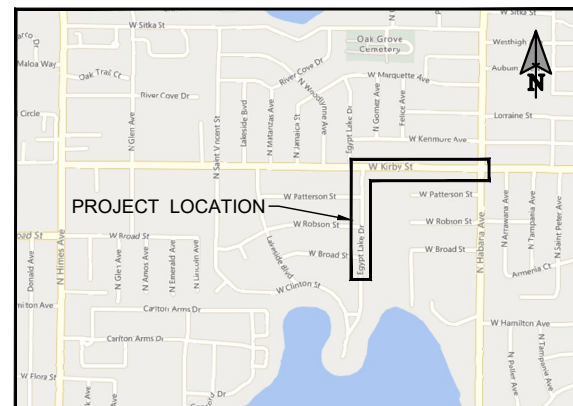


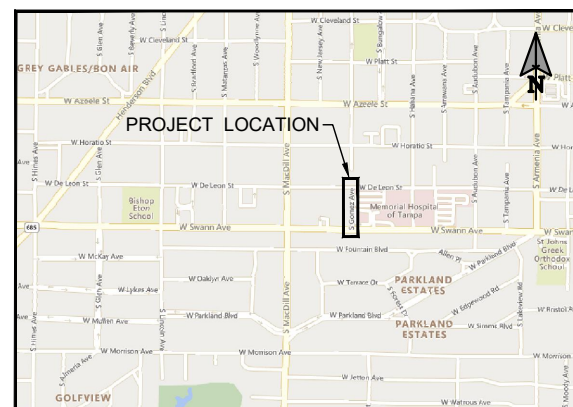
CITY OF TAMPA WASTEWATER DEPARTMENT

KIRBY ST FORCE MAIN AND GOMEZ PUMP STATION FORCE MAIN IMPROVEMENTS

CONTRACT No. 22-C-00016



LOCATION MAP - KIRBY ST FM
N.T.S.

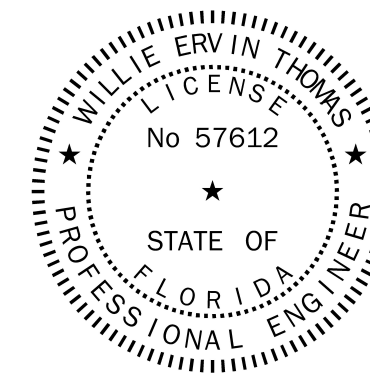


LOCATION MAP - GOMEZ PUMP STATION FM
N.T.S.

MARCH 2023



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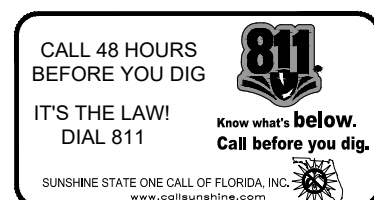


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SIGNED AND SEALED BY:

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ELECTRONIC DOCUMENTS.

WILLIE ERVIN THOMAS, PE No 57612
BARNES, FERLAND AND ASSOCIATES, INC.
1230 HILLCREST STREET, SUITE. 100
ORLANDO, FL 32803
ENGINEERING REGISTRY No 6899

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



THESE PLANS WERE PREPARED
USING AUTOCAD CIVIL 3D 2019

PREPARED BY:



BARNES, FERLAND AND ASSOCIATES, INC.
1230 HILLCREST ST., STE 100, ORLANDO, FL 32803
PH: (407) 896-8608 ENGINEERING REGISTRY NO. 6899

GENERAL NOTES:

- THE CONTRACTOR SHALL CONTACT THE WASTEWATER DIVISION'S FIELD INSPECTOR, GAVIN WILLIAMS (PHONE 813-310-6712), AND SUPPLY THE FIELD INSPECTOR WITH FURTHER CONSTRUCTION INFORMATION. THIS INFORMATION SHOULD INCLUDE ALL REQUIRED SHOP DRAWINGS, THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED SCHEDULE, AND OTHER INFORMATION REQUIRED BY THE CITY.
- THE CITY OF TAMPA WASTEWATER DEPARTMENT "TECHNICAL STANDARDS GUIDELINE FOR CONSTRUCTION OF WASTEWATER FACILITIES" (LATEST EDITION) ARE TO BE CONSIDERED PART OF THESE DOCUMENTS AND CONSTRUCTION SHALL BE ENFORCED TO AT LEAST THESE MINIMUM STANDARDS.
- THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE (1) COPY OF THE CONTRACT DOCUMENTS, INCLUDING PLANS, SPECIFICATIONS AND COPIES OF ALL REQUIRED CONSTRUCTION PERMITS.
- THE LOCATION AND SIZE OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND ARE BASED ON THE BEST AVAILABLE INFORMATION. WHILE CONSIDERABLE EFFORT HAS BEEN MADE BY THE CITY, THE SURVEYOR, THE VARIOUS UTILITY COMPANIES AND THE ENGINEER TO ACCURATELY LOCATE EXISTING LINES AND APPURTENANCES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITY AND STRUCTURE LOCATIONS, ELEVATIONS AND DIMENSIONS BY UTILIZING EXPLORATORY EXCAVATION, PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES. IF THERE IS A POTENTIAL CONFLICT, THE CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY. NO CLAIMS FOR DELAYS WILL BE PAID UNLESS THIS PROCEDURE HAS BEEN FULLY FOLLOWED. ANY DAMAGE TO UTILITIES, STRUCTURES AND/OR SERVICES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, IN A MANNER APPROVED BY AND COORDINATED WITH THE UTILITY OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE UTILITY OWNER OF ANY UNINTENDED INTERRUPTION TO SERVICE OR DAMAGE TO EXISTING STRUCTURES OR UTILITIES.
- CHAPTER 17-153 OF THE FLORIDA STATUTES REQUIRES THAT THE COMPANY PERFORMING THE EXCAVATION WORK SHALL NOTIFY ALL GAS UTILITIES A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO EXCAVATING. DRAWINGS SHOW ONLY THE APPROXIMATE LOCATION OF GAS MAINS (IF ANY ARE PRESENT), AND DO NOT SHOW SERVICE LINES. THE ONLY SAFE AND PROPER WAY TO LOCATE EITHER MAINS OR SERVICE LINES IS BY AN ON-SITE INSPECTION BY GAS SYSTEM PERSONNEL. THEREFORE, THE COMPANY PERFORMING THE EXCAVATION WORK IS INSTRUCTED TO TELEPHONE SUNSHINE ONE CALL AT 1-800-432-4770 AT LEAST THREE (3) WORKING DAYS BEFORE DIGGING IN THE CONSTRUCTION AREA. NO MACHINE EXCAVATION SHALL BE PERFORMED WITHIN FIVE (5) FEET OF A GAS MAIN WITHOUT THE UTILITY OWNERS PRESENCE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE HIS COMPLETE FAMILIARITY WITH THE PROJECT SITE AND COMPONENTS INCLUDING SUBSURFACE CONDITIONS OF SOIL AND GROUNDWATER TABLE. BY SUBMITTAL OF A BID FOR THIS PROJECT, THE CONTRACTOR ACKNOWLEDGES HIS COMPLETE UNDERSTANDING AND RESPONSIBILITIES WITH RESPECT TO THE CONSTRUCTION ACTIVITIES REQUIRED UNDER THE SCOPE OF THIS PROJECT. EXISTING SURVEY PROVIDED BY: BARNES, FERLAND AND ASSOCIATES, 1230 HILLCREST STREET, SUITE 100, ORLANDO, FL 32803. BFA AND THE CITY ASSUME NO RESPONSIBILITY FOR THE ACCURACY OF THE SURVEY WITH RESPECT TO CHANGED CONDITIONS SUBSEQUENT TO COMPLETION OF THE SURVEY.
- THE CONTRACTOR SHALL PROTECT ALL TREES IN THE VICINITY OF THE PROPOSED CONSTRUCTION IN ACCORDANCE WITH CHAPTER 13 OF THE CITY OF TAMPA CODE OR HILLSBOROUGH COUNTY REQUIREMENTS AS APPLICABLE. NO TREES SHALL BE PRUNED WITHOUT PRIOR APPROVAL FROM THE CITY OF TAMPA PARKS & RECREATION DEPARTMENT, NATURAL RESOURCE DIVISION, AND SHALL BE COMPLETED BY A CERTIFIED ARBORIST. ROOT PRUNING MAY BE REQUIRED AT CERTAIN LOCATIONS AND SHALL BE COMPLETED IN ACCORDANCE WITH CHAPTER 13 TECHNICAL MANUAL SPECIFICATIONS.
- UNDER NO CIRCUMSTANCES SHALL THE ACTIVITIES OF THE CONTRACTOR OR HIS SUBCONTRACTORS CAUSE ANY INTERRUPTIONS TO THE SERVICE OR OPERATION OF EXISTING UTILITIES WITHOUT WRITTEN AUTHORIZATION FROM AN AUTHORIZED REPRESENTATIVE OF THE UTILITY COMPANY OR OWNER. ANY PIPING OR OTHER UTILITIES WHICH CAN BE REMOVED DURING CONSTRUCTION WITHOUT UNDUE INTERRUPTION OF SERVICE MAY BE REMOVED AND REPLACED BY THE CONTRACTOR WITH THE PERMISSION OF THE ENGINEER AND THE UTILITY OWNER. CONTRACTOR SHALL COPY ENGINEER OF ALL CORRESPONDENCE WITH UTILITY OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND RESTORATION (IF DAMAGED) OF ALL EXISTING STRUCTURES WITHIN THE CONSTRUCTION LIMITS OF THE PROJECT, INCLUDING BUT NOT LIMITED TO: WALLS, FENCES, POWER POLES, MAIL BOXES, DRAINAGE STRUCTURES, SOD, LANDSCAPING, HARDSCAPING, IRRIGATION, ETC. THE CONTRACTOR SHALL PROTECT EXISTING WATER METERS AND SERVICE CONNECTIONS DURING CONSTRUCTION. SOD ALL DISTURBED AREAS UNLESS OTHERWISE DIRECTED. SOD SHALL MATCH EXISTING SOD TYPE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- ALL MATERIALS MUST CONFORM TO APPROVED SHOP DRAWINGS. ANY CHANGES MUST BE APPROVED BY THE ENGINEER AND THE CITY PRIOR TO INSTALLATION. FAILURE OF THE INSPECTOR TO CALL TO THE ATTENTION OF THE CONTRACTOR ANY ITEM NOT IN CONFORMANCE WITH PLANS AND SPECS SHALL NOT CONSTITUTE ACCEPTANCE OF THE ITEM.
- PIPE LENGTHS SHOWN ON THE PLANS ARE APPROXIMATE. ACTUAL PIPE LENGTHS ARE TO BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION.
- CITY REPRESENTATIVES SHALL BE PRESENT DURING ALL OPERATIONS INVOLVING EXISTING UTILITIES.
- ALL CONCRETE TO BE REMOVED SHALL BE SAW CUT AT THE NEAREST GOOD JOINT. CURB/GUTTER SHALL BE SAW CUT BETWEEN ASPHALT AND CONCRETE PRIOR TO REMOVAL. ALL SAW CUTTING SHALL BE WET CUT TO CONTROL DUST.
- CONCRETE AND ASPHALT PAVEMENT REPLACEMENT, INCLUDING CURB, GUTTERS AND STRIPING SHALL OCCUR WITHIN SEVEN (7) WORKING DAYS FOLLOWING COMPLETION OF OPEN CUTWORK. SAW CUT CONCRETE DRIVEWAYS AS REQUIRED FOR CONSTRUCTION.
- "ALL EXCAVATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE OSHA TRENCH SAFETY ACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER STORAGE AND/OR DISPOSAL OF ALL EXCESS OR UNSUITABLE EXCAVATED MATERIAL.
- THE CONTRACTOR SHALL FIND AND MAINTAIN HIS OWN EQUIPMENT AND MATERIAL STORAGE YARD AT NO COST TO THE CITY.
- CONTRACTOR'S USE OF THE PREMISES SHALL BE CONFINED TO THE LIMITS OF THE EXISTING RIGHT OF WAY AND/OR EASEMENTS. ALL PUBLIC AND PRIVATE PROPERTY AFFECTED BY THE CONSTRUCTION SHALL BE PROTECTED WHERE POSSIBLE. ALL AREAS DISTURBED AS PART OF THIS WORK SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER. ALL EXISTING SODDED AREAS DISTURBED DURING THE CONSTRUCTION SHALL BE REPLACED WITH THE SAME TYPE OF SOD IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS. FIELD ENGINEER SHALL APPROVE THE REMOVAL AND REPLACEMENT OF EXISTING IRRIGATION SYSTEMS, AS REQUIRED, AT NO ADDITIONAL COST TO THE CITY OR PROPERTY OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL NEWLY PLANTED GRASS OR VEGETATION UNTIL WELL ESTABLISHED AND ACCEPTED BY THE CITY.
- ALL EXISTING PAVEMENT MARKINGS AND MESSAGES, WHICH ARE TO BE OBLITERATED, SHALL BE INVENTORIED AND RESTORED TO ORIGINAL CONDITION AND DAMAGED ONES REPLACED (UPON COMPLETION OF CONSTRUCTION AND PRIOR TO REINSTATING VEHICULAR TRAFFIC) BY THE CONTRACTOR, UNLESS OTHERWISE SPECIFIED IN THE PLANS OR LATEST DESIGN STANDARD. ALL PERMANENT PAVEMENT MARKINGS SHALL BE ALKYD THERMOPLASTIC WITH GLASS BEADS. TEMPORARY PAVEMENT MARKINGS MAY BE PAINT PRODUCTS AND RETRO-REFLECTIVE PAVEMENT MARKERS (ON SURFACES TO BE MILLED AND RESURFACED) OR TEMPORARY TAPE (ON ALL AREAS NOT BEING RESURFACED).
- AS-BUILT DRAWINGS SHALL BE PROVIDED SIGNED AND SEALED BY THE CONTRACTOR'S REGISTERED SURVEYOR TO THE ENGINEER. "AS-BUILT" INFORMATION SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS CONTRACT.

