

Plotted By: Waring, Morissa Sheet: SKU-PUMP STATION A-16 DESIGN CRITERIA PACKAGE Layout: 0 Cover Sheet September 28, 2021 04:12:17pm K:\V\J\J\043 jobs\043\84401\cso 12412-000-000COVR.dwg

DRAWING INDEX table with 31 rows: NO., SHEET TITLE



CITY OF FORT LAUDERDALE
PROJECT #12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
SE CORNER OF SE 11TH STREET & SE 3RD AVENUE
FORT LAUDERDALE, FLORIDA

PREPARED BY:
Kimley»Horn
8201 PETERS ROAD, SUITE 2200, PLANTATION, FL 33324
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FLOOD ZONE: AH
BASE FLOOD ELEVATION (BFE): 6.0' NAVD 1988

ATTENTION, THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION.
THIS MUST BE TAKEN INTO ACCOUNT WHEN OBTAINING SCALED DATA.



PROJECT #12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
SE CORNER OF SE 11TH STREET & SE 3RD AVENUE

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

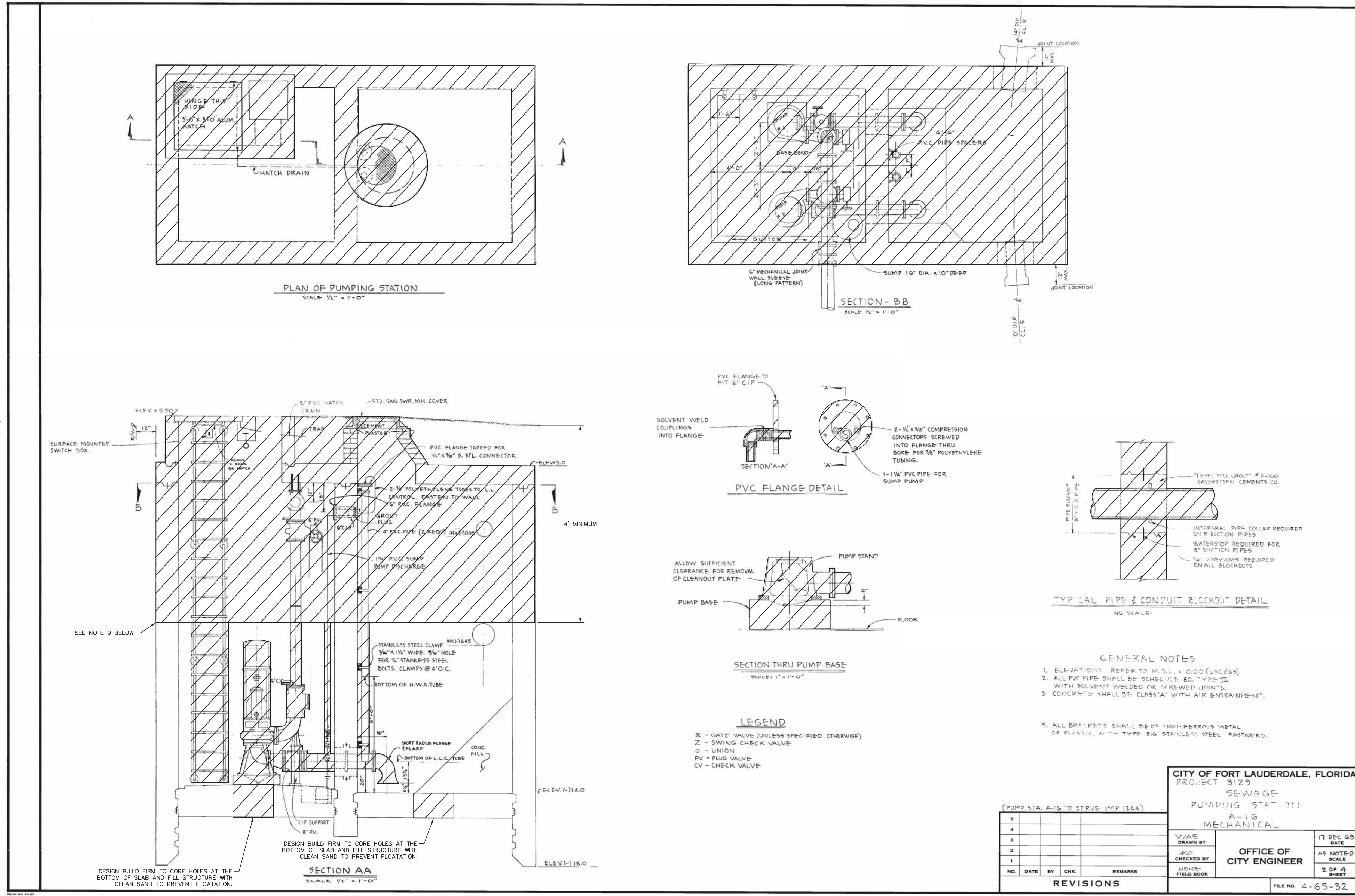
FORT LAUDERDALE CITY COMMISSION
DEAN J. TRANTALIS MAYOR
HEATHER MORAITIS COMMISSIONER - DISTRICT I
STEVEN GLASSMAN COMMISSIONER - DISTRICT II
ROBERT McKINZIE COMMISSIONER - DISTRICT III
BEN SORENSEN COMMISSIONER - DISTRICT IV

PROJECT MANAGER JORGE HOLGUIN (954)828-5675
ENGINEER OF RECORD GARY R. RATAY (954)535-5112
ELECTRICAL ENGINEER NATHANIEL HAMMOND (404)769-6636

DATE: 03/10/21
CAD FILE: 12412-000-000COVR
DRAWING FILE No.: 4-142-31

DESIGN CRITERIA PACKAGE

EXISTING PUMP STATION A-16 TO BE DEMOLISHED



LEGEND:
 TO BE DECOMMISSIONED/DEMOLISHED

NOTES:

- THIS PREVIOUS DESIGN PLAN IS INCLUDED FOR INFORMATIONAL PURPOSES. ALL EQUIPMENT IS NOT INSTALLED EXACTLY AS SHOWN. PLANS NOT TO SCALE.
- ELEVATIONS PROVIDED ON THIS PREVIOUS DESIGN PLAN ARE ASSUMED TO REFERENCE THE NATIONAL GEODETTIC VERTICAL DATUM OF 1929 (NGVD 29).
- FLOOD ZONE: AH.
- BASE FLOOD ELEVATION (BFE): 6.0' NAVD 1988.
- THE ITEMS DEPICTED FOR DEMOLITION ARE GENERAL ONLY. ALL ANCILLARY STRUCTURES, PIPING AND OTHER ASSOCIATED EQUIPMENT ARE TO BE INCLUDED IN THE DEMOLITION WORK.
- AFTER DEMOLITION, ALL DEBRIS IS TO BE REMOVED AND LEGALLY DISPOSED BY THE DESIGN BUILD FIRM IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- AFTER DISPOSAL OF MATERIAL, THE DESIGN BUILD FIRM SHALL RE-GRADE THE AREA TO MATCH SURROUNDING GRADE AND DRAINAGE PATTERNS. DESIGN BUILD FIRM TO OBTAIN REQUIRED FILL NEEDED TO LEVEL AREAS WHERE STRUCTURES PREVIOUSLY EXISTED.
- DESIGN BUILD FIRM SHALL BACKFILL, COMPACT AND RESTORE SURFACE CONDITIONS AT ALL AREAS OF PIPE/STRUCTURE DEMOLITION AND REMOVAL. COMPACT TO 98% ASTM D-1557, IN 12" LIFTS.
- DESIGN BUILD FIRM SHALL REMOVE ALL PIPING, VALVES, AND APPURTENANCES FROM STRUCTURES TO FIRST BEND BELOW GRADE OR MINIMUM OF 4 FEET BELOW GRADE WITHIN 50 FEET OF THE LOCATION. ALL PIPING TO BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. DESIGN BUILD FIRM TO VERIFY WITH CITY THAT ANY SYSTEM TO BE REMOVED IS OUT OF SERVICE BEFORE DEMOLITION.

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DESIGN CRITERIA PACKAGE

PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
DEMOLITION PLAN

SHEET NO. **2** OF **31**

CAD FILE: 12412-MULTI-DEMO
 DRAWING FILE NO. 4-142-31

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

ENGINEER: CHRYL R. RYAN, P.E.
 BRG. No.: 46682
 DATE: 9/28/2021

DESIGNED BY: GR AS NOTED
 CHECKED BY: GR
 FIELD BOOK:

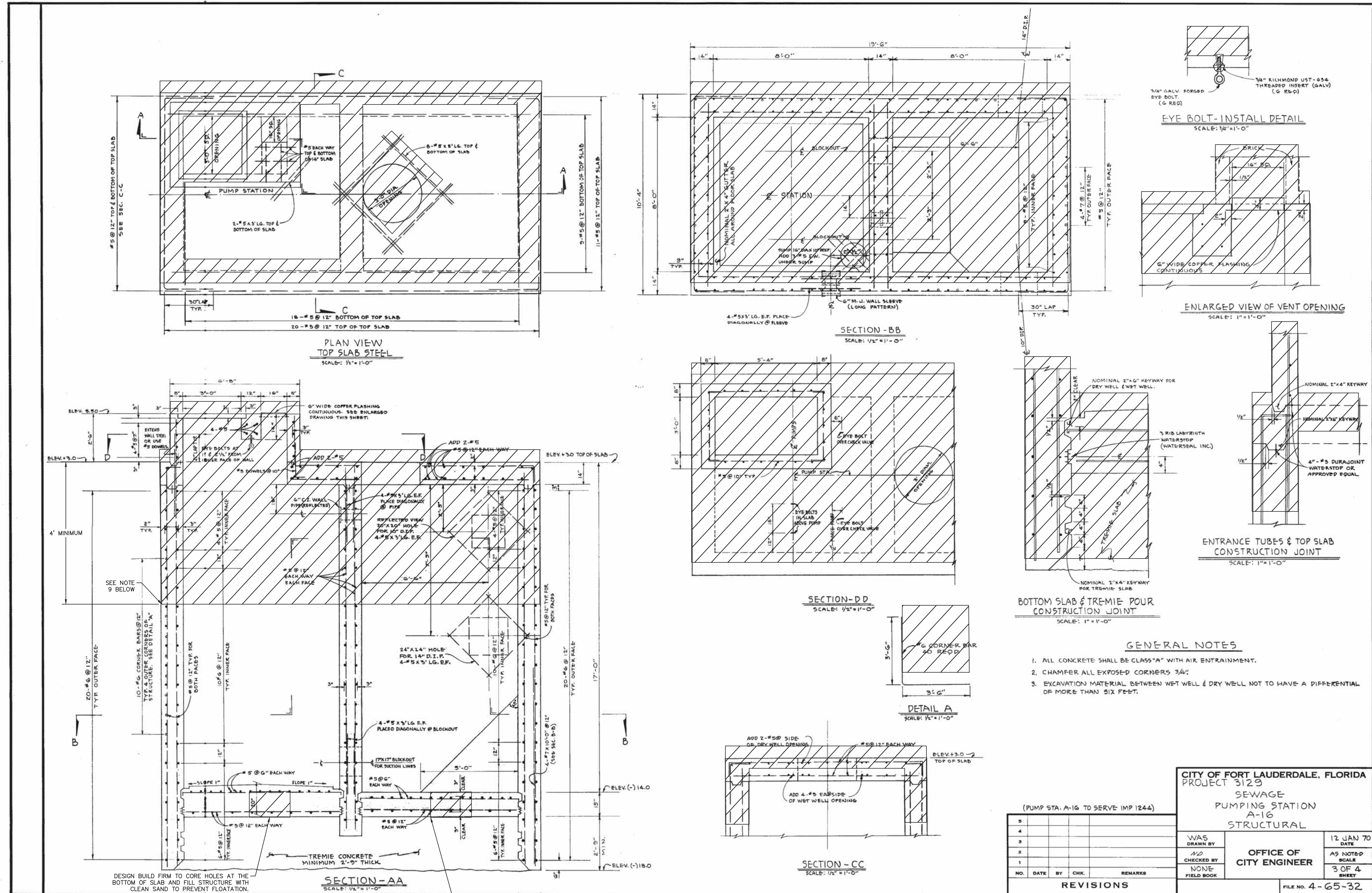
DATE: MAR 2021
 SCALE: AS NOTED

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Plotted By: Moring, Marissa Sheet: SAN-PUMP STATION A-16 DESIGN CRITERIA PACKAGE Layout: 2-MULTI-DEMO September 28, 2021 04:12:46pm K:\11\civil\043_Rbs\043184401_cadd\plansheets\2412-MULTI-DEMO.dwg
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EXISTING PUMP STATION A-16 TO BE DEMOLISHED



GENERAL NOTES

1. ALL CONCRETE SHALL BE CLASS "A" WITH AIR ENTRAINMENT.
2. CHAMFER ALL EXPOSED CORNERS 3/4"
3. EXCAVATION MATERIAL BETWEEN WET WELL & DRY WELL NOT TO HAVE A DIFFERENTIAL OF MORE THAN SIX FEET.

(PUMP STA. A-16 TO SERVE IMP 1244)

NO.	DATE	BY	CHK.	REMARKS

CITY OF FORT LAUDERDALE, FLORIDA
PROJECT 3123
SEWAGE PUMPING STATION A-16
STRUCTURAL

WAS DRAWN BY	12 JAN 70
CHECKED BY	DATE
NONE	AS NOTED
FIELD BOOK	3 OF 4
FILE NO. 4-65-32	SHEET

ENGINEER: CHRY P. RAY, P.E.
 REG. NO. 46682
 DATE: 9/28/2021
 TEL: (954) 656-5100
 FAX:

DRAWN BY: AL
 DATE: MAR 2021
 DESIGNED BY: SCALE: AS NOTED
 CHECKED BY: GR
 FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

DESIGN CRITERIA PACKAGE

PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
DEMOLITION PLAN

SHEET NO. **3** OF **31**

CAD FILE: 12412-MULTI-DEMO
 DRAWING FILE NO. 4-142-31

PREPARED BY:

Kimley»Horn

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- LEGEND:**
- TO BE DECOMMISSIONED/DEMOLISHED
- NOTES:**
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 3. FLOOD ZONE: AH.
 4. BASE FLOOD ELEVATION (BFE): 6.0' NAVD 1988.
 5. THE ITEMS DESIGNATED FOR DEMOLITION ARE GENERAL ONLY. ALL ANCILLARY STRUCTURES, PIPING AND OTHER ASSOCIATED EQUIPMENT ARE TO BE INCLUDED IN THE DEMOLITION WORK.
 6. AFTER DEMOLITION, ALL DEBRIS IS TO BE REMOVED AND LEGALLY DISPOSED BY THE DESIGN BUILD FIRM IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
 7. AFTER DISPOSAL OF MATERIAL, THE DESIGN BUILD FIRM SHALL RE-GRADE THE AREA TO MATCH SURROUNDING GRADE AND DRAINAGE PATTERNS. DESIGN BUILD FIRM TO OBTAIN REQUIRED FILL NEEDED TO LEVEL AREAS WHERE STRUCTURES PREVIOUSLY EXISTED.
 8. DESIGN BUILD FIRM SHALL BACKFILL, COMPACT AND RESTORE SURFACE CONDITIONS AT ALL AREAS OF PIPE/STRUCTURE DEMOLITION AND REMOVAL. COMPACT TO 80% ASTM D-1557, IN 12" LIFTS.
 9. DESIGN BUILD FIRM SHALL REMOVE ALL PIPING, VALVES, AND APPURTENANCES FROM STRUCTURES TO FIRST BEND BELOW GRADE OR MINIMUM OF 4 FEET BELOW GRADE WITHIN 50 FEET OF THE LOCATION. ALL PIPING TO BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. DESIGN BUILD FIRM TO VERIFY WITH CITY THAT ANY SYSTEM TO BE REMOVED IS OUT OF SERVICE BEFORE DEMOLITION.

DEMOLITION NOTES:
GENERAL DEMOLITION SPECIFICATIONS:

- THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY.
- PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES AND OTHER FEATURES AFFECTING THE WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT MIGHT IMPACT THE WORK.
- CHAPTER 553.851 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL UTILITIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING.
- THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE EXCAVATION.
- THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, SUPERVISION, AND EQUIPMENT REQUIRED FOR THE ORDERLY DEMOLITION AND REMOVAL OF EXISTING STRUCTURES, PAVEMENT AND UTILITIES AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN.
- THE CONTRACTOR IS REQUIRED TO FAMILIARIZE HIMSELF WITH THE STRUCTURES TO BE DEMOLISHED.
- THE FOLLOWING LIST OF STRUCTURES REQUIRING DEMOLITION IS INCLUDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE DRAWINGS INCLUDE THE SCOPE OF DEMOLITION WHERE DEMOLITION IS REQUIRED.
 - DEMOLITION AND REMOVAL OF A 5' MIN. x STRIP OF EXISTING ON-SITE ASPHALT, CONCRETE AND CURBING AROUND THE PERIMETER OF THE EXISTING STRUCTURES AND UTILITIES BEING DEMOLISHED.
 - REMOVAL OF EXISTING ON-SITE ABOVEGROUND AND UNDERGROUND UTILITIES, INCLUDING REMOVAL OR PLUGGING OF EXISTING UTILITIES AS SHOWN ON PLANS.
- PRIOR TO REMOVAL OF ANY UNDERGROUND TANK AND OTHER COMPONENT, CONTRACTOR MUST COMPLETELY DRAIN THE SYSTEMS TO AN APPROVED SATURATION TANK FOR DISPOSAL TO AN APPROVED LOCATION, AS REQUIRED BY DISPOSAL PERMIT.
- PROTECT ALL UTILITIES, UNLESS OTHERWISE NOTED.
- ALL THE CONCRETE AND PAVEMENT TO BE REMOVED MUST BE SAW-CUT CLEAN PRIOR TO REMOVAL.
- WET DOWN MASONRY WALLS AND DEBRIS DURING DEMOLITION AND LOADING OPERATIONS TO PREVENT THE SPREAD OF DUST (AS APPLICABLE TO PROJECT).
- ALL EXISTING STRUCTURES, PAVEMENTS, SLABS, FOUNDATIONS, STEPS AND OTHER ON-SITE EXISTING FEATURES INDICATED ON THE DRAWINGS TO BE REMOVED SHALL BE DEMOLISHED AND REMOVED BY THE CONTRACTOR (AS APPLICABLE TO PROJECT).

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DETAILS

DEMOLITION NOTES
 SHEET 1

GNRL
 009

DEMOLITION PERMITTING:

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY REQUIRED PERMITS FOR DEMOLITION FROM RESPONSIBLE REGULATORY AGENCIES WHILE FULLY ACKNOWLEDGING AND COMPLYING WITH ALL REQUIREMENTS PRIOR TO COMMENCING DEMOLITION WORK.
- IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE EXTENT OF DEMOLITION, RECYCLING OR REUSE REQUIRED TO PERFORM THE CONTRACT WORK FOR THIS PROJECT. THE CONTRACTOR SHALL CONDUCT SITE VISITS AND SHALL EXAMINE ALL THE INFORMATION WITHIN THESE DOCUMENTS. ALL DISCREPANCIES AND/OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID SUBMITTAL.
- THE CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO COMMENCEMENT OF ANY WORK. ACTUAL REMOVAL AND/OR RELOCATION OF ALL EXISTING LANDSCAPING WITHIN DEMOLITION AREAS TO BE CONDUCTED BY A LANDSCAPE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE SITEWORK DEMOLITION CONTRACTOR TO COORDINATE DEMOLITION ACTIVITIES WITH THE LANDSCAPE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND PRESERVING TREES AS INDICATED ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TREE REMOVAL PERMIT OR ANY OTHER APPLICABLE PERMIT TO REMOVE, RELOCATE OR PRESERVE EXISTING LANDSCAPE AND TREES.
- ANY TREES FOR REMOVAL FOUND TO BE GREATER THAN OR EQUAL TO THREE (3) INCHES IN DIAMETER AT BREAST HEIGHT (DBH) SHALL REQUIRE A PERMIT WITH THE BROWARD COUNTY ENVIRONMENTAL PROTECTION AND GROWTH MANAGEMENT DEPARTMENT (BCEPGMO).
- SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE THE LIGHTING, STORM INLET STRUCTURES, OR OTHER STRUCTURES DESIGNATED TO BE SAVED, THEN THE CONTRACTOR SHALL PROVIDE NEW MATERIALS/STRUCTURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DETAILS

DEMOLITION NOTES
 SHEET 8

GNRL
 009

PRE-DEMOLITION RESPONSIBILITIES:

- UPON RECEIPT OF NOTICE OF AWARD, THE CONTRACTOR SHALL ARRANGE A PRE-DEMOLITION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, ALL AFFECTED UTILITY OWNERS, THE OWNER, THE ENGINEER AND THE CONTRACTOR.
- PRIOR TO DEMOLITION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DEMOLITION SCHEDULE DETAILING EACH PHASE OF THE WORK.
- PRIOR TO DEMOLITION, CONTRACTOR TO PROVIDE FOR THE OWNER A LISTING OF THE FACILITIES THE CONTRACTOR SHALL UTILIZE FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE.
- CONTRACTOR MUST STOP OPERATION AND NOTIFY THE OWNER/ENGINEER FOR PROPER DIRECTION IF ANY ENVIRONMENTAL OR HEALTH RELATED CONTAMINANT IS ENCOUNTERED DURING THE DEMOLITION/EXCAVATION PROCESS.
- FILL FOR LOWER LEVELS OF DEMOLISHED STRUCTURES MAY INCLUDE CONCRETE OR MASONRY RUBBLE RESULTING FROM DEMOLITION, SUBJECT TO THE ENGINEER'S/ARCHITECT'S APPROVAL. RUBBLE SHALL PASS THROUGH A THREE-INCH RING.
- REMOVE AND LEGALLY DISPOSE OF ALL OTHER RUBBER, RUBBLE, AND DEBRIS. COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS GOVERNING DISPOSAL OF WASTES AND DEBRIS.
- MAINTAIN ACCESS TO SURROUNDING PROPERTIES AND BUILDINGS.
- PRIOR TO DEMOLITION OCCURRING ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
- ALL TRAFFIC SIGNS OUTSIDE THE DEMOLITION AREA ARE TO REMAIN UNLESS OTHERWISE SPECIFIED.
- ANY MUCK ENCOUNTERED UNDER PROPOSED STRUCTURES SHALL BE REMOVED TO FIVE- FEET BEYOND THE FOOTPRINT OF THAT STRUCTURE. BACKFILL WITH APPROVED FILL MATERIAL SATISFYING ALL COMPACTION REQUIREMENTS.
- ALL EXISTING UTILITIES WITHIN THE DEMOLITION SITE AREA SHALL BE ADJUSTED, REMOVED OR RELOCATED AT THE CONTRACTOR'S EXPENSE. WORK SHALL BE COORDINATED BY THE CONTRACTOR DIRECTLY WITH THE APPROPRIATE UTILITY COMPANY. ALL EXPENSES SHALL BE INCLUDED IN THE CONTRACTOR'S BID.
- ALL TRASH, DEBRIS AND OTHER MATERIAL REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DETAILS

DEMOLITION NOTES
 SHEET 2

GNRL
 009

DEMOLITION EROSION AND SEDIMENT CONTROL NOTES:

- THE SCHEDULING, SEQUENCING AND CONTROL MEASURES, WHICH ARE OUTLINED HEREIN, ARE SUBJECT TO THE FINAL DEFINITION BY THE CONTRACTOR WHO SHALL BE SELECTED TO PERFORM THE WORK AND SHALL BE RESPONSIBLE FOR IMPLEMENTATION AND COMPLIANCE.
- PRIOR TO DEMOLITION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DEMOLITION SCHEDULE DETAILING EACH PHASE OF THE WORK. THE CONTRACTOR SHALL ALSO BE REQUIRED TO SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN ENCOMPASSING THE PRINCIPALS AND THE REQUIREMENTS DESCRIBED HEREIN AND A SCHEDULE FOR THEIR IMPLEMENTATION AND MAINTENANCE FOR THE PROJECT DURATION.
- DURING DEMOLITION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO ENSURE AGAINST POLLUTING, SILTATION OR DISTURBANCE TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING DRAINAGE SYSTEMS AND ADJACENT WATER BODIES AND WETLANDS, IN COMPLIANCE WITH ALL PERMIT REQUIREMENTS RELATED TO SUCH MEASURES.
- METHODS MAY INCLUDE TEMPORARY EROSION AND SEDIMENT CONTROLS SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, SILT BARRIERS, SILT SCREENS, TURBIDITY BARRIERS OR THE BEST MANAGEMENT PRACTICES AVAILABLE TO THE INDUSTRY.
- EROSION AND SEDIMENT CONTROL INSTALLATIONS SHALL BE MAINTAINED THROUGHOUT THE DEMOLITION PERIOD AND UNTIL NEW VEGETATIVE GROWTH HAS BEEN ESTABLISHED.
- THROUGHOUT THE DEMOLITION PERIOD, THE CONTRACTOR SHALL INSPECT DAILY THE EROSION AND SEDIMENT CONTROL INSTALLATIONS FOR FAILURE OR SIGNS OF FAILURE OR MALFUNCTION. REPAIR OR REPLACE THE EROSION AND SEDIMENT CONTROL INSTALLATIONS IMMEDIATELY UPON DISCOVERY OF FAILURE OR MALFUNCTION.
- INLETS AND CATCH BASINS, EXISTING ON-SITE AND OFF-SITE, SHALL BE PROTECTED FROM SEDIMENT STORM RUNOFF.
- THE CONTRACTOR SHALL PROMPTLY REMOVE ALL MUD, DIRT OR OTHER MATERIALS TRACKED OR SPILLED ONTO EXISTING PUBLIC ROADS AND FACILITIES DUE TO DEMOLITION.
- DEWATERING ACTIVITIES SHALL NOT RESULT IN ANY DISCHARGE OF TURBID WATER FROM THE PROJECT SITE WITHOUT PROPER EROSION AND SEDIMENT CONTROL AND APPROVAL FROM ENGINEER.
- PHASING OF EROSION CONTROL DEMOLITION SHALL BE RECOMMENDED AS FOLLOWS:
 - PLACEMENT OF PERIMETER PROTECTIVE MEASURES (SILT FENCE, HAY BALES, TURBIDITY BARRIERS, ETC.) AROUND ON-SITE FEATURES TO BE RETAINED. AT POINTS OF OFF-SITE DISCHARGE AND AROUND WORK AREAS TO BE EXCAVATED OR FILLED.
 - ROUTE RUNOFF FROM AREAS OUTSIDE OF THE DEMOLITION AREA TO MINIMIZE FLOW THROUGH AREAS TO BE DISTURBED BY DEMOLITION. BERMS, SWALES AND OTHER MEANS USED FOR SUCH CONTAINMENT SHALL BE VEGETATED AND MEASURES TAKEN TO PROVIDE PROTECTION UNTIL STABILIZATION OCCURS (AS APPLICABLE TO THE PROJECT).

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DETAILS

DEMOLITION NOTES
 SHEET 6

GNRL
 009

WASTE MANAGEMENT PLAN:

- IMPLEMENT A WASTE MANAGEMENT PLAN FOR APPROVAL BY THE OWNER. PROVIDE HANDLING, CONTAINERS, STORAGE, SIGNAGE, TRANSPORTATION AND OTHER ITEMS AS NEEDED TO IMPLEMENT THE WASTE MANAGEMENT PLAN DURING THE ENTIRE DURATION OF THE CONTRACT.
- DESIGNATE A WASTE MANAGEMENT COORDINATOR TO BE RESPONSIBLE FOR IMPLEMENTING, MONITORING AND REPORTING STATUS OF WASTE MANAGEMENT WORK PLAN. COORDINATOR SHALL BE PRESENT AT PROJECT SITE FULL-TIME FOR DURATION OF PROJECT.
- TRAIN WORKERS, SUBCONTRACTORS AND SUPPLIERS ON PROPER WASTE MANAGEMENT PROCEDURES, AS APPROPRIATE FOR THE WORK AT THE PROJECT SITE.
- DISTRIBUTE A WASTE MANAGEMENT PLAN BEFORE WORK BEGINS. REVIEW PLAN PROCEDURES AND LOCATION ESTABLISHED FOR SALVAGE, RECYCLING AND DISPOSAL.

RECYCLING DEMOLITION WASTE:

- SEPARATE RECYCLABLE WASTE FROM OTHER WASTE MATERIALS, TRASH AND DEBRIS. SEPARATE RECYCLABLE WASTE BY TYPE AT THE PROJECT SITE TO THE MAXIMUM EXTENT PRACTICAL.
- PROVIDE APPROPRIATELY MARKED CONTAINERS OR BINS FOR CONTROLLING RECYCLABLE WASTE UNTIL THEY ARE REMOVED FROM THE PROJECT SITE. INCLUDE A LIST OF ACCEPTABLE AND UNACCEPTABLE MATERIALS AT EACH CONTAINER AND BIN.
- INSPECT CONTAINERS AND BINS FOR CONTAMINATION AND REMOVE CONTAMINATED MATERIALS IF FOUND.
- STOCKPILE PROCESSED MATERIALS ON-SITE WITHOUT INTERMIXING WITH OTHER MATERIALS. PLACE, GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST.
- STOCKPILE MATERIALS AWAY FROM DEMOLITION AREA. DO NOT STORE WITHIN DRIP LINE OF REMAINING TREES.
- STORE COMPONENTS OFF THE GROUND AND PROTECT FROM THE WEATHER.
- REMOVE RECYCLABLE WASTE OFF THE OWNER'S PROPERTY AND TRANSPORT TO RECYCLING RECEIVER OR PROCESSOR.
- ASPHALTIC CONCRETE PAVING: BREAK UP AND TRANSPORT PAVING TO ASPHALT RECYCLING FACILITY.
- CONCRETE: REMOVE REINFORCEMENT AND OTHER METALS FROM CONCRETE AND SORT WITH OTHER METALS.
- MASONRY: MASONRY WASTE SHALL INCLUDE WHOLE OR BROKEN BRICK AND CONCRETE MASONRY UNITS. WHOLE MASONRY UNITS SHALL BE CLEANED AND REUSED OR DONATED. BROKEN MASONRY SHALL BE CRUSHED AND USED AS FILL FOR OFFSITE AREAS. REMOVE METAL REINFORCEMENT, ANCHORS AND TIES FROM MASONRY AND SORT WITH OTHER METALS.

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DETAILS

DEMOLITION NOTES
 SHEET 3

GNRL
 009

WASTE MANAGEMENT PLAN (continued):

- GENERAL: EXCEPT FOR ITEMS OR MATERIALS TO BE SALVAGED, RECYCLED OR OTHERWISE REUSED, REMOVE WASTE MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN A LANDFILL OR OTHER PERMITTED DISPOSAL FACILITY.
- EXCEPT AS OTHERWISE SPECIFIED, DO NOT ALLOW WASTE MATERIALS THAT ARE TO BE DISPOSED OF TO ACCUMULATE ON-SITE.
- REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT SHALL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
- BURNING: DO NOT BURN WASTE MATERIALS.
- DISPOSAL: TRANSPORT WASTE MATERIALS OFF THE OWNER'S PROPERTY AND LEGALLY DISPOSE OF THEM.

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DETAILS

DEMOLITION NOTES
 SHEET 11

GNRL
 009

DEMOLITION SAFETY:

- ALL DEMOLITION SHALL BE DONE IN A SAFE MANNER, SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE STRICTLY OBSERVED.
- PROVIDE ADEQUATE PROTECTION FOR PERSONS AND PROPERTY AT ALL TIMES. EXECUTE THE WORK IN A MANNER TO AVOID HAZARDS TO PERSONS AND PROPERTY AND PREVENT INTERFERENCE WITH THE USE OF AND ACCESS TO ADJACENT BUILDINGS, STREETS AND SIDEWALKS SHALL NOT BE UNNECESSARILY BLOCKED BY DEBRIS AND EQUIPMENT.
- BUILDING MATERIALS TO BE REMOVED SHALL BE TESTED FOR ASBESTOS AND LEAD PAINT.
- IF PETROLEUM PRODUCTS ARE FOUND WHILE DEMOLISHING, DISPOSE OF PETROLEUM WASTE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

PAVEMENT DEMOLITION:

- WHERE EXISTING PAVEMENT IS TO BE REMOVED, SAW-CUT THE SURFACING LEAVING A UNIFORM AND STRAIGHT EDGE WITH MINIMAL DISTURBANCE TO THE REMAINING ADJACENT SURFACING. IF DEMOLITION RESULTS IN RAVELING OF SAW CUT SURFACE, RECUT BACK FROM THE RAVELED EDGE PRIOR TO RESTORATION.
- WHERE EXISTING PAVEMENT CURB, CURB AND CUTTER, SIDEWALK, DRIVEWAY, OR VALLEY CUTTER IS REMOVED FOR BULETS, MANHOLES, APPURTENANCES, FACILITIES OR STRUCTURES, SADD PAVEMENT, ETC., SHALL BE REPLACED WITH NEW PAVEMENT, ETC. CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, MATERIALS, EQUIPMENT, TOOLS, SUPPLIES, AND OTHER EQUIPMENT AS REQUIRED.
- CONTRACTOR MAY LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THE DRAWINGS. HOWEVER, IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, SIDEWALK, BUILDINGS, UTILITIES, ETC., THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPLACEMENT. REPLACEMENT PAVEMENT, SIDEWALK, ETC., SHALL BE NEW.

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DETAILS

DEMOLITION NOTES
 SHEET 4

GNRL
 009

MINIMUM DENSITY REQUIREMENTS

LOCATION	MATERIAL	MINIMUM DENSITY (% OF MAX)	TESTING FREQUENCY
ROADS (INCLUDES SIDEWALKS, ASPHALT PATHS)	BACKFILL	98%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT TOP OF FIRST LIFT AND PROCEEDING UPWARD TO GRADE.
	SUBGRADE	98%	HORIZONTAL DISTRIBUTION: TESTS SHALL BE PERFORMED AT RANDOMLY SELECTED LOCATIONS WITHIN EACH 300 FOOT INTERVAL, MAXIMUM ALONG THE LENGTH OF ROADWAY, SIDEWALK OR PATHWAY.
	BASE	98%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT THE BOTTOM OF THE STRUCTURE AND PROCEEDING UPWARD TO GRADE.
MANHOLES AND VAULTS (IN ROADS AND PARKING AREAS)	BACKFILL BENEATH STRUCTURES	98%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT THE BOTTOM OF THE STRUCTURE AND PROCEEDING UPWARD TO GRADE.
	BACKFILL AROUND STRUCTURES	98%	HORIZONTAL DISTRIBUTION: PERFORM TESTING AT EACH STRUCTURE.
PARKING AREAS	CRUSHED STONE BENEATH STRUCTURES	NOTE 6	
	BACKFILL	98%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT TOP OF FIRST LIFT AND PROCEEDING UPWARD TO GRADE.
	SUBGRADE	98%	HORIZONTAL DISTRIBUTION: TESTS SHALL BE PERFORMED EVERY 5,000 SQUARE FEET OF PARKING AREA.
UTILITY TRENCH BACKFILL	BASE	98%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT THE SPRING LINE AND PROCEEDING UPWARD TO GRADE.
	BEDDING AND BACKFILL	98%	HORIZONTAL DISTRIBUTION: TESTS SHALL BE PERFORMED AT RANDOMLY SELECTED LOCATIONS WITHIN EACH 300 FOOT INTERVAL, MAXIMUM ALONG THE LENGTH OF A PIPE INSTALLATION, AND BETWEEN EACH SET OF STRUCTURES SEPARATED BY LESS THAN 300 FEET.
ROADS AND PARKING	ASPHALT	98%	ASPHALT TESTING MAY BE DONE BY CORE SAMPLING AND NUCLEAR GAUGE DENSITY TESTING. ASPHALT TESTING SHALL BE AT MAXIMUM 300 LINEAR FOOT ALONG ROADWAYS AND 6,000 SQUARE FOOT INTERVALS FOR PARKING AREAS.

NOTES:

- THE DENSITY REQUIREMENTS PRESENTED ASSUME DRY TRENCH CONDITIONS.
- UNLESS INDICATED OTHERWISE IN THE SPECIFICATIONS, TESTING SHALL COMPLY WITH THE REQUIREMENTS PRESENTED IN THIS TABLE.
- LIFT THICKNESSES FOR BASE, SUBGRADE AND BACKFILL SHALL BE AS INDICATED ON THE DETAILS OR DESCRIBED IN THE SPECIFICATIONS.
- MAXIMUM DENSITY SHALL BE DETERMINED BY ASTM D 1557 OR AASTM1191 (MODIFIED PROCTOR).
- FIELD DENSITY TESTS SHALL BE PERFORMED IN ACCORDANCE WITH ASTM D 1556 OR D 2922.
- THE AVERAGE SHALL BE CONTACTED TO A DEGREE ACCORDABLE TO THE ENGINEER BY USE OF A VIBRATORY COMPACTOR ANCHOR CRAWLER TRACTOR.

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DETAILS

DEMOLITION NOTES
 SHEET 5

GNRL
 009

DESIGN CRITERIA PACKAGE

PROJECT # 12412
 PUMP STATION A-16 UPGRADE
 WASTEWATER DESIGN CRITERIA PACKAGE
 DEMOLITION NOTES

CAD FILE:
 12412-MULTI-DEMO
 DRAWING FILE NO.
 4-142-31

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISONS
 NO. DATE BY CHKD DESCRIPTION

Kimley»Horn

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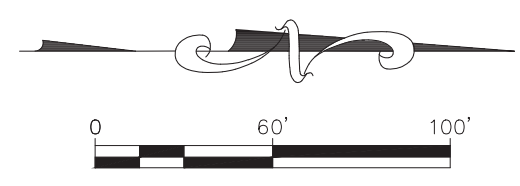
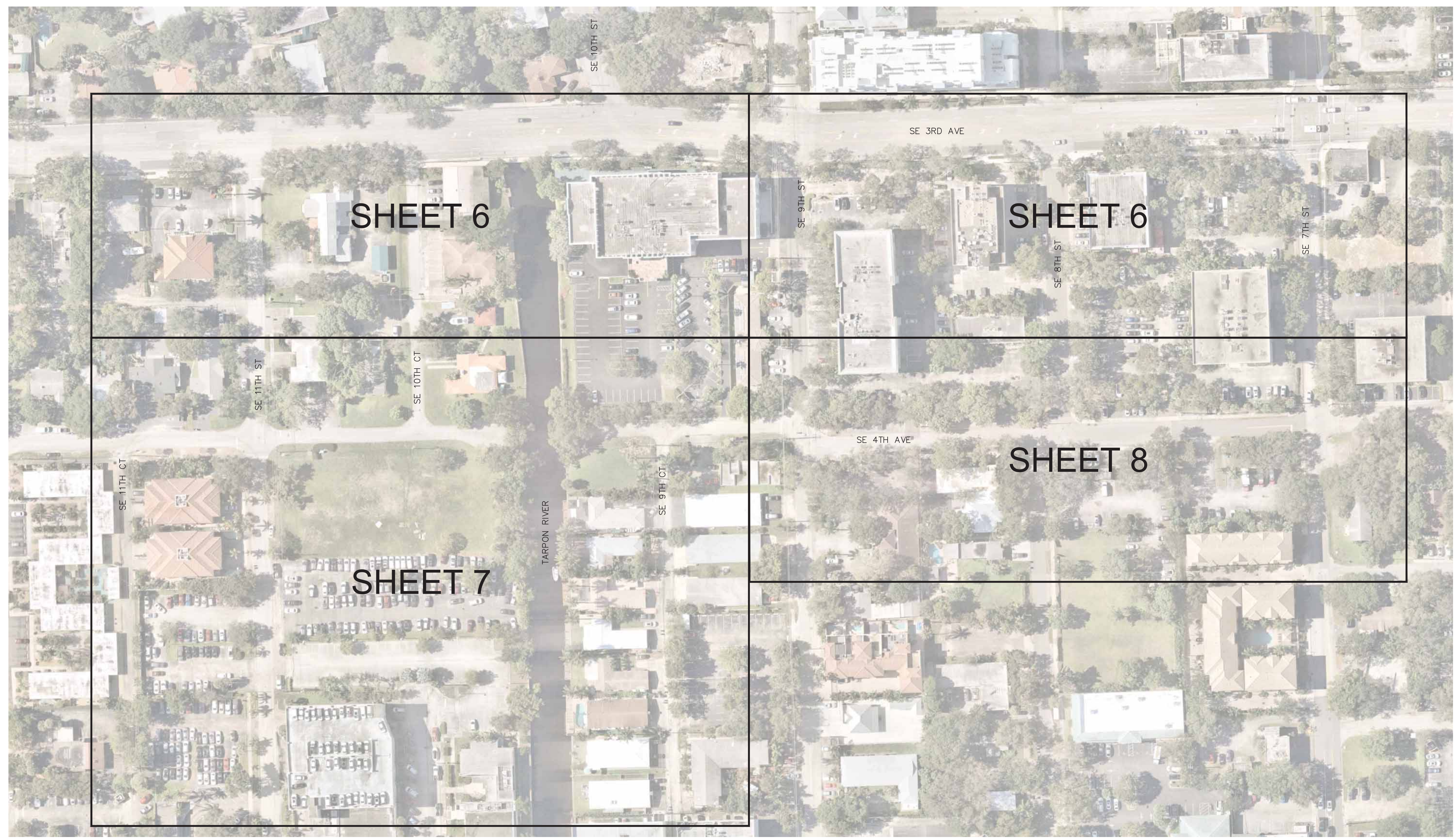
PREPARED BY:

DESIGN CRITERIA PACKAGE

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

GNRL
 009

Plotted By: Marissa, Marissa Sheet SKI-PUMP STATION A-16 DESIGN CRITERIA PACKAGE Layout: 5 KEY MAP, September 28, 2021 04:13:13pm K:\V\16\16\043_jobs\043\84401_cadd\12412-key-map.dwg
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DESIGN CRITERIA PACKAGE

PROJECT # 12412	
PUMP STATION A-16 UPGRADE	
WASTEWATER DESIGN CRITERIA PACKAGE	
KEY MAP	
SHEET NO.	OF
5	31
CAD FILE:	
12412-KEY-MAP	
DRAWING FILE NO.	
4-142-31	

REVISIONS		
NO.	DATE	DESCRIPTION

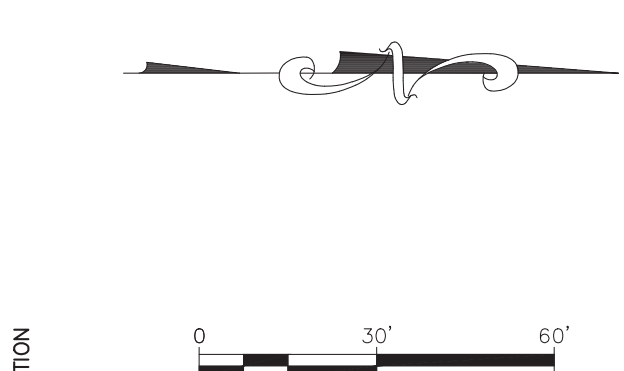
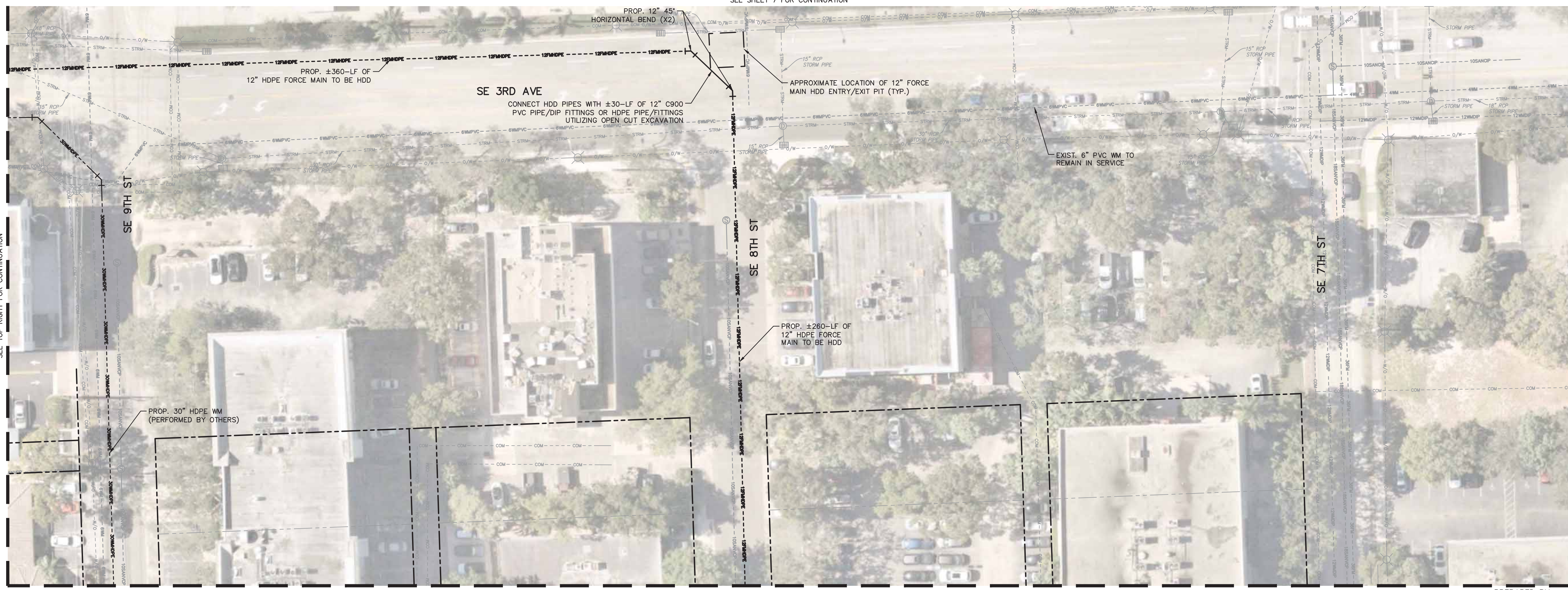
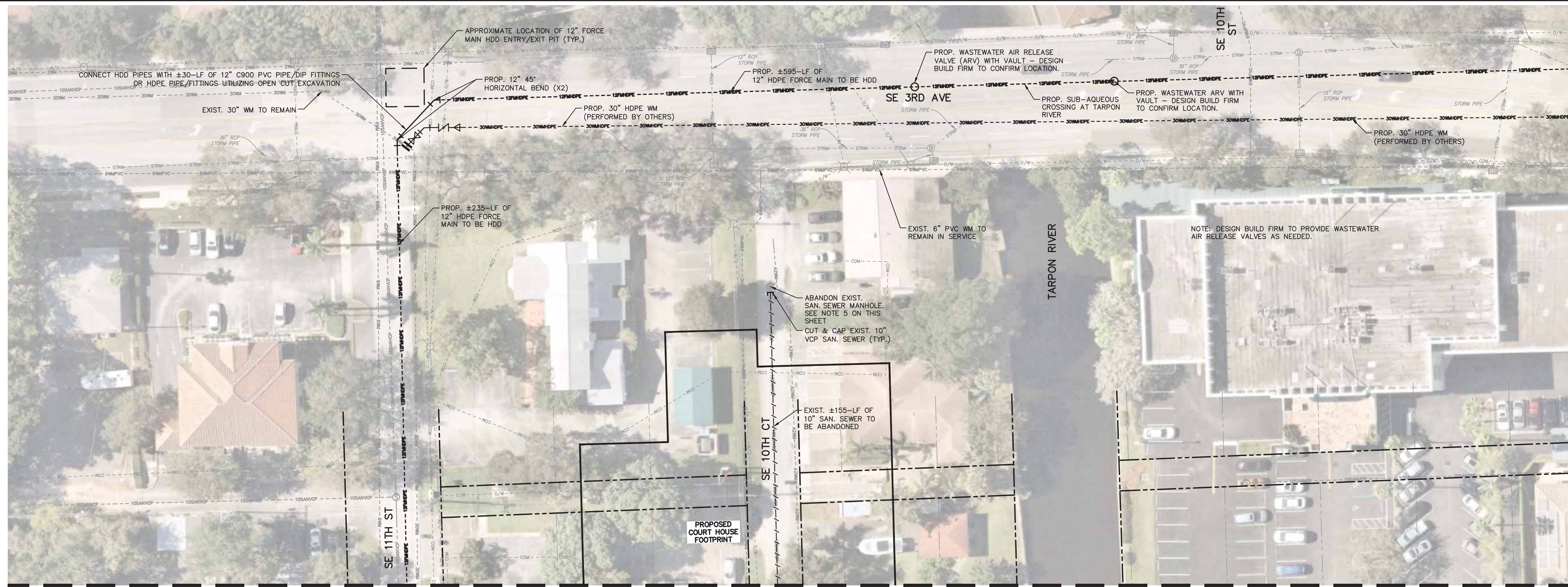
CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DRAWN BY:	AL
DESIGNED BY:	GR
CHECKED BY:	GR
DATE:	MAR 2021
SCALE:	AS NOTED
FIELD BOOK:	

ENGINEER:
 CURV P. RIVY, P.E.
 REG. NO.: 46682
 DATE: 9/28/2021
 TEL: (954) 656-5100
 FAX:

Plotted By: Marissa, Morissa Sheet: SAN-PUMP STATION A-16 DESIGN CRITERIA PACKAGE Layout: 6 CONCEPTUAL UTILITY PLAN September 28, 2021 04:18:27am K:\VH_60\043 jobs\043184401 scno 12412-MULTI-PLAN-add alternate.dwg
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---	PROP. SANITARY SEWER MANHOLE
---	PROP. UTILITY CAP
---	PROP. BENDS
---	PROP. TAPPING SLEEVE AND VALVE
---	PROP. WASTEWATER ARV WITH VAULT
---	EXIST. PIPE TO BE ABANDONED, CUT & CAPPED, NO GROUT



