



"RE-BUILDING THE CITY'S WATER SYSTEMS FOR THE 21ST CENTURY"

Sewerage & Water Board OF NEW ORLEANS

625 ST. JOSEPH STREET
NEW ORLEANS, LA 70165 • 504-529-2837 OR 52-WATER
www.swbno.org

Addendum No. 2

Date: 11/3/2025

Your reference is directed to **Contract Number:** 2025-SWB-90 (Contract 5264) for Overhaul of Old Carrollton Underpass Pumping Station which is scheduled to open at **11:30 a.m. CST** on **December 9, 2025**

This addendum provides for the following:

1. 2025-SWB-83 Contract 5264 Technical Specifications

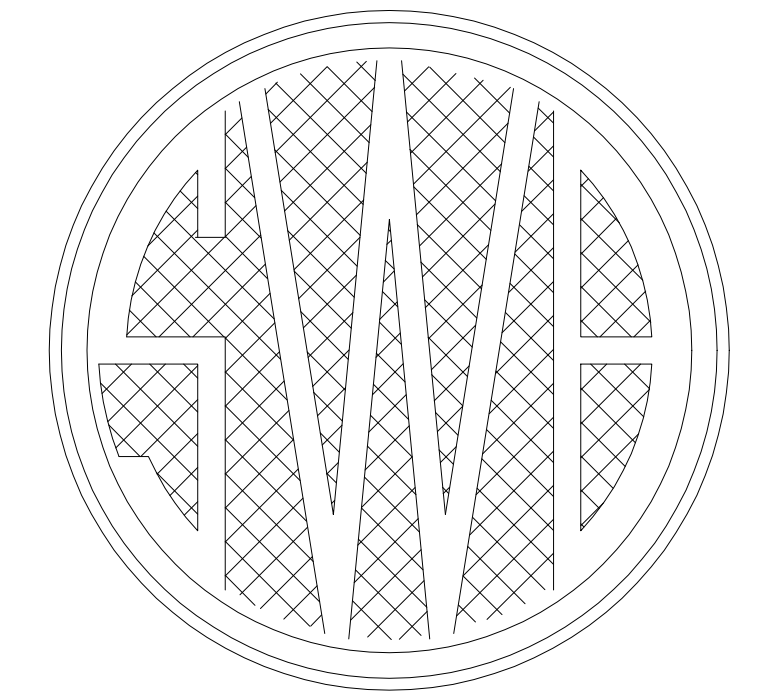
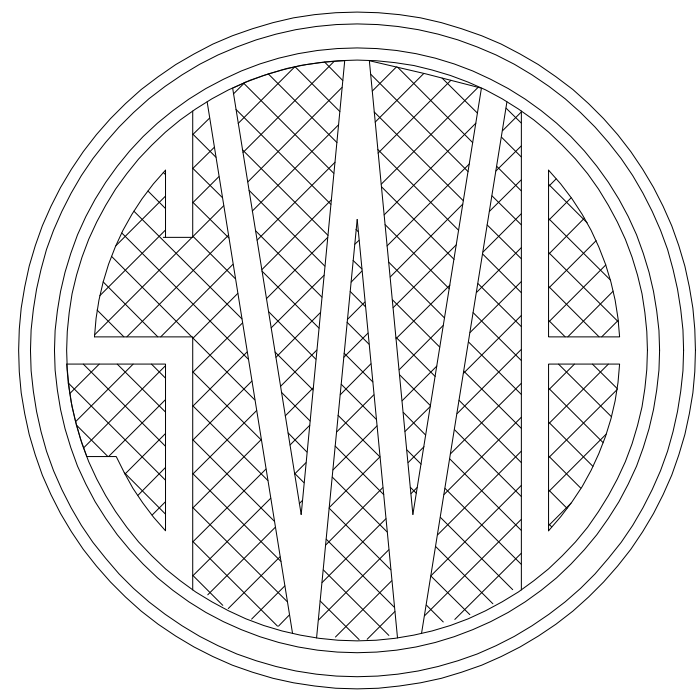
-
1. 2025-SWB-83 Contract 5264 Technical Specifications

The above revisions shall be incorporated in and take precedence over any conflicting part of the original proposal documents. This addendum is hereby officially made a part of the referenced proposal.

Receipt of this addendum shall be acknowledged by inserting its number and date in the space provided on the Louisiana Uniform Public Works Bid Form.