WASTEWATER FORCE MAIN REQUIREMENTS

- ALL FORCE MAINS CONSTRUCTED BY OPEN CUT WITHIN THE RIGHT OF WAY SHALL BE C-900, DR 18, GREEN PVC FOR FORCE MAINS LESS THAN 14-INCHES IN DIAMETER. FOR FORCE MAINS WITH DIAMETER 14-INCHES OR GREATER, THE FORCE MAIN SHALL BE CONSTRUCTED OF C-900, DR 25, GREEN PVC.
- THE FORCE MAIN SHALL BE INSTALLED WITH A METALLIC LOCATING WIRE IN ACCORDANCE WITH THE CITY'S PVC PIPE LOCATING WIRE DETAIL (SEE SHEET D1).
- ALL FORCE MAIN BENDS, FITTINGS, AND VALVES SHALL HAVE RESTRAINED MECHANICAL JOINTS AS MANUFACTURED BY EBBA IRON, OR APPROVED EQUAL. ADDITIONAL PIPE JOINTS UPSTREAM AND DOWNSTREAM OF EACH FITTING, BEND OR VALVE SHALL ALSO BE RESTRAINED IN ACCORDANCE WITH THE CITY'S STANDARD PIPE JOINT RESTRAINT TABLE INCLUDED IN THE PLAN SET. ALL FITTINGS AND BENDS SHALL BE DUCTILE IRON AWWA C-110 OR C-153. FITTINGS SHALL BE WRAPPED WITH GREEN POLYWRAP. FITTINGS SHALL BE LINED WITH PROTECTO 401 INTERIOR CERAMIC EPOXY.
- THE FORCE MAIN SHALL BE CONSTRUCTED IN A STRAIGHT ALIGNMENT BETWEEN THE SPECIFIED POINTS OF HORIZONTAL AND VERTICAL DEFLECTION. THERE SHALL BE NO INTERMEDIATE HIGH OR LOW POINTS BETWEEN THE VERTICAL POINTS OF DEFLECTION. AIR RELEASE VALVES SHALL BE INSTALLED AT ALL HIGH POINTS SPECIFIED ON THE PLANS. FINAL LOCATION OF THE AIR RELEASE VALVE SHALL BE ADJUSTED SO THAT IT IS LOCATED AT THE ACTUAL HIGH POINT OF THE COMPLETED INSTALLATION.
- THE FORCE MAIN SHALL BE INSTALLED USING "CLASS C" BEDDING UNLESS OTHERWISE SPECIFIED.
- HOT-TAP CONNECTIONS AND LINE STOPS TO THE EXISTING FORCE MAINS SHALL BE PERFORMED BY THE CONTRACTOR AND SHALL BE WITNESSED BY A CITY INSPECTOR. THE CONTRACTOR SHALL CONTACT THE WASTEWATER DEPARTMENT INSPECTION SECTION 48-HOURS PRIOR TO COMPLETING THE HOT-TAP OR LINE STOPS TO ARRANGE INSPECTION.
- FLOW CHANNELS WITHIN EXISTING MANHOLES SHALL BE RECONSTRUCTED TO ACCOMMODATE NEW CONNECTIONS.
- WASTEWATER FORCE MAINS SHALL BE INSTALLED IN ACCORDANCE WITH HORIZONTAL AND VERTICAL SEPARATION CRITERIA PER RULE 62-555.314 F.A.C.
- THE MINIMUM COVER TO FINISHED GRADE OVER FORCE MAINS SHALL BE 36 INCHES.
- PLUG VALVES SHALL BE DEZURIK 100% PORT PEF.
- AIR RELEASE BOXES SHALL BE INSTALLED IN GRASSED AREAS AND NOT IN PAVEMENT OR SIDEWALKS. FINAL LOCATION OF BOXES WILL BE DETERMINED IN THE FIELD AT HIGH POINTS. ARV BOX SHALL BE RATED FOR H-20 LOADING.
- CONTRACTOR SHALL ENSURE THAT WHEN PLANNING HIS LAYOUT FOR BORING ENTRANCE AND EXIT LOCATIONS, THAT HE DOES NOT BLOCK A SOLE DRIVEWAY TO THE FRONTING PROPERTY OWNER WITHOUT PROVIDING AN ALTERNATIVE ACCESS.
- THE MINIMUM CLEARANCE BETWEEN THE FORCE MAIN AND WATER LINE SHALL BE 12-INCHES UNDER ALL CIRCUMSTANCES. IF THE FORCE MAIN IS BELOW THE WATER LINE AND HAS BETWEEN 12 AND 18 INCHES OF CLEARANCE, OR IF THE FORCE MAIN IS ABOVE THE WATER LINE REGARDLESS OF CLEARANCE, THE A NOMINAL 18-FOOT LENGTH OF PIPE SHALL BE CENTERED OVER/UNDER THE WATER LINE.
- THE MINIMUM HORIZONTAL AND VERTICAL CLEARANCES BETWEEN THE PROPOSED FORCE MAIN AND ALL CROSSING UTILITIES SHALL BE 6 FEET AND 18 INCHES RESPECTIVELY.
- CONTINUOUS SEWER SERVICE MUST BE MAINTAINED AT ALL TIMES. WORK DURING LOW FLOW PERIODS OR NIGHT WORK MAY BE REQUIRED. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PRIVATE AND CITY PUMPING STATIONS AND SEWER SERVICE VIA VACUUM TRUCKS. CONTRACTOR IS RESPONSIBLE FOR DEWATERING, COLLECTING AND DISPOSING OF ALL WATER AND SLUDGE FROM EXISTING FACILITIES AS NECESSARY TO MAINTAIN SERVICE. COST FOR THIS WORK SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS AND NO ADDITIONAL PAYMENT WILL BE MADE.

EMERGENCY WASTEWATER SPILL, WATER MAIN, RECLAIMED WATER MAIN BREAK PROCEDURES

- THE CITY OF TAMPA DISPATCH OPERATOR SHALL BE NOTIFIED IMMEDIATELY IN THE EVENT OF A WATER, FORCE MAIN, GRAVITY SEWER, OR RECLAIMED WATER MAIN BREAK OR DAMAGE.
- ALL DAMAGE TO THE CITY OF TAMPA'S MAINS SHALL BE REPAIRED IMMEDIATELY WITHOUT DELAY BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL PROVIDE TANKERS IN THE EVENT OF EMERGENCY WASTEWATER SPILL.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ON-SITE DURING THE LIFE OF THE PROJECT, A WEATHER PROOF ENCLOSURE CONTAINING A READILY ACCESSIBLE LIST OF EMERGENCY CONTACTS AND PHONE NUMBERS.

MAINTENANCE OF TRAFFIC

- THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL NECESSARY TRAFFIC CONTROL AND SAFETY DEVICES, IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND INDEX NO. 600 OF THE LATEST EDITION OF FOOT "DESIGN STANDARDS".
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITES, AND FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE TRAFFIC CONTROL DEVICES AND BARRIERS, FOR THE PROTECTION OF VEHICLES, PEDESTRIANS AND THE WORKERS. THE COST OF TRENCH BOXES IF REQUIRED TO IMPLEMENT THE APPROVED M.O.T. PLAN, SHALL BE INCLUDED IN THE UNIT PRICE FOR UTILITY CONSTRUCTION. ALL WORK SHALL BE IN ACCORDANCE WITH THE F.H.W.A. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND REVISION, AND MEET WITH THE APPROVAL OF THE AGENCY HOLDING JURISDICTION OF THE RIGHT(S) OF WAY A MINIMUM OF TWO (2) WEEKS PRIOR TO THE START OF ANY PHASE OF WORK TO REQUEST STREET, LANE OR SIDEWALK CLOSURE AUTHORIZATION. FAILURE OF TO OBTAIN PROPER AUTHORIZATION SHALL NOT BE CONSIDERED AS CAUSE FOR A DELAY.
- PEDESTRIAN CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH FDOT INDEX 660. PEDESTRIAN CONTROL SHALL BE MAINTAINED ON ONE SIDE OF THE ROAD AT ALL TIMES. IF UNABLE TO DO SO, THE CONTRACTOR SHALL PROVIDE TEMPORARY WALKWAYS, BOARDWALKS, AND/OR TEMPORARY CONCRETE SIDEWALK.
- LOCAL RESIDENTIAL AND BUSINESS TRAFFIC ACCESS SHALL BE MAINTAINED AT ALL TIMES. IF UNABLE TO DO SO, THE CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION OF AFFECTED RESIDENTS AND BUSINESSES A MINIMUM OF ONE (1) WEEK IN ADVANCE OF THE START OF ANY PHASE OF CONSTRUCTION, IN WRITING, TO COORDINATE ALTERNATIVE ACCESS ARRANGEMENT. THE CONTRACTOR SHALL PROVIDE COPIES OF NOTIFICATION TO THE APPROPRIATE TRAFFIC CONTROL MANAGER AND CITY CONSTRUCTION MANAGER PRIOR TO DISTRIBUTION.
- ALL SIGNS AND TRAFFIC CONTROL DEVICES SHALL BE NEW OR LIKE NEW CONDITION. ALL SIGNS SHALL BE POST MOUNTED UNLESS OTHERWISE INDICATED. EXISTING REGULATORY AND WARNING SIGNS ARE TO BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE NOTED. CHANNELING DRUMS SHALL BE USED ON NEWLY PAVED ROADWAYS. WATER FILLED BARRIER SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS. DURING NON-WORKING HOURS, NO EQUIPMENT, VEHICLES OR MATERIAL SHALL BE PARKED OR STORED WITHIN THE CLEAR ZONE OF A ROADWAY OPEN TO VEHICULAR TRAFFIC. CONSTRUCTION STAGING, TRUCK STAGING, STORING OF MATERIALS, ET. DELIVERY TRUCKS SHALL NOT BLOCK TRAFFIC.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING EACH EMPLOYEE SUPERVISING THE SELECTION AND PLACEMENT OF M.O.T. CONTROL DEVICES IS PROPERLY TRAINED BY ATTENDING AND SUCCESSFULLY COMPLETING A FDOT APPROVED MOT COURSE. THE TRAINING SHALL BE AT A LEVEL APPLICABLE TO THE EMPLOYEE'S LEVEL OF INVOLVEMENT. COPIES OF CERTIFICATIONS SHALL BE PROVIDED TO THE CITY PRIOR TO IMPLEMENTING ANY PHASE OF MOT. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL SUPERVISOR (TCS) WHO IS RESPONSIBLE FOR INITIATING, INSTALLING AND MAINTAINING ALL TRAFFIC CONTROL DEVICES. THE TCS SHALL BE AVAILABLE ON A 24-HOUR PER DAY BASIS, PARTICIPATE IN ALL CHANGES TO TRAFFIC CONTROL AND REVIEW THE PROJECT ON A DAY-TO-DAY BASIS. THE TCS SHALL BE PRESENT DURING THE INITIAL SETUP OF THE TRAFFIC CONTROL PLAN AND ALL SUBSEQUENT PHASES OR CHANGES TO THE TRAFFIC CONTROL. THE TCS SHALL IMMEDIATELY CORRECT ALL DEFICIENCIES. THE CONTRACTOR SHALL ENSURE THE TCS BE AVAILABLE ON SITE WITHIN 45 MINUTES OF NOTIFICATION OF AN EMERGENCY SITUATION AND BE PREPARED TO RESPOND TO AND CORRECT THE TRAFFIC CONTROL OR PROVIDE ALTERNATE ARRANGEMENTS FOR CORRECTIVE ACTIONS. THE TCS SHALL BE RESPONSIBLE FOR PERFORMING WEEKLY, DAYTIME AND NIGHT TIME INSPECTIONS OF ALL TRAFFIC CONTROL DEVICES, TRAFFIC FLOW, PEDESTRIAN, AND BICYCLIST MOVEMENT THROUGH THE WORK AREA AND BUSINESS ACCESS. THE CITY MAY DISQUALIFY AND REMOVE FROM THE PROJECT A TCS THAT FAILS TO COMPLY WITH THESE PROVISIONS. THE CITY MAY ALSO SUSPEND ALL WORK ACTIVITIES UNTIL CORRECTIVE ACTIONS HAVE BEEN COMPLETED.

RECOMMENDED SEQUENCE OF FORCE MAIN CONSTRUCTION FOR W. KIRBY ST AND EGYPT LAKE RD:

PHASE 1 - W. KIRBY ST 16" FORCE MAIN

1.1 INSTALL 16" FORCE MAIN DIRECTIONAL DRILLS AND OPEN CUT ALONG W. KIRBY ST, INCLUDING CONNECTION TO SANITARY SEWER MANHOLE IN N. HABANA AVE. TEST AND CLEAR THIS SEGMENT OF MAIN EAST OF THE PROPOSED FORCE MAIN CONNECTION AT THE INTERSECTION OF EGYPT LAKE RD. (SHEETS U-3, U-4)

1.2 UPON CLEARANCE OF ITEM 1.1 ABOVE, INSTALL AND TEST TEMPORARY INLINE LINESOPS AND BYPASS PIPING ON THE 10" FORCE MAIN. BYPASS OPERATION SHALL BE LIMITED TO A PERIOD OF 24-HOURS FOR THE PURPOSE OF PIPE REMOVAL AND CONNECTION TO THE EXITING 10" FORCE MAIN (SHEET U-3).

1.3 ONCE THE 16" FORCE MAIN CONNECTION TO THE EXISTING 10" FORCE MAIN, AND ALL ASSOCIATED VALVING ARE IN SERVICE, REMOVE INLINE BYPASS (SHEET U-3).

1.4 UPON REMOVAL OF BYPASS, CUT , CAP AND PLACE OUT OF SERVICE THE REMAINING 6" AND 10" FORCE MAINS WITHIN W. KIRBY ST. (SHEETS U-3, U-4)

PHASE 2 - EGYPT LAKE RD 8" FORCE MAIN

2.1 SCHEDULE TEMPORARY SHUTDOWN OF EGYPT LAKE (CITY) AND CARLTON ARMS (PRIVATE) PUMP STATIONS FOR TEMPORARY INTERCONNECT AND DIVERSION OF THE 4" FORCE MAIN TO THE 6" FORCE MAIN NEAR THE INTERSECTION OF EGYPT LAKE RD AND W BROAD ST. (SHEET U-1) DURATION OF PS SHUTDOWNS SHOULD BE LIMITED TO 2 HOURS. CONTRACTOR SHALL HAVE 2 (1500 GAL MIN) TANKERS ON-SITE TO HAUL WATER DURING SHUTDOWN.

"ALL FORCE MAIN WORK WITHIN EGYPT LAKE RD SHALL BE CONSTRUCTED AND COMPLETED BETWEEN THE PERIOD BEGINNING NOVEMBER TO THE END OF MAY IN ACCORDANCE WITH SPECIAL PROVISIONS SP-17 "SEQUENCE OF OPERATIONS".

2.2 REMOVE EXISTING 4" FORCE MAIN AS SHOWN AND INSTALL PROPOSED 8" FORCE MAIN NORTH TO CONNECTION AT W. KIRBY ST. (SHEETS U-1, U-2)

2.3 TEST AND CLEAR PROPOSED 8" FORCE MAIN FOR SERVICE. (SHEETS U-1, 2)

2.4 UPON ACTIVATION OF PROPOSED 8" FORCE MAIN, CUT, CAP AND PLACE OUT OF SERVICE EXISTING 6" AND 4" FORCE MAINS AS SHOWN. (SHEETS U-1, U-2)

| No. | REVISIONS | BY | DATE |
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| | | | |
| | | | |
| | | | |
| BID SET | | WET | 2-14-2023 |

LINE IS 1 INCH
AT FULL SIZE = 11X17
(IF NOT SCALE ACCORDINGLY)

SCALE: AS NOTED



CITY OF TAMPA
WASTEWATER DEPARTMENT
2545 GUY N. VERGER BLVD
TAMPA, FL 33605
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KIRBY ST AND GOMEZ PUMP STATION FORCE MAIN IMPROVEMENTS

GENERAL NOTES

| | | |
|---|--|---------------------------|
| DESIGN ENGINEER WILLIE E. THOMAS, P.E. | PROJECT No.: 2021-35-01 PROJECT DATE: MAR 2023 DESIGNED BY: NDH DRAWN BY: JED | DRAWING No. G-2 |
| FLORIDA REGISTRATION No. 57612 | CHECKED BY: WET DRAWING FILE: SEE MARGIN | SHEET 2 OF 15 |

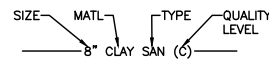
LEGEND

- RIGHT OF WAY LINE
- - - - - LOT LINE
- EASEMENT LINE
- X ----- EXISTING FENCE
- BTV---BTV---BTV--- EXISTING CABLE TV
- BFO---BFO---BFO--- EXISTING FIBER OPTIC CABLE
- BE---BE---BE--- EXISTING BURIED ELECTRIC
- FM---FM---FM--- EXISTING FORCE MAIN
- G---G---G--- EXISTING GAS
- IRR---IRR---IRR--- EXISTING IRRIGATION
- OHU---OHU---OHU--- EXISTING OVER HEAD UTILITY
- RWM---RWM---RWM--- EXISTING RECLAIMED WATER MAIN
- SAN---SAN---SAN--- EXISTING SANITARY SEWER
- STS---STS---STS--- EXISTING STORM WATER PIPE
- BT---BT---BT--- EXISTING BURRIED TELEPHONE
- W---W---W--- EXISTING WATER MAIN

- 1 1/2" MILL AND RESURFACE ASPHALT PAVEMENT
- REMOVE AND REPLACE EXIST CONC SIDEWALK (4" THK) AND CONC DRIVEWAY (6" THK)
- REMOVE AND REPLACE EXISTING ASPHALT SURFACE (REFER TO DETAIL 9 / D-2)
- REMOVE AND REPLACE PAVER DRIVEWAY

- X EXISTING PIPE TO BE REMOVED
- /// EXISTING PIPE TO BE ABANDONED IN PLACE (GROUT FILLED)
- TAPPING SLEEVE AND VALVE
- TEE
- LINE STOP ASSEMBLY
- VALVE (TYP)
- SLEEVE
- HDPE / DI ADAPTER
- CAP
- REDUCER
- AIR RELEASE VALVE ASSEMBLY
- FIRE HYDRANT ASSEMBLY
- REMOVE AND REPLACE CURB AND GUTTER
- REMOVE AND REPLACE SIGNS
- LIGHT POLE
- POWER POLE
- MAIL BOX (TYP)
- TEST HOLE (TH-1)
- UNKNOWN ELEVATION OF EXISTING UTILITY AS INDICATED ON PROFILE SHEETS.