- NOTE:**
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 - BASE FLOOD ELEVATION (BFE): 6.0' NAVD 1988
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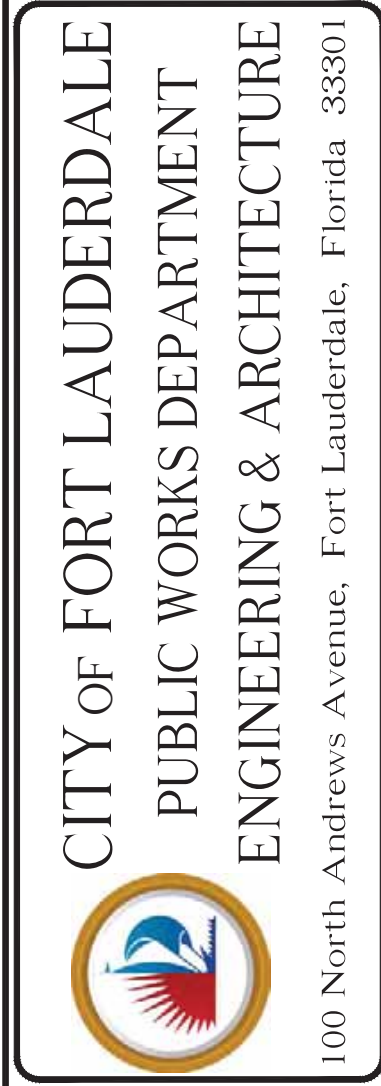
DESIGN CRITERIA PACKAGE

**PROJECT # 12412
 PUMP STATION A-16 UPGRADE
 WASTEWATER DESIGN CRITERIA PACKAGE
 CONCEPTUAL UTILITY PLAN**

SHEET NO.	OF
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DRAWING FILE NO.	ALTERNATE
	4-142-31

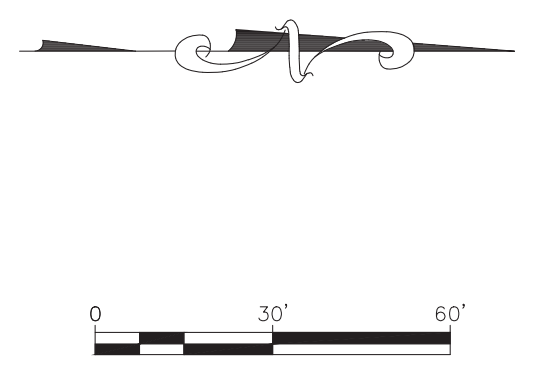
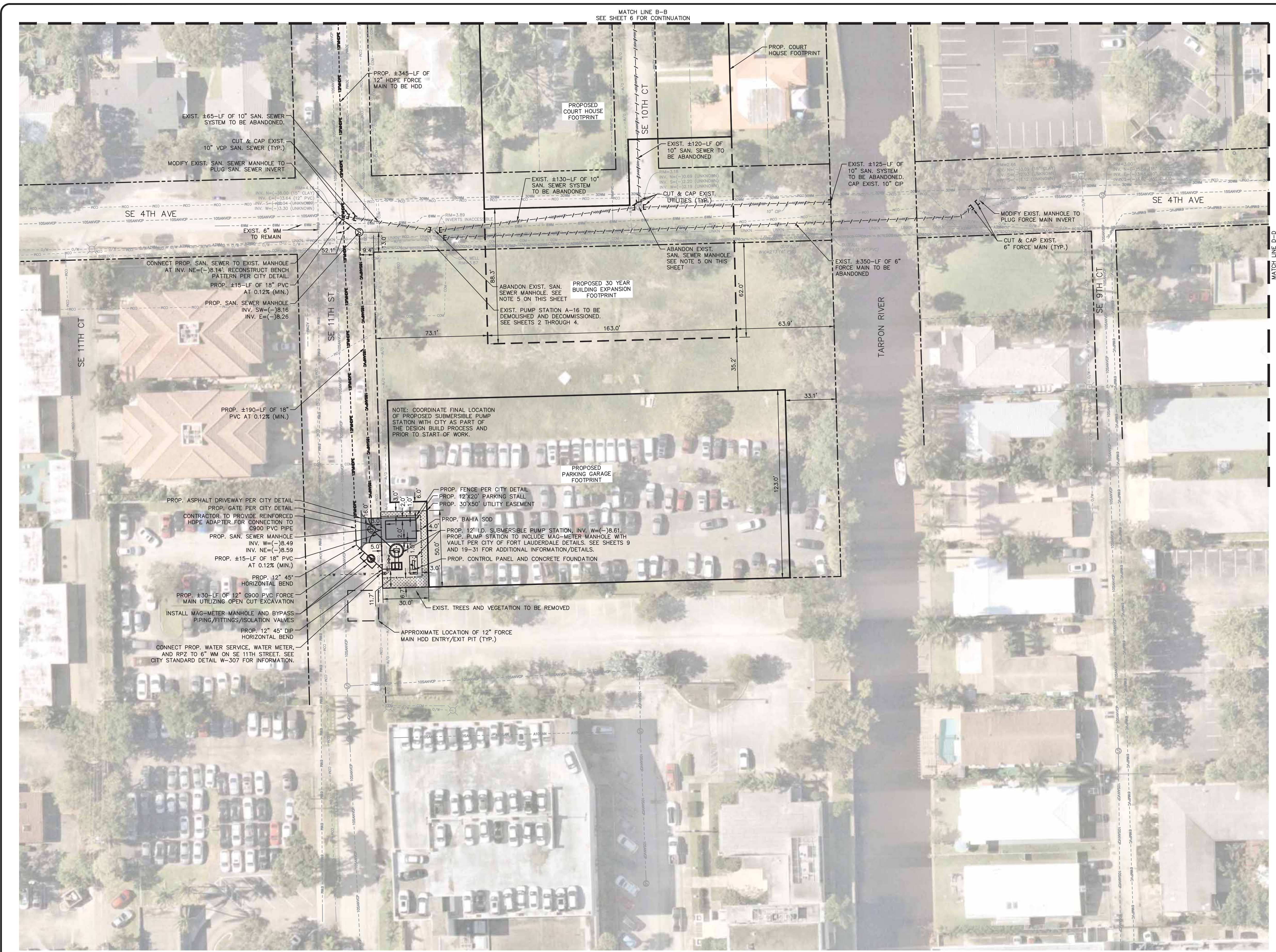
DESIGNED BY: AL
 CHECKED BY: GR
 DATE: MAR 2021
 SCALE: AS NOTED

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301



NO.	DATE	BY	CHKD	DESCRIPTION

ENGINEER: CURRY P. RILEY, P.E.
 BRG No: 46982
 DATE: 9/28/2021
 TEL: (954) 656-5100
 FAX:



LEGEND

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DESIGN CRITERIA PACKAGE

PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
CONCEPTUAL UTILITY PLAN

SHEET NO.	OF
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DRAWING FILE NO.	4-142-31

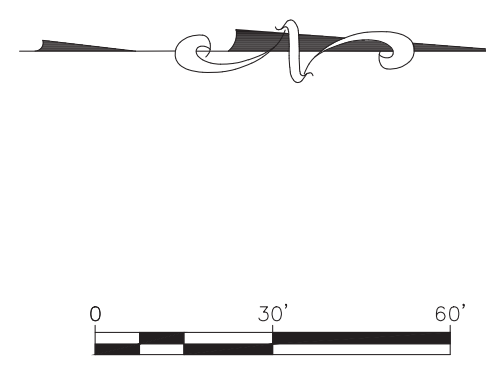
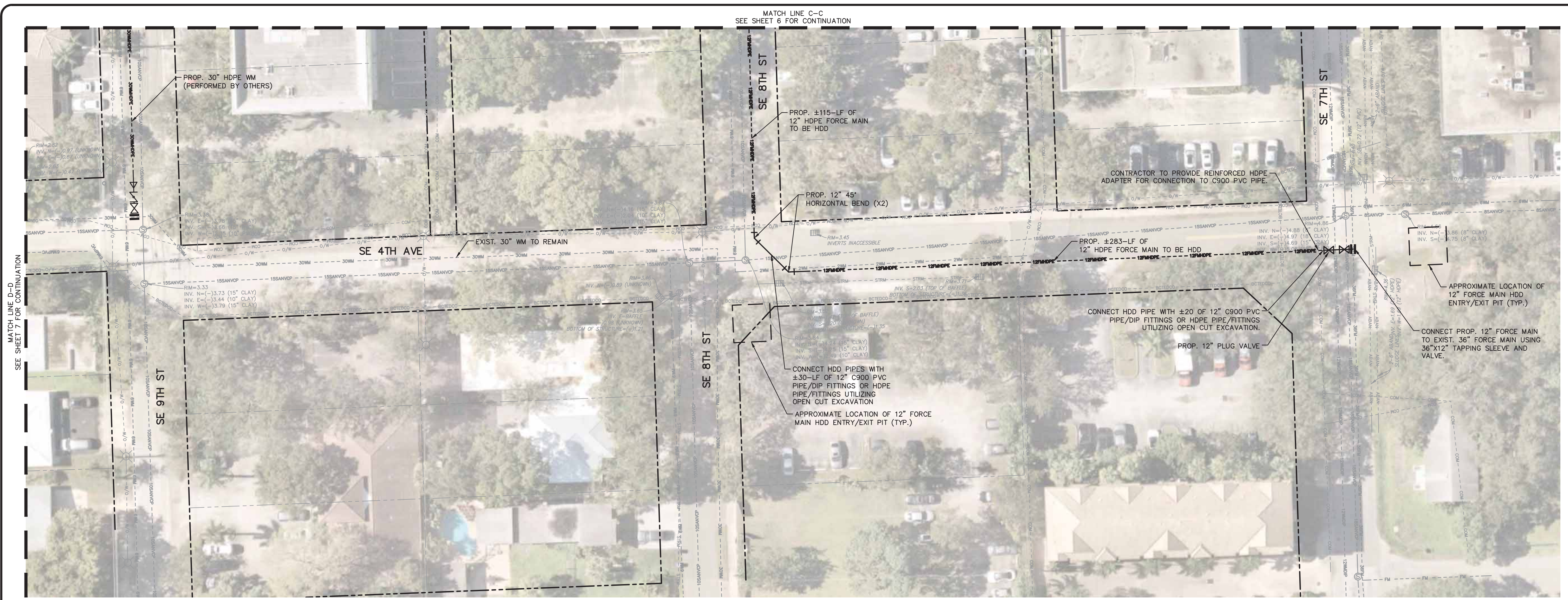
ENGINEER:
 CURV P. RIVLA, P.E.
 BRG No.: 46982
 DATE: 9/28/2021

DRAWN BY: AL
 DATE: MAR 2021
 DESIGNED BY: SCALE: AS NOTED
 CHECKED BY: GR
 FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

Plotted By: Marissa, Morissa, Sheet: SAN-PUMP STATION A-16 DESIGN CRITERIA PACKAGE, Layout: B CONCEPTUAL UTILITY PLAN, September 28, 2021, 04:18:47am, K:\VH\6\0\043 jobs\043184401 scno 12664-416 ps 0-16 rev location\CAD\plansheets\12412-MULTI-PLAN-add alternate.dwg
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DESIGN CRITERIA PACKAGE

PROJECT # 12412	
PUMP STATION A-16 UPGRADE	
WASTEWATER DESIGN CRITERIA PACKAGE	
CONCEPTUAL UTILITY PLAN	
SHEET NO.	OF
8	31
CAD FILE:	12412-MULTI-PLAN-ADD
DRAWING FILE NO.	ALTERNATE
4-142-31	

CITY OF FORT LAUDERDALE
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ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS:

NO.	DATE	BY	CHKD	DESCRIPTION

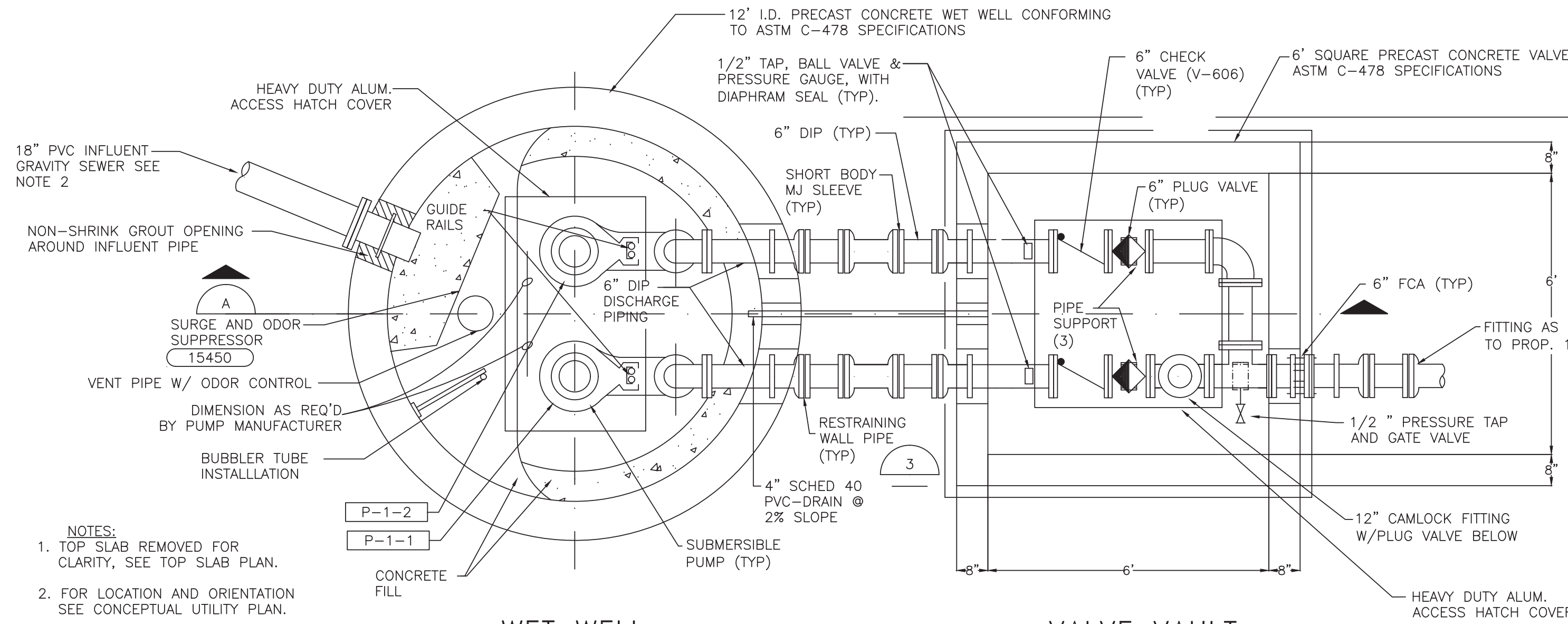
DESIGNED BY: AL
 CHECKED BY: GR
 DATE: MAR 2021
 SCALE: AS NOTED
 FIELD BOOK:

OWNER: CITY OF FORT LAUDERDALE
 BRG. NO.: 46982
 DATE: 9/28/2021
 TEL: (954) 658-5100
 FAX:

Plotted By: Marissa, Morissa, Sheet SAU-PUMP STATION A-16 DESIGN CRITERIA PACKAGE, Layout: DETL-9, September 28, 2021, 04:13:59pm, K:\1\1\0\1\043 jobs\1\1\0\1\043\12412-MULTI-DETL.dwg, K:\1\1\0\1\043 jobs\1\1\0\1\043\12412-MULTI-DETL.dwg, This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



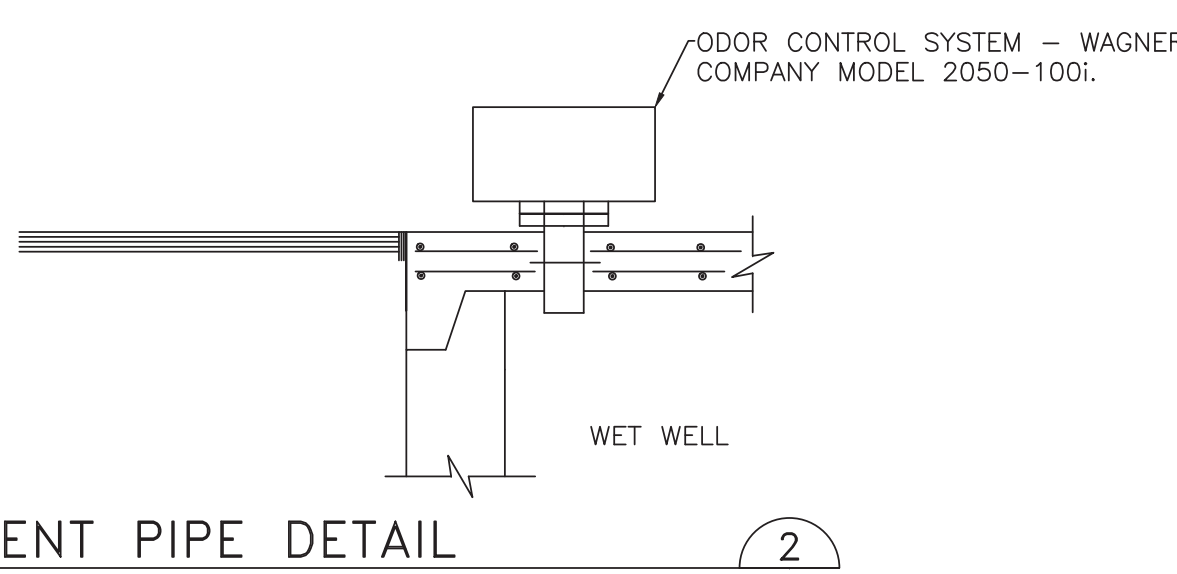
* (ALARM HAS LIGHT, AUDIBLE ALARM, AND DIALER RTU TO CITY; ALARM WILL BE DEACTIVATED BY A MANUAL SWITCH)



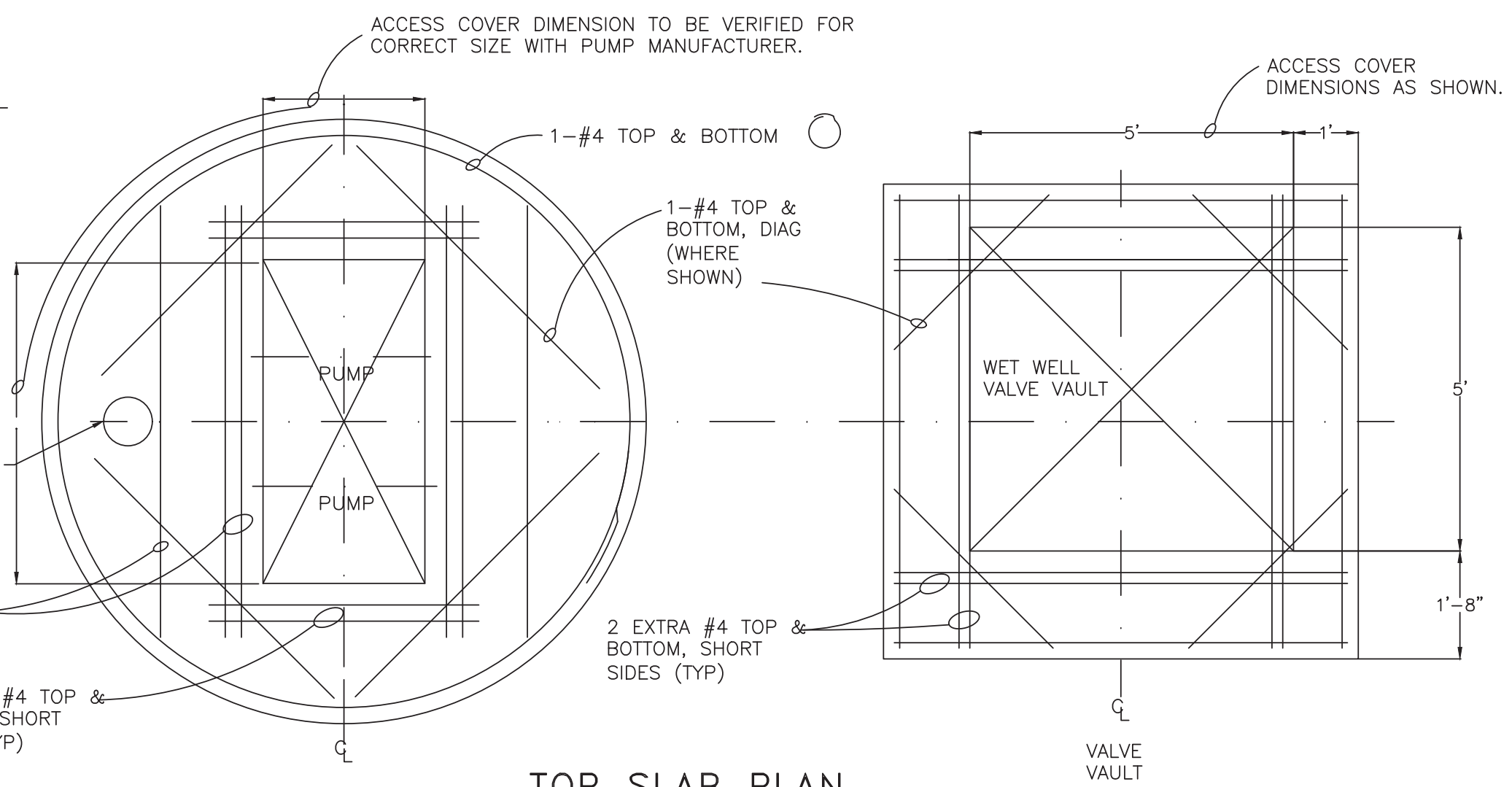
WET WELL VALVE VAULT PLAN NTS

UNIT PRICE
LUMP SUM

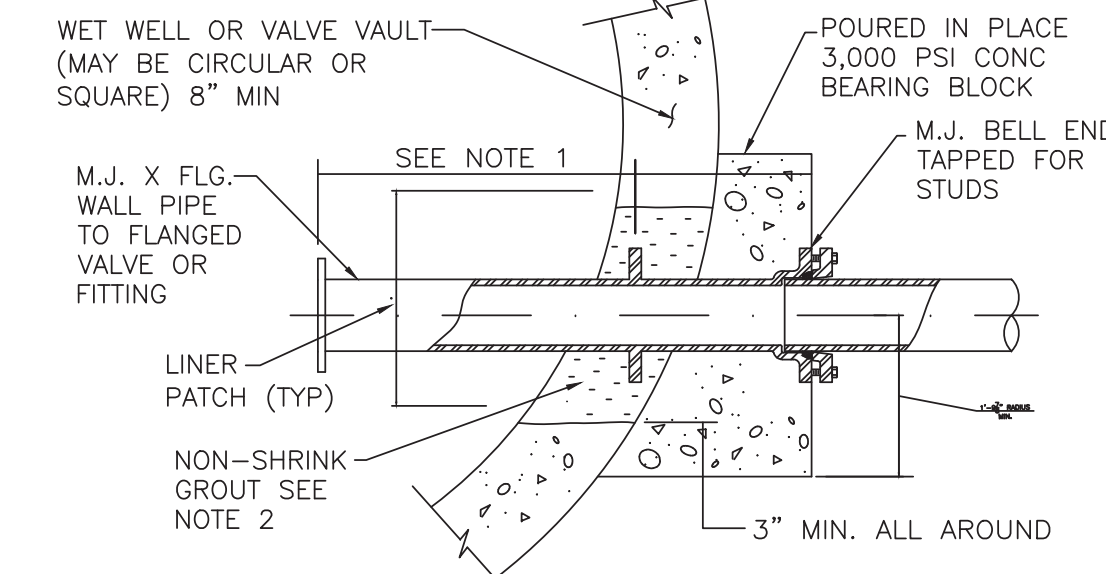
- NOTES:
- VARIES - DESIGN BUILD FIRM TO ORDER WALL PIPE WITH DIMENSIONS NECESSARY TO CENTER COLLAR IN WALL & PLACE FLANGE AT DESIRED LOCATION.
 - APPLY APPROVED WATERPROOF BONDING AGENT TO EXISTING CONCRETE SURFACE BEFORE PLACING NON-SHRINK GROUT, DRY PACK FROM EARTH SIDE, APPLY APPROVED WATERPROOF COATING AS SPECIFIED TO ELIMINATE SEEPAGE INTO VAULT OR WET WELL FROM PIPE/CONDUIT PENETRATIONS.
 - ALL BOLTS, CABLE RACK, GUIDE BARS, AND PIPE STRAPS MUST BE 316 SST.
 - ALL PIPES SHALL BE RESTRAINED.
 - ALL PUMP STATION COMPONENTS, PIPE SIZES, AND STRUCTURAL CALLOUTS SHOWN ARE FOR REFERENCE ONLY. DESIGN BUILD FIRM IS RESPONSIBLE FOR COMPLETE PUMP STATION DESIGN AND PERMITTING AS THE ENGINEER OF RECORD.
 - DESIGN BUILD FIRM TO PROVIDE WATER SERVICE/RPZ PER CITY DETAILS.



VENT PIPE DETAIL NTS



TOP SLAB PLAN NTS



RESTRAINING WALL PIPE DETAIL NTS

SCHEDULE OF ELEVATIONS (FEET MSL)

LETTER	LEVEL DESCRIPTION	A-16
A	TOP OF PUMP STATION & VAULT SLABS	4.20
B	FINISH GRADE ADJACENT SLAB	3.70
C	INFLUENT GRAVITY SEWER INVERT	(-)8.61
D	HIGH WATER ALARM	(-)9.60
E	LAG PUMP ON	(-)11.60
F	LEAD PUMP ON	(-)12.60
G	PUMPS OFF	(-)14.60
H	TOP OF FLOOR SLAB	(-)16.60
I	TOP OF KEY	(-)16.90
J	BOTTOM OF KEY	(-)17.90
K	BOTTOM OF TREMIE PLUG	(-)24.50
	INSIDE DIAMETER PUMP STATION	12'
	FORCE MAIN PIPING (D.I.P.)	12"
	PUMP OPERATION REQUIREMENTS	750 gpm @ 107' 45 HP

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 - BASE FLOOD ELEVATION (BFE): 6.0' NAVD 1988

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DESIGN CRITERIA PACKAGE

PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
CONCEPTUAL PUMP STATION DETAILS

SHEET NO.	OF
9	31

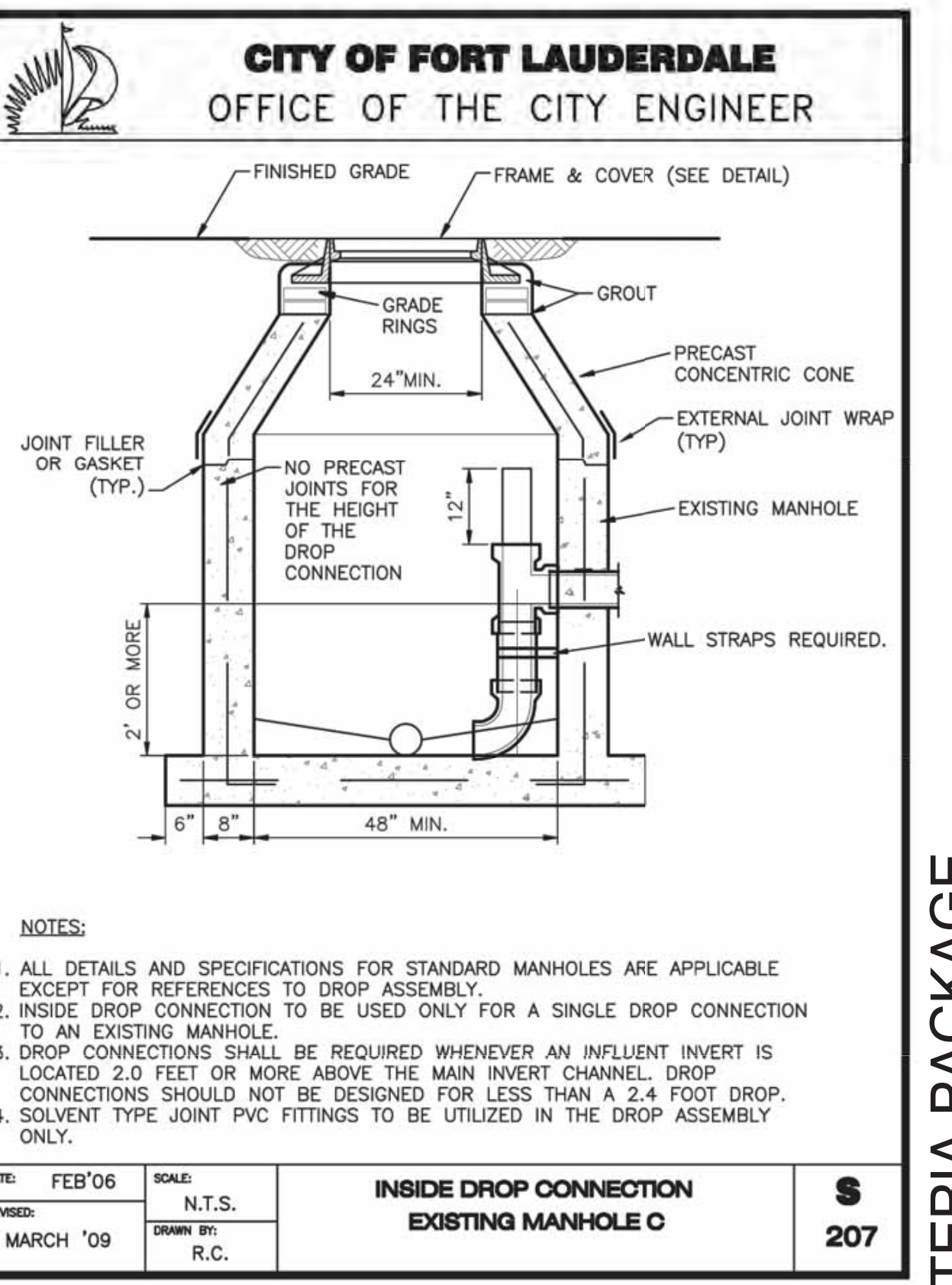
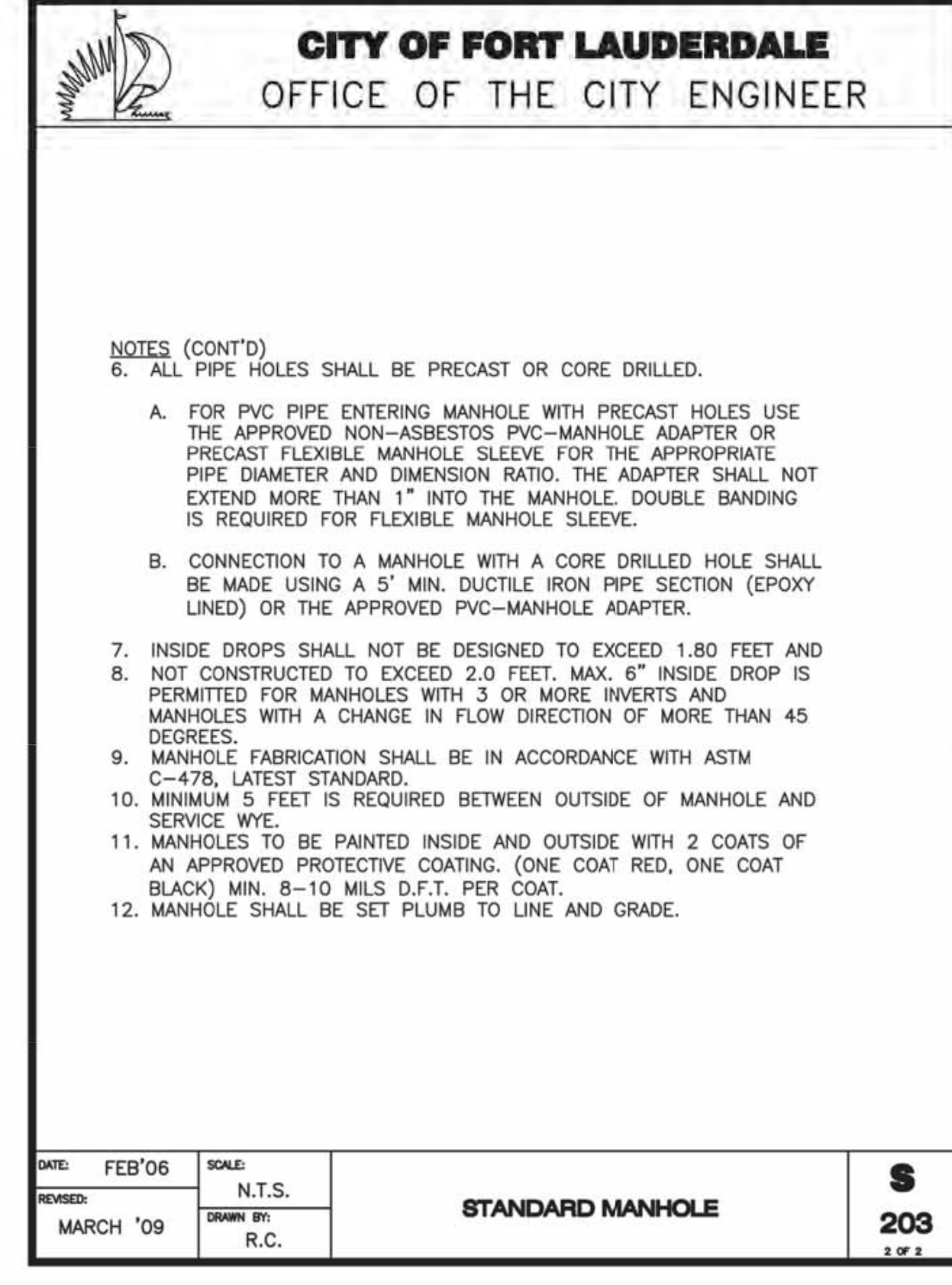
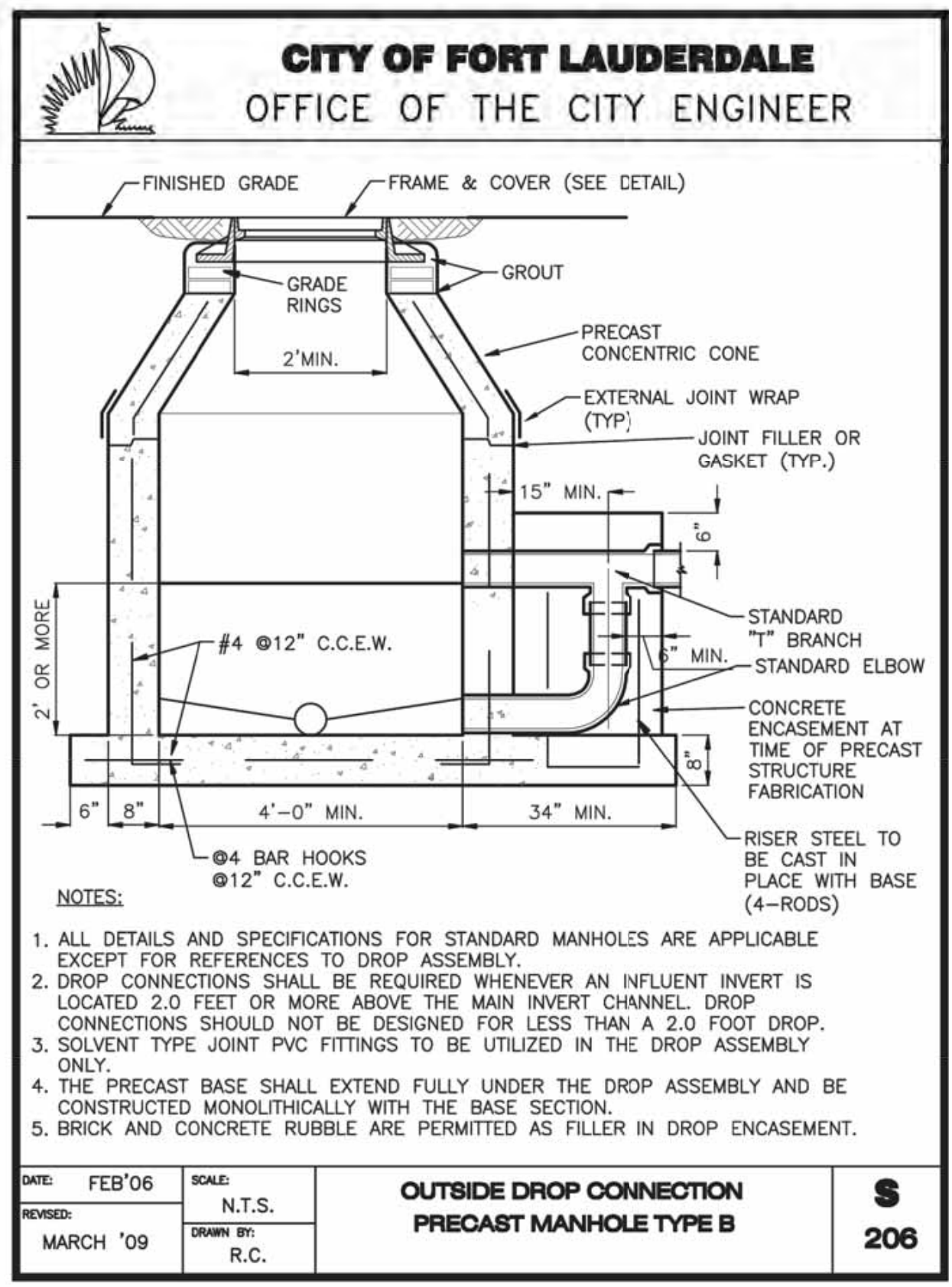
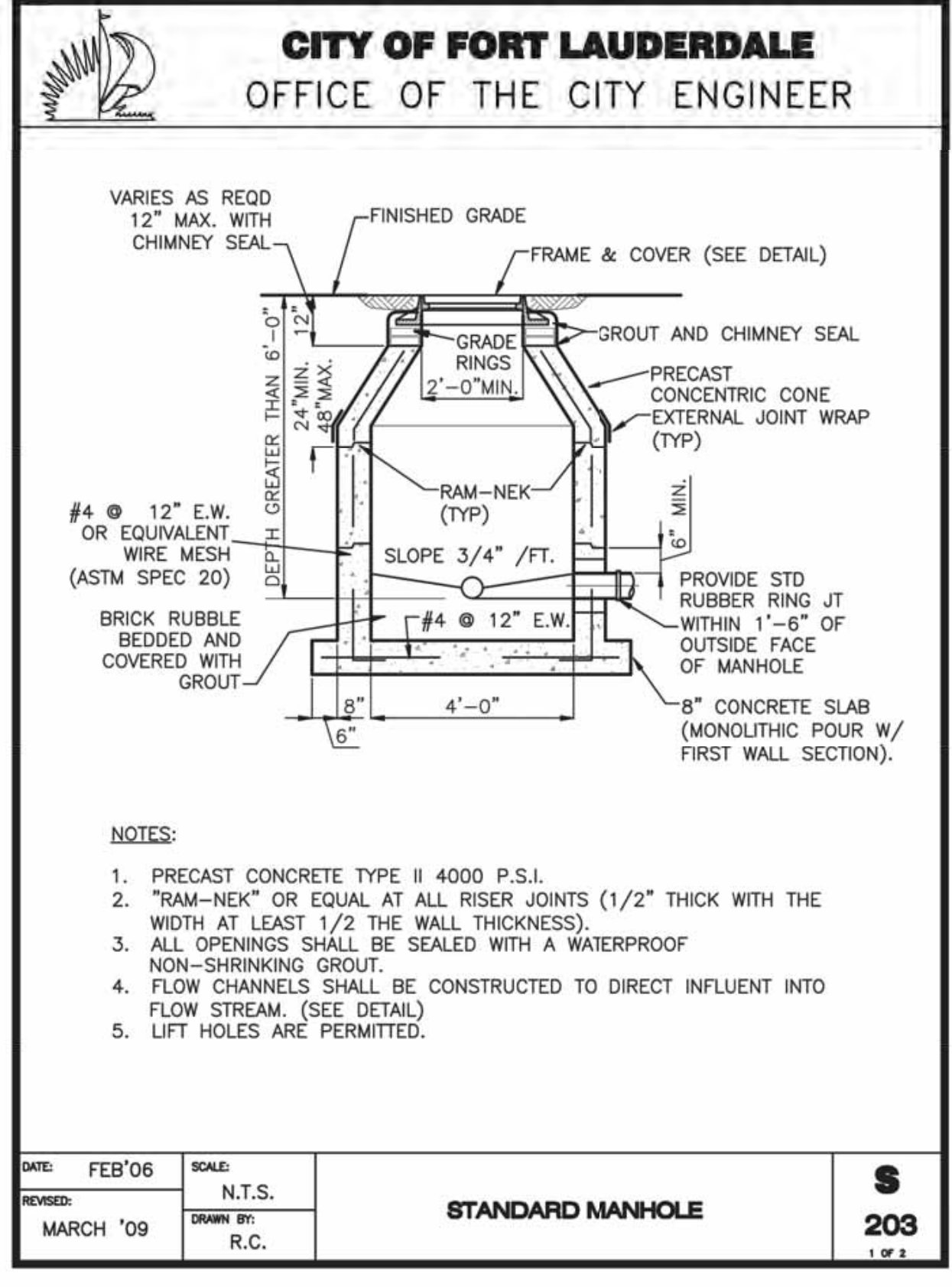
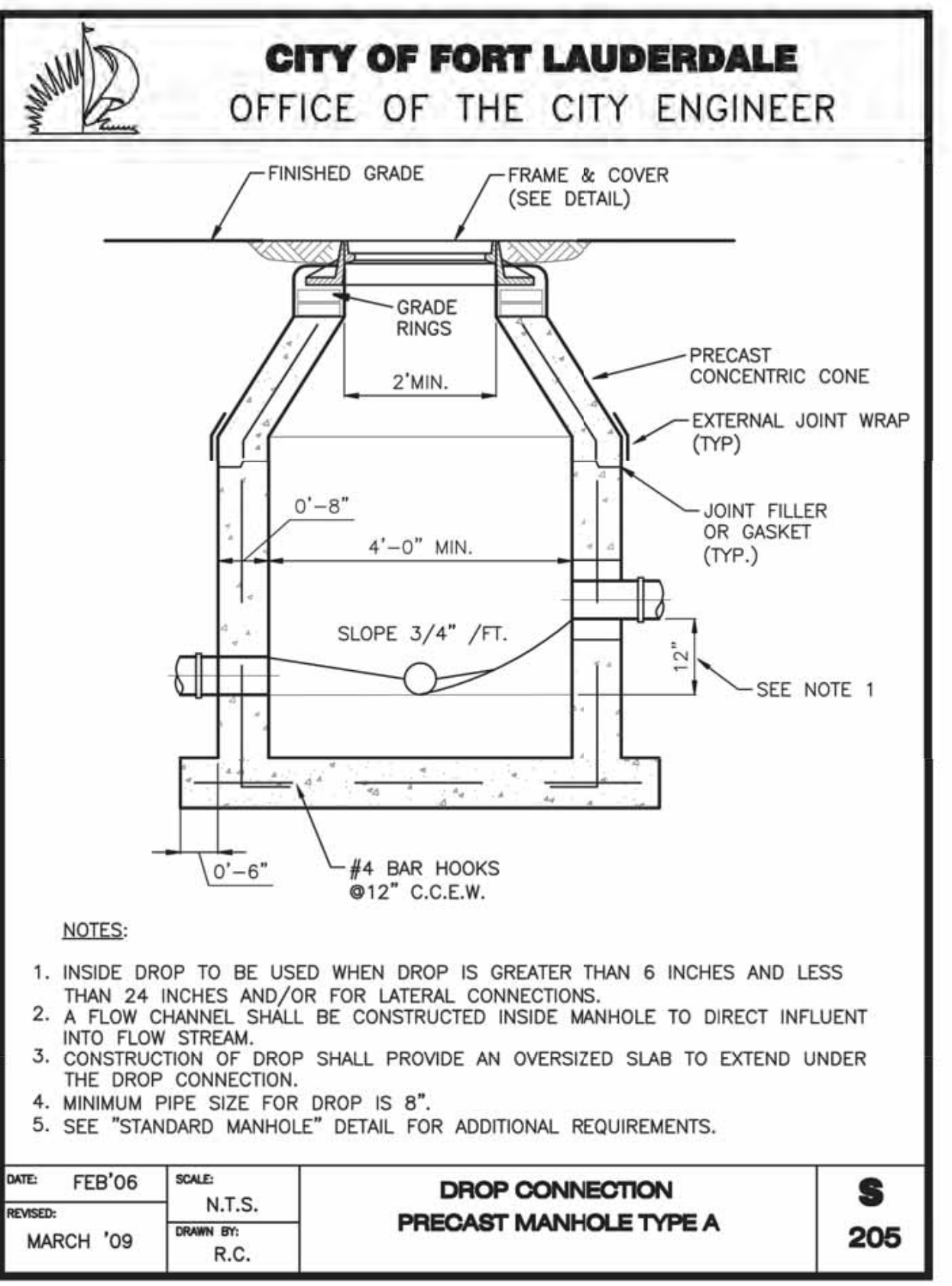
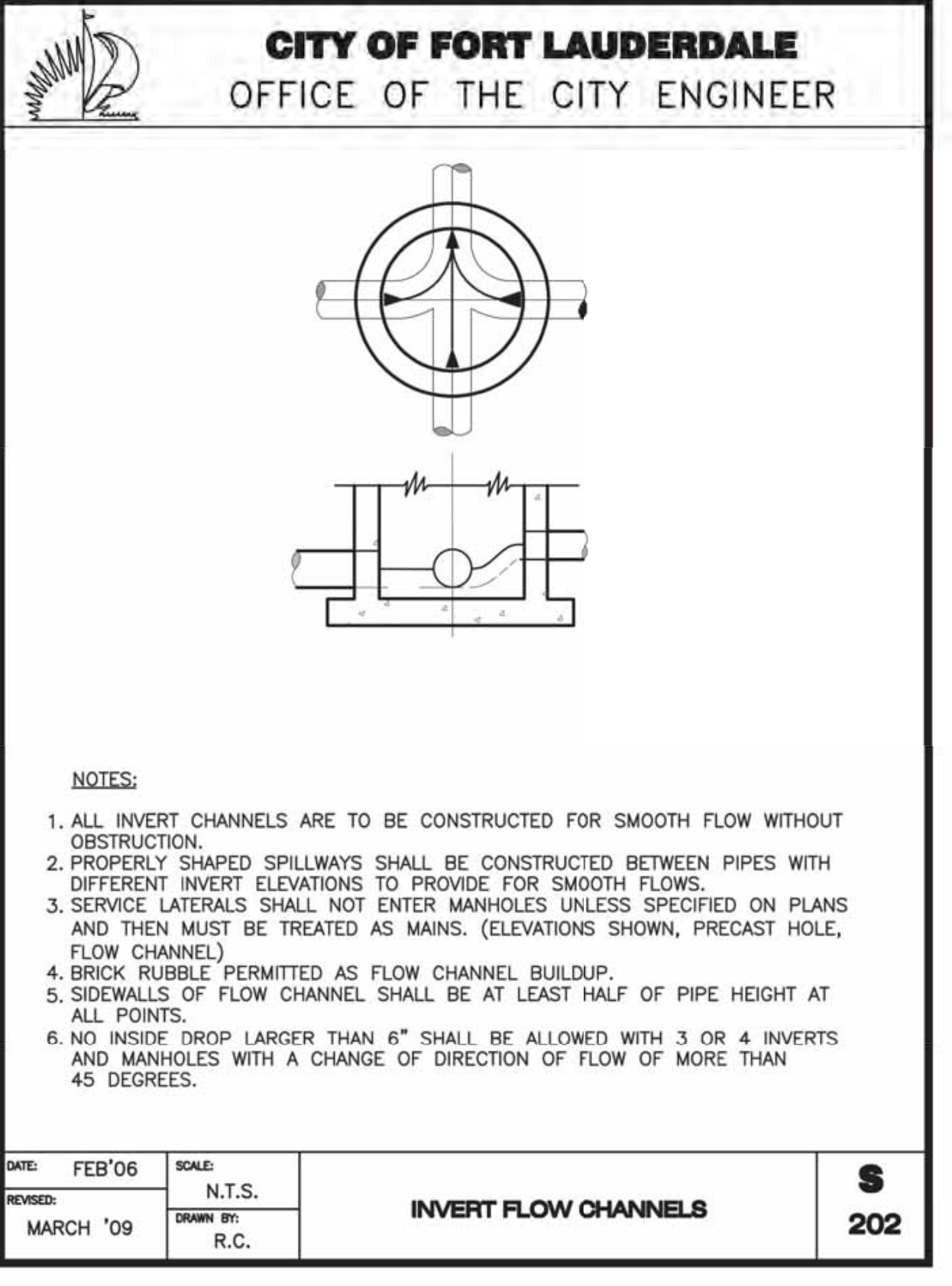
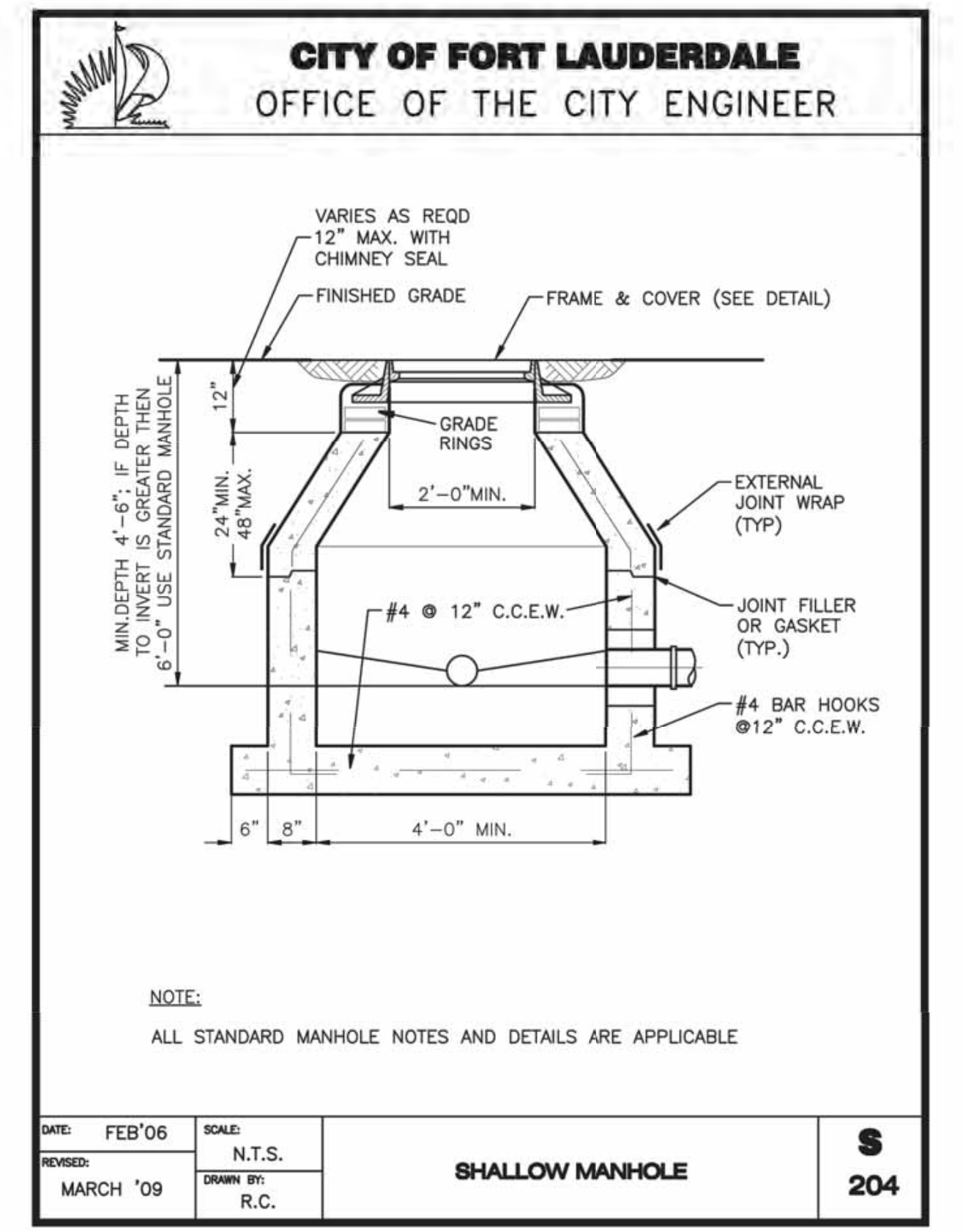
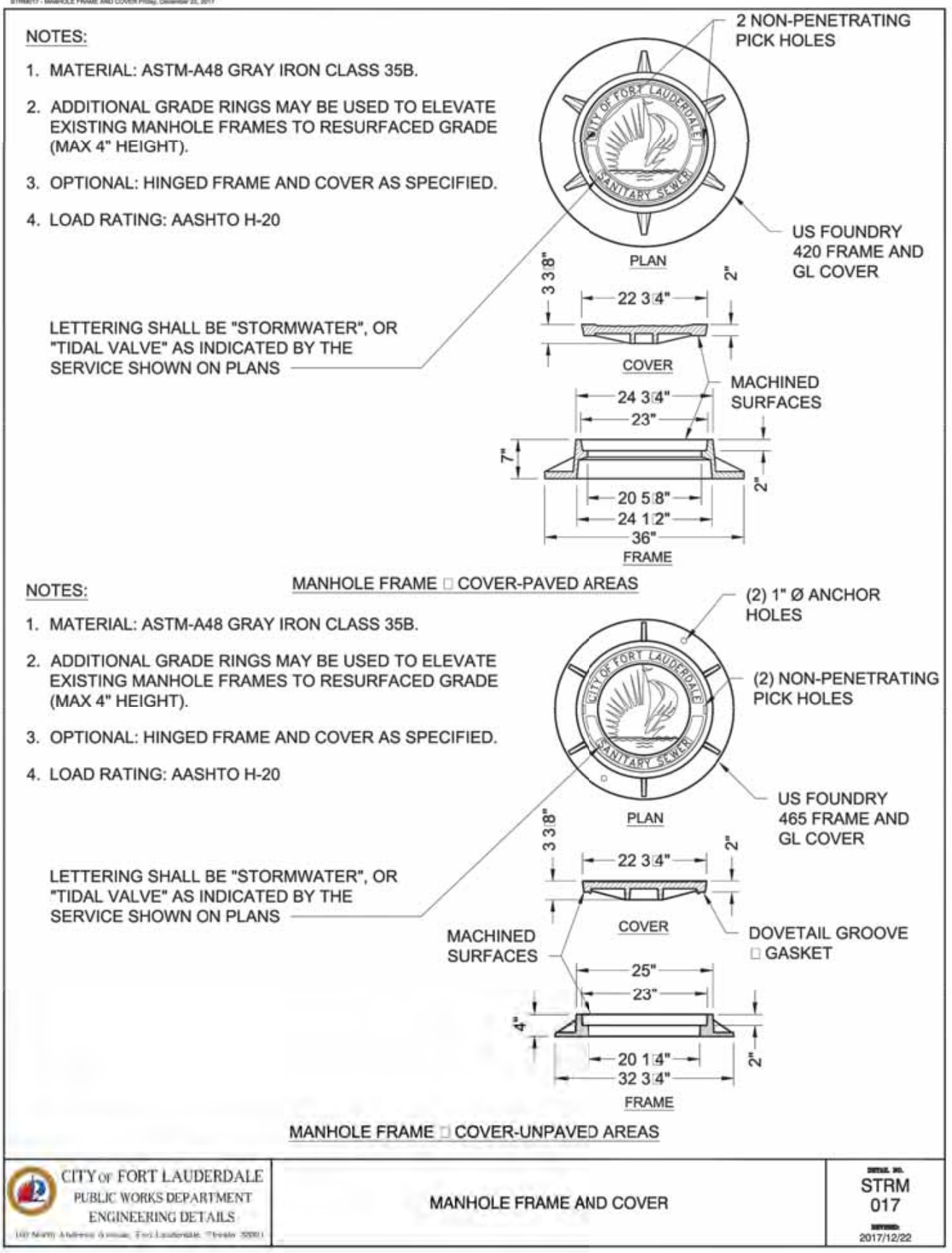
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DRAWING FILE NO. 4-142-31