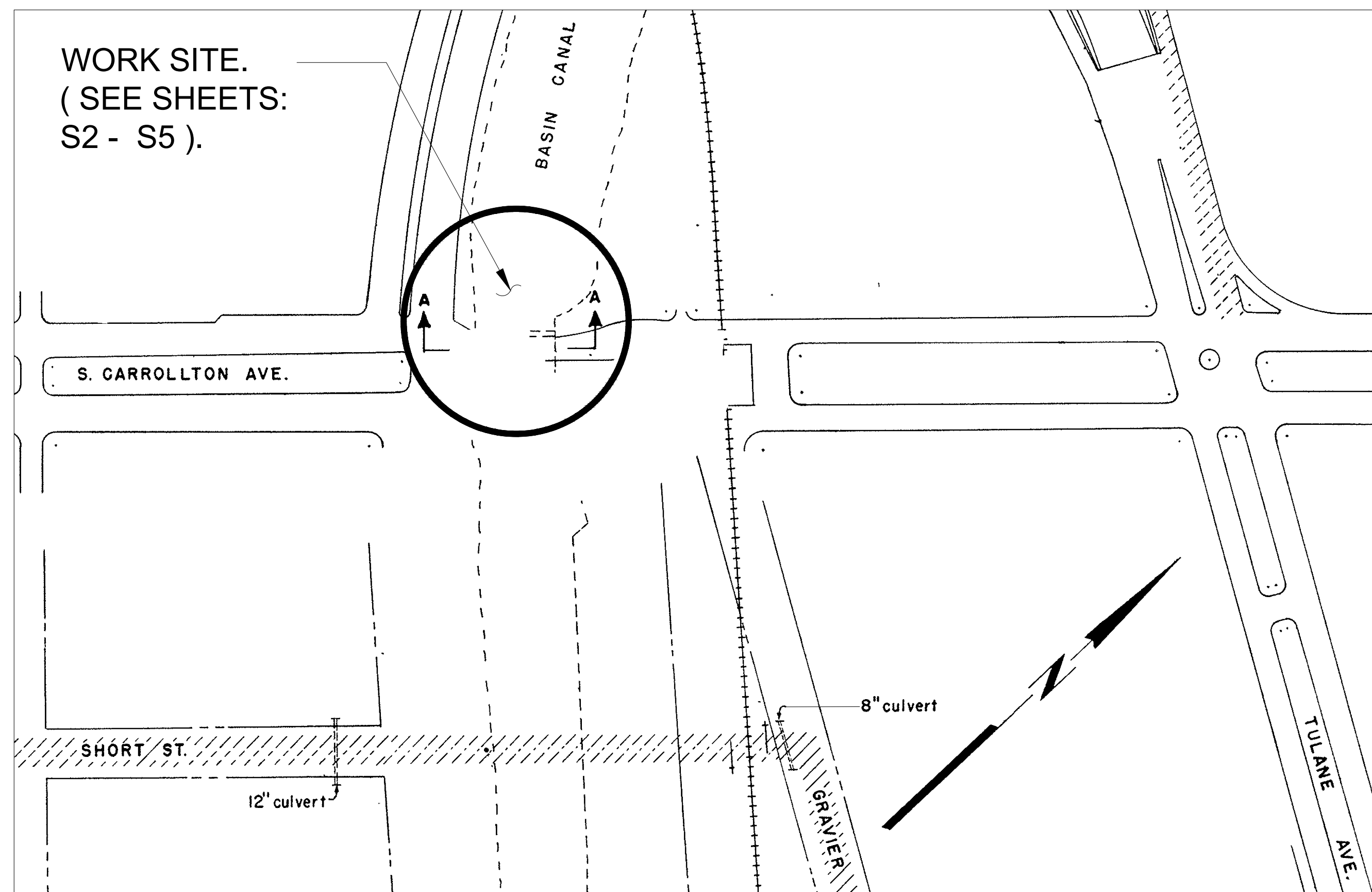
*** END OF ADDENDUM ***

SEWERAGE AND WATER BOARD OF NEW ORLEANS



ENGINEERING DEPARTMENT

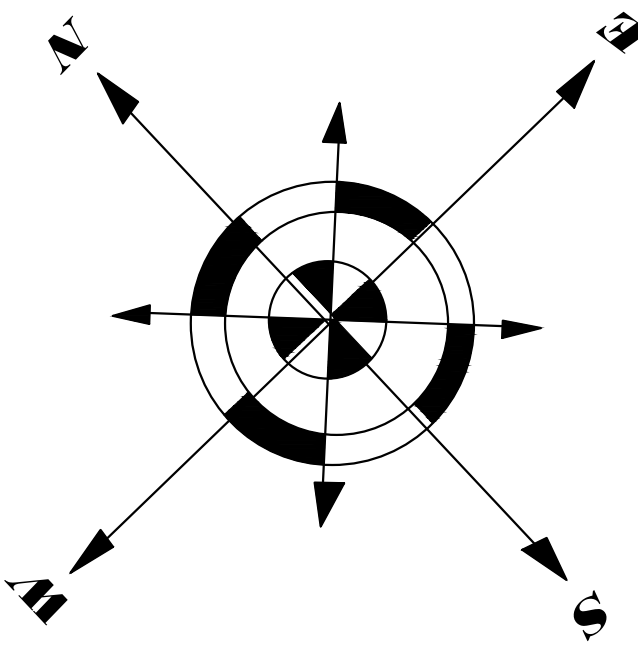
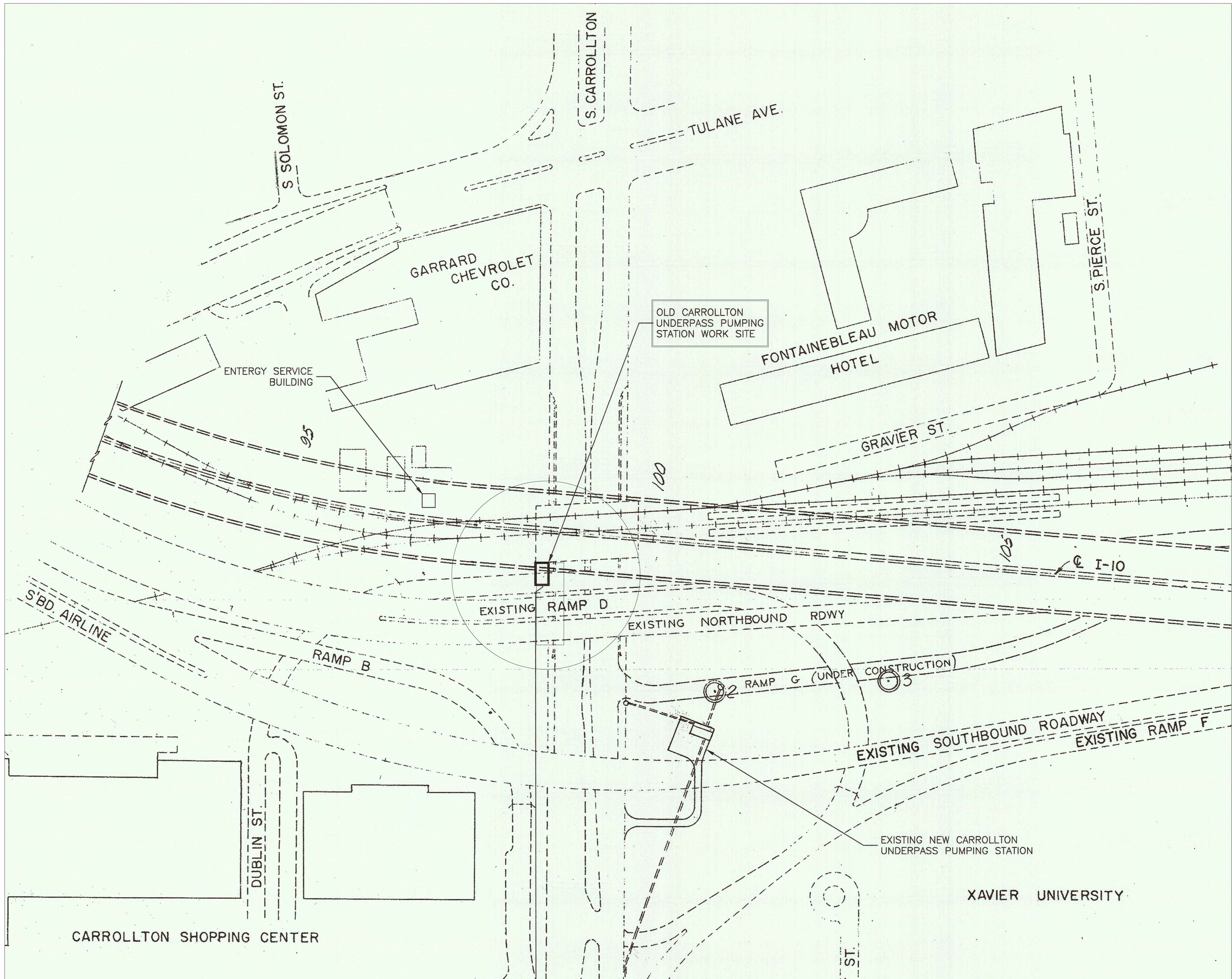
CONTRACT 5264 OVERHAUL OF OLD CARROLLTON UNDERPASS PUMPING STATION



LOCATION MAP
N.T.S.

DRAWING INDEX		
SHEET No.	TITLE	REFERENCE DWG. #
T-1	TITLE SHEET, LOCATION MAP, AND DRAWING INDEX	11357-W-18 SHEET #2
S-2	SITE PLAN	11982-W-29 SHEET #2
S-3	UTILITY SITE PLAN	12144-W-27 SHEET #13
S-4	SURVEY	12138-W-29 SHEET #44
S-5	ELECTRIC SITE PLAN	5091-P15
S-6	EXISTING AND NEW PLAN VIEW SECTIONS, NEW ELEVATION SECTIONS AND DETAILS	11982-W-29 SHEET #3
S-7		
S-8		
S-9		
S-10		
S-11		

DR.	NFB		
TRC.	XX		
CK.	TS		
AP.	TS		
SCALE:	AS NOTED		
DATE:	10/06/2025		
SEWERAGE AND WATER BOARD OF NEW ORLEANS		CONTRACT 5264 OVERHAUL OF OLD CARROLLTON UNDERPASS PUMPING STATION	
TITLE SHEET		T-1	
DWG. No.		12303-W-18	
SET NO.		SHEET NO.	1-OF-6



SITE PLAN

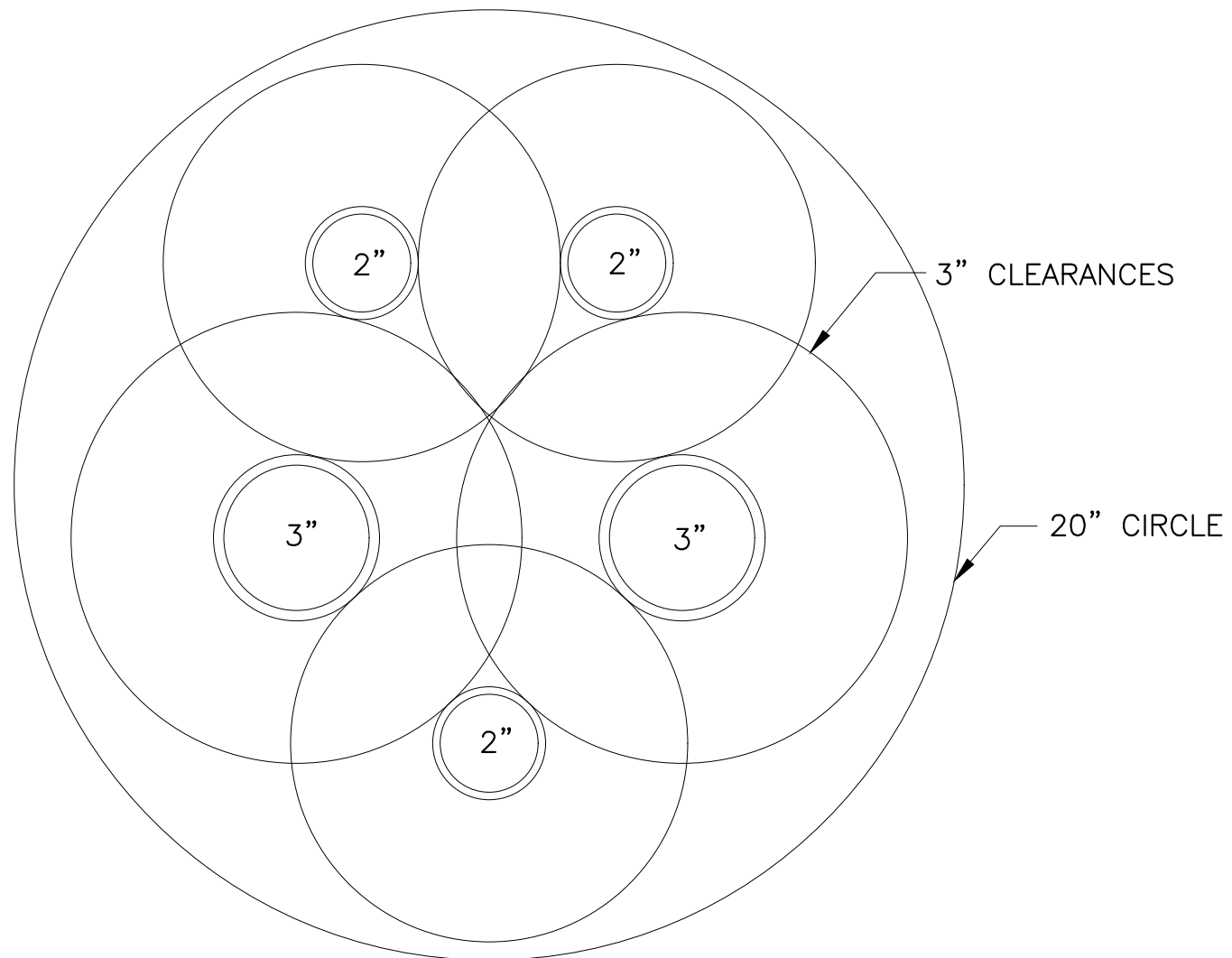
N.T.S.

