAINS, UTILITIES, DRIVEWAYS, SIDEWALKS, SIGNS, MAIL BOXES, FENCES, TREES, LANDSCAPING, AND ANY OTHER IMPROVEMENT OR FACILITY IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DAMAGED ITEM DUE TO HIS CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
- 31. ANY TEMPORARY SHUTDOWNS FOR MODIFICATIONS OF EXISTING UTILITY SYSTEMS THAT MUST REMAIN IN SERVICE DURING CONSTRUCTIONS SHALL BE KEPT TO A MINIMUM AND SHALL BE COORDINATED WITH AND APPROVED BY THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. IT IS NOTED THAT TEMPORARY SHUTDOWNS MAY BE RESTRICTED TO CERTAIN HOURS AT ANY TIME OF THE DAY OR NIGHT AND WILL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER.
- 32. FOR WORK BEING DONE ON EXISTING SANITARY SEWER LINES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE FLOW OF ALL SEWAGE DURING CONSTRUCTION, WHICH MAY REQUIRE BY-PASS PUMPING AND/OR PUMPER TRUCKS. THE CONTRACTOR SHALL SUBMIT A DETAILED BY-PASS PUMPING PLAN PER SECTION 02720.
- 33. ALL WATER SERVICES TO BE INSTALLED OR MODIFIED ON PRIVATE PROPERTY THAT REQUIRE A PLUMBING PERMIT; A. THE CONTRACTOR'S PLUMBER SHALL INSTALL A REDUCED PRESSURE (RP) TYPE BACKFLOW PREVENTION ASSEMBLIES (BPA'S) EQUIPPED WITH A PRESSURE RELIEF VALVE AT THE POTABLE WATER METER WHENEVER ANY OF THE FOLLOWING CONDITIONS EXIST AT A PROPERTY: •IN-GROUND IRRIGATION SYSTEM, • SECONDARY SOURCE OF WATER (I.E. RECLAIMED WATER OR WELL),

- •FIRE SPRINKLER SYSTEM,
- •FLOOD ZONE DESIGNATION,
- •PROPERTY THAT ABUTS OR INCLUDES A BODY OF WATER (INCLUDING RIVER, BAY, LAKE OR POND), • SOLAR WATER HEATING SYSTEM, • MULTISTORY OR MULTIFAMILY RESIDENTIAL FACILITY.
- B. A LICENSED PLUMBER SHALL INSTALL THE BPA'S IN ACCORDANCE WITH THE CURRENT FLORIDA PLUMBING CODE AND MANATEE COUNTY CODE OF ORDINANCES, AND SHALL SELECT A PRESSURE RELIEF VALVE WITH AN APPROPRIATE PRESSURE SET POINT TO PROTECT THE CUSTOMERS' PLUMBING AND NOT ALLOW EXCESSIVE LEAKAGE DUE TO SYSTEM SUPPLY PRESSURE. A PRESSURE REDUCING VALVE MAY BE NECESSARY UPSTREAM OF THE PRESSURE RELIEF VALVE, WHERE NORMAL SUPPLY PRESSURE EXCEEDS 80 PSI. CONTRACTOR SHALL COORDINATE WITH COUNTY CROSS CONNECTION CONTROL STAFF AS REQUIRED.
- C. IF IN-GROUND IRRIGATION SYSTEM IS CONNECTED TO THE POTABLE WATER LINE, AN ADDITIONAL RP BPA SHALL BE INSTALLED AT THE POINT OF CONNECTION.
- D. VACUUM BREAKERS SHALL BE INSTALLED ON ALL HOSE BIBBS.
- E. CONTRACTOR SHALL COORDINATE WITH COUNTY CROSS CONNECTION STAFF & PRIVATE PROPERTY OWNER AS REQUIRED.

- 34. ALL RESTORATION WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS SHOWN
- 35. ALL DISTURBED GRASSED AREAS SHALL BE SODDED OR SEEDED UNLESS OTHERWISE INDICATED. THE TYPE OF SOD USED TO REPLACE OWNER MAINTAINED AREAS IN RIGHT-OF-WAY SHALL BE COORDINATED WITH THE PROPERTY OWNER.
- 36. ALL CONCRETE THRUST BLOCKS INSTALLED FOR TESTING PURPOSES AND NOT REQUIRED FOR THE OPERATION OF THE PIPELINE SHALL BE

REMOVED AND DISPOSED OF BY THE CONTRACTOR, PRIOR TO FINAL ACCEPTANCE, AT NO ADDITIONAL COST TO THE OWNER.

- 37. ASPHALT DRIVES THAT ARE CUT SHALL BE RESTORED PER SECTION 02513.
- 38. CONCRETE DRIVEWAYS OR SIDEWALKS THAT ARE CUT SHALL BE RESTORED TO MATCH EXISTING ACCORDING TO THE CURRENT EDITIONS OF THE F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN, SECTION 522, AND SECTION 310 OF THE F.D.O.T. DESIGN STANDARDS.
- 39. WHENEVER A PERMANENT ROADWAY SURFACE IS NOT PLACED IMMEDIATELY AFTER BACKFILLING AND COMPACTION OF THE NEWLY INSTALLED PIPE LINE IN AREAS WHERE TRAFFIC MUST PASS, THE CONTRACTOR SHALL INSTALL A TEMPORARY SURFACE CONSISTING OF NINE INCHES OF COMPACTED LIME ROCK BASE AND A COAT OF ASPHALT EMULSION. PERMANENT ROADWAY REPAIR SHALL BE PERFORMED A MAXIMUM OF TWENTY-ONE CALENDAR DAYS AFTER THE INITIAL OPEN CUTTING.
- 40. RESTORATION OF CURBS, DRIVEWAYS, SIDEWALKS, AND PLACEMENT OF SOD SHALL BE COMPLETED WITHIN FORTY-FIVE CALENDAR DAYS OF INITIAL DISTURBANCE, OR TWENTY-ONE CALENDAR DAYS OF SUBSTANTIAL COMPLETION, WHICHEVER OCCURS FIRST.

### **CONSTRUCTION**

- 41. THE EXHAUST SYSTEM OF ALL GASOLINE AND DIESEL ENGINES SHALL BE EQUIPPED WITH MUFFLERS THAT MEET THE EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR NOISE SUPPRESSION. THE CONTRACTOR SHALL INSTALL NOISE ABATEMENT BAFFLES POSITIONED TO BREAK LINE-OF-SITE FROM THE NOISE SOURCE TO AFFECTED RESIDENCES, AS APPROVED BY THE ENGINEER.
- 42. NO MATERIAL SHALL BE STOCKPILED IN ROADWAYS. ALL DIRT AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE DAILY. ROADS SHALL BE SWEPT DAILY AS PART OF DAILY CLEAN UP.
- 43. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.
- 44. INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT ALL TIMES.
- 45. PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA.
- 46. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY. DEWATERING IS REQUIRED TO 18" BELOW TRENCH BOTTOM.
- 47. ALL PIPING AND FITTINGS USED ON THIS PROJECT SHALL BE AS NOTED ON THE PLANS AND IN THE CONTRACT DOCUMENT AND SHALL BE INSTALLED TO THE LINES AND GRADES SHOWN ON THE PLANS AND PROFILES. MODIFICATIONS MUST BE APPROVED BY THE ENGINEER OF
- 48. ALL PIPE SHALL BE COLOR CODED TO CONFORM TO MANATEE COUNTY STANDARDS.
- 49. ALL PIPE AND FITTINGS SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND ALL PIPE JOINTS SHALL BE RESTRAINED WHERE REQUIRED.
- 50. ALL FITTINGS FOR PRESSURE CLASS-RATED PIPE SHALL BE RESTRAINED DUCTILE IRON. RESTRAINED LENGTHS OF PIPE SHALL ADHERE TO THE REQUIREMENTS AS SHOWN ON THE DETAIL SHEETS.
- 51. WHERE IT IS NECESSARY TO DEFLECT PIPE EITHER HORIZONTALLY OR VERTICALLY, PIPE DEFLECTION SHALL NOT EXCEED 75% OF THE MANUFACTURER'S MAXIMUM ALLOWABLE RECOMMENDED DEFLECTION.
- 52. ALL PIPE LENGTHS ARE PLUS OR MINUS AND MAY BE ADJUSTED IN THE FIELD AS REQUIRED. PIPE MEASUREMENTS ARE TO CENTER OF STRUCTURES OR FITTINGS.
- 53. ALL ROCKS OR STONES LARGER THAN SIX INCH DIAMETER SHALL BE REMOVED FROM THE BACKFILL MATERIAL. BACKFILL MATERIAL PLACED WITHIN ONE FOOT OF PIPING AND APPURTENANCES SHALL NOT CONTAIN ANY STONES LARGER THAN TWO INCH DIAMETER.
- 54. ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF ARE AUTHORIZED TO OPERATE VALVES ON COUNTY OWNED AND MAINTAINED UTILITY
- 55. ALL PENETRATIONS OF EXISTING STRUCTURES SHALL BE BY MECHANICAL ROTARY CORE DRILLING METHOD. ALL CONCRETE PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY.
- 56. THE CONTRACTOR, PRIOR TO ANY TEMPORARY WATER SHUT-OFFS DURING WATER MAIN TIE-IN, ETC., SHALL NOTIFY THE AFFECTED RESIDENTS BY POSTING INFORMATIONAL SIGNS IN THE NEIGHBORHOOD AT LEAST TWO DAYS (48 HRS) PRIOR TO THE WATER SHUT-OFF. REFERENCE SECTION 01580, PARAGRAPH 1.03 OF THE SPECIFICATIONS. WHEN FEASIBLE, "DOOR HANGERS" SHALL BE DELIVERED TO AFFECTED RESIDENCES AT LEAST TWO DAYS (48 HRS) PRIOR TO WATER SHUT-OFF. FOR LARGE PROJECTS WITH HUNDREDS OF HOMES AFFECTED, THE CONTRACTOR SHALL ALSO MAKE EXTENSIVE USE OF THE MEDIA AND SHALL HAVE PRIOR CONTACT WITH HOMEOWNER'S ASSOCIATIONS. WRITTEN NOTIFICATIONS SHALL ALSO BE FAXED TO THE TAMPA TRIBUNE, BRADENTON HERALD, SARASOTA HERALD TRIBUNE, WBRD RADIO, EMERGENCY COMMUNITY CENTERS. INSPECTIONS, WATER TREATMENT PLANT, WATER MANAGER, HELPLINE, CUSTOMER SERVICE, AND THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT.
- 57. ALL NEW PIPE LINES SHALL BE PIG CLEANED (4" AND LARGER), FLUSHED, PRESSURE TESTED, DISINFECTED AND CERTIFIED PRIOR TO TIE-INS TO EXISTING FACILITIES. THE CONTRACTOR WILL BE ALLOWED TO USE TEMPORARY PLUGS FOR PIG CLEANING AND PRESSURE TESTING.
- 58. ALL TEST POINT PIPING SHALL BE CUT LOOSE FROM THE CORPORATION STOP AND COMPLETELY REMOVED AND DISPOSED OF BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE. A CORPORATION STOP PLUG SHALL BE INSTALLED AND THE CORPORATION STOP SHALL REMAIN IN
- 59. WATER MAINS CROSSING OVER OR UNDER SANITARY SEWERS, FORCE MAINS, AND RECLAIMED WATER LINES SHALL BE LAID PER CURRENT EDITION OF "10 STATE STANDARDS" AND MANATEE COUNTY UTILITY STANDARDS UNLESS NOTED OTHERWISE ON THE PLANS.
- 60. FIELD CONDITIONS MAY NECESSITATE MINOR ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED UTILITIES TO AVOID OBSTACLES, AS ORDERED BY THE ENGINEER.
- 61. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH SECTION 14 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS AT NO COST TO THE OWNER. RECORD DRAWINGS SHALL BE SIGNED & SEALED BY A SURVEYOR CURRENTLY LICENSED BY THE STATE OF FLORIDA. ALL RECORD DRAWING INFORMATION REQUIREMENTS IN SECTION 14 SHALL BE STRICTLY ENFORCED. A COPY OF SECTION 14 WILL BE PROVIDED UPON REQUEST.
- 62. THE CONTRACTOR SHALL MAINTAIN AS-BUILT DRAWINGS OF THE WORK AS CONSTRUCTED. AS-BUILT DRAWINGS SHALL INCLUDE THE LOCATION OF ABANDONED FORCE MAIN CUT AND PLUG POINTS. AS-BUILT DRAWINGS SHALL BE ANNOTATED EACH DAY AS THE WORK PROCEEDS AND SHALL BE AVAILABLE TO THE COUNTY PROJECT MANAGER AND/OR FIELD INSPECTOR FOR REVIEW ON AN ONGOING BASIS. AS-BUILT DRAWINGS SHALL PROVIDE THE HORIZONTAL AND VERTICAL INSTALLED LOCATION OF ALL NEW PIPELINE, FITTINGS, VALVES AND FORCE MAIN APPURTENANCES REFERENCED TO FIXED SURFACE FEATURES THAT ARE SHOWN ON THE CONSTRUCTION DRAWINGS AND/OR RIGHT-OF-WAY LINES, PROPERTY CORNERS OR OTHER SURVEYED POINTS. THE CONTRACTOR SHALL BE ABLE TO PRESENT THE RECORD DRAWINGS TO THE COUNTY PROJECT MANAGER AND/OR INSPECTOR ON DEMAND AS THE WORK PROGRESSES.

# EXISTING UTILITY LOCATIONS

- 63. THE FOLLOWING IDENTIFIES THE QUALITY LEVEL OF EXISTING UTILITY LINEWORK ON PLANS.
- LEVEL "A" -VISUALLY LOCATED OR SOFT DIGS (HORIZONTAL AND VERTICAL) LEVEL "B" -DESIGNATED BY GPR OR FLAGGING (HORIZONTAL)
- LEVEL "C" -SURFACE VISIBLE FEATURES SURVEY
- LEVEL "D" -EXISTING RECORDS OR GIS
- REFERENCE 2010 EDITION OF FDOT UTILITY ACCOMODATION MANUAL (UAM)

# MAINTENANCE OF TRAFFIC

- 64. THE CONTRACTOR IS RESPONSIBLE FOR ANY TRAFFIC CONTROL PLAN (TCP) IMPLEMENTED. THE TCP SHALL BE PREPARED BY AN INDIVIDUAL CERTIFIED TO PREPARE A TCP IN THE STATE OF FLORIDA THAT MEETS OR EXCEEDS THE REQUIREMENTS OF THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS LATEST EDITION (SERIES 600). ANY DEVIATIONS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA AND SUBMITTED TO COUNTY (AND FDOT) FOR APPROVAL AT LEAST FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COUNTY (AND FDOT) APPROVAL PRIOR TO IMPLEMENTATION AND FAILURE TO OBTAIN APPROVAL SHALL NOT BE GROUNDS FOR ANY DELAY CLAIM FOR TIME OR ADDITIONAL COMPENSATION.
- 65. THE CONTRACTOR PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHT-OF-WAY USE PERMIT AND A TRAFFIC

- CONTROL PLAN (TCP). THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM OTHER GOVERNMENTAL AGENCIES HAVING RELEVANT JURISDICTION. ALL MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION "MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES". A TCP SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.
- 66. THE CONTRACTOR SHALL USE, BUT ARE NOT LIMITED TO, FDOT INDICES 415, 600, 615, 616, AND 621. THE RECOMMENDED FDOT DESIGN STANDARD INDICES ARE CONCEPTUAL.
- 67. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE TEMPORARY DRAINAGE. THERE WILL BE NO DIRECT PAY FOR THIS WORK. COSTS SHALL BE INCLUDED IN THE COST OF PIPE.
- 68. MOTORIZED AND MECHANICAL EQUIPMENT SHALL BE EFFECTIVELY SHIELDED, PADDED, OR LOCATED TO MINIMIZE NOISE.
- 69. THE CONTRACTOR WILL NOTIFY ALL EMERGENCY AND RESCUE AGENCIES LOCATED IN THE PROJECT VICINITY 24 HOURS IN ADVANCE OF ANY PROPOSED LANE CLOSURES OR DETOURS.
- 70. ACCESS TO ALL SIDE STREETS AND DRIVEWAYS MUST BE PROVIDED AND MAINTAINED DURING CONSTRUCTION.
- 71. USE FDOT INDEX NO. 619 FOR TRAFFIC CONTROL MEASURES WHEN CONSTRUCTION EQUIPMENT IS DRIVEN ON OPEN TRAVEL LANES. THE REGULATORY SPEED IN WORK ZONES SHOULD BE AS CLOSE TO NORMAL CONDITIONS AS POSSIBLE, UNLESS NOTED ON THE TRAFFIC CONTROL PLANS.
- 72. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO WORKING NEAR THEIR EXISTING FACILITIES.
- 73. CONSTRUCTION SEQUENCES SHALL BE COORDINATED TO PROVIDE POSITIVE DRAINAGE OF THE TRAVELWAYS AT ALL TIMES.
- 74. ANY MOT ITEM NOT SPECIFICALLY LISTED UNDER A PARTICULAR PAY ITEM SHALL BE CONSIDERED SUBSIDIARY TO OTHER BID ITEMS. THERE SHALL BE NO SEPARATE PAYMENT.
- 75. THE MAXIMUM SPACING BETWEEN WARNING DEVICES USED FOR DELINEATION BETWEEN THE TRAVELWAY(S) AND CONSTRUCTION AREA SHALL BE AS PER FDOT STANDARD INDEX 600.
- 76. ALL DETOURS, IF APPROVED BY THE COUNTY, SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D. LATEST EDITION) AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, LATEST EDITION (600 SERIES). ANY DETOUR RECOMMENDED BY THE CONTRACTOR MUST BE SUBMITTED TO THE COUNTY (AND FDOT) FOR APPROVAL AT LEAST FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COUNTY (AND FDOT) APPROVAL PRIOR TO IMPLEMENTATION AND FAILURE TO OBTAIN APPROVAL SHALL NOT BE GROUNDS FOR ANY DELAY CLAIM FOR TIME OR ADDITIONAL COMPENSATION.

# LEGEND

### **EXISTING ABBREVIATIONS** BENCH MARK BUSH TREE CONCRETE MONUMENT OAK TREE IRON PIPE PALM TREE CONC IRON ROD PINE TREE HUB NAIL & DISK **ELEVATION** PARCEL ID NO PARCEL ID NO. EDGE OF VEGETATION 777 LOT NO. CHAIN LINK FENCE GUY WIRE — WOOD FENCE POWER POLE BARBED WIRE FENCE LIGHT POLE FORCE MAIN MAIL BOX - POTABLE WATER RECLAIMED WATER REFLECTOR SANITARY SEWER ----- SS -----SPRINKLER STORM DRAIN GAS MARKER ----- GAS LINE

OCHR OVERHEAD CHARTER UNDERGROUND CHARTER OVERHEAD ELECTRIC WATER VALVE UNDERGROUND ELECTRIC AIR RELEASE VALVE OVERHEAD FRONTIER WATER METER UNDERGROUND FRONTIER SANITARY SEWER MANHOLE UNDERGROUND PRECO SANITARY SEWER CLEAN OUT -FPL-FPL UNDERGROUND FPL SB#1 SOIL BORING LOCATION ——— ОН ——— OVERHEAD UTILITY TELEPHONE SERVICE BOX + RAIL ROAD TRACKS UTILITY BOX - EDGE OF CONCRETE - EDGE OF ROAD UTILITY RISER FLOW DIRECTION ---- TOE OF SLOPE GI GRATE INLET — — — — TOP OF BANK

MITERED END SECTION

STORM SEWER MANHOLE ----

# EMERGENCY CONTACTS

PROPERTY LINE

RIGHT OF WAY

MANATEE COUNTY PUBLIC WORKS DEPT. UTILITY ENGINEERING SCOTT MAY, P.E. 1022 26TH AVENUE EAST BRADENTON, FL. 34208 (941) 708-7450 EXT. 7650 FAX: (941) 708-7415

TECO/PEOPLES GAS CO. DAN SHANAHAN 8261 VICO COURT SARASOTA, FL. 34240 (941) 342-4030 FAX: (941) 342-4011 EMERGENCY: 1-877-832-6911

FRONTIFR JOHN PLOTT 1701 RINGLING BLVD. SARASOTA, FL. 34236 (941) 906-6707 FAX: (941) 906-6706 JOHN.PLOTT@FTR.COM

FLORIDA POWER & LIGHT GREG COKER 1253 12TH AVENUE EAST PALMETTO, FL 34221 (941) 723-4430 FAX: (941) 723-4444 EMERGENCY: 1-800-4-OUTAGE GREG\_COKER@FPL.COM MANATEE COUNTY HEALTH DEPT.