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DESIGNED BY: SCALE: AS NOTED
CHECKED BY: GR
FIELD BOOK:

ENGINEER: CURRY P. RAY, P.E.
BRG No. 46682
DATE: 9/28/2021
TEL: (954) 656-5100
FAX:

Plotted By: Marissa, Marissa, Sheet SAN-PUMP STATION A-16 DESIGN CRITERIA PACKAGE, Layout: DETAIL-10, September, 28, 2021, 04:14:02pm, K:\V\16\043 jobs\04164401.cpio 12412-416 ps a-16 rev location\CAD\plansheets\12412-MULTI-DET.DWG
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ENGINEER: CURRY P. RAY, P.E. REG. NO. 46682 DATE: 9/28/2021

DRAWN BY: AL DATE: MAR 2021

DESIGNED BY: CR SCALE: AS NOTED

CHECKED BY: CR

FIELD BOOK: 203

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

TEL: (954) 656-5100 FAX:

NO.	DATE	BY	CHKD	DESCRIPTION

PROJECT # 12412
 PUMP STATION A-16 UPGRADE
 WASTEWATER DESIGN CRITERIA PACKAGE
 STANDARD DETAILS

SHEET NO.	OF
10	31
CAD FILE:	12412-MULTI-DET.DWG
DRAWING FILE NO.	4-142-31

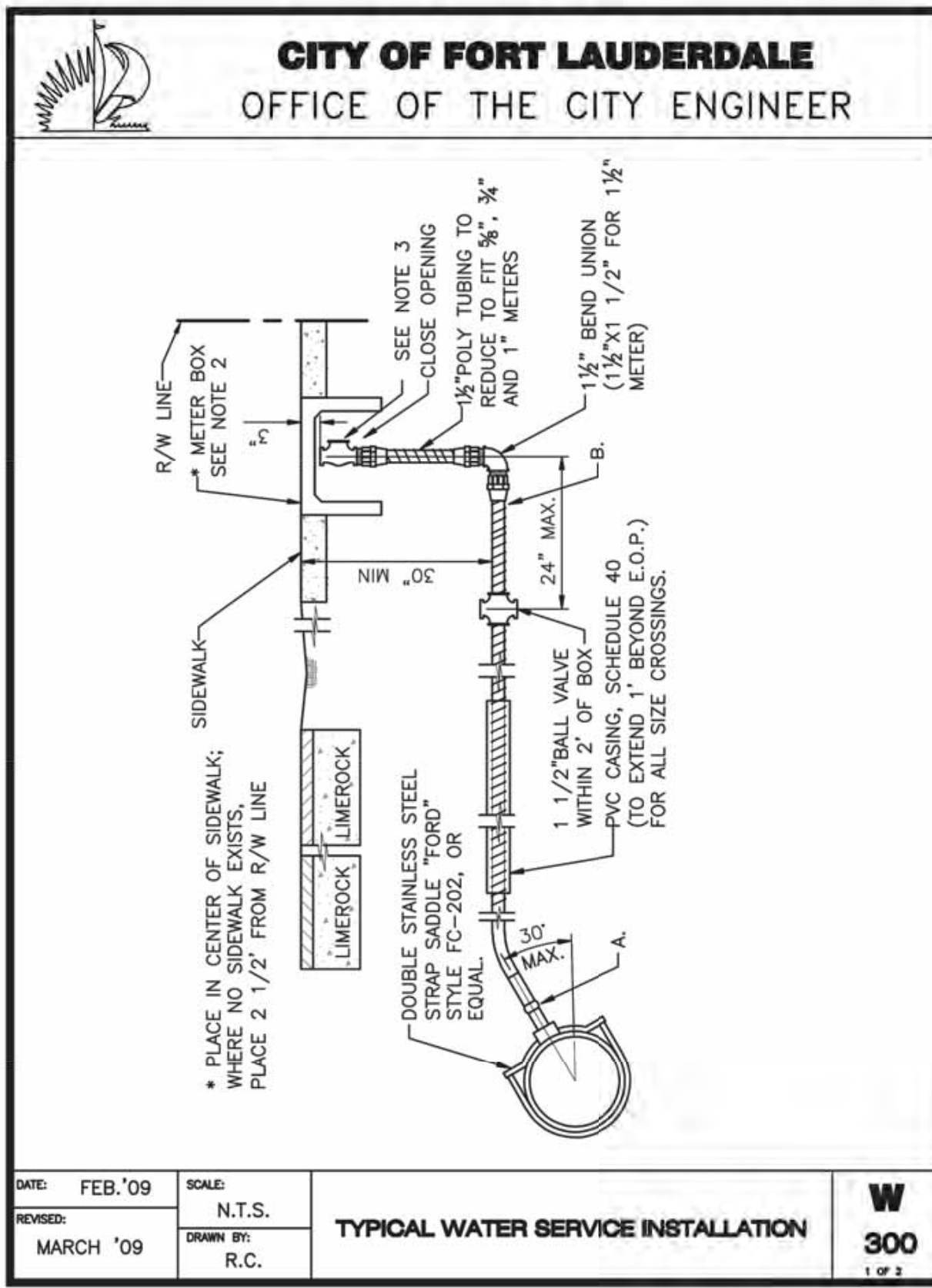
PREPARED BY:

Kimley»Horn

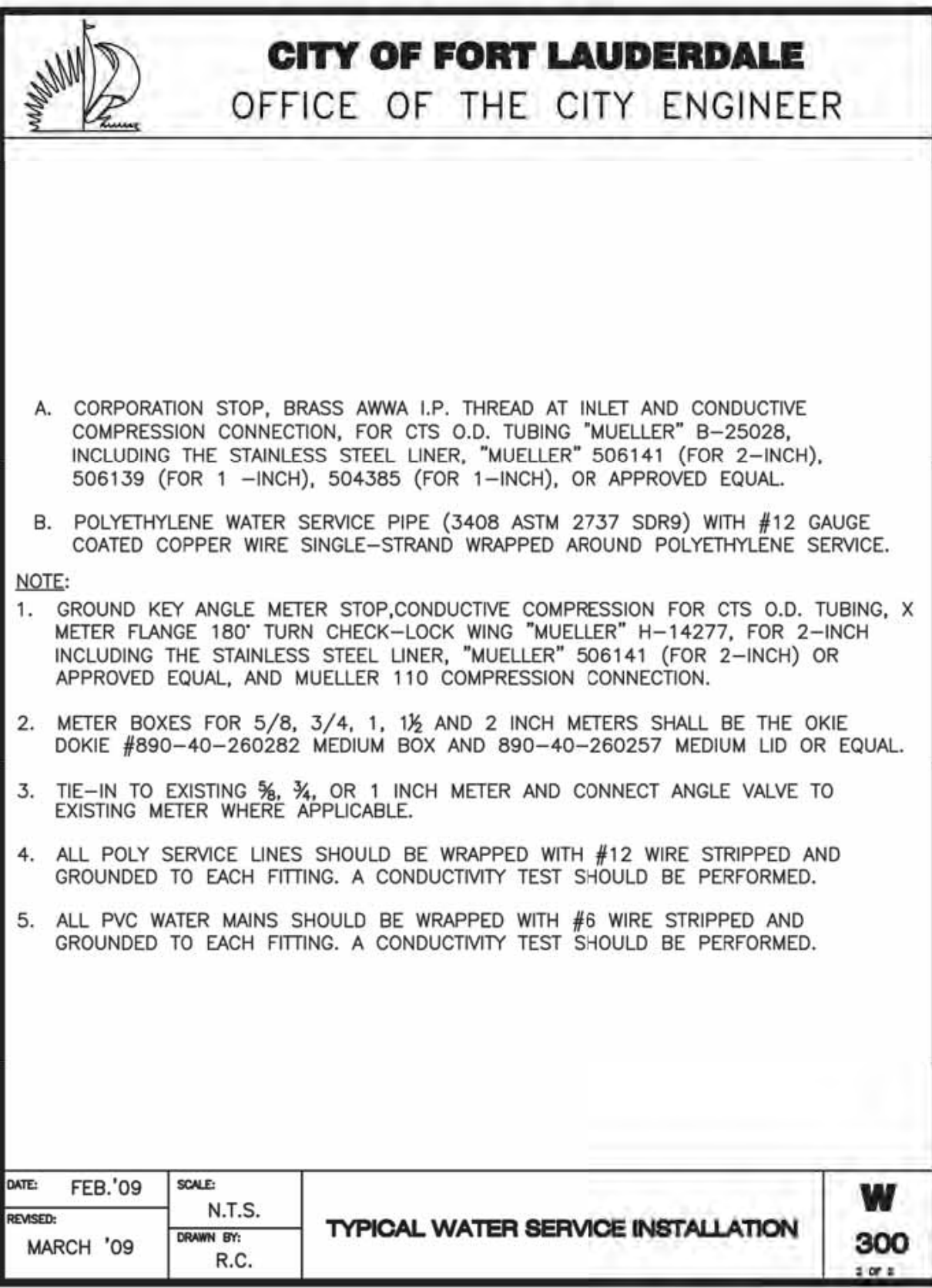
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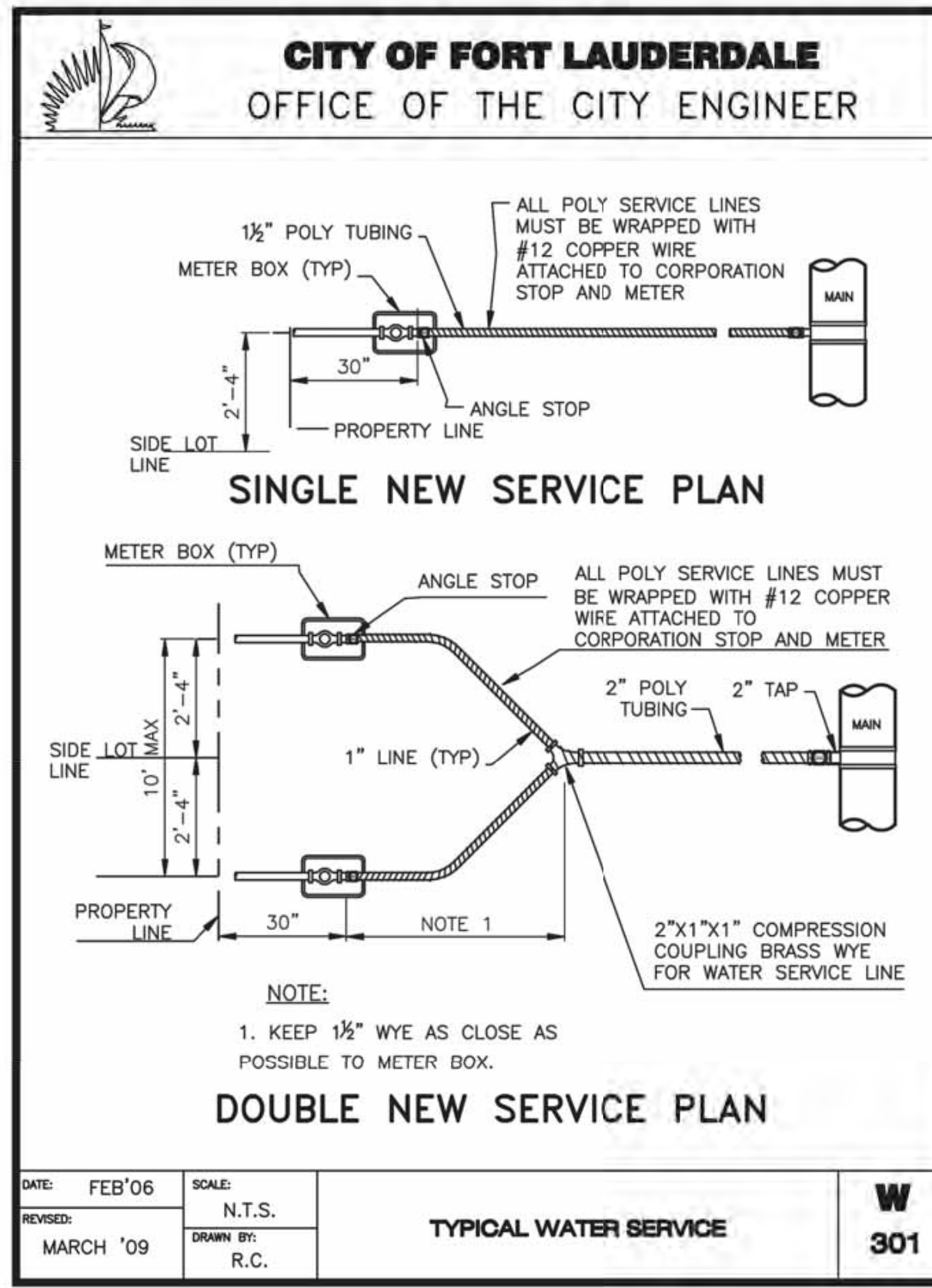
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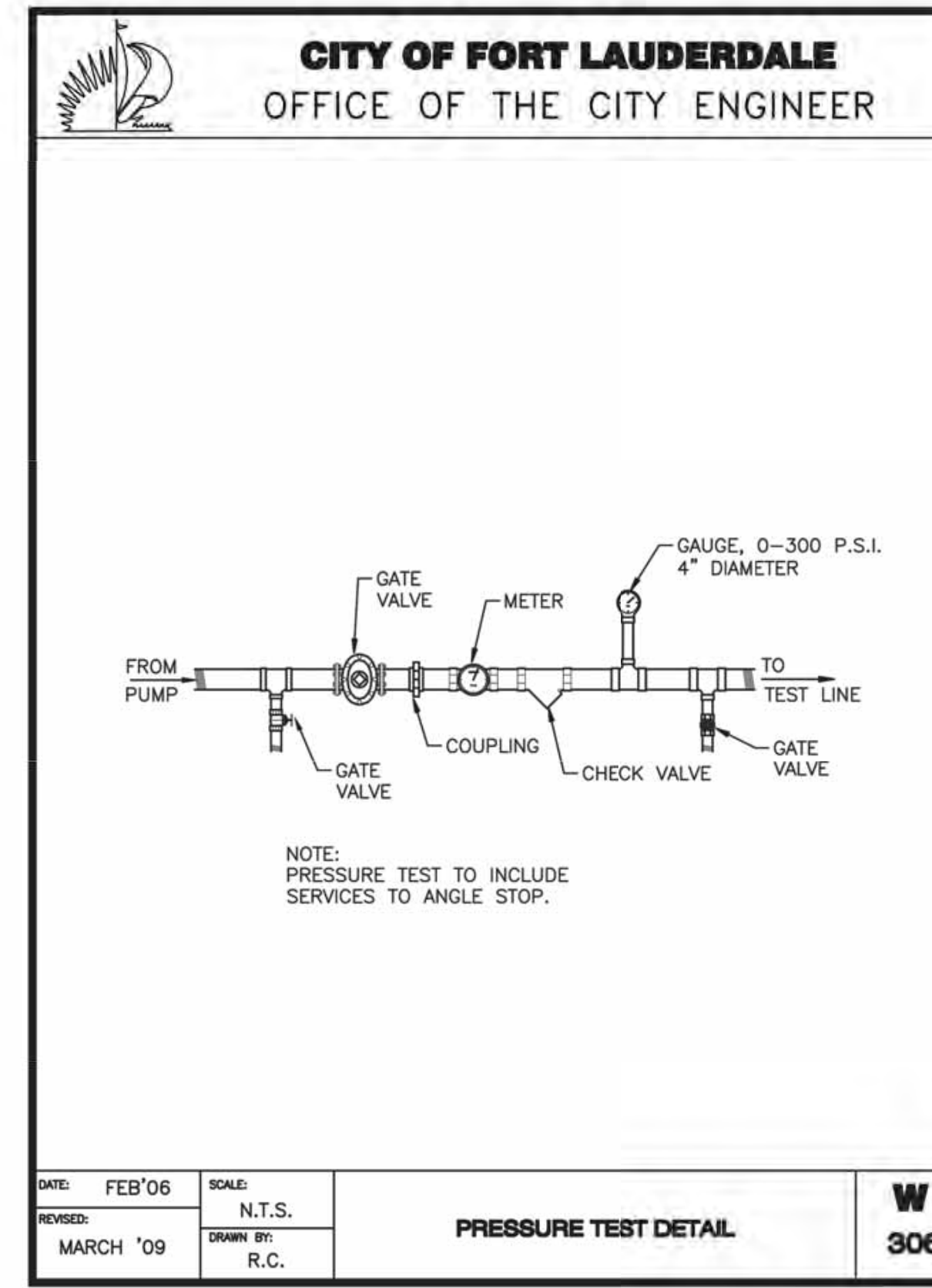
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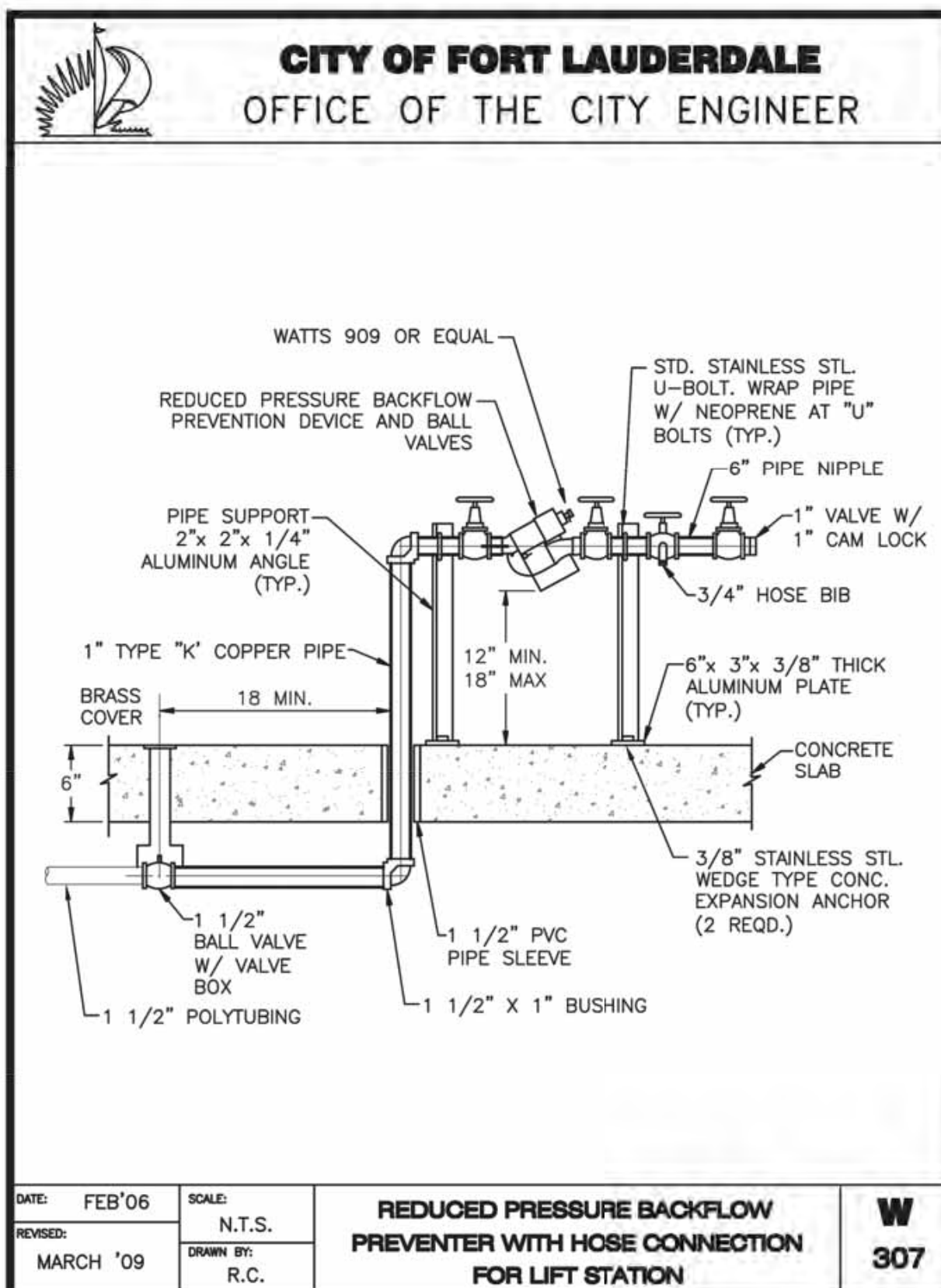
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TYPICAL WATER SERVICE INSTALLATION		



DATE: FEB '06	SCALE: N.T.S.	W 301
REVISED: MARCH '09	DRAWN BY: R.C.	
TYPICAL WATER SERVICE		



DATE: FEB '06	SCALE: N.T.S.	W 306
REVISED: MARCH '09	DRAWN BY: R.C.	
PRESSURE TEST DETAIL		



DATE: FEB '06	SCALE: N.T.S.	W 307
REVISED: MARCH '09	DRAWN BY: R.C.	
REDUCED PRESSURE BACKFLOW PREVENTER WITH HOSE CONNECTION FOR LIFT STATION		



ENGINEER: CURV P. RAY, P.E.
 BRG No: 46682
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 TEL: (954) 656-5100
 FAX:

DRAWN BY: AL	DATE: MAR 2021
DESIGNED BY: CR	SCALE: AS NOTED
CHECKED BY: CR	FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

DESIGN CRITERIA PACKAGE
 PROJECT # 12412
 PUMP STATION A-16 UPGRADE
 WASTEWATER DESIGN CRITERIA PACKAGE
 STANDARD DETAILS

SHEET NO.	OF
11	31
CAD FILE:	12412-MULTI-DETL
DRAWING FILE NO.	4-142-31

PREPARED BY:
Kimley»Horn
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Plotted By: Marissa, Morissa, Sheet: SAN-PUMP-STATION A-16 DESIGN CRITERIA PACKAGE, Layout: DETL-12, September 28, 2021, 04:14:11pm, K:\VL\civil\043 jobs\043184401 csm 12464-416 ps a-16 rev location\CAD\plansheets\12412-MULTI-DETL.dwg
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WATER MAIN SEPARATION IN ACCORDANCE WITH F.A.C. RULE 62-555.314

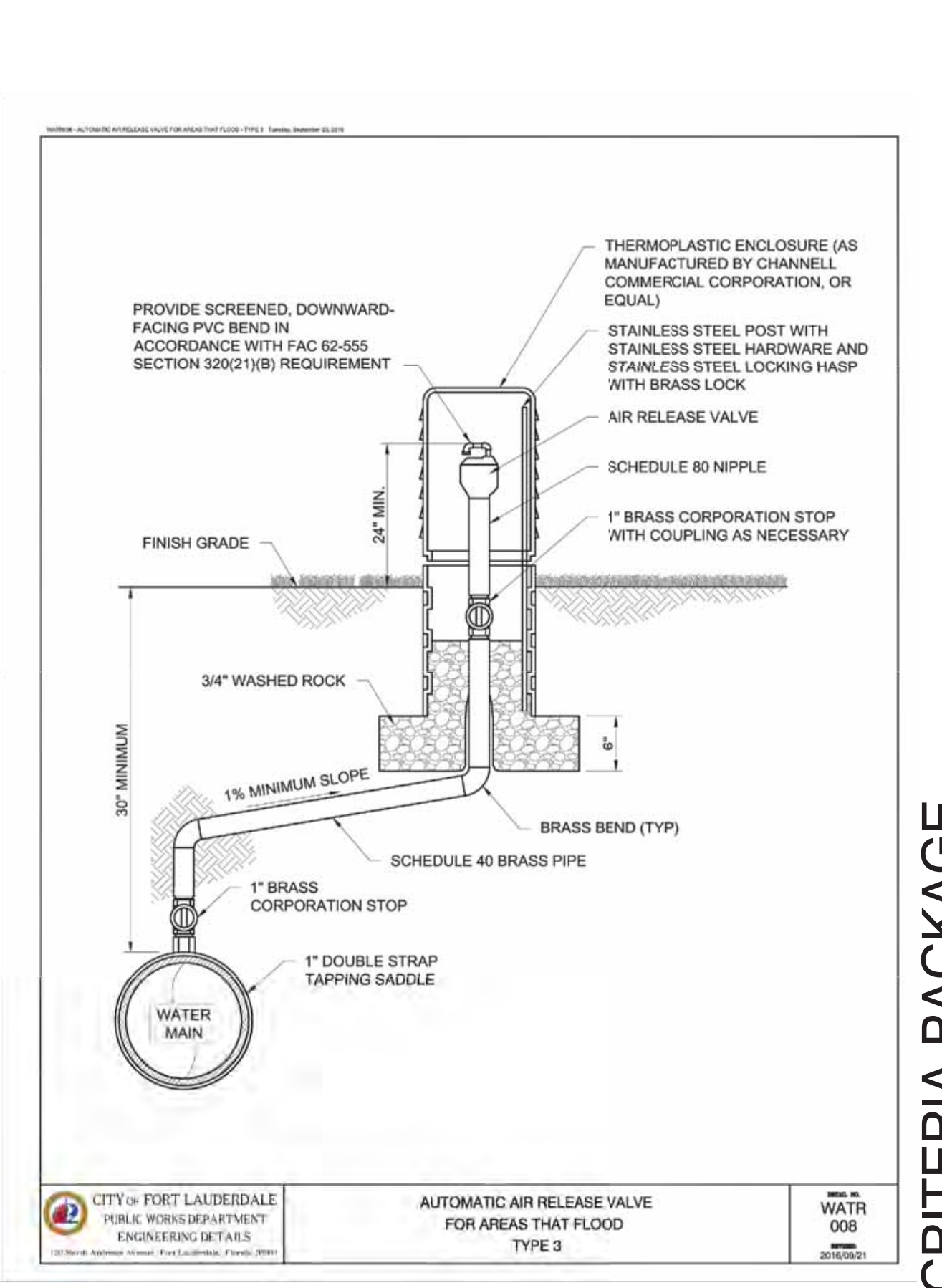
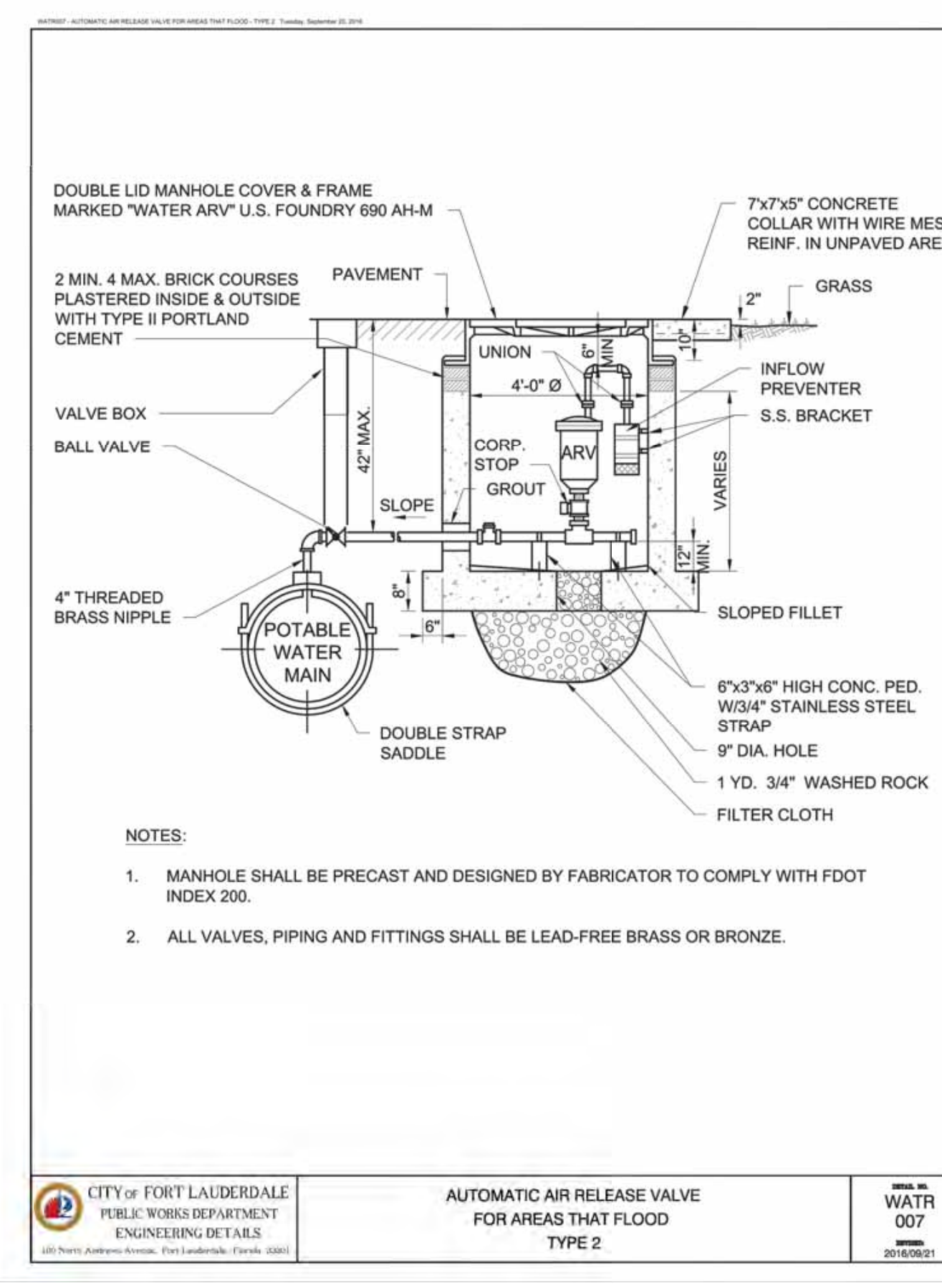
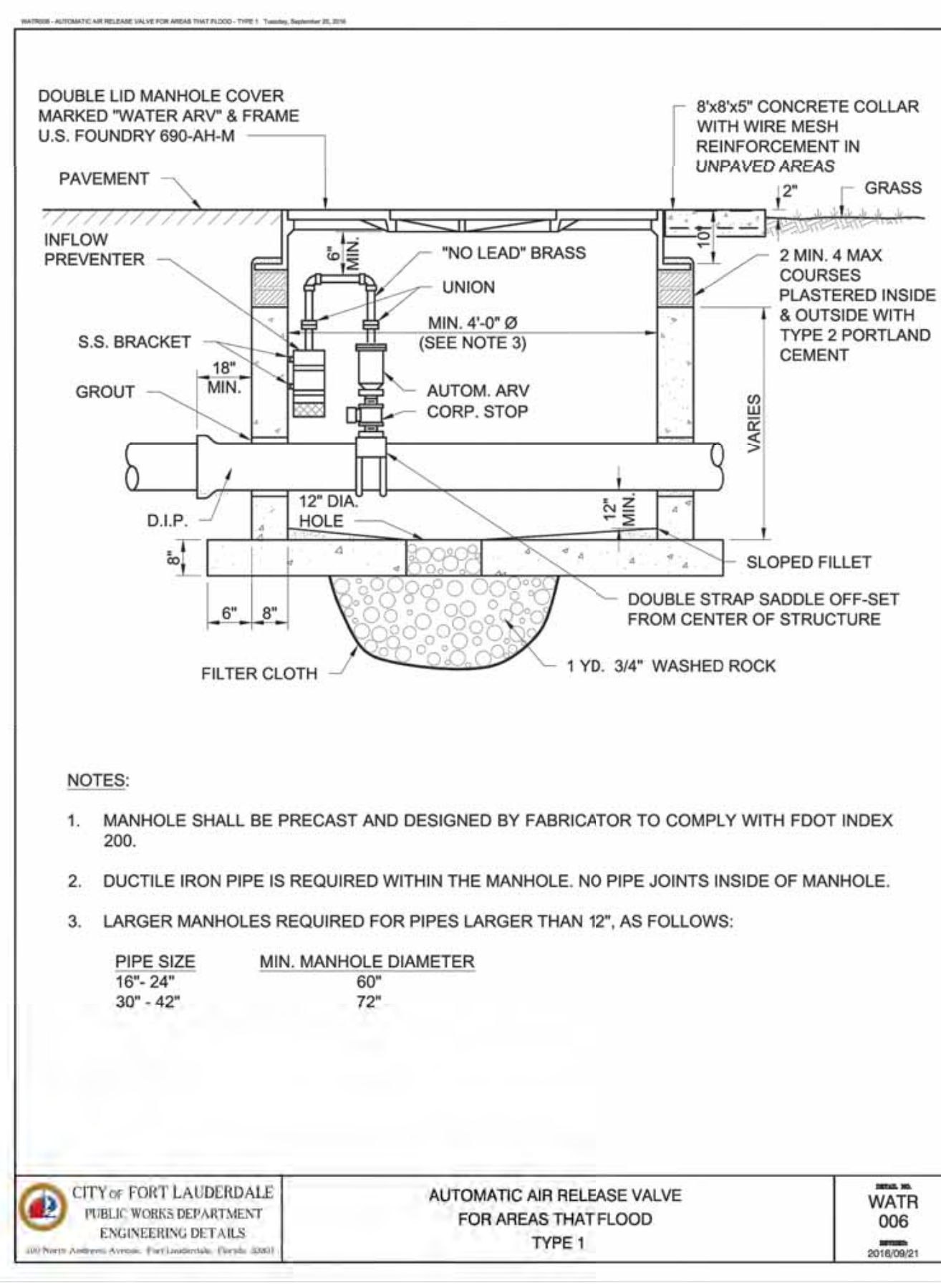
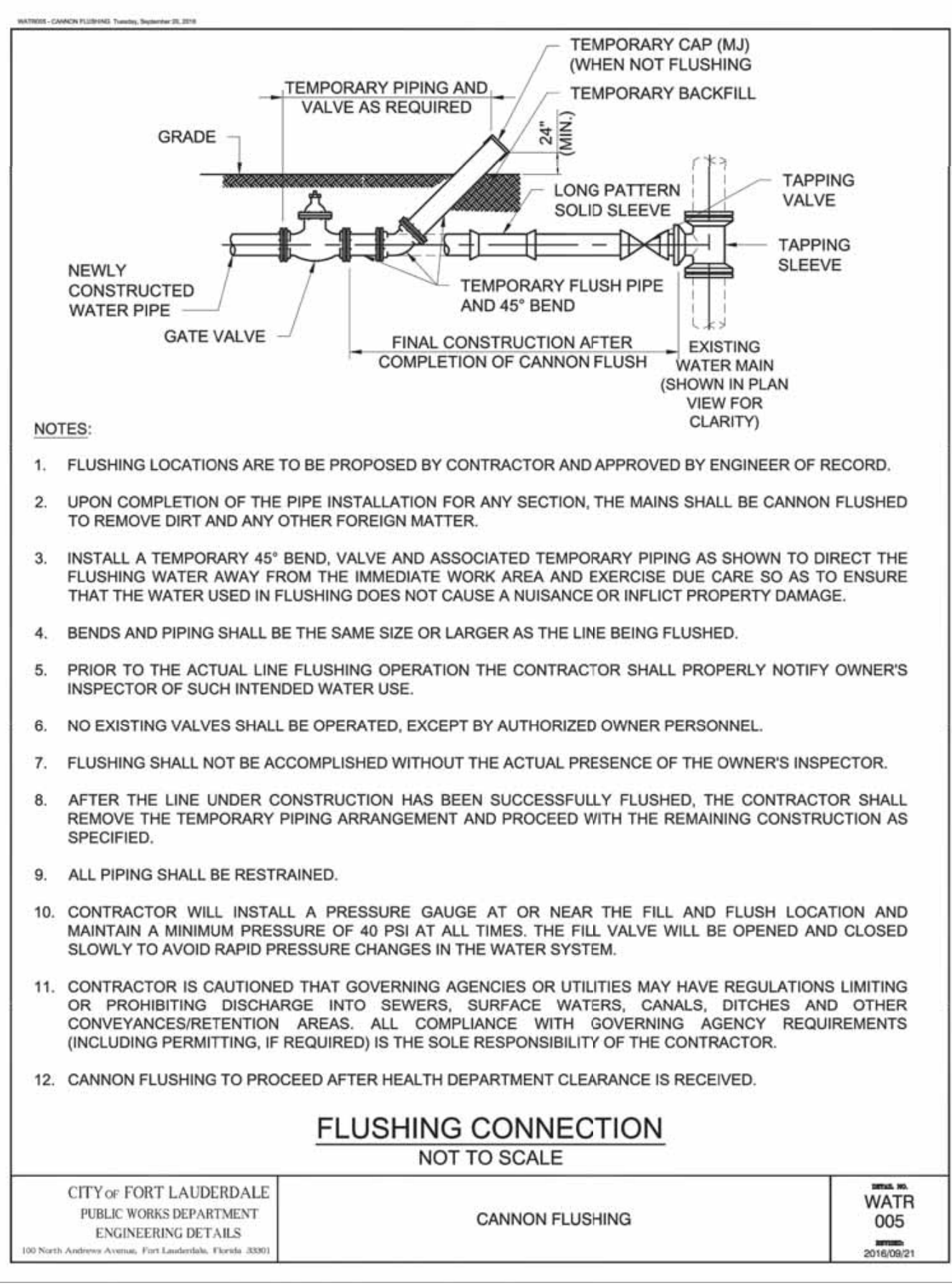
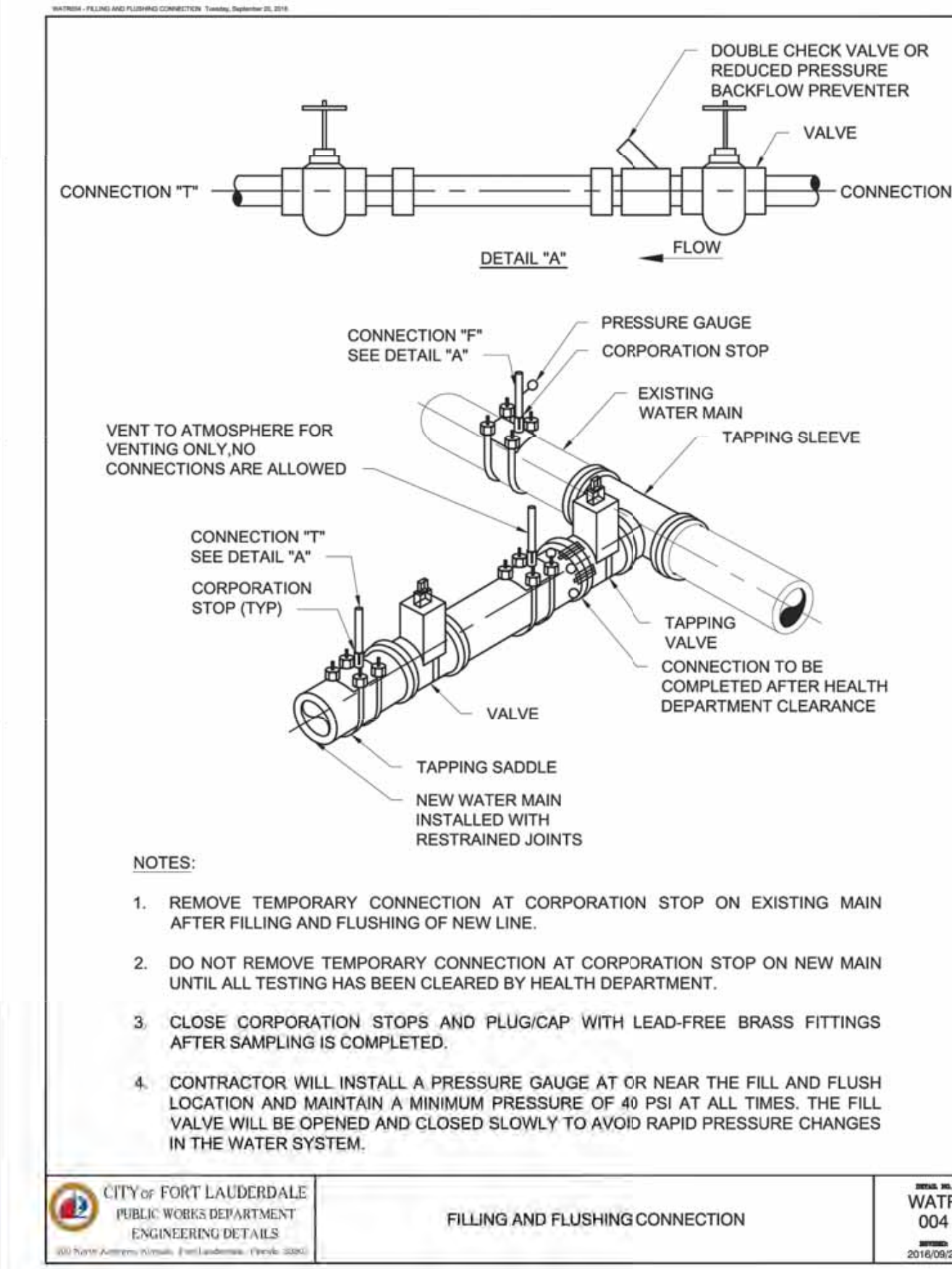
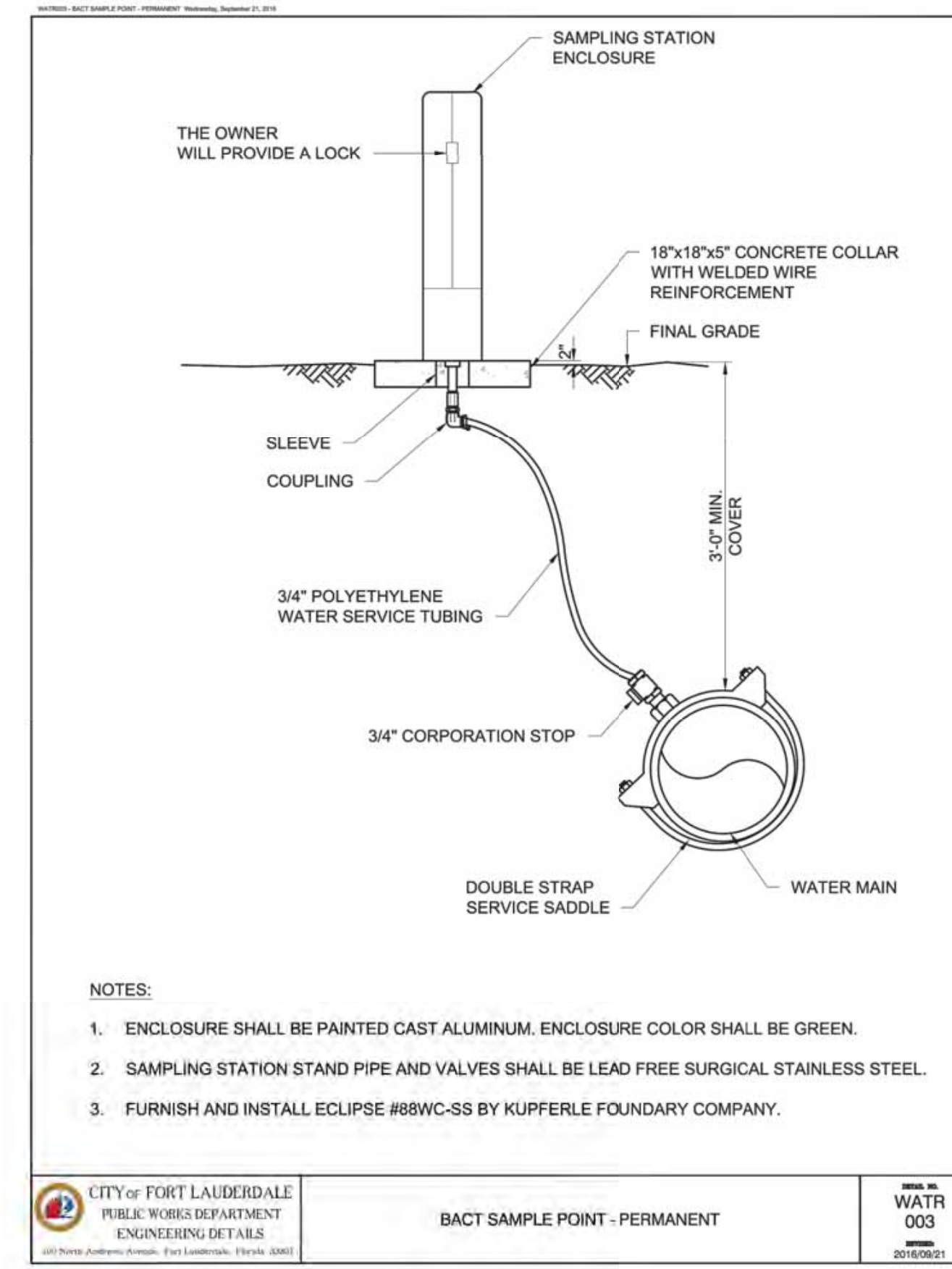
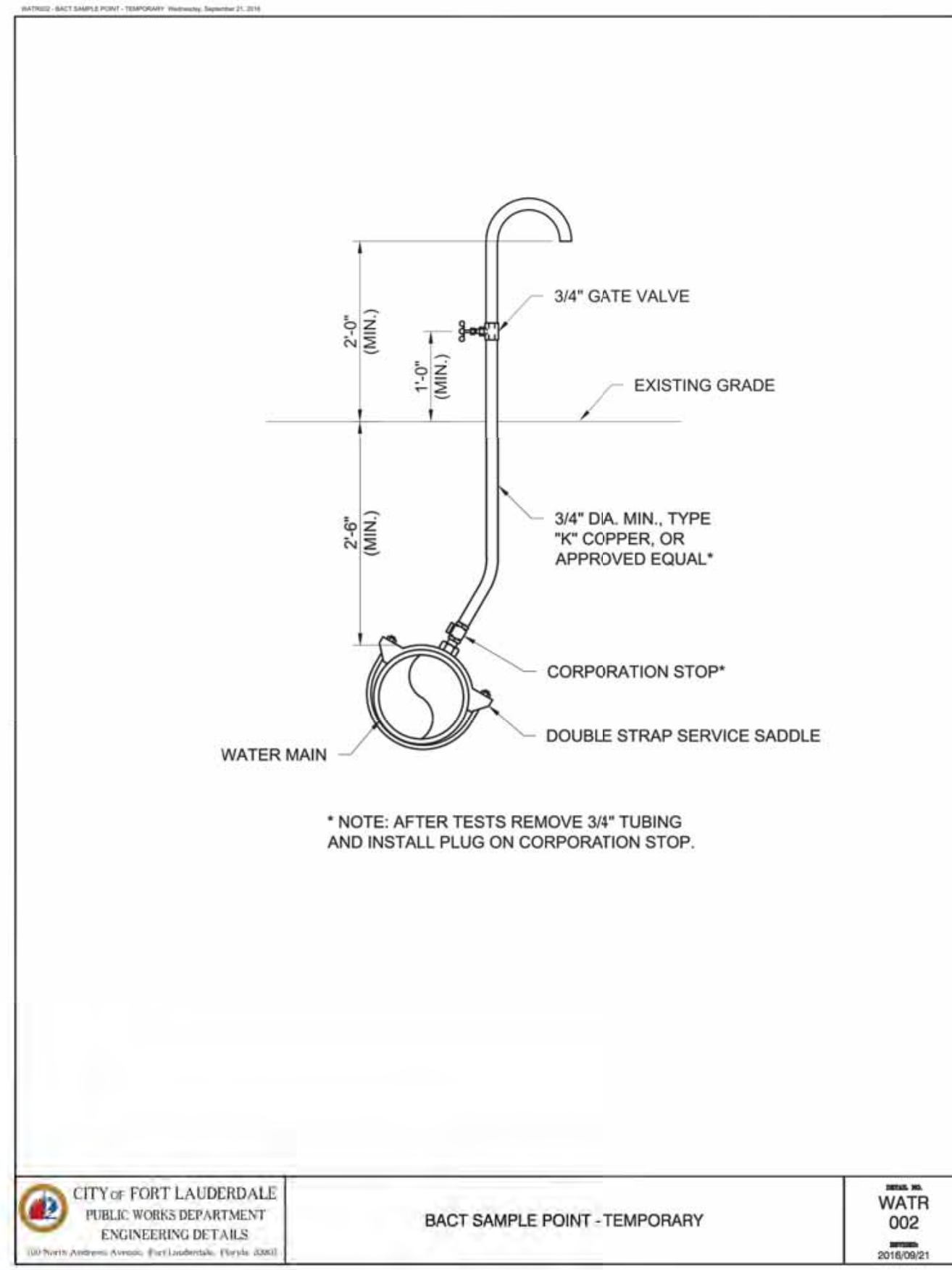
OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (NOTE 1)	JOINT SPACING AT CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORM WATER FORCE MAIN, RECLAIMED WATER (NOTE 2)			NOTE 4
VACUUM SANITARY SEWER			NOTE 4
GRAVITY SANITARY SEWER, (NOTE 3) SANITARY SEWER FORCE MAIN, RECLAIMED WATER			NOTE 4
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10 FT. MINIMUM	—	—

NOTES:

- WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
- RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
- 3 FT. FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
- ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPE SO THAT THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATE JOINT LOCATIONS ALLOWED UNDER FAC 62-555.314 WILL ONLY BE ALLOWED BY THE ENGINEER ON A CASE-BY-CASE BASIS.