REFERENCE INFO ONLY

REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
CONTRACT 5264 OVERHAUL OF OLD CARROLLTON UNDERPASS PUMPING STATION			
SITE PLAN			
DR.	NFB	S-2	
TRC.	XX		
CK.	TS		
AP.	TS		
SCALE:	AS NOTED	DWG. No. 12303-W-18	
DATE:	10/06/2025	SET NO.	SHEET NO. 2-OF-6

REFERENCE DWG.11982-W-29 SHT. # 2

- 1 SEE ELECTRICAL DRAWINGS FOR DUCT BANK AND FEEDER INFORMATION
- 2 ACCESS PIT FOR DIRECTIONAL BORE PROVIDE MANHOLE WITH SUPPORTS FOR CABLES AT CONCLUSION OF PROJECT LABEL ALL CABLES VISIBLE IN MANHOLE
- 3 BORE AND JACK 20" X 7/16" STEEL CASING CONTAINING (2) 3" PVC AND CONDUITS. INTERNALLY SUPPORT CONDUITS WITHIN 20" CASING SUCH THAT EACH CONDUIT AND AT LEAST 3" FROM ANOTHER CONDUIT AND AT LEAST 3" FROM THE INSIDE WALL OF CASING FILL CASING WITH GROUT FOLLOWING INSTALLATION OF CONDUITS, SEE DETAIL OF DUCT BANK
- 4 INSTALL (2) 3" AND (3) 2" PVC CONDUITS IN DUCT BANK ENCASED IN RED CONCRETE. REMOVE EXISTING SIDEWALK AND ROUTE DUCT BANK CLEAR OF EXISTING CABLES AND PIPES. ROUTE DUCT BANK OVER EXISTING OLD CARROLLTON PUMP STATION. REPLACE SIDEWALK AT CONCLUSION OF DUCT BANK CONSTRUCTION
- 5 SAW CUT EXISTING SLOPE PAVING FOR INSTALLATION OF NEW DUCT BANK. PROVIDE PULL BOX IN SIDEWALK AT DUCT BANK TURN. CONNECT TO EXISTING PULL BOX AT TOP SLOPE UTILIZE EXISTING CONDUIT FROM PULL BOX TO ELECTRICAL ROOM AND ADD (1) 3" AND (3) 2" ADDITIONAL CONDUITS.
- 6 ROUTE NEW DUCT BANK AROUND ACCESS TO STATION. INCREASE SIDEWALK ELEVATION IF NECESSARY TO ALLOW DUCT BANK TO RUN BETWEEN ROOF OF STATION VAULT AND UNDERSIDE OF SIDEWALK SLAB
- 7 ELECTRICAL MANHOLE MARKED "NOPS!" COULD NOT BE OPENED. ROUTE DUCT BANK TO CLEAR THIS MANHOLE AND ITS CONTENTS



NOTES:

1. THE FOLLOWING DOES NOT REPRESENT A BOUNDARY SURVEY.
2. THE LOCATIONS OF UNDERGROUND AND OTHER NONVISIBLE UTILITIES SHOWN HEREON HAVE BEEN PLOTTED BASED UPON DATA EITHER FURNISHED BY THE AGENCIES CONTROLLING SUCH DATA AND/OR OBTAINED FROM RECORDS MADE AVAILABLE TO US BY THE AGENCIES CONTROLLING SUCH RECORDS. WHERE FOUND, THE SURFACE FEATURES OF UTILITIES ARE SHOWN, THE ACTUAL NONVISIBLE LOCATIONS MAY VARY FROM THOSE SHOWN HEREON. EACH AGENCY SHOULD BE CONTACTED RELATIVE TO THE PRECISE LOCATION OF ITS UNDERGROUND INSTALLATIONS PRIOR TO ANY RELIANCE UPON THE ACCURACY OF SUCH LOCATIONS SHOWN HEREON. PRIOR TO EXCAVATION AND DIGGING CALL LA. ONE CALL (1-800-272-3020).
3. AS PER FLOOD INSURANCE RATE MAP NUMBER 22071C0228F, EFFECTIVE DATE SEPTEMBER 30, 2016, THE SITE IS IN ZONE X (NOT FLOOD ZONE) AND AE (EL -2.0).
4. ELEVATIONS AND BEARINGS SHOWN REFER BASED ON GPS MEASUREMENTS, LSU GULF NET, VRS, NORTH AMERICAN DATUM (1983) LAMBERT CONFORMAL CONIC PROJECTION, LOUISIANA SOUTH ZONE, STATE PLANE COORDINATE SYSTEM, US SURVEY FEET, NAVD88.
5. NO TITLE RESEARCH OR UTILITY SERVITUDE RESEARCH WAS PERFORMED BY THE SURVEYOR.
6. CP#1 (CROSS CUT) X=3,668,823.41 Y=535,617.41, EL= -1.13
7. CP#2 (CROSS CUT) X=3,668,696.78 Y=535,555.35, EL= -1.90
8. CP#3 (CROSS CUT) X=3,668,907.42 Y=535,969.14, EL= -7.89
9. TBM ('X' SET ON STEEL BRIDGE COLUMN) EL= +4.0

ONE-CALL TICKET NUMBER 170382079 (8-18-17)

ENERGY GAS NEW ORLEANS - SITE CLEAR, ABANDONED 20" L.P. GAS LINE

ENERGY ELECTRIC NEW ORLEANS - SITE CLEAR

UNITY FIBER (FORMERLY HUNT / SOUTHERN LIGHT) - MARKED IN FIELD

AT&T - MARKED IN FIELD

LEVEL 3 COMMUNICATIONS - MARKED IN FIELD

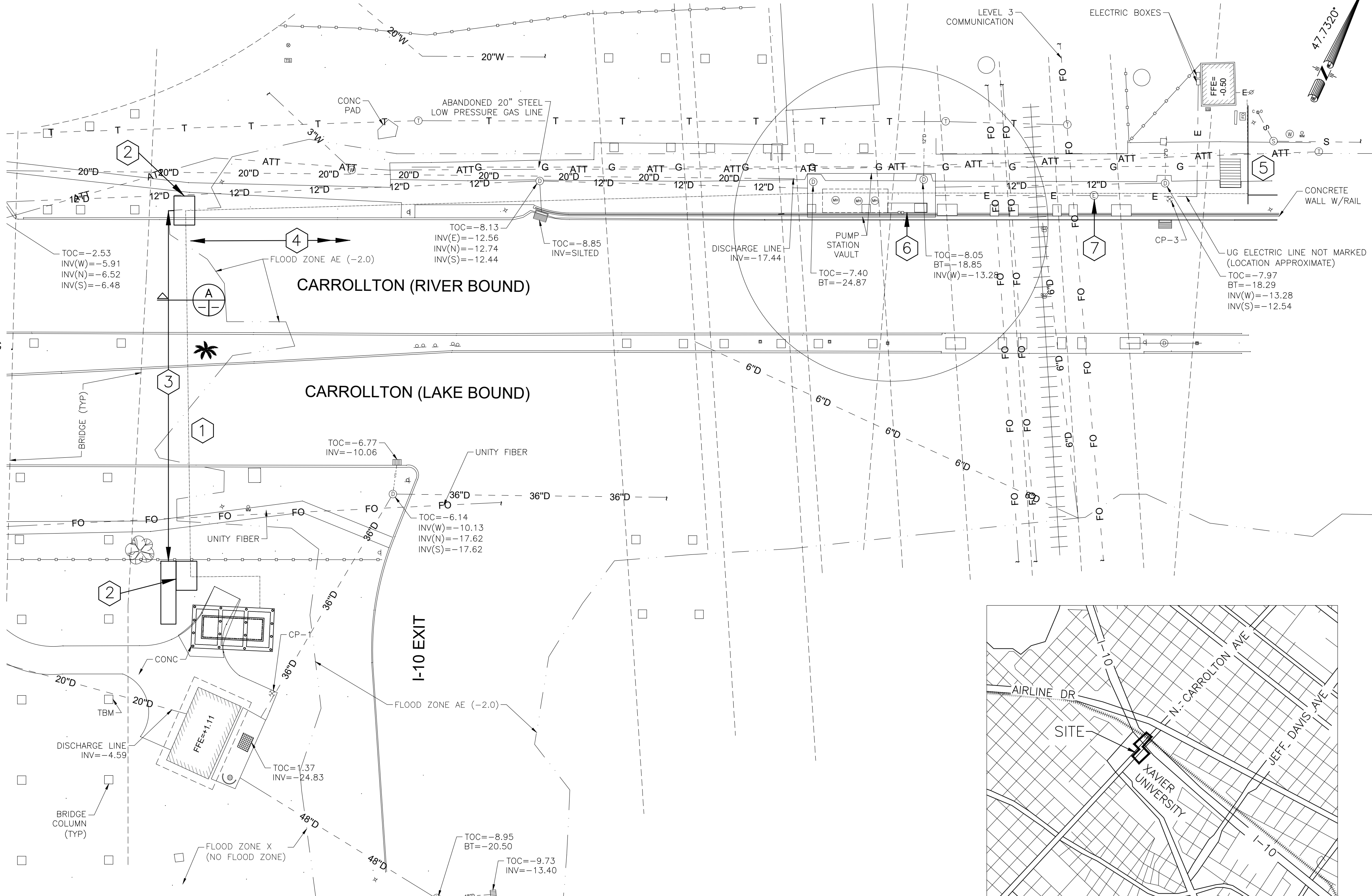
MCI COMMUNICATION - NO CORRESPONDENCE FROM UTILITY OWNER

QWEST COMMUNICATION - MARKED IN FIELD

SUDDEN LINK COMMUNICATIONS - NO CORRESPONDENCE FROM UTILITY OWNER

NOTE:
FOR EXISTING CONDITIONS, SEE TOPOGRAPHIC SURVEY OF
NEW CARROLLTON BY BATTURE ENGINEERS AND SURVEYORS
LLC. DATED AUGUST 25, 2017.