\_ . \_ . \_ . \_ . \_ . \_ .

HANS ROESE 410 6TH AVENUE EAST BRADENTON, FL. 34208 (941) 748-0747 EXT. 1355 FAX: (941) 750-9364 SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

SARASOTA SERVICE OFFICE STEVE LOPES, P.E. 6750 FRUITVILLE ROAD SARASOTA, FL. 34240 (941) 377-3722 FAX: (941) 373-7660

FLORIDA GAS TRANSMISSION JOHN LUDLOW 7804 ANDERSON RD. TAMPA FL 33634 PHONE: (813) 466-3327 E-MAIL: CHAD.HARRELL@SUG.COM (863) 767-4660 FDEP, SOUTHWEST DISTRICT

13051 N. TELECOM PKWY TEMPLE TERRACE, FL 33637 TOM WRIGHT

ED WATSON

TOM.WRIGHT@CHARTER.COM SUNSHINE STATE ONE CALL OF FLORIDA 1-(800) 432-4770

PEACE RIVER ELECTRIC COOPERATIVE, INC. P.O. BOX 1310 WACHULA, FL 33873 KENDELL COKER KENDELL.COKER@PRECO.COOP

RIGHT OF WAY

CONCRETE

ASPHAL

DRIVEWAY

SIDEWALK

EDGE OF PAVEMENT

BACK OF CURB

(813) 470-5875 2101 47TH TERRACE EAST BRADENTON, FL 34203 FAX: (813) 470-5993 VISHAL KAKAAD, P.E. CHARTER COMMUNICATIONS (941) 749-3500 EXT. 7812 FAX: (941) 749-3571 5413 E. STATE ROAD 64 VISHAL.KAKKAD@MYMANATEE.ORG. BRADENTON, FL. 34208-5535 (941) 748-3816 EXT. 21348 CITY OF BRADENTON

PUBLIC WORKS 1411 9TH ST. W. BRADENTON, FL 34205 JIM MCLELLAN JIM.MCLELLAN@CITYOFBRADENTON.COM PHONE: (941) 708-6300 FAX: (941) 708-6309

MANATEE COUNTY PUBLIC WORKS

DEPT./TRAFFIC ENGINEERING/



PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208

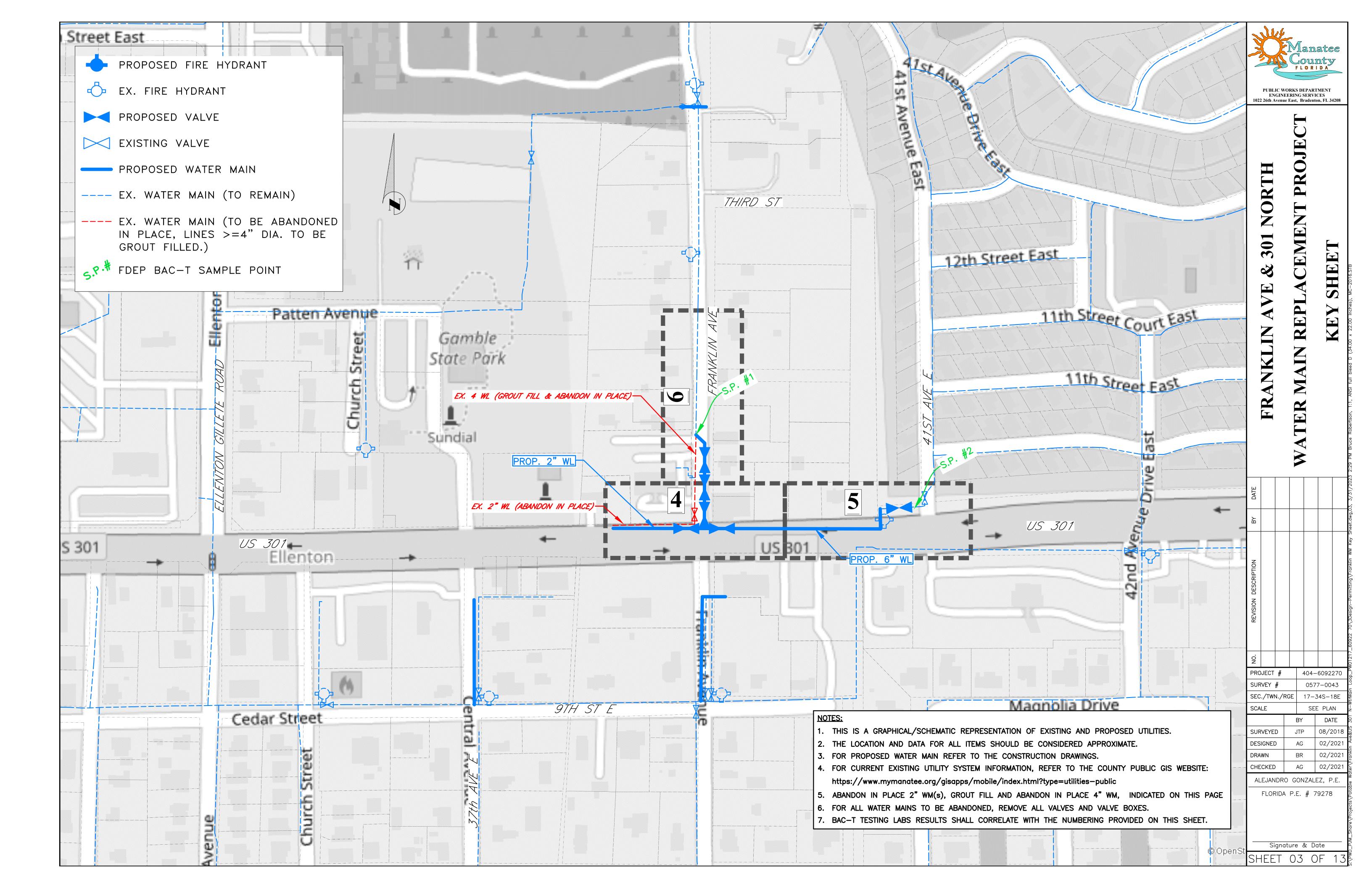
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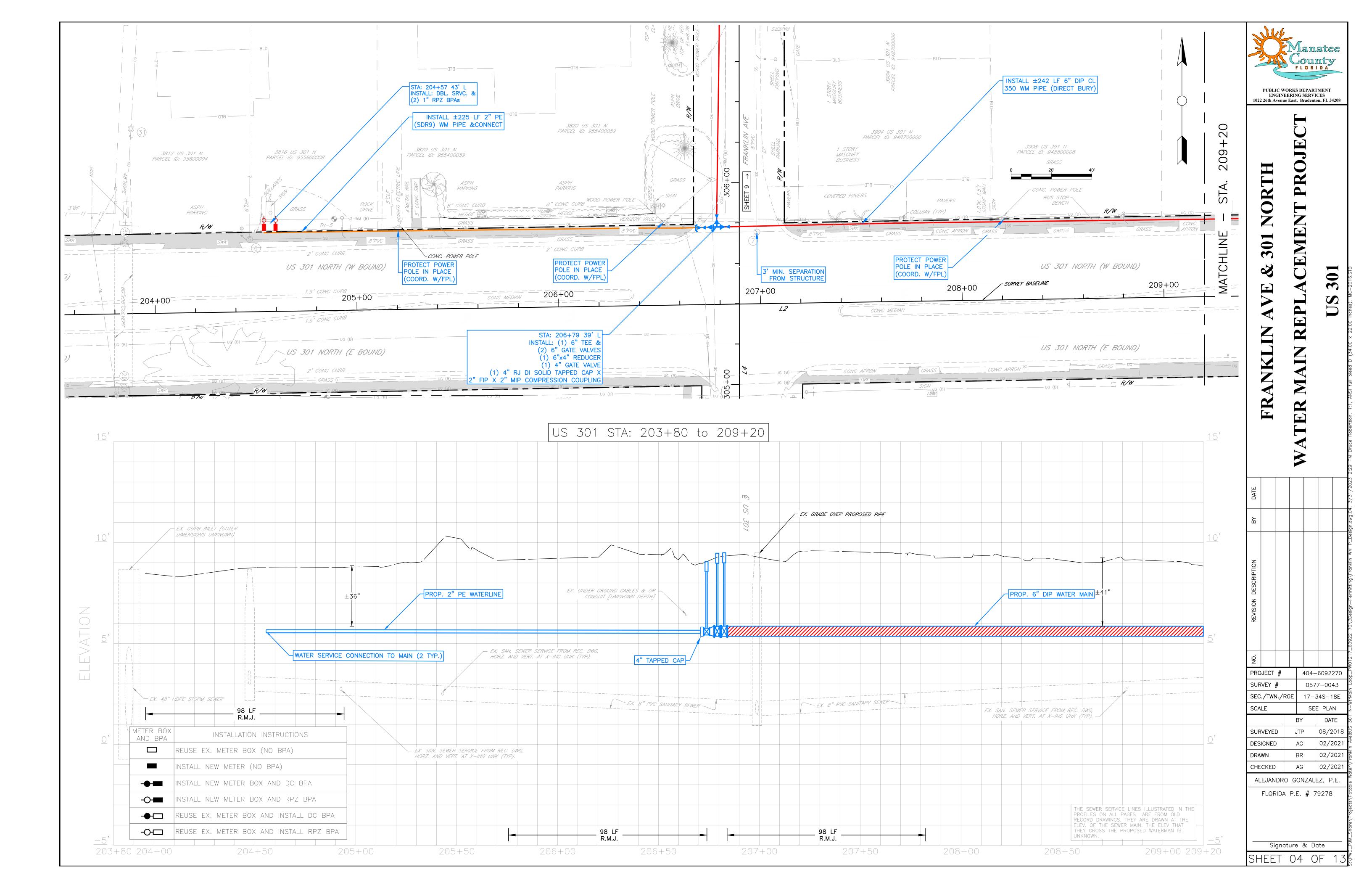
PROJECT # 404-6092270 SURVEY # 0577-0043 SEC./TWN./RGE | 17-34S-18E SCALE N.T.S.

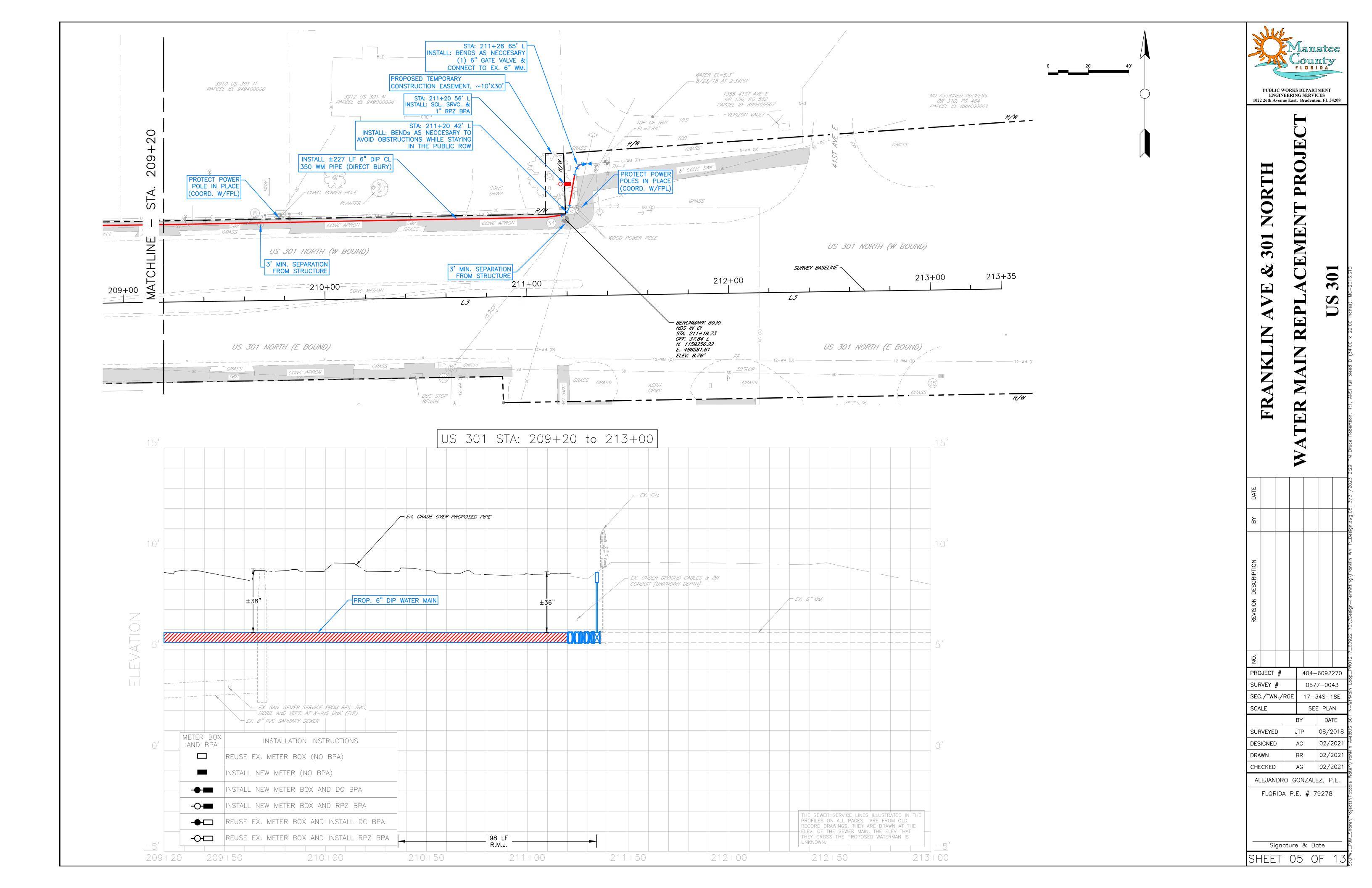
DATE BY SURVEYED JTP 08/2018 DESIGNED AG 02/202 DRAWN 02/202 BR 02/202 CHECKED AG

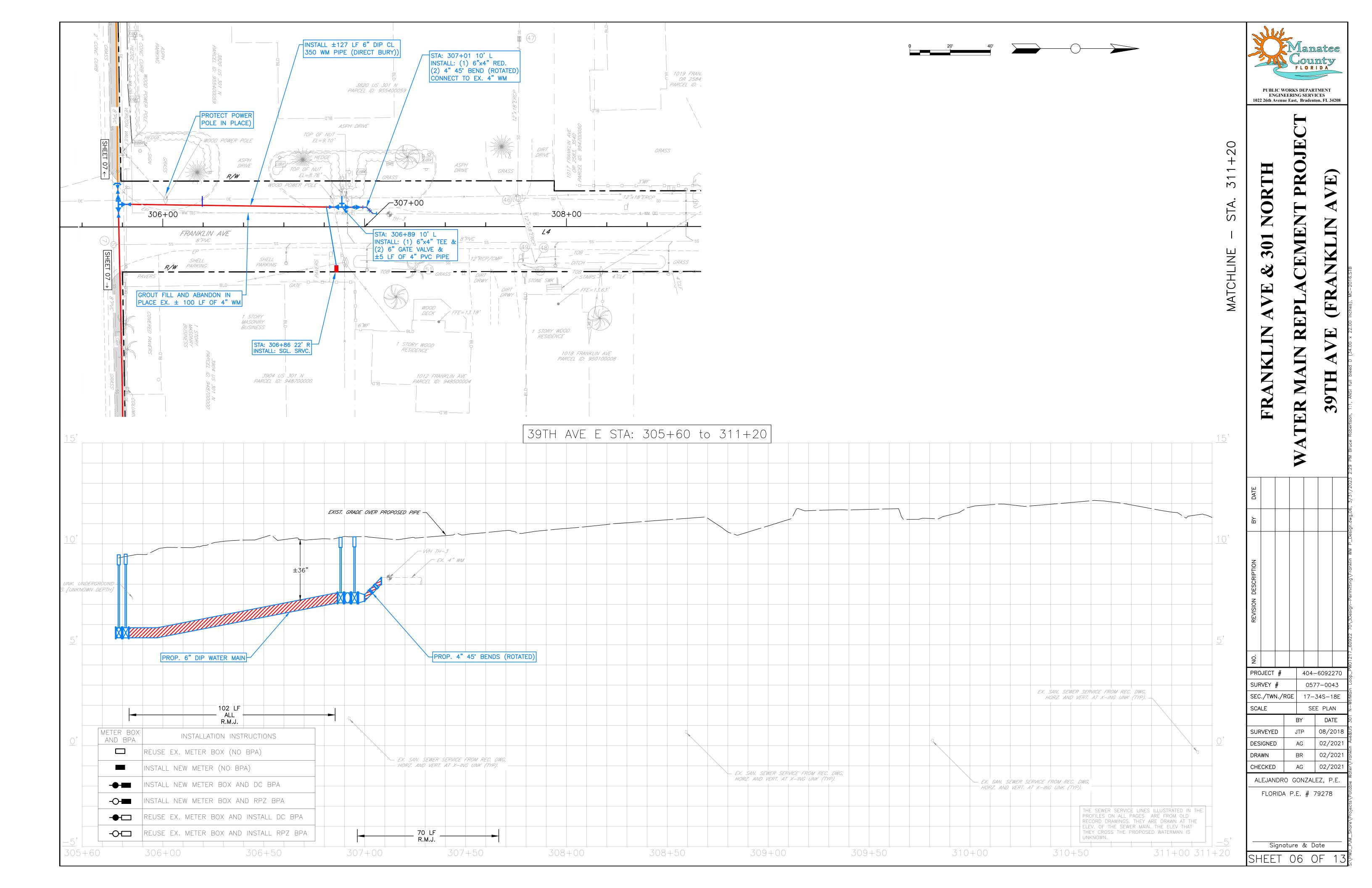
ALEJANDRO GONZALEZ, P.E FLORIDA P.E. # 79278

Signature & Date









The information on this page has been extracted from a topographic survey done by Florida Design Consultants for Manatee County Government for the sole purpose of installing underground utilities. The full topo survey is available on request.