UTILITY PIPE DESIGNATION



NOTE: THIS DRAWING WAS PREPARED IN CONFORMANCE WITH ASCE STANDARD CE/ASCE 38-02 "AMERICAN SOCIETY OF CIVIL ENGINEERS STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA"

C/ASCE 3802 SUBSURFACE UTILITY QUALITY LEVEL INDEX

1. QUALITY LEVEL A (QLA): UTILITY INFORMATION WHICH HAS BEEN VISUALLY VERIFIED, SURVEY LOCATED (BOTH HORIZONTALLY AND VERTICALLY) AND ACCURATELY REDUCED ONTO THE DRAWINGS. THIS IS TYPICALLY SHOWN AS A HV VERIFICATION EXCAVATION HOLE.
2. QUALITY LEVEL B (QLB): UTILITY INFORMATION DERIVED BY MARKING THE APPROXIMATE SURFACE HORIZONTAL LOCATION OF UTILITY USING ELECTRONIC METHODS BY THE UTILITY OWNER. MARKINGS BY UTILITY OWNERS ARE ASSUMED TO BE LOCATED BY ELECTRONIC METHODS AND SEPARATE LOCATES WILL NOT BE PERFORMED BY THE ENGINEER. MARKING IS SUBSEQUENTLY FIELD SURVEY LOCATED AND ACCURATELY REDUCED ONTO THE DRAWINGS.
3. QUALITY LEVEL C (QLC): UTILITY INFORMATION OBTAINED AS BELOW FOR QUALITY LEVEL D. PLOTTED TO CORRELATE WITH SURFACE UTILITY FEATURES WHICH HAVE BEEN FIELD VERIFIED, SURVEY LOCATED AND ACCURATELY REDUCED ONTO THE DRAWINGS. INCLUDED IN THIS CATEGORY ARE AERIAL UTILITY INFORMATION AND UTILITY DEPICTIONS, WHICH IN THE PROFESSIONAL OPINION OF THE SUBSURFACE UTILITY ENGINEER, REPRESENT THE MOST PROBABLE APPROXIMATE HORIZONTAL LOCATION, TYPE AND /OR EXISTENCE OF A UTILITY.
4. QUALITY LEVEL D (QLD): UTILITY INFORMATION PLOTTED ON THE DRAWING BASED SOLELY ON RECORD INFORMATION, INDIVIDUAL RECOLLECTIONS OR THE EXISTENCE OF UTILITY SERVICE. IT SHALL BE NOTED THAT ALL INFORMATION SHOWN (OTHER THAN AT TEST HOLE LOCATIONS, SEE QLA ABOVE) WITH REFERENCE TO A UTILITIES SIZE, CAPACITY, MATERIAL COMPOSITION, CONDITION OR SERVICE STATUS SHALL BE CONSIDERED QLD EVEN THOUGH THE UTILITY MAY BE PLOTTED AND LABELED OLC OR QLB.

REF:NNNNN REFERENCE MADE TO AN APPLICABLE SECTION(S) OF THE TECHNICAL SPECIFICATIONS FOR THIS PROJECT.

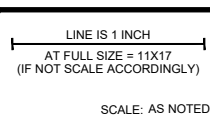
UTILITY OWNER CONTACTS

| Company | Contact | Contact/Phone # | Emergency Contact |
|------------------------------------|------------------------------------|-----------------|-------------------|
| FRONTIER COMMUNICATIONS | TONI CANNON | 813-875-1014 | 800-575-5594 |
| TECO PEOPLES GAS - TAMPA | JOAN DOMNING | 813-275-3783 | 877-832-6747 |
| CITY OF TAMPA WATER, WATER | WATER MAPS AND AS-BUILTS | 813-274-7109 | 813-274-7400 |
| CITY OF TAMPA SEWER, SEWER | JACK FERRAS | 813-274-8095 | 813-274-8095 |
| TAMPA ELECTRIC COMPANY | LORENZO JONES | 813-275-3427 | 813-223-0800 |
| CITY OF TAMPA TRANSPORT | BRIAN PASZKO | 813-274-8105 | 813-274-3101 |
| SPECTRUM SUNSHINE CABLE STATE, LLC | CHRISTOPHER SMTH | 813-478-0160 | 800-778-9140 |
| FIBERLIGHT LLC | NEIL CLEVELAND | 813-877-7185 | 813-877-7185 |
| CENTURYLINK | NETWORK RELATIONS | 877-366-8344 x2 | 877-366-8344 x3 |
| MCI | NATIONAL FIBER SECURITY DEPARTMENT | 800-624-9675 | 800-624-9675 |
| UNITI FIBER LLC | DAVD WOODS | 813-539-1180 | 877-652-2321 |

ABBREVIATIONS

| | | | | | | | |
|--------|----------------------------------|--------|------------------------------------|--------|--------------------------------|-------|------------------------------------|
| AC | ASBESTOS CEMENT, AIR CONDITIONER | ESMT | EASEMENT | MFR | MANUFACTURER | REINF | REINFORCED |
| ADPT | ADAPTER | EXIST | EXISTING | MGD | MILLION GALLONS PER DAY | REQ | REQUIRED |
| ALUM | ALUMINUM | EXP JT | EXPANSION JOINT | MH | MANHOLE | RESTR | RESTRAINED |
| APPROX | APPROXIMATELY | FDEP | FLORIDA DEPT OF ENVIRON PROTECTION | MIN | MINIMUM | RPZ | REDUCED PRESSURE ZONE |
| ARV | AIR RELEASE VALVE ASSEMBLY | FDOT | FLORIDA DEPT OF TRANSPORTATION | MJ | MECHANICAL JOINT | RT | RIGHT |
| ASPH | ASPHALT | FA | FLANGED ADAPTER | MOD | MODIFIED | RW | RECLAIMED WATER |
| ASSEM | ASSEMBLY | FF | FINISH FLOOR | MOT | MAINTENANCE OF TRAFFIC | R\W | RIGHT OF WAY |
| AUX | AUXILIARY | FCA | FLANGED COUPLING ADAPTER | NG | NATURAL GROUND | SAN | SANITARY SEWER |
| BFO | BURIED FIBER OPTIC | FHA | FIRE HYDRANT ASSEMBLY | NIC | NOT IN CONTRACT | SB | SOIL BORING |
| BFP | BACKFLOW PREVENTER | FIG | FIGURE | NO | NUMBER | SCH | SCHEDULE |
| BFV | BUTTERFLY VALVE | FLG | FLANGE | NOM | NOMINAL | SD | STORM DRAIN |
| BL | BASE LINE | FL | FLOW LINE | NPT | NATIONAL PIPE THREAD | SECT | SECTION |
| BLDG | BUILDING | FM | FORCE MAIN | NPW | NON-POTABLE WATER | SF | SQUARE FEET |
| BM | BENCHMARK | FT | FEET | NTS | NOT TO SCALE | SHT | SHEET |
| BO | BLOW OFF | GA | GAUGE | OD | OUTSIDE DIAMETER | SLV | SLEEVE |
| BOT | BOTTOM | GAL | GALLON | OHU | OVERHEAD UTILITY | SPECS | SPECIFICATIONS |
| BV | BALL VALVE | GALV | GALVANIZED | O\O | OUTSIDE TO OUTSIDE | SQ | SQUARE |
| CB | CATCH BASIN | GEN | GENERATOR | OPER | OPERATOR | SS | STAINLESS STEEL |
| C\C | CENTER LINE TO CENTER LINE | GSP | GALVANIZED STEEL PIPE | OPNG | OPENING | STA | STATION |
| C&G | CURB AND GUTTER | GM | GAS MAIN | PAVT | PAVEMENT | STD | STANDARD |
| CIP | CAST IRON PIPE | GPM | GALLONS PER MINUTE | PB | PULL BOX | STL | STEEL |
| CL | CENTER LINE | GV | GATE VALVE | PC | POINT OF CURVATURE | SY | SQUARE YARDS |
| CLF | CHAIN LINK FENCE | HDWL | HEADWALL | PE | PLAIN END | SYS | SYSTEM |
| CM | CONCRETE MONUMENT | HFCA | HARNESSED FLANGE COUPLING ADAPTER | PG | PAGE | TCE | TEMPORARY CONSTRUCTION EASEMENT |
| CMP | CORRUGATED METAL PIPE | HT | HEIGHT | PI | POINT OF INTERSECTION | TEL | TELEPHONE |
| CO | CLEAN OUT | HP | HORSE POWER | PH | PHASE | TEMP | TEMPORARY |
| CONC | CONCRETE | HP | HORSE POWER | PL | PROPERTY LINE | THK | THICK |
| CONN | CONNECT | HORIZ | HORIZONTAL | PLS | PROFESSIONAL LAND SURVEYOR | TOB | TOP OF BANK |
| CONST | CONSTRUCT | HWL | HIGH WATER LEVEL | POLY | POLYETHYLENE | TS&V | TAPPING SLEEVE AND VALVE |
| CONT | CONTINUATION | ID | INSIDE DIAMETER | PP | POWER POLE | TWA | TOHO WATER AUTHORITY |
| CORP | CORPORATION | IN | INCHES | PROP | PROPOSED | TYP | TYPICAL |
| CV | CHECK VALVE | INV | INVERT | PS | PUMP STATION | UG | UNDERGROUND |
| CY | CUBIC YARD | IP | IRON PIPE | PSI | POUNDS PER SQUARE INCH | VCP | VITRIFIED CLAY PIPE |
| DBL | DOUBLE | IR | IRON ROD | PSM | PROFESSIONAL SURVEYOR & MAPPER | VERT | VERTICAL |
| DET | DETAIL | JUNC | JUNCTION | PT | POINT OF TANGENCY | VH | VERIFIED VERTICALLY & HORIZONTALLY |
| DIA | DIAMETER | LAT | LATERAL | PV | PLUG VALVE | w/ | WITH |
| DIM | DIMENSION | LF | LINEAR FEET | PVC | POLYVINYL CHLORIDE PIPE | w/o | WITH OUT |
| DIP | DUCTILE IRON PIPE | LS | LIFT STATION | QTY | QUANTITY | WL | WATER LEVEL |
| DWG | DRAWING | LT | LEFT | RAD PT | RADIUS POINT | WM | WATER MAIN |
| DWY | DRIVEWAY | LWL | LOW WATER LEVEL | R | RADIUS | W\M | WATER METER |
| ELEC | ELECTRIC | MAX | MAXIMUM | RJ | RESTRAINED JOINT | WP | WALL PIPE |
| EA | EACH | MATL | MATERIAL | R\R | RAIL ROAD | WRF | WATER RECLAMATION FACILITY |
| ELEV | ELEVATION | MEG | MATCH EXISTING GRADE | RCP | REINFORCED CONCRETE PIPE | WS | WATER SERVICE |
| EOP | EDGE OF PAVEMENT | MES | MITERED END SECTION | RED | REDUCER | WWF | WELDED WIRE FABRIC |

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| BID SET | | WET | 2-14-2023 |



CITY OF TAMPA
WASTEWATER DEPARTMENT
 2545 GUY N. VERGER BLVD
 TAMPA, FL 33605
 Ph: 813-274-8070 Fax: 813-274-8448



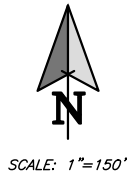
BARNES, FERLAND AND ASSOCIATES, INC.
 1230 HILLCREST ST., STE 100
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 PH: (407) 896-8608
 ENGINEERING REGISTRY NO. 6899

KIRBY ST AND GOMEZ PUMP STATION FORCE MAIN IMPROVEMENTS
LEGEND, ABBREVIATIONS AND UTILITY OWNER CONTACTS

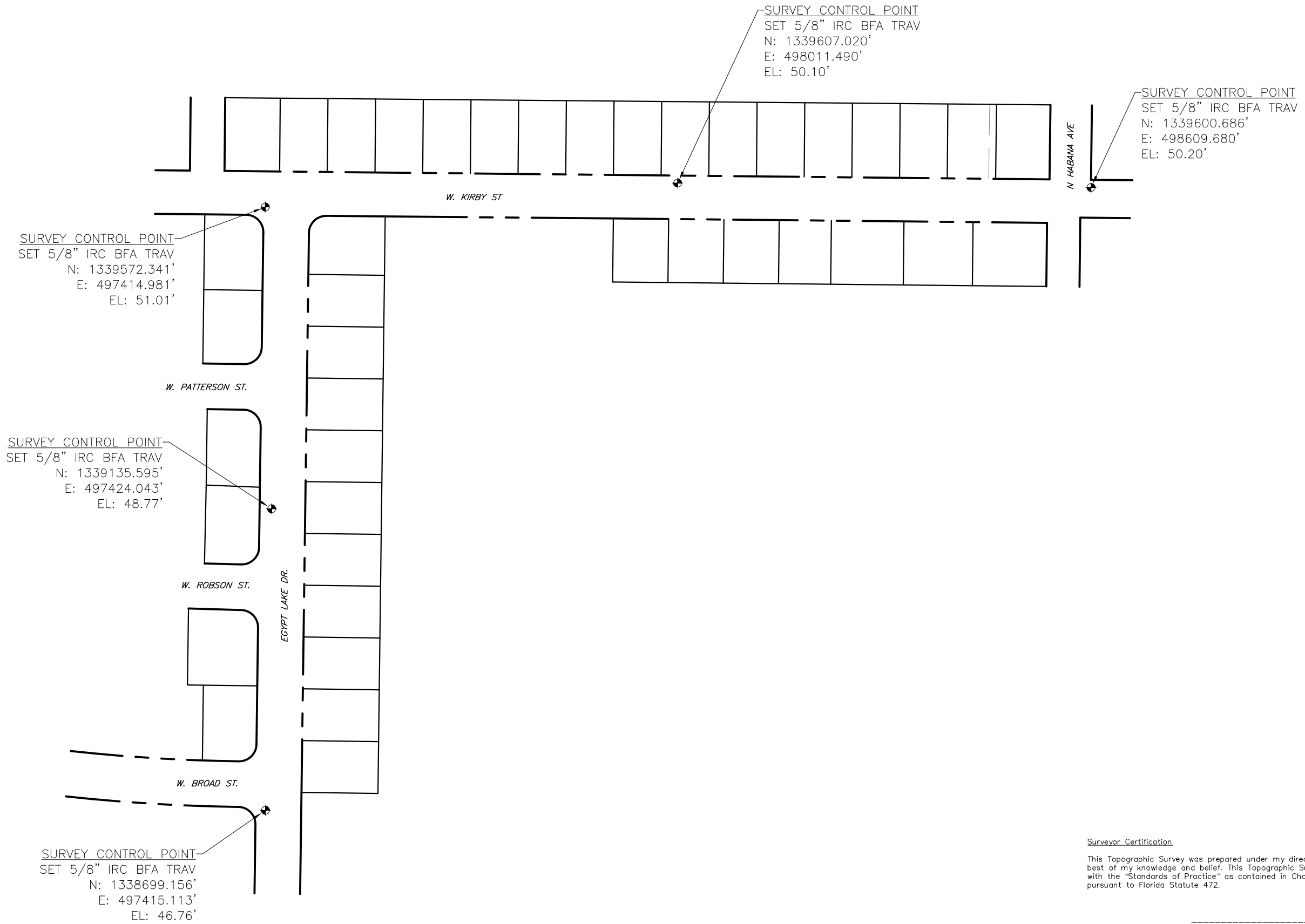
DESIGN ENGINEER
 WILLIE E. THOMAS, P.E.
 FLORIDA REGISTRATION No.
 57612

PROJECT No.: 2021-35-01
 PROJECT DATE: MAR 2023
 DESIGNED BY: NDH
 DRAWN BY: JED
 CHECKED BY: WET
 DRAWING FILE: SEE MARGIN

DRAWING No.
G-3
 SHEET
 3 OF 15



SCALE: 1"=150'



Surveyor Certification
This Topographic Survey was prepared under my direction and is true and correct to the best of my knowledge and belief. This Topographic Survey was performed in conformance with the "Standards of Practice" as contained in Chapter 5J-17, Florida Administrative Code, pursuant to Florida Statute 472.