LOCATION OF UNDERGROUND ELECTRIC
CONDUIT FOR STREET LIGHTS WAS NOT
PROVIDED BY ITS OWNER
FOR STREET LIGHTS WAS NOT PROVIDED
BY ITS OWNER



10' 0 10' 20' 30' 40'

SCALE: 1" = 10' (24x36)

VICINITY MAP
NOT TO SCALE

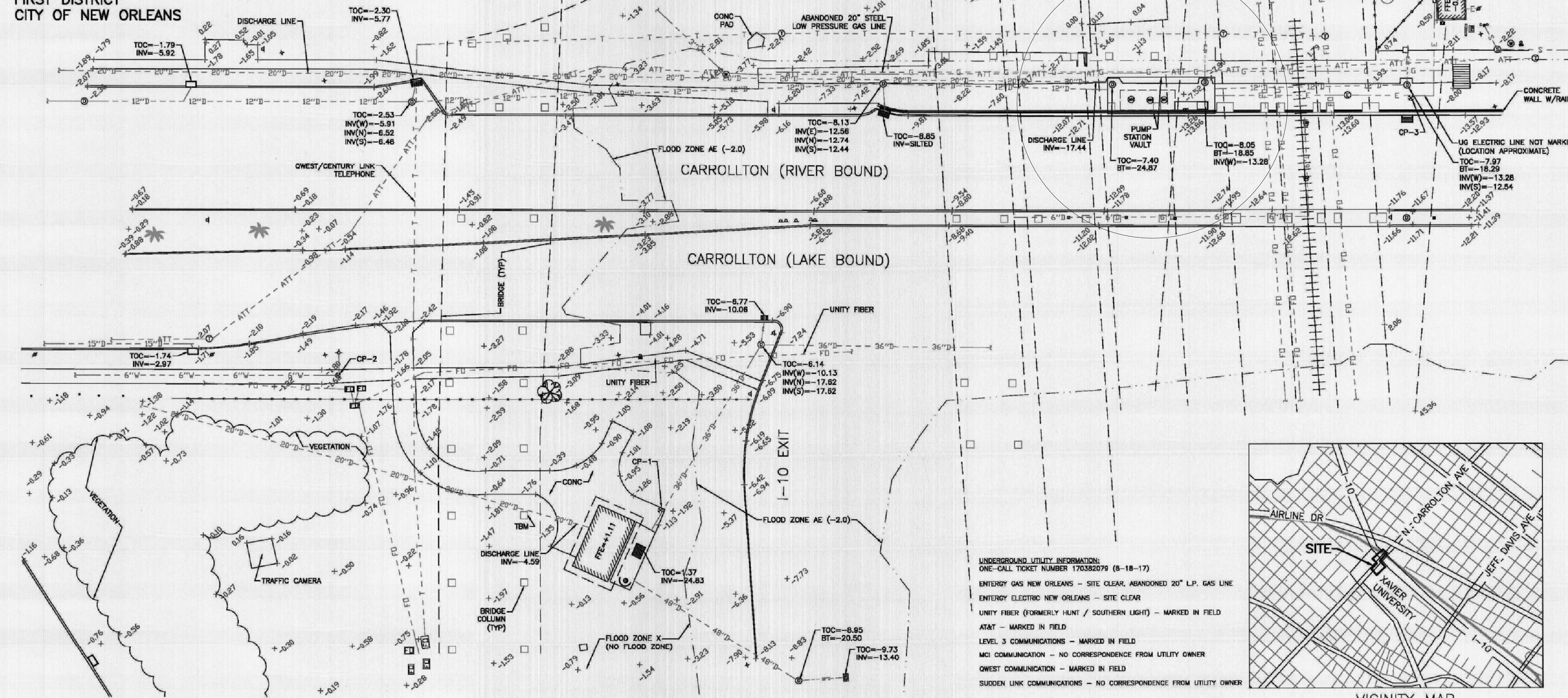
LEGEND		
	- LIGHT POLE	FO ----- - FIBER OPTIC LINE
	- GUY WIRE	----- (SIZE) D ----- - DRAIN LINE
	- POWER POLE	----- E ----- - UG ELECTRIC
	- FIRE HYDRANT	----- (SIZE) S ----- - SEWER LINE
	- WATER METER	----- (SIZE) G ----- - GAS LINE
	- SEWER MANHOLE	----- (SIZE) W ----- - WATER LINE
	- SEWER CLEANOUT	----- ATT ----- - ATT LINE (UNDERGROUND)
	- WATER MANHOLE	- BUILDING
	- NEW DUCT BANK AND FEEDER	- PALM TREE
	- DRAIN MANHOLE	
	- SIGN, POLE MOUNTED	
	- SPOT ELEVATION	
	- CATCH BASIN	
	- CROSS CUT	
	- ELECTRIC MANHOLE	
	- TREE	

REFERENCE INFO ONLY

REFERENCE DWG.12144-W-27 SHT. # 13

REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
CONTRACT 5264			
OVERHAUL OF OLD CARROLLTON UNDERPASS PUMPING STATION			
UTILITY SITE PLAN			
DR.	NFB	S-3	
TRC.	XX		
CK.	TS		
AP.	TS		
SCALE:	AS NOTED	DWG. No. 12303-W-18	
DATE:	10/06/2025		
SET NO.		SHEET NO.	3-OF-6

DISCHARGE LINE -



UNDERGROUND UTILITY INFORMATION:
ONE-CALL TICKET NUMBER 170382079 (8-18-17)
ENERGY GAS NEW ORLEANS - SITE CLEAR, ABANDONED 20" L.P. GAS LINE
ENERGY ELECTRIC NEW ORLEANS - SITE CLEAR
UTILITY FIBER (FORMERLY HUNT / SOUTHERN LIGHT) - MARKED IN FIELD
AT&T - MARKED IN FIELD
LEVEL 3 COMMUNICATIONS - MARKED IN FIELD
MCI COMMUNICATION - NO CORRESPONDENCE FROM UTILITY OWNER
QWEST COMMUNICATION - MARKED IN FIELD
SWEDEEN LINK COMMUNICATIONS - NO CORRESPONDENCE FROM UTILITY OWNER



VICINITY MAP
NOT TO SCALE

NOTES:

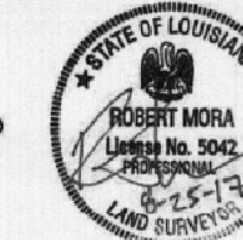
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3. AS PER FLOOD INSURANCE RATE MAP NUMBER 22071C0228F, EFFECTIVE DATE SEPTEMBER 30, 2016, THE SITE IS IN ZONE X (NOT FLOOD ZONE) AND AE (EL. -2.0).
4. ELEVATIONS AND BEARINGS SHOWN REFER BASED ON GPS MEASUREMENTS, LSU GULF NET, VRS, NORTH AMERICAN DATUM (1983) LAMBERT CONFORMAL CONIC PROJECTION, LOUISIANA SOUTH ZONE, STATE PLANE COORDINATE SYSTEM, U SURVEY FEET, NAD83.
5. NO TITLE RESEARCH OR UTILITY SERVICE RECORDS WAS PERFORMED BY THE SURVEYOR.
6. CP#1 (CROSS CUT) X=3,668,823.41 Y=535,617.41, EL.= -1.13
7. CP#2 (CROSS CUT) X=3,668,698.78 Y=535,555.35, EL.= -1.80
8. CP#3 (CROSS CUT) X=3,668,697.42 Y=535,969.14, EL.= -7.89
9. TBM ("T") SET ON STEEL BEARING COLUMN) EL.= +4.0

LEGEND

- | | | | | | |
|---|---------------------|---|--------------------------|---|---------------|
|  | - LIGHT POLE |  | - DRAIN MANHOLE |  | - FIBER OPTIC |
|  | - GUY WIRE |  | - SIGN, POLE MOUNTED |  | - DRAIN LINE |
|  | - POWER POLE |  | - SPOT ELEVATION |  | - UG ELECTRIC |
|  | - FIRE HYDRANT |  | - CATCH BASIN |  | - SEWER LINE |
|  | - WATER METER |  | - CROSS CUT |  | - GAS LINE |
|  | - SEWER MANHOLE |  | - ELECTRIC MANHOLE |  | - WATER LINE |
|  | - SEWER CLEANOUT |  | - ATT LINE (UNDERGROUND) |  | - BUILDING |
|  | - WATER MANHOLE |  | - TREE |  | - PALM TREE |
|  | - COMMUNICATION BOX | | | | |

PREPARED FOR CH2M HILL
ENGINEERS, INC.

I HEREBY CERTIFY THIS PLAN
REPRESENTS AN ACTUAL GROUND
SURVEY MADE BY ME OR
MY DIRECT SUPERVISION AND
CONTROL.