	37th Ave E										
Number	Length	Radius	Delta Angle	Line/Chord	Chord Length	Start Station	Start Northing	Start Easting	End Station	End Northing	End Easting
L1	628.99			N00° 04' 51.82"W		100+00.00	1158646.99	485580.25	106+28.99	1159275.98	485579.36

US 301												
Number	Length	Radius	Delta	Angle	Line/Chord	Chord Length	Start Station	Start Northing	Start Easting	End Station	End Northing	End Easting
L2	1000.00				N89° 05' 31.41"E		200+00.00	1159200.64	485462.62	210+00.00	1159216.49	486462.49
L3	335.17				N89° 05' 31.41"E		210+00.00	1159216.49	486462.49	213+35.17	1159221.80	486797.62

39th Ave E											
Number	Length	Radius	Delta Angle	Line/Chord	Chord Length	Start Station	Start Northing	Start Easting	End Station	End Northing	End Easting
L4	1100.00			N00° 02' 37.51"W		300+00.00	1158671.78	486152.46	311+00.00	1159771.78	486151.62
L5	651.06			N00° 02' 37.51"W		311+00.00	1159771.78	486151.62	317+51.06	1160422.84	486151.12

LINE TABLE									
LINE	LENGTH	DIRECTION							
L6	27.56'	S14°25'42"W							
L7	26.30'	S00°02'39"E							
L8	26.78'	S14°28'10"E							
L9	14.98'	N87°32'51"W							
L10	16.60'	S89°21'32"E							
L11	30.40'	S00°33'50"E							
L12	127.01	N53°15'22"E							
L13	153.06	N60°35'32"E							
L14	125.37	N68*59'40"E							
L15	74.72'	S66°03'12"W							
L16	29.36	S00°28'26"W							
L17	56.42'	S59°26'47"E							

	LINE T	ABLE
LINE	LENGTH	DIRECTION
L18	22.80'	S05°44'28"E
L19	50.28	N82°32'56"E
L20	73.23'	N38°39'12"E
L21	28.42'	S20°20'21"E
L22	9.36'	S87°06'08"E
L23	41.41	N13°10'01"E
L24	32.66	S16°01'45"E
L25	9.39'	N89°34'12"E
L26	36.35	N14°13'42"E
L27	89.60'	S08°42'54"W
L28	43.62	S30°17'40"W
L29	55.96'	N23°44'43"W

		Т	EST HOLE DATA	<u> </u>								
(ELEMENT ENGINEERING GROUP REPORT, JOB # FRANKLIN FDC)												
TEST HOLE	UTILITY	FIELD MARKING	GROUND EL (FEET)	TOP OF PIPE (FEET)	NOTES PER ELEMENT REPORT							
TH-01	6" PVC WATER LINE	FOUND HUB WITH LATH MARKED (C -2.61)	9.08	6.47	FOUND 6" PVC WL							
TH-02	6" PVC WATER LINE	FOUND HUB WITH LATH MARKED (C -2.34)	11.00	8.66	FOUND 6" PVC WL							
TH-03	4" PVC WATER LINE	FOUND NAIL WITH MARKING (C -1.88)	10.23	8.35	FOUND 4" PVC WL							
TH-04	2" PE PIPE WITH FIBER OPTIC CABLE	FOUND HUB WITH LATH MARKED (C -2.62)	9.12	6.50	FOUND 2" PE FOC							
TH-05	2" PVC WATER LINE	FOUND HUB WITH LATH MARKED (C -1.80)	8.84	7.04	FOUND 2" PVC WL							
TH-06	1" CAST IRON PIPE WATER LINE	FOUND NAIL WITH MARKING (C -3.65)	7.25	3.60	FOUND 12" CAST IRON PIPE, POSS CASE UNDER RD							
TH-07	6" PVC GAS LINE	FOUND NAIL WITH MARKING (C -2.75)	7.34	4.59	FOUND 6" PVC WHT., POSS. CASE UNDER RD. TECO HAS LINE MARKED ON RD. AS 4" PL							

# NOTES:

- 1. A NAIL AND DISK STAMPED LB6707 WAS SET AT EVERY 100' STATION ALONG ALL SURVEY BASELINES.
- 2. US 301 RIGHT-OF-WAY PER FDOT RIGHT-OF-WAY MAP SECTION 1302-(104)202. RIGHTS-OF-WAY LYING NORTH OF US 301 ARE PER MAP OR PLAT OF ELLENTON VILLAGE, AS RECORDED IN PLAT BOOK 1, PAGE 133 AND RIGHTS-OF-WAY LYING SOUTH OF US 301 ARE PER MAP OR PLAT OF PLAN OF STREETS AND BLOCKS IN THE TOWN OF ELLENTON, AS RECORDED IN PLAT BOOK 1, PG 337, BOTH OF THE PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA [PLAT DATA SHOWN AS (P) HEREON] (UNLESS OTHERWISE SPECIFIED ON THE MAP OF SURVEY).

### SANITARY STRUCTURES

- (1) SANITARY MANHOLE EL=5.02' 8"PVC INV (N)=-0.64" BOTTOM OF STRUCTURE EL=-8.14'
- 8"PVC INV (N)=1.10" 8"PVC INV (E)=1.06" 8"PVC INV (S)=0.91"
- 8"PVC INV (W)=2.06"
- (4) SANITARY MANHOLE EL=8.85' 8"PVC INV (N)=3.34" POSSIBLE 10"DIP INV (NE)=2.08" 8"PVC INV (S)=2.08"
- (5) SANITARY MANHOLE EL=9.29'
- 6"DIP INV (N)=2.94" 8"PVC INV (E)=2.67"
- (7) SANITARY MANHOLE EL=9.50' 8"PVC INV (N)=1.47" 8"PVC INV (E)=1.43" 8"PVC INV (W)=1.45"
- (8) SANITARY MANHOLE EL=9.03' 8"PVC INV (W)=2.89'
- 8"PVC INV (N)=-3.79"
- (10) SANITARY MANHOLE EL=7.11' 8"PVC INV (N)=-0.46" 8"PVC INV (E)=-1.09" 8"PVC INV (S)=-1.18" 8"PVC INV (W)=-1.02"
- 8"PVC INV (E)=0.81'
- 8"PVC INV (W)=0.58"
- (13) SANITARY MANHOLE EL=9.04' 8"PVC INV (S)=1.31"
- (14) SANITARY MANHOLE EL=11.69' 8"PVC INV (N)=0.13" 8"PVC INV (S)=0.19"
- (17) SANITARY MANHOLE EL=11.14'

- (18) 15"CMP INV(N)=4.24"
- (2) SANITARY MANHOLE EL=7.41'
- (3) SANITARY MANHOLE EL=7.10'
- 8"PVC INV (S)=3.87"
- (6) SANITARY MANHOLE EL=8.63'
- (9) SANITARY MANHOLE EL=4.30'
- (11) SANITARY MANHOLE EL=7.10'
- (12) SANITARY MANHOLE EL=6.46'

- (15) SANITARY MANHOLE EL=12.24' 8"PVC INV (N)=-1.22" 8"PVC |NV (S)=-1.13"
- (16) SANITARY MANHOLE EL=10.75' 8"PVC INV (N)=-2.84" 8"PVC INV (S)=-2.78"
- 8"PVC INV (S)=-3.34"

### STORM STRUCTURES

- 15"CMP INV (S)=4.09"
- (19) CONCRETE HEADWALL 15"CMP INV=4.72"
  - 20 CONCRETE HEADWALL 15"CMP INV=4.99"
  - (21) 12"RCP INV (N)=5.68" 12"RCP INV (S)=5.57"
  - (2) CONCRETE MITERED END SECTION 12"ADS INV=5.96'
  - (23) CONTROL STRUCTURE EL=7.80' 12"ADS INV=6.06' WEIR CUT INV (N)=7.36' WEIR CUT INV (W)=7.32' WEIR CUT INV (S)=7.32'
  - (24) CONTROL STRUCTURE EL=6.79' 12"x18"ERCP INV (N)=5.20' WEIR CUT INV (W)=6.08'
  - 25) CONTROL STRUCTURE EL=6.92' 12"x18"ERCP INV (E)=5.04" 12"x18"ERCP INV (S)=5.05" WEIR CUT INV (W)=5.83'
  - (26) GRATE INLET 12"x18"ERCP INV (W)=5.10"
  - (27) STORM MANHOLE EL=9.10' 18"RCP INV (N)=5.29" 18"RCP INV (E)=5.07"
  - (28) STORM MANHOLE EL=9.28' 18"RCP INV (S)=5.43"
  - (29) STORM MANHOLE EL=8.50' 60"x96" CULVERT INV (N)=0.81" 54"RCP INV (S)=0.68" 18"RCP INV (W)=3.15"
  - (30) STORM MANHOLE EL=8.63' 48"HDPE INV (N)=1.35" 60"x96" CULVERT INV (S)=0.95'
  - (31) STORM MANHOLE EL=7.63' 48"HDPE INV (S)=0.73"
  - (32) STORM MANHOLE EL=8.73" 15"RCP INV (N)=4.31" 30"RCP INV (E)=3.07"
  - (33) STORM MANHOLE EL=6.88' 42"RCP INV (N)=1.33"

30"RCP INV (S)=3.27"

(34) STORM MANHOLE EL=8.73' 15"RCP INV (S)=4.94"

BEARINGS AND COORDINATES (IN U.S. SURVEY FEET) ARE BASED ON NATIONAL GEODETIC SURVEY (NGS), STATE PLANE COORDINATES, FLORIDA WEST ZONE, NORTH AMERICAN DATUM

(1) MANATEE (GSPS): RECEIVER TYPE/SERIAL#: LEICA GR10 / 1702551; ANTENNA TYPE/SERIAL#: LEIAR20 / 16034016; (NORTHING = 1,145,619.696, EASTING = 542,303.564)

(2) ANNA MARIA ISLE (FLAI): RECIEVER TYPE/SERIAL#: LEICA GR10 / 1701977; ANTENNA TYPE/SERIAL#: LEICA AR20 / 16268009; (NORTHING = 1,133,278.398, EASTING = 432,312.165)

ALL AS PUBLISHED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION WEBSITE.

ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM, 1988 ADJUSTMENT (NAVD

1. A FOUND STAINLESS STEEL ROD IN FLANGED CASE STAMPED "V565 2002", DESIGNATED "V

2. A FOUND ALUMINUM ALLOY ROD WITH ALUMINUM MANATEE COUNTY DISK STAMPED "COLUMBIA

2010", DESIGNATED "COLUMBIA" BY NGS, PID = DN9439, ELEVATION = 11.61 FEET (NAVD 88)

BOTH AS PUBLISHED BY THE NATIONAL GEODETIC SURVEY WEB SITE. (http://www.ngs.noaa.gov)

ADD 0.98 FEET TO CONVERT TO NATIONAL GEODETIC VERTICAL DATUM, 1929 ADJUSTMENT (NGVD

(35) CONTROL STRUCTURE 30"RCP INV (W)=3.40"

CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS) UTILIZED:

565" BY NGS, PID = DE8846, ELEVATION = 7.84 FEET (NAVD 88)

29). CONVERSION CALCULATED UTILIZING VERTCON (VERSION 2.0).

PROJECT DATUM

1983/2011 ADJUSTMENT.

(http://www.dot.state.fl.us.

CONTROL BENCHMARK UTILIZED:

CONVERSION FACTOR:

**VERTICAL:** 

- (36) 15"RCP INV=3.60" 37) CONCRETE HEADWALL
- 15"RCP INV=4.10" (38) 15"RCP INV=4.26"
- (39) GRATE INLET EL=6.5415"RCP INV (N)=4.64" 15"CMP INV (S)=4.62"
- (40) CONCRETE HEADWALL 15"RCP INV=5.11"
- (41) CONCRETE HEADWALL 12"x18"ERCP INV=4.68"
- (42) CONCRETE HEADWALL 12"x18"ERCP INV=4.70'
- (43) *12"RCP INV=5.45"*
- (44) GRATE INLET EL=7.34' 12"x18"ERCP INV (N)=5.89" 12"x18"ERCP INV (S)=5.94"
- (45) GRATE INLET EL=7.53' 12"RCP INV (N)=5.95" 12"x18"ERCP (S)=5.91'
- (46) STORM MANHOLE EL=10.48' 12"x18"ERCP INV (N)=7.92" 12"x18"ERCP INV (E)=8.62" 12"x18"ERCP INV (W)=7.91
- (47) GRATE INLET 12"x18"ERCP INV=7.69"
- (48) 12"x18"ERCP INV=9.05"
- (49) 12"CMP INV=9.02"
- (50) 4"PVC INV=9.58"
- (51) 12"RCP INV=9.75" (52) GRATE INLET EL=10.47'
- 12"x18ERCP INV (S)=8.49" (53) 12"RCP INV=9.80"
- (54) 12"RCP INV=9.75"
- 55) CONCRETE MITERED END SECTION
  12"x18"ERCP INV=9.37"
- (56) CONCRETE HEADWALL 12"x18"ERCP |NV=9.55"
- (57) CONCRETE HEADWALL 12"x18"ERCP |NV=9.62"

- (58) GRATE INLET EL=11.66' 15"RCP INV (N)=9.64" 12"x18"ERCP INV (S)=9.66" 12"x18"ERCP INV (W)=9.59"
- (59) CONCRETE MITERED END SECTION 12"x18"ERCP |NV=10.28"
- (60) CONCRETE MITERED END SECTION 15"RCP INV=9.78"
- (61) CONCRETE MITERED END SECTION 12"x18"ERCP INV=9.93"
- (62) CONCRETE MITERED END SECTION 12"x18"ERCP INV=9.92"
- (63) CONCRETE MITERED END SECTION
- 12"x18"ERCP INV=10.20" (64) CONCRETE MITERED END SECTION
- 12"x18"ERCP INV=10.10"

(65) CONCRETE HEADWALL

- 42"RCP INV=3.61" (66) CONCRETE HEADWALL
- 42"RCP INV=4.00"
- (67) STORM MANHOLE 54"RCP INV=-0.83"

X 30  $\Box$ 

(L) County FLORIDA

PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES

1022 26th Avenue East, Bradenton, FL 34208

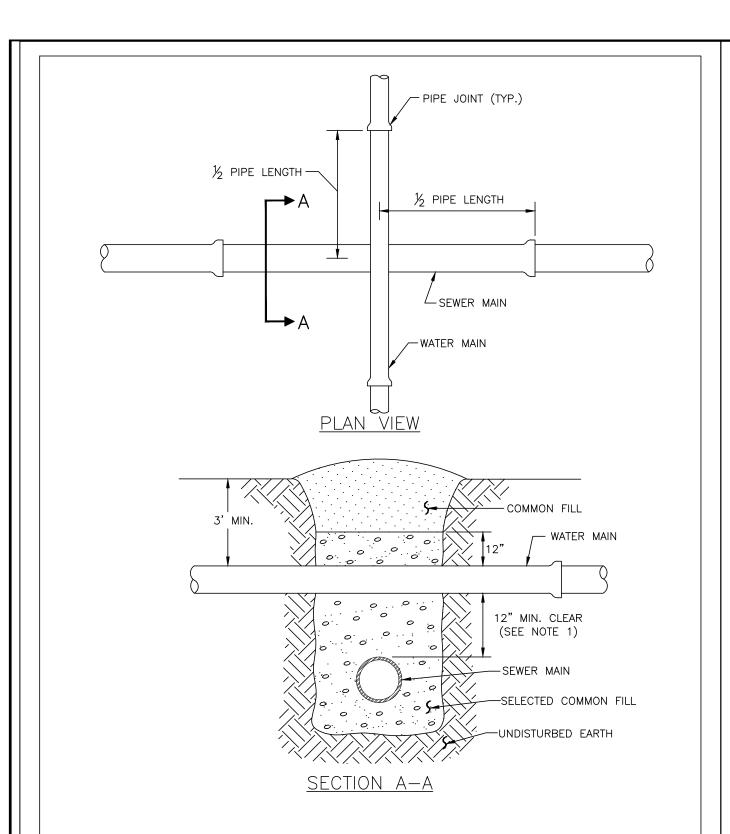
PROJECT # 404-6092270 SURVEY # 0577-0043 SEC./TWN./RGE | 17-34S-18E

SCALE SEE PLAN DATE BY SURVEYED JTP 08/2018 DESIGNED AG 02/202 DRAWN BR 02/2021 CHECKED AG 02/2021

ALEJANDRO GONZALEZ, P.E.

FLORIDA P.E. # 79278

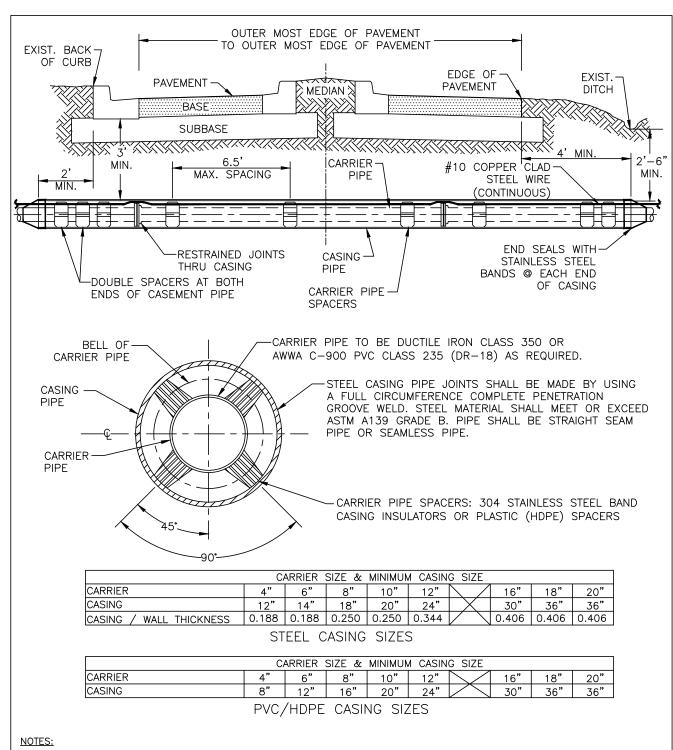
Signature & Date



# 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.

		NATEE COUNTY IC WORKS DEPARTMENT	TYPICAL NEW WATER &	
REV.BY	DATE		SFWFR LINE CROSSING	UG-2
		February 25, 2020 DATE OF APPROVAL	SEWER LINE CRUSSING	

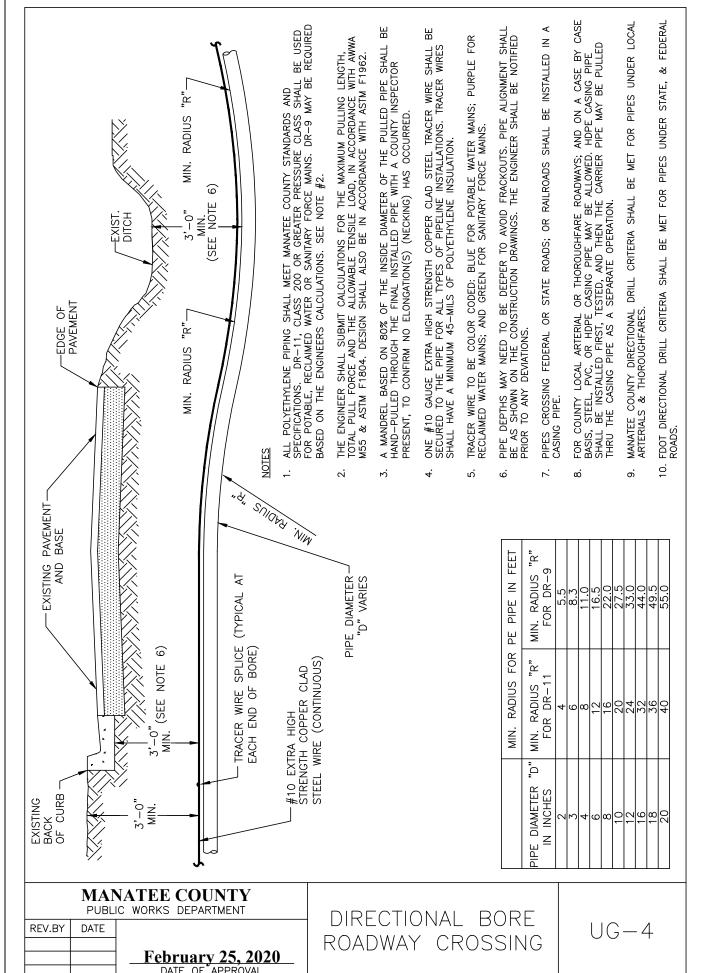


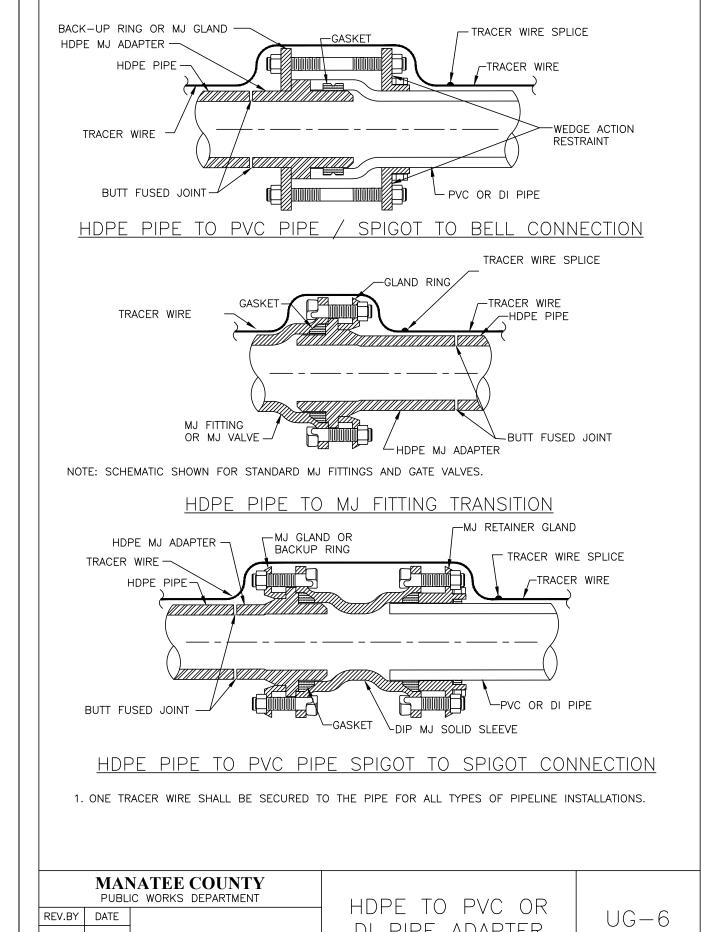
# . THE ENGINEER OF RECORD MAY SELECT A LARGER CASING DIAMETERS, INCREASE WALL THICKNESS, AND/OR INCREASE DEPTH $^{\parallel}$ OF BURY DUE TO EXTERNAL LOADS WITH COUNTY APPROVAL PRIOR TO PERFORMING THE WORK.