Genel J. Sturgeon, PLS Date
Florida Surveyor and Mapper PSM 5866
Barnes Ferland and Associates LB 7774

*Not valid without the signature and original raised seal of the Florida licensed surveyor and mapper

THE ELECTRONIC SIGNATURE IS IN COMPLIANCE WITH F.A.C. 5J-17.602(3)

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| BID SET | | WET | 2-14-2023 |

LINE IS 1 INCH
AT FULL SIZE = 11X17
(IF NOT SCALE ACCORDINGLY)
SCALE: AS NOTED



CITY OF TAMPA
WASTEWATER DEPARTMENT
2545 GUY N. VERGER BLVD
TAMPA, FL 33605
Ph: 813-274-8070 Fax: 813-274-8448



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ENGINEERING REGISTRY NO. 6899

KIRBY ST AND GOMEZ PUMP STATION FORCE MAIN IMPROVEMENTS
SURVEY CONTROL

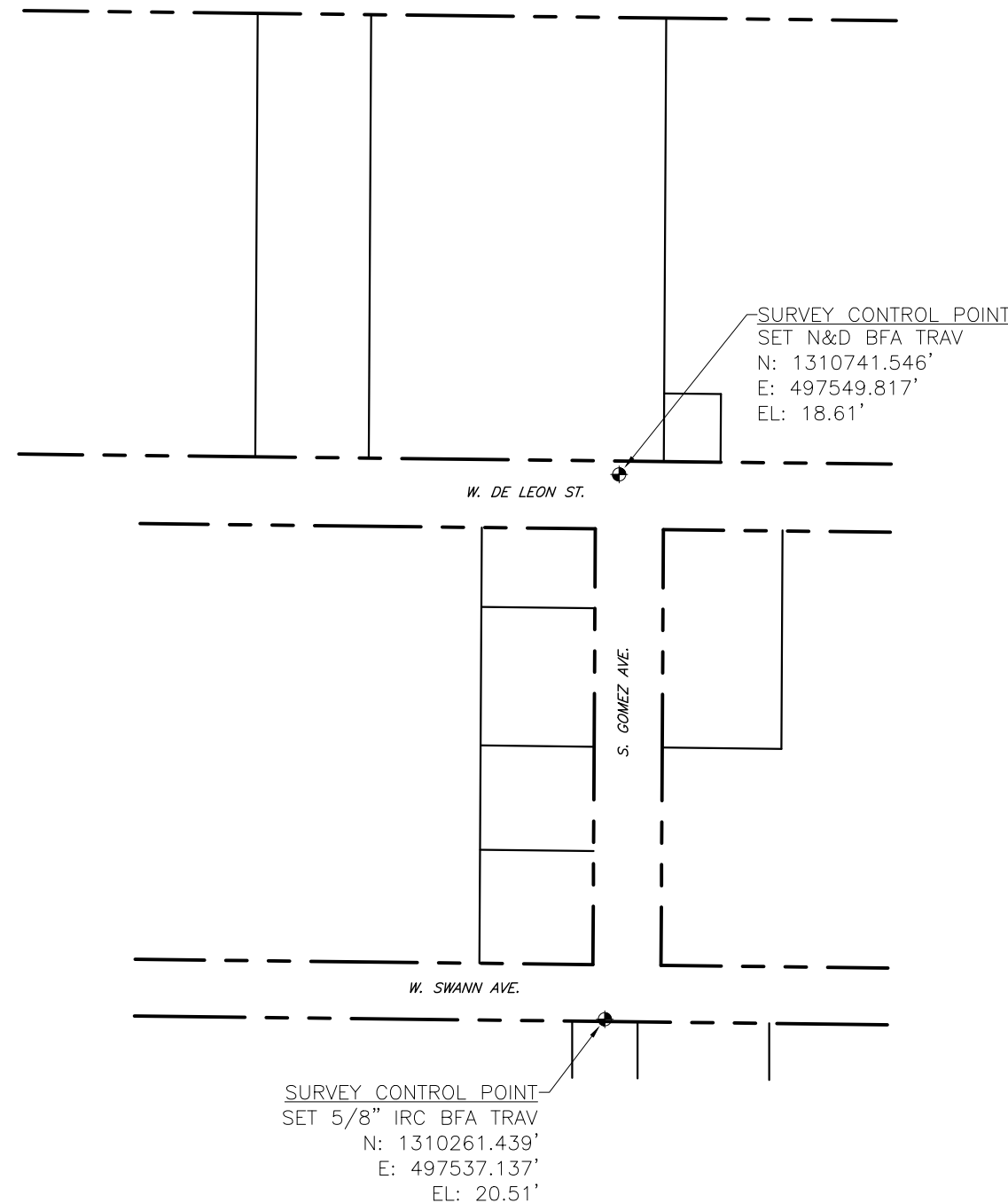
* NOT VALID WITHOUT SIGNATURE AND EMBOSSED SEAL OF A FLORIDA LICENSED SURVEYOR.

PROJECT No.: 2021-35-01
PROJECT DATE: MAR 2023
DRAWN BY: MC
CHECKED BY: GJS
FIELD BOOK:
DRAWING FILE: SEE MARGIN

DRAWING No.
V-1
SHEET
4 OF 15



SCALE: 1"=150'



Surveyor Certification

This Topographic Survey was prepared under my direction and is true and correct to the best of my knowledge and belief. This Topographic Survey was performed in conformance with the "Standards of Practice" as contained in Chapter 5J-17, Florida Administrative Code, pursuant to Florida Statute 472.

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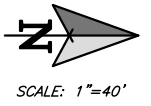


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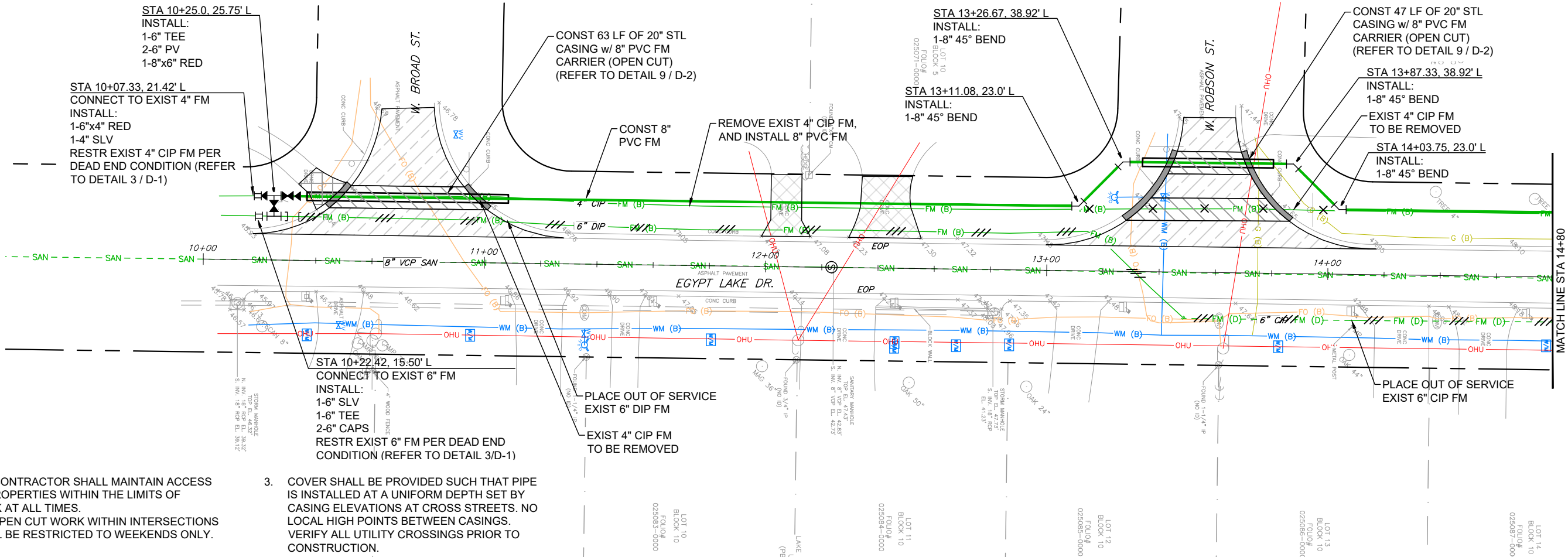
KIRBY ST AND GOMEZ PUMP STATION FORCE MAIN IMPROVEMENTS

SURVEY CONTROL

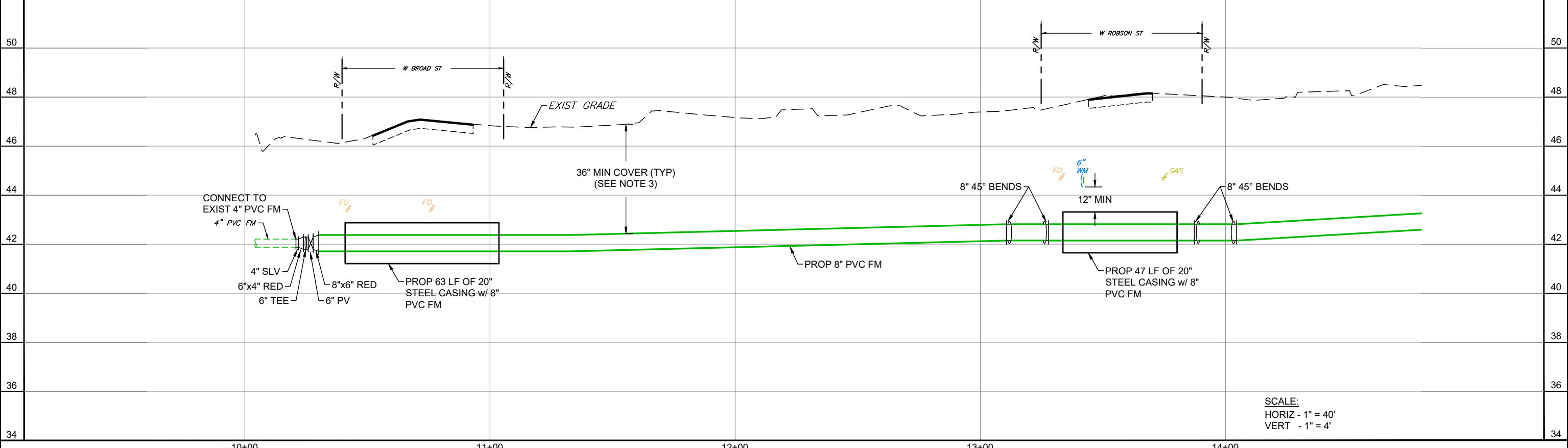
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| <p>* NOT VALID WITHOUT SIGNATURE AND EMBOSSED SEAL OF A FLORIDA LICENSED SURVEYOR.</p> | PROJECT No.: 2021-35-01 | DRAWING No. |
| | PROJECT DATE: MAR 2023 | V-2 |
| | DRAWN BY: --- | SHEET |
| | CHECKED BY: --- | 5 OF 15 |
| | FIELD BOOK: | |
| DRAWING FILE: SEE MARGIN | | |



SCALE: 1"=40'



- NOTES:**
1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PROPERTIES WITHIN THE LIMITS OF WORK AT ALL TIMES.
 2. ALL OPEN CUT WORK WITHIN INTERSECTIONS SHALL BE RESTRICTED TO WEEKENDS ONLY.
 3. COVER SHALL BE PROVIDED SUCH THAT PIPE IS INSTALLED AT A UNIFORM DEPTH SET BY CASING ELEVATIONS AT CROSS STREETS. NO LOCAL HIGH POINTS BETWEEN CASINGS. VERIFY ALL UTILITY CROSSINGS PRIOR TO CONSTRUCTION.



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LINE IS 1 INCH
AT FULL SIZE = 11X17
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SCALE: AS NOTED



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WASTEWATER DEPARTMENT
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KIRBY ST AND GOMEZ PUMP STATION FORCE MAIN IMPROVEMENTS

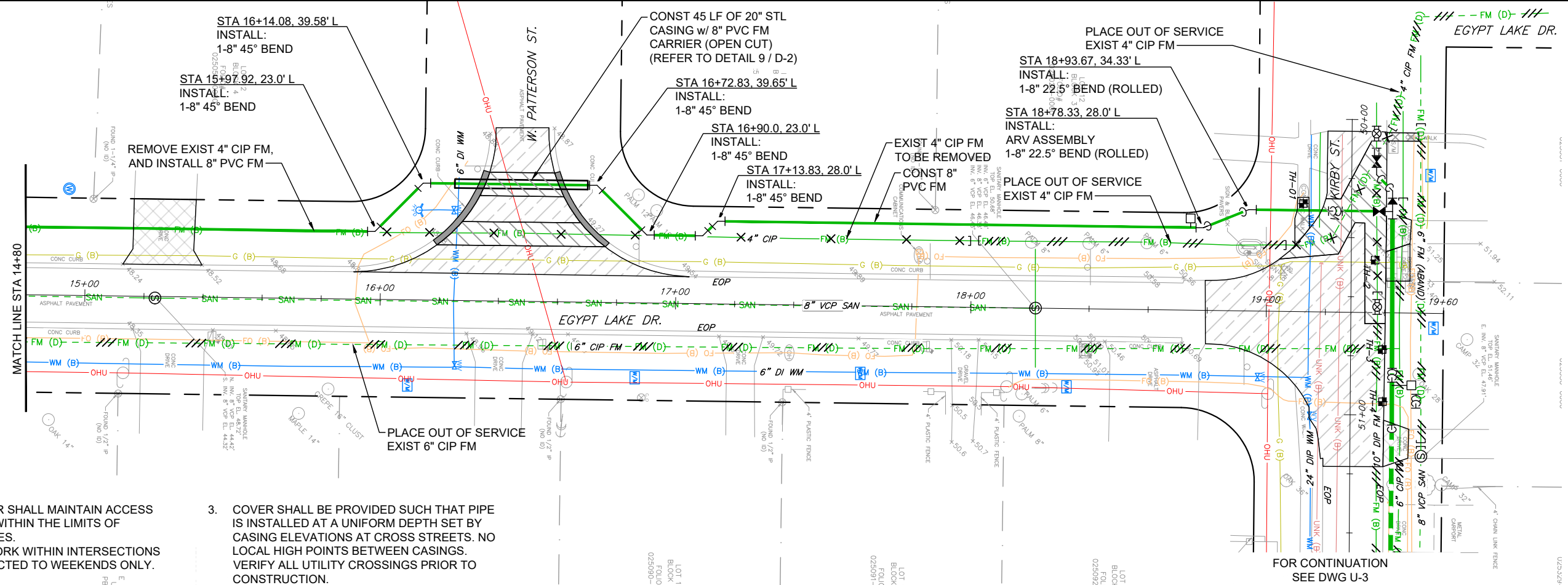
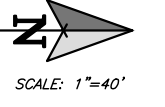
EGYPT LAKE DR PLAN AND PROFILE
STA 10+00 TO STA 14+80

DESIGN ENGINEER
WILLIE E. THOMAS, P.E.
FLORIDA REGISTRATION NO.
57612

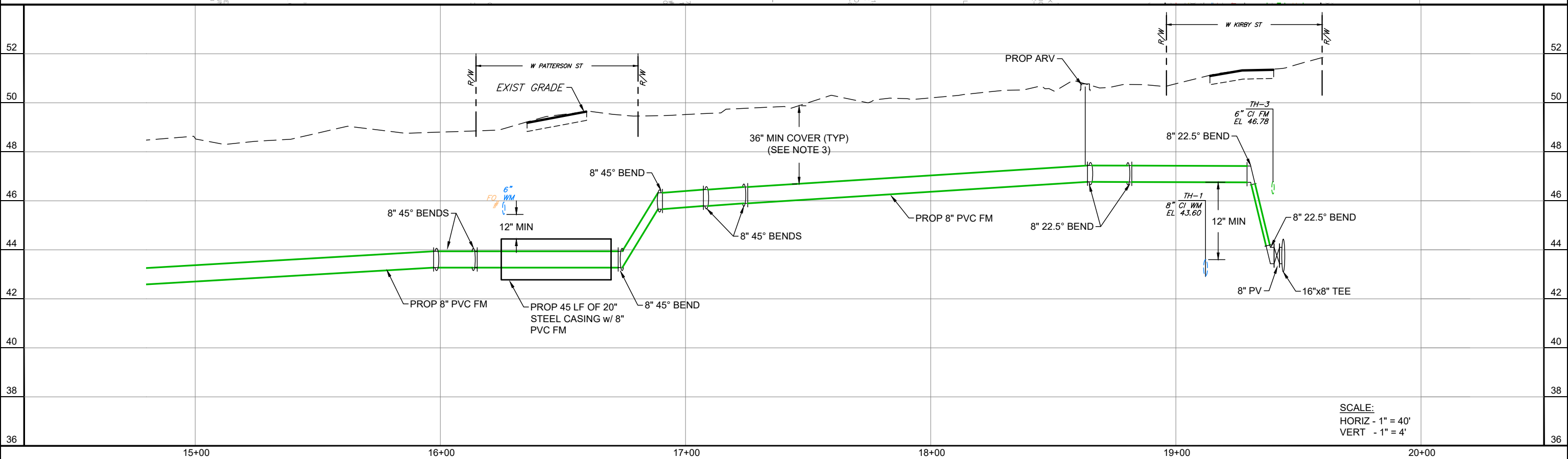
PROJECT No.: 2021-35-01
PROJECT DATE: MAR 2023
DESIGNED BY: NDH
DRAWN BY: JED
CHECKED BY: WET
DRAWING FILE: SEE MARGIN

DRAWING No.
U-1
SHEET
6 OF 15

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- NOTES:**
1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PROPERTIES WITHIN THE LIMITS OF WORK AT ALL TIMES.
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 3. COVER SHALL BE PROVIDED SUCH THAT PIPE IS INSTALLED AT A UNIFORM DEPTH SET BY CASING ELEVATIONS AT CROSS STREETS. NO LOCAL HIGH POINTS BETWEEN CASINGS. VERIFY ALL UTILITY CROSSINGS PRIOR TO CONSTRUCTION.