ROBERT MORA PE, PLS
PLS #5042
AUGUST 25, 2017
(504) 261-7143



BATTURE L.L.C.
engineers + land surveyors

500 CRYSTAL ST, NEW ORLEANS, LA 70124

PH: 504-261-7143

FAX: 504-336-2272

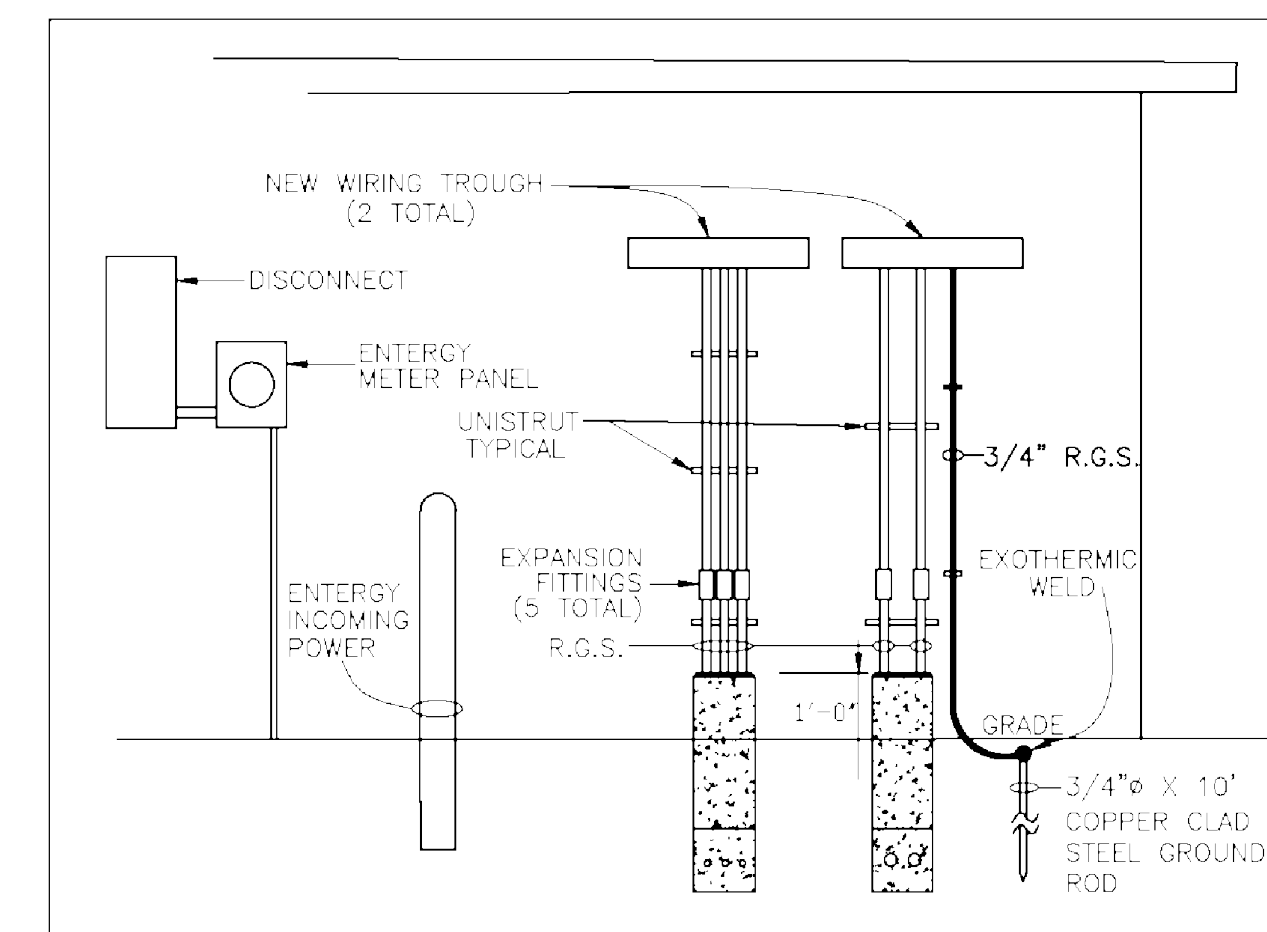
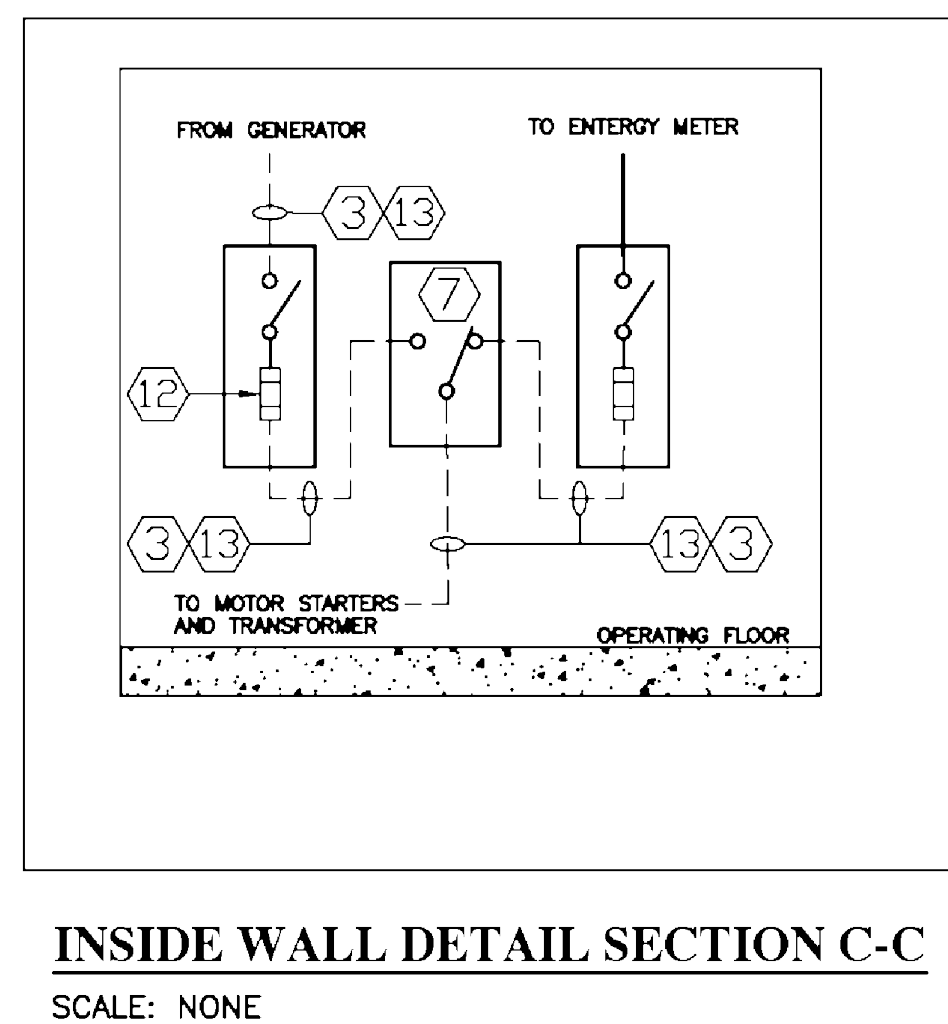
BMOA@BATTURE-ENG.COM

REFERENCE INFO ONLY

REFERENCE DWG.12138-W-29 SHT. # 44

REV.	DATE		DESCRIPTION		BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS					
CONTRACT 5264 OVERHAUL OF OLD CARROLLTON UNDERPASS PUMPING STATION					
SURVEY					
DR.	NFB	S-4			
TRC.	XX				
CK.	TS				
AP.	TS				
SCALE:	AS NOTED	DWG. No. 12303-W-18			
DATE:	10/06/2025	SET NO.	SHEET NO. 4-OF-6		

- ① FURNISH AND INSTALL 2-3" AND 3-2" P.V.C. CONDUITS, SCH. 40, ALL ENCASED IN 3000PSI RED CONCRETE, AS SHOWN IN NEW DUCT BANK, DETAILS A-A (SHEET 40).
- ② FURNISH AND INSTALL 2-3" AND 3-2" P.V.C. CONDUITS, SCH. 80, VIA HORIZONTAL DIRECTIONAL DRILLING METHOD. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES AT S. CARROLLTON AVE. SEE BORE SPACER DETAIL, (SHEET 41).
- ③ FURNISH AND INSTALL 4-#4/0 A.W.G. SIZE CABLES, RATED 600V, TYPE THHN/THWN. CABLES SHALL BE WIRED FOR EMERGENCY POWER SUPPLY PER NEC 2011 AND NFPA. CONTRACTOR SHALL TEST CABLES PER THE SPECS.
- ④ FURNISH AND INSTALL INSTRUMENTATION AND CONTROL CABLES FOR MONITORING AND CONTROL OF GENERATOR, INCLUDING INSTRUMENTATION DEVICES AND ALARMS. ALL WIRING SHALL BE INSTALLED AND TESTED PER NEC 2011 AND MANUFACTURER RECOMMENDATIONS.
- ⑤ FURNISH AND INSTALL FOUR PULL BOXES, TYPE CONCAST PART# FHRSLP-30-30-36 WITH DIMENSIONS 30x30x36, FOR ACCESS TO POWER CABLE AND AN ADDITIONAL FOUR, TYPE CONCAST PART# FHRSLP-24-24-24 WITH DIMENSIONS 24x24x24, FOR ACCESS TO INSTRUMENTATION AND CONTROL CABLES. PULL BOX SHALL BE RATED FOR HEAVY TRAFFIC, 32,000LB. PER AXEL LOAD AND PADLOCKABLE INCLUDING KEYED ACCESS BOLT FOR ADDED ACCESS SECURITY. SEE BOX DETAILS ON (SHEET 40).
- ⑥ UNDERGROUND S&WB FEEDER #506 1-3/C #600MCM LEAD CABLE, ENCASED IN CONCRETE, 6600V, 25HZ. LOCATE FEEDER AT POINT OF CROSSING AND VERIFY NEW DUCT BANK ROUTE IS CLEAR. INCREASE DEPTH OF NEW DUCTS IF NECESSARY, UP TO 18" TO AVOID CONFLICT WITH THE EXISTING SWBNO FEEDER #506. DE-ENERGIZE POWER CABLE, BY FIRST CONTACTING SWBNO ENGINEERING DEPT. AT 504-865-0456 OR 504-865-0453, 24-HOURS IN ADVANCE, PRIOR TO ANY DIGGING.
- ⑦ FURNISH AND INSTALL ONE 200A, 460V, NEMA 3R RATED, 3-PHASE AUTOMATIC TRANSFER SWITCH. A TIME DELAY SHALL BE PROVIDED ON TRANSFER TO THE EMERGENCY SOURCE, ADJUSTABLE FROM 0-60 MINUTES, FOR CONTROLLED TIMING OF TRANSFER OF LOADS TO EMER. GENERATOR.
- ⑧ RUN FROM THE STATION LIGHTING PANEL, ONE NEW 120V POWER SUPPLY CIRCUIT TO THE SHUTDOWN PANEL AND ONE NEW 120V POWER SUPPLY CIRCUIT TO THE ANNUNCIATOR PANEL.
- ⑨ CONSTRUCT OPEN TRENCH DUCTBANK, ABOVE THE EXISTING PUMP STATION VAULT. INSTALLTION OF CONDUITS WILL NOT BE PERMITTED THROUGH THE VAULT.
- ⑩ CONTRACTOR SHALL CONTACT PARK AND PARKWAY PRIOR TO DIRECTIONAL DRILLING NEAR ANY TREE OR SHRUBBERY FOR DUCTBANK ROUTE APPROVAL. DO NOT DAMAGE ROOTS.
- ⑪ CONTRACTOR SHALL FIELD VERIFY OWNER OF PULLBOX AND REQUEST OUTAGE OR RELOCATION OF UTILITY PRIOR TO CONSTRUCTION OF NEW U/G DUCTBANK.
- ⑫ CONTRACTOR SHALL FURNISH AND INSTALL NEW 200A FUSE FOR GENERATOR INCOMING POWER AT OLD CARROLLTON STATION. DUAL-ELEMENT, TIME DELAY FUSE WITH CURRENT LIMITING, PART# FRS-R-200, OR ENGINEER APPROVED EQUAL.
- ⑬ POWER CABLES SHALL BE ROUTED WITHIN EXISTING WIRING THROUGH OR NEW R.A.C. OR R.G.S.C.
- ⑭ FURNISH AND INSTALL CONTROL CABLES, ONE PAIR FROM GENERATOR TO BUBBLER PANEL. LAND CONTROL CABLES AT BUBBLER PANEL DRY CONTACTS FOR GENERATOR START.
- ⑮ FURNISH AND INSTALL INSTRUMENTATION CABLES, 6 WIRES FROM A.T.S. TO MISSION CONTROL TO MONITOR ENTERGY.
- ⑯ FURNISH AND INSTALL INSTRUMENTATION CABLES, 2 PAIRS FROM FROM GENERATOR TO MISSION CONTROL PANEL TO MONITOR GENERATOR RUN/FAIL STATUS.