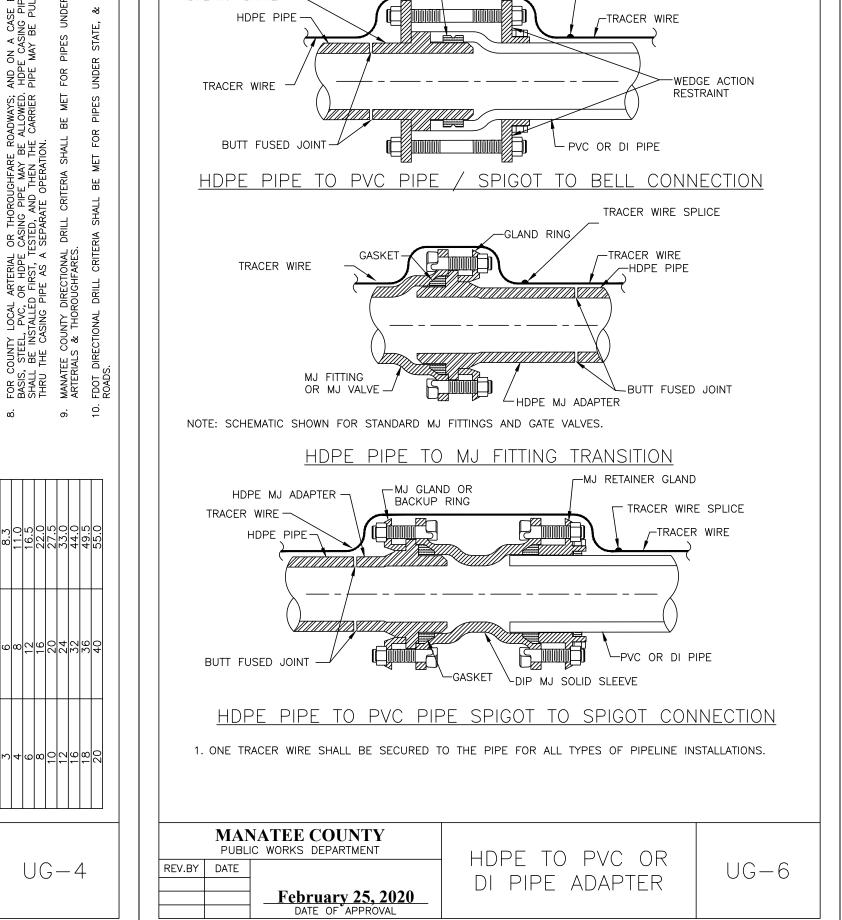
2. ALL PIPES CROSSINGS OF FEDERAL OR STATE ROADS; OR RAILROADS SHALL BE INSTALLED IN A CASING PIPE.

- 3. ALL PIPES CROSSINGS OF COUNTY LOCAL ARTERIAL AND THOROUGHFARE ROADWAYS SHALL BE IN A CASING PIPE. 4. SPLIT-STEEL CASINGS MAY BE USED ON EXISTING COUNTY MAINS ONLY.
- 5. FOR JACK & BORE SPECIFICATIONS UNDER STATE ROADS AND RAILROADS, REFER TO THE F.D.O.T. UTILITY ACCOMMODATION MANUAL, LATEST EDITION. 6. HDPE CASING SHALL HAVE ALL WELD BEADS REMOVED FROM THE INSIDE SURFACE SUCH THAT THE JOINT SURFACES SHALL
- 7. \*14-INCH DIAMETER MAINS ARE NOT TO BE INSTALLED.

		NATEE COUNTY C WORKS DEPARTMENT			
REV.BY	DATE		CASING	CROSSING	lUG
		<b>February 25, 2020</b>	0, (0,)		
		DATE OF APPROVAL			









MAIN PIPE	HOR	IZ. BE	ENDS			TEES			R	EDUCER	S	PLUGS & VALVES
SIZE	90°	45°	22.5°		S	SIZE LEN	IGTH		SIZE LENGTH			
24	90	38	18	X24 169	X20 132	X16 90	X12 38	X10 <sub>6</sub>	X20 64	X16 117	X12 158	214
20	78	32	16	X20 141	X16 101	X12 53	X10 24	X8 <sub>1</sub>	X16 65	X12 115	X10 149	184
16	66	27	13	X16 111	X12 67	X10 41	X8 12		X12 64	X10 107	X8 111	151
12	52	22	10	X12 80	X10 56	X8 31	X6 <sub>1</sub>		X10 58	X8 62	X6 86	118
10	44	18	9	X10 63	X8 40	X6 <sub>7</sub>			X8 33	X6 61	X4 81	100
8	37	15	7	X8 49	X6 18	X4 1			X6 35	X4 60		83
6	29	12	6	X6 29	X4_1				X4 33	·		63
4	21	8	4	X4 12								45

- 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.

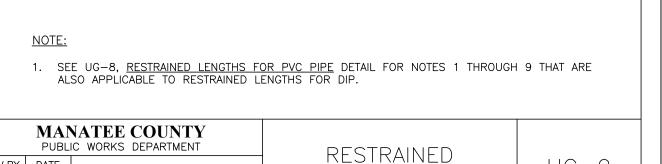
DATE OF APPROVAL

- 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.

		NATEE COUNTY C WORKS DEPARTMENT	RESTRAINED	
REV.BY	DATE		LENGTHS FOR PVC	UG-8
		February 25, 2020	PIPE	

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

MAIN PIPE	HOR	NZ. B	ENDS			TE	ES				REDU	CERS	PLUGS & VALVES
SIZE	90°	45°	22.5°			SIZE	LENGTI	+			SIZE	LENGTH	
36	142	59	28	x36 393	x30 318	x24 232	x20 165	x16 84	x12 1	X30 137	X24 247	X20 X16 359	453
30	124	51	25	X30 333	X24 252	X20 189	X16 115	X12 23	x10 1	X24 137	X20 213	X16 276	391
24	106	44	21	X24 270	X20 211	X16 143	X12 61	X10 10	x8 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	×6_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	×4_1				X6 54	X4 92		128
6	34	14	7	X6 46	×4_1					X4 50			98
4	24	10	5	×4 19									69