WATER MAIN SEPARATION

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
WATR 001
2016/09/01



**CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE**

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DRAWN BY: AL DATE: MAR 2021
DESIGNED BY: SCALE: AS NOTED
CHECKED BY: GR AS NOTED
FIELD BOOK:

ENGINEER: CURRY P. KELLY, P.E.
REG. NO.: 46982
DATE: 9/28/2021
TEL: (954) 656-5100
FAX:

DESIGN CRITERIA PACKAGE

**PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
STANDARD DETAILS**

NO.	DATE	BY	CHKD	DESCRIPTION

SHEET NO. OF
12 31

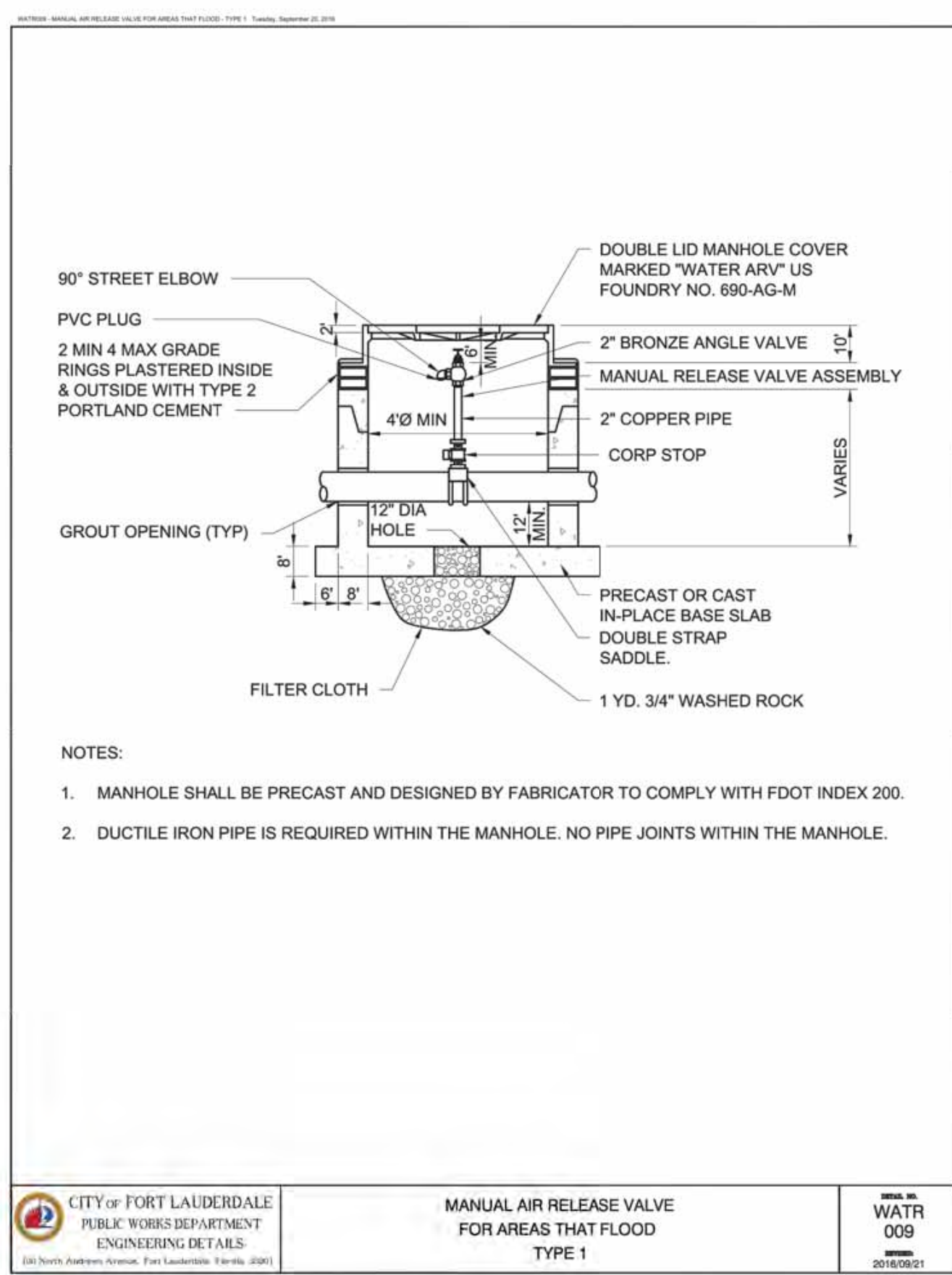
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4-142-31

PREPARED BY:
Kimley»Horn

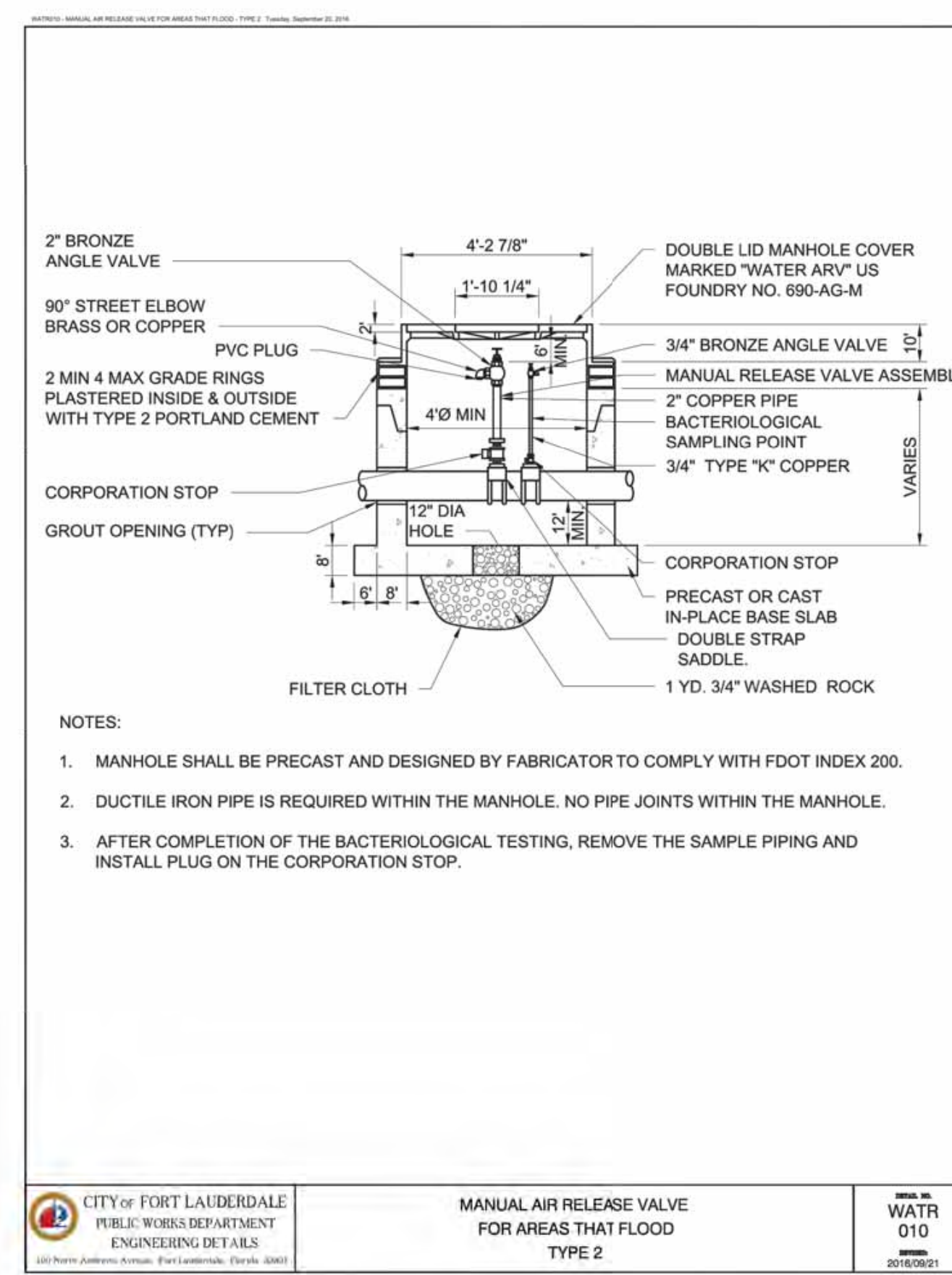
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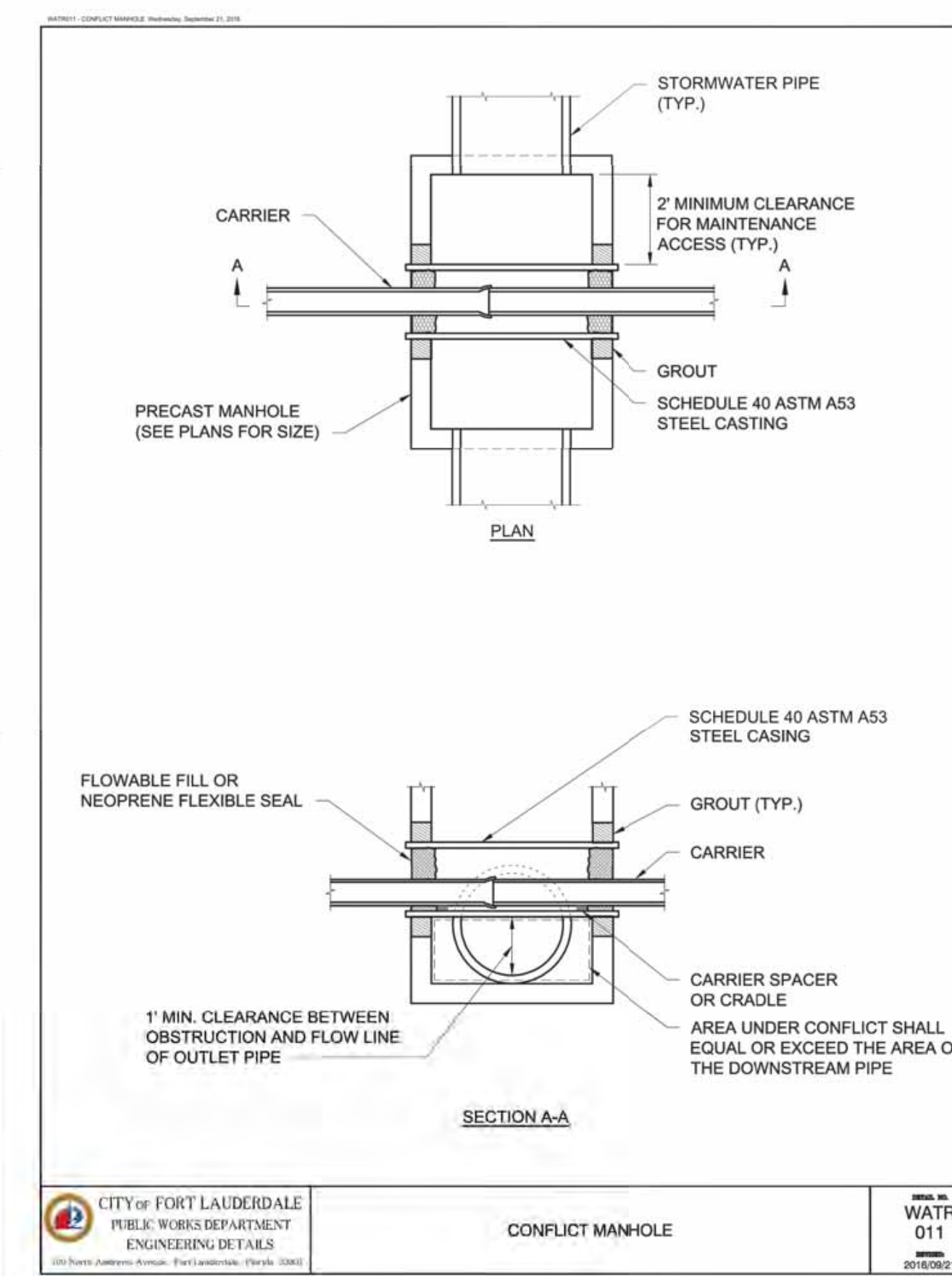
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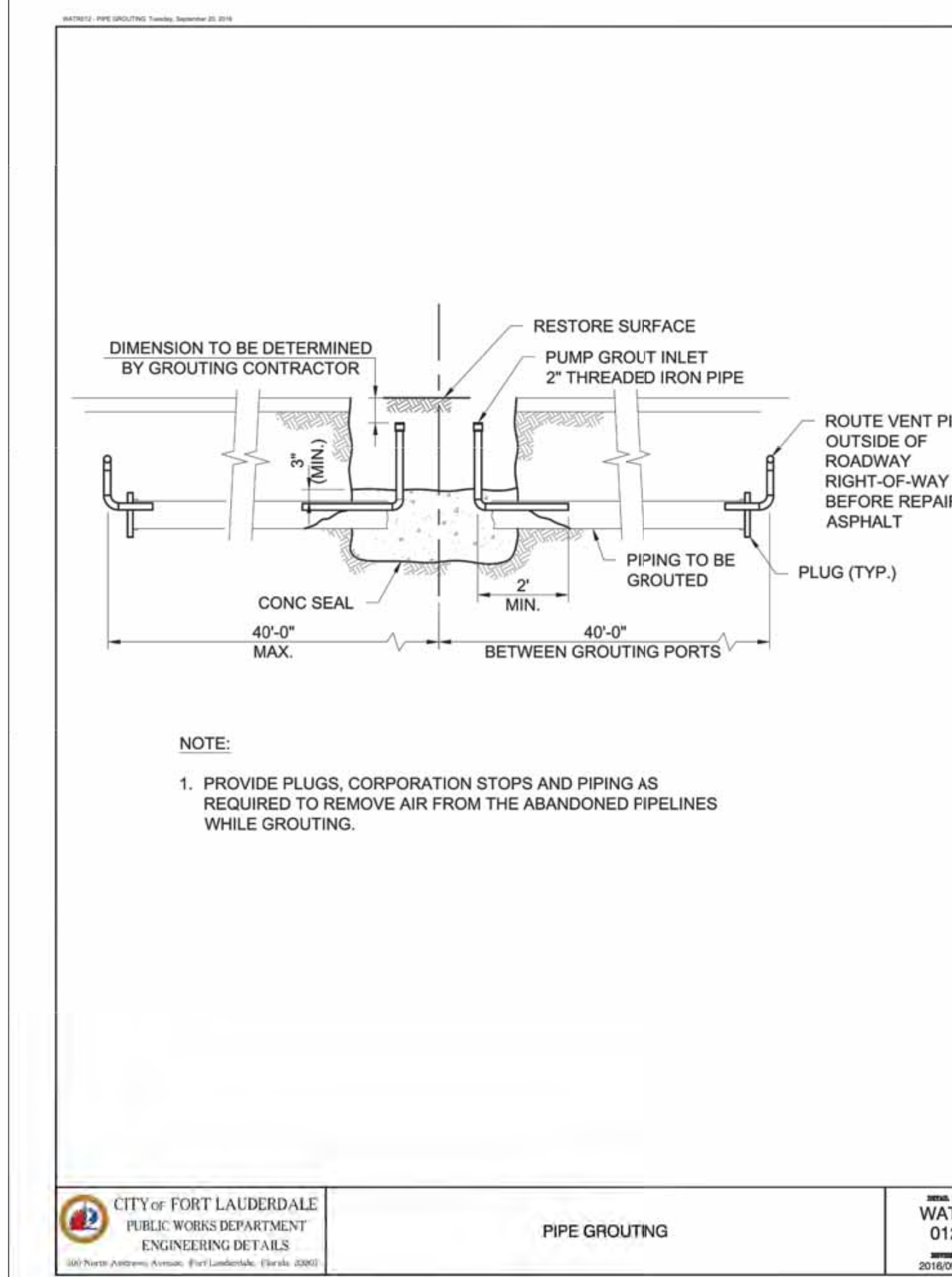
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 PUBLIC WORKS DEPARTMENT
 ENGINEERING DETAILS
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301
MANUAL AIR RELEASE VALVE FOR AREAS THAT FLOOD TYPE 1
 WATR 009
 2016/09/21



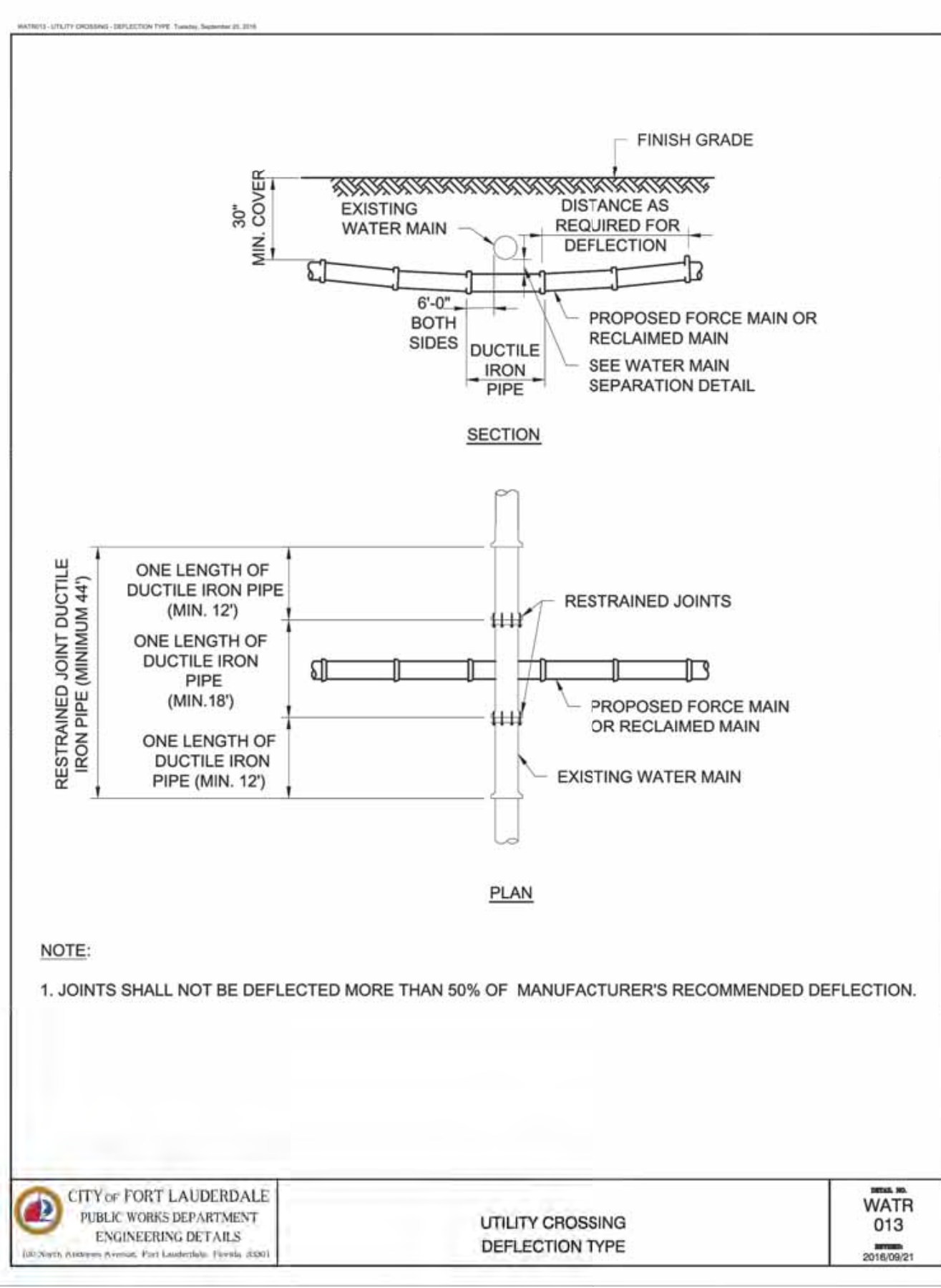
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 ENGINEERING DETAILS
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301
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 WATR 010
 2016/09/21



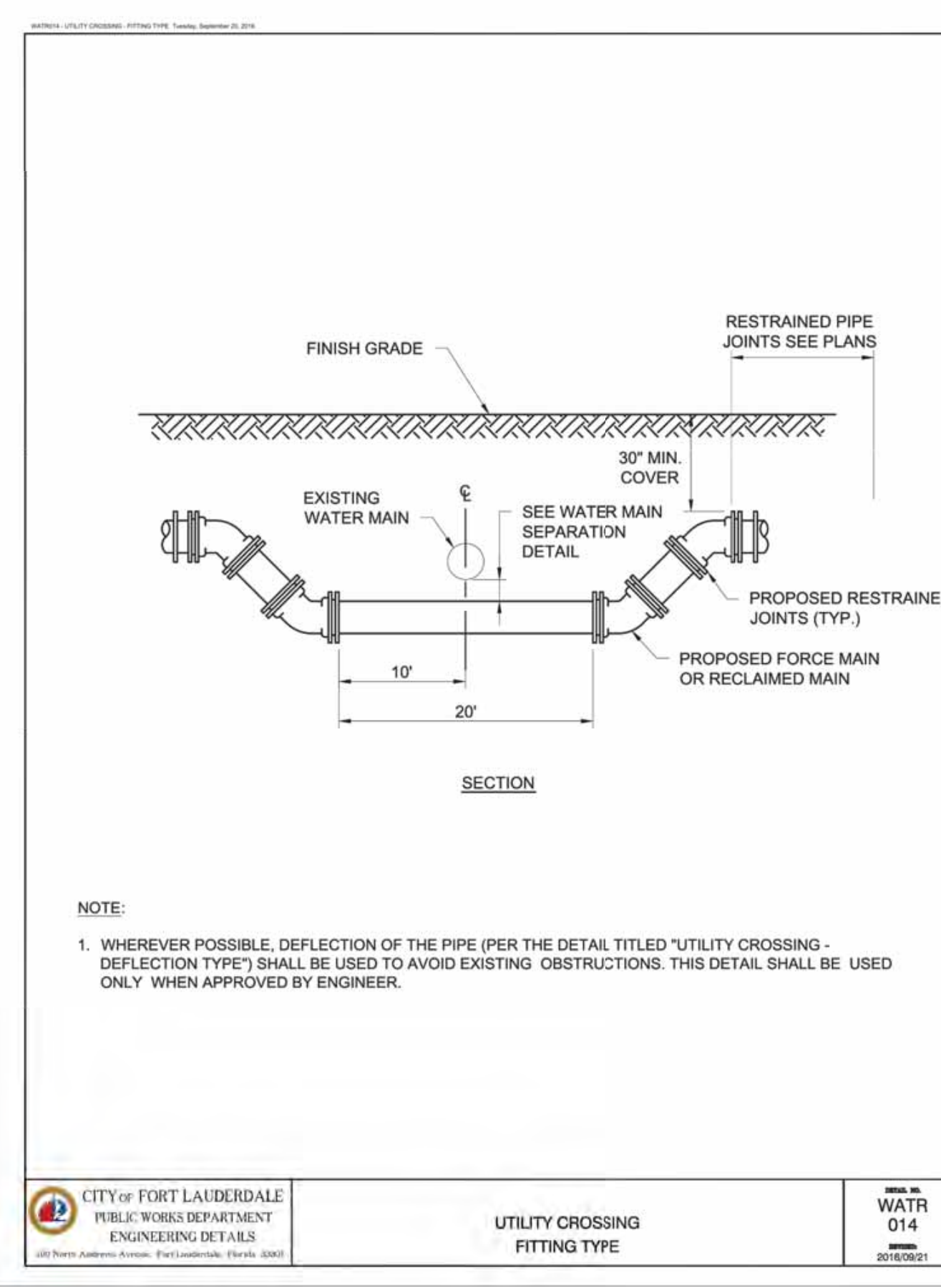
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 ENGINEERING DETAILS
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301
CONFLICT MANHOLE
 WATR 011
 2016/09/21



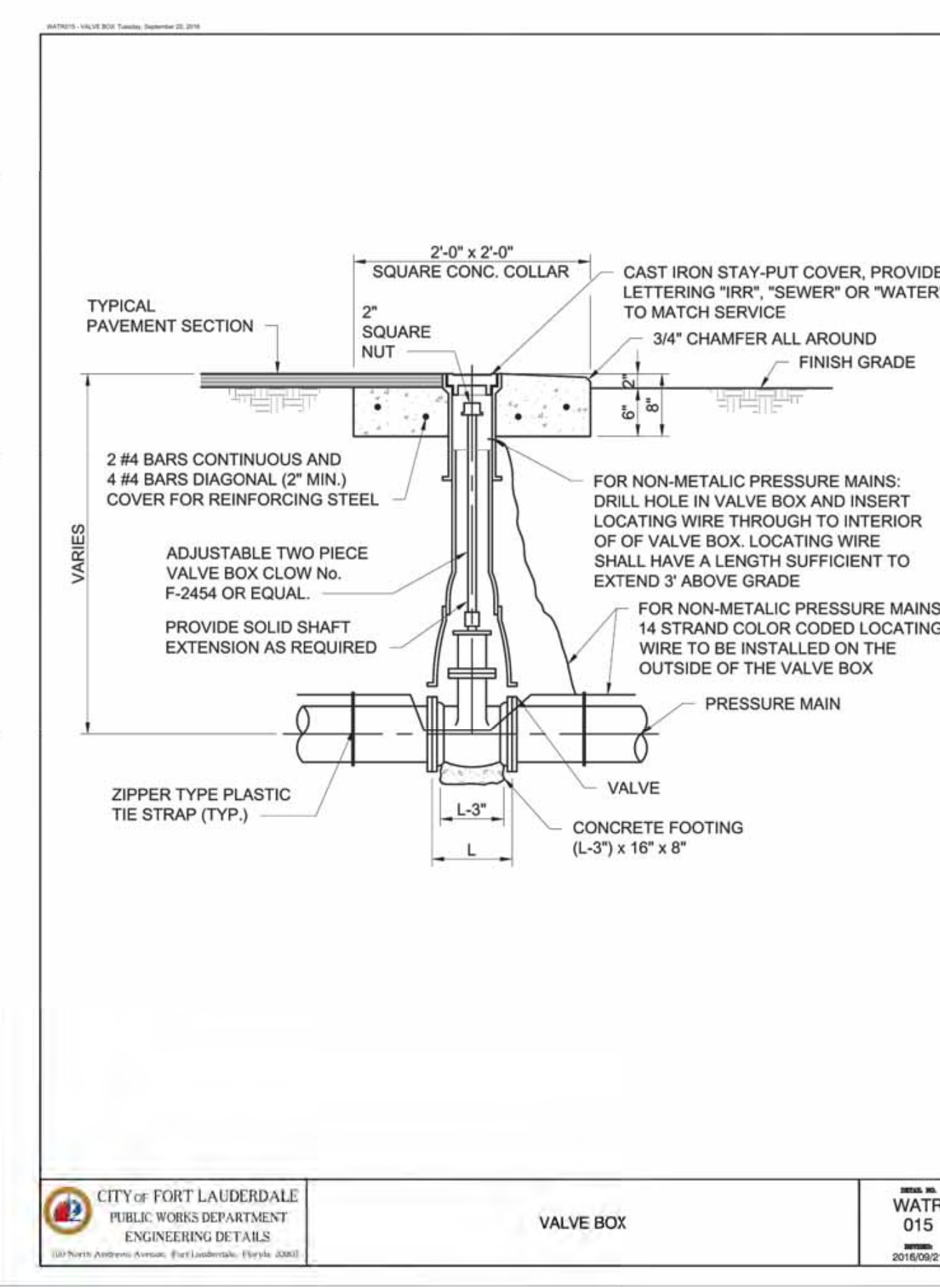
CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DETAILS
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301
PIPE GROUTING
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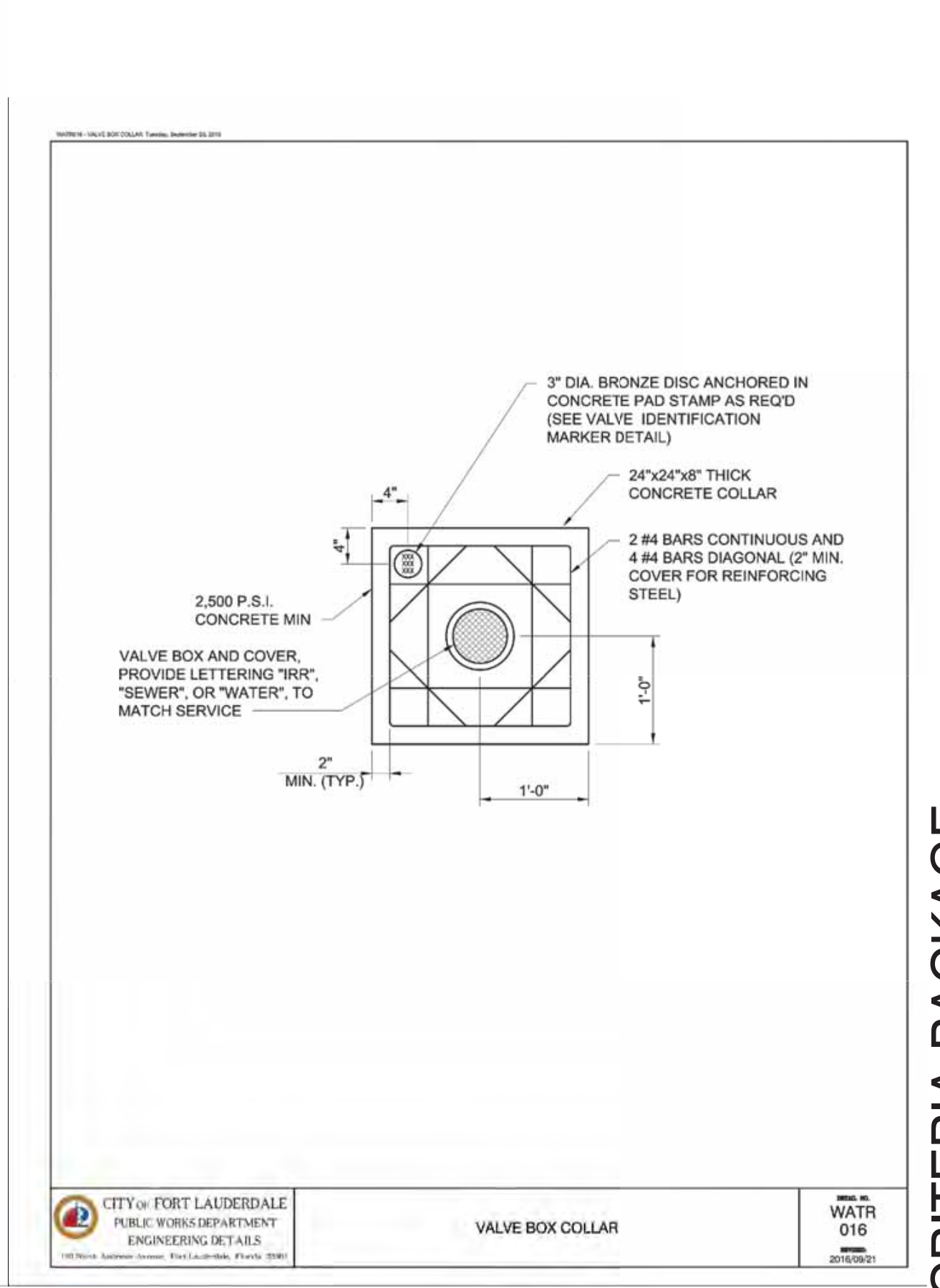
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 100 North Andrews Avenue, Fort Lauderdale, Florida 33301
UTILITY CROSSING DEFLECTION TYPE
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 2016/09/21



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 ENGINEERING DETAILS
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301
UTILITY CROSSING FITTING TYPE
 WATR 014
 2016/09/21



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 ENGINEERING DETAILS
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301
VALVE BOX
 WATR 015
 2016/09/21



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 ENGINEERING DETAILS
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301
VALVE BOX COLLAR
 WATR 016
 2016/09/21

ENGINEER: CURRY P. RAY, P.E.
 BRG. No.: 46982
 DATE: 9/28/2021
 DRAWN BY: AL
 DATE: MAR 2021
 DESIGNED BY: SCALE: AS NOTED
 CHECKED BY: GR
 FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

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 PROJECT # 12412
 PUMP STATION A-16 UPGRADE
 WASTEWATER DESIGN CRITERIA PACKAGE
 STANDARD DETAILS

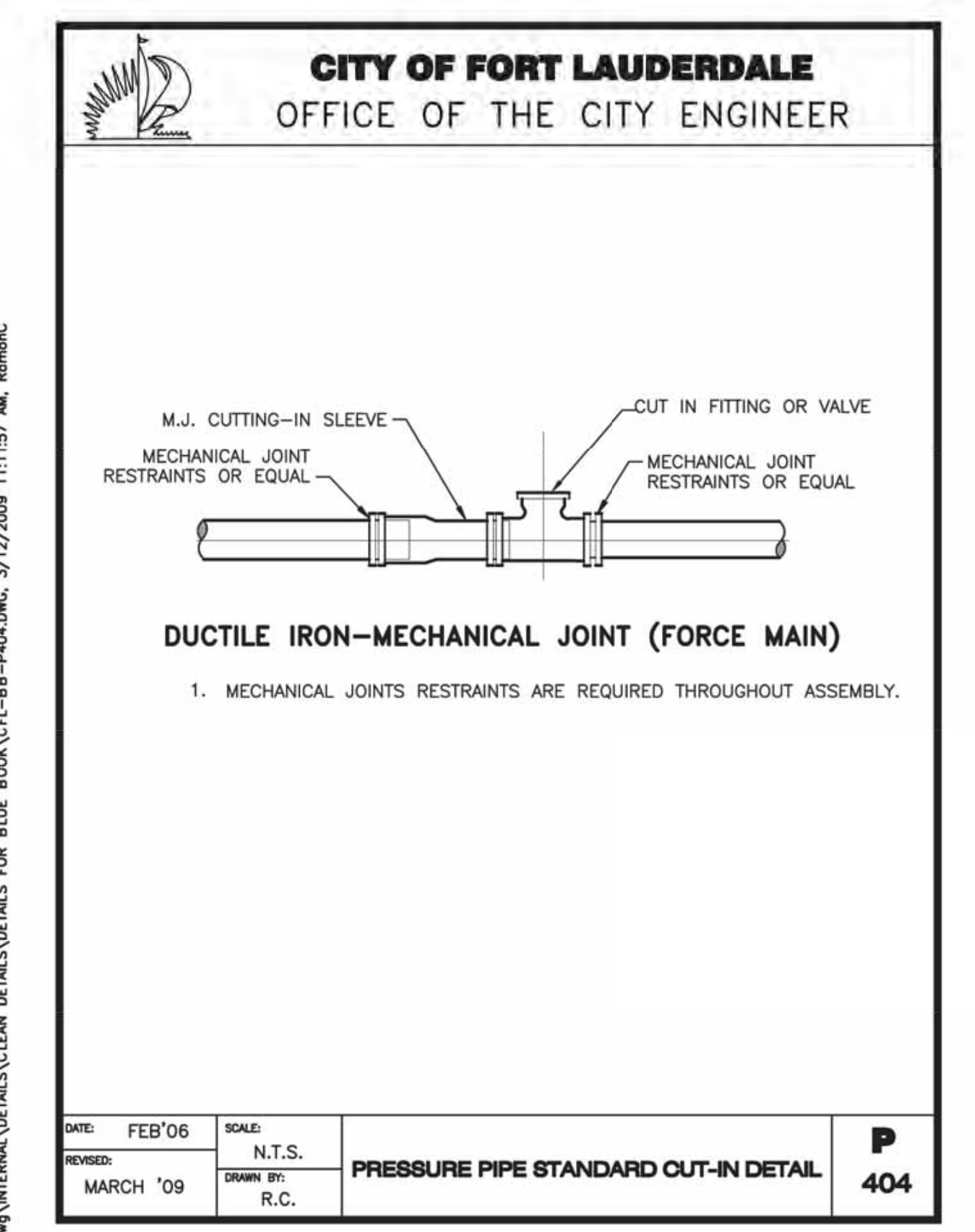
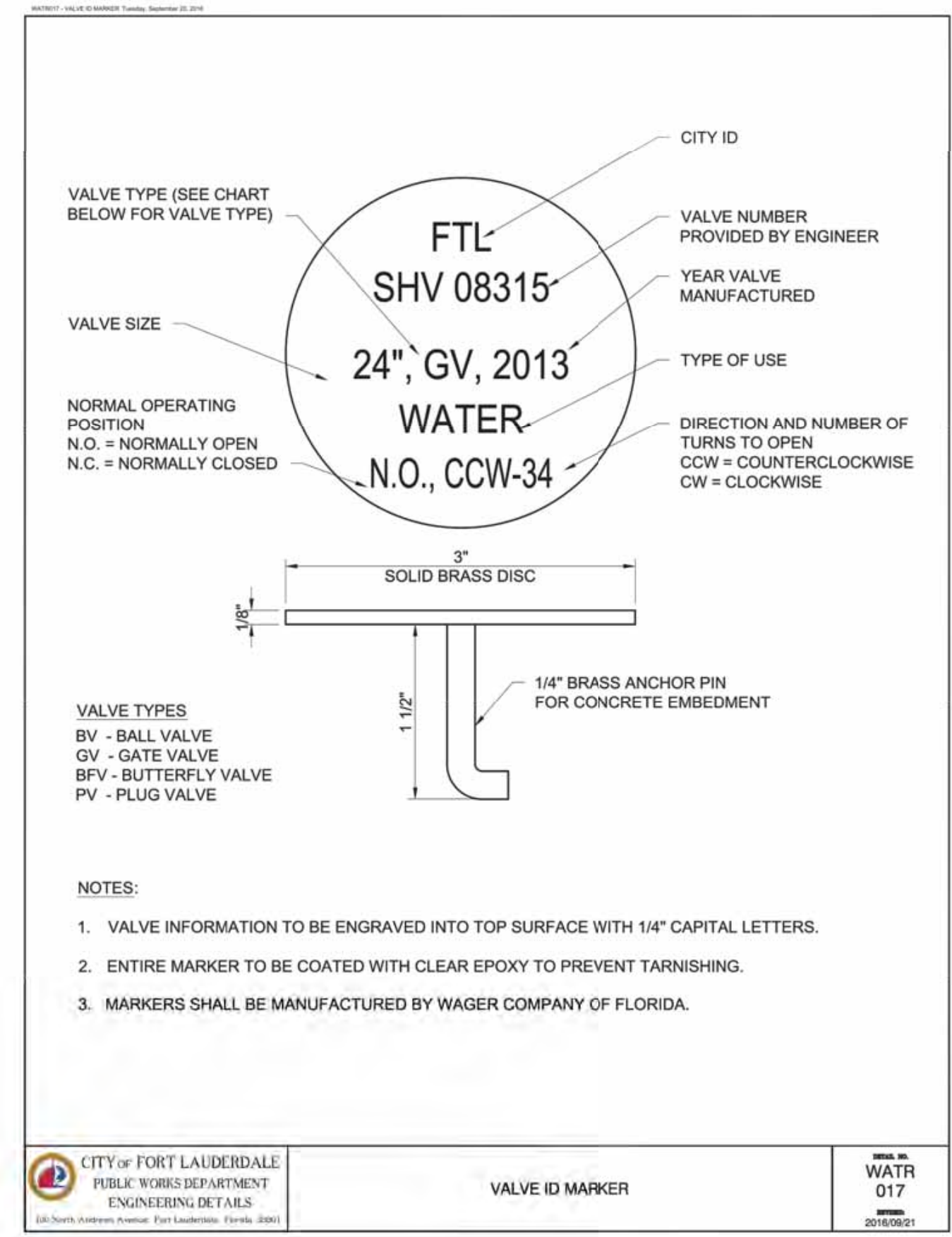
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13	31