STATION FLOOR PLAN
SCALE: NONE

REFERENCE INFO ONLY

REFERENCE DWG. 5091-P15

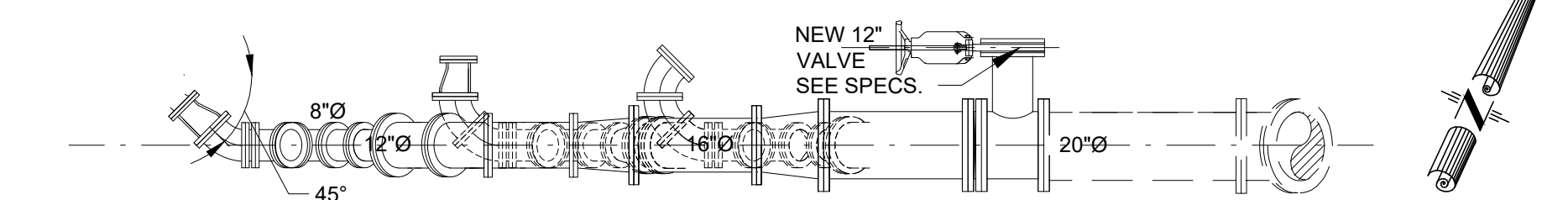
REV.	DATE	DESCRIPTION						BY	
SEWERAGE AND WATER BOARD OF NEW ORLEANS									
CONTRACT 5264 OVERHAUL OF OLD CARROLLTON UNDERPASS PUMPING STATION									
ELECTRIC SITE PLAN									
DR.	NFB	S-5							
TRG.	XX								
CK.	TS								
AP.	TS								
SCALE:	AS NOTED	DWG. No. 12303-W-18							
DATE:	10/06/2025	SET NO.				SHEET NO. 5-OF-6			