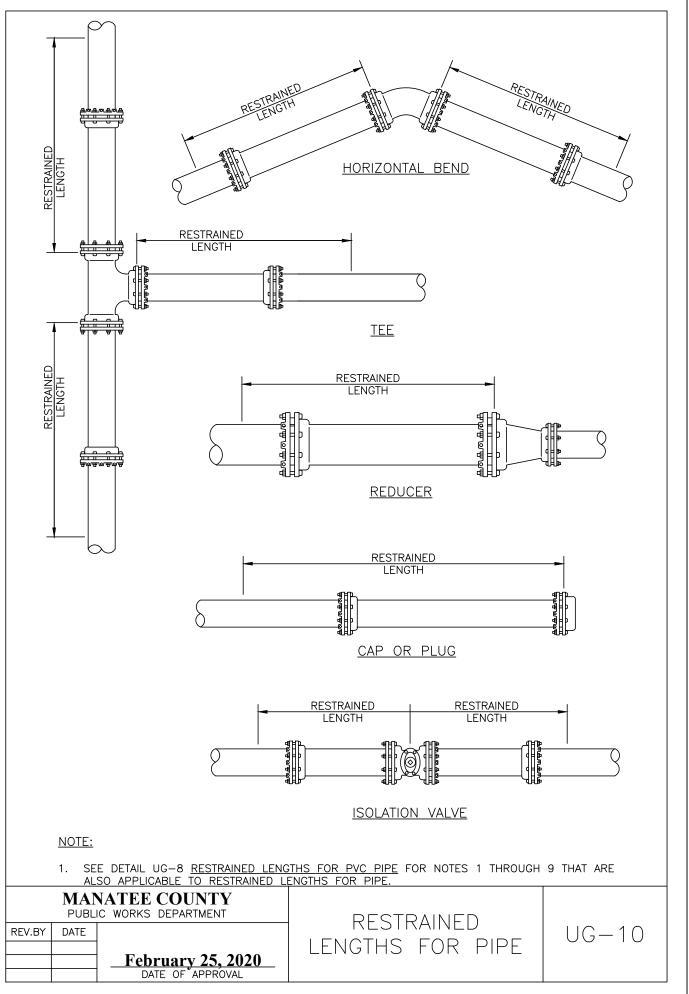
LENGTHS FOR DIP

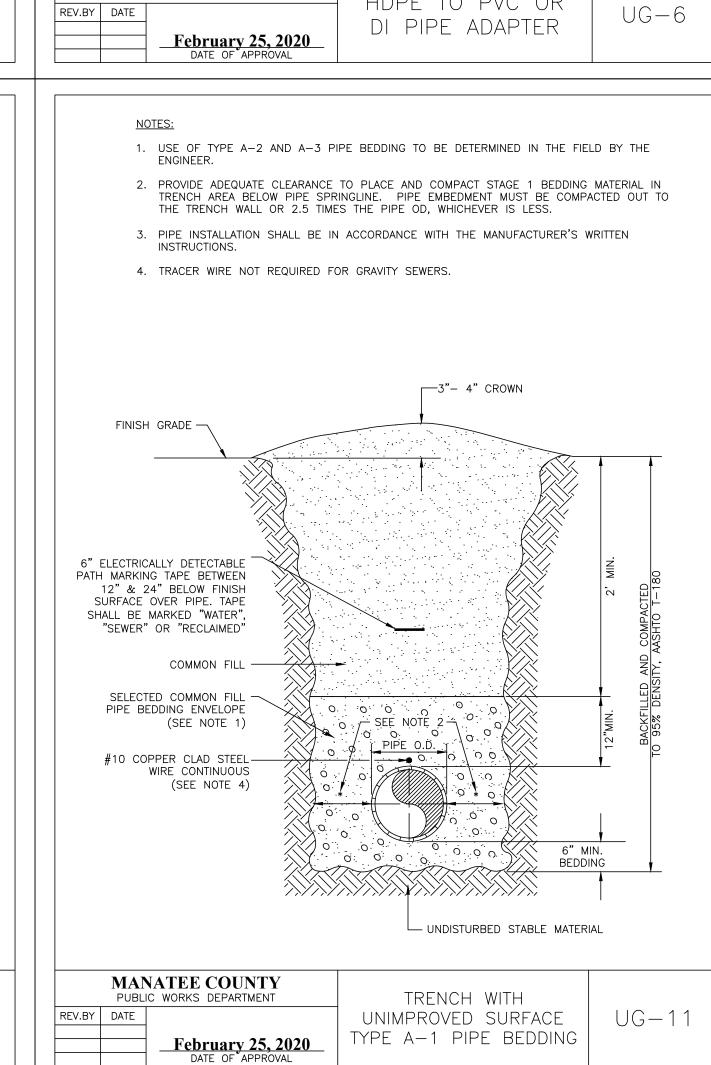
REV.BY DATE

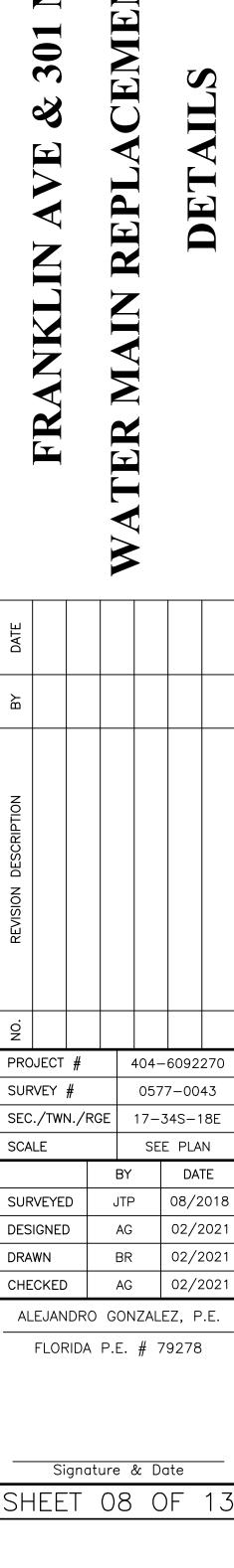
February 25, 2020

DATE OF APPROVAL

UG-9







Manatee

FLORIDA

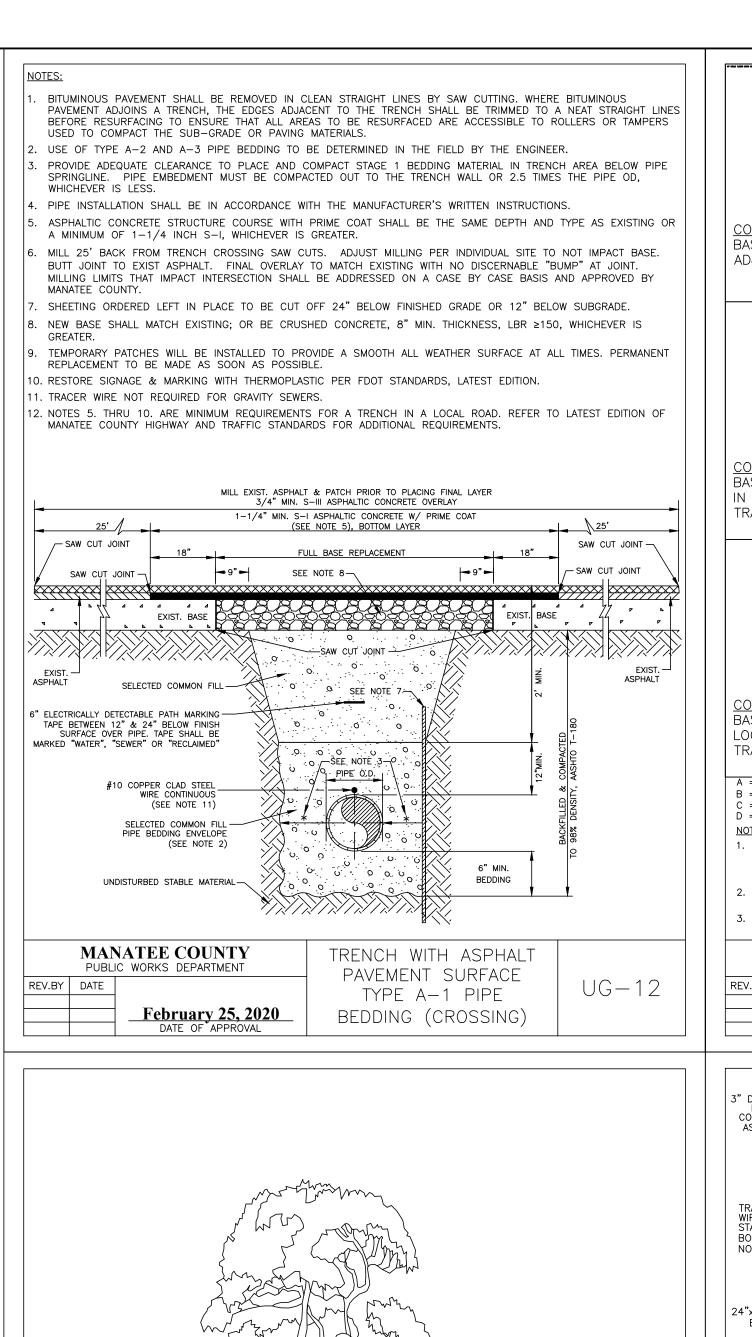
Ala County

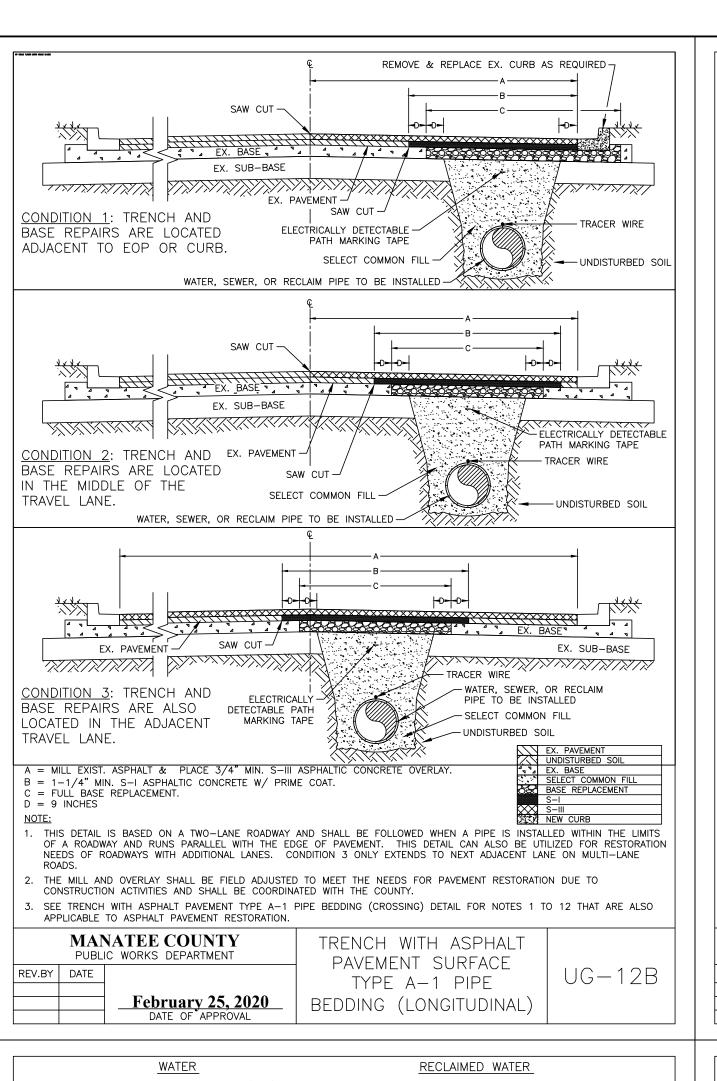
PUBLIC WORKS DEPARTMENT

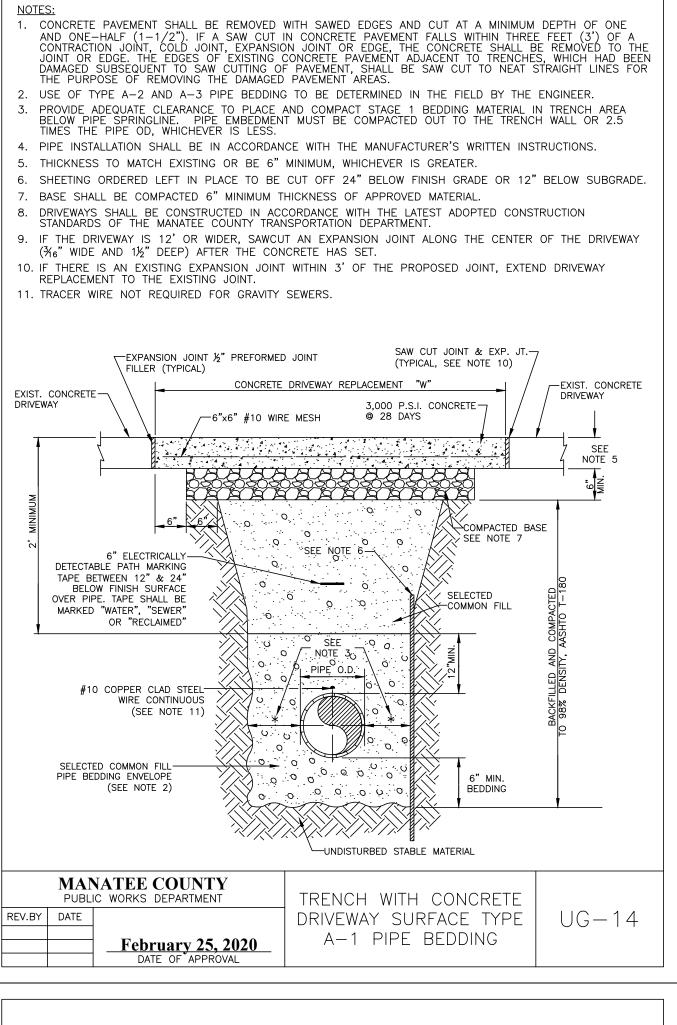
ENGINEERING SERVICES

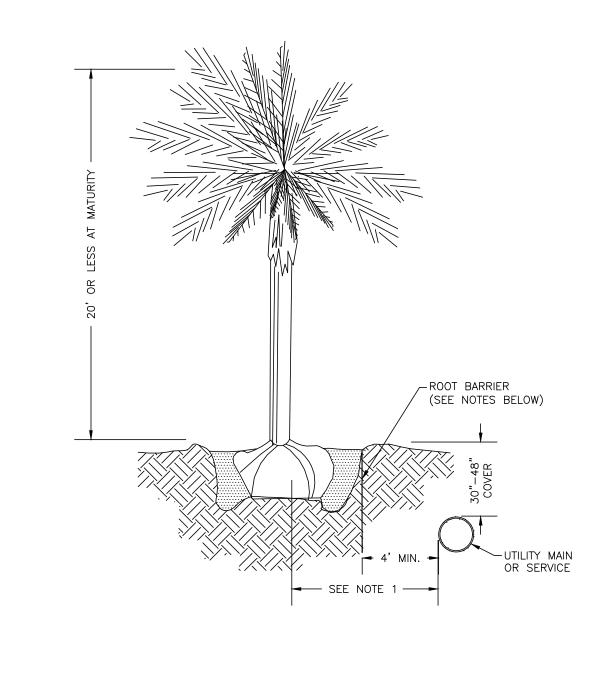
1022 26th Avenue East, Bradenton, FL 34208

OR



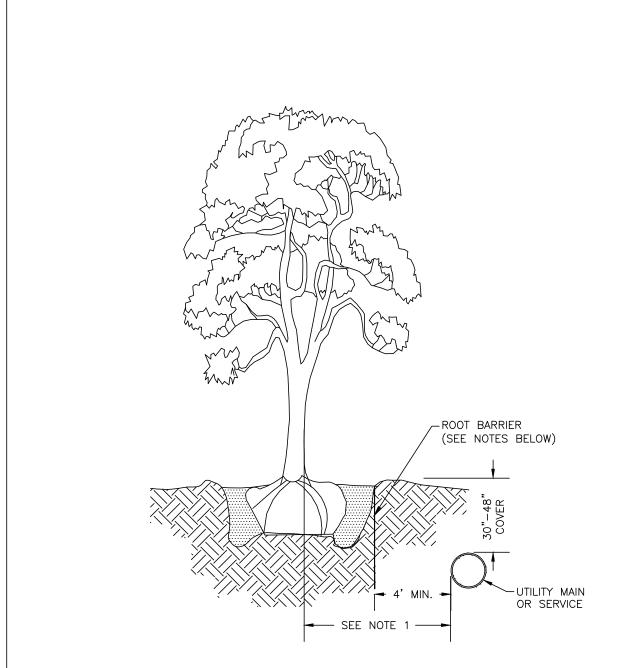






- . THIS DISTANCE SHALL BE 7' MINIMUM WITH ROOT BARRIER AND 10' MINIMUM IF NO ROOT BARRIER IS USED.
- ALL ROOT BARRIERS SHALL BE 4' MINIMUM FROM ALL MAINS AND SERVICES.
- 3. THE INSTALLATION OF ROOT BARRIERS SHALL BE COORDINATED WITH MANATEE COUNTY AND INSPECTED BY MANATEE COUNTY PRIOR TO BACKFILLING. ALL ROOT BARRIERS SHALL EXTEND UP TO FINISHED GRADE
- . ROOT BARRIERS SHALL BE A FLEXIBLE PANEL BARRIER, A MINIMUM 36" DEEP.
- 5. ALL ROOT BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURES WRITTEN INSTRUCTIONS.

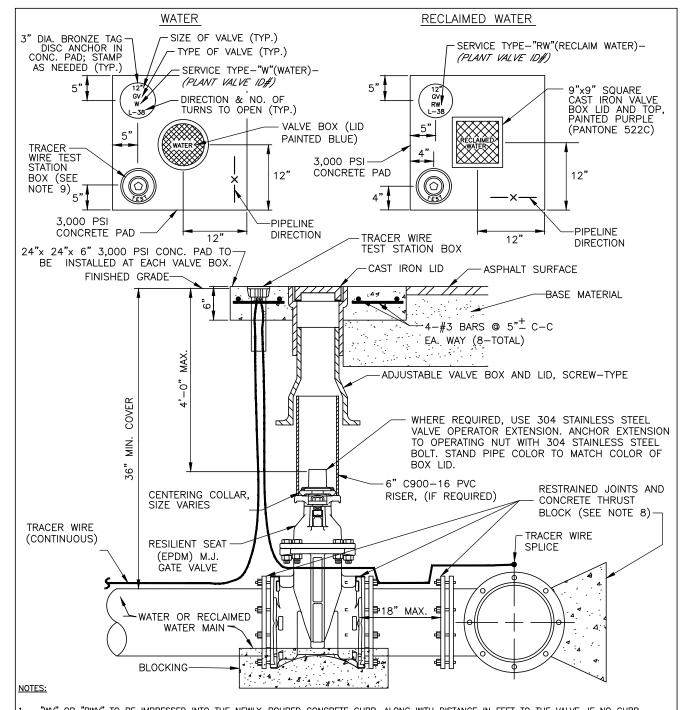
		NATEE COUNTY IC WORKS DEPARTMENT	TYP. SMALL TREE	
REV.BY	DATE		OR PALM TREE WITH	UG-19
		<b>February 25, 2020</b>	ROOT BARRIER	
		DATE OF APPROVAL		



THIS DISTANCE SHALL BE 10' MINIMUM WITH ROOT BARRIER AND 15' MINIMUM IF NO ROOT BARRIER IS USED. ALL ROOT BARRIERS SHALL BE 4' MINIMUM FROM ALL MAINS AND SERVICES.

- THE INSTALLATION OF ROOT BARRIERS SHALL BE COORDINATED WITH MANATEE COUNTY AND INSPECTED BY MANATEE COUNTY PRIOR TO BACKFILLING. ALL ROOT BARRIERS SHALL EXTEND UP TO FINISHED GRADE ROOT BARRIERS SHALL BE MINIMUM 36" DEEP. FLEXIBLE BARRIERS SHALL BE 36" PANELS.
- 5. ALL ROOT BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURES WRITTEN INSTRUCTIONS. 6. LARGE PALM TREES INCLUDE ROYAL, WASHINGTONIAN, BISMARK AND SIMILAR SIZED SPECIES.

		NATEE COUNTY IC WORKS DEPARTMENT	TYP. CANOPY TREE,  LARGE PALM OR	
REV.BY	DATE			-20
		F.1 35 2020	EXOTIC TREE WITH   55	20
		February 25, 2020  DATE OF APPROVAL	ROOT BARRIER	



"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" USING A 1/8" x 1" 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. VALVES SHALL NOT BE PLACED IN HANDICAPPED RAMPS, CURBS, OR GUTTERS.

ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2". PIPELINE DIRECTION TO BE IMPRESSED INTO NEWLY POURED CONCRETE PAD.

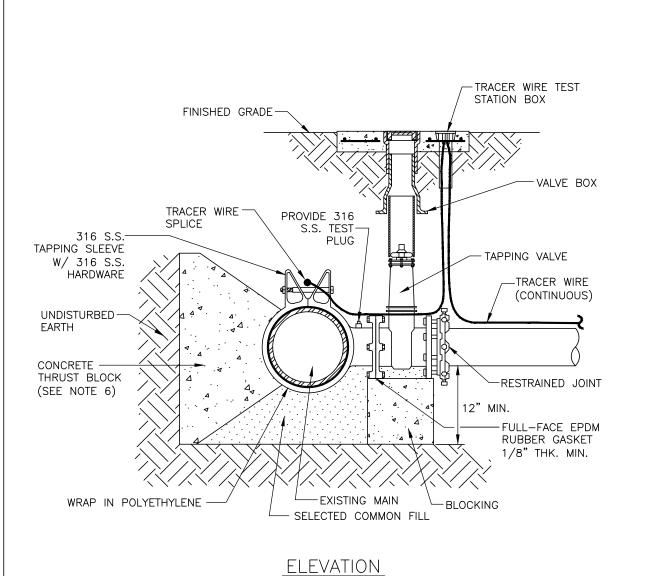
PRECAST CONCRETE PADS SHALL NOT BE USED.

REV.BY

- 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."
- JSE NON-TRAFFIC RATED BOXES FOR NORMAL YARD SERVICE. WHERE VALVE WILL BE IN STREET OR PARKING UNDER VEHICLE TRAFFIC, USE TRAFFIC RATED BOXES. WHERE POSSIBLE, LOCATE TRACE WIRE TESTING STATION OUTSIDE OF TRAVEL LANE OR IN MEDIAN, CENTERED IN SEPARATE CONCRETE PAD SIMILAR TO STANDARD VALVE BOX PAD. THE BRASS TAG SHALL HAVE A "PLANT VALVE ID# WHEN VALVES ARE INSTALLED WITHIN THE COUNTY TREATMENT PLANT LIMITS. THE PLANT VALVE ID# SHALL BE SHOWN ON THE CONSTRUCTION PLANS AND RECORD DRAWINGS.

	NATEE COUNTY IC WORKS DEPARTMENT	GATE VALVE, BOX,	
DATE		·	$   \cup \mathbb{W} - 2$
		LID AND TAG	
	<u> February 25, 2020</u>		
	DATE OF APPROVAL		

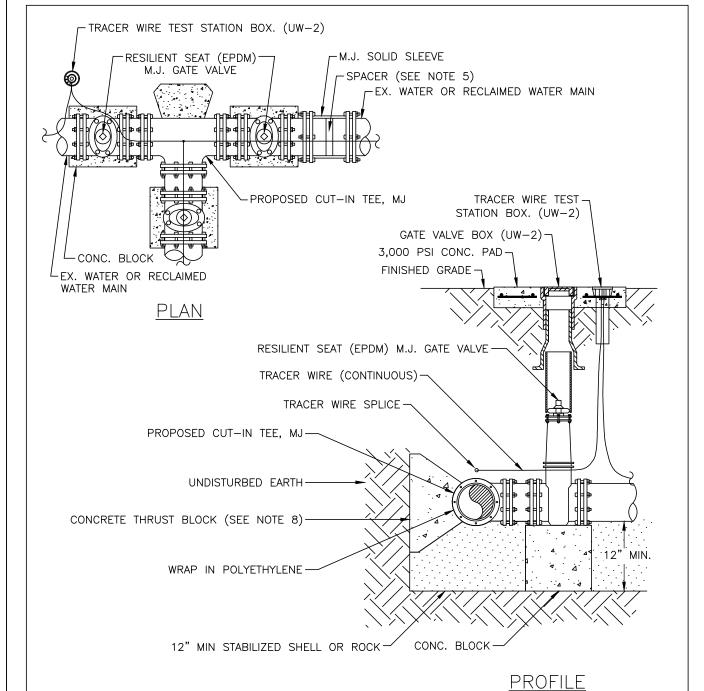
REFER TO SECTION 1.11 GATE VALVES IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR FURTHER DETAILS.



FURTHER DETAILS.

- PRIOR TO TAPPING, CONTRACTOR TO DEMONSTRATE 60 MINUTE HYDROSTATIC TEST OF THE TAPPING SLEEVE AND VALVE WITH NO LOSS OF 180 PSI PRESSURE FOR WATER AND RECLAIMED WATER. 2. ALL FITTINGS TO BE WRAPPED WITH 20 MIL POLYETHYLENE WRAP AT THRUST BLOCK.
- 5. ALL TAPS ON CONCRETE WATER MAINS AND LARGER THAN 12" ARE TO BE MADE BY A MANATEE COUNTY APPROVED TAPPING COMPANY. ALL MATERIALS TO BE SUPPLIED BY THE CONTRACTOR.
- ALL TAPS MUST BE OF A SMALLER SIZE THAN THE MAIN BEING TAPPED & PLACED NO CLOSER THAN 30" OR A DISTANCE EQUAL TO (1) MAIN PIPE DIAMETER PLUS (2) TAP PIPE DIAMETERS (WHICHEVER IS GREATER) FROM A JOINT OR FITTING.
- CONTRACTOR TO SUPPLY A DRY HOLE FOR TAPPING CREW TO WORK IN AND A BACK-HOE TO LOWER TAPPING MACHINE INTO THE HOLE.
- WHERE THRUST BLOCK NOT USED, RESTRAINED JOINTS MUST THEN EXTEND FROM TEE FULL LENGTH SPECIFIED FOR "TEES."
- TRACER WIRE TEST STATION BOX IS REQUIRED AT CONNECTIONS TO EXISTING MAINS. SEE SECTION 1.11 TAPPING SLEEVES AND VALVES IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR

		NATEE COUNTY IC WORKS DEPARTMENT	TAPPING SLEEVE	
REV.BY	DATE		] AND VALVE	luw—.
		<b>February 25, 2020</b>	(WATER/RECLAIM)	
		DATE OF APPROVAL		



ALL FITTINGS TO BE WRAPPED WITH 20 MIL POLYETHYLENE WRAP AT THRUST BLOCK.

- TRACER WIRE TEST STATION BOX IS REQUIRED AT CONNECTIONS TO EXISTING MAINS. WATER VALVES SHALL BE INSTALLED ON ALL SIDES OF TEES AND CROSSES, UNLESS INLINE VALVES ON THAT LEG WITHIN
- RESTRAINED JOINTS MUST EXTEND FROM TEE FULL LENGTH SPECIFIED FOR VALVES.
- SPACER IS REQUIRED IF A GAP EXISTS. SPACER NOT TO EXCEED OVER 30% OF SLEEVE WIDTH. IN ASBESTOS CONCRETE PIPE (AC) APPLICATIONS: TWO COUPLINGS ARE REQUIRED. ALL FITTINGS INCLUDING COUPLINGS SHALL BE SUPPORTED WITH CONCRETE BLOCKING TO PREVENT SETTLEMENT. ALL EXISTING RESTRAINING SHALL BE MODIFIED AND OR RE-INSTATED AS NECESSARY, TO MEET THE RESTRAINT
- REQUIREMENT FOR VALVES. WHERE THRUST BLOCK NOT USED, RESTRAINED JOINTS MUST THEN EXTEND FROM TEE FULL LENGTH SPECIFIED FOR

MANATEE COUNTY PUBLIC WORKS DEPARTMENT REV.BY DATE CUT-IN TEE  $\cup W - 4$ <u>February 25, 2020</u>



3 

PROJECT # 404-6092270 SURVEY # 0577-0043 SEC./TWN./RGE 17-34S-18E SCALE SEE PLAN

FLORIDA P.E. # 79278

BY

JTP

AG

BR

AG

ALEJANDRO GONZALEZ, P.E

SURVEYED

DESIGNED

CHECKED

DRAWN

DATE

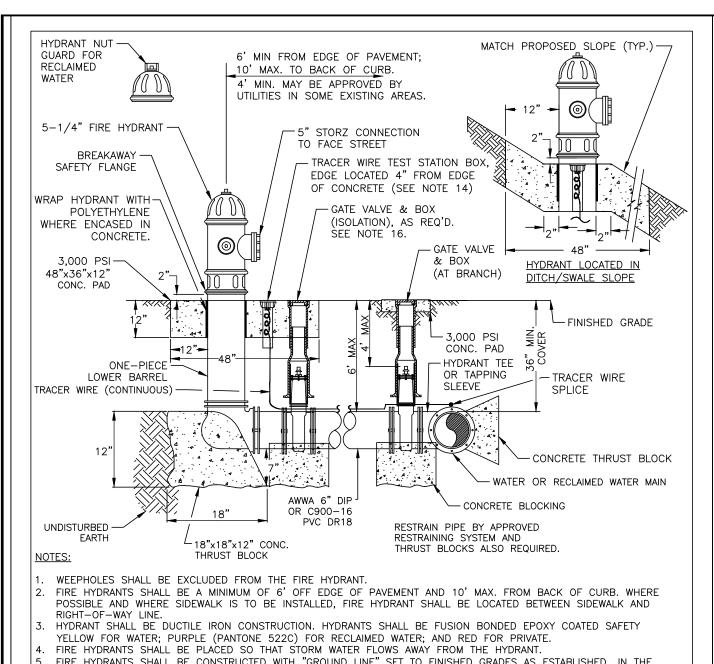
08/2018

02/202

02/202

02/202

Signature & Date



. 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. 6. FIRE HYDRANTS MAY BE CONSTRUCTED WITH "GRADELOK" OFFSET FITTING.

RAISED REFLECTIVE PAVEMENT MARKER(S) (BLUE) FOR POTABLE WATER (PURPLE) FOR RECLAIMED WATER SHALL BE INSTALLED ON THE PAVEMENT DIRECTLY ACROSS FROM THE HYDRANT IN ACCORDANCE WITH THE FDOT TRAFFIC ENGINEERING MANUAL, CHAPTER 4, SECTION 4.3 OR MOST CURRENT ADDITION. 8. ALL EXPOSED EDGES OF CONCRETE SHALL HAVE 1/2" CHAMFER.