SCALE:
 HORIZ - 1" = 40'
 VERT - 1" = 4'

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 AT FULL SIZE = 11X17
 (IF NOT SCALE ACCORDINGLY)
 SCALE: AS NOTED

CITY OF TAMPA
 WASTEWATER DEPARTMENT
 2545 GUY N. VERGER BLVD
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KIRBY ST AND GOMEZ PUMP STATION FORCE MAIN IMPROVEMENTS

EGYPT LAKE DR PLAN AND PROFILE
 STA 14+80 TO STA 19+60

DESIGN ENGINEER
 WILLIE E. THOMAS, P.E.

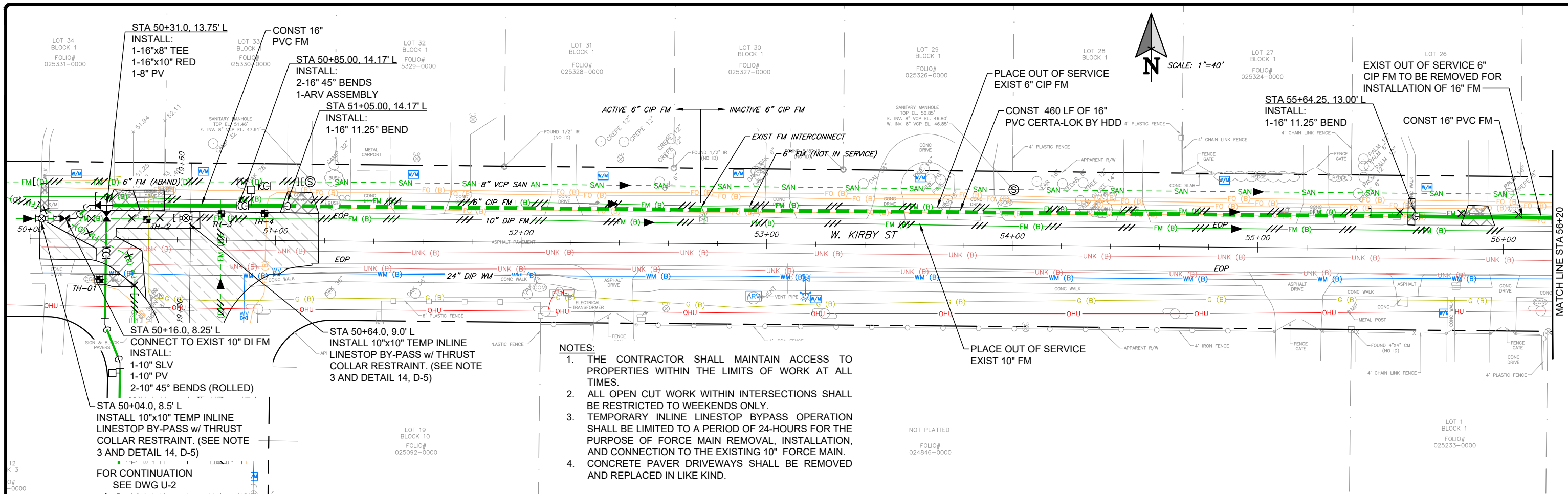
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PROJECT No.: 2021-35-01
 PROJECT DATE: MAR 2023
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 DRAWING FILE: SEE MARGIN

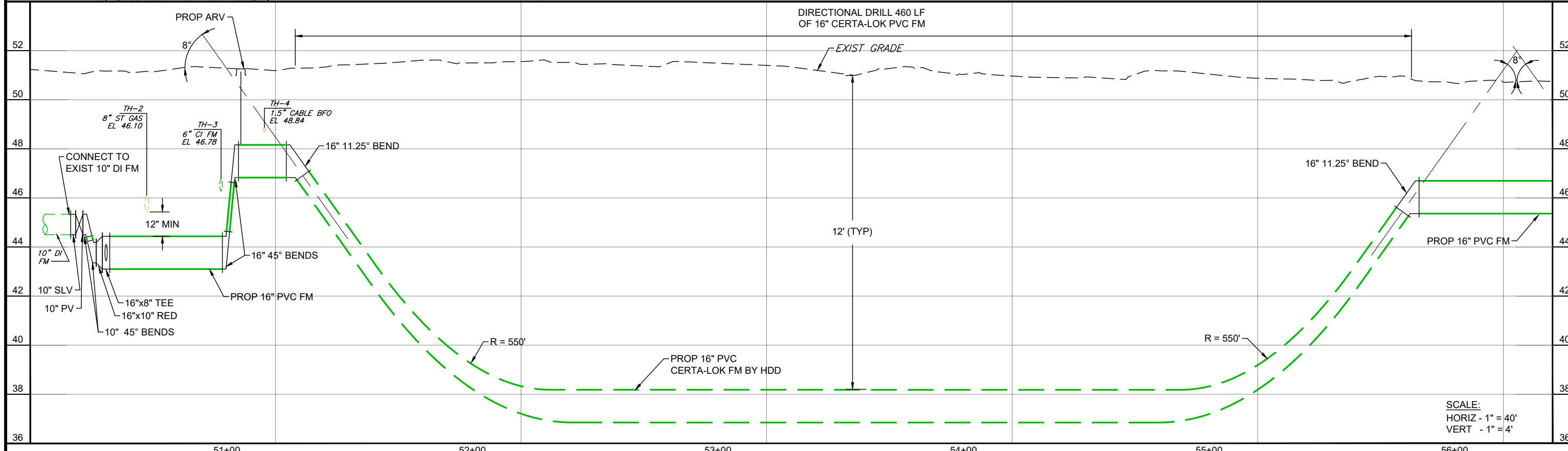
DRAWING No.
U-2

SHEET
 7 OF 15

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



- NOTES:**
1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PROPERTIES WITHIN THE LIMITS OF WORK AT ALL TIMES.
 2. ALL OPEN CUT WORK WITHIN INTERSECTIONS SHALL BE RESTRICTED TO WEEKENDS ONLY.
 3. TEMPORARY INLINE LINESTOP BYPASS OPERATION SHALL BE LIMITED TO A PERIOD OF 24-HOURS FOR THE PURPOSE OF FORCE MAIN REMOVAL, INSTALLATION, AND CONNECTION TO THE EXISTING 10" FORCE MAIN.
 4. CONCRETE PAVER DRIVEWAYS SHALL BE REMOVED AND REPLACED IN LIKE KIND.



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LINE IS 1 INCH
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SCALE: AS NOTED

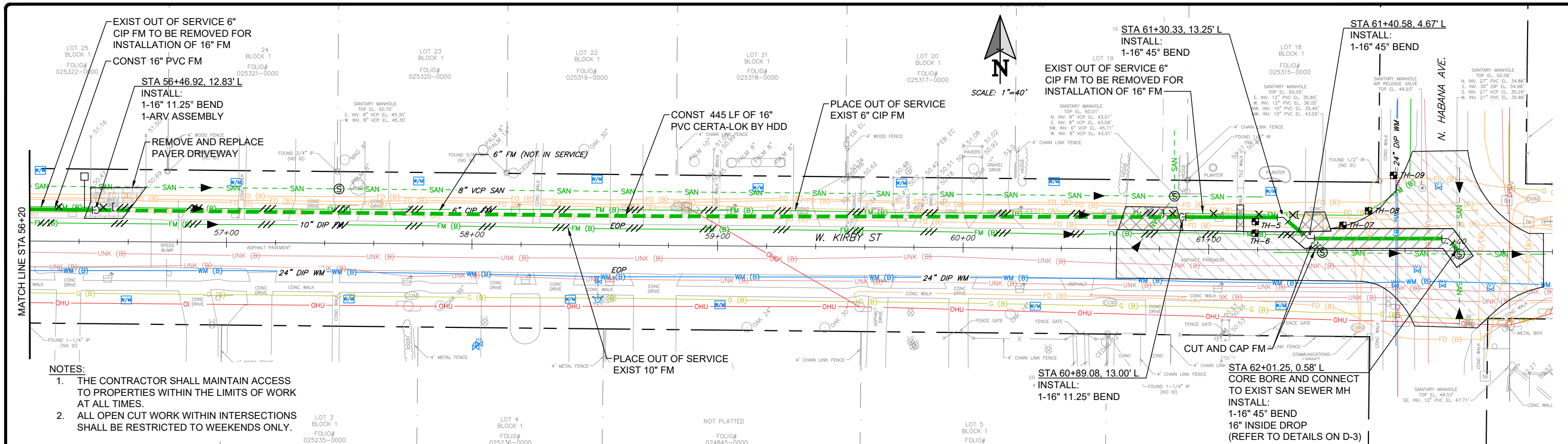
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ENGINEERING REGISTRY NO. 6899

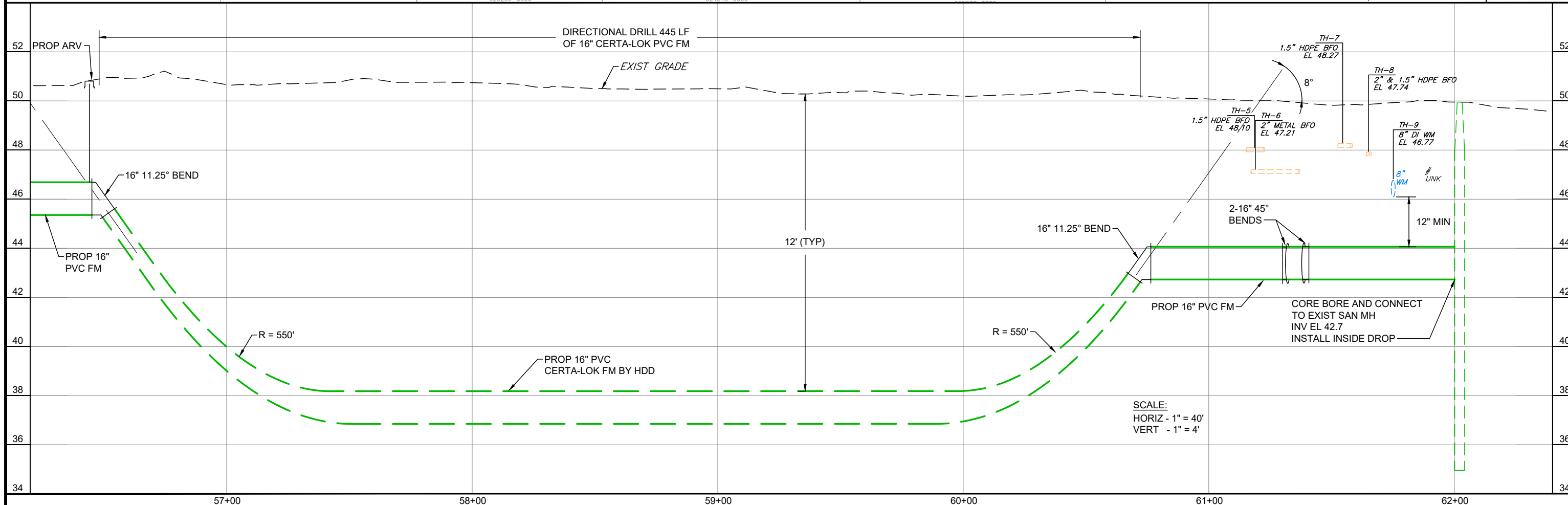
KIRBY ST AND GOMEZ PUMP STATION FORCE MAIN IMPROVEMENTS

KIRBY ST PLAN AND PROFILE
STA 50+00 TO STA 56+20

| | | |
|---|--|---------------------------|
| DESIGN ENGINEER WILLIE E. THOMAS, P.E. | PROJECT No.: 2021-35-01 PROJECT DATE: MAR 2023 DESIGNED BY: NDH DRAWN BY: JED | DRAWING No. U-3 |
| FLORIDA REGISTRATION No. 57612 | CHECKED BY: WET DRAWING FILE: SEE MARGIN | SHEET 8 OF 15 |



- NOTES:**
1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PROPERTIES WITHIN THE LIMITS OF WORK AT ALL TIMES.
 2. ALL OPEN CUT WORK WITHIN INTERSECTIONS SHALL BE RESTRICTED TO WEEKENDS ONLY.