EXISTING SECTION PLAN A-A

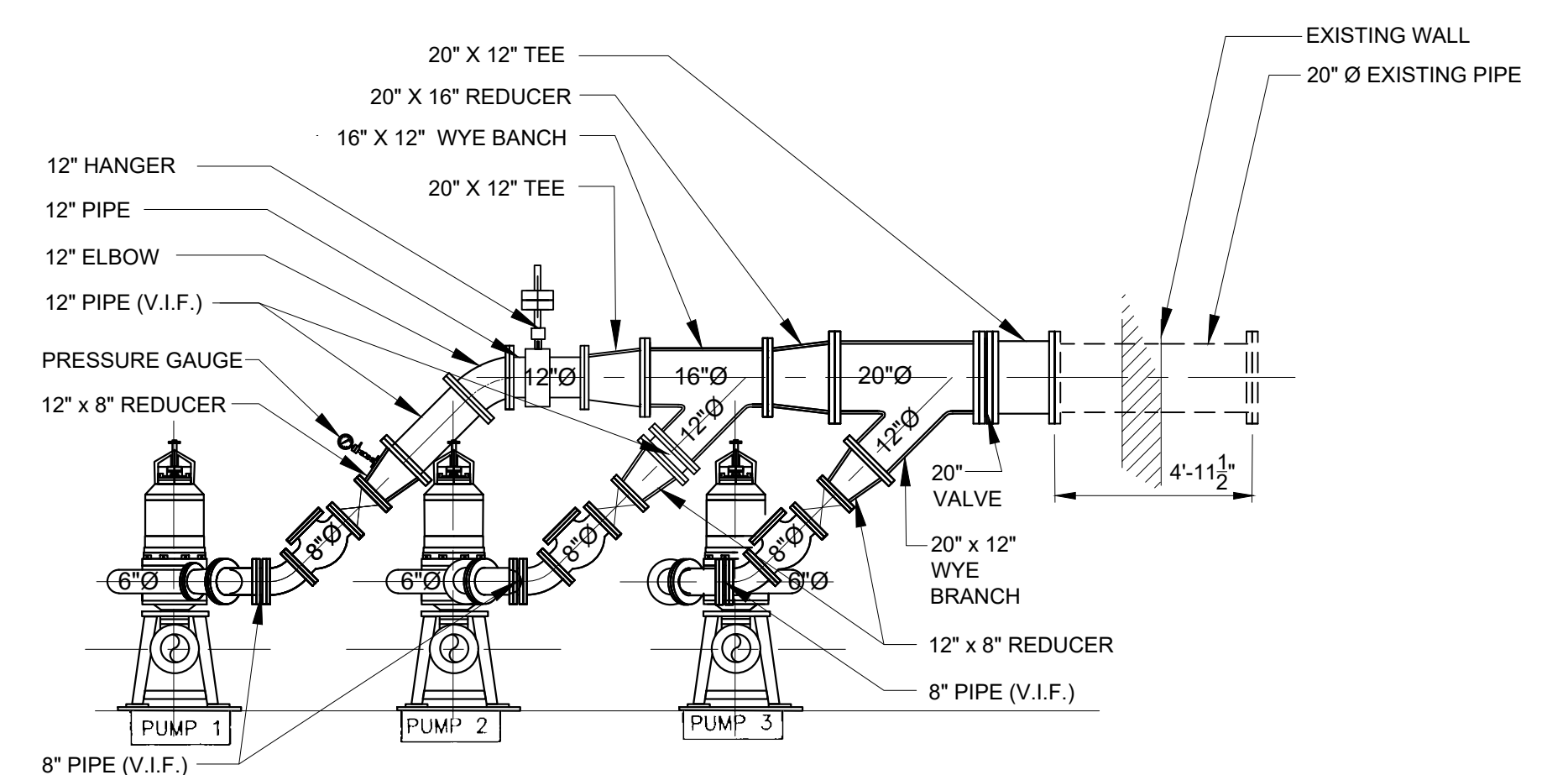
NEW SECTION PLAN G-G

NEW SECTION B-B

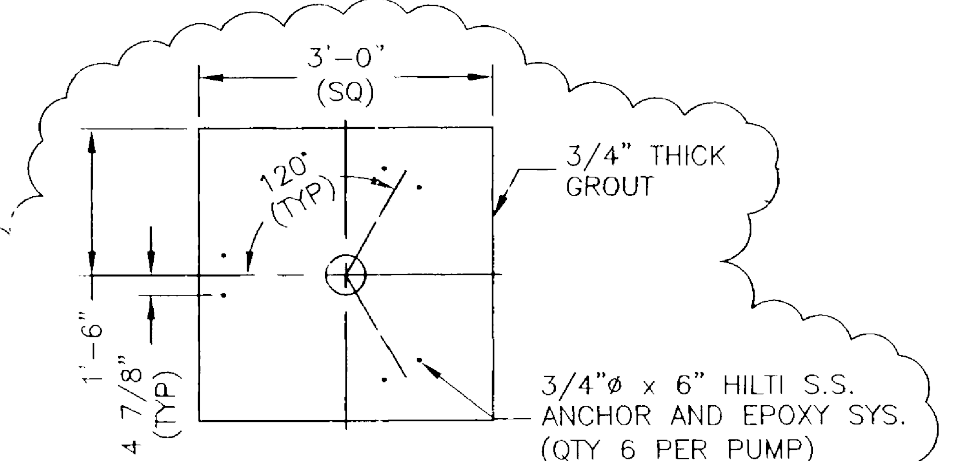
NEW D-D



NEW PLAN HEADER



NEW ELEVATION HEADER

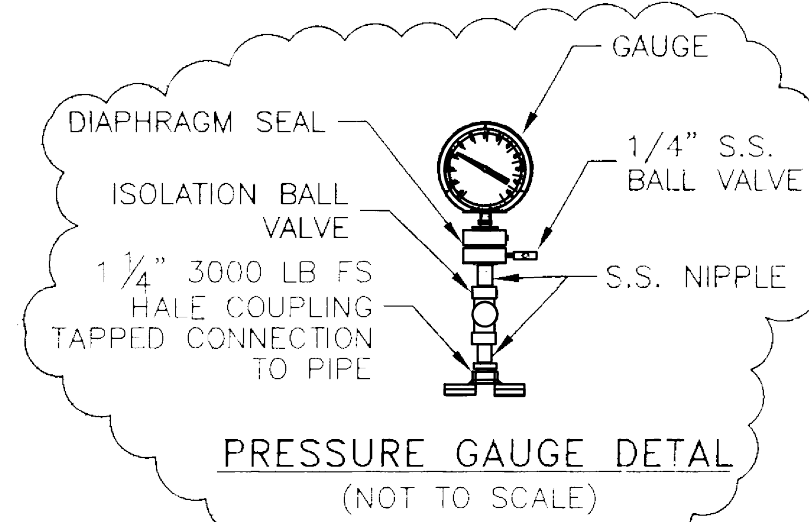


DETAIL F NOTE:

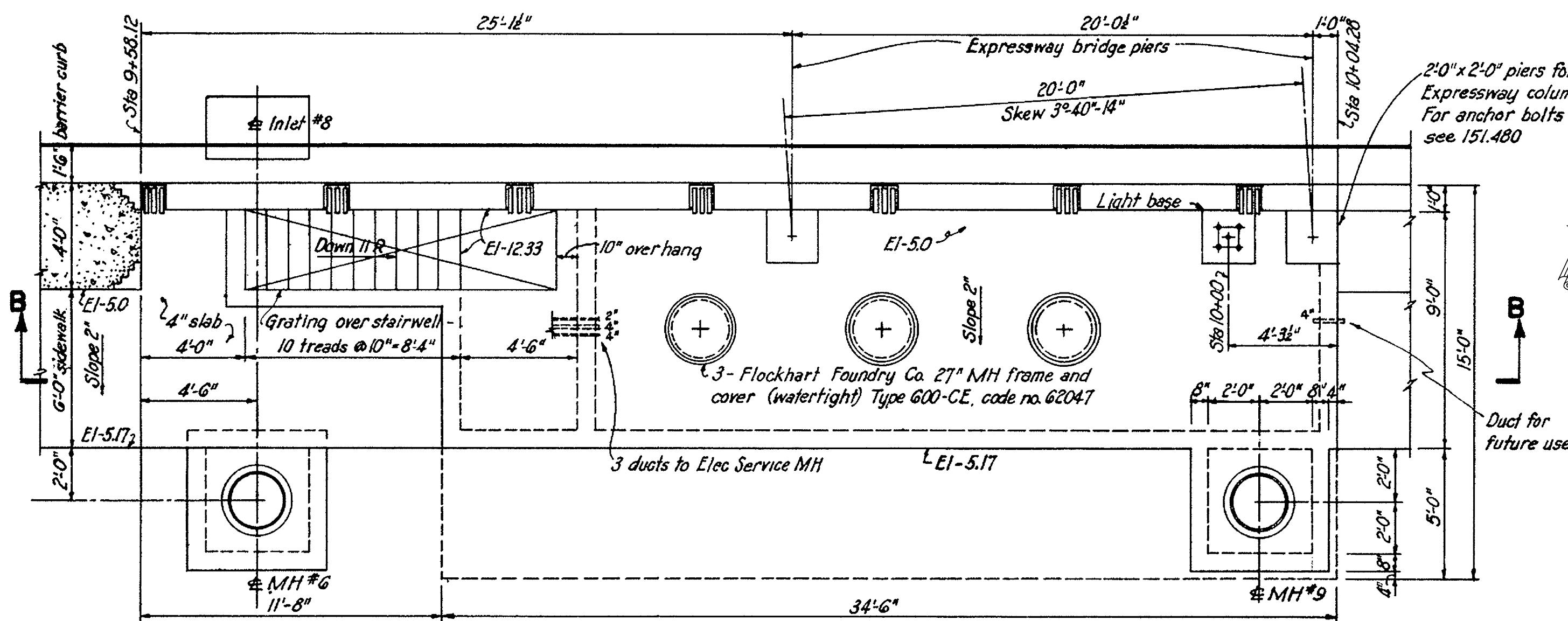
1. ALIGN PUMPS WITH SUCTION AND DISCHARGE LINES BEFORE BOLTING IN PLACE WITH HILTI S.S. ANCHOR AND EPOXY SYSTEM.
2. MODIFY PUMP MOUNT TO ALIGN PUMP SUCTION WITH SUCTION PIPING.

PUMPS 1, 2 & 3

DETAIL F PUMP MOUNT BOLTING
PUMPS 1, 2 & 3
SCALE 1/2" = 1' 0"



EXISTING PLAN



GENERAL NOTE:
REV CLOUDS INDICATE CHANGES
OR NEW EQUIPMENT.

REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
CONTRACT 5264			
OVERHAUL OF OLD CARROLLTON UNDERPASS PUMPING STATION			
EXISTING / NEW- PLAN SECTIONS, NEW ELEVATION SECTIONS & DETAILS			
DR.	NFB	S-6	
TRC.	XX		
CK.	TS		
AP.	TS		
SCALE: AS NOTED		DWG. No. 12303-W-18	
DATE:	10/03/2025	SHEET NO.	SHEET NO. 6-OF-6

REFERENCE DWG.11982-W-29 SHT. # 3

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01 11 00	Summary of Work
01 12 16	Work Sequence
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40 05 19	Ductile Iron Process Pipe
40 05 53	Process Valves, Smaller than Four-inch Diameter and Larger
43 23 00	Dry Location Liquid Pumps

SECTION 01 11 00

SUMMARY OF WORK

1. GENERAL OVERVIEW

This work will include replacing three submersible pumps at the Old Carrollton Underpass Pumping Station and replacing the suction and discharge piping, including elbows, check valves and gate valves.

2. DETAILED DESCRIPTION

- A. **SUCTION LINE.** Each pump shall have an 8-inch gate valve installed on the suction line, to be mounted as close to the wall between the dry well and wet well as possible. The valve shall be connected to an 8-inch straight pipe, and then an 8-inch 90-degree elbow into the pump. Suction lines shall be fitted with a pressure gauge on the straight pipe section between the valve and the pump.
 - a. Existing pressure gauges shall be inspected and tested. Gauges shall be reused on new pipes if performing appropriately or replaced as needed with approval from engineer.
- B. **PUMP.** Existing pumps shall be replaced with 50 horsepower submersible, explosion proof, solids handling pumps capable of 1700 gallons per minute at 75 ft TDH. Suction for each pump will be 8-inch, discharge will be 6-inch. Pumps will be relocated as needed to allow for adequate installation and easy maintenance. Stands for pumps shall be fabricated or purchased, and stands shall be affixed to the floor of the dry well.
- C. **DISCHARGE LINE.** Each pump shall be fitted with a 6-inch to 8-inch reducer, followed by an 8-inch check valve, and 8-inch knife gate valve, an 8-inch to 12-inch reducer, and 8-inch elbows as necessary to connect the pump to the existing discharge header.
- D. **HEADER MODIFICATION.** A 22 ½ - inch long straight section of 16-inch diameter pipe will be removed from the header, and the downstream 16-inch to 20-inch reducer and 20-inch wye will be connected directly to the 16-inch wye. A 20-inch knife gate valve will be installed downstream of the 20-inch wye. An 18-inch long 20-inch by 12-inch tee will be installed between the 20-inch wye and the discharge through the wall. Attached to the 12-inch neck of the tee will be a 12-inch gate valve followed by a 12-inch blind flange.
- E. **ELECTRICAL.** Contractor shall be responsible for electrical connection of each pump to the existing electrical system.

END OF SECTION

SECTION 01 12 16

WORK SEQUENCE

1. DESCRIPTION

This section covers requirements to maintain adequate operability of the pumping station during execution of work. This project entails overhauling a critical drainage station that provides an essential service to the City of New Orleans, and as such operability must be maintained throughout the entire project. Present operations include the use of a surface level portable pump that is tied directly into the station header. This pump shall be used for duration of this project.

2. WORK SEQUENCE

Below is a proposed sequence of work. This is intended to ensure continued station operability throughout the project. Contractor may suggest alterations to this proposal to the Project Engineer or Project Manager and proceed pending approval from same.

- 2.1. Work may not commence until all parts to complete the project have been procured.
- 2.2. Disconnect existing header from the station effluent pipe and install the 20-inch by 12-inch Tee, 12-inch gate valve, and 20-inch knife gate valve first. Once installed, the 20-inch knife gate valve shall be closed, and the existing portable pump shall be connected directly to the 12-inch gate valve. This will allow the pump to continue using the station's effluent pipe to drain the underpass during construction.
- 2.3. Using the portable pump, drain the wet well to a level below the suction lines for station pumps.
- 2.4. Disassemble each station pump's suction line and install an 8-inch blind flange on each flange at the joint most proximal the wall.
- 2.5. Proceed with remainder of project, including disassembly of existing components, mechanical and electrical installation of new pumps and modifications to piping.
- 2.6. Using the portable pump, drain the wet well to a level below the suction line for station pumps.
- 2.7. Remove the temporary blind flange on each suction line and reconnect the station pump suction line.
- 2.8. Complete any necessary testing and project completion activities. When project is complete, the 12-inch gate valve shall be closed and blocked by a 12-inch blind flange, and the 20-inch knife gate valve shall be left in the open position for normal operation.