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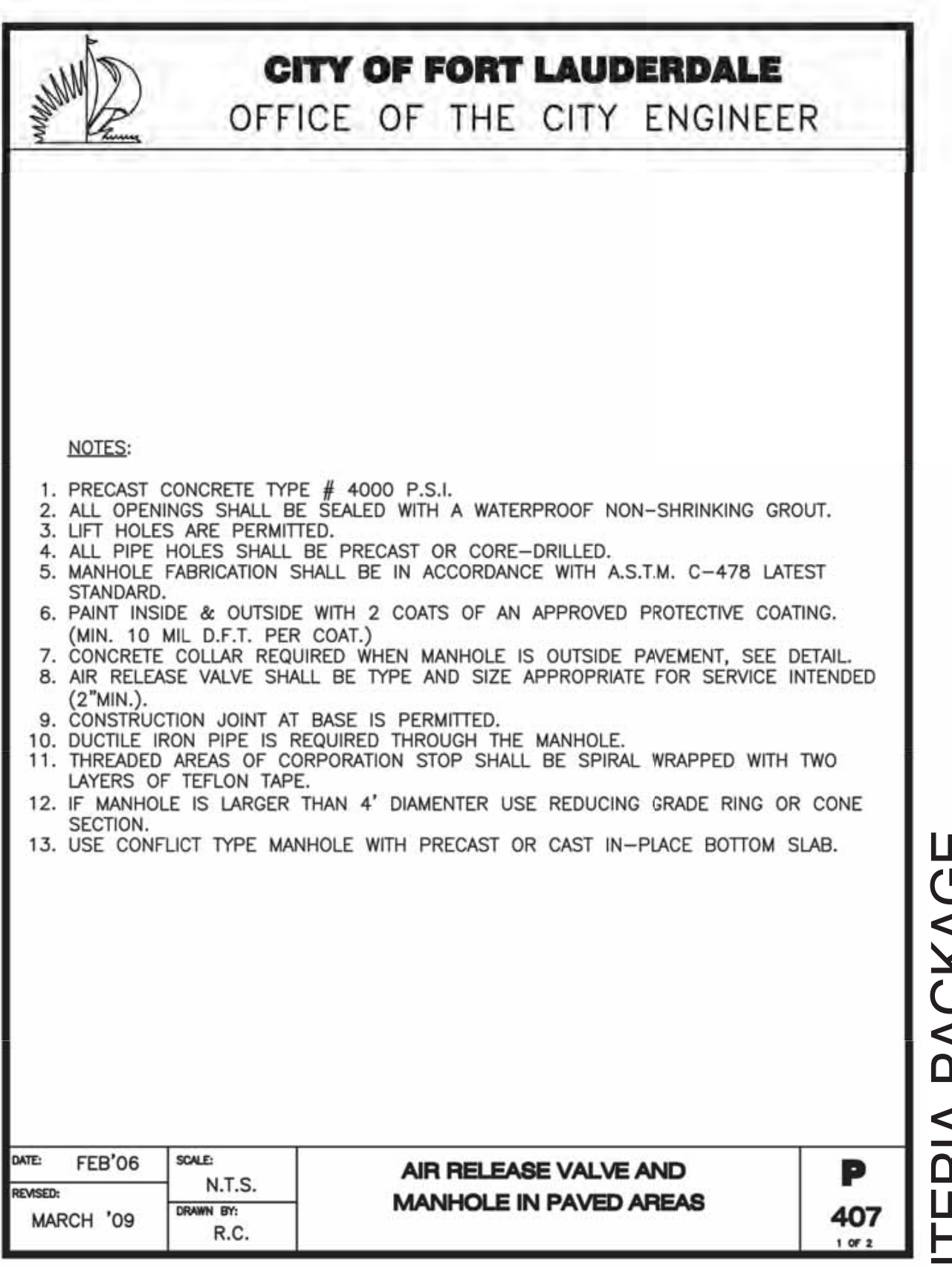
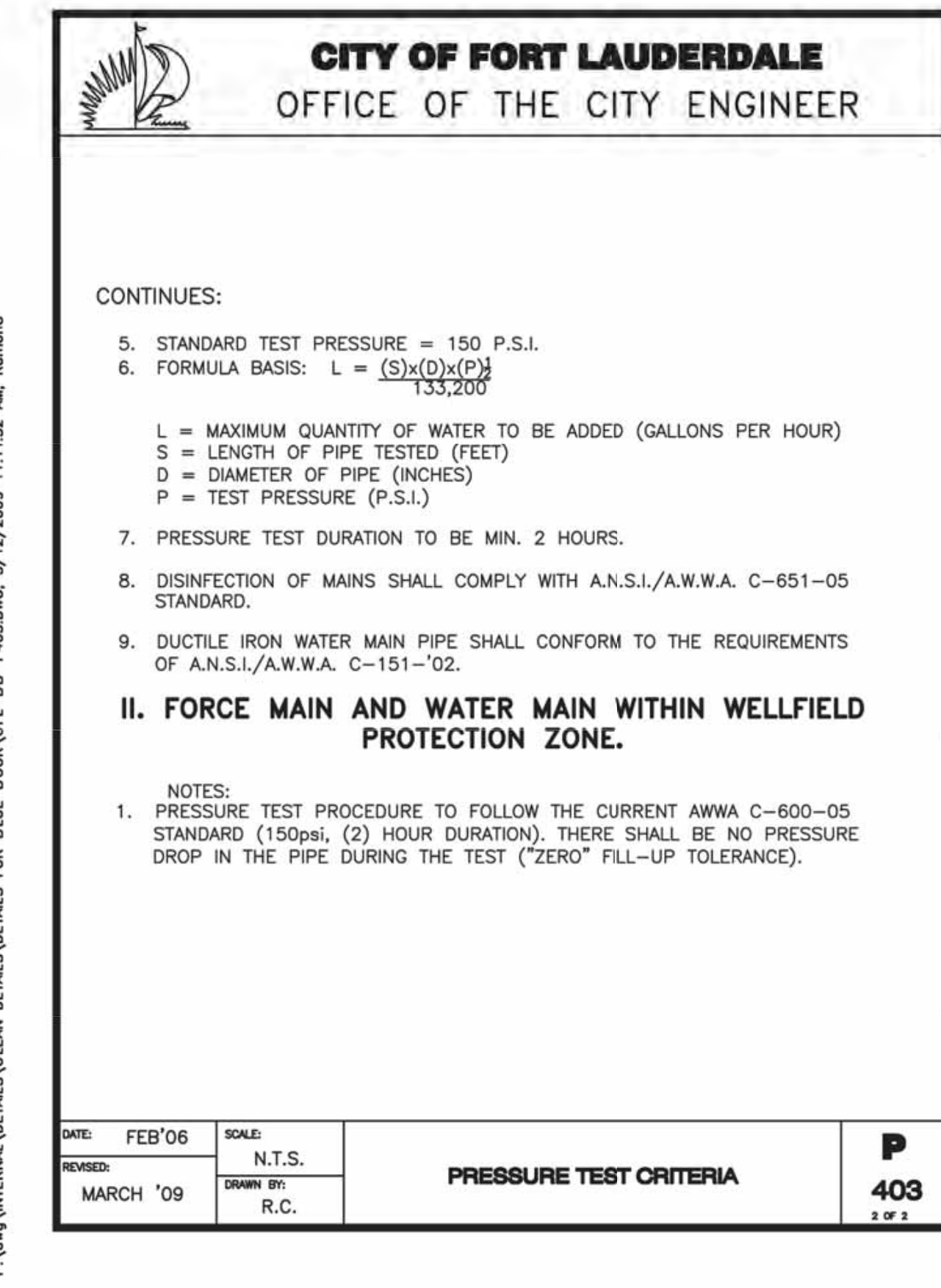
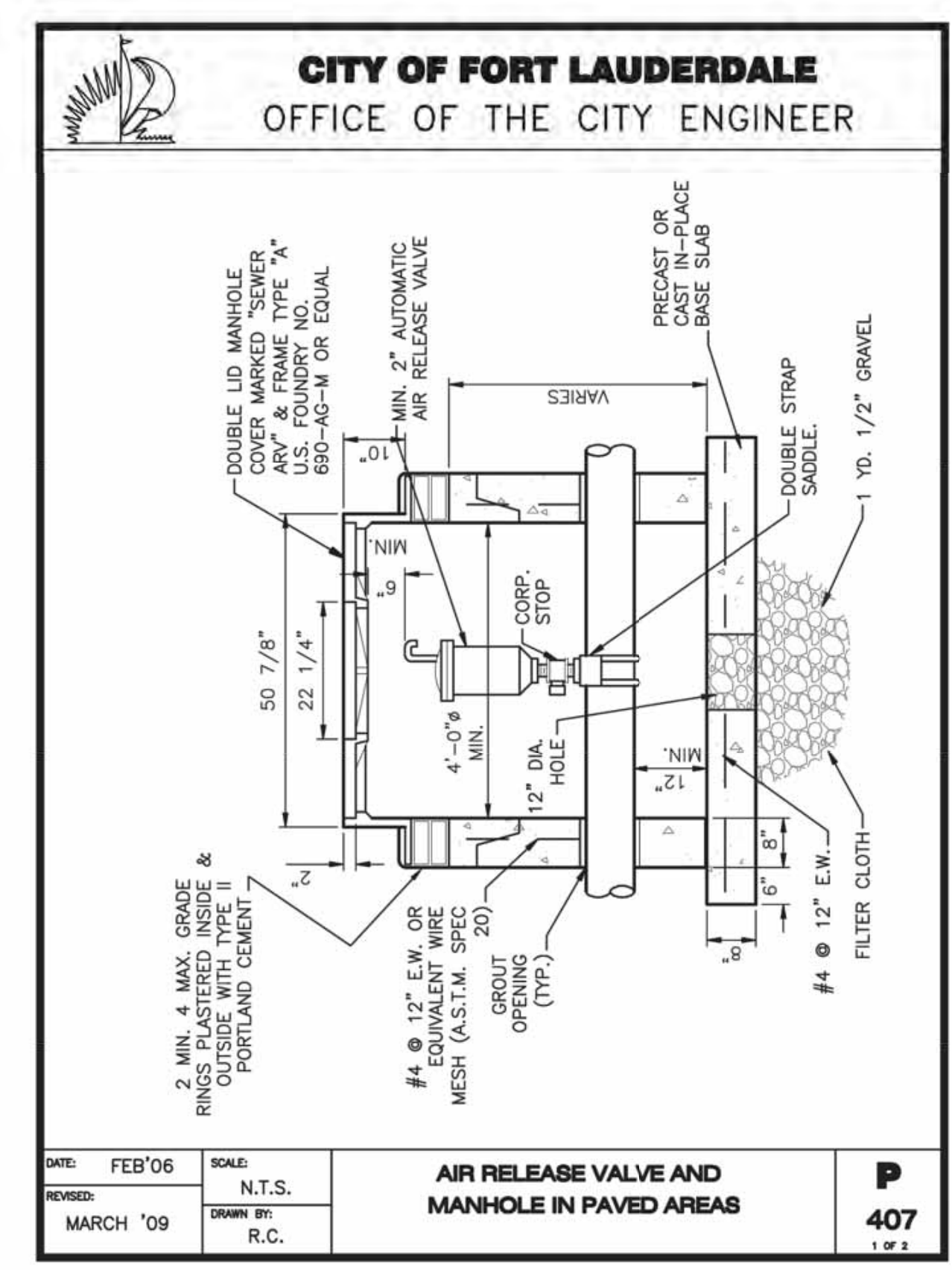
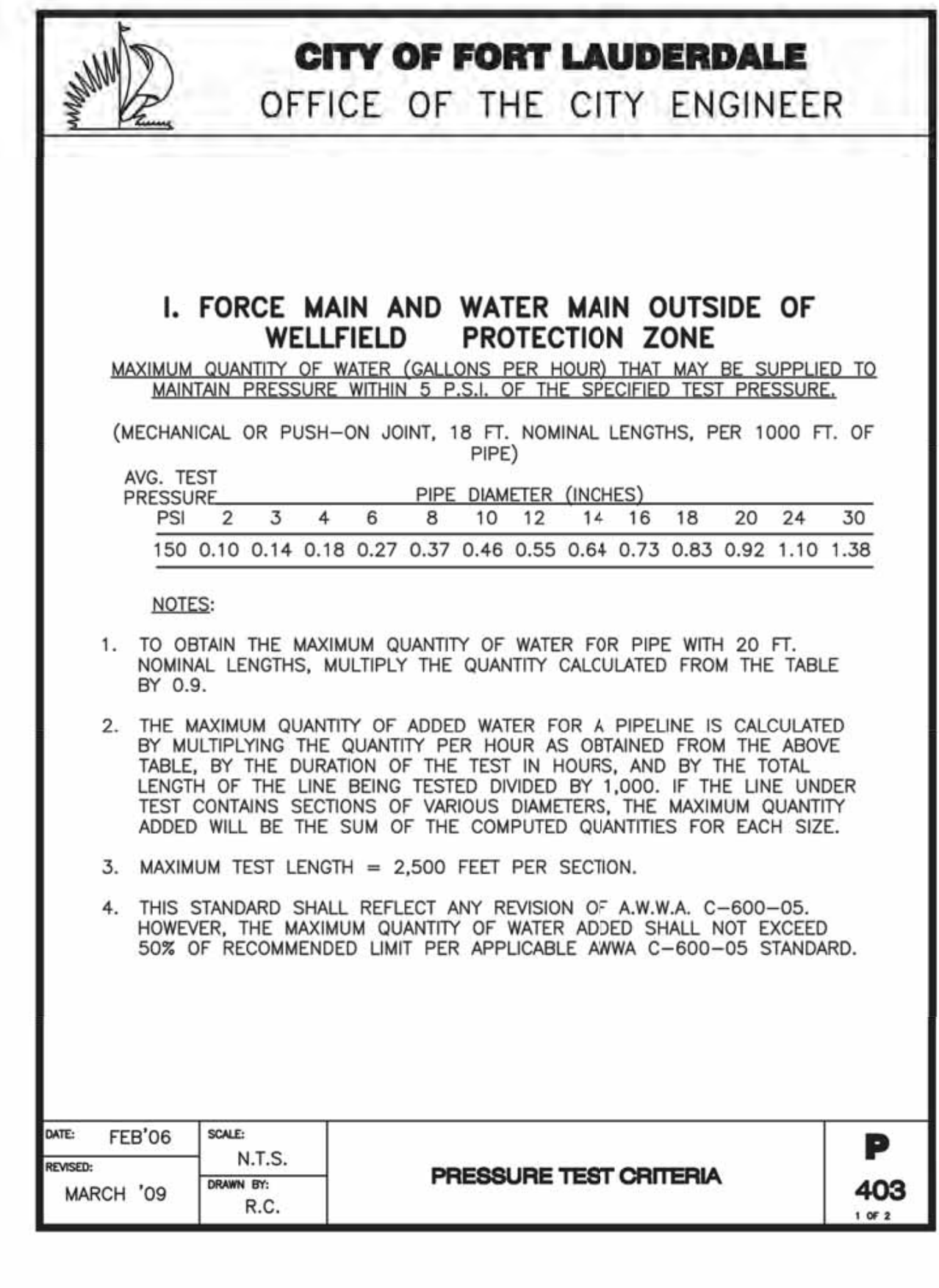
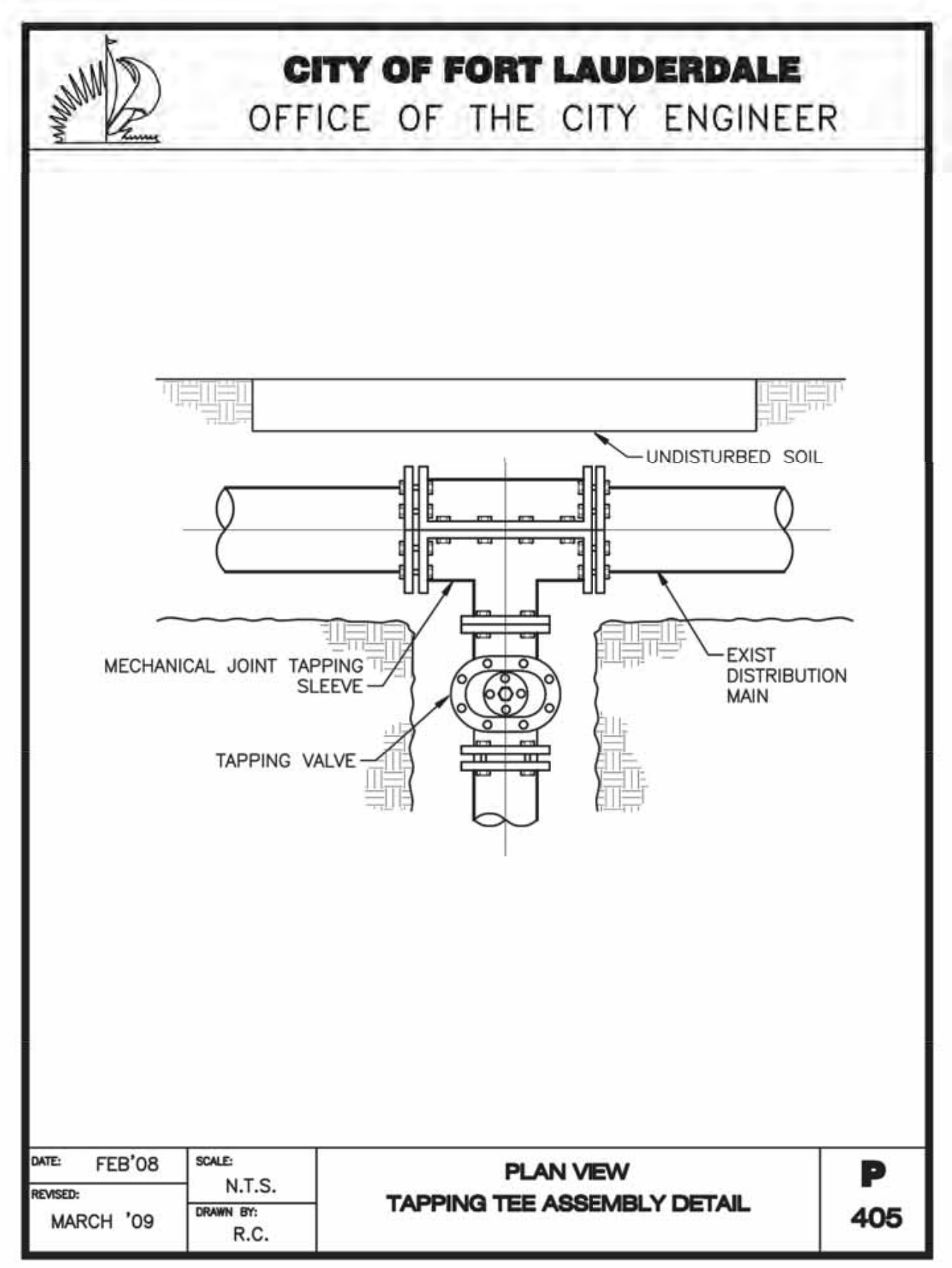
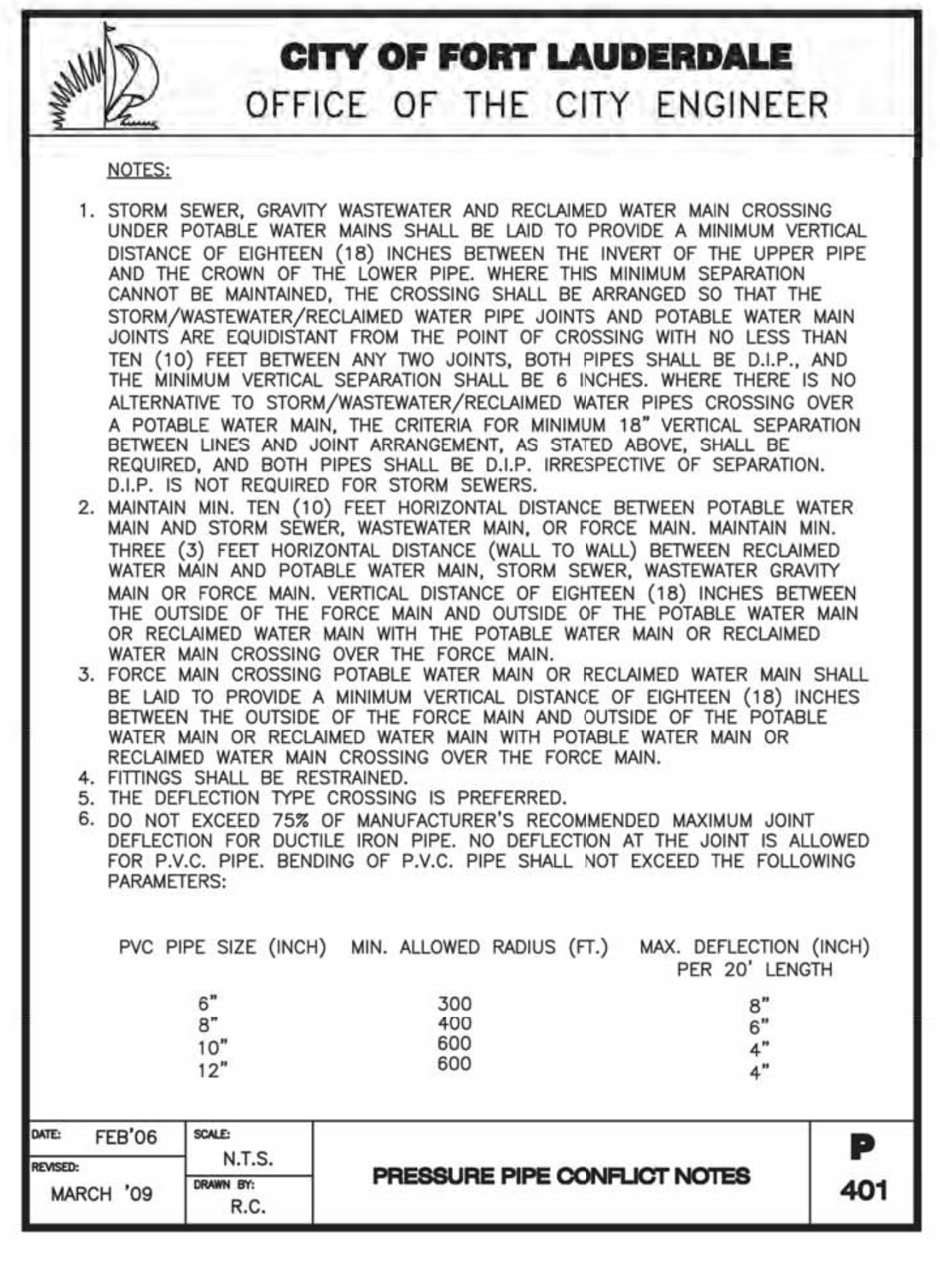


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Plotted By: Moring, Marissa. Sheet: SAN-PUMP-STATION A-16 DESIGN CRITERIA PACKAGE. Layout: DETL-14. September, 28, 2021. 04:14:22pm. K:\VH\6\0\043 jobs\04-16\184401.cmn 12412-416 ps 0-16 rev location\CAD\plansheets\12412-MULTI-DETL.dwg
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CITY OF FORT LAUDERDALE
 OFFICE OF THE CITY ENGINEER

ENGINEER: CURV P. RAY, P.E.
 BRG No: 46982
 DATE: 9/28/2021

DRAWN BY: AL
 DATE: MAR 2021
 DESIGNED BY: SCALE: AS NOTED
 CHECKED BY: CR
 FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

DESIGN CRITERIA PACKAGE

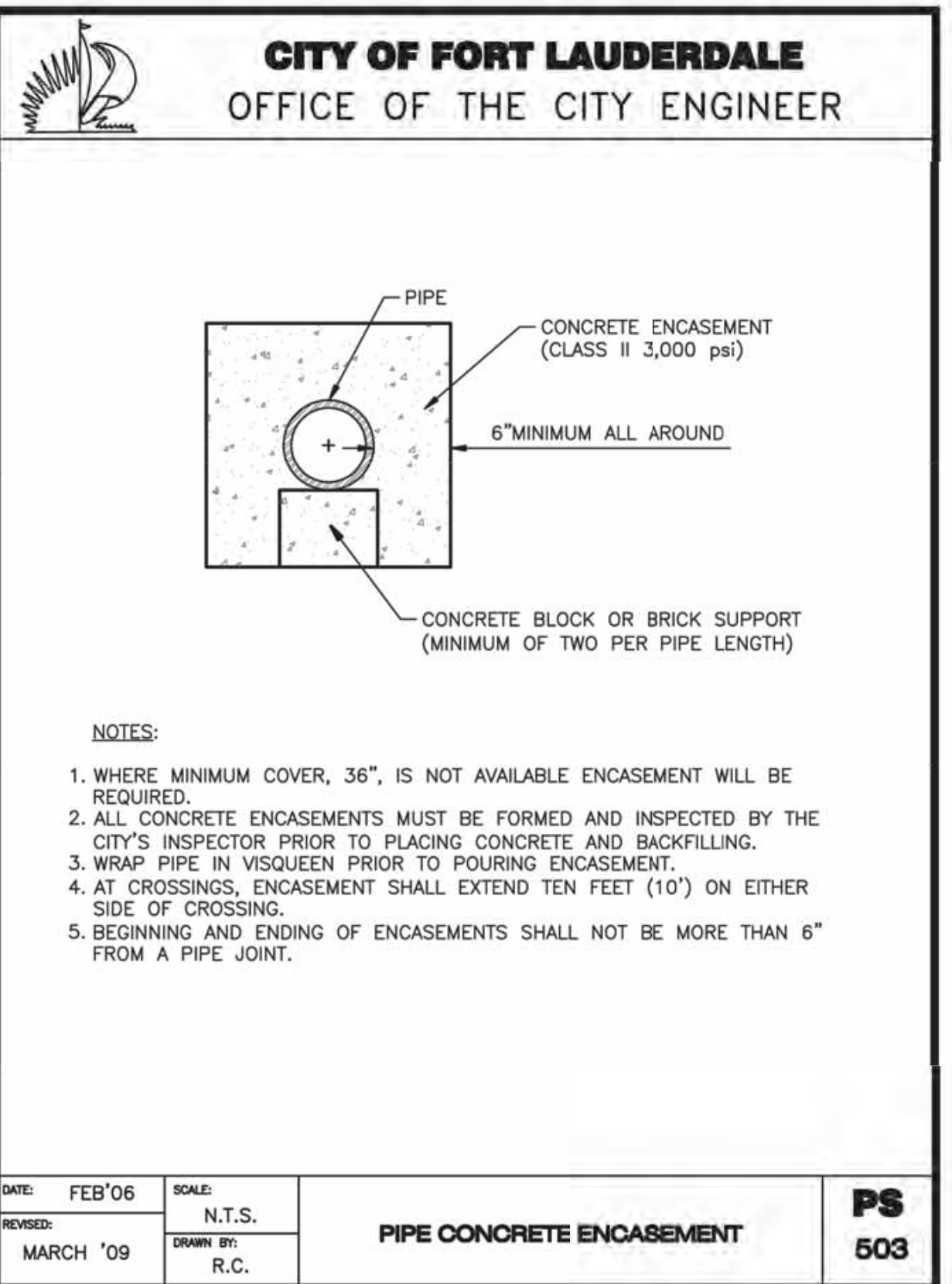
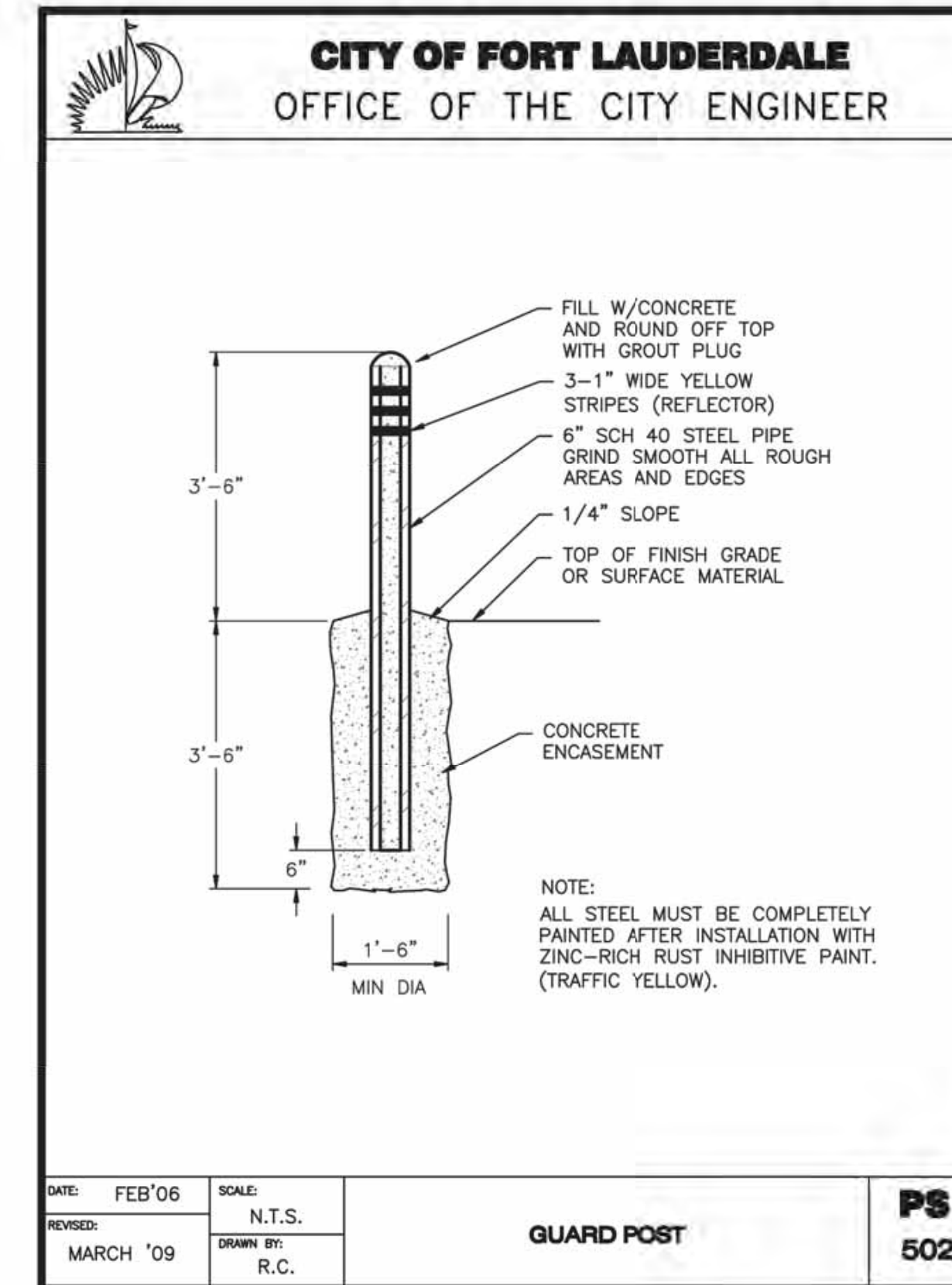
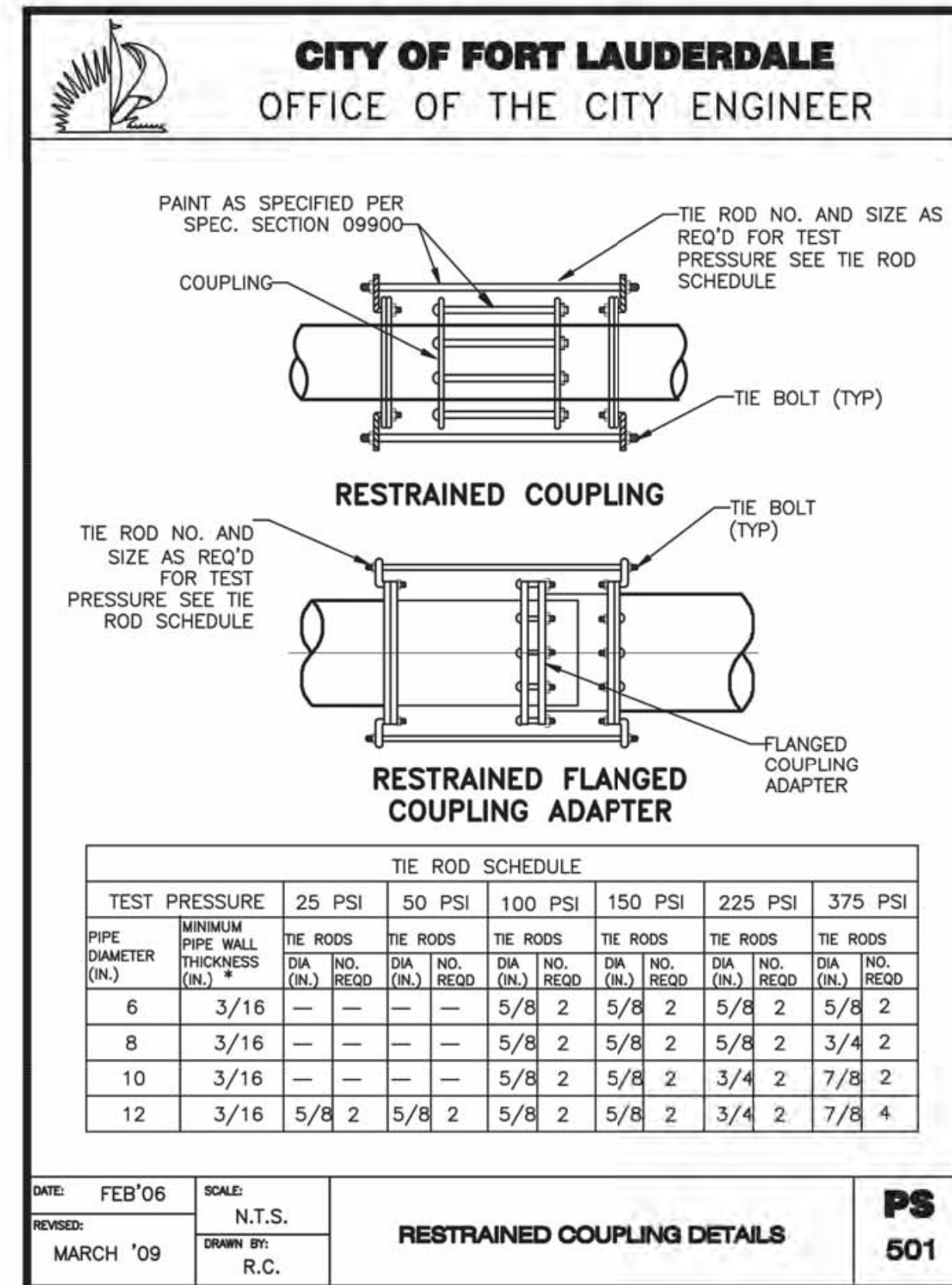
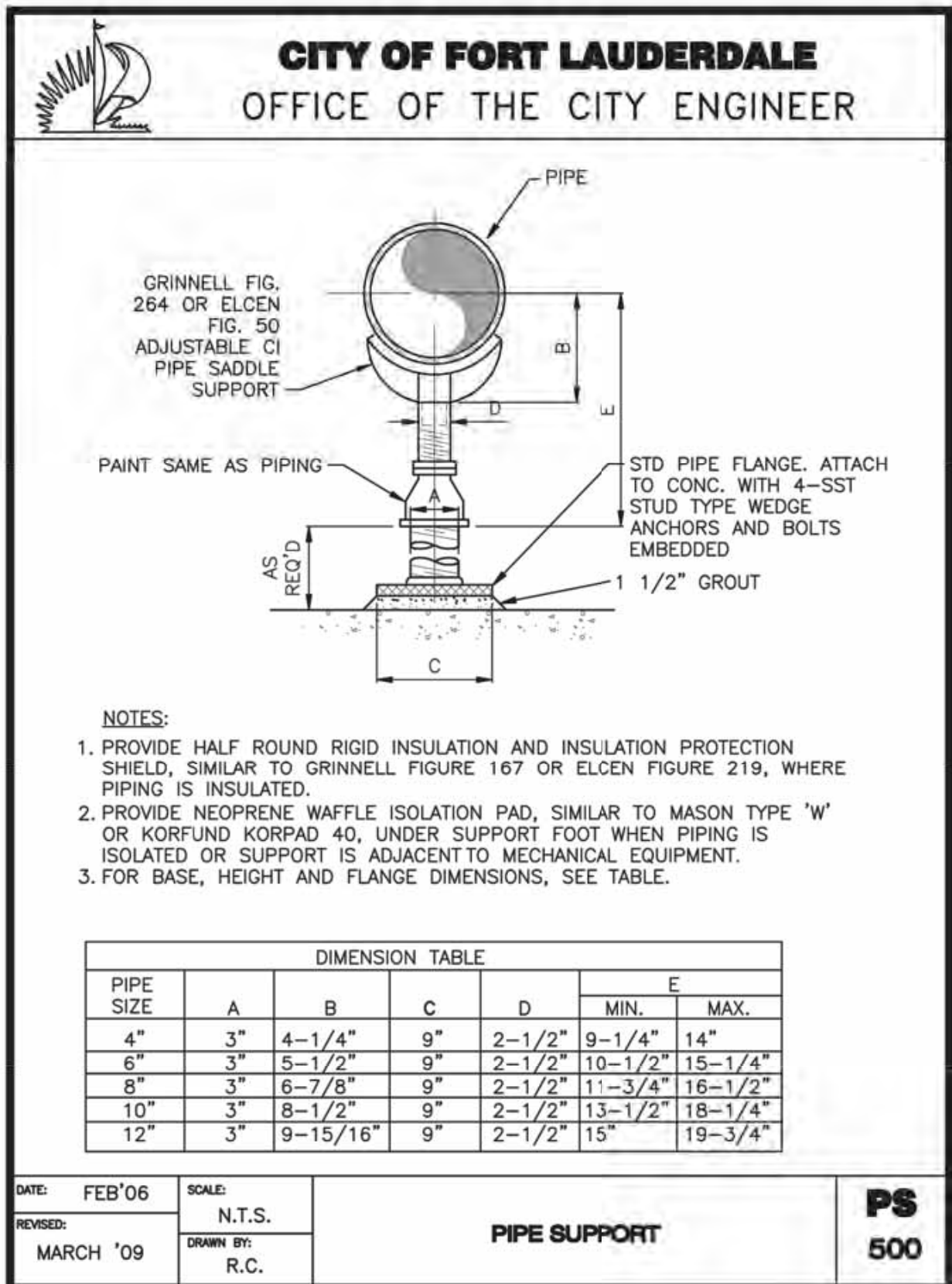
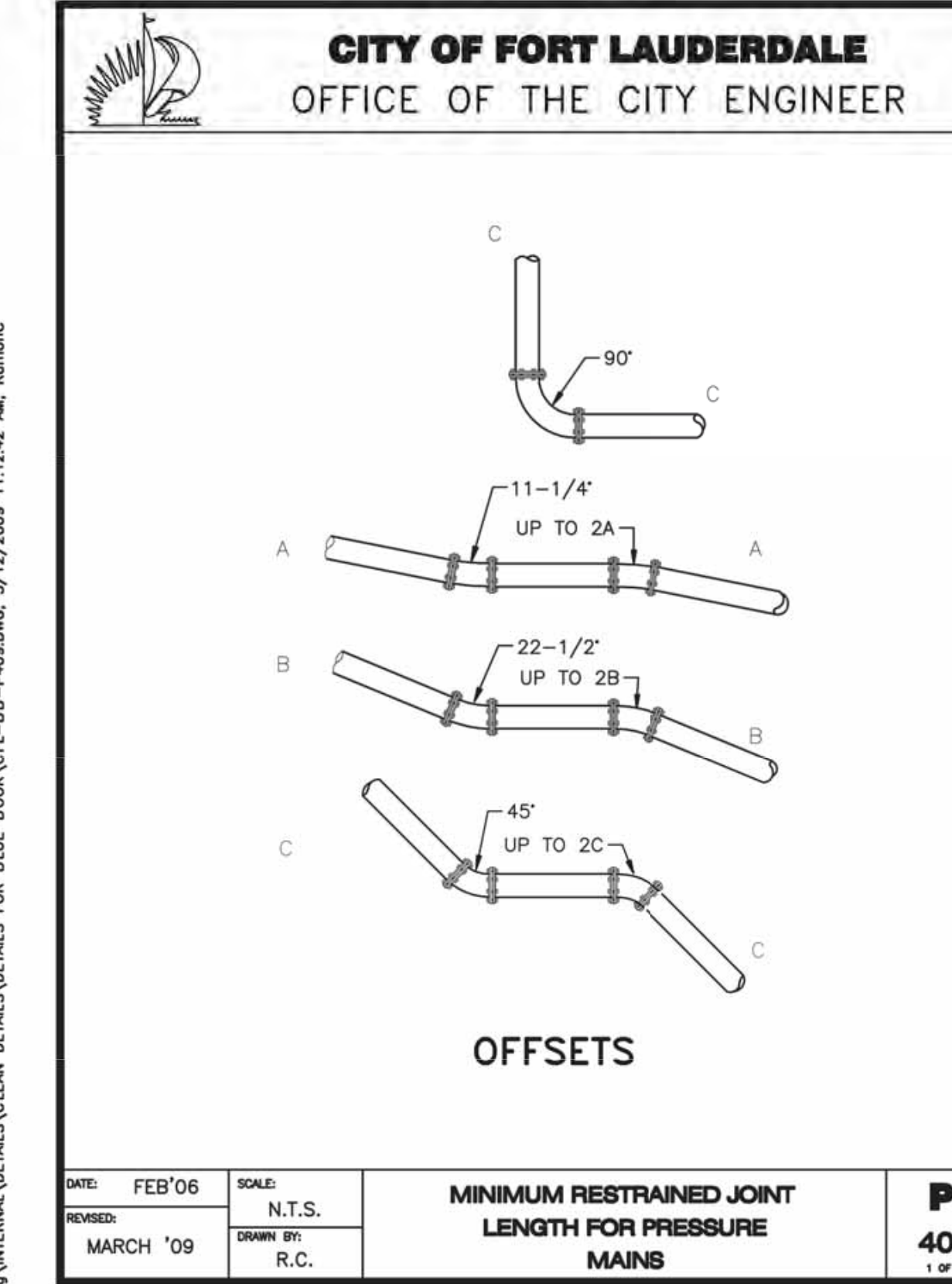
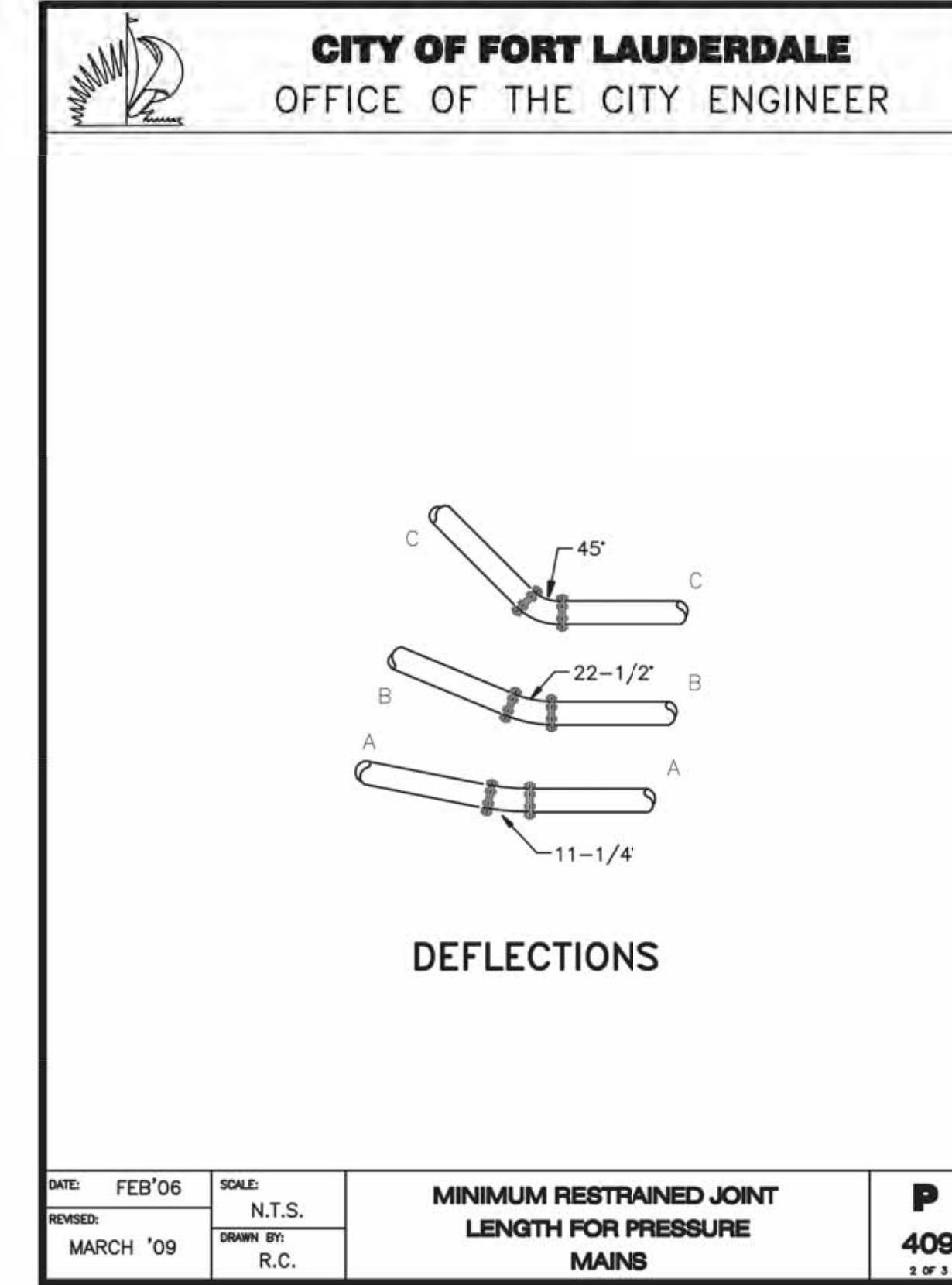
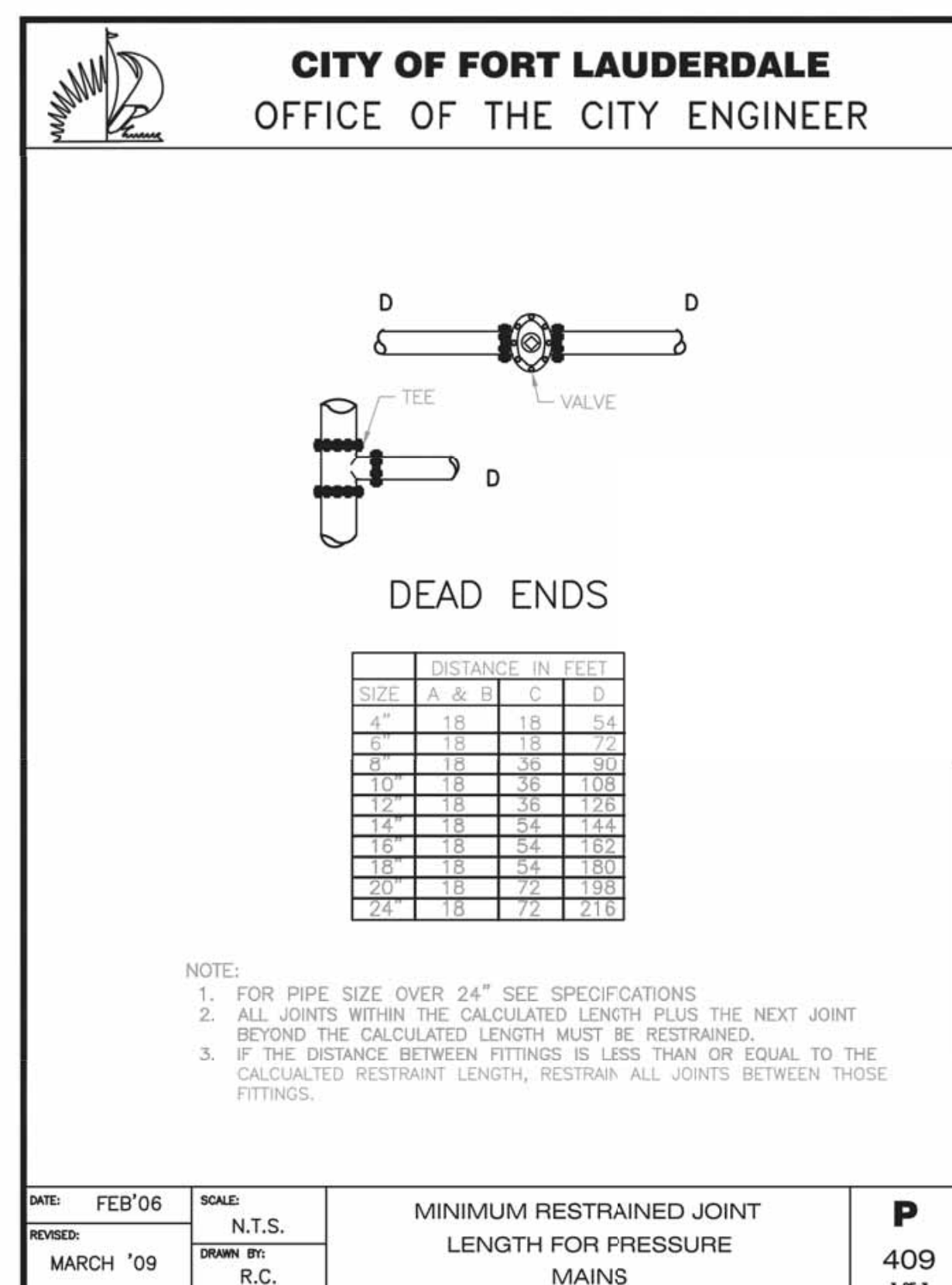
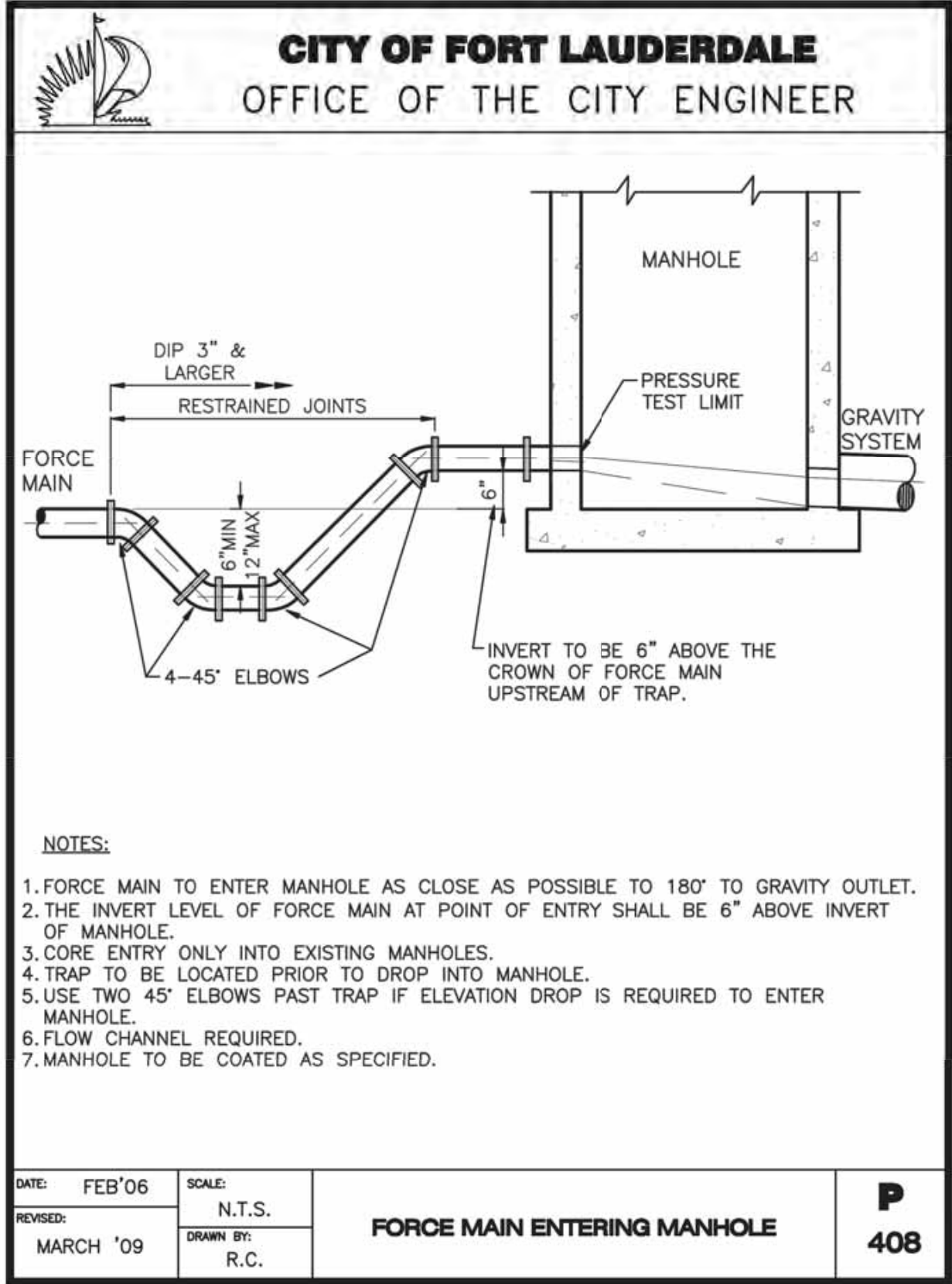
PROJECT # 12412
 PUMP STATION A-16 UPGRADE
 WASTEWATER DESIGN CRITERIA PACKAGE
 STANDARD DETAILS