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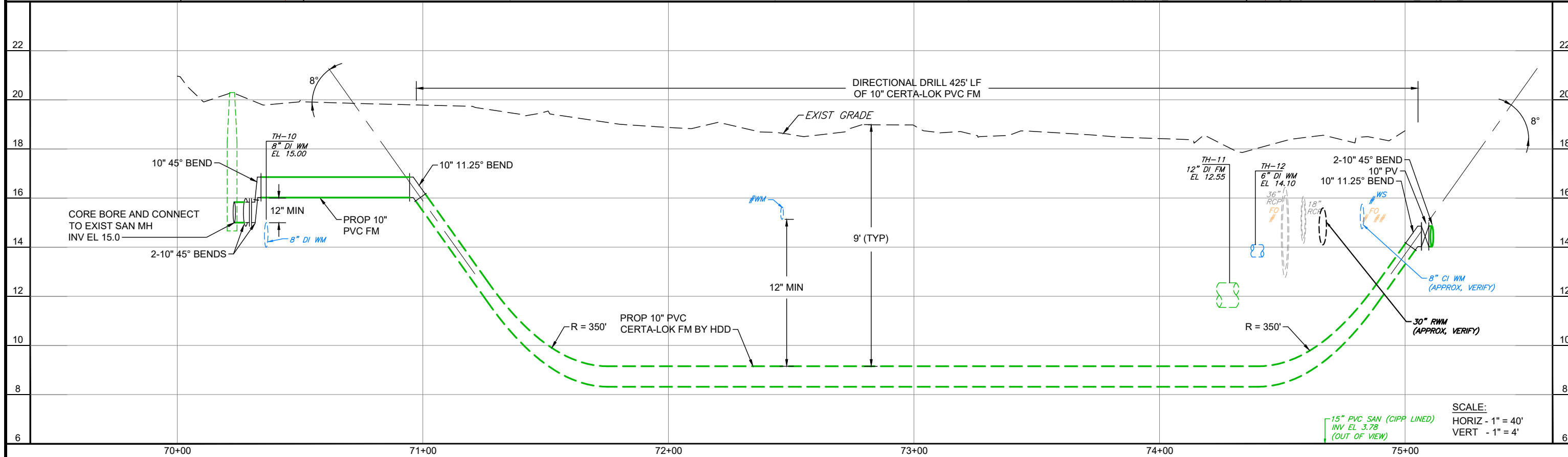
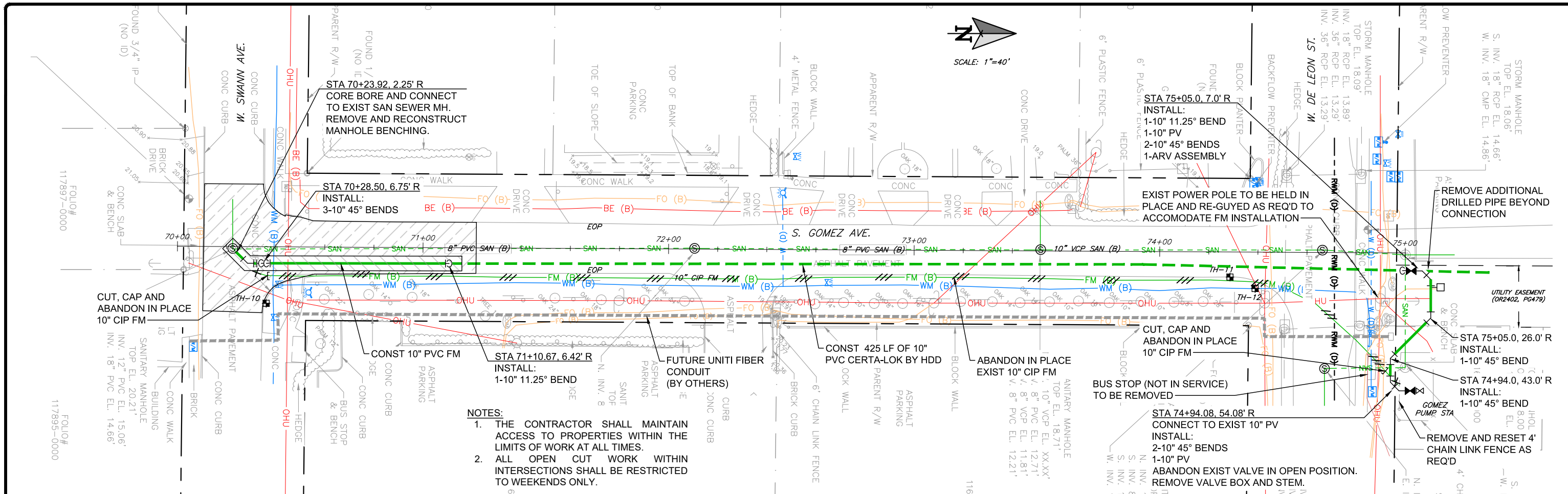
CITY OF TAMPA
WASTEWATER DEPARTMENT
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ENGINEERING REGISTRY NO. 6899

KIRBY ST AND GOMEZ PUMP STATION FORCE MAIN IMPROVEMENTS

KIRBY ST PLAN AND PROFILE
STA 56+20 TO STA 62+30

| | | |
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| DESIGN ENGINEER WILLIE E. THOMAS, P.E. | PROJECT No.: 2021-35-01 PROJECT DATE: MAR 2023 DESIGNED BY: NDH DRAWN BY: JED | DRAWING No. U-4 |
| FLORIDA REGISTRATION No. 57612 | CHECKED BY: WET DRAWING FILE: SEE MARGIN | 9 OF 15 SHEETS |



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CITY OF TAMPA
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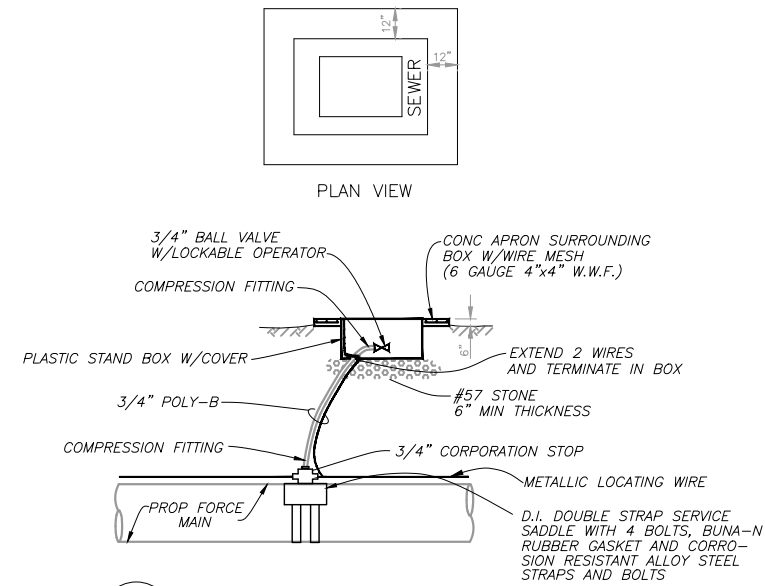
GOMEZ AVE PLAN AND PROFILE
STA 70+00 TO STA 75+00

DESIGN ENGINEER
WILLIE E. THOMAS, P.E.

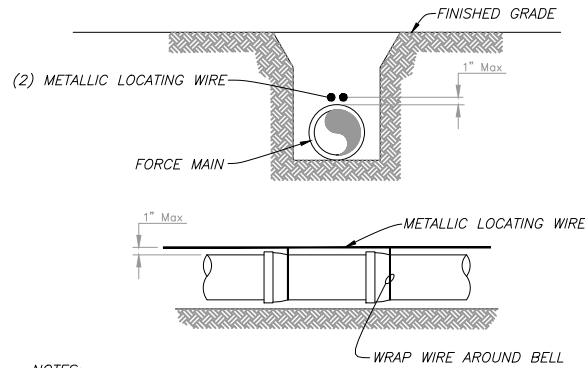
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FLORIDA REGISTRATION No.
57612

U-5
10 SHEET
OF 15

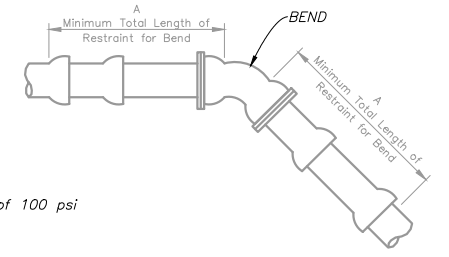
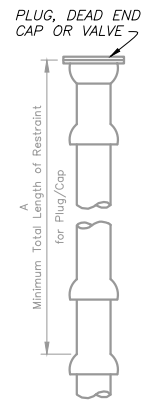


1
D-1 AIR RELEASE VALVE DETAIL



- NOTES:
- Pipe shall require 2 green insulated metallic locating wires capable of detection by a cable locator and shall be buried directly above the centerline of the pipe. Use duct tape as necessary to hold wire directly on top of pipe.
 - Direct bury pipe shall have (2) 12 gauge insulated solid copper wires. Directional drilled pipe shall have (2) 8 gauge insulated solid copper wires or (2) 10 gauge insulated copper clad steel wires. For directional drilled HDPE pipe a 1" conduit may be pulled back with the locating wires to ease installation and to prevent the wires from breaking.
 - Wire insulation must be suitable for buried service. HDPE or HMWPE are acceptable insulation materials. Nylon insulation is not acceptable.
 - Wires must be spliced together with wire connectors suitable for buried service. Connectors shall be corrosion and moisture proof such as DBR Kit by 3M, Snakebite by Copperhead Industries or equal. Twisting the wires and sealing with electrical tape alone is not acceptable.
 - All tracer wires must pass a continuity test in the presence of a City inspector. No pipe will be accepted by the City until a continuity test passes.
 - Locating wire shall terminate at the top of each valve box and air release valve. Wire shall be capable of extending 24" above top of box in such a manner so as not to interfere with valve operation.

2
D-1 PIPE LOCATING WIRE DETAIL



- NOTES:
- These tables are based on:
 - Maximum test pressure of 100 psi
 - Class "C" pipe bedding
 - Poor soil conditions
 - PVC pipe
 - For vertical offsets, shallower vertical fitting has a minimum cover of 3 feet.
 - Restraining devices for PVC pipe shall be by Megalug (Series 2000 PV) or equal, meeting ASTM F1674.
 - Any additional fittings within the restrained section shall be restrained accordingly.
 - One standard length of PVC pipe (20 feet) shall be laid on either side of the fitting where possible.

HORIZONTAL OFFSET:

| FITTING TYPE | RESTRAIN "A" (LF)* | | | | | | | | | |
|------------------------------|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 4" | 6" | 8" | 10" | 12" | 16" | 18" | 20" | 24" | 24" |
| 11-1/4" | 1* | 2* | 2* | 2* | 3* | 3* | 3* | 4* | 4* | 4* |
| 22-1/2" | 2* | 3* | 3* | 4* | 5* | 6* | 6* | 7* | 8* | 8* |
| 45" | 4* | 5* | 7* | 8* | 9* | 11* | 13* | 14* | 16* | 16* |
| 90" | 9* | 12* | 15* | 18* | 21 | 27 | 29 | 32 | 37 | 37 |
| PLUG / CAP / ISOLATION VALVE | 26 | 36 | 47 | 56 | 66 | 85 | 94 | 102 | 119 | 119 |

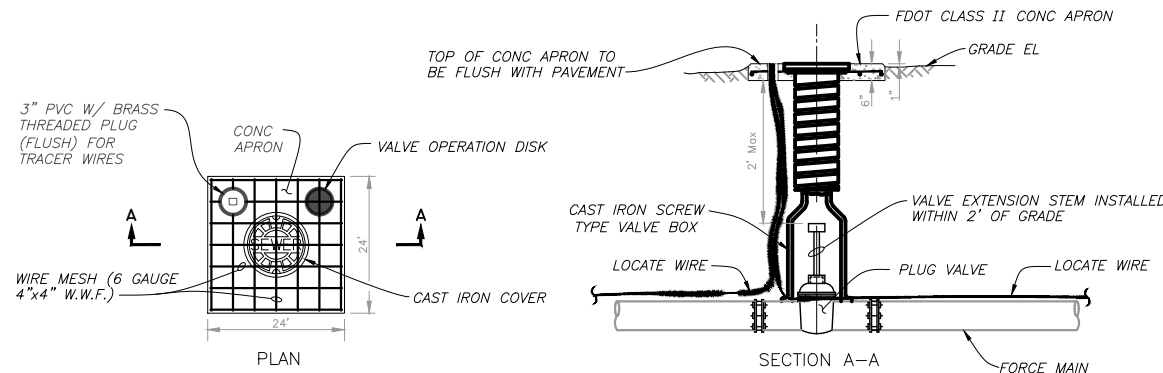
A = MINIMUM FOOTAGE OF PIPE TO BE RESTRAINED
 * MINIMUM ONE PIPE JOINT UPSTREAM AND DOWNSTREAM OF EACH FITTING SHALL BE RESTRAINED

VERTICAL OFFSET:

| FITTING TYPE | RESTRAIN "A" (LF)* | | | | | | | | | |
|--------------|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 4" | 6" | 8" | 10" | 12" | 16" | 18" | 20" | 24" | 24" |
| 11-1/4" | 3* | 4* | 5* | 6* | 7* | 9* | 10* | 11* | 12* | 12* |
| 22-1/2" | 5* | 8* | 10* | 12* | 14* | 17* | 19* | 21 | 24 | 24 |
| 45" | 11* | 15* | 20 | 23 | 28 | 35 | 39 | 43 | 50 | 50 |

A = MINIMUM FOOTAGE OF PIPE TO BE RESTRAINED
 * MINIMUM ONE PIPE JOINT UPSTREAM AND DOWNSTREAM OF EACH FITTING SHALL BE RESTRAINED

3
D-1 FITTING RESTRAINT DETAIL



4
D-1 VALVE BOX DETAIL

IMPORTANT - FOR EACH OPERABLE VALVE:
 PROVIDE A BRASS IDENTIFICATION TAG ANCHORED TO THE CONCRETE APRON THAT IS A MINIMUM 2" IN DIAMETER AND 1/8-INCH THICK. THE TAG SHALL BE ENGRAVED WITH "SEWER", SIZE OF VALVE, TYPE OF VALVE, AND DIRECTION AND NUMBER OF TURNS TO OPEN.

FOR EXAMPLE, A 4-INCH PLUG VALVE ON A WASTEWATER FORCE MAIN THAT REQUIRES 1/4 TURNS TO THE LEFT (COUNTERCLOCKWISE) TO BE FULLY OPEN WOULD REQUIRE THE FOLLOWING ON AN IDENTIFICATION TAG:

SEWER
4" P.V.
1/4 T.O.L.

5
D-1 VALVE OPERATION DISK

| No. | REVISIONS | BY | DATE |
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| BID SET | | WET | 2-14-2023 |

LINE IS 1 INCH
 AT FULL SIZE = 11X17
 (IF NOT SCALE ACCORDINGLY)

SCALE: AS NOTED



CITY OF TAMPA
 WASTEWATER DEPARTMENT
 2545 GUY N. VERGER BLVD
 TAMPA, FL 33605
 Ph: 813-274-8070 Fax: 813-274-8448



BARNES, FERLAND AND ASSOCIATES, INC.
 1230 HILLCREST ST., STE 100
 ORLANDO, FL 32803
 PH: (407) 896-8608
 ENGINEERING REGISTRY NO. 6899

KIRBY ST AND GOMEZ PUMP STATION FORCE MAIN IMPROVEMENTS

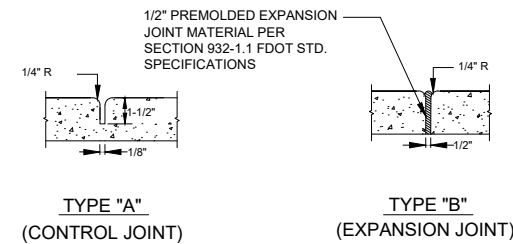
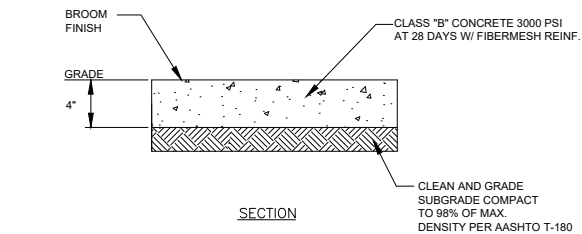
CONSTRUCTION DETAILS

DESIGN ENGINEER
 WILLIE E. THOMAS, P.E.
 FLORIDA REGISTRATION No.
 57612

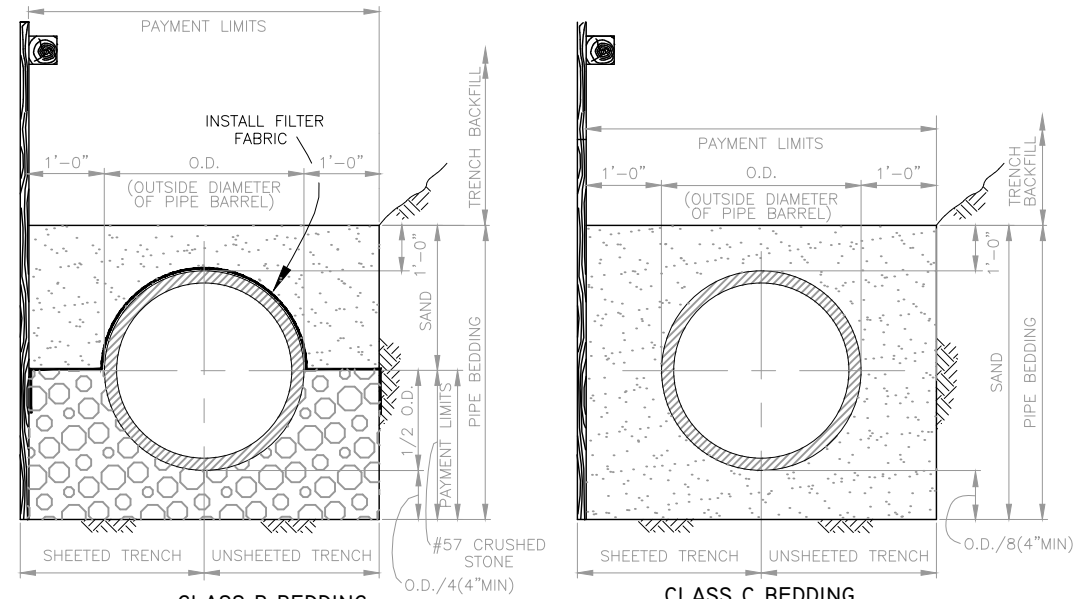
PROJECT No.: 2021-35-01
 PROJECT DATE: JAN 2022
 DESIGNED BY: NDI
 DRAWN BY: JED
 CHECKED BY: JPJ
 DRAWING FILE: SEE MARGIN