3. SUBMITTALS

- Schedule of work sequence (Gantt chart or similar)

END OF SECTION

SECTION 01 41 00

REGULATORY & PERMIT REQUIREMENTS

1. DESCRIPTION

This section covers compliance with laws, rules, codes, and permits affecting the execution of the work in this contract. This list is not intended to be an exhaustive list of all regulations affecting the work. The Contractor shall comply with all applicable local, state and federal regulations in the execution of the work.

2. SUBMITTALS

Preconstruction Submittals:

- Copy of Notice of Intent (NOI)
- Copy of Construction Zone Permit Applications
- Copy of any necessary DOTD Permit Applications

3. CONSTRUCTION REQUIREMENTS

- A. CITY OF NEW ORLEANS CONSTRUCTION ZONE PERMIT. This permit is necessary for any type of road or lane closure for construction purposes. Contractor shall coordinate delivery logistics at project location and obtain and pay for necessary permits.
- B. LOUISIANA DEPARTMENT OF TRANSPORT AND DEVELOPMENT PERMITS. Contractor shall obtain any necessary DOTD permits required for construction work or lane closures associated with this project.

END OF SECTION

SECTION 01 45 23

TESTING AND INSPECTING SERVICES

1. DESCRIPTION

This section covers testing and inspection services for quality control / quality assurance and acceptance of the work.

2. SUBMITTALS

None

3. CONSTRUCTION REQUIREMENTS

The provisions of this specification shall follow the provisions of Supplemental Condition paragraph SC-13.03 in its entirety.

END OF SECTION

SECTION 05 50 00

STRUCTURAL METALWORK

1. DESCRIPTION

This work consists of procuring and installing pipe hangers and gauge stems.

2. MATERIALS

Structural metals specified as stainless steel shall be SAE 316L

Structural metals specified as ductile iron shall be ASTM A536

All other structural metals shall be ASTM A36

3. DESCRIPTION OF WORK.

A. Replace existing pipe hangers with new pipe supports, relocate as necessary to support altered pipe configurations in compliance with *Section 40 05 07 Hangers and Supports for Pipe*.

4. SUBMITTALS

General Submittals:

- Shop Drawings: Fabricated Pipe Components
- Shop Drawings: Nozzle connections

5. FIELD WELDING.

Field welding for tapping existing pipelines (in accordance with Specifications Section *40 05 19 Ductile Iron Pipe*) will be permitted. All other welding shall be shop-welding. Field welding is allowed only with prior written approval of the Engineer.

6. BOLTED CONNECTIONS.

Provide bolts, nuts and washers of the type specified or indicated. Equip all nuts with washers. Accurately locate bolt holes, smooth, perpendicular to the member and cylindrical. Drill or subdrill holes for regular bolts and ream in the shop and not more than 1/16 inch larger than the diameter of the bolt.

7. INSTALLATION.

Thoroughly clean all parts to be installed. Remove packing compounds, rust, dirt, grit and other foreign matter. Where units or items are shipped as assemblies they will be inspected prior to installation. Disassembly, cleaning and lubrication will not be required except where necessary to place the assembly in a clean and properly lubricated condition. Do not use pipe wrenches, cold chisels or other tools likely to cause damage to the surface of rods, nuts or other parts used for assembling and tightening parts. Tighten bolts and screws firmly and uniformly but take care not to overstress the threads. When a half nut is used for locking a full nut place the half nut first followed by the full nut. Lubricate threads of all bolts except high strength bolts, nuts and screws with an appropriate lubricant before assembly. Coat threads of corrosion-resisting steel bolts and nuts with an approved anti-galling compound. Driving and drifting bolts or keys will not be permitted.

END OF SECTION

SECTION 26 01 01

ELECTRICAL GENERAL

1. RELATED DOCUMENTS

- A. The “General Conditions” and “Special Conditions” of Contract as written and referred to hereinbefore are adopted and made part of Division 26.

2. MATERIALS

- A. Wiring components for pumps shall be compatible with existing station hardware
- 200A, 460V service available from utility
 - 70A fuse for each pump circuit
 - 3 phase wiring with additional grounding wire
 - #4 wiring rated to 85A
- B. Wiring from pumps to disconnects shall be new and follow pump manufacturer recommendations.

3. DESCRIPTION OF WORK:

- A. Provide equipment, labor, etc., required to install complete working electrical connections of pumps as shown and specified.
- B. Provide equipment and/or wiring normally furnished or required for complete electrical systems but not specifically specified on the drawings or in specifications, as though specified by both.
- C. All equipment and wiring shall be new.
- D. Electrical work includes, but is not limited to:
1. Connections of all appliances and equipment to existing electrical disconnects.

4. REQUIREMENTS OF REGULATORY AGENCIES:

- A. Obtain and pay for all permits required for the work. Comply with all ordinances pertaining to work described herein. Comply with National Electrical Code.
- B. Arrange, pay fees for and complete work to pass required tests by agencies having authority over work. Deliver to Owner Certificates of Inspection and approval issued by authorities.

END OF SECTION

SECTION 40 05 07

HANGERS AND SUPPORTS FOR PIPE

1. DESCRIPTION

This work consists of furnishing and installing the required hangers and supports for piping.

2. MATERIALS

All pipe support materials shall be hot dip galvanized or stainless.

All epoxy anchoring systems shall be Hilti HIT-HY 200 or approved equal. Submit anchoring hardware schedule in accordance with Specification Section 05 50 00.

3. SUBMITTALS

General Submittals:

- Product Data: Pipe Supports, epoxy adhesive
- Shop Drawings: Pipe Supports

4. CONSTRUCTION REQUIREMENTS

A. ANCHORAGE LOCATION. Contractor shall use existing holes in concrete slab above pipe for placing pipe hangers. New holes shall only be drilled using rotary drilling methods.

SECTION 40 05 19

DUCTILE IRON PROCESS PIPE

1. DESCRIPTION

This work consists of furnishing and installing the required ductile iron piping including all fittings, sleeves, and couplings as specified herein and/or shown in the drawings.

2. MATERIALS

All piping shall be ductile iron, designed and manufactured in accordance with ANSI A21.50 and ANSI A21.51 using 60 ksi tensile strength and 42 ksi yield strength.

- 2.1. Straight pipe from the wet well to the 90 degree suction elbow shall be eight inch nominal size, 0.27 inch wall thickness (thickness class 50).
- 2.2. 90 degree suction elbow shall be eight inch nominal size, 0.27 inch wall thickness (thickness class 50).
- 2.3. Any additional elbows on suction piping shall be eight inch nominal size, 0.27 inch wall thickness (thickness class 50).
- 2.4. Each pump's discharge connector shall be connected to a 6" x 8" reducer.
- 2.5. Elbows connecting the reducer of each pump to the rest of the piping components shall be eight inch nominal size, 0.27 inch wall thickness (thickness class 50).
- 2.6. Straight pieces in line with discharge valves shall be eight inch nominal size, 0.27 inch wall thickness (thickness class 50).
- 2.7. Each pump's discharge shall pass through an 8" x 12" reducer connecting it to the existing header.
- 2.8. The header shall be fitted with a 20-inch by 12-inch tee, with the 12-inch neck of the tee oriented to not interfere with the 20-inch knife gate valve, installed between the knife gate valve (to be installed) and the effluent pipe leaving the station. The 20-inch portion of the tee shall be thickness class 50, with a wall thickness of 0.36 inches. Verify consistency of thickness and fit with existing 20 inch header and modify as necessary for appropriate fit.

Reference DWG #12303-W-18 for reference.

Fittings shall conform to ANSI A21.10. Fittings shall be for pressure rating of 250 psi. Flanged fittings shall be ANSI pattern using long radius elbows except where indicated in the plans.

All joints shall be flanged joints except where indicated on the plans or otherwise approved by the Engineer. Flanged joints shall conform to ANSI B16.1, Class 125, and in accordance with Table 10.23 of ANSI A21.10. Flanged ductile iron pipe approximately twelve (12) inches or less in length shall have flanges cast solidly to the pipe barrel. Flanges on ductile iron pipe longer than twelve (12) inches may

be of the screw type. Pipe threads shall be of such length that with flanges screwed home, the end of the pipe shall project beyond the face line of the flange. Flange and pipe shall then be machined to give a flush finish to the pipe and the flange and surface shall be normal to the axis of the pipe. Ductile iron flanges shall be of such design that the flange neck completely covers the threaded portion of the pipe to protect same against corrosion.

Bolts and nuts for flanged joints shall conform in dimensions to the American Standard heavy series. Nuts shall be hexagonal, cold pressed. Bolts and nuts shall be cadmium plated, cold pressed, steel machine bolts, conforming to ASTM A 307, Grade B. Cadmium plating shall be by an approved process and shall be between 0.0003- to 0.0005-inch thick.

Gaskets of "Cranite", red rubber, asbestos composition, or other approved quality shall be used in all flanged joints. Gaskets shall conform to the requirements of ANSI B16.21.

Nozzle connection shall be an approved steel tapping saddle with a welded reinforcing pad equal in area to the area removed by the nozzle connection.

3. SUBMITTALS

General Submittals:

- Shop Drawings: Pipe System. Shop drawings shall indicate piping layout in plan and elevations as may be required and shall be completely dimensioned. The drawings shall include a complete schedule of all pipe and fittings. Special casting shall be clearly detailed showing all pertinent dimensions.