10. IN-LINE VALVES SHOULD BE LOCATED AT HYDRANT TEES. . HYDRANTS SHALL BE LOCATED ON SAME SIDE OF ROAD AS WATER OR RECLAIMED MAIN. 12. 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

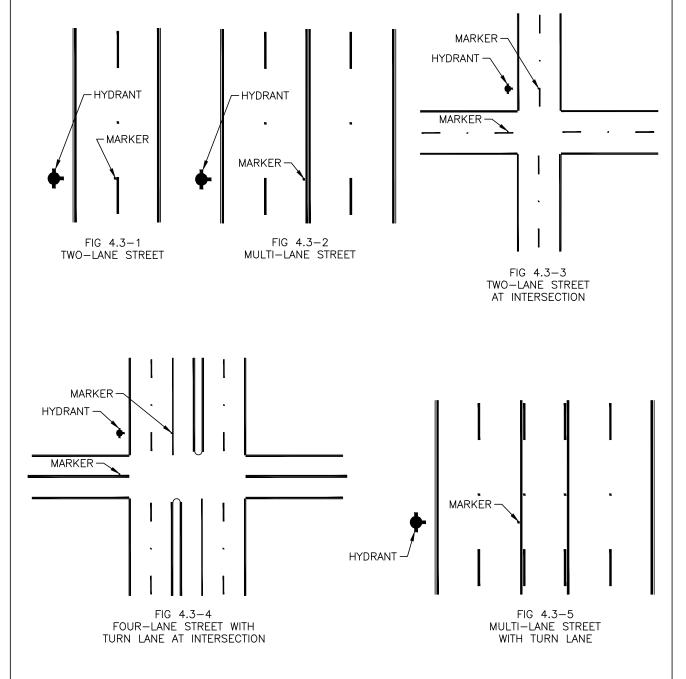
. FIRE HYDRANT VALVE SHALL BE FASTENED DIRECTLY TO TEE.

PREVENTION CODE. 13. SEE STANDARD DETAIL UW-2 <u>GATE VALVE</u>, <u>BOX</u>, <u>LID AND TAG</u>. 14. SHOULD THE FIRE HYDRANT'S CONCRETE PAD OVERLAP A SIDEWALK, THE TRACER WIRE TEST STATION BOX SHALL NOT BE LOCATED WITHIN THE SIDEWALK. 15. IF A HYDRANT IS LOCATED ON THE SLOPE OF A DITCH OR SWALE; THE CONCRETE PAD SHALL CONFORM TO THE FINISH

GRADE/SLOPE. THE CONCRETE PAD SHALL BE LEVEL 2-INCHES BEHIND & IN FRONT OF THE HYDRANT. 6. AT THÉ DISCRETION OF THE COUNTY AN ADDITIONAL ISOLATION GATE VALVE SHALL BE ADDED, WHEN A PHYSICAL BARRIER IS PRESENT, (I.E. ROADWAY, FENCE, WALL, BERM ETC), BETWEEN THE BRANCH GATE VALVE AND THE HYDRANT. 17. SEE SECTION 1.11 HYDRANTS IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR FURTHER DETAILS.

UW-5

		NATEE COUNTY IC WORKS DEPARTMENT	FIRF HYDRANT
REV.BY	DATE		
			ASSEMBLY
		<u> February 25, 2020</u>	
		DATE OF APPROVAL	

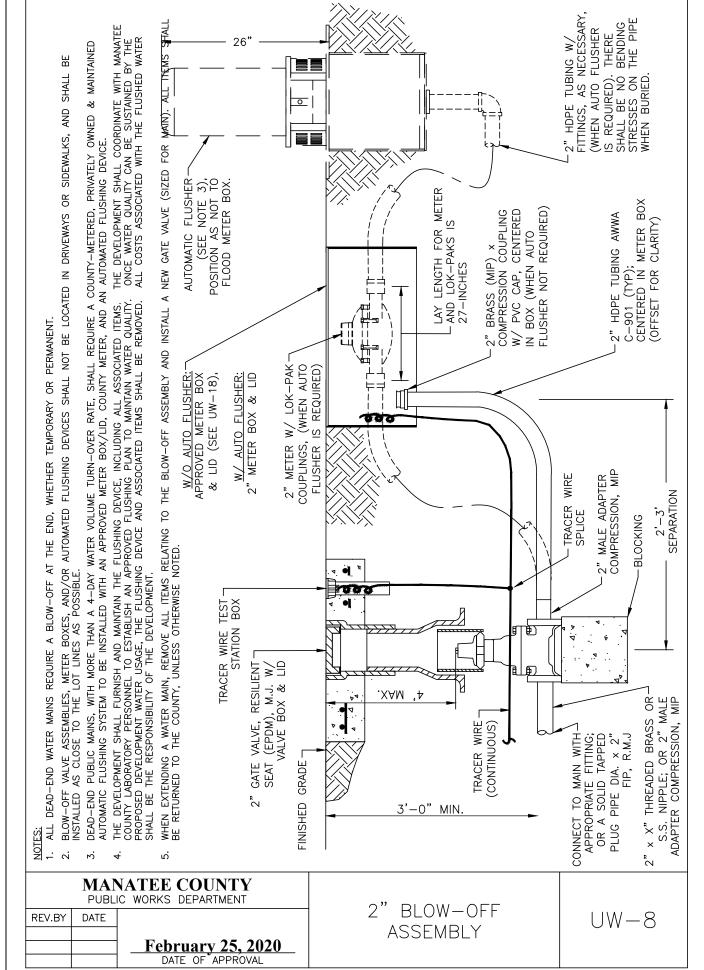


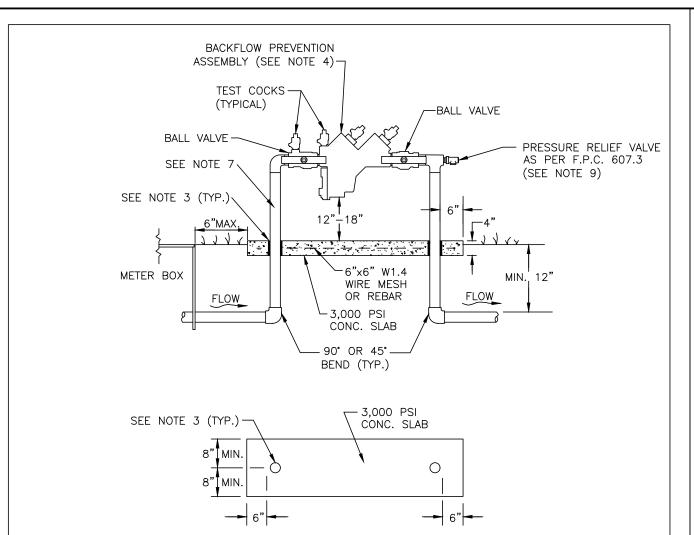
TWO-WAY STREETS OR ROADS: MARKER SHOULD BE PLACED 6 INCHES FROM EDGE OF PAINTED CENTERLINE ON THE SIDE NEAREST THE FIRE HYDRANT. IF THE STREET HAS NO CENTERLINE, THE MARKER SHOULD BE PLACED 6 INCHES FROM APPROXIMATE CENTER OF THE ROADWAY ON THE SIDE NEAREST THE HYDRANT. SEE FIGURE 4.3-1, 4.3-2, AND 4.3-3.

- STREETS WITH LEFT TURN LANE AT INTERSECTION: MARKER SHOULD BE PLACED 6 INCHES FROM EDGE OF PAINTED WHITE CHANNELIZING LINE OF THE SIDE NEAREST THE FIRE HYDRANT. SEE FIGURE 4.3-4.
- STREETS WITH CONTINUOUS TWO-WAY TURN LANE: MARKER SHOULD BE PLACED 6 INCHES FROM THE EDGE OF THE PAINTED YELLOW BARRIER LINE ON THE SIDE NEAREST THE FIRE HYDRANT. SEE FIGURE 4.3-5.

MARKER SHALL BE BLUE/BLUE RAISED RETROREFLECTIVE PAVEMENT MARKER

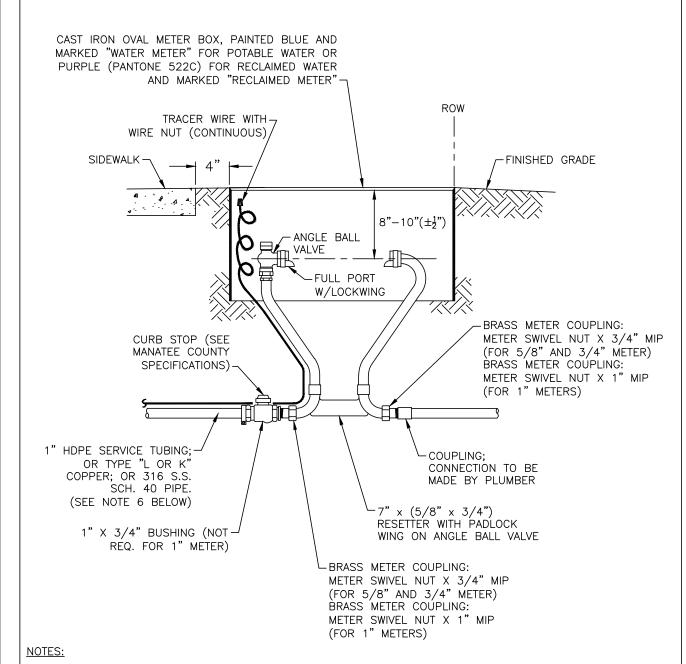
		NATEE COUNTY IC WORKS DEPARTMENT	HYDRANT LOCATION	
EV.BY	DATE		MARKERS — BLUE	UW-6
		T. 1. 07.000	(RPMs)	
		<u> February 25, 2020</u>	(1/1 1/15)	
		DATE OF APPROVAL		





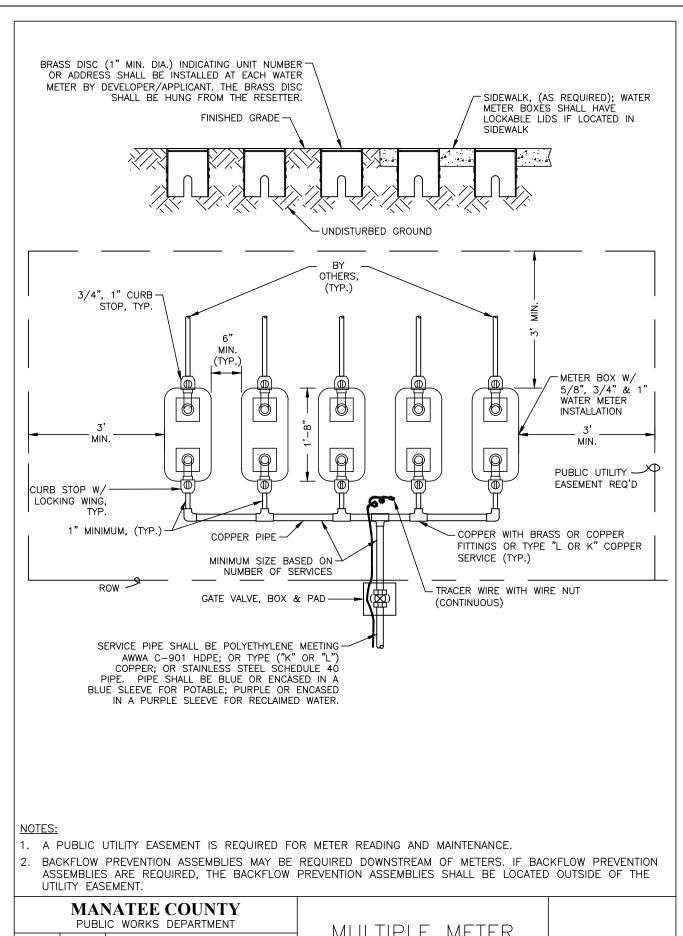
- BACKFLOW PREVENTION ASSEMBLY MUST BE INSTALLED IMMEDIATELY DOWNSTREAM OF METER, AS SHOWN
- COPPER PIPE TYPE "L" (OR "K") OR BRASS PIPE MINIMUM SCHEDULE 40 SHALL BE USED TO A MINIMUM DEPTH OF 12" BELOW GRADE. PIPES PASSING THROUGH CONCRETE SLAB SHALL BE PROPERLY PROTECTED; POLYETHYLENE WRAPPED OR
- PVC SLEEVED. COPPER SHALL NOT COME IN CONTACT WITH THE CONCRETE. THE SYSTEM MUST MEET ALL REQUIREMENTS OF THE FLORIDA PLUMBING CODE (LATEST EDITION) AND
- CHAPTER 2-31, ARTICLE X OF THE MANATEE COUNTY CODE OF ORDINANCES. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
- BACKFLOW PREVENTER SHALL BE TESTED AT THE TIME OF INSTALLATION. PRESSURE REDUCING VALVE IS REQUIRED UPSTREAM OF BACKFLOW PREVENTION ASSEMBLY, IF SYSTEM
- PRESSURE EXCEEDS 80 PSI. 3' MINIMUM CLEARANCE FROM LANDSCAPING PLANTS AND 10' MIN. CLEARANCE FROM TREES TO EDGE OF
- CONCRETE SLAB AND CLEAR OPENING FOR ACCESS FROM STREET.
- IN ADDITION TO THE PRV, THE BUILDING DEPT. MAY REQUIRE AN APPROVED DEVICE FOR THERMAL EXPANSION CONTROL DOWNSTREAM OF THE ASSEMBLY.
- O. FITTINGS AND CONNECTIONS FOR ABOVE—GROUND INSTALLATIONS SHALL NOT ALLOW ANY MOVEMENT OR ROTATION OF BACKFLOW PREVENTION ASSEMBLY. . REFER TO DETAIL US—15 <u>WATER METER & BACKFLOW PREVENTER FOR LIFT STATIONS</u> FOR WATER SERVICE
- AT SEWAGE PUMPING STATION. . BACKFLOW PREVENTION ASSEMBLIES USED FOR POTABLE APPLICATIONS SHALL BE LEAD FREE AS DEFINED IN THE REDUCTION OF LEAD IN DRINKING WATER ACT, SECTION 1417 OF THE SAFE DRINKING WATER ACT, 42 U.S.C. 300g-6, AS MAY BE AMENDED, AND IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS

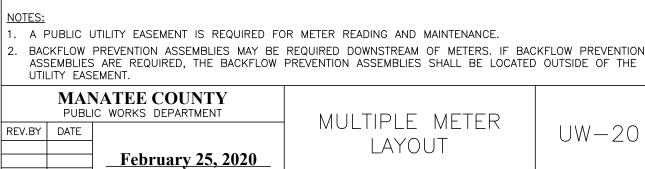
		NATEE COUNTY C WORKS DEPARTMENT	3/4" & 1" BACKFLOW	
REV.BY	DATE		DACKFLOW	1.00 - 1.3
		Folymory 25, 2020	PREVENTION	
		February 25, 2020 DATE OF APPROVAL	ASSEMBLY	

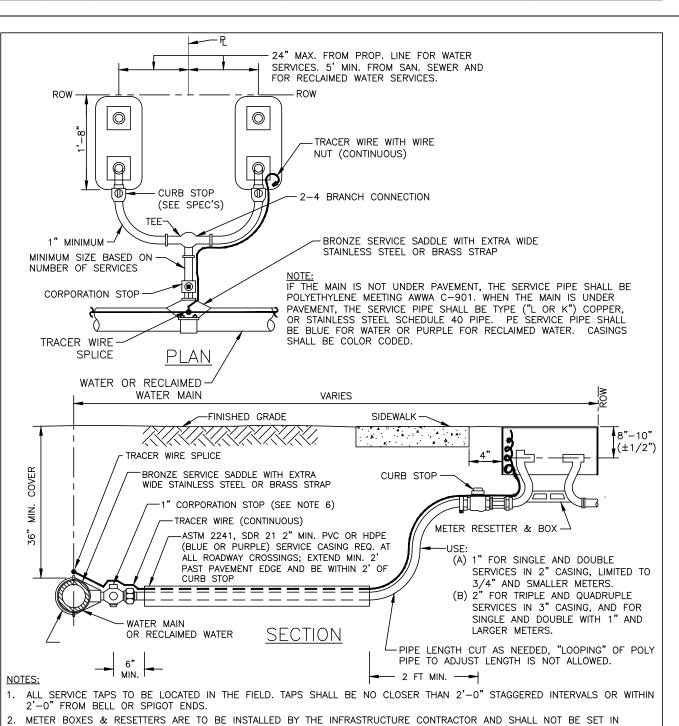


- METER BOX AND RESETTER ARE TO BE INSTALLED BY THE INFRASTRUCTURE CONTRACTOR AND SHALL NOT BE SET IN DRAINAGE SWALES, SIDEWALKS OR DRIVEWAYS. WITH PRIOR APPROVAL BY COUNTY, METER BOXES WITH LOCKABLE LIDS MAY BE LOCATED IN SIDEWALKS.
- THE METER RESETTER SHALL BE INSTALLED IN SUCH A MANNER AS TO ALLOW REMOVAL AND REPLACEMENT WITHOUT DISTURBING THE STRUCTURAL INTEGRITY OF THE PIPING SYSTEM, THE SHUTOFF VALVES, OR THE
- FOR COMPLETE SERVICE CONNECTION ASSEMBLY, SEE DETAIL UW-21 TYPICAL SERVICE CONNECTION. WHEN THE DISTANCE BETWEEN THE EDGE OF THE SIDEWALK AND THE R/W IS ONE FOOT (CUL-DE-SAC W/ MEDIAN) A 10-FOOT-WIDE PUBLIC UTILITY EASEMENT SHALL BE LOCATED IN THE FRONT OF THE LOTS, ADJACENT TO THE ROW.
- 3' MINIMUM CLEARANCE FROM LANDSCAPING PLANTS AND 10' MIN. CLEARANCE FROM TREES TO EDGE OF METER, CLEAR ACCESS OPENING TO STREET. 6. SERVICE TUBING SHALL NOT BE CRIMPED OR KINKED TO RE-ADJUST CURB STOP LOCATION.

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



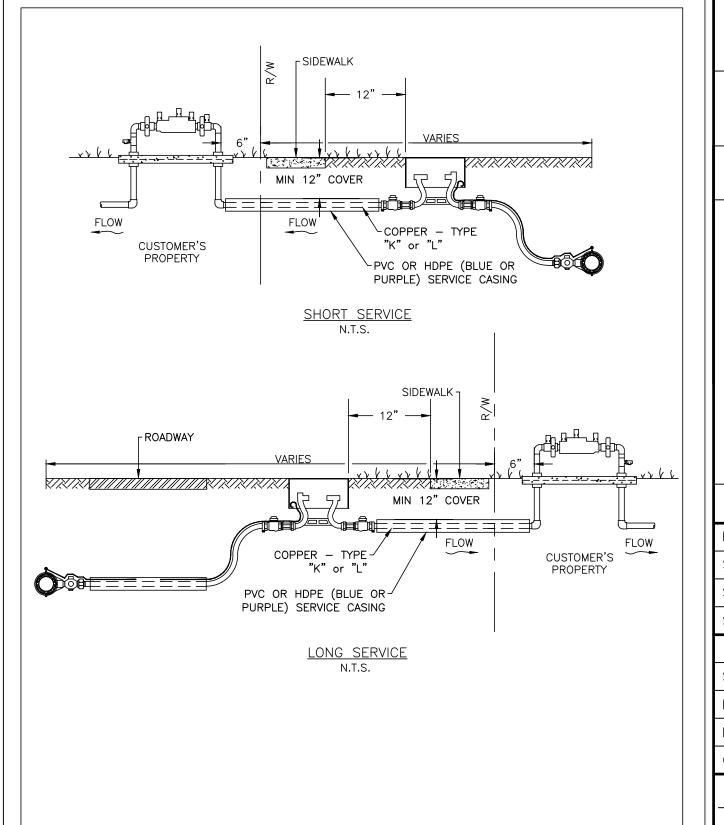




METER BOXES & RESETTERS ARE TO BE INSTALLED BY THE INFRASTRUCTURE CONTRACTOR AND SHALL NOT BE SET IN DRAINAGE SWALES, SIDEWALKS OR DRIVEWAYS. WITH PRIOR APPROVAL BY COUNTY, METER BOXES WITH LOCKABLE LIDS MAY BE LOCATED IN SIDEWALKS.