DRAWING No.
 D-1
 SHEET
 11 OF 14

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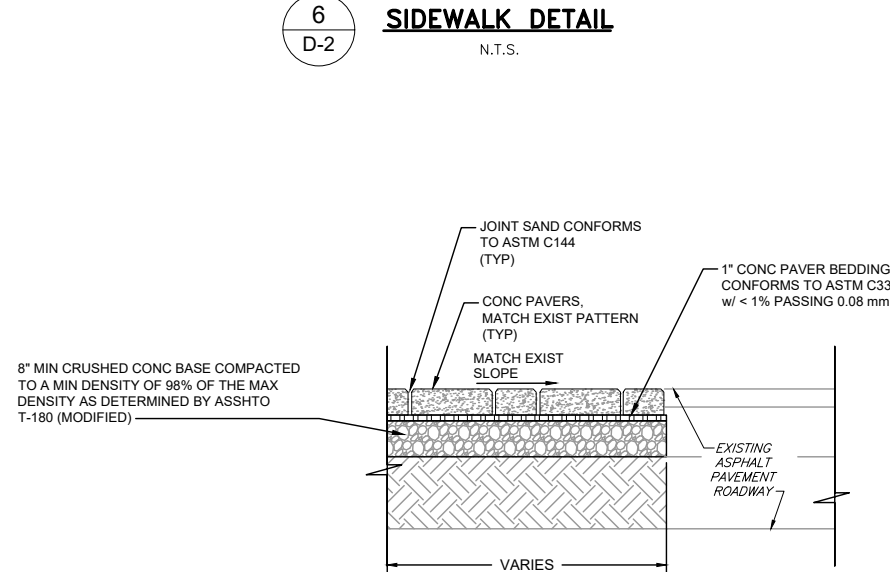


- NOTES:**
1. MATCH EXISTING SIDEWALK WIDTH
 2. CONTROL JOINTS TO BE SAWN AT 5' O.C. JOINTS TO BE SAWN BETWEEN 4 HOURS AND 8 HOURS AFTER INITIAL SET OF CONCRETE
 3. EXPANSION JOINTS TO BE CONSTRUCTED 15' O.C. WITH CONTINUOUS KEYWAY.
 4. USE 1/2" EXPANSION JOINT WHERE SLAB IS ADJACENT TO BUILDINGS AND 60' O.C. GRID.
 5. AT SIDEWALK REPLACEMENTS ON STREET CORNERS, INSTALL DETECTABLE WARNING SURFACES PER FDOT SPECIFICATIONS SECTION 527 AND FDOT STANDARD INDEX 304.



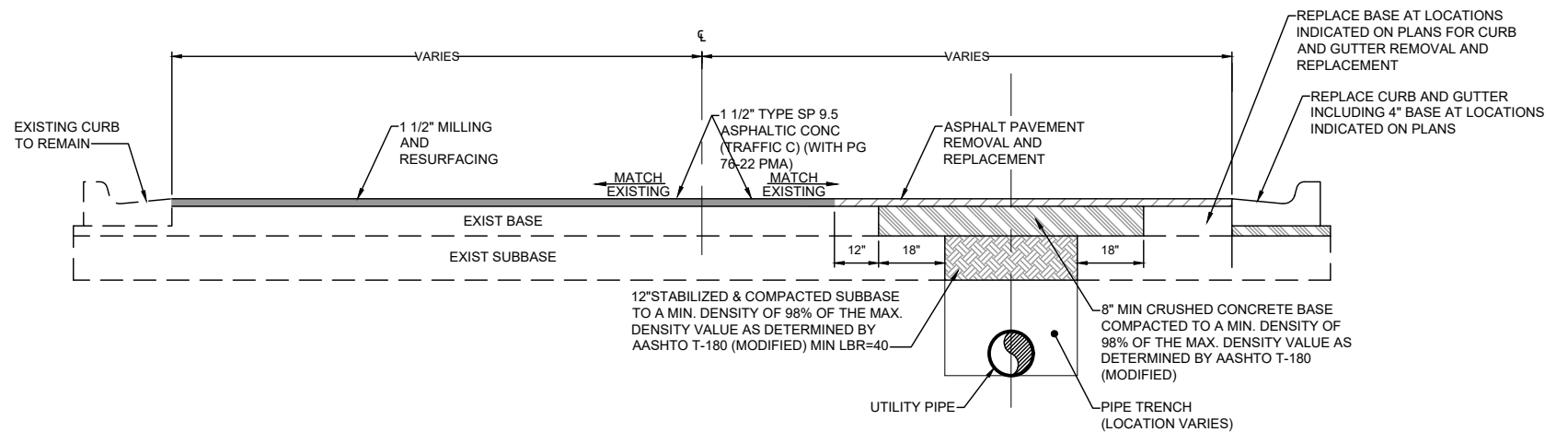
7
D-2 PIPE BEDDING DETAILS
N.T.S.

6
D-2 SIDEWALK DETAIL
N.T.S.



- NOTES:**
1. THE CONTRACTOR SHALL REMOVE AND SALVAGE EXISTING CONCRETE PAVERS FOR REPLACEMENT FOLLOWING PIPE INSTALLATION.
 2. THE CONTRACTOR SHALL PROVIDE MATCHING PAVERS TO REPLACE ANY WHICH ARE BROKEN OR LOST AS A RESULT OF REMOVAL OR STORAGE.

8
D-2 CONCRETE PAVER REPLACEMENT
DETAIL
N.T.S.



GENERAL NOTES:

1. ALL JOINT CUTS SHALL BE MECHANICALLY SAW-CUT.
2. EXISTING BASE SHALL BE REPAIRED AND REWORKED TO A SUITABLE CONDITION FOR ASPHALT PAVING.
3. SUB-GRADE AND PIPE TRENCH TO BE COMPACTED TO 98% MAX. DENSITY AS DETERMINED BY AASHTO T-180.

PAVEMENT RESTORATION:

1. LONGITUDINAL CUTS MAY REQUIRE MILLING AND OVERLAY/RESURFACING OF THE COMPLETE WIDTH OF THE TRAVELED WAY.
2. REFER TO PLANS FOR LIMITS OF RESTORATION.
3. CONTRACTOR SHALL REPLACE ALL PAVEMENT STRIPING AND MARKINGS IN LIKE KIND.

9
D-2 ASPHALT RESTORATION DETAIL
N.T.S.

| No. | REVISIONS | BY | DATE |
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| BID SET | | WET | 2-14-2023 |

LINE IS 1 INCH
AT FULL SIZE = 11X17
(IF NOT SCALE ACCORDINGLY)

SCALE: AS NOTED

CITY OF TAMPA
WASTEWATER DEPARTMENT
2545 GUY N. VERGER BLVD
TAMPA, FL 33605
Ph: 813-274-8070 Fax: 813-274-8448

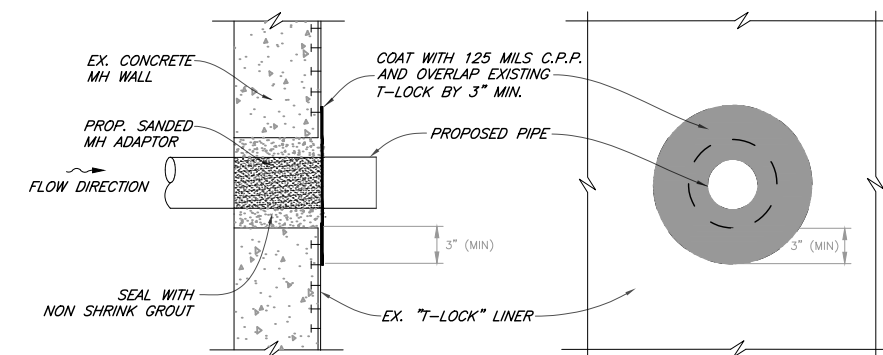
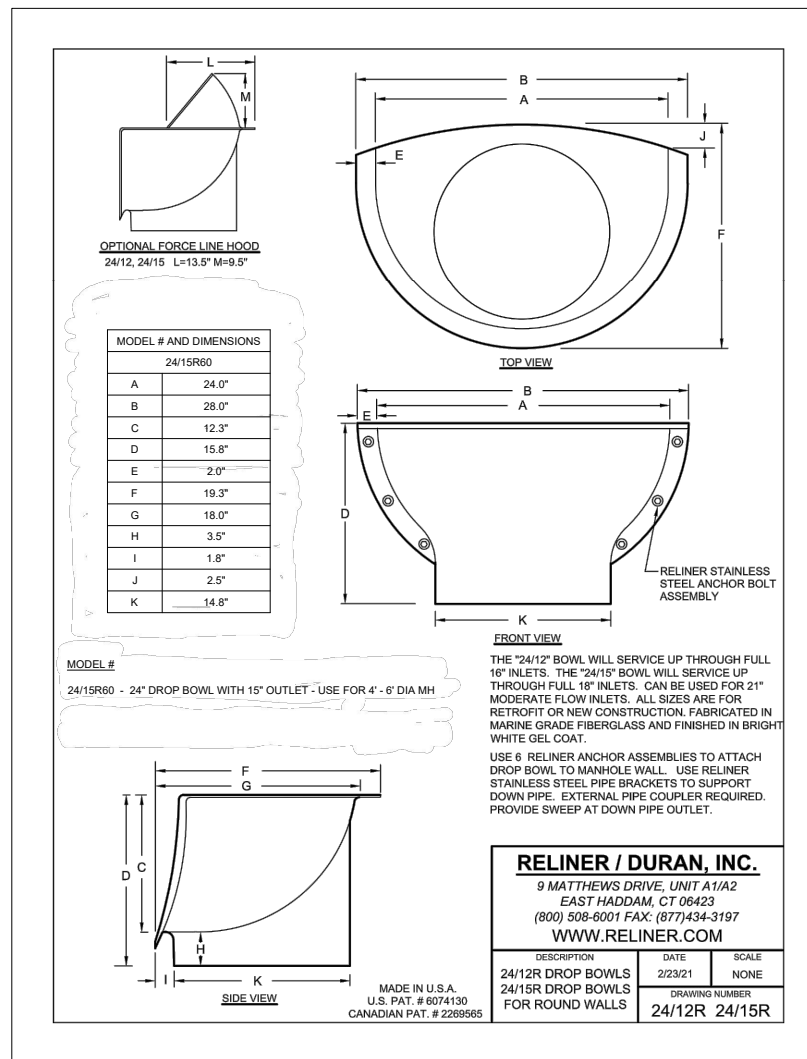
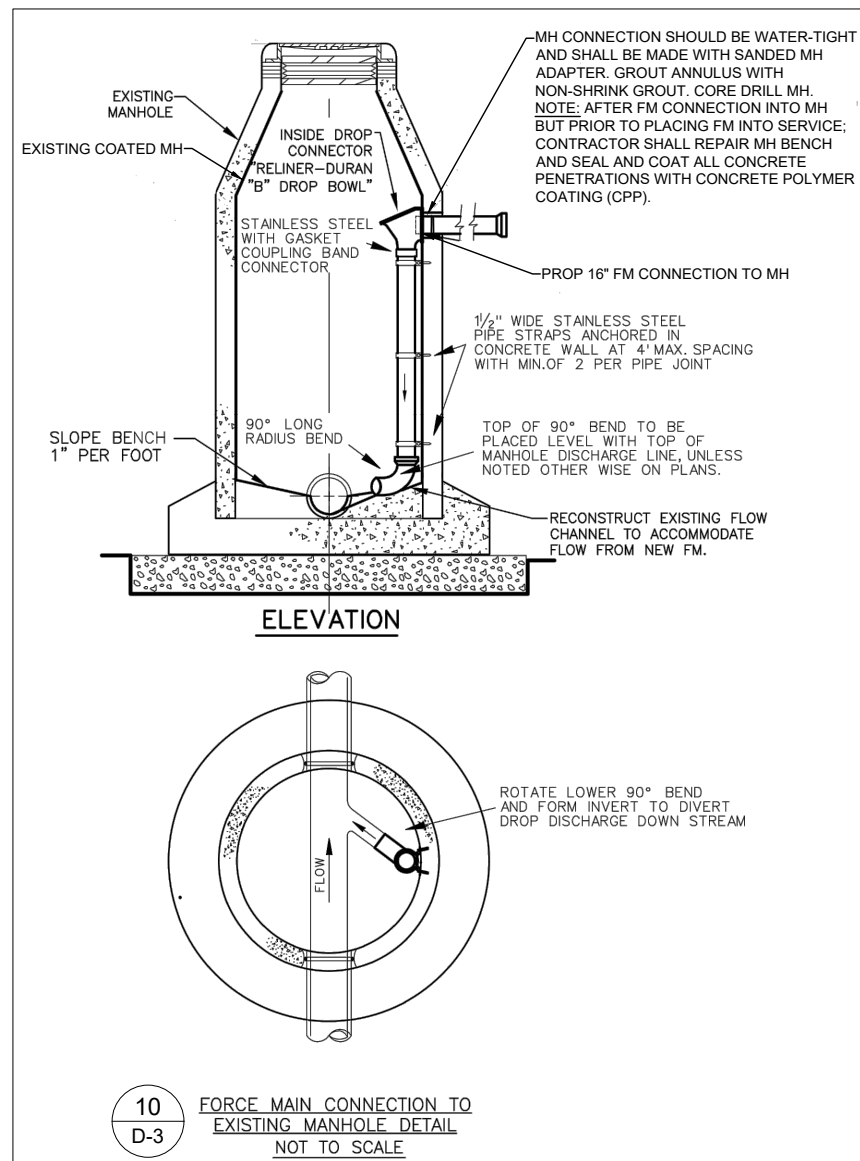
BARNES, FERLAND AND ASSOCIATES, INC.
1230 HILLCREST ST., STE 100
ORLANDO, FL 32803
PH: (407) 896-8608
ENGINEERING REGISTRY NO. 6899

KIRBY ST AND GOMEZ PUMP STATION FORCE MAIN IMPROVEMENTS

CONSTRUCTION DETAILS

| | | |
|---|--|---------------------------|
| DESIGN ENGINEER WILLIE E. THOMAS, P.E. | PROJECT No.: 2021-35-01 PROJECT DATE: JAN 2022 DESIGNED BY: NDI DRAWN BY: JED | DRAWING No. D-2 |
| FLORIDA REGISTRATION No. 57612 | CHECKED BY: JPJ DRAWING FILE: SEE MARGIN | SHEET 12 OF 14 |

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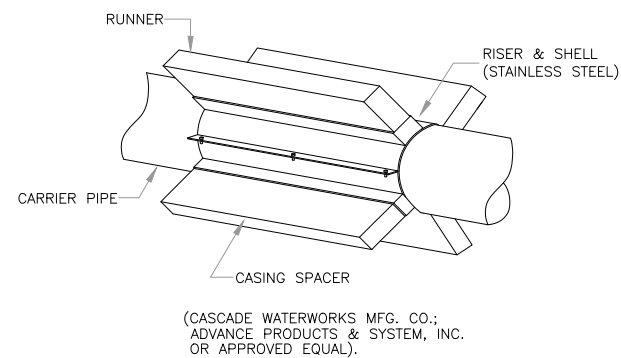
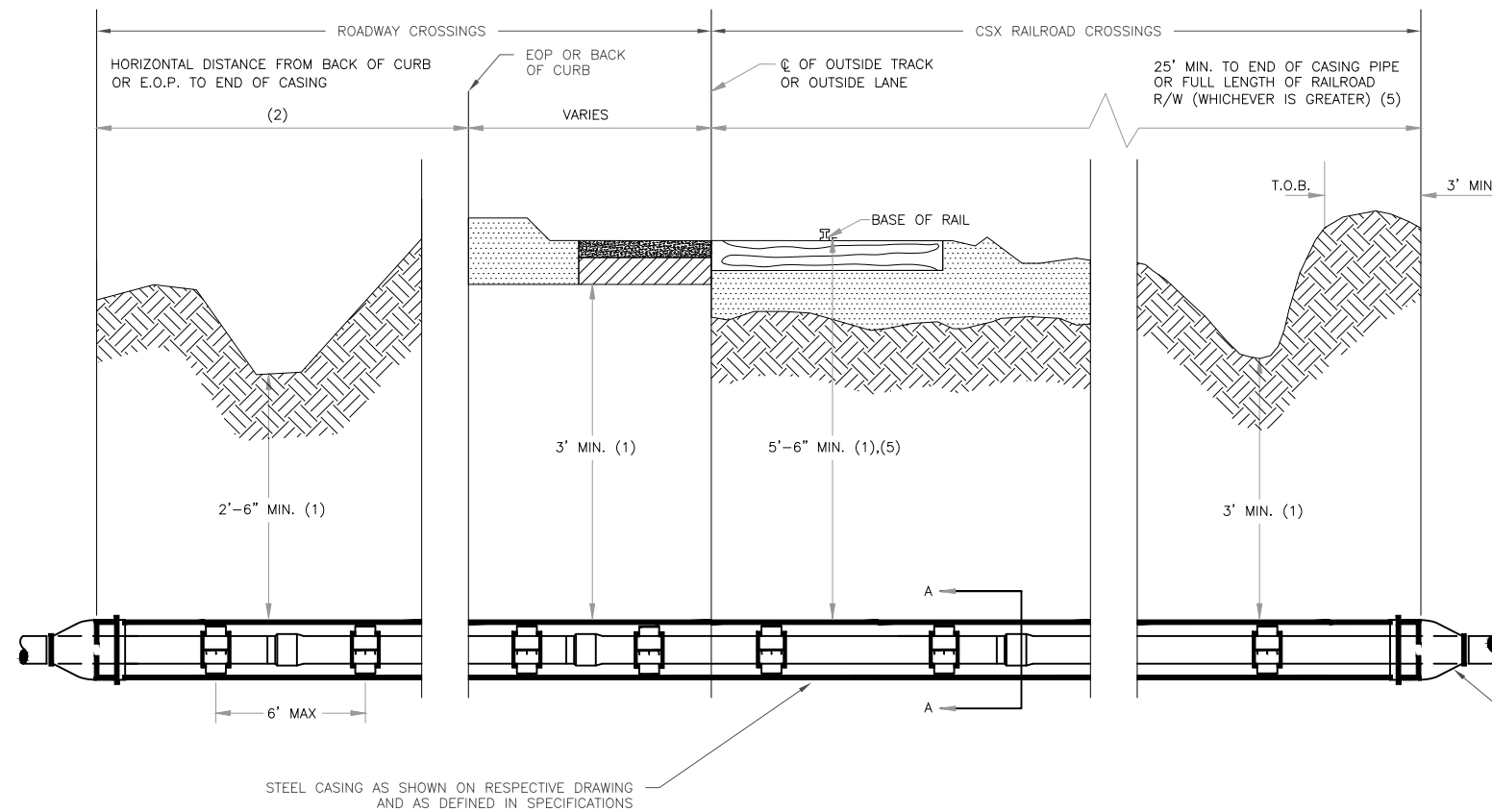
KIRBY ST AND GOMEZ PUMP STATION FORCE MAIN IMPROVEMENTS

CONSTRUCTION DETAILS

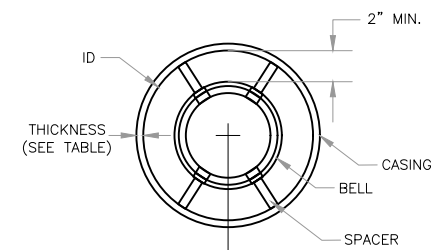
DESIGN ENGINEER
WILLIE E. THOMAS, P.E.
FLORIDA REGISTRATION No.
57612

PROJECT No.: 2021-35-01
PROJECT DATE: JAN 2022
DESIGNED BY: NDH
DRAWN BY: JPD
CHECKED BY: JPD
DRAWING FILE: SEE MARGIN

DRAWING No.
D-3
SHEET
13 OF 14



RUBBER END SEAL SECURED WITH STAINLESS STEEL BANDS AT EACH END OF CASING PIPE. (CASCADE WATERWORKS MFG. CO. MODEL CCES END SEALS, ADVANCE PRODUCTS & SYSTEM, INC. END SEAL OR APPROVED EQUAL)



CARRIER PIPE TO BE INSTALLED NEAR THE CENTER OF THE CASING PIPE. CASING SPACERS SHALL BE SIZED SO THAT CARRIER PIPE IS COMPLETELY SUPPORTED ON ALL SIDES AND CANNOT MOVE.

NOTES:

1. VERTICAL DIMENSIONS TYPICAL FOR CASINGS
2. EXTEND 5' BEYOND CURB OR E.O.P. UNLESS ADDITIONAL DISTANCE IS REQUIRED BY ANOTHER AGENCY HAVING JURISDICTION OVER THE RIGHT OF WAY WHERE THE PIPELINE IS INSTALLED.
3. CASING PIPE SHALL CONFORM TO THE REQUIREMENTS OF AWWA C-200 AND ASTM A-139, GRADE B.
4. CASING PIPE SHALL BE SLOPED TO ONE END.

| CORRESPONDING CARRIER AND CASING PIPE SIZES | | | | | | | | | | | | | |
|--|-----------------|----|----|-----------------|----|----|------------------|----|----|-----------------|----|-----------------|----|
| NOMINAL INSIDE DIAMETER OF CARRIER PIPE (INCHES) | 4 | 6 | 8 | 10 | 12 | 14 | 15 | 16 | 18 | 20 | 21 | 24 | 27 |
| MINIMUM INSIDE DIAMETER OF CASING PIPE (INCHES) | 12 | 18 | 20 | 24 | 30 | 30 | 30 | 30 | 36 | 36 | 36 | 48 | 48 |
| MIN. CASING THICKNESS CITY, COUNTY & FDOT | $\frac{3}{8}$ " | | | | | | | | | | | $\frac{1}{2}$ " | |
| MIN. CASING THICKNESS RAILROADS (5) | $\frac{3}{8}$ " | | | $\frac{1}{2}$ " | | | $\frac{9}{16}$ " | | | $\frac{3}{4}$ " | | | |

13
D-4 JACK & BORE DETAILS
Not to Scale

| No. | REVISIONS | BY | DATE |
|---------|-----------|-----|-----------|
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| BID SET | | WET | 2-14-2023 |

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2545 GUY N. VERGER BLVD
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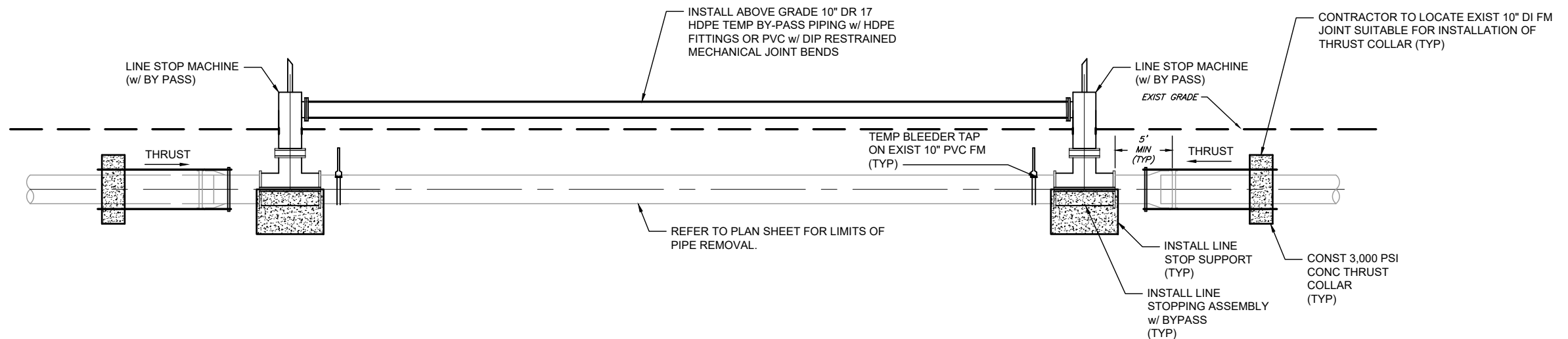
KIRBY ST AND GOMEZ PUMP STATION FORCE MAIN IMPROVEMENTS

CONSTRUCTION DETAILS

DESIGN ENGINEER
WILLIE E. THOMAS, P.E.
FLORIDA REGISTRATION No.
57612

PROJECT No.: 2021-35-01
PROJECT DATE: JAN 2022
DESIGNED BY: NDR
DRAWN BY: JED
CHECKED BY: JPJ
DRAWING FILE: SEE MARGIN

DRAWING No.
D-4
SHEET
14 OF 14

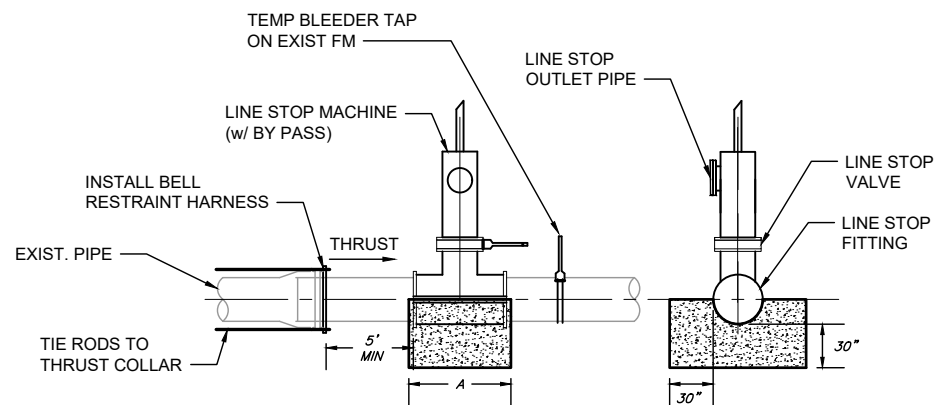


DOUBLE LINE STOP WITH BY-PASS SCHEMATIC

14
D-5
DETAIL
NTS

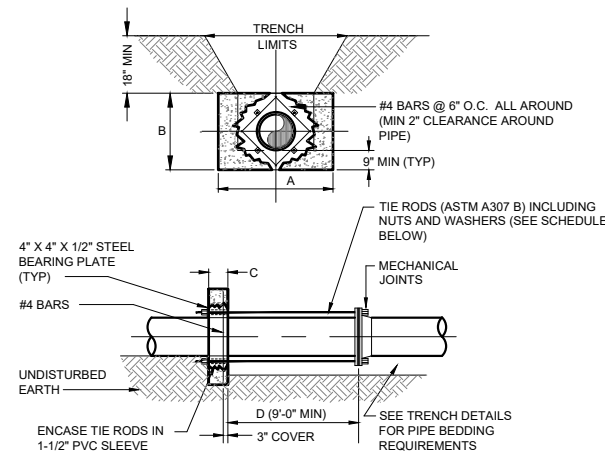
GENERAL NOTES:

1. PIPE LENGTHS SHOWN ON PLANS ARE APPROXIMATE. ACTUAL LENGTHS ARE TO BE DETERMINED DURING CONSTRUCTION.
2. TEMPORARY 10-INCH BY-PASS PIPING AND FITTINGS SHALL BE BUTT-FUSED DUCTILE IRON PIPE SIZE DR-17 HDPE OR C-900 PVC WITH DUCTILE IRON PIPE RESTRAINED MECHANICAL JOINT FITTINGS. CONTRACTOR SHALL ROUTE TEMPORARY BYPASS PIPING SO THAT IT DOES NOT INTERFERE WITH CONSTRUCTION, STORM DRAINAGE, VEHICULAR TRAFFIC, OR ACCESS TO PROPERTIES BY RESIDENTS AND EMERGENCY SERVICES.
3. EXISTING FORCE MAIN IS REPORTED TO BE 10-INCH DI PIPE. NO INDICATION IF JOINTS ARE CURRENTLY RESTRAINED. THE CONTRACTOR SHALL ASSUME NO EXISTING RESTRAINT EXISTS.
4. THE EXISTING FORCE MAIN SHALL BE BYPASSED WITH THE INSTALLATION OF A DOUBLE LINE STOP WITH BYPASS THROUGH THE LINE STOP HOUSINGS. REFER TO SPECIFICATION SECTION W-9100 - "LINE STOPS BYPASS ON PRESSURE MAIN SYSTEMS".
5. PRIOR TO INSTALLING THE DOUBLE LINE STOP WITH BYPASS, THE CONTRACTOR SHALL INSTALL THRUST RESTRAINT ON THE 10-INCH FORCE MAIN IN ACCORDANCE WITH THE DETAILS.
6. LINE STOP FITTINGS SHALL BE SUPPORTED BY CONCRETE SUPPORT BLOCKS IN ACCORDANCE WITH THE DETAILS.



LINE STOP SUPPORT

15
D-5
DETAIL
N.T.S.



THRUST COLLAR (100 PSI)

16
D-5
DETAIL
N.T.S.

NOTES:

1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
3. BEDDING, BACKFILL AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE: 100 PSI.
7. REQUIRED FOR LINE STOPS.

SCHEDULE OF DIMENSIONS AND MATERIALS

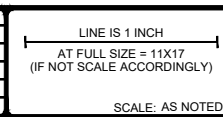
| PIPE SIZE (INCHES) | DIMENSIONS (FT.) | | | | TIE RODS REQ'D | |
|--------------------|------------------|-----|-----|---|----------------|-----|
| | A | B | C | D | DIA. | NO. |
| 6 | 2.0 | 2.0 | 1.0 | | 3/4 | 2 |
| 8 | 2.5 | 2.5 | 1.0 | | 3/4 | 2 |
| 10 | 3.5 | 3.0 | 1.0 | | 3/4 | 4 |
| 12 | 5.0 | 3.0 | 1.0 | | 3/4 | 4 |
| 14 | 5.0 | 3.0 | 1.0 | | 3/4 | 4 |
| 16 | 6.0 | 4.0 | 1.5 | | 3/4 | 4 |
| 20 | 8.0 | 5.0 | 1.5 | | 3/4 | 6 |

NOTE: THRUST COLLAR AREAS TO BE COMPUTED ON BASIS OF 2000 LBS/SF SOIL RESTRAINT BEARING.

NOTES:

1. FORM AND POUR CONCRETE SUPPORT BLOCK ON UNDISTURBED OR COMPACTED EARTH AFTER LINE STOP FITTING IS INSTALLED AND BEFORE LINE STOP MACHINE IS MOUNTED ON FITTING. A = LENGTH OF FITTING PLUS 6 INCHES.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3,000 PSI.
3. TEMPORARY BLEEDER TAP IS COMPRISED OF 2 INCH SERVICE SADDLE, 2 INCH CORP STOP, 2 INCH GALV STEEL PIPE, AND 2 INCH BALL VALVE.
4. DETAIL IS TYPICAL OF LINE STOP AT WEST END. REVERSE FOR LINE STOP AT EAST END.

| No. | REVISIONS | BY | DATE |
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CITY OF TAMPA
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KIRBY ST AND GOMEZ PUMP STATION FORCE MAIN IMPROVEMENTS

FORCE MAIN BY-PASS AND REPLACEMENT DETAILS

DESIGN ENGINEER
WILLIE E. THOMAS, P.E.
FLORIDA REGISTRATION No.
57612

PROJECT No.: 2021-35-01
PROJECT DATE: MAR 2023
DESIGNED BY: JPL
DRAWN BY: JED
CHECKED BY: WET
DRAWING FILE: SEE MARGIN

DRAWING No.
D-5
SHEET
15 OF 15