SHEET NO. 14 OF 31

CAD FILE: 12412-MULTI-DETL
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DESIGN CRITERIA PACKAGE

PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
STANDARD DETAILS

REVISIONS

NO.	DATE	BY	CHKD	DESCRIPTION

ENGINEER: CHRY P. RAY, P.E.
BRG. No.: 46982
DATE: 9/28/2021

DRAWN BY: AL
DESIGNED BY: SCALE: AS NOTED
CHECKED BY: GR
FIELD BOOK: GR

DATE: MAR 2021

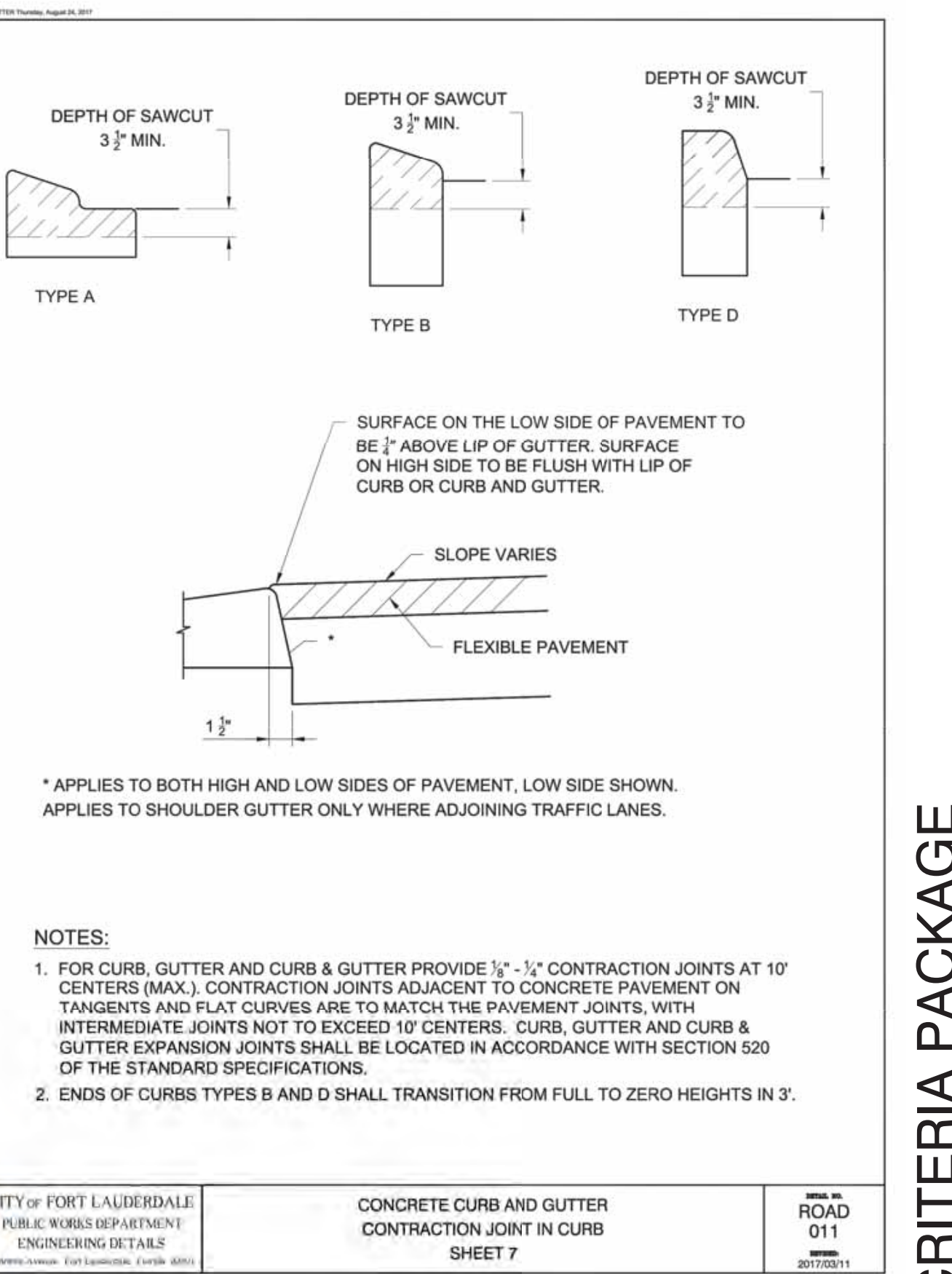
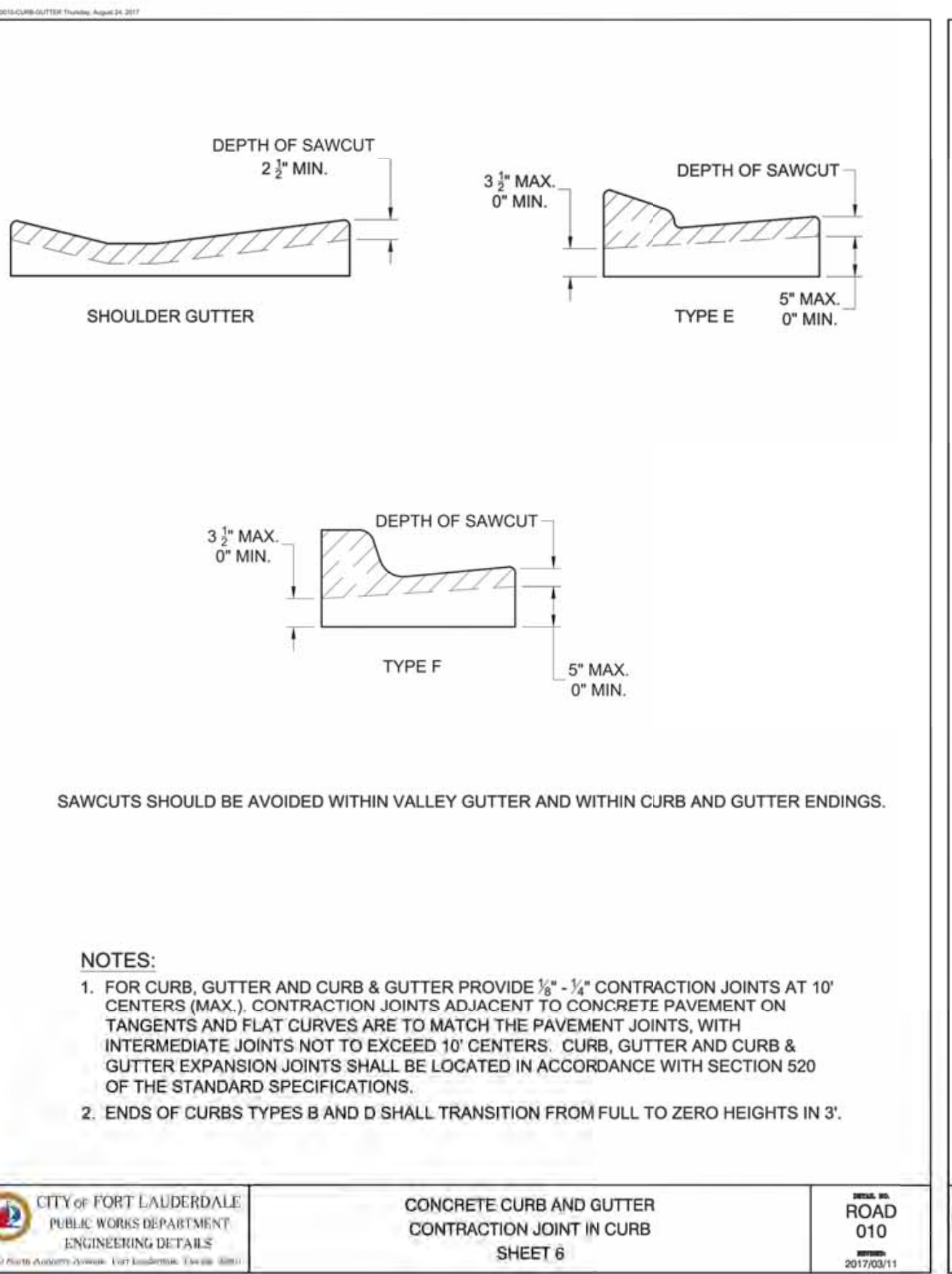
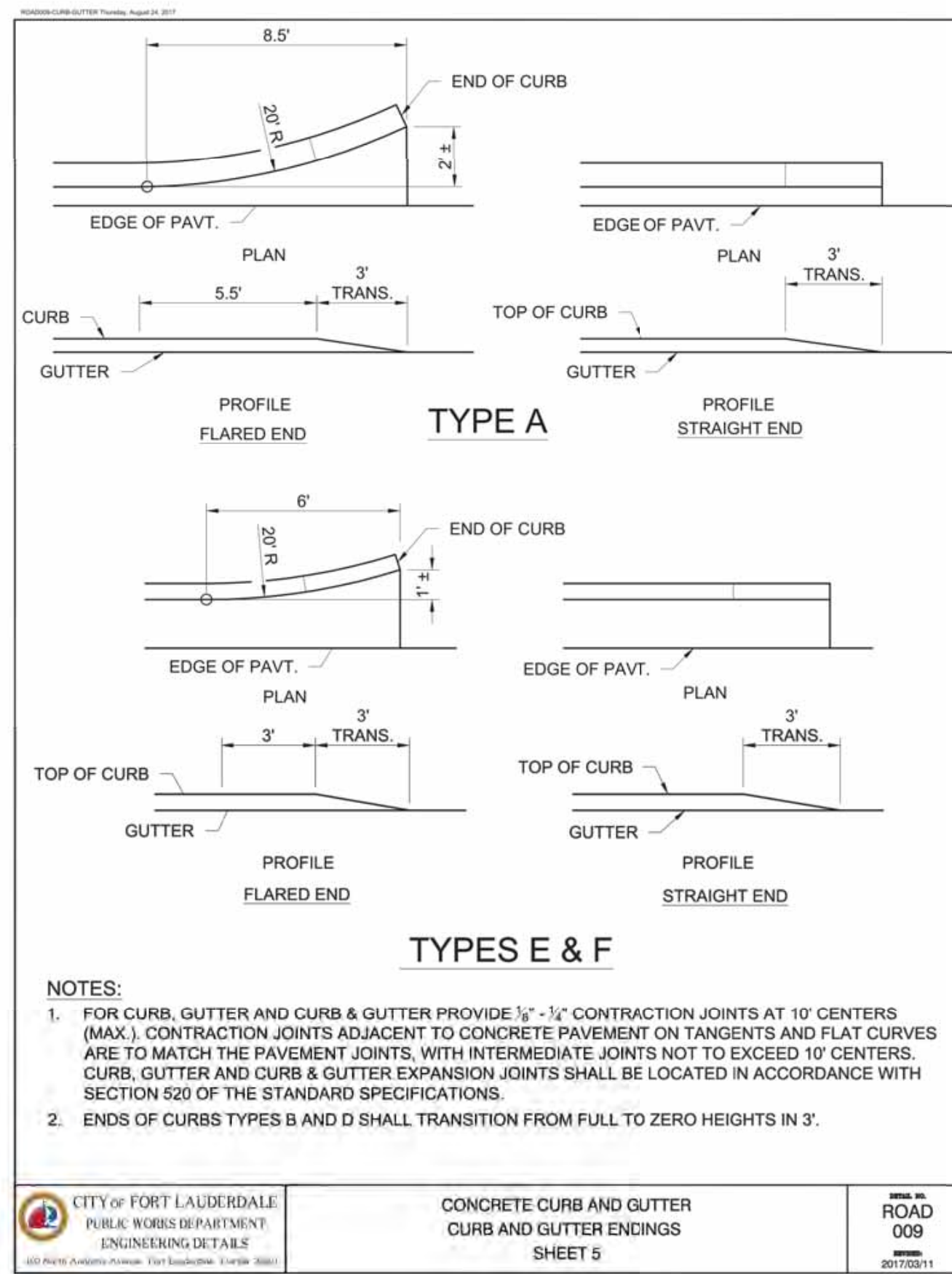
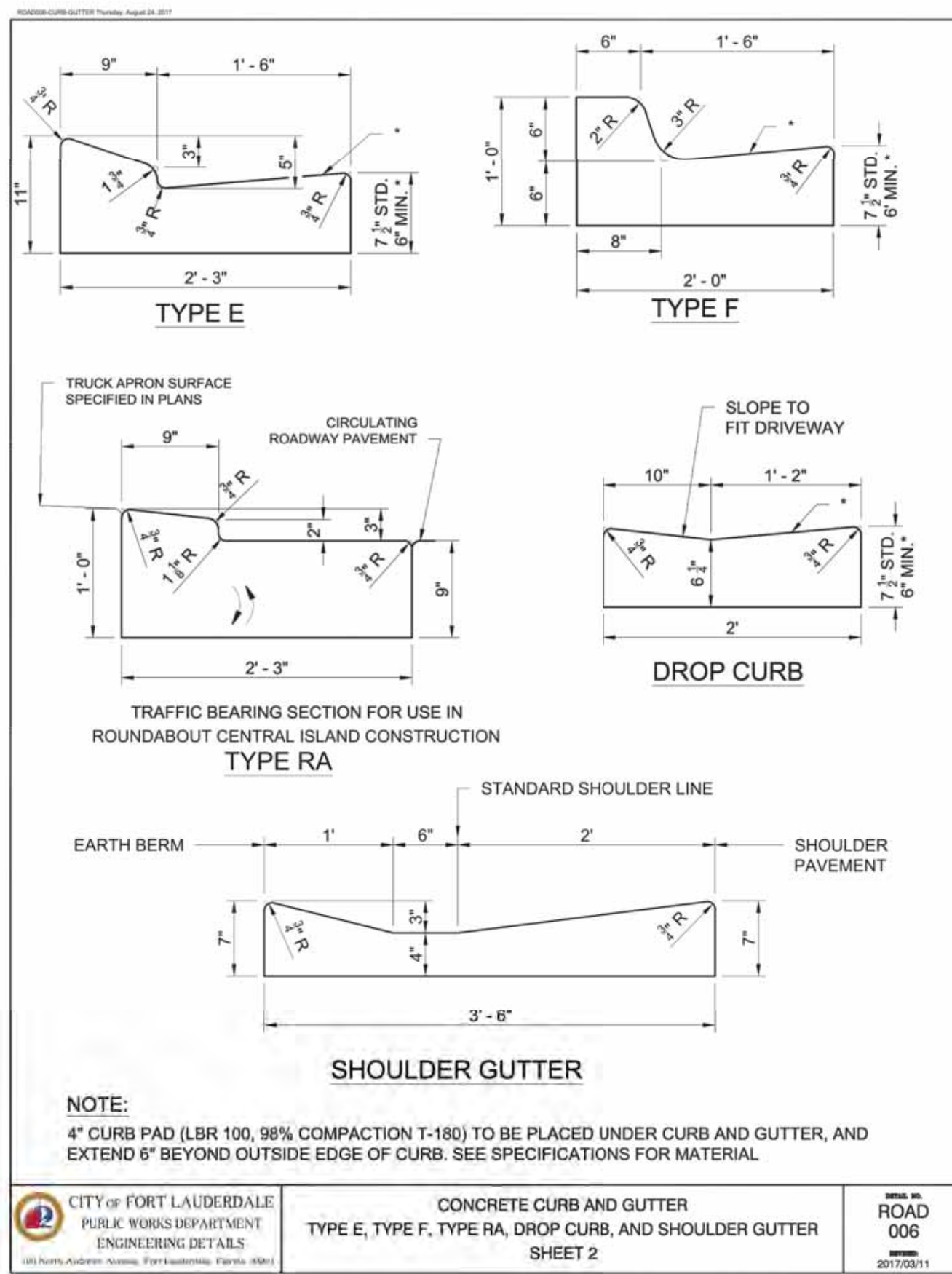
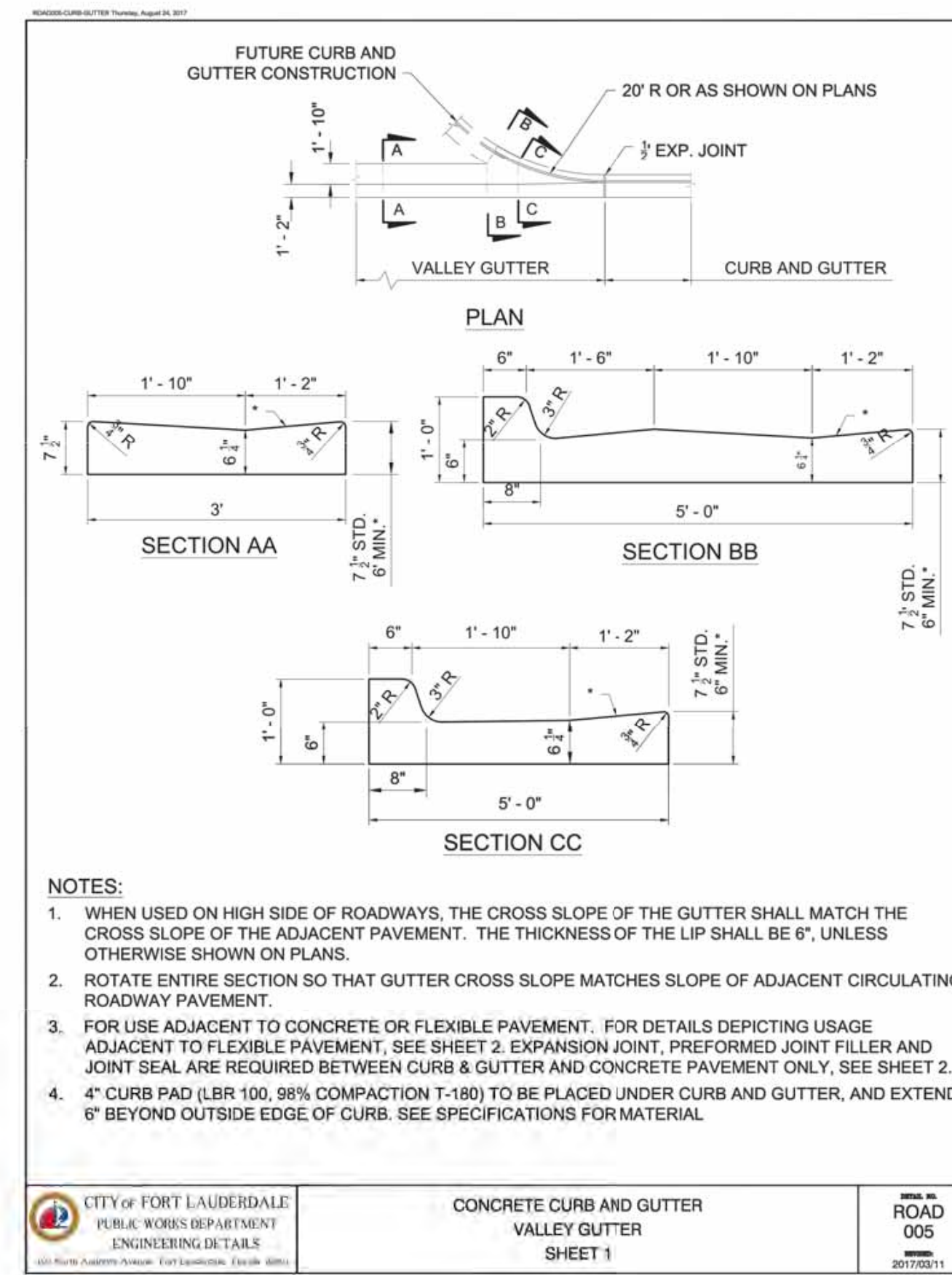
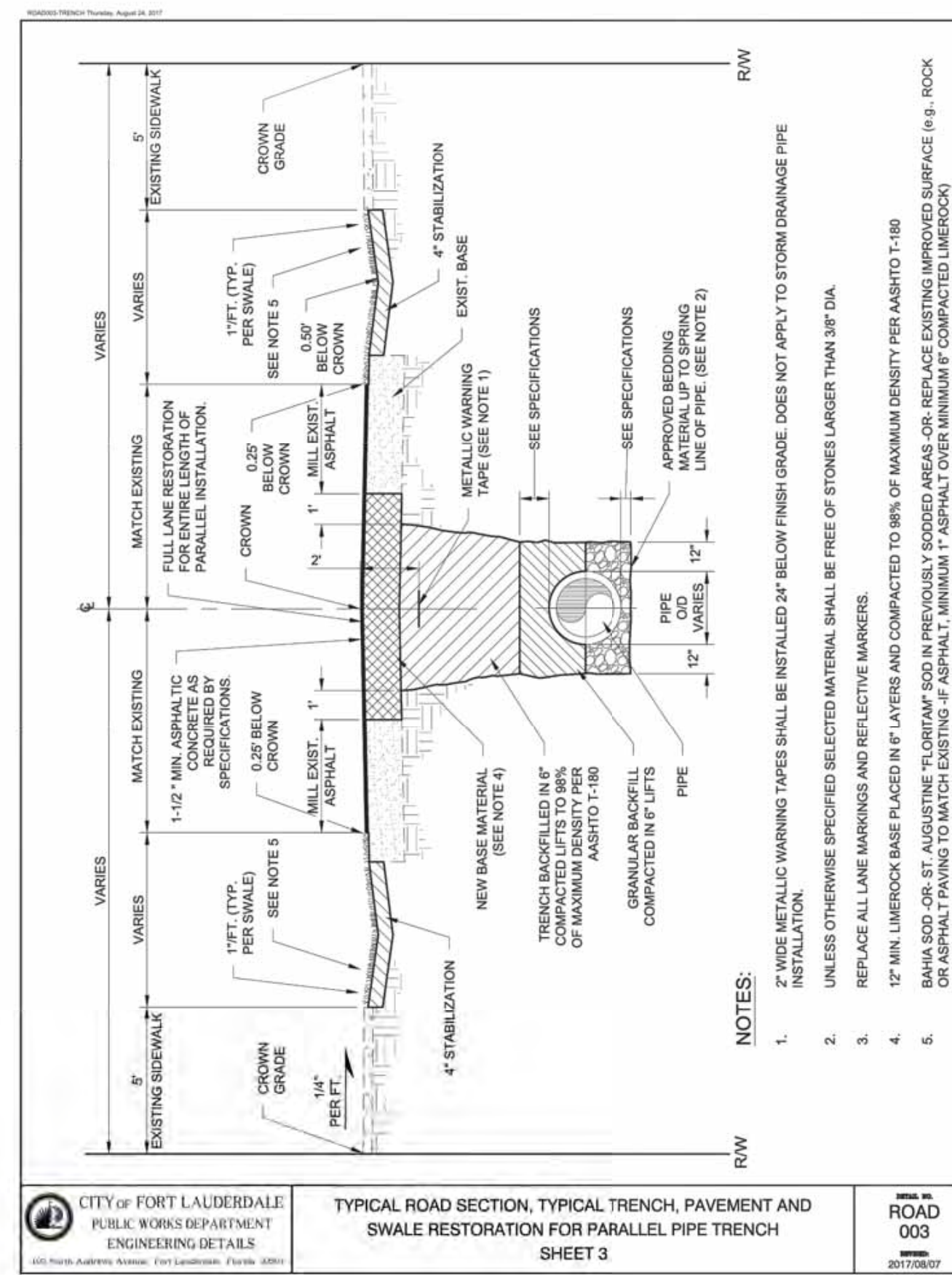
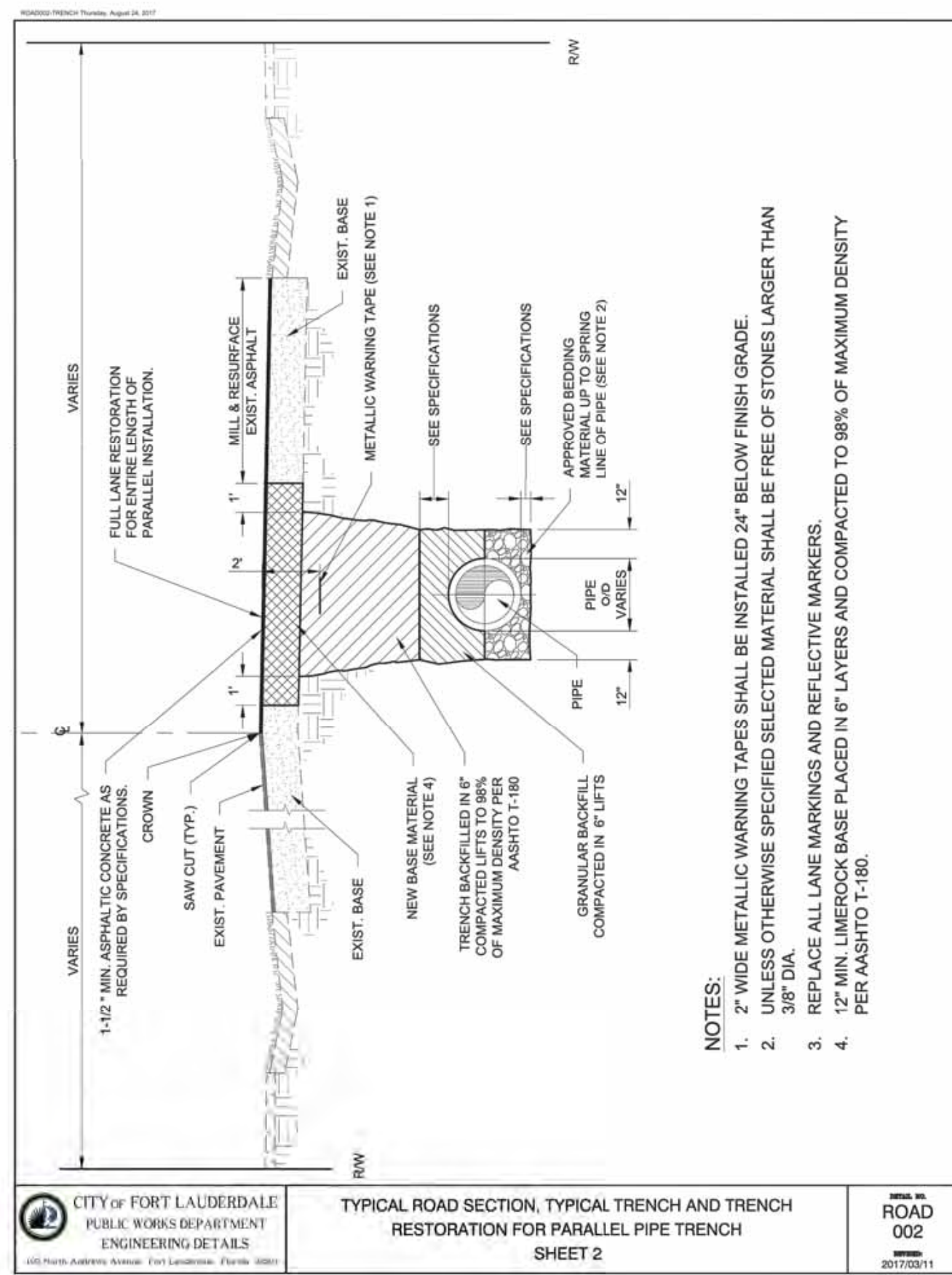
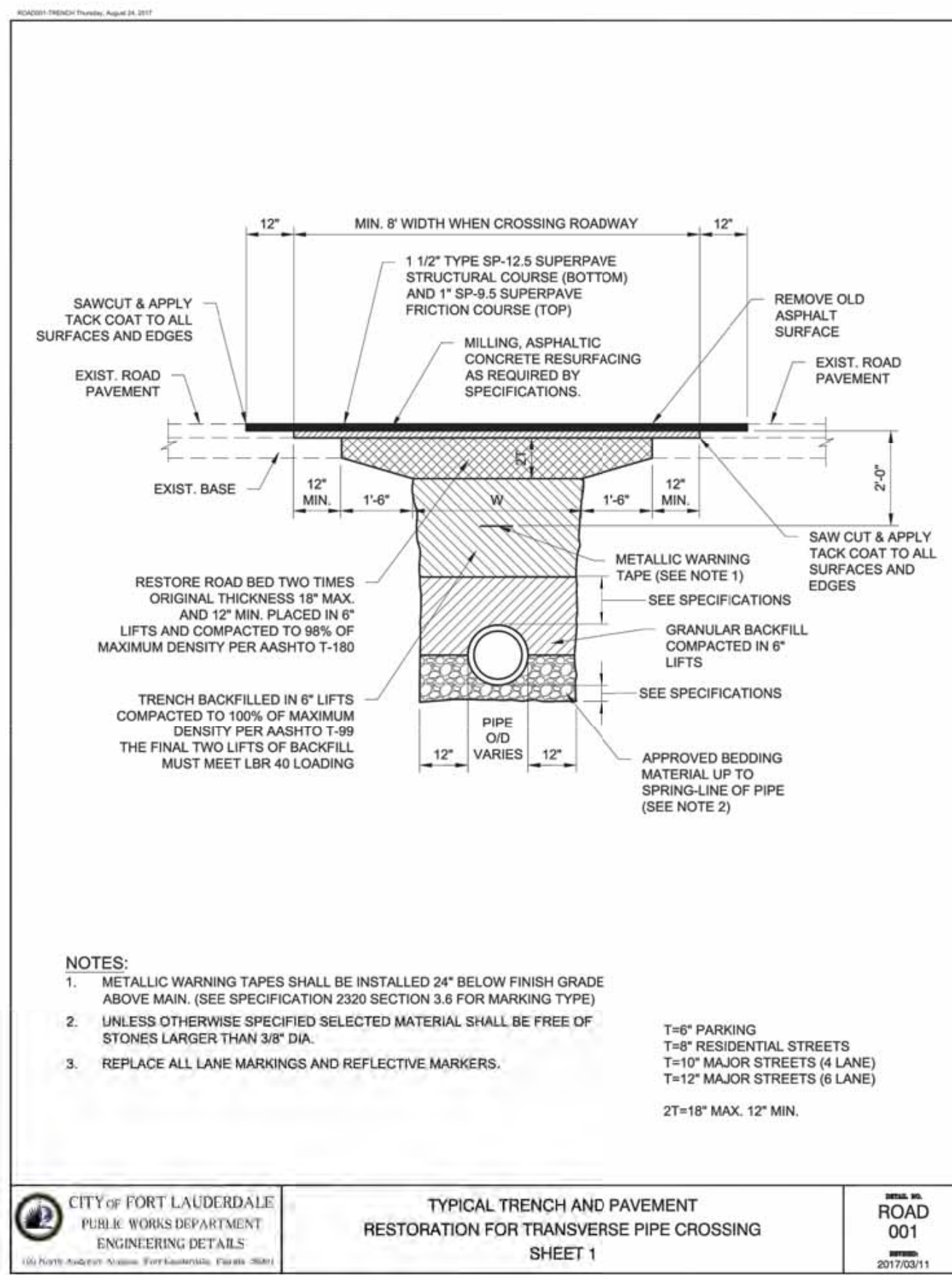
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301
TEL: (954) 656-5100
FAX:

PREPARED BY:
Kimley»Horn
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SHEET NO. 15 OF 31

CAD FILE: 12412-MULTI-DETL
DRAWING FILE NO. 4-142-31

PLOTTED BY: MARISSA MORISSA, SHEET SAU-PUMP-STATION A-16 DESIGN CRITERIA PACKAGE, LAYOUT: DETL-16, SEPTEMBER 28, 2021, 04:14:32 PM. K:\VH\6\043 jobs\043184401.crio 12412-16.dwg
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DESIGN CRITERIA PACKAGE

PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
STANDARD DETAILS

NO.	DATE	BY	CHKD	DESCRIPTION

DESIGNED BY: AL	DATE: MAR 2021
CHECKED BY: GR	AS NOTED

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301
TEL: (954) 656-5100
FAX:

SHEET NO.	OF
16	31
CAD FILE:	12412-MULTI-DETL
DRAWING FILE NO.	4-142-31

Plotted By: Marissa, Marissa Sheet: SFP-PUMP-STATION A-16 DESIGN CRITERIA PACKAGE Layout: DET-17 September 28, 2021 04:14:38pm K:\VH\043\043 jobs\043184401\cna 12412-416 ps 0-16 rev location\CAD\plansheets\12412-MULTI-DET-1.dwg
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GENERAL NOTES

- SIDEWALK CURB RAMPS SHALL BE CONSTRUCTED AT LOCATIONS THAT WILL PROVIDE CONTINUOUS UNOBSTRUCTED PEDESTRIAN CIRCULATION PATH TO PEDESTRIAN AREAS, ELEMENTS AND FACILITIES WITHIN THE RIGHT OF WAY AND TO ACCESSIBLE PEDESTRIAN ROUTES ON ADJACENT CURBED FACILITIES WITH SIDEWALKS AND THOSE WITHOUT SIDEWALKS ARE TO HAVE CURB RAMPS CONSTRUCTED FOR ALL INTERSECTIONS AND TURNOUTS WITH CURBED RETURNS. TO ACCOMMODATE CURB RAMPS, PARTIAL CURB RETURNS ARE TO EXTEND TO THE LIMITS PRESCRIBED IN INDEX NO. 515. RAMPS CONSTRUCTED AT LOCATIONS WITHOUT SIDEWALKS ARE TO HAVE A LANDING CONSTRUCTED AT THE TOP OF EACH RAMP. SEE LANDINGS FOR CURB RAMPS WITHOUT SIDEWALKS.
- WHEN ALTERING EXISTING PEDESTRIAN FACILITIES, WHERE EXISTING RESTRICTED CONDITIONS PRECLUDE THE ACCOMMODATION OF A RAMP SLOPE OF 1:12, A RAMP SLOPE BETWEEN 1:12 AND 1:10 IS PERMITTED FOR A RISE OF 6" MAXIMUM. WHERE COMPLIANCE WITH THE REQUIREMENTS FOR CROSS SLOPE CANNOT BE FULLY MET, THE MINIMUM FEASIBLE CROSS SLOPE SHALL BE PROVIDED. RAMP SLOPES ARE NOT REQUIRED TO EXCEED 19' IN LENGTH.
- IF SIDEWALK CURB RAMPS ARE LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, THEN PROVIDE TRANSITION SLOPES TO THE RAMP; OTHERWISE A SIDEWALK CURB MAY BE REQUIRED.
- ALL SIDEWALKS, RAMPS, AND LANDINGS WITH A CROSS SLOPE OF 0.02 SHOWN IN THIS INDEX ARE 0.02 MAXIMUM. ALL RAMP SLOPES SHOWN IN THIS INDEX AS 1:12 ARE 1:12 MAXIMUM. LANDINGS SHALL HAVE SLOPES LESS THAN OR EQUAL TO 0.02 IN ANY DIRECTION.
- GRADE BREAKS AT THE TOP AND BOTTOM OF RAMPS SHALL BE PARALLEL TO EACH OTHER AND PERPENDICULAR TO THE DIRECTION OF THE RAMP SLOPE.
- WHERE A SIDEWALK CURB RAMP IS CONSTRUCTED WITHIN EXISTING CURB, CURB AND GUTTER AND/OR SIDEWALK, THE EXISTING CURB OR CURB AND GUTTER SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE CURB TRANSITION OR TO THE EXTENT THAT NO REMAINING SECTION OF CURB OR CURB AND GUTTER IS LESS THAN 6' LONG. EXISTING SIDEWALKS SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE TRANSITION SLOPE OR TO THE EXTENT THAT NO REMAINING SECTION OF SIDEWALK IS LESS THAN 6' LONG. FOR CONCRETE SIDEWALK DETAILS REFER TO INDEX 310.
- SIDEWALK CURB RAMP ALPHA IDENTIFICATIONS ARE FOR REFERENCE PURPOSES (PLANS, PERMITS, ETC.). ALPHA IDENTIFICATIONS OR I AND C#s WERE INTENTIONALLY OMITTED.
- DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE RAMP AND TO A DEPTH OF 2' DETECTABLE WARNINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATION SECTION 527. FOR THE LAYOUT OF DETECTABLE WARNINGS, REFER TO THE TYPICAL PLACEMENT OF DETECTABLE WARNINGS DETAILS. DETECTABLE WARNINGS SHALL NOT BE PROVIDED ON TRANSITION SLOPES.
- WHEN DETECTABLE WARNINGS ARE PLACED ON A SLOPE GREATER THAN 3%, DOMES SHALL BE ALIGNED WITH THE CENTERLINE OF THE RAMP; OTHERWISE DOMES ARE NOT REQUIRED TO BE ALIGNED.
- DETECTABLE WARNINGS SHALL BE REQUIRED ON SIDEWALKS AND SHARED USE PATHS AT:
 - INTERSECTING ROADS
 - MEAN CROSSINGS GREATER THAN OR EQUAL TO 6' IN WIDTH
 - RAILROAD CROSSINGS
 - SIGNALIZED DRIVEWAYS
- DETECTABLE WARNINGS - ACCEPTANCE CRITERIA:
 - COLOR AND TEXTURE SHALL BE COMPLETE AND UNIFORM
 - 90% OF INDIVIDUAL TRUNCATED DOMES SHALL BE IN
 - ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT STANDARDS FOR TRANSPORTATION FACILITIES, SECTION 705
 - THERE SHALL BE NO MORE THAN 4 NON-COMPLIANT DOMES IN ANY ONE SQUARE FOOT
 - NON-COMPLIANT DOMES SHALL NOT BE ADJACENT TO OTHER NON-COMPLIANT DOMES
 - SURFACES SHALL NOT DEVIATE MORE THAN 0.10" FROM A TRUE PLANE
- DETECTABLE WARNINGS SHALL BE INSTALLED NO GREATER THAN 9' FROM THE BACK OF CURB OR EDGE OF PAVEMENT.
- DETECTABLE WARNINGS SHALL NOT BE INSTALLED OVER GRADE BREAKS.

LEGEND

- DETECTABLE WARNINGS

CURB RAMP NOMENCLATURE PICTORIAL VIEW

CITY OF FORT LAUDERDALE
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 ENGINEERING DETAILS
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DATE: FEB'08 SCALE: N.T.S.
 REVISIONS: MARCH '09 DRAWN BY: R.C.

DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS
 ROAD 013
 SHEET 013
 20170311

SECTION AA

UTILITY STRIP (VARIES)
 SIDEWALK (VARIES 5' MIN)

0.02 0.02 Max.

CONCRETE SIDEWALK ON CURBED ROADWAYS

NOTES FOR CONCRETE SIDEWALK ON CURBED ROADWAYS

- CONSTRUCT SIDEWALKS IN ACCORDANCE WITH SPECIFICATION SECTION 522.
- INCLUDE DETECTABLE WARNINGS ON SIDEWALK CURB RAMPS AND CONSTRUCT IN ACCORDANCE WITH INDEX NO. 304.
- DETECTABLE WARNINGS ARE NOT REQUIRED WHERE SIDEWALKS INTERSECT URBAN FLARED TURNOUTS.
- BOND BREAKER MATERIAL CAN BE ANY IMPERMEABLE COATED OR SHEET MEMBRANE OR PREFORMED MATERIAL HAVING A THICKNESS OF NOT LESS THAN 6 MILS NOR MORE THAN 1/2".
- FOR TURNOUTS SEE INDEX NO. 515.
- CONSTRUCT SIDEWALKS WITH 1" THICK EDGE BEAM THROUGH THE LIMITS OF ANY SURFACE MOUNTED PEDESTRIAN/BICYCLE PICKET RAILING OR PIPE GUIDELINE SHOWN IN THE PLANS.

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DETAILS
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DATE: FEB'08 SCALE: N.T.S.
 REVISIONS: MARCH '09 DRAWN BY: R.C.

CONCRETE SIDEWALK SHEET 1
 ROAD 035
 SHEET 035
 20170311

SECTION BB

FLUSH-TOOLED EDGE
 SIDEWALK VARIES (6' MAX.)

0.02 Max.

CONCRETE SIDEWALK ON CURBED ROADWAYS

NOTES FOR CONCRETE SIDEWALK ON CURBED ROADWAYS

- CONSTRUCT SIDEWALKS IN ACCORDANCE WITH SPECIFICATION SECTION 522.
- INCLUDE DETECTABLE WARNINGS ON SIDEWALK CURB RAMPS AND CONSTRUCT IN ACCORDANCE WITH INDEX NO. 304.
- DETECTABLE WARNINGS ARE NOT REQUIRED WHERE SIDEWALKS INTERSECT URBAN FLARED TURNOUTS.
- BOND BREAKER MATERIAL CAN BE ANY IMPERMEABLE COATED OR SHEET MEMBRANE OR PREFORMED MATERIAL HAVING A THICKNESS OF NOT LESS THAN 6 MILS NOR MORE THAN 1/2".
- FOR TURNOUTS SEE INDEX NO. 515.
- CONSTRUCT SIDEWALKS WITH 1" THICK EDGE BEAM THROUGH THE LIMITS OF ANY SURFACE MOUNTED PEDESTRIAN/BICYCLE PICKET RAILING OR PIPE GUIDELINE SHOWN IN THE PLANS.

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DETAILS
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DATE: FEB'08 SCALE: N.T.S.
 REVISIONS: MARCH '09 DRAWN BY: R.C.

CONCRETE SIDEWALK SHEET 2
 ROAD 036
 SHEET 036
 20170311

CITY OF FORT LAUDERDALE
OFFICE OF THE CITY ENGINEER

ASPHALT TAPER DETAIL

DATE: FEB'08 SCALE: N.T.S.
 REVISIONS: MARCH '09 DRAWN BY: R.C.

1. REPLACE ALL LANE MARKINGS AND REFLECTIVE MARKERS.

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DATE: FEB'08 SCALE: N.T.S.
 REVISIONS: MARCH '09 DRAWN BY: R.C.

ASPHALT TAPER DETAIL
 ROAD 101
 SHEET 101
 20170311

CITY OF FORT LAUDERDALE
OFFICE OF THE CITY ENGINEER

HOSE BIB

DATE: FEB'08 SCALE: N.T.S.
 REVISIONS: MARCH '09 DRAWN BY: R.C.

HOSE BIB
 ROAD 961
 SHEET 961
 20170311

CITY OF FORT LAUDERDALE
OFFICE OF THE CITY ENGINEER

GENERAL NOTES

- BASE MATERIAL SHALL BE PLACED IN LAYERS NOT THICKER THAN 6" COMPACTED THICKNESS AND EACH LAYER THOROUGHLY ROLLED OR TAMPED TO 98% OF MAXIMUM DENSITY, PER AASHTO T-180.
- ASPHALT PAVEMENT JOINTS (ASPHALTIC CONCRETE) SHALL BE MECHANICALLY SAWED.
- NEW SURFACE MATERIAL WILL BE D.O.T. TYPE III ASPHALTIC CONCRETE.
- BASE MATERIAL SHALL HAVE A MINIMUM LBR OF 100 & MINIMUM CARBONATE CONTENT OF 70% FOR MAJOR STREETS AND 60% FOR RESIDENTIAL STREETS.
- IF THE DITCH IS FILLED TEMPORARILY, IT SHALL BE COVERED WITH A 2" ASPHALTIC CONCRETE PATCH ON MAJOR STREET AND 1-1/2" ASPHALTIC CONCRETE PATCH ON RESIDENTIAL STREET AND PARKING LOT TO KEEP THE FILL MATERIAL FROM RAVELING UNTIL PLACED WITH A PERMANENT PATCH.
- GAS MAINS 4" OR SMALLER IN SIZE SHALL BE CONSTRUCTED AS SHOWN IN THIS DETAIL WITH THE PROVISION OF 3" MINIMUM WIDTH CONTINUOUS METALLIC TAPE OR #12 WIRE WRAPPED AROUND THE CONDUITS.
- THE PROVISIONS IN THIS DETAIL SUPERSEDES ALL OTHER RELATED PROVISIONS MENTIONED IN CITY OF FORT LAUDERDALE CONSTRUCTION STANDARDS AND SPECIFICATIONS.
- THIS DETAIL APPLIES FOR ROAD CROSSINGS ONLY. FOR PARALLEL INSTALLATIONS WITHIN THE ROADWAY, EITHER HALF A LANE OR A FULL RESTORATION SHALL BE CONSTRUCTED IN CONFORMANCE WITH APPLICABLE DETAILS.

RESTORATION OF PAVEMENT
UTILITIES INSTALLATION PARALLEL

DATE: APRIL '04 SCALE: N.T.S.
 REVISIONS: MARCH '09 DRAWN BY: R.C.

RESTORATION OF PAVEMENT
 UTILITIES INSTALLATION PARALLEL
 ROAD 4.11
 SHEET 4.11
 2 OF 2
 20170311

CITY OF FORT LAUDERDALE
OFFICE OF THE CITY ENGINEER

RESTORATION OF PAVEMENT
UTILITIES INSTALLATION PARALLEL

DATE: APRIL '04 SCALE: N.T.S.
 REVISIONS: MARCH '09 DRAWN BY: R.C.

RESTORATION OF PAVEMENT
 UTILITIES INSTALLATION PARALLEL
 ROAD 4.12
 SHEET 4.12
 20170311



PREPARED BY:
Kimley»Horn

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DESIGN CRITERIA PACKAGE

PROJECT # 12412
 PUMP STATION A-16 UPGRADE
 WASTEWATER DESIGN CRITERIA PACKAGE
 STANDARD DETAILS

SHEET NO.	OF
17	31
CAD FILE:	
12412-MULTI-DET-1	
DRAWING FILE NO.	
4-142-31	

NO.	DATE	BY	CHKD	DESCRIPTION

CITY OF FORT LAUDERDALE
OFFICE OF THE CITY ENGINEER

ENGINEER: CURV P. RAY, P.E.
 BRG. No.: 46982
 DATE: 9/28/2021

DATE: MAR 2021
 DESIGNED BY: AL GR AS NOTED
 CHECKED BY: GR
 FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
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TEL: (954) 656-5100
 FAX:

Plotted by: Marina, Moriso Sheet: Sump-Pump Station A-16 DESIGN CRITERIA PACKAGE Layout: SWP-16 September 28, 2021 04:14:44pm K:\H1_civil\043_jba\CA318401_cna 12464-416 ps a-16 rev location\CAD\plan\sheet\12412-MULTI-DET.dwg
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EROSION AND SEDIMENT CONTROL:

- CONTRACTOR TO EMPLOY BEST MANAGEMENT PRACTICES THROUGHOUT CONSTRUCTION IN ORDER TO ENSURE POLLUTION PREVENTION. CONTRACTOR TO COMPLY WITH ALL LOCAL, STATE AND OTHER GOVERNMENTAL ENVIRONMENTAL REGULATIONS THROUGHOUT CONSTRUCTION.
- DURING CONSTRUCTION ALL CATCH BASIN INLETS SHALL BE PROTECTED TO PREVENT SEDIMENT AND DEBRIS FROM ENTERING THE CATCH BASIN.
- SILT FENCES SHALL BE INSTALLED AS NECESSARY TO CONTROL OR PREVENT DISCHARGE OF SEDIMENT ONTO ADJACENT UNDISTURBED AREAS, OR OFF-SITE AREAS.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITHIN A REASONABLE PERIOD OF TIME TO ASSURE MINIMUM EROSION OF SOILS.
- NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- ALL EXPOSED AREAS SHALL BE SOODED AS SPECIFIED WITHIN 30 DAYS OF FINAL GRADING.
- MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN AND AT LEAST ONCE A WEEK.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
- CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY CITY, COUNTY, AND STATE OF FLORIDA ON SITE INSPECTION, AT NO ADDITIONAL COST TO THE OWNER.
- LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES.
- IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR HIGHWINDS THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
- BURNING OF DEBRIS WILL NOT BE ALLOWED.
- CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
- CONTRACTOR IS TO PROVIDE EROSION CONTROL SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT SITE. IF IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES IF EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE AND CLEAN SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES. EROSION CONTROL BARRIER SHALL BE ESTABLISHED AS THE FIRST ITEM OF WORK.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING/DETAIL ESC 001

- THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S STORMWATER PERMITTING PROGRAM APPLIES TO ALL CONSTRUCTION ACTIVITY THAT 1) CONTRIBUTES STORMWATER DISCHARGE TO SURFACE WATER OF THE STATE OR INTO A MUNICIPAL SEWER SYSTEM (MS4); 2) DISTURBS ONE OR MORE ACRES OF LAND; OR 3) LESS THAN ONE ACRE IS INCLUDED IF THE ACTIVITY IS PART OF A LARGER COMMON PLAN OR DEVELOPMENT THAT WILL MEET OR EXCEED THE ONE ACRE THRESHOLD. DISTURB INCLUDES CLEARING, GRADING AND EXCAVATING.
- FOR CONSTRUCTION ACTIVITY THAT IS SUBJECT TO THE NPDES FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S STORMWATER PERMITTING PROGRAM, THE CONTRACTOR SHALL:
 - OBTAIN A GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION DOCUMENT 62-421.300(6)(A).
 - COMPLY WITH ALL REQUIREMENTS OF THE GENERIC PERMIT.
 - DEVELOP AND IMPLEMENT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
 - COMPLETE A NOTICE OF INTENT (NOI) (NOI) FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION FORM 62-421.300(4)(B) IN ITS ENTIRETY USING THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S WEBSITE.
 - SUBMIT COPIES OF THE SWPPP AND THE NOI TO THE ENGINEER AS INFORMATIONAL RECORDS. THESE SUBMITTALS WILL NOT BE REVIEWED BY THE ENGINEER.
 - CONTRACTOR TO CLEAN AND REPAIR ALL EXISTING STORMWATER INFRASTRUCTURE THAT IS IMPACTED BY CONSTRUCTION ACTIVITIES, BEFORE LEAVING THE JOBSITE.
 - CONTRACTOR TO REMOVE ALL FILTER FABRIC AND POLLUTION PREVENTION ITEMS BEFORE THE FINAL WALK-THROUGH.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING/DETAIL ESC 001

GRAVEL CONSTRUCTION ENTRANCE

NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING/DETAIL ESC 001

GRAP INLET PROTECTION - SEDIMENT BARRIER

CONTRACTOR'S RESPONSIBILITY:
EROSION AND SEDIMENTATION CONTROLS ARE PERFORMANCE FROM LEAVING A CONSTRUCTION SITE. THEN THE CONTRACTOR SHALL FOLLOW THE FOLLOWING ADDITIONAL PROCEDURES TO PROVIDE CLEAN RUNOFF FROM A SITE.
NOTES:
1. DROP INLET PROTECTION BARRIERS ARE TO BE USED FOR:
a. SMALL NEARLY LEVEL DRAINAGE AREAS (LESS THAN 5%) OF FINAL LENGTH.
b. INSTALL 2" X 4" WOOD TOP FRAME TO INSURE STABILITY.
c. 12" X 12" (MIN) COARSE AGGREGATE TO PREVENT BELOW THE GRADE ELEVATION DOWNSLLOPE TO PREVENT EROSION.
d. FILTER FABRIC TO PREVENT EROSION. CONTRACTOR SHALL BE WRAPPED AROUND GRADE TO PREVENT CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY AREAS.
e. FURNISH AND INSTALL BARRIERS TO PREVENT CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY AREAS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING/DETAIL ESC 001

DROP INLET PROTECTION - INLET INSERT

NOTES:
1. THE INLET INSERT SHALL BE A SEDIMENT CONTROL DEVICE DESIGNED FOR DROP INLETS OR COMBINATION DRAINS WHERE A DROP INLET IS COUPLED WITH A CURB INLET.
2. THE INLET INSERT SHALL BE MADE OF A PERMEABLE GEOTEXTILE THAT ALLOWS WATER TO PASS BUT PREVENTS SILT AND SEDIMENT FROM LOGGING THE DRAIN SYSTEM.
3. THE CONTRACTOR SHALL CLEAN AND INSPECT REGULARLY AND AFTER EVERY MAJOR RAIN EVENT.
4. INLET INSERTS SHALL BE "SLITBACK" BY ACP ENVIRONMENTAL, OR EQUAL. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH THE SPECIFICATIONS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING/DETAIL ESC 005

CURB INLET PROTECTION - CURB FILTER

NOTES:
1. INSTALL CURB FILTERS AT ALL INLETS WITHOUT GRATES TO KEEP SILT, SEDIMENT AND CONSTRUCTION DEBRIS OUT OF THE STORM SYSTEM.
2. THE CURB FILTER SHALL BE DANDY CURB AS MANUFACTURED BY DANDY PRODUCTS INC. OR EQUAL. SUBMIT SHOP A SHOP DRAWING FOR THE CURB FILTERS.
3. THE CURB FILTER SHALL FORM OF A CYLINDRICAL TUBE PLACED IN FRONT OF AND EXTENDING BEYOND THE INLET OPENING ON BOTH SIDES.
4. THE CURB FILTER SHALL HAVE A POUCH ON THE STREET SIDE OF THE UNIT FOR STONE AGGREGATE TO HOLD THE FILTER IN PLACE.
5. THE CURB FILTER SHALL BE CONSTRUCTED OF A HIGH VISIBILITY ORANGE MONOPLAST FABRIC.
6. FILL POUCH WITH FOOT #57 STONE AGGREGATE TO A LEVEL (AT LEAST HALF-FULL) THAT WILL KEEP UNIT IN PLACE DURING A RAIN EVENT AND CREATE A SEAL BETWEEN THE CURB FILTER AND THE SURFACE OF THE STREET.
7. CENTER THE UNIT AGAINST CURB OR MEDIUM INLET OPENING SO THAT THE CURB SIDE OF THE UNIT CREATES A SEAL WITH THE CURB OR MEDIUM BARRIER AND INLET STRUCTURE. THERE WILL BE APPROXIMATELY TWELVE (12) INCHES OF THE INLET PROTECTION UNIT OVERHANGING ON EACH SIDE OF THE OPENING.
8. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH RAIN EVENT.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING/DETAIL ESC 006

CURB INLET PROTECTION - GRAVEL BAG

NOTES:
1. A SPILLWAY SHALL BE DESIGNATED FOR EACH DIRECTION OF APPROACHING FLOW AS SHOWN. THE SPILLWAY SHALL BE LOCATED TO ALLOW THE MAXIMUM AMOUNT OF STORMWATER TO POOL WITHOUT FLOODING AREAS UP GRADE OF THE INLET.
2. FOR INLETS THAT ARE NOT ADJACENT TO CURBS, PLACE GRAVEL BAGS ONE BAG HIGH AROUND THE ENTIRETY OF THE INLET TO ACCOMMODATE FLOW FROM ALL DIRECTIONS.
3. BAG MATERIAL: BAGS SHALL BE WOVEN POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE FABRIC. MINIMUM UNIT WEIGHT FOUR OUNCES PER SQUARE YARD, MILLER BURST STRENGTH EXCEEDING 300 PSI IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM D3798, AND ULTRAVIOLET STABILITY EXCEEDING 70% IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM D4555.
4. BAG SIZE: EACH GRAVEL-FILLED BAG SHALL BE 16-INCHES X 12-INCHES X 3-INCHES AND HAVE A MASS OF APPROXIMATELY 33 LBS. ALTERNATIVE BAG SIZES SHALL BE CONSIDERED BASED ON LOCALLY AVAILABLE MATERIALS.
5. FILL MATERIAL: GRAVEL SHALL BE PEA GRAVEL 3/8 INCHES IN DIAMETER AND SHALL BE CLEAN AND FREE OF CLAY BALLS, ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING/DETAIL ESC 007