- "WM" OR "RWM" TO BE IMPRESSED INTO THE NEWLY POURED CONCRETE CURB ALONG WITH DISTANCE IN FEET TO THE METER. IF NO CURB, INSTALL A BLUE DISC WITH "WM" OR A PURPLE DISC WITH "RWM" AND A 1/8"x 1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE DISTANCE (IN FEET) FROM THE DISC TO THE METER. COLOR CODED TRACER WIRE SHALL BE INSTALLED WITH WATER AND RECLAIMED MAIN AND ALL SERVICES. SERVICE WIRE SHALL BE CONNECTED TO THE TRACER WIRE ALONG THE MAIN. ON DOUBLE SERVICES, WHEN SECOND METER IS OVER 8 FT APART, TWO TRACER WIRES SHALL BE INSTALLED; ONE FOR EACH METER.
- WATER AND RECLAIMED WATER SERVICE LINES TO BE 5' MINIMUM FROM SEWER SERVICE PIPES. 3. FOR 2" SERVICES REPLACE CORPORATION STOP WITH 2" RESILIENT WEDGE FIP GATE VALVE W/BOX, LID & TAG.
- WHEN THE DISTANCE BETWEEN THE EDGE OF THE SIDEWALK AND THE ROW IS ONE FOOT (CUL-DE-SAC W/MEDIAN) A 10-FOOT-WIDE PUBLIC UTILITY EASEMENT SHALL BE LOCATED IN THE FRONT OF THE LOTS, ADJACENT TO THE ROW. TEMPORARY RESIDENTIAL USE CAN BE PROVIDED BY CONTACTING THE UTILITY CUSTOMER SERVICE. SEE DETAIL UW-19. SERVICE TUBING SHALL NOT BE CRIMPED OR KINKED TO RE-ADJUST CURB STOP LOCATION.

		NATEE COUNTY IC WORKS DEPARTMENT	TYPICAL SERVICE	
REV.BY	DATE		111 10/12 02111102	UW-21
		February 25, 2020 DATE OF APPROVAL	CONNECTION	



BACK OF SIDEWALK

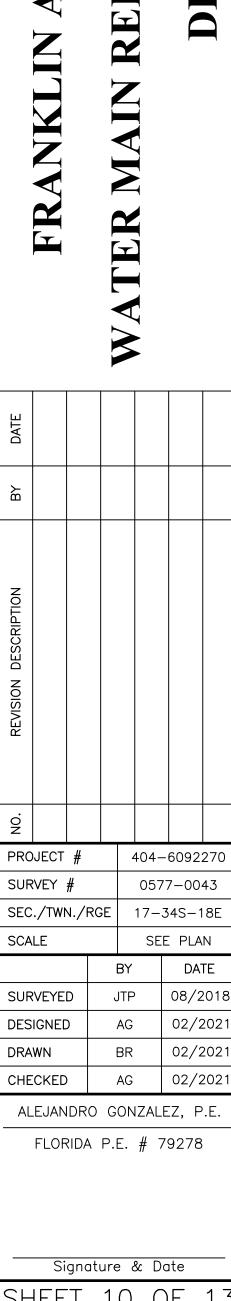
SERVICE CONNECTION

MANATEE COUNTY

PUBLIC WORKS DEPARTMENT

DATE OF APPROVAL

REV.BY DATE



County

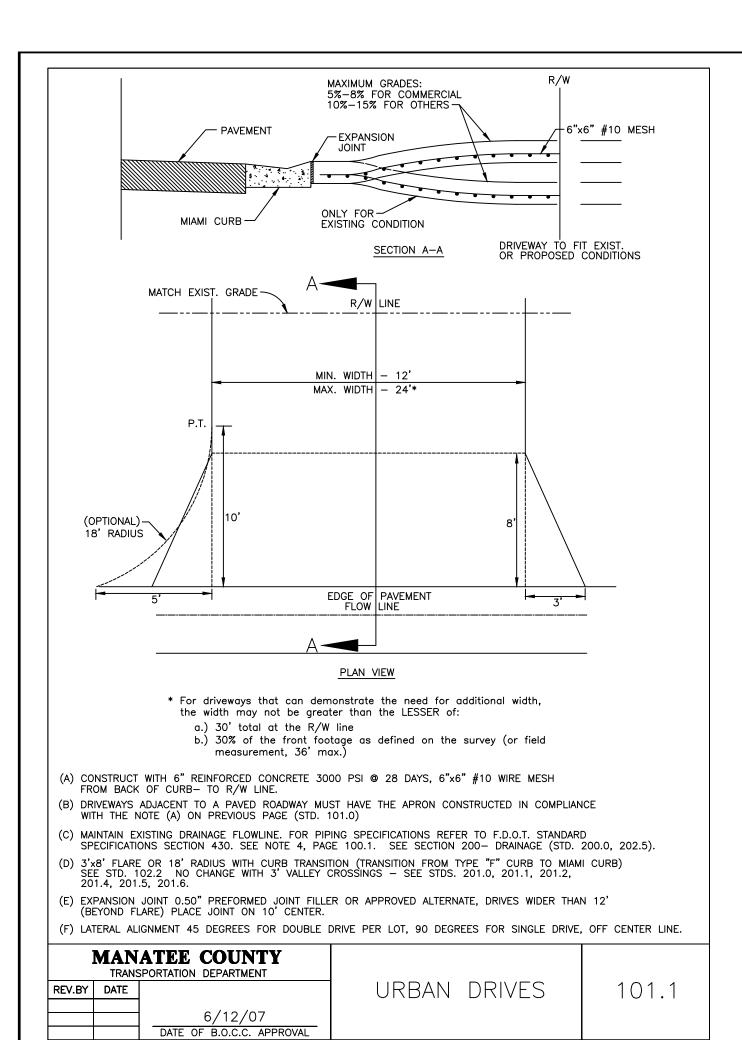
FLORIDA

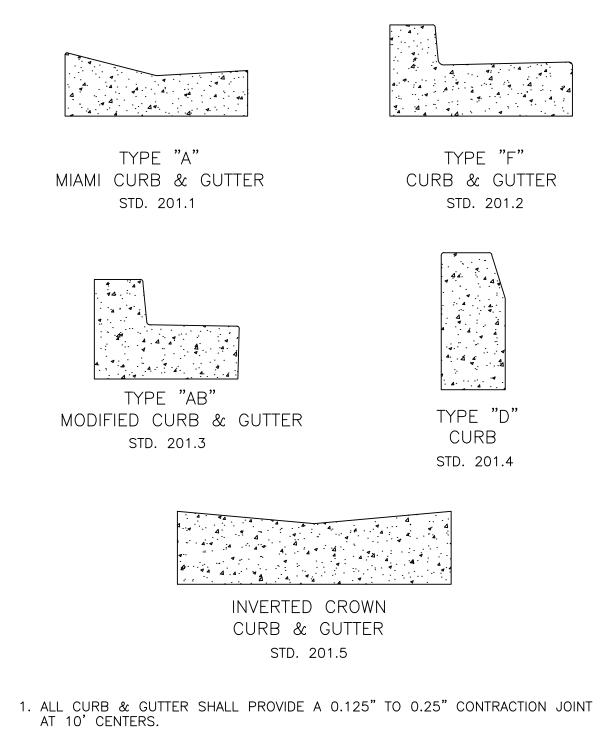
PUBLIC WORKS DEPARTMENT

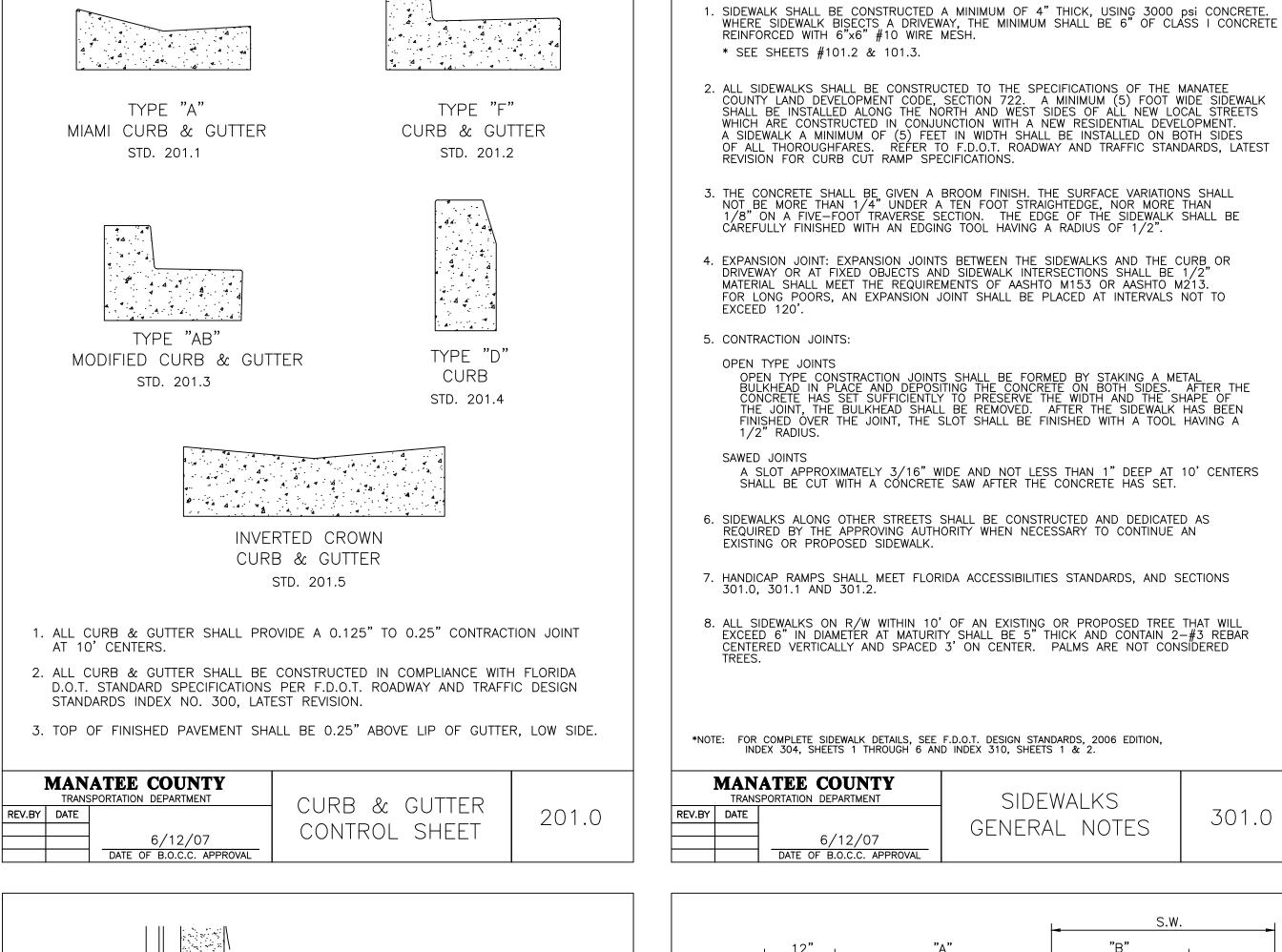
ENGINEERING SERVICES

1022 26th Avenue East, Bradenton, FL 34208

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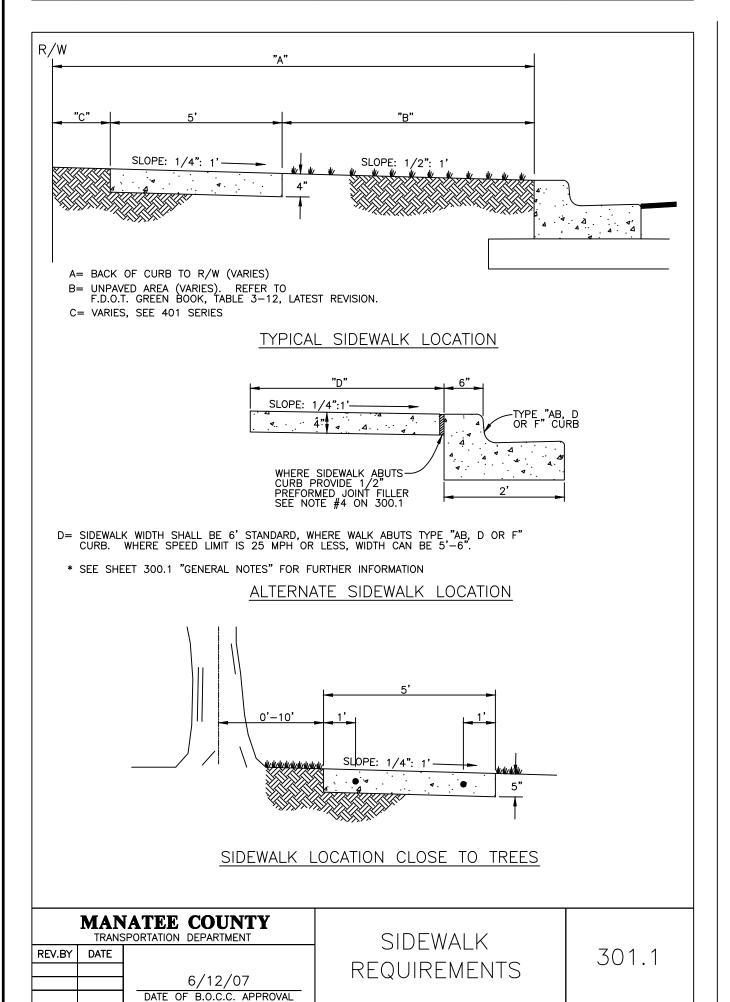


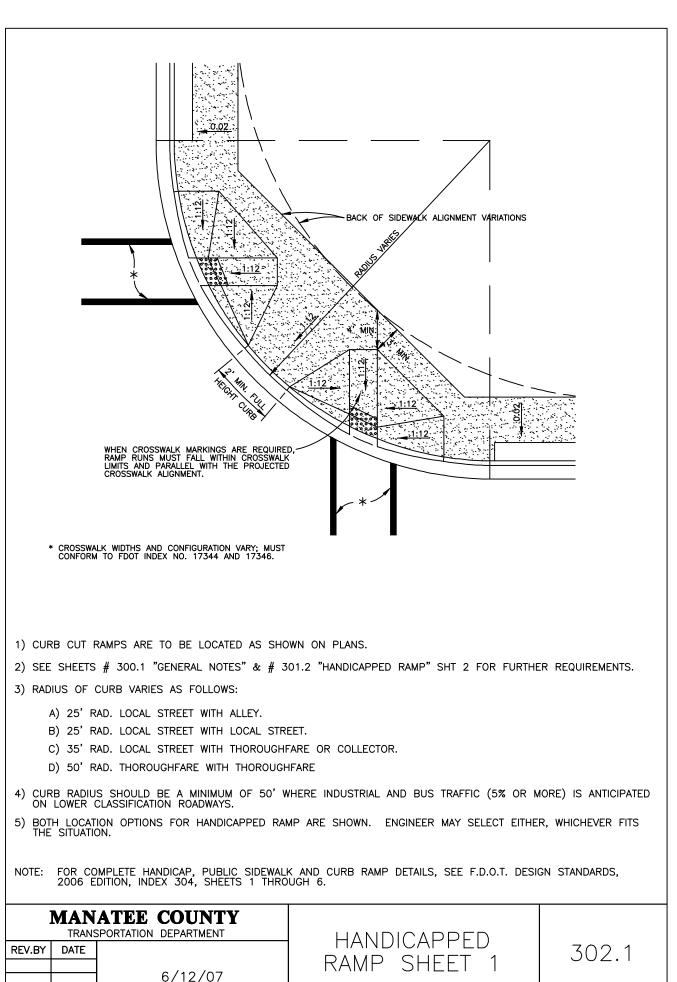


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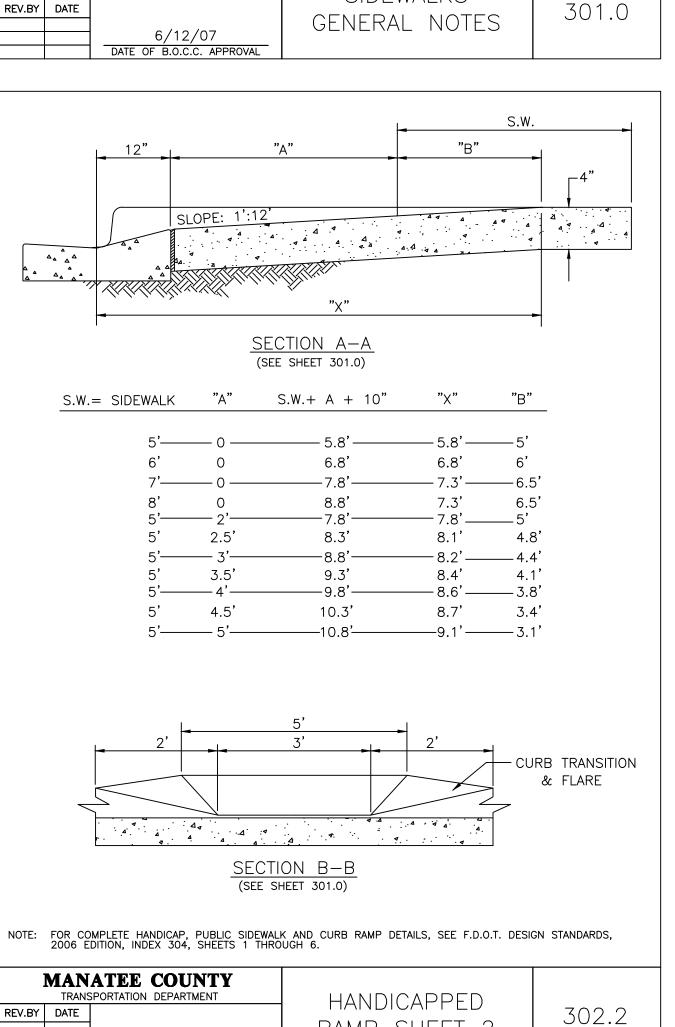
6/12/07

DATE OF B.O.C.C. APPROVAL



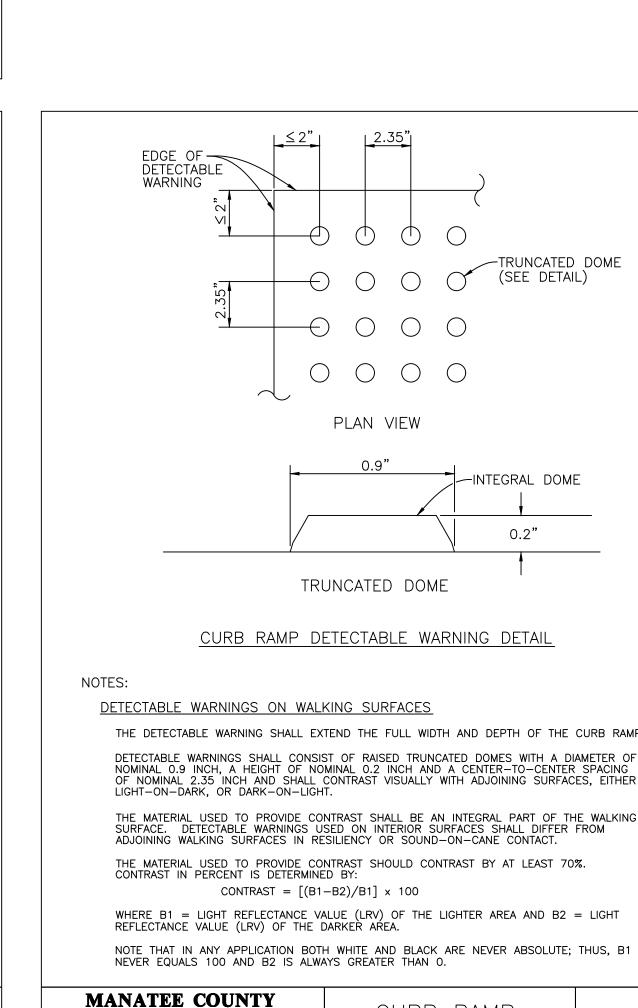


DATE OF B.O.C.C. APPROVAL



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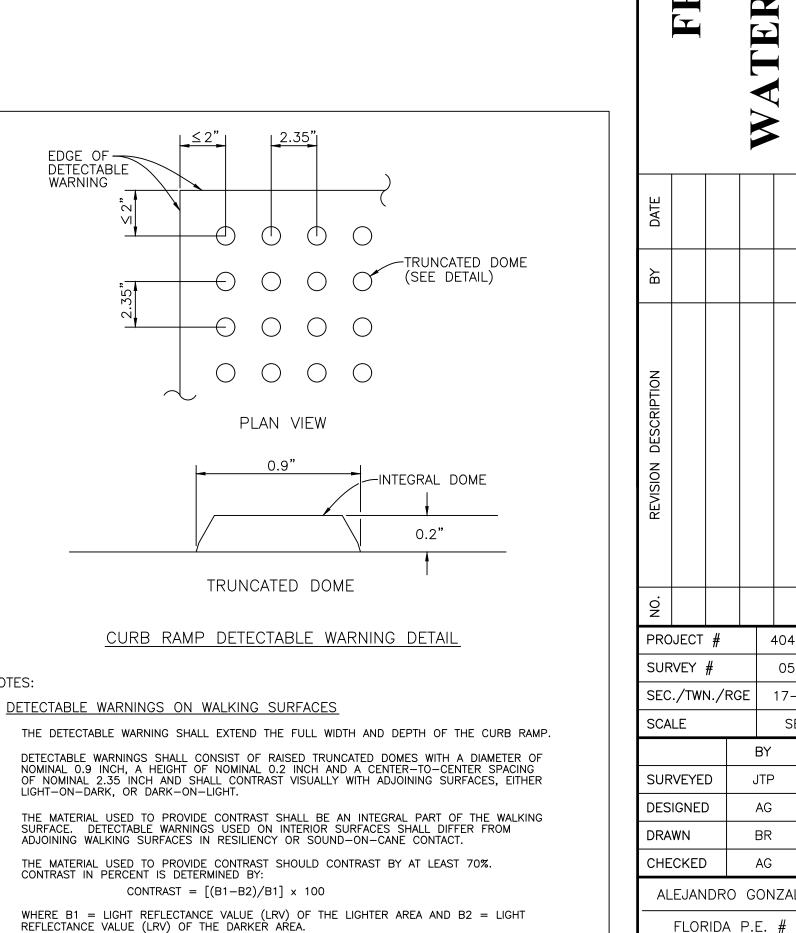
GENERAL NOTES

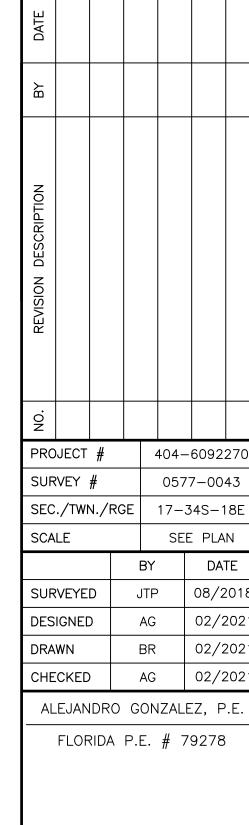


TRANSPORTATION DEPARTMENT

6/12/07

REV.BY DATE





Signature & Date

CURB RAMP 302.3 DETECTABLE WARNINGS DATE OF B.O.C.C. APPROVAL

3

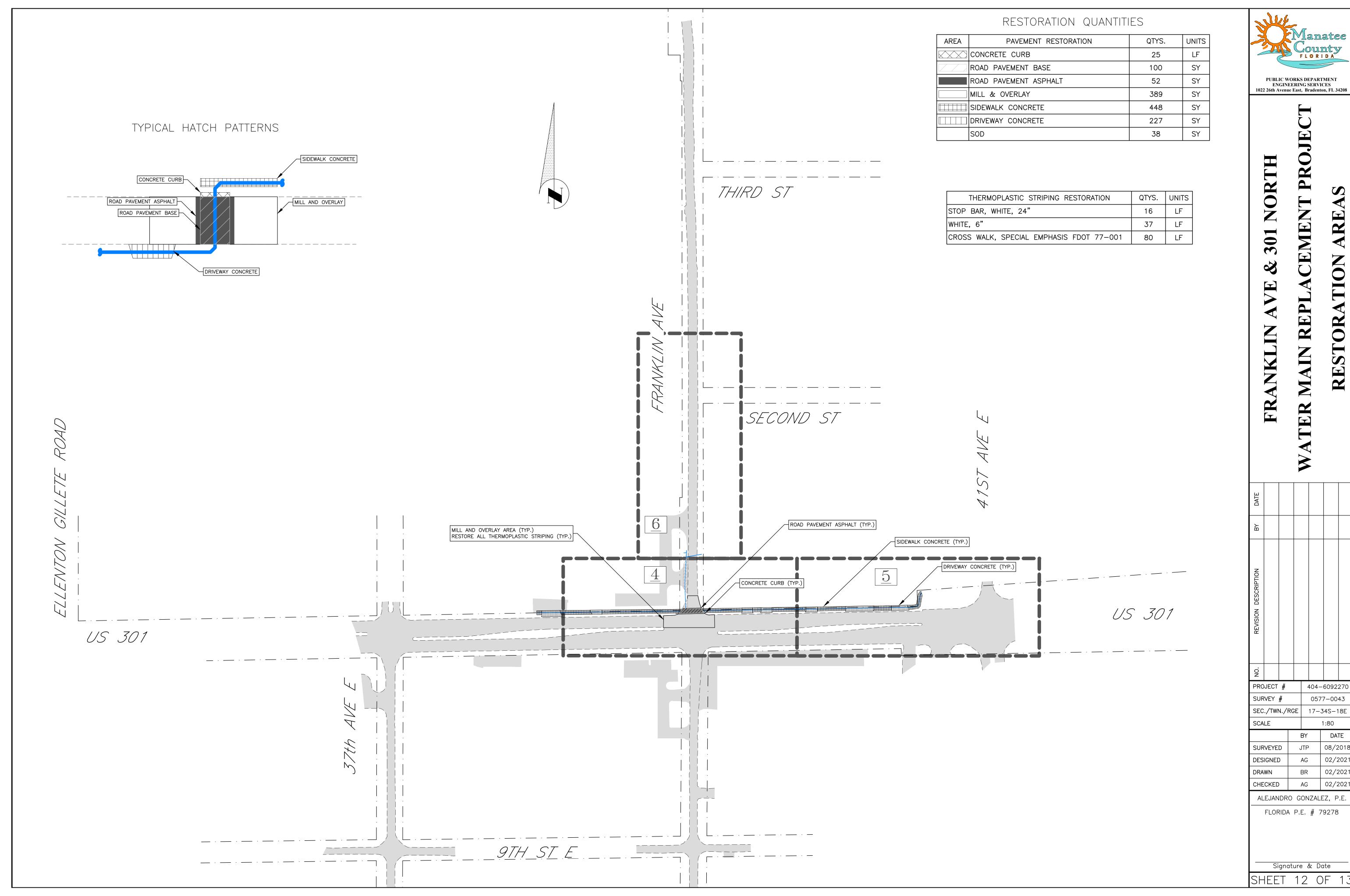
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FLORIDA

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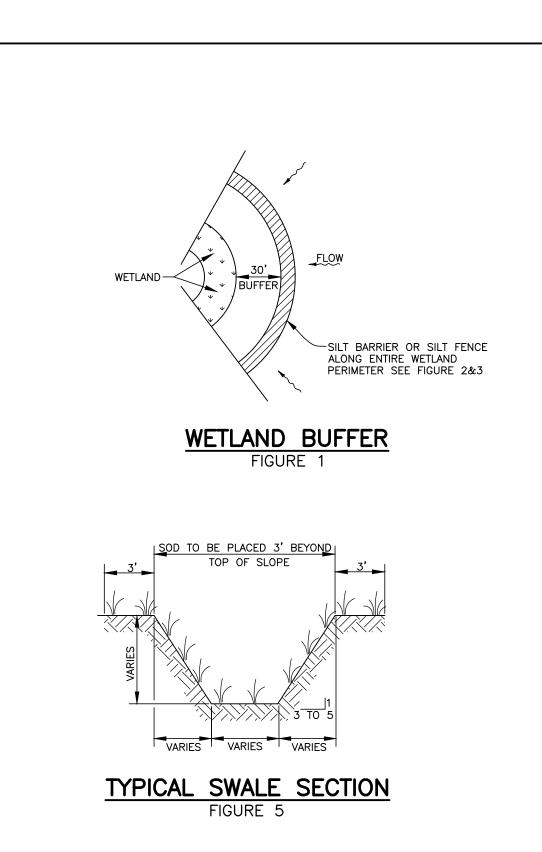
PUBLIC WORKS DEPARTMENT

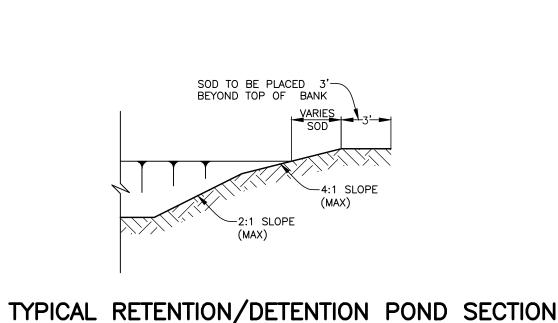
ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208



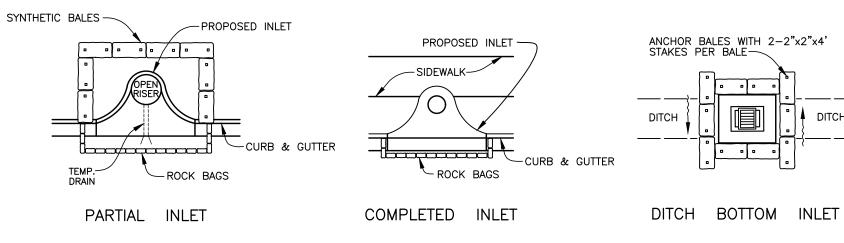
404-6092270 0577-0043

JTP 08/2018 BR 02/2021





**ELEVATION** 



SYNTHETIC BALE PROTECTION AROUND

INLETS OR SIMILAR STRUCTURES FIGURE 7

BALES TO BUTT

2"x2" STAKE-

-ANCHOR BALES WITH

LOOSE SOIL PLACED BY SHOVEL

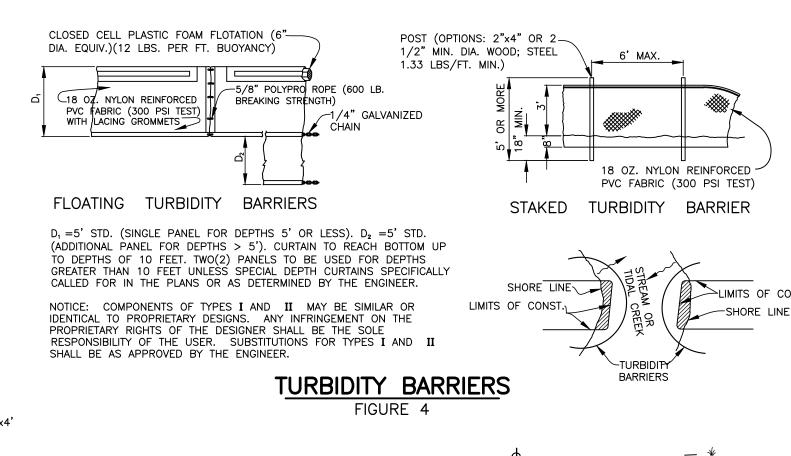
& LIGHTLY COMPACTED ALONG

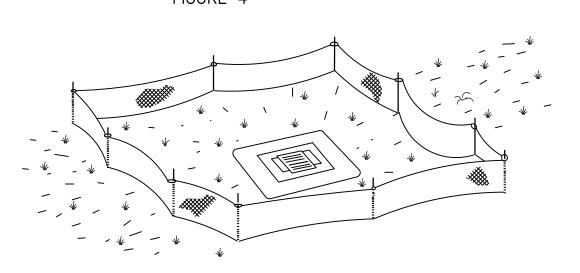
UPSTREAM EDGE OF BALES

2-2"x2"x4' STAKES PER BALE

TYPICAL BALE SILT BARRIER

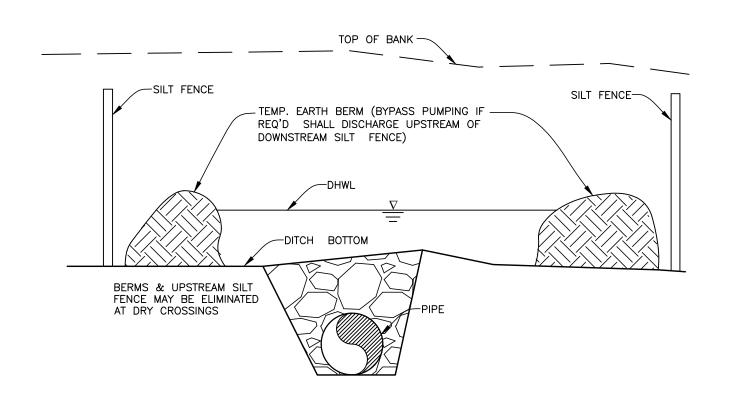
FIGURE 3



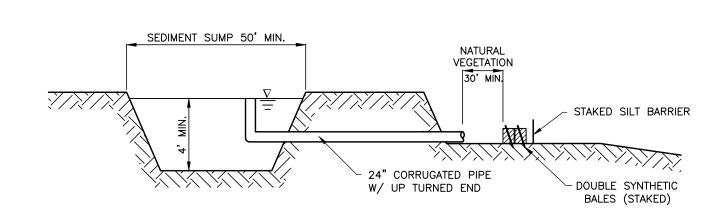


TYPE III SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS

# STAKED SILT BARRIER OR SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS



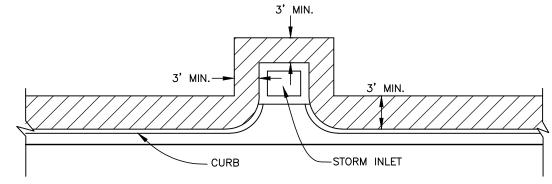
UNDERGROUND PIPE CROSSING



SEDIMENT SUMP SECTION

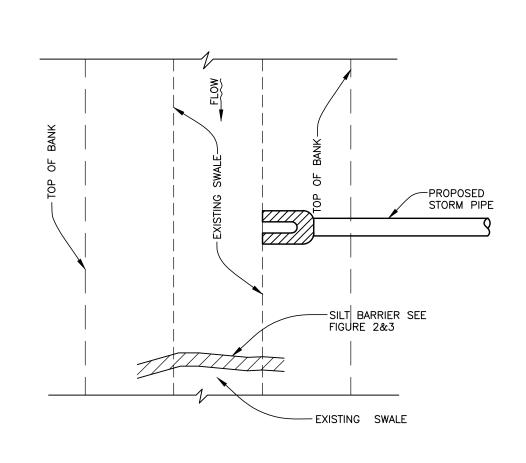
# TURRIDITY BARRIER SEE FIGURE 4 STORM PIPE EXISTING LAKE EDGE OF WATER WHERE A DAM IS REQUIRED WITHIN EXISTING LAKE FOR CONSTRUCTION OF STORM PIPE, TURBIDITY BARRIER SHALL BE PLACED BEYOND THE DAM





SOD ALONG CURB AND AROUND INLET FIGURE 14

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



-PRINCIPAL POST

- FILTER FABRIC

POSITION (CANTED

20° TOWARD FLOW)

-FILTER FABRIC (IN

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

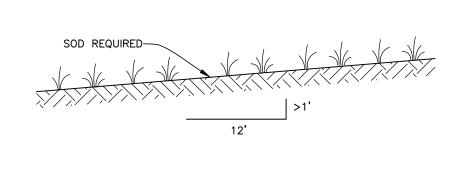
TYPICAL SILT FENCE

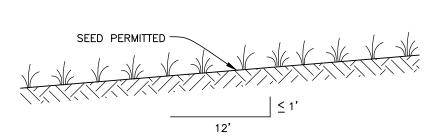
FIGURE 2

CONFORMANCE WITH

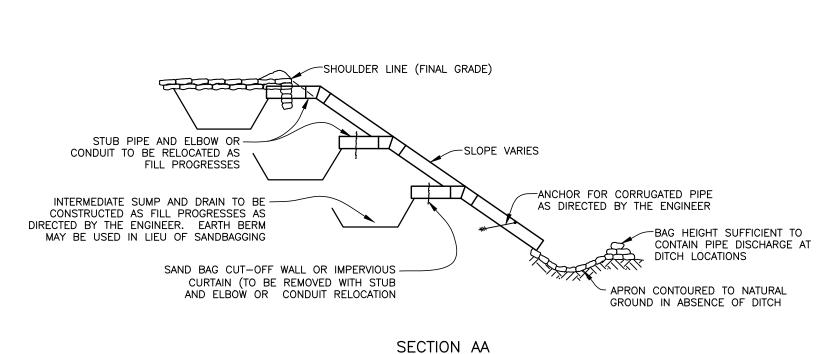
\SEC. 985 FDOT SPEC.)

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





**GRASS SLOPES** 



SILT BARRIER AT CONNECTION

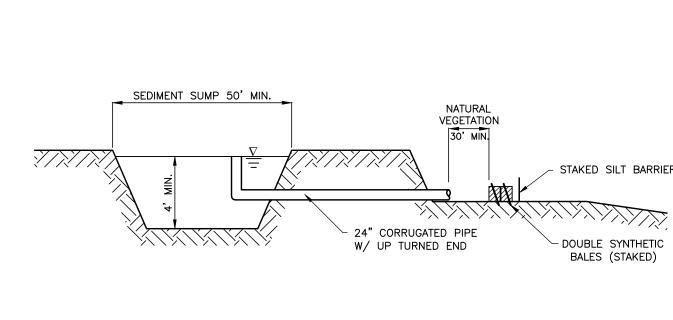
OF SWALE TO EXISTING SWALE

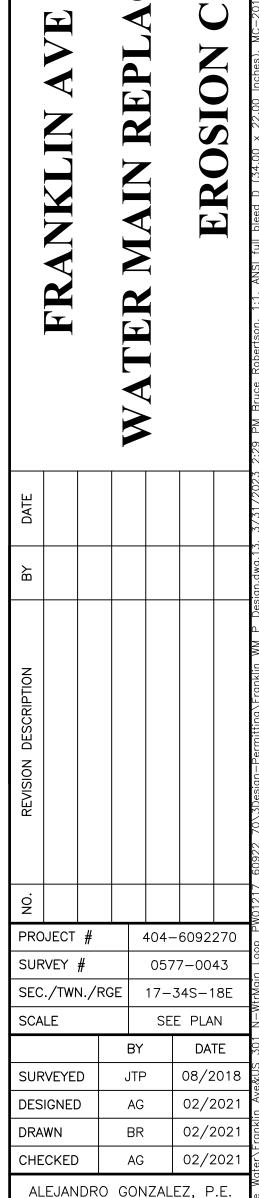
FIGURE 11

PROPOSED SWALE

-SILT BARRIER SEE

TEMPORARY SLOPE DRAIN FIGURE 15





FLORIDA P.E. # 79278

Signature & Date

SHEET 13 OF

County

FLORIDA

PUBLIC WORKS DEPARTMENT

ENGINEERING SERVICES

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