CURB INLET PROTECTION - BLOCK AND STONE

NOTES:
1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 12 - 3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW THE TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR INLETS IN ROADWAYS WITH HEAVY TRAFFIC CONDITIONS PREFABRICATED FILTER INSERTS MAY BE USED.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING/DETAIL ESC 007

SILT FENCE - SHEET 1

POST OPTIONS:
SOFTWOOD 2" x 2" OR
HARDWOOD 1 1/2" x 1 1/2"
STEEL 1/2" x 1 1/2"
6" MAX
GROUND SURFACE
20' TOWARD FLOW
20' TOWARD FLOW
ELEVATION
SECTION
TYPE III SILT FENCE

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING/DETAIL ESC 009

SILT FENCE - SHEET 2

NOTES:
1. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH CHART 1.
2. DO NOT CONSTRUCT SILT FENCES ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
3. WHERE USED AS SLOPE PROTECTION, SILT FENCE IS TO BE CONSTRUCTED ON OR LONGITUDINAL GRADE TO AVOID CHANNELLING RUNOFF ALONG THE LENGTH OF THE FENCE.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING/DETAIL ESC 010

TURBIDITY BARRIER - FLOATING

NOTES:
1. TURBIDITY BARRIERS SHALL BE USED TO PREVENT TURBIDITY FROM ENTERING PERMANENT BODIES OF WATER.
2. TURBIDITY BARRIERS SHALL BE USED TO PREVENT TURBIDITY FROM ENTERING PERMANENT BODIES OF WATER.
3. TURBIDITY BARRIERS SHALL BE USED TO PREVENT TURBIDITY FROM ENTERING PERMANENT BODIES OF WATER.
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17. TURBIDITY BARRIERS SHALL BE USED TO PREVENT TURBIDITY FROM ENTERING PERMANENT BODIES OF WATER.
18. TURBIDITY BARRIERS SHALL BE USED TO PREVENT TURBIDITY FROM ENTERING PERMANENT BODIES OF WATER.
19. TURBIDITY BARRIERS SHALL BE USED TO PREVENT TURBIDITY FROM ENTERING PERMANENT BODIES OF WATER.
20. TURBIDITY BARRIERS SHALL BE USED TO PREVENT TURBIDITY FROM ENTERING PERMANENT BODIES OF WATER.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING/DETAIL ESC 011

PORTABLE SEDIMENT TANK

NOTES:
1. CLEAN OUT THE SEDIMENT TANK WHEN ONE THIRD (1/3) FILLED WITH SILT.
2. ALL SEDIMENT COLLECTED IN THE TANK SHALL BE DISPOSED OF IN A SEDIMENT TRAPPING DEVICE, AN APPROVED LOCATION IN WHICH FURTHER SEDIMENT TRANSPORT WILL NOT OCCUR OR AS APPROVED BY THE INSPECTOR.
3. PORTABLE SEDIMENT TANK SHALL BE AN ABOVE GROUND HORIZONTAL SINGLE WALL UL-42 MANUFACTURED BY HIGHLAND TANK OR WEIR BOX MANUFACTURED BY RAIN FOR RENT OR EQUIVALENT.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING/DETAIL ESC 012

DESIGNER: CURV P. RAY, P.E. BRG No: 46982 DATE: 9/28/2021
DRAWN BY: AL DATE: MAR 2021
DESIGNED BY: SCALE: AS NOTED
CHECKED BY: GR
FIELD BOOK:

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
STORMWATER POLLUTION PREVENTION
PLAN

SHEET NO. OF
18 31
CAD FILE: 12412-MULTI-DET
DRAWING FILE NO. 4-142-31

DESIGN CRITERIA PACKAGE

PREPARED BY:
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PLAN SYMBOLS	PLAN SYMBOLS (CONTINUED)	CONTROL DIAGRAM SYMBOLS	ABBREVIATIONS	NOTES
<p> HOME RUN TO PANELBOARD. NO. OF ARROWS INDICATE NO. OF CIRCUITS, HASH MARKS INDICATE NO. OF #12 AWG. CONDUCTORS. NO HASH MARKS INDICATE 2 #12 CONDUCTORS.</p> <p> CONDUIT CONCEALED IN WALL, IN SLAB ABOVE, OR ABOVE CEILING</p> <p> CONDUIT CONCEALED IN OR BELOW FLOOR OR UNDERGROUND.</p> <p> CONDUIT RUN EXPOSED. RUN PARALLEL OR PERPENDICULAR TO STRUCTURE OR WALL.</p> <p> FLEXIBLE CONDUIT WITH EQUIPMENT CONNECTION.</p> <p> CONDUIT ROUTING ENVELOPE (CONCRETE ENCASED DUCTBANK).</p> <p> WALL MOUNTED LED LIGHTING FIXTURE.</p> <p> LED LIGHTING FIXTURE, CEILING MOUNTED.</p> <p> EXTERIOR LED LUMINAIRE AND MOUNTING STANDARD.</p> <p> EXISTING EXTERIOR LIGHTING.</p> <p> EMERGENCY BATTERY PACK LIGHTING FIXTURE.</p> <p> JUNCTION BOX N.E.C. SURFACE MOUNTED UNLESS INDICATED OTHERWISE.</p> <p> JUNCTION BOX PER N.E.C., NEMA 4X 316 SSS, FLUSH MOUNTED UNLESS INDICATED OTHERWISE.</p> <p> MOTOR JUNCTION BOX, NEMA 4X 316 SS JUNCTION BOX, 12" X 12" X 6" MINIMUM SIZE ENLARGE IF REQUIRED PER N.E.C.</p> <p> FLUSH OR SURFACE MOUNTED LIGHTING PANELBOARD.</p> <p> FLUSH OR SURFACE MOUNTED POWER PANELBOARD.</p> <p> DRY TYPE TRANSFORMER. NO. INDICATES KVA RATING.</p> <p> LIQUID FILLED TRANSFORMER, KVA RATING AS SHOWN</p> <p> FLUSH MOUNTED RECEPTACLE WITH USB OUTLET</p> <p> 20A, 125V, 3W DUPLEX RECEPTACLE IN FLUSH OUTLET BOX, 18" ABOVE FINISHED FLOOR.</p> <p> 20A, 125V, 3W GFI DUPLEX RECEPTACLE IN FLUSH OUTLET BOX, 48" ABOVE FINISHED FLOOR OR 6" ABOVE FINISHED COUNTER AS REQUIRED (AFC)</p> <p> 20A, 125V, 3W DUPLEX RECEPTACLE, SURFACE MOUNTED.</p> <p> SURFACE MOUNTED GROUND FAULT DUPLEX WEATHERPROOF RECEPTACLE 20A, 125V, 3W - MOUNTED 48" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED.</p> <p> 20A, 125V, 3W DOUBLE DUPLEX RECEPTACLE IN FLUSH OUTLET BOX.</p> <p> FLUSH MOUNTED GROUND FAULT WEATHERPROOF DUPLEX RECEPTACLE 20A, 125V, 3W -MOUNTED 48" ABOVE FINISHED FLOOR.</p> <p> FLUSH MOUNTED GFI WP DUPLEX RECEPTACLE WITH COVER RATED NEMA 4 WHILE IN USE.</p> <p> DISCONNECT RACK MOUNTED.</p> <p> OFF REMOTE/DISCONNECT RACK MOUNTED WITH JUNCTION BOX MOUNTED BELOW OFF REMOTE. NEMA 3R SS UNLESS OTHERWISE NOTED.</p> <p> SINGLE POLE SWITCH IN FLUSH OUTLET BOX, 48" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED (TYPICAL).</p> <p> SINGLE POLE SWITCH, SURFACE MOUNTED.</p> <p> THREE-WAY SWITCH IN FLUSH OUTLET BOX.</p> <p> FOUR-WAY SWITCH IN FLUSH OUTLET BOX.</p> <p> NON-FUSIBLE DISCONNECT SWITCH, 30A,3P NEMA 4X 316 SS UNLESS OTHERWISE INDICATED.</p> <p> NON-FUSIBLE DISCONNECT SWITCH, 30A,3P UNLESS OTHERWISE INDICATED, WITH REMOTE CONTROL STATION AS REQUIRED BY ELEMENTARY DIAGRAMS OR SPECS.</p> <p> ELECTRIC A.C. MOTOR, NO. INDICATES HORSEPOWER.</p> <p> FUSED DISCONNECT SWITCH(30/20: 30=SWITCH RATING, 20=FUSE RATING) 3 POLE-UNLESS NOTED OTHERWISE.</p> <p> MOTORIZED VALVE</p> <p> COMBINATION MOTOR STARTER, DISCONNECT SWITCH</p> <p> VARIABLE FREQUENCY DRIVE</p> <p> THERMOSTAT</p> <p> ELECTRIC HEATER</p>	<p> CONTROL PULLBOX. SEE "PULL BOX DETAIL"</p> <p> POWER MANHOLE. SEE "MANHOLE DETAIL"</p> <p> FLOW SWITCH</p> <p> FLOW ELEMENT</p> <p> LEVEL ELEMENT</p> <p> LIMIT SWITCH</p> <p> SEAL FAIL</p> <p> LIQUID LEVEL SWITCH</p> <p> VIBRATION SWITCH</p> <p> ANALYSIS INDICATING TRANSMITTER</p> <p> FLOW INDICATING TRANSMITTER</p> <p> LEVEL INDICATING TRANSMITTER</p> <p> TEMPERATURE SWITCH</p> <p> SPACE HEATER</p> <p> ANALYTICAL ELEMENT</p> <p> PRESSURE INDICATING TRANSMITTER</p> <p>SINGLE LINE DIAGRAM SYMBOLS</p> <p> COMBINATION MOTOR STARTER</p> <p> GROUND FAULT INTERRUPTER</p> <p> FUSE</p> <p> CAPACITOR</p> <p> MOLDED CASE CIRCUIT BREAKER</p> <p> TYPICAL SELECTOR SWITCH AND CONTROL. SEE ELEMENTARY DIAGRAMS FOR EXACT TYPE.</p> <p> ELECTRIC A.C. MOTOR, NO. INDICATES HORSEPOWER.</p> <p> SERVICE OR EQUIPMENT GROUND.</p> <p> NON-FUSIBLE DISCONNECT SWITCH, 30A,3P UNLESS OTHERWISE INDICATED.</p> <p> NON-FUSIBLE DISCONNECT SWITCH, 30A,3P UNLESS OTHERWISE INDICATED, WITH REMOTE CONTROL STATION AS REQUIRED BY ELEMENTARY DIAGRAMS OR SPECS.</p> <p> CROUSE HINDS EYSR FITTING w/CHICO SPEED SEAL COMPOUND</p> <p> LIGHTING PANELBOARD</p> <p> POWER PANELBOARD.</p> <p> CURRENT TRANSFORMERS</p> <p> POTENTIAL TRANSFORMERS.</p> <p> NEMA 4X 316 STAINLESS STEEL TERMINATION CABINET.</p> <p> TEMPERATURE SWITCH</p> <p> SEAL FAIL SWITCH</p> <p> PRESSURE INDICATING TRANSMITTER</p> <p> HIGH LEVEL FLOAT</p> <p> FLOW INDICATING TRANSMITTER</p> <p> FLOW ELEMENT</p>	<p> NORMALLY OPEN CONTACT</p> <p> NORMALLY CLOSED CONTACT</p> <p> LIMIT SWITCH, NORMALLY OPEN</p> <p> LIMIT SWITCH, NORMALLY CLOSED</p> <p> PRESSURE SWITCH, NORMALLY OPEN</p> <p> PRESSURE SWITCH, NORMALLY CLOSED</p> <p> FLOAT SWITCH, NORMALLY OPEN</p> <p> FLOAT SWITCH, NORMALLY CLOSED</p> <p> FLOW SWITCH, NORMALLY OPEN</p> <p> FLOW SWITCH, NORMALLY CLOSED</p> <p> TEMPERATURE SWITCH, NORMALLY OPEN</p> <p> TEMPERATURE SWITCH, NORMALLY CLOSED</p> <p> NORMALLY OPEN, TIMED TO CLOSE CONTACT</p> <p> NORMALLY CLOSED, TIMED TO OPEN CONTACT</p> <p> NORMALLY CLOSED, TIMED TO CLOSE CONTACT</p> <p> NORMALLY OPEN, TIMED TO OPEN CONTACT</p> <p> LIMIT SWITCH</p> <p> FLOW SWITCH</p> <p> PRESSURE SWITCH</p> <p> SOLENOID VALVE</p> <p> LIQUID LEVEL SWITCH</p> <p> VIBRATION SWITCH</p> <p> SMOKE DETECTOR</p> <p> ALARM RELAY</p> <p> ALARM TIMER</p> <p> CONTROL RELAY</p> <p> MOTOR STARTER</p> <p> TIMING RELAY</p> <p> TORQUE SWITCH</p> <p> ALARM INDICATING LIGHT</p> <p> RUN INDICATING LIGHT</p> <p> MOMENTARY CONTACT PUSHBUTTON</p> <p> MOMENTARY BREAK PUSHBUTTON OR RESET</p> <p> KEYED SWITCH</p> <p> MAINTAINED CONTACT ON-OFF SWITCH</p> <p> START/STOP(S/S) CONTROL SWITCH MAINTAINED CONTACT</p> <p> THREE POSITION MAINTAINED CONTACT SELECTOR SWITCH</p> <p> FUSE</p> <p> MOLDED CASE CIRCUIT BREAKER</p> <p> CONTROL POWER TRANSFORMER</p> <p> REMOTE TERMINAL BLOCK POINT</p>	<p>A AMPERES</p> <p>AC AIR CONDITIONER</p> <p>AFF ABOVE FINISHED FLOOR</p> <p>AIC AMPS INTERRUPTING CURRENT BREAKER</p> <p>BKRD BUILDING</p> <p>CP CONTROL PANEL</p> <p>CPT CONTROL POWER TRANSFORMER</p> <p>CU CONDENSING UNIT</p> <p>CT CURRENT TRANSFORMER</p> <p>DB DIGESTER BLOWER</p> <p>DE DUKE ENERGY</p> <p>EEB EAST ELECTRICAL BUILDING</p> <p>EFF EFFLUENT</p> <p>ELEC ELECTRICAL</p> <p>EM EMERGENCY</p> <p>ENCL ENCLOSURE</p> <p>ETM ELAPSED TIME METER</p> <p>EUH ELECTRIC UNIT HEATER</p> <p>EXH EXHAUST</p> <p>FPL FLORIDA POWER & LIGHT</p> <p>FTC FLOAT CABLE TERMINATION CABINET</p> <p>FVNR FULL VOLTAGE NON-REVERSING GENERATOR</p> <p>GEN GENERATOR</p> <p>GFR GROUND FAULT RECEPTACLE</p> <p>GFI GROUND FAULT INTERRUPTER</p> <p>GND GROUND</p> <p>GRS GALVANIZED RIGID STEEL</p> <p>HOA HAND-OFF-AUTOMATIC</p> <p>HOR HAND-OFF-REMOTE</p> <p>HP HORSEPOWER</p> <p>JB JUNCTION BOX</p> <p>KVA KILO VOLT-AMPERES</p> <p>KW KILOWATT</p> <p>LCP LOCAL CONTROL PANEL</p> <p>LP LOOP NUMBER</p> <p>LOP LOCAL OPERATOR PANEL</p> <p>LTG LIGHTING</p> <p>MAX MAXIMUM</p> <p>MCB MAIN CIRCUIT BREAKER</p> <p>MIN MINIMUM</p> <p>MLO MAIN LUGS ONLY</p> <p>MSC MANUFACTURER SUPPLIED CABLE MOUNTED</p> <p>MTD MOUNTED</p> <p>N NEUTRAL</p> <p>NEC NATIONAL ELECTRICAL CODE</p> <p>NTS NOT TO SCALE</p> <p>OH OVERHEAD</p> <p>P POLE</p> <p>PM PHASE MONITOR</p> <p>PS PUMP STATION</p> <p>PSCP PUMP STATION CONTROL PANEL</p> <p>SH SHIELDED</p> <p>SPD SURGE PROTECTION DEVICE</p> <p>SS STAINLESS STEEL</p> <p>SSS SOLID STATE STARTER</p> <p>STR STARTER</p> <p>SW SWITCH</p> <p>TC TERMINATION CABINET</p> <p>TYP TYPICAL</p> <p>UG UNDERGROUND</p> <p>UPS UNINTERRUPTIBLE POWER SUPPLY</p> <p>V VOLT</p> <p>VFD VARIABLE FREQUENCY DEVICE</p> <p>WEB WEST ELECTRICAL BUILDING</p> <p>W WATT</p> <p>W/ WITH</p> <p>WP WEATHERPROOF</p> <p>XFMR TRANSFORMER</p> <p>ø PHASE</p>	<ol style="list-style-type: none"> 1. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL NEW ELECTRICAL WORK INDICATED. 2. ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING ELECTRICAL INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. EXISTING CONDITIONS OF ELECTRICAL EQUIPMENT, LIGHT FIXTURES, ETC... THAT ARE PART OF THE FINAL SYSTEM SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO SUBMITTING HIS BID. 3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE, 2020 FLORIDA BUILDING CODE, 2014 NATIONAL FIRE PROTECTION ASSOCIATION AND SHALL COMPLY WITH ALL LOCAL RULES AND ORDINANCES. 4. MINIMUM WIRE SIZE SHALL BE #12 A.W.G. EXCLUDING CONTROL WIRING, UNLESS OTHERWISE NOTED. 5. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER. 6. ELECTRICAL SYSTEM SHALL BE COMPLETE AND EFFECTIVELY GROUNDED AS REQUIRED BY THE LATEST EDITION OF THE N.E.C. OR LOCAL CODES. ALL CONDUITS SHALL HAVE A BOND WIRE SIZED PER TABLE 250-122 OF THE NATIONAL ELECTRIC CODE. 7. ALL MATERIALS SHALL BE NEW AND BEAR UNDERWRITERS' LABELS WHERE APPLICABLE. 8. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTED BY ENGINEER/OWNER. 9. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN TWO YEARS FROM DATE OF ACCEPTANCE. 10. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED. 11. THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF THE FPL. SEE 16050 FOR ADDITIONAL INFORMATION. 12. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED OF HIS WORK. 13. ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS W/ TYPE WRITTEN DIRECTORIES (NEW & EXISTING). 14. ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. 15. DO NOT SCALE THE ELECTRICAL DRAWINGS. REFER TO THE MECHANICAL DRAWINGS & THE APPROVED MANUFACTURER'S SHOP DRAWINGS FOR THE EXACT LOCATION OF ALL EQUIPMENT. 16. NON-SHADED TEXT DENOTES NEW EQUIPMENT, STRUCTURES AND WORK. SHADED AND SLANTED TEXT DENOTES EXISTING EQUIPMENT OR STRUCTURES. 17. ALL CONTROL PANELS SHALL BE UL LISTED AND SHALL COMPLY WITH ARTICLE 409 OF THE NEC. 18. ALL EMPTY CONDUITS SHALL BE INSTALLED WITH PULL STRING.

DESIGN CRITERIA PACKAGE

ERIC HAMMOND, P.E.
FL LICENSE # PE39048

DATE: 04/09/2021
DESIGNED BY: H.A. AS NOTED
CHECKED BY: E.H.
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
ELECTRICAL NOTES, SYMBOLS AND
ABBREVIATIONS

SHEET NO. OF
19 **31**

CAD FILE:
12412-19-LGND
DRAWING FILE NO.
4-142-31

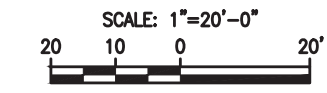
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Plotted By: Olga Livinskaya Sheet Set: ##### Layout: E20 September 28, 2021 04:48:45pm M:\ACAD_DWG\S\Pump Station A-16\Working Drawings\12412-20-SITE.dwg
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ELECTRICAL SITE PLAN



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DESIGN CRITERIA PACKAGE

PROJECT # 12412
 PUMP STATION A-16 UPGRADE
 WASTEWATER DESIGN CRITERIA PACKAGE
 ELECTRICAL SITE PLAN

SHEET NO.	OF
20	31
CAD FILE:	12412-20-SITE
DRAWING FILE NO.	4-142-31

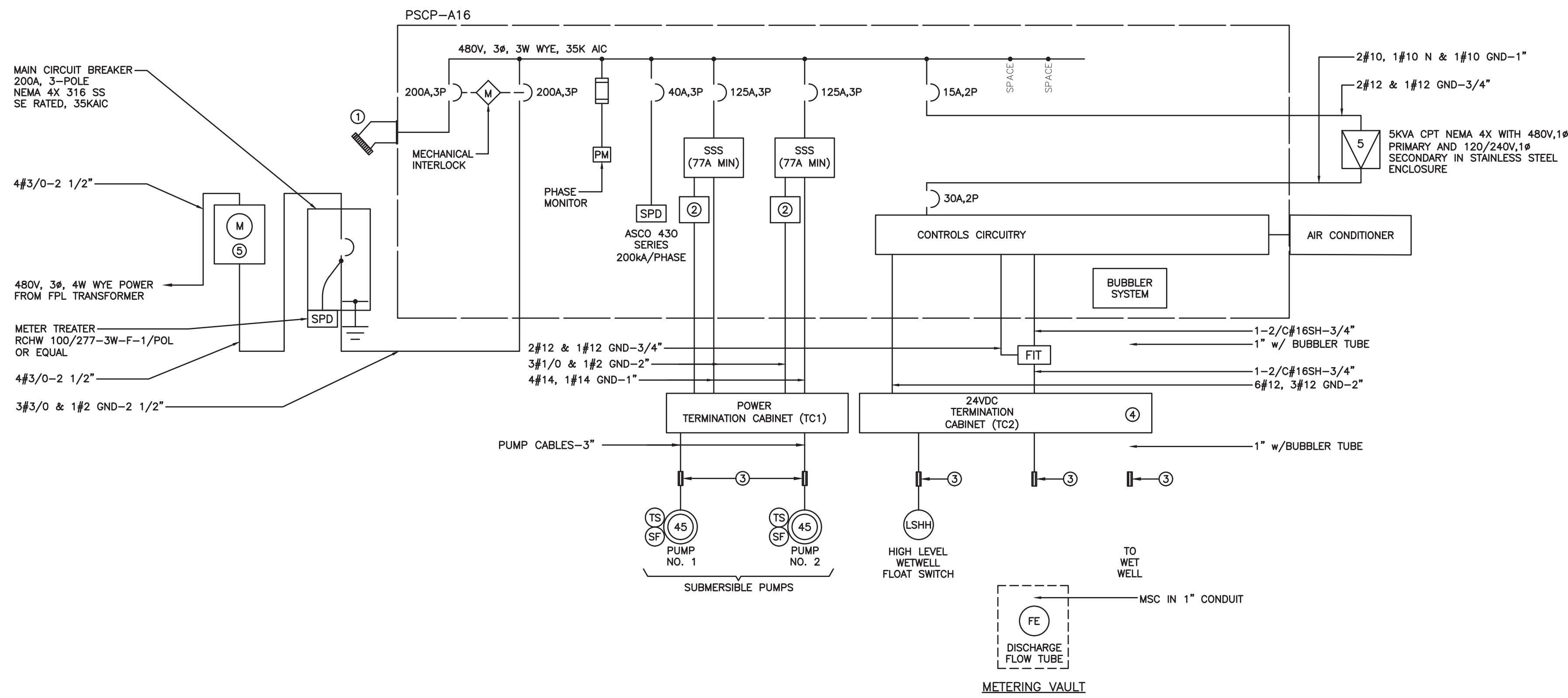
REVISIONS		DESCRIPTION
NO.	DATE	BY / CHKD

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DRAWN BY: H.A.
 DESIGNED BY: H.A.
 CHECKED BY: E.H.
 DATE: 04/09/2021
 SCALE: AS NOTED
 FIELD BOOK:

ERIC HAMMOND, P.E.
 FL LICENSE # PE39048



SINGLE LINE DIAGRAM

KEY NOTES:

- ① GENERATOR RECEPTACLE EATON ARL2042.
- ② PUMP SUPERVISION RELAY.
- ③ CROUSE HINDS EYSR FITTING FILLED WITH CHICO CEMENT (TYP.)
- ④ FURNISH WITH 20 PERCENT SPARE TERMINALS.
- ⑤ FPL METER CAN. FURNISHED AND INSTALLED BY CONTRACTOR.
- ⑥ CONFIGURE FLOW METER FOR OPERATION EXTERNALLY POWERED 4-20MA CIRCUIT.

LOAD TABULATION

SERVICE VOLTAGE: 480V, 3Ø WYE

DESCRIPTION	LOAD	AMPACITY
① SUBMERSIBLE PUMPS	2 @ 45 HP EACH	= 130.0 AMPS
MISCELLANEOUS	5 KVA	= 10.6 AMPS
	CONNECTED LOAD	= 140.5 AMPS

② MINIMUM SERVICE ENTRANCE = 140.5 AMPS + (0.25)(65.0) = 156.75 AMPS

NOTES:

- ① AMPACITIES PER PUMP NEC TABLE 250, USING NEXT LARGEST STANDARD SIZE.
- ② SERVICE ENTRANCE MINIMUM SIZE AS PER ARTICLE 230 OF THE NATIONAL ELECTRICAL CODE.



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DESIGN CRITERIA PACKAGE

PROJECT # 12412
 PUMP STATION A-16 UPGRADE
 WASTEWATER DESIGN CRITERIA PACKAGE
 SINGLE LINE DIAGRAM

SHEET NO.	OF
21	31
CAD FILE:	
12412-21-RISR	
DRAWING FILE NO.	
4-142-31	

ERIC HAMMOND, P.E.
 FL. LICENSE # PE39048

DRAWN BY:	H.A.	DATE:	04/06/2021
DESIGNED BY:	H.A.	SCALE:	AS NOTED
CHECKED BY:	E.H.		
FIELD BOOK:			

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

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POS	QTY	DESCRIPTION	MANUFACTURER PART NUMBER
1	1	MICROLOGIX 1100 PROGRAMMABLE CONTROLLER	ALLEN-BRADLEY, 1763-L16BWA
2	1	16-POINT SINK/SOURCE 24V INPUT MODULE	ALLEN-BRADLEY, 1762-IQ16
3	0	6-POINT SINK/SOURCE DC INPUT AND 6-POINT AC/DC RELAY OUTPUT MODEL	ALLEN-BRADLEY, 1762-IQ8OW6
4	1	4-CHANNEL CURRENT ANALOG INPUT MODULE	ALLEN-BRADLEY, 1762-IF4
5	1	COMPACT POWER SUPPLY, OUTPUT 24-28V DC, 100W, 4A INPUT VOLTAGE 100/240V AC	ALLEN-BRADLEY, 1606-XLP100E
6	1	SPIDER STX INDUSTRIAL RAIL ETHERNET SWITCH	HIRSCHMAN, 943 824-002
7	25	END ANCHOR, USED W/ STANDARD 35MM DIN RAIL, GRAY	ALLEN-BRADLEY, 1492-EAJ35
8	13	FINGER-SAFE SINGLE CIRCUIT FUSE BLOCK, NO BLOWN FUSE INDICATOR #30-#12 AWG, BLACK	ALLEN-BRADLEY, 1492-H6
9	5	1/2A, FAST-ACTING GLASS BODY FUSE 1/4IN X 1 1/4IN	LITTLEFUSE, 0312.500
10	6	1/32A, FAST-ACTING GLASS BODY FUSE 1/4IN X 1 1/4IN	GRANGER, ICM28
11	1	2A, SLO-BLO GLASS BODY FUSE, 1/4IN X 1 1/4IN	LITTLEFUSE, 0313.002
12	0	4A, SLO-BLO GLASS BODY FUSE, 1/4IN X 1 1/4IN	LITTLEFUSE, 0313.004
13	8	END BARRIER SINGLE CIRCUIT FUSE OR ISOLATION BLOCKS, BLACK	ALLEN-BRADLEY, 1492-N37
14	100	IEC 1-CIRCUIT FEED-THROUGH BLOCK, 4MM MAX WIRE, GRAY	ALLEN-BRADLEY, 1492-J4
15	12	END BARRIER, GRAY	ALLEN-BRADLEY, 1492-EBJ3
16	1	MINIATURE CIRCUIT BREAKER, 10 AMP RATING	ALLEN-BRADLEY, 1492-GH100
17	2	MINIATURE CIRCUIT BREAKER, 5 AMP RATING	ALLEN-BRADLEY, 1492-GH050
18	2	MINIATURE CIRCUIT BREAKER, 2 AMP RATING	ALLEN-BRADLEY, 1492-GH020
19	5	SURGE AND FILTER PROTECTION, DIN RAIL MOUNT, DATALINE UL 4979, 24V DC	ALLEN-BRADLEY, 4983-DD24
20	1	DIN RAIL AC SOLA-HD UNINTERRUPTIBLE POWER SYSTEM SDU - A SERIES AND SDU CF DRY CONTACT I/O RELAY CARD	EMMERSON SDU500A + SDUCFRELAYCARD
21	3	CONTROL RELAY OCTAL 8 PIN/COIL 120 VAC/ DPDT, 10 AMP RATING	750XBXR4M4L
22	3	DIN RAIL MOUNT RELAY SOCKET SCREW TYPE, 8 PIN	IDEC, SR2P-06
23	1	ENCLOSURE BACK PANEL, WHITE	HOFFMAN, A60P36
24	1	ENCLOSURE CABINET SS 316 NEMA 4X ONE-DOOR, 3 POINT LATCH, 72 X 36 X 16	HOFFMAN
25	6	CENTER JUMPERS	ALLEN-BRADLEY, 1492-CJJ6-10
26	1	SNAP-IN MARKER CARD, WHITE	ALLEN-BRADLEY, 1492-M6X12
27	1	GROUND BAR KIT, 14 POSITION #14-4AWG	ELECTRICCENTER ECGB14
28	4	DIN RAIL 35MM ALUMINUM 1M	IDEC, BNDN-1000
29	3	PANDUCT TYPE MC METRIC NARROW SLOT WIRING DUCT, GRAY 0.97 X 2.85 IN, 2M	PANDUIT, MC25X75IG2
30	3	WIRING DUCT COVER, 2M	PANDUIT, C251G2
31	0	RECTANGULAR LOUVERED VENT, STAINLESS STEEL 5"W X 4-5/8"H	WEST MARINE, 226993
32	1	CONTROL CABINET OUTLET FOR MOUNTING ON DIN RAILS	PHOENIX CONTACT SD-US/SC/LA/GY - 2963860
33	2	500 OHM RESISTORS, 1/2 WATT	
34	2	CAT 5E ETHERNET PATCH CABLE 2 FT	
35	0	WIRE LABELS, HEAT SHRINK WIRE LABELS	
36	0	PIN TERMINALS - BLUE	
37	0	PIN TERMINAL - RED	
38	1	MAPLE SYSTEMS 7" HMI TOUCHSCREEN 24VDC	PANDUIT, FSD80-8DSL6
39	2	YELLOW, PILOT LIGHT, LED 120 VAC	PANDUIT, FS78-8-DSL2
40	2	RED PILOT LIGHT, LED 120 VAC	MAPLESYSTEMS HMI5070B
41		AMBER PILOT LIGHT, LED 120 VAC	ALLEN-BRADLEY, 800FD-P5N5
42	2	UWZ SERIES AC HOUR METERS, FLUSH MOUNT, 120 VAC	ALLEN-BRADLEY, 800FD-P4N5
43	0	APC SMART-UPS ON-LINE, 1050 WATTS/1500VA, INPUT 120V / OUTPUT 120V	ALLEN-BRADLEY, 800FD-PON5
44	1	18" LED UNDERCABINET, WHITE + 48" POWER CORD	INTERMATIC UWZ52E-120U
45	1	GFI DUAL RECEPTACLE, 20 AMP	APC, SURTA1500XL
46	0	750 OCTAL RELAYS, 11 PIN/ 3PDT, 16 AMP RATING	HALO HU1018D930P + HU105P
47	0	RELAY SOCKET 300 VAC 10 AMP TYPE K	HUBBLE GFWRST20W OR SIMILAR
48	2	30MM SELECTOR SWITCH 3 POSITION, TYPE K, BLACK KNOB	MAGNECRAFT, 750XCXM4L
49	0	30MM CONTACT BLOCK 1N/O 1N/C	SQUARE D, 8501NR62
50	2	SELECTOR PADLOCK	SQUARE D, 9001KS43B/LEGENT PLAT
51	0	PANEL LIGHT SWITCH	SQUARE D, 9001KA1
52	1	40MM MUSHROOM HEAD BUTTON, TWO POSITIONS, NON-ILLUMINATED	SQUARE D, 9001K7
53	1	PRESSURE GAUGE, 4" DIAL, 1/4" PROCESS CONNECTION, RANGE 0-200", PANEL MOUNT WITH FRONT FLANGE	SQUARE D, 9001SKS11BH5
54	1	DIN RAIL MOUNTED CABINET THERMOSTAT, 32-140 F, NO CONTACT	CUTLER-HAMMER, HT8DBR
55	6	MINIATURE CIRCUIT BREAKER (QOU) STANDARD, 10A, 1 POLE, 120/240 VAC, HACR RATED	MCDANIEL CONTROLS
56	2	MINIATURE CIRCUIT BREAKER (QOU), STANDARD 15A, 1 POLE, 120/240 VAC, HACR RATED	PFANNENBERG FLZ 530 PN#17121000010
57	2	MINI-CAS 120V RELAYS FOR PUMP THERMAL/SEAL FAIL PROTECTION	SQUARE D, QOU110
58	1	PHASE MONITORING RELAY 3 PHASE 180-500 VOLT	SQUARE D, QOU115
59	2	480V THREE PHASES S-811+ EATON SOFTSTARTER WITH DIM. INCLUDING PROTECTIVE MODEL EMS39 AND FAN COOLING KIT	FLYGT MINI-CAS 120, 14-407129
60	2	CURRENT TRANSFORMERS 10A TO 50A, 4-20MA, 24VDC	MARCOMATIC PMPU
61	2	3P 600VAC POWERPACT H-FRAME MOLDED CASE THERMAL-MAGNETIC CIRCUIT BREAKERS, UNIT MOUNT	EATON S811+ SERIES
62	2	3P 600VAC POWERPACT H-FRAME MOLDED CASE THERMAL-MAGNETIC CIRCUIT BREAKERS, UNIT MOUNT	EATON EAC1420SC
63	2	POWER SUPPLY, OUTPUT 24-28V DC, 10A INPUT VOLTAGE 100/240V AC	SQUARE D
64	1	600VAC POWER DISTRIBUTION BLOCKS, SURFACE MOUNT, 3 POLES, 2 LINE TERMINALS, 6 LOAD TERMINALS	EATON, PSG240E
65	1	600VAC POWER DISTRIBUTION BLOCKS, SURFACE MOUNT, 1 POLE, 2 LINE TERMINALS, 6 LOAD TERMINALS	SQUARE D 9080LB SERIES
66	1	3-POLE FUSE HOLDER, AC: 600VAC, FINGER-SAFE DESIGN, DIN RAIL MOUNTING	SQUARE D 9080LB SERIES
67	3	1A FAST ACTING MIDGET FUSE WITH 600VAC VOLTAGE RATING FOR PROTECTION OF CONTROL AND ELECTRONIC CIRCUITS	EATON BUSSMAN CHM3DNU OR SIMILAR
68	1	AIR COMPRESSOR FOR FUSE WITH BUBBLER TYPE LIQUID LEVEL CONTROL SYSTEMS W/ MOUNTING BRACKET RANGE OF 0-15 FEET OF WATER COLUMN	LITTLEFUSE 0BL5001.T OR SIMILAR
69	1	GENERAL PURPOSE PRESSURE TRANSMITTER, 4-20MA 2-WIRE SIGNAL OUTPUT, SS 316L WETTED PARTS, 0-15 PSI RANGE, +/-0.5% ACCURACY, 1/4" MALE NPT CONNECTION	INGRAM PRODUCTS PART NO. HR10WB3 + PART NO. HRMTBKT
70	2	24VDC STANDARD DPDT SCREW CONNECTION TERMINAL BLOCK RELAYS	WIKA 50426397
71	1	ENCLOSURE INNER DOOR ALARM (BRUSHED)	EATON XRU2D24 + XRR2D24
72	1	LIGHT SOURCE	DEAD FRONT
73	1	RECEPTACLE ASSEMBLY WITH AJ BACK BOXES AND ANGLE ADAPTERS 200A 3 PHASES 4 POLES	FEDERAL SIGNAL LP1-120R
74	1	MAGNETIC SWITCH INC FOR SS ENCLOSURE	CROUSE HINDS
75	1	MAGNETIC FLOW METER	ABB MAGMASTER


NOTES:

- BILL OF MATERIALS SHALL NOT BE CONSIDERED AS FINAL. VENDOR SHALL PROVIDE ALL DEVICES AND EQUIPMENT REQUIRED TO PROVIDE THE FUNCTIONALITY POWER SOURCE CIRCUITS INDICATED AND REQUIRED.

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FL LICENSE # PE39048

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DESIGNED BY: SCALE: H.A.	AS NOTED
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PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
CONTROL PANEL BILL OF MATERIALS

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22	31
CAD FILE: 12412-22-PBOM	
DRAWING FILE NO. 4-142-31	

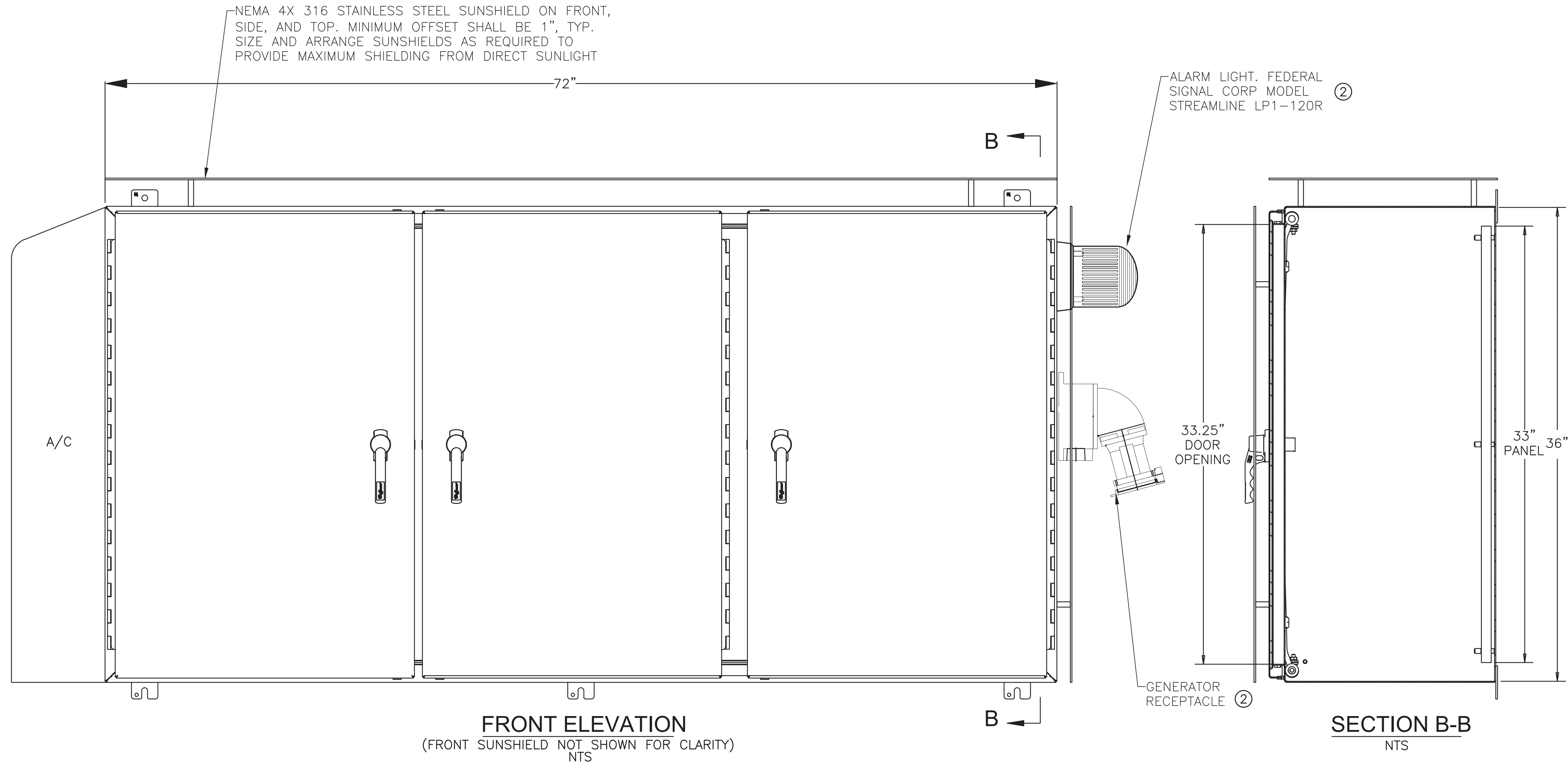
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NOTES:

- ① CABINET DIMENSIONS SHALL NOT EXCEED DIMENSIONS SHOWN.
- ② CUT OUT AREAS OF SUNSHIED AS REQUIRED FOR INSTALLATION.



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PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
CONTROL PANEL EXTERIOR LAYOUT

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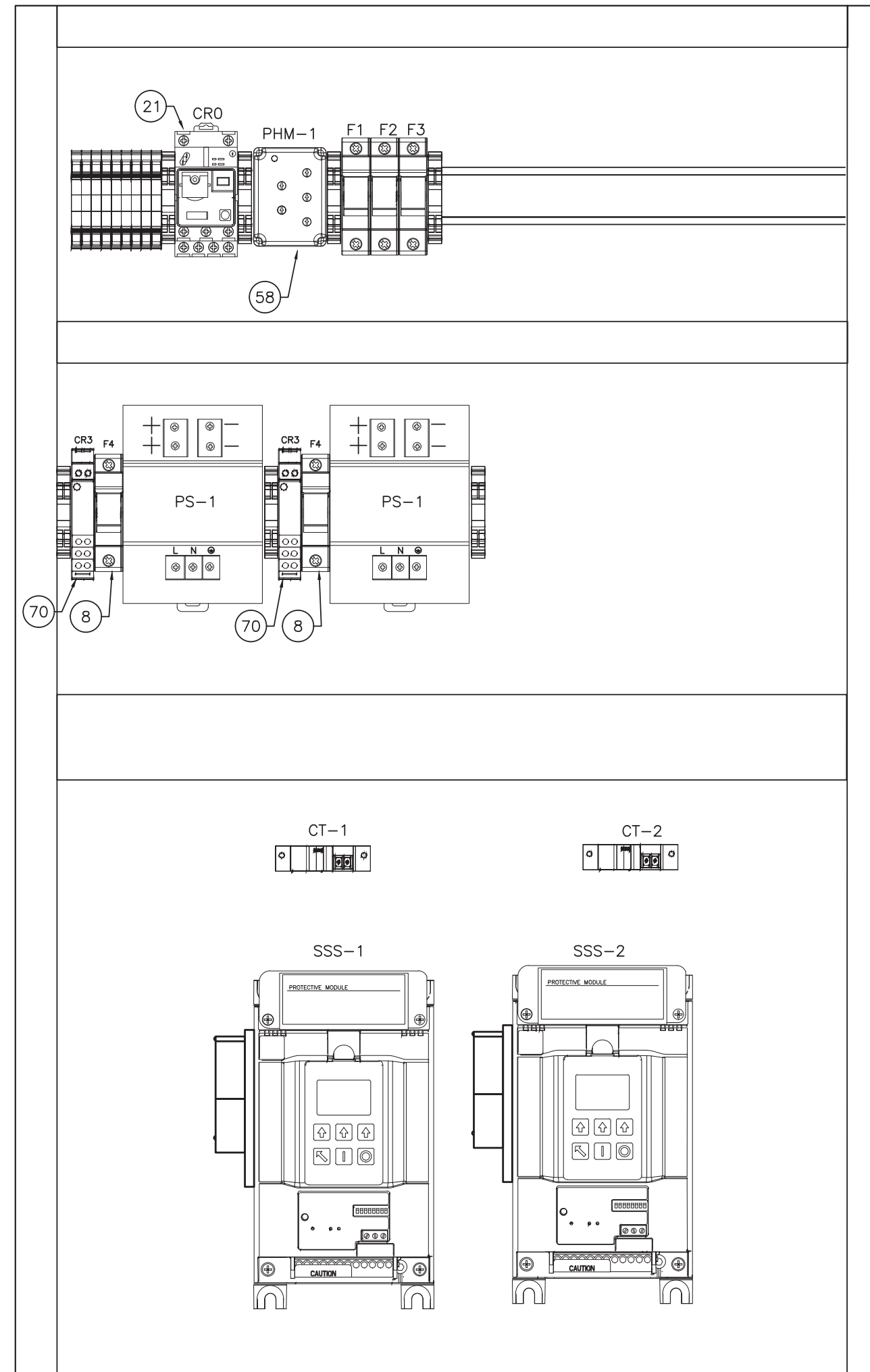
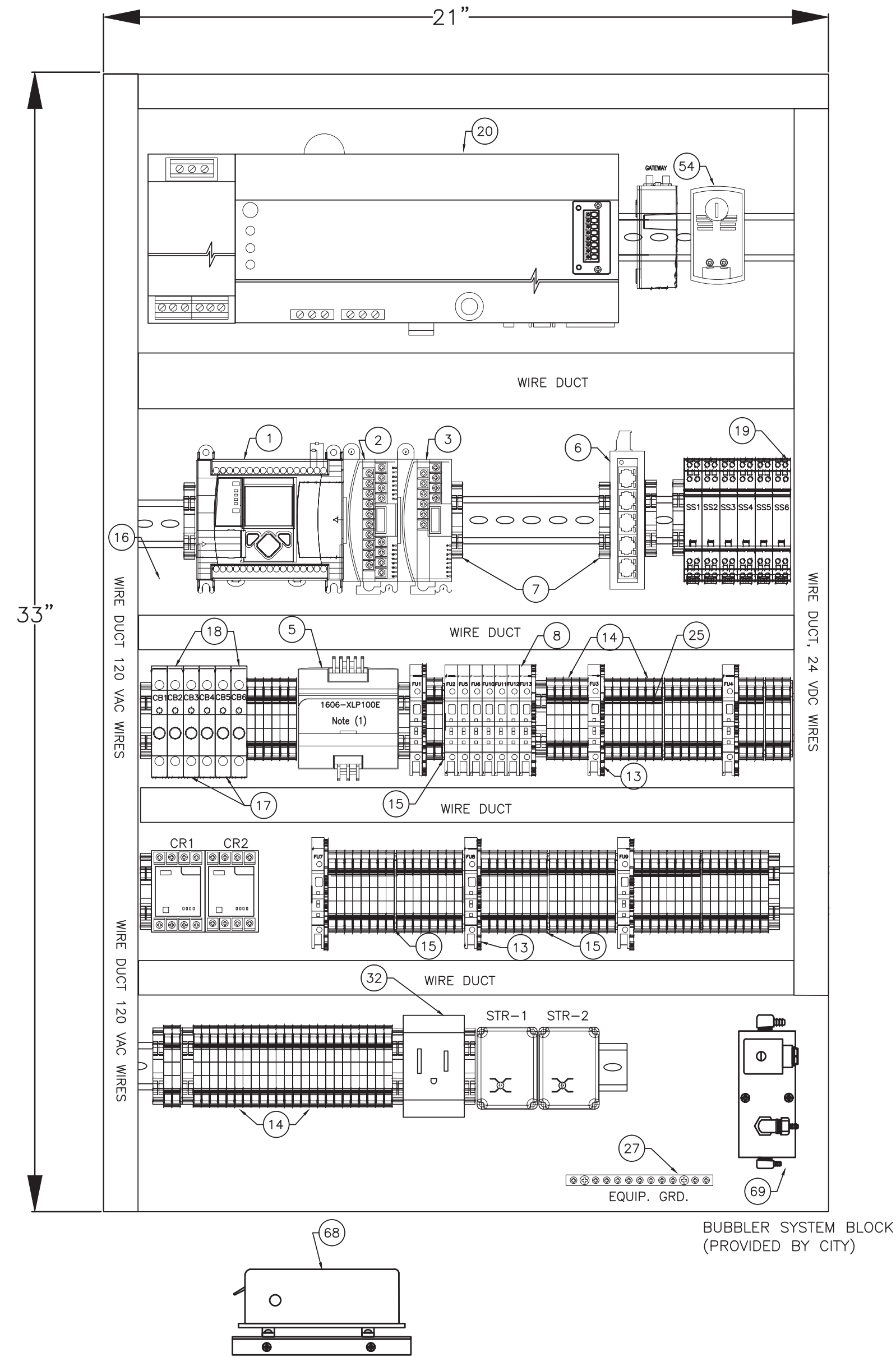
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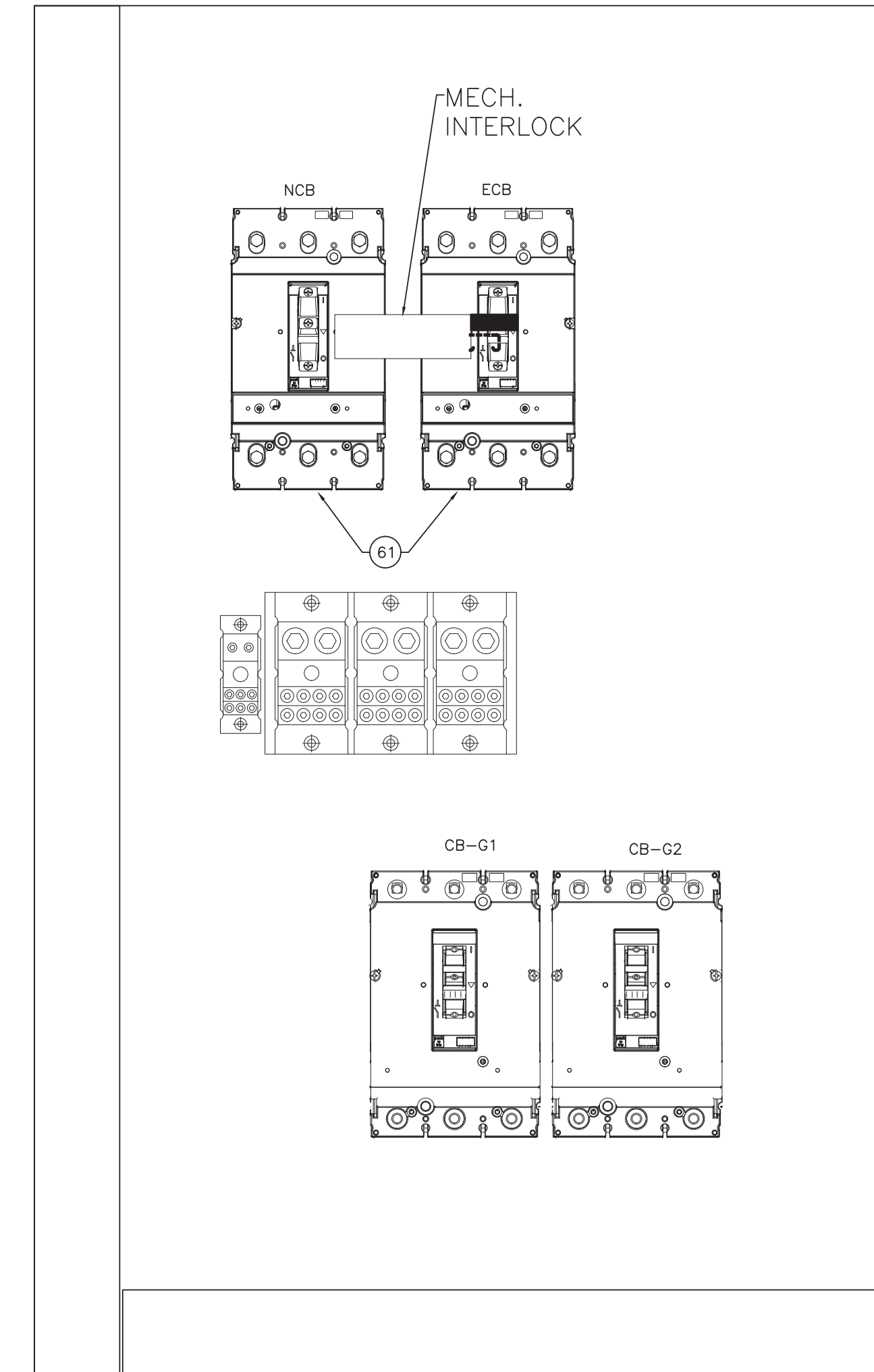
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GENERAL ELECTRICAL NOTES:

1. FOR EACH SECTION, USE LEFT WIRE DUCTS FOR 120 VAC WIRES AND RIGHT WIRE DUCTS FOR 24 VDC WIRES.



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PROJECT # 12412
 PUMP STATION A-16 UPGRADE
 WASTEWATER DESIGN CRITERIA PACKAGE
 CONTROL PANEL COMPONENT LAYOUT

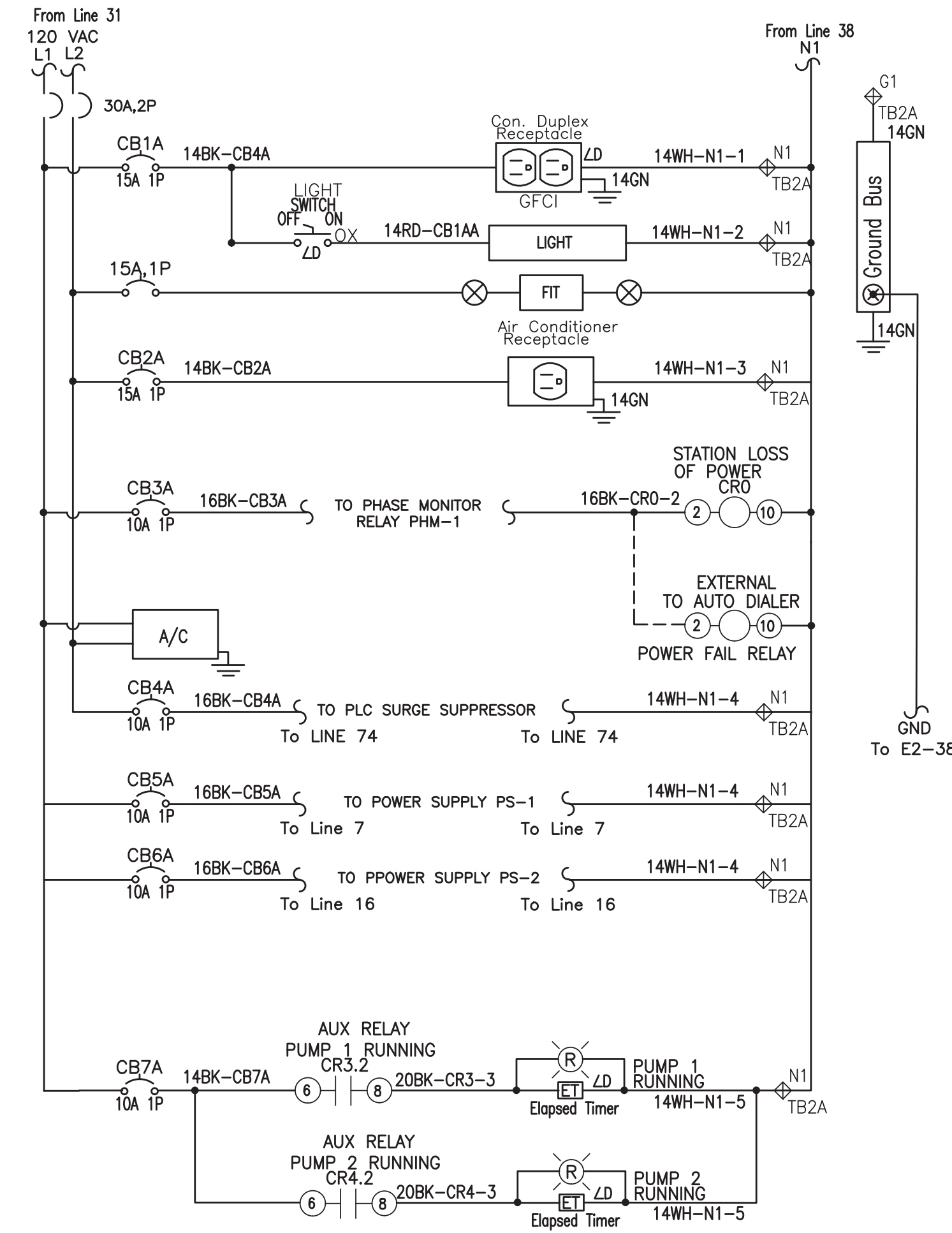
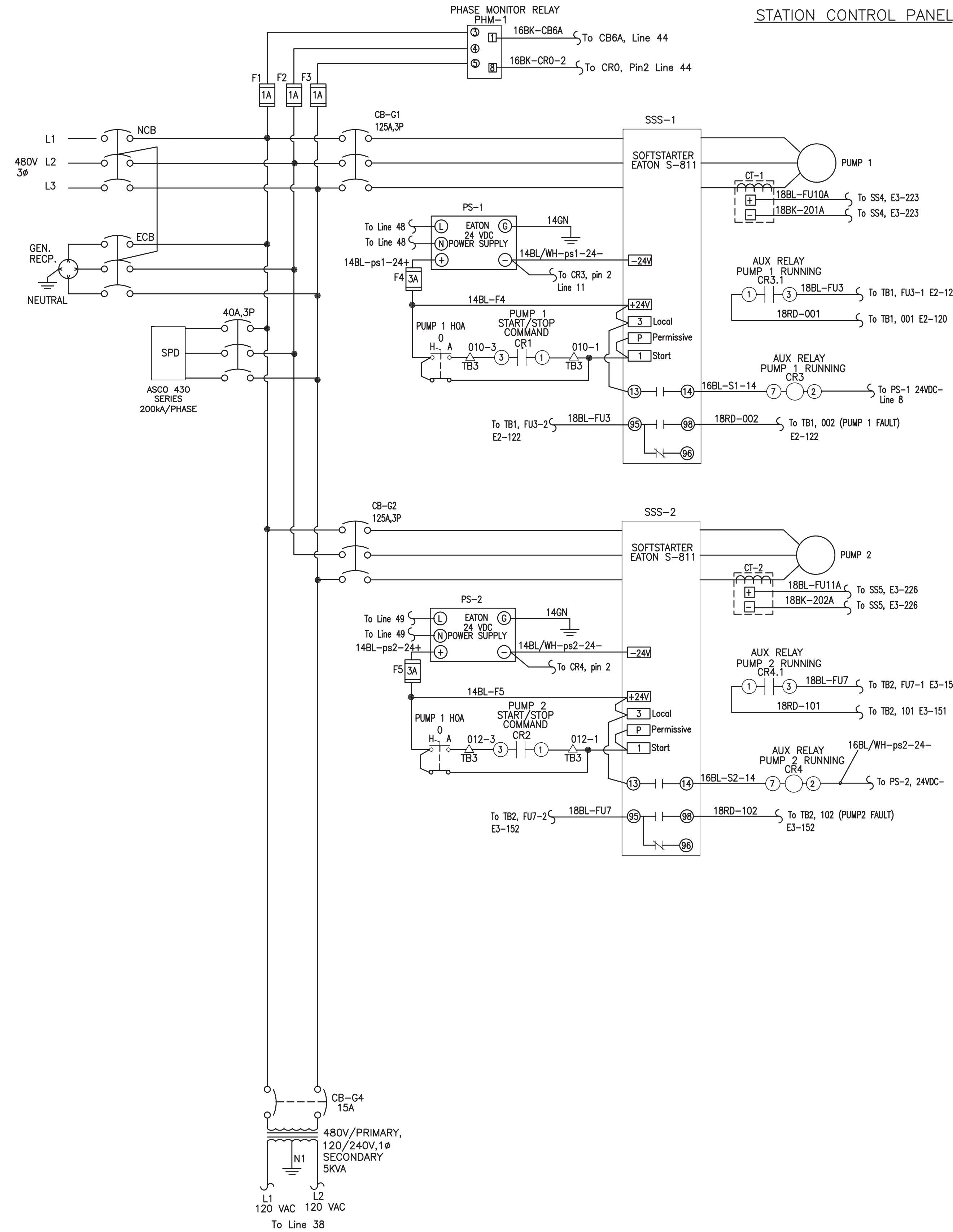
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DESIGN CRITERIA PACKAGE

PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
CONTROL PANEL ELEMENTARY DIAGRAM -
SHEET 1

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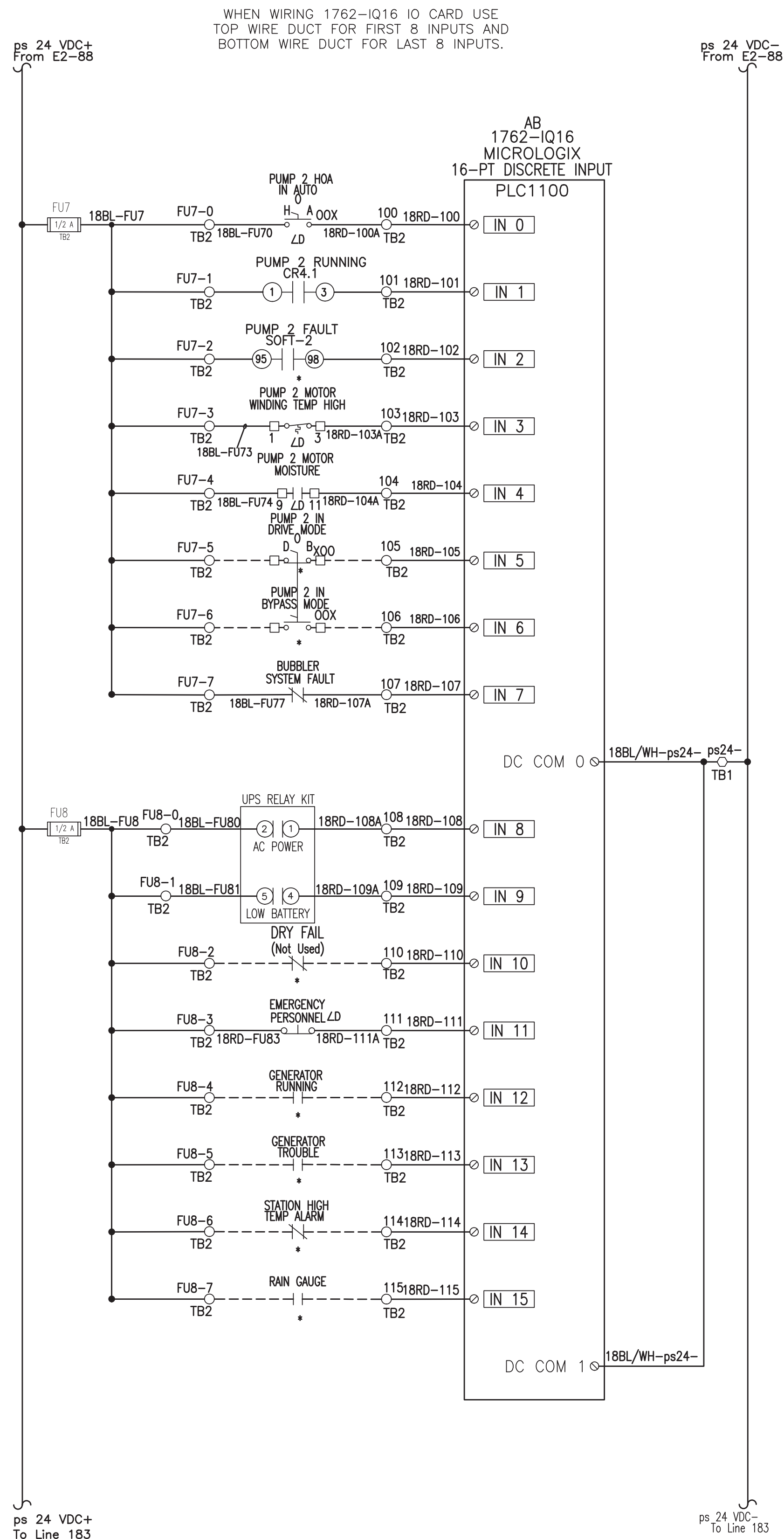
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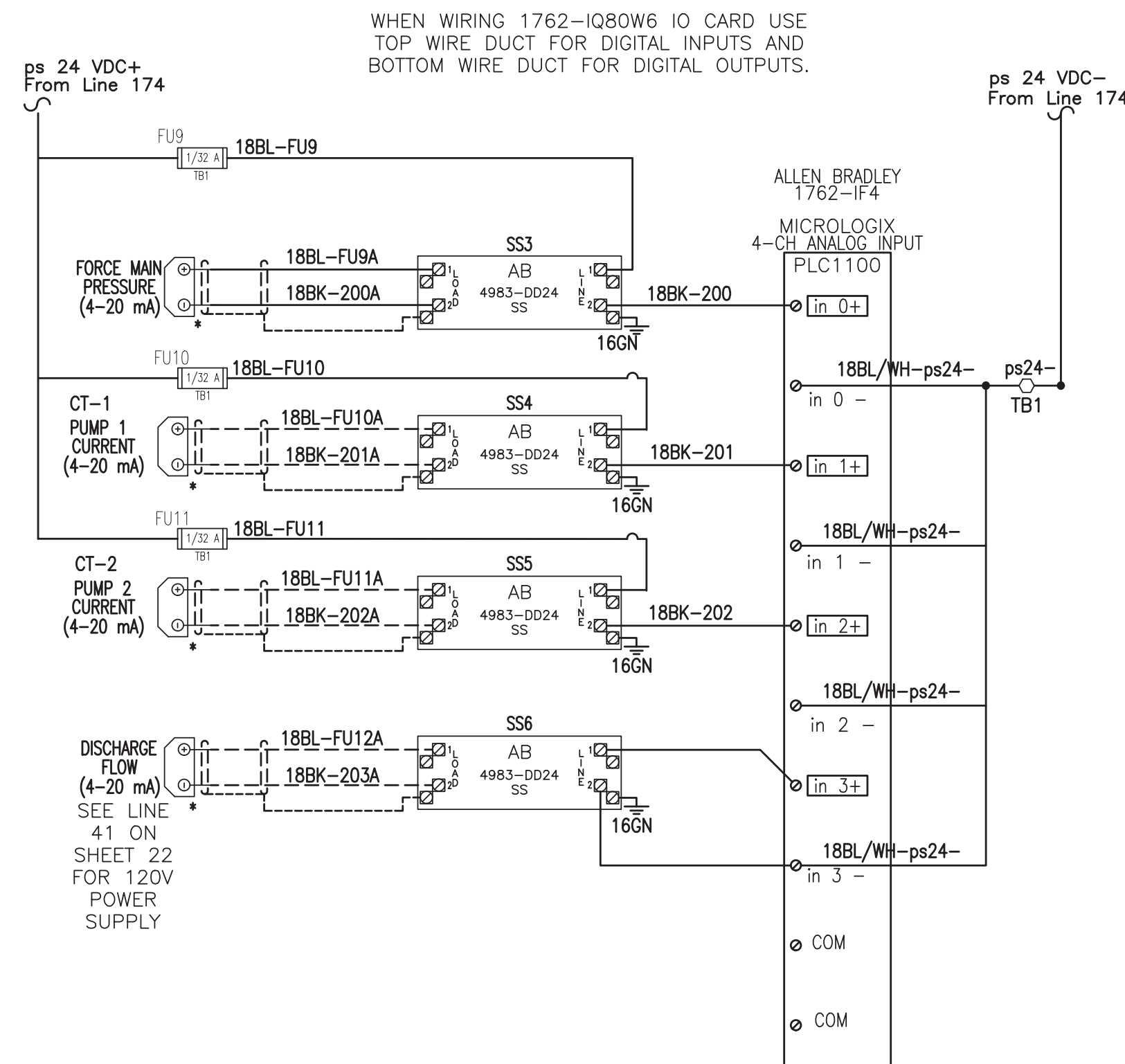
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SLOT 1



SLOT 2



GENERAL ELECTRICAL NOTES:

- FINAL COMPONENT SIZE AND SELECTION TO BE DETERMINED BY SYSTEM SUPPLIER IN COORDINATION WITH CITY. IF PANEL VIEW PLUS 400 OR 600 IS REQUIRED, CHANGE POWER SUPPLY TO AB MODEL 1606-XLP100E.
 - SIERRA MODEL Raven XE V2221E-V CELLULAR RADIO TO BE PROVIDED AND CONFIGURED BY CITY.
 - PUMP SEAL FAIL RELAY. IF NEEDED AS PER SPEC OF PUMP MANUFACTURER.
 - LD DENOTES DEVICE MOUNTED ON PANEL DOOR.
 - WIRING GUIDE:
 - 18BL-FU1 WIRE NUMBER (CHARACTERS TO RIGHT OF DASH ONLY)
 - WIRE COLOR
 - WIRE GAUGE IN AWG
 - * DENOTES COMPONENT MOUNTED OUTSIDE CONTROL PANEL
 - DENOTES FIELD WIRING OUTSIDE CONTROL PANEL
- TB1 Terminal Block
 - TB2 Terminal Block
 - △ TB3 Terminal Block
 - ◇ TB2A Terminal Block
 - ◇ TB3A Terminal Block



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DESIGN CRITERIA PACKAGE

PROJECT # 12412
 PUMP STATION A-16 UPGRADE
 WASTEWATER DESIGN CRITERIA PACKAGE
 CONTROL PANEL ELEMENTARY DIAGRAM -
 SHEET 3

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27	31
CAD FILE:	12412-27-PANL
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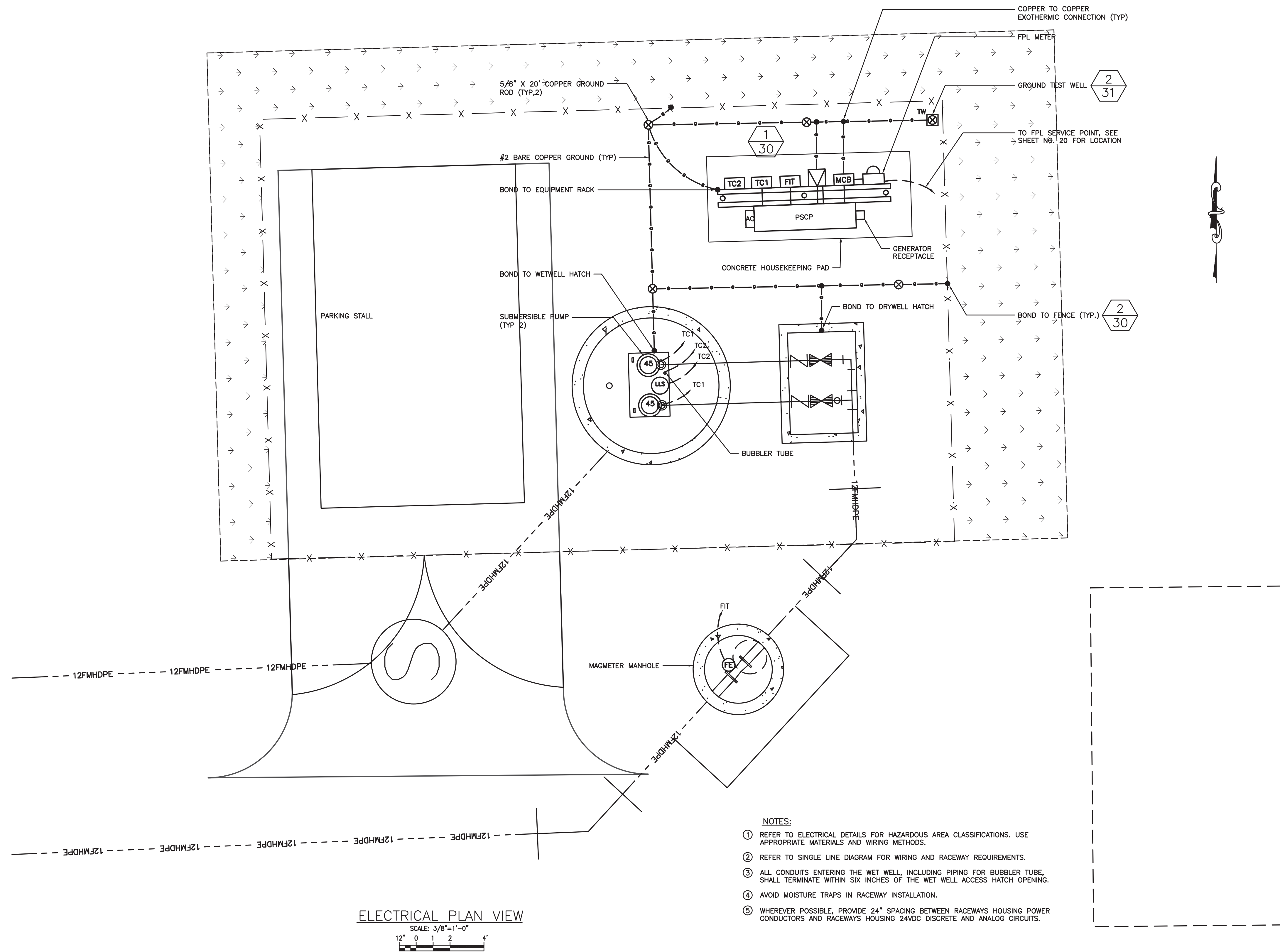
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ELECTRICAL PLAN VIEW
SCALE: 3/8"=1'-0"
12" 0 1 2 4

- NOTES:**
- REFER TO ELECTRICAL DETAILS FOR HAZARDOUS AREA CLASSIFICATIONS. USE APPROPRIATE MATERIALS AND WIRING METHODS.
 - REFER TO SINGLE LINE DIAGRAM FOR WIRING AND RACEWAY REQUIREMENTS.
 - ALL CONDUITS ENTERING THE WET WELL, INCLUDING PIPING FOR BUBBLER TUBE, SHALL TERMINATE WITHIN SIX INCHES OF THE WET WELL ACCESS HATCH OPENING.
 - AVOID MOISTURE TRAPS IN RACEWAY INSTALLATION.
 - WHEREVER POSSIBLE, PROVIDE 24" SPACING BETWEEN RACEWAYS HOUSING POWER CONDUCTORS AND RACEWAYS HOUSING 24VDC DISCRETE AND ANALOG CIRCUITS.



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DESIGN CRITERIA PACKAGE

PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
ENLARGED ELECTRICAL PLAN

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29	31
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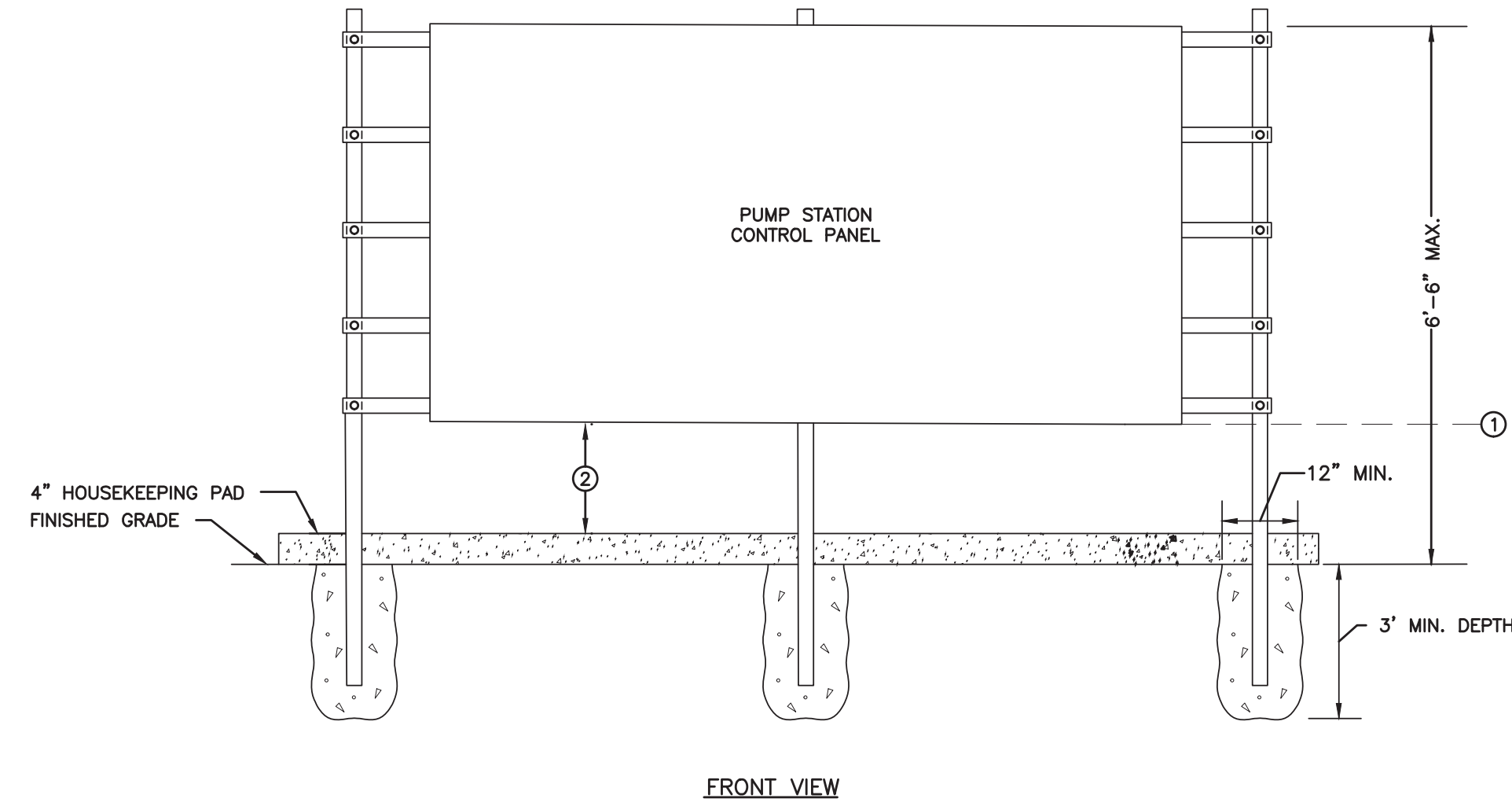
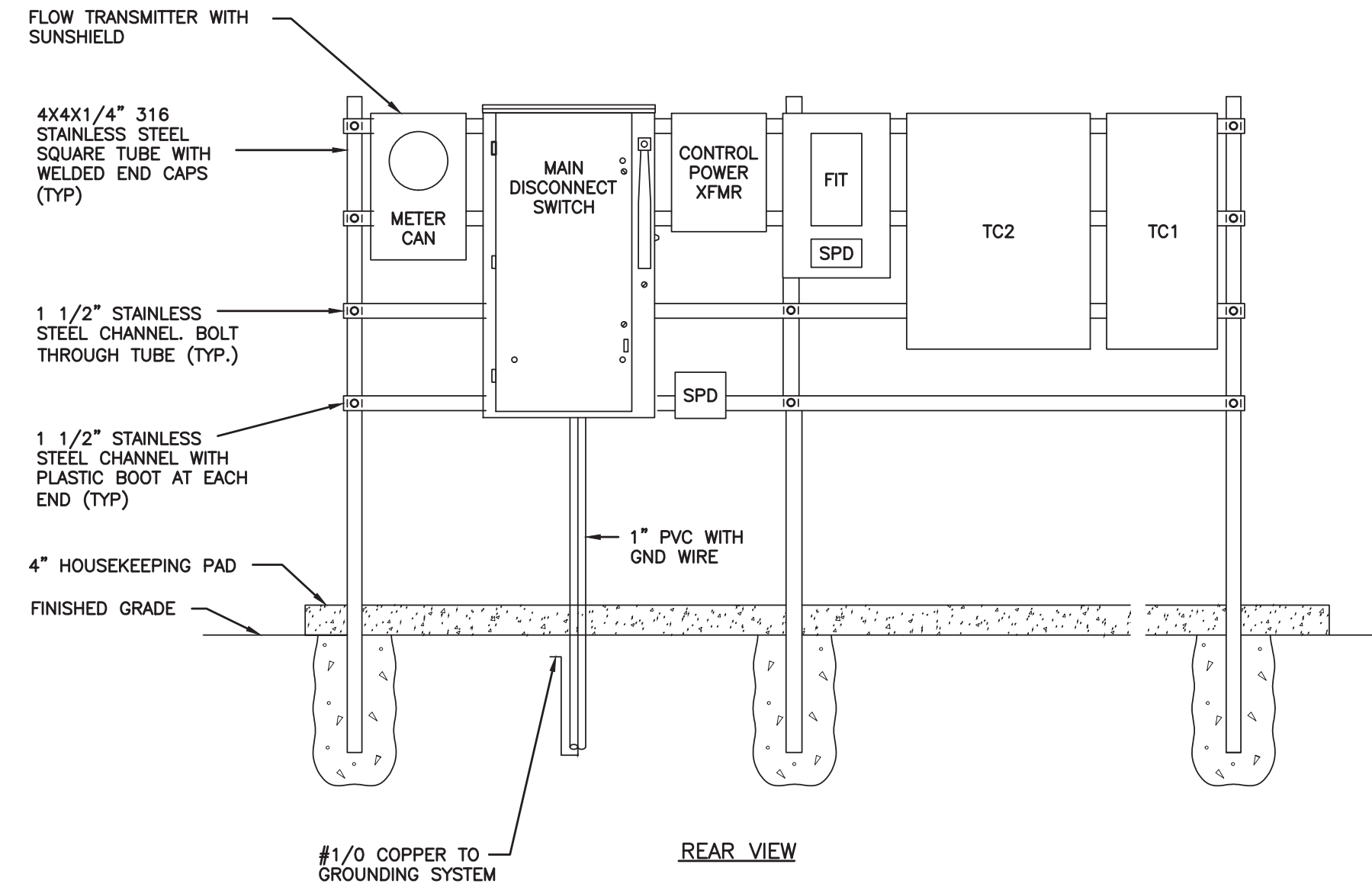
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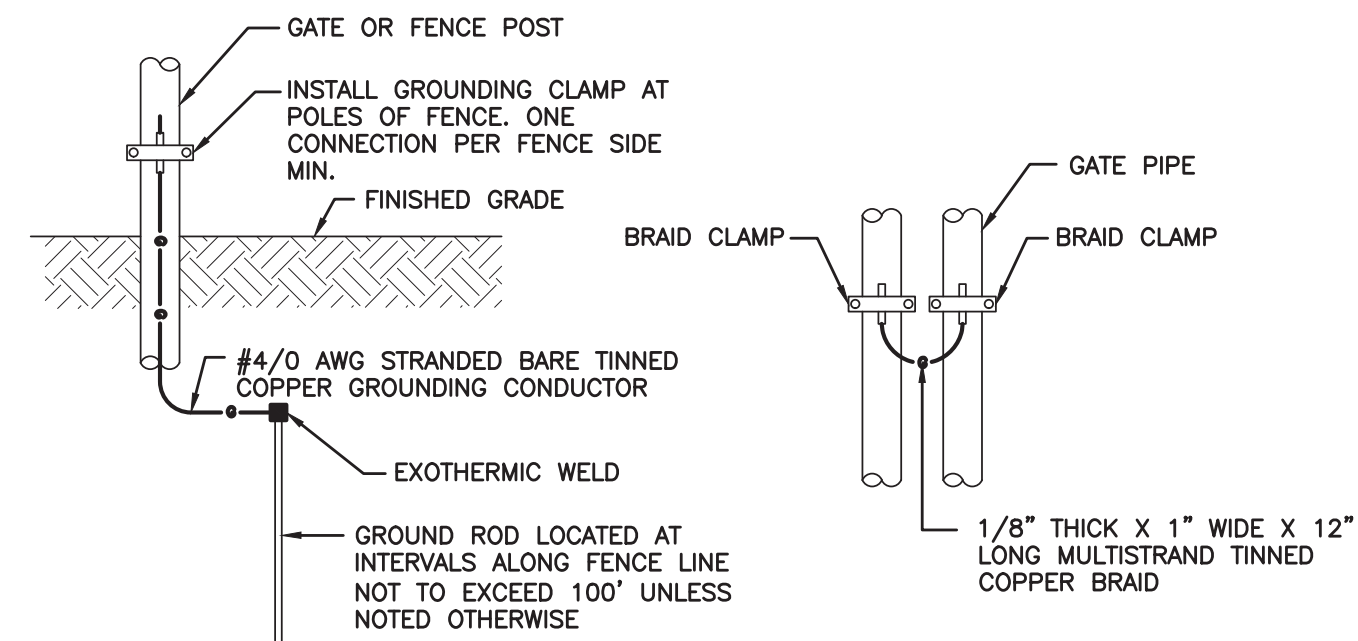
GENERAL NOTES:

- A. DEPTH AS REQUIRED TO MEET FLORIDA BUILDING CODE WIND LOAD REQUIREMENTS. CONTRACTOR SHALL SUBMIT SIGNED AND SEALED WIND LOAD CALCULATIONS FROM A STRUCTURAL ENGINEER LICENSED IN THE STATE OF FLORIDA.
- B. ALL HARDWARE SHALL BE 316 STAINLESS STEEL UNLESS OTHERWISE NOTED.
- C. REAR SUNSHIELDS ARE REQUIRED FOR ALL ELECTRICAL EQUIPMENT RACKS. SEE TYPICAL EQUIPMENT RACK REAR SUNSHIELD DETAIL BELOW.
- D. REFER TO SINGLE LINE DIAGRAM FOR WIRING AND RACEWAY REQUIREMENTS.
- E. CONTRACTOR MAY REARRANGE THE ORDER OF EQUIPMENT ON THE RACK, TO SUIT THE INSTALLATION.

KEY NOTES:

- ① BASE FLOOD ELEVATION IS 6'-0" NAVD 88, FLOOD ZONE X. INSTALL BOTTOM OF ALL ELECTRICAL EQUIPMENT AT BASE FLOOD ELEVATION.
- ② DIMENSION "X", CONFIRM GRADE ELEVATION AND DIMENSION "X" WITH ENGINEER PRIOR TO PANEL INSTALLATION.

1
30 ELECTRICAL EQUIPMENT RACK FRONT/REAR VIEW ELEVATION
NOT TO SCALE



2
30 TYPICAL GATE/FENCE POST GRONDING DETAIL
NOT TO SCALE



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DESIGN CRITERIA PACKAGE

PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
ELECTRICAL DETAILS - 1

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30	31
CAD FILE: 12412-30-DET	
DRAWING FILE NO. 4-142-31	

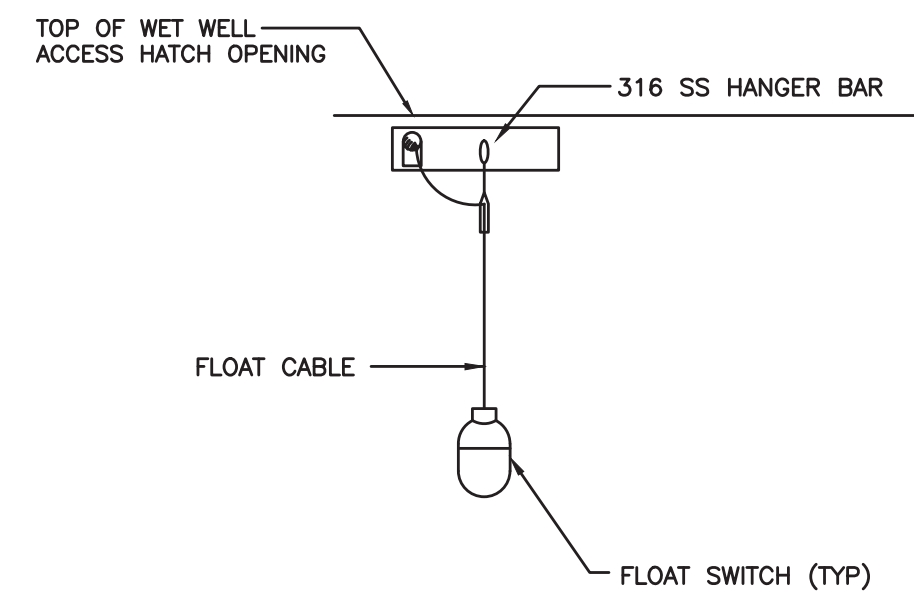
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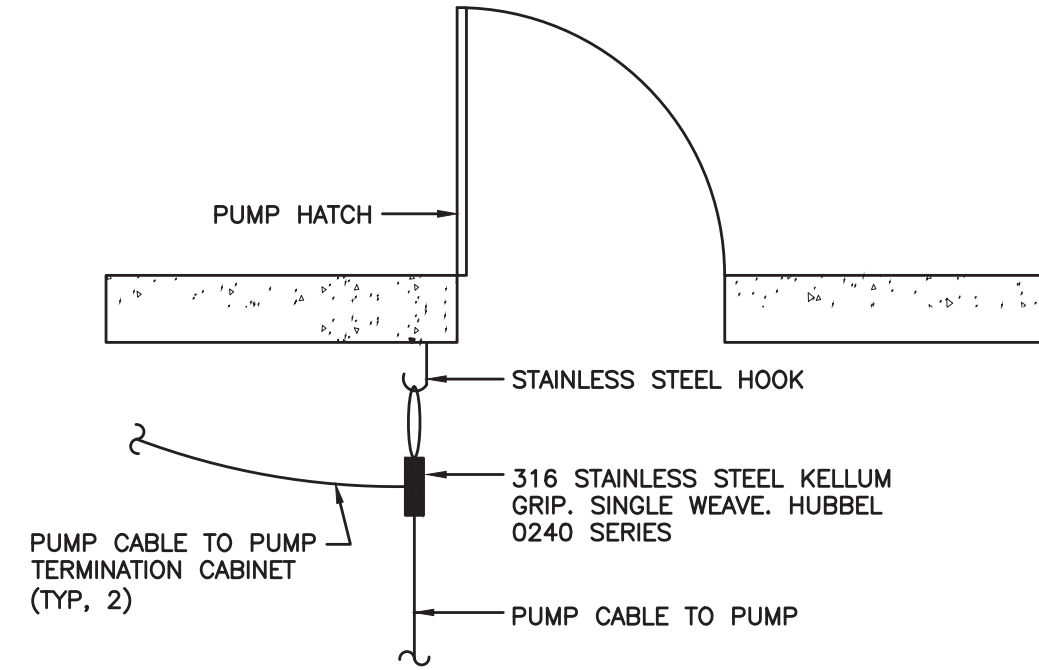
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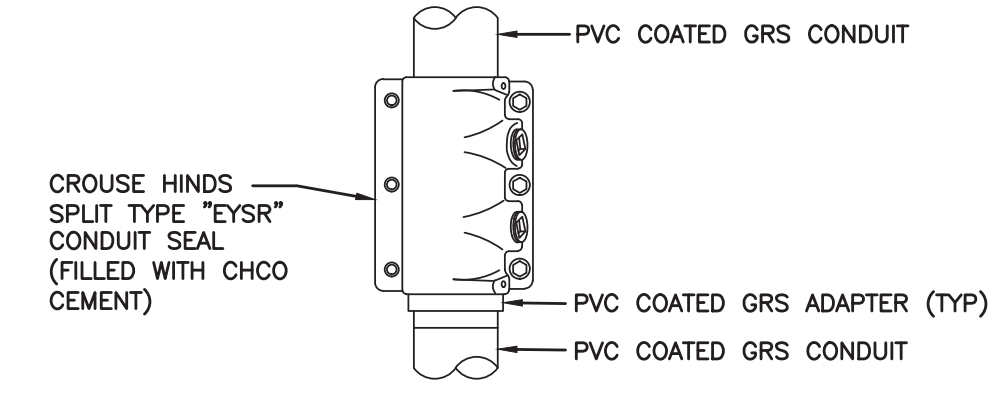
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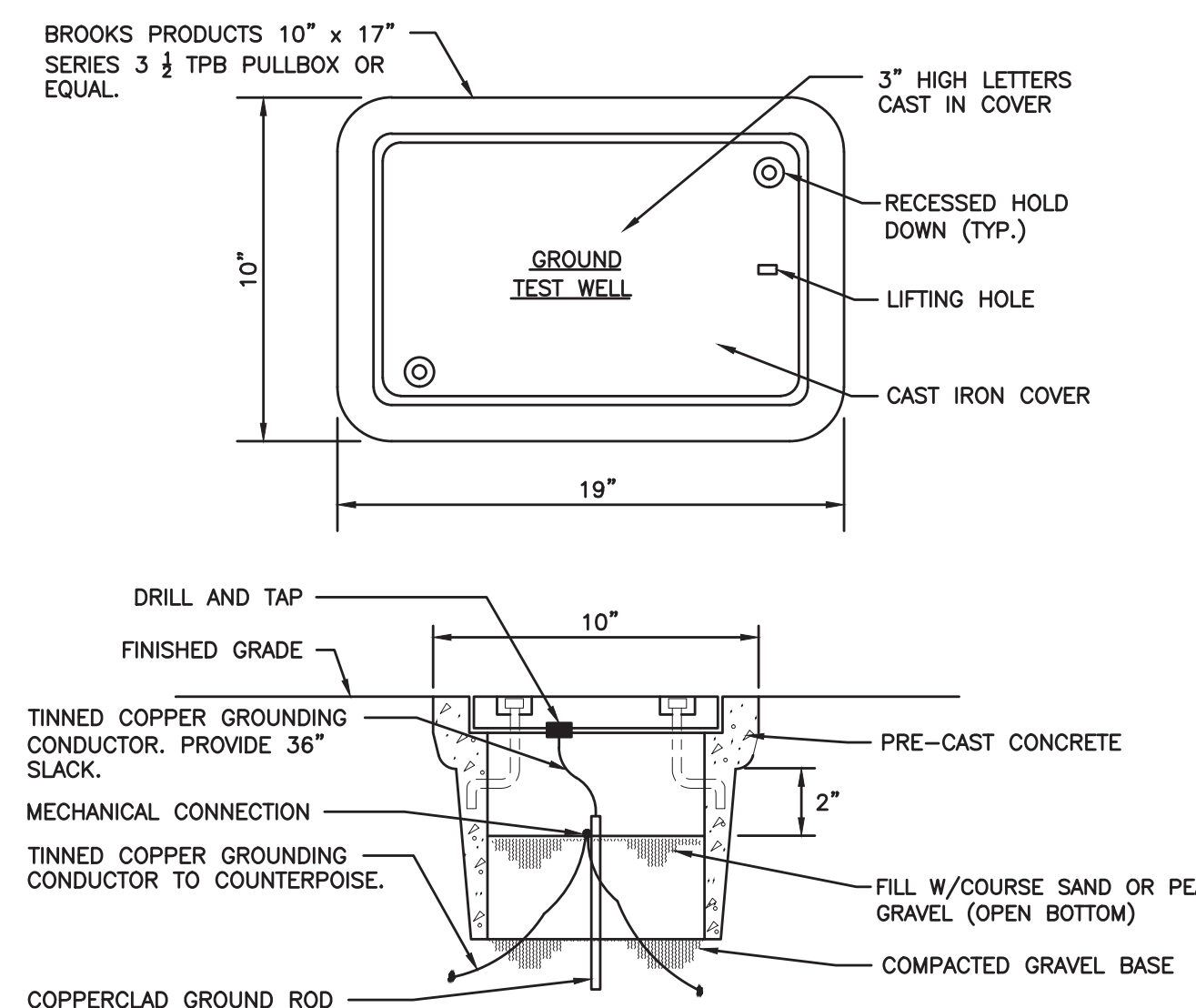
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31 TYPICAL LEVEL SWITCH MOUNTING DETAIL
N.T.S.



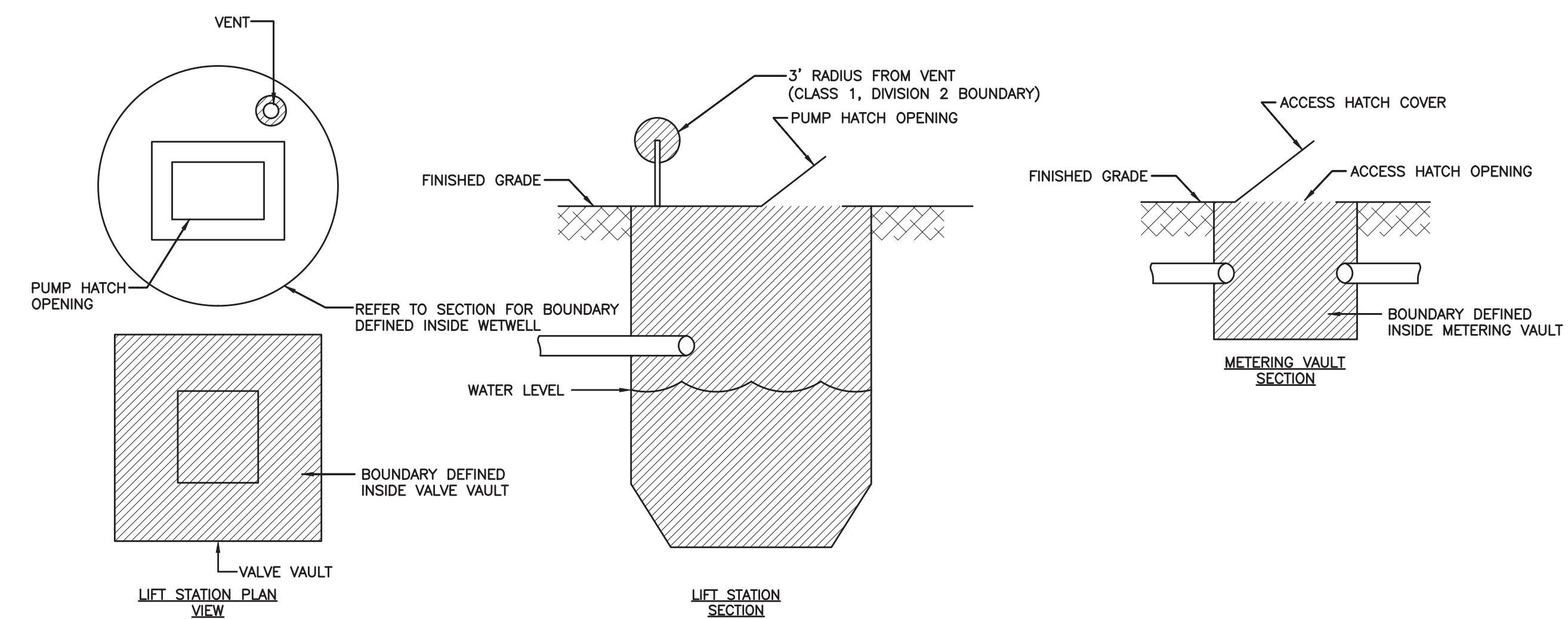
3
31 TYPICAL PUMP CABLE MOUNTING DETAIL
N.T.S.



5
31 CONDUIT SEAL DETAIL
SCALE: N.T.S.



2
31 TYPICAL GROUND TEST WELL
SCALE: N.T.S.



- NOTES:**
- WET WELL HAZARDOUS AREA CLASSIFICATION ASSIGNED PER 2018 NFPA 820, TABLE 4.2.2, ROW 11-a.
 - DRY WELL HAZARDOUS AREA CLASSIFICATION ASSIGNED PER 2018 NFPA 820, TABLE 4.2.2, ROW 12-a.
 - VALVE VAULT HAZARDOUS AREA CLASSIFICATION ASSIGNED PER 2018 NFPA 820, TABLE 4.2.2, ROW 31-a.
 - METERING VAULT HAZARDOUS AREA CLASSIFICATION ASSIGNED PER 2018 NFPA 820, TABLE 4.2.2, ROW 36-a.

4
31 HAZARDOUS AREA CLASSIFICATION
SCALE: N.T.S.

ERIC HAMMOND, P.E.
FL. LICENSE # PE39048

DRAWN BY: H.A. DATE: 04/06/2021
DESIGNED BY: H.A. SCALE: AS NOTED
CHECKED BY: E.H.
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

DESIGN CRITERIA PACKAGE
PROJECT # 12412
PUMP STATION A-16 UPGRADE
WASTEWATER DESIGN CRITERIA PACKAGE
ELECTRICAL DETAILS - 2

SHEET NO. OF
31 **31**
CAD FILE: 12412-31-DET
DRAWING FILE NO. 4-142-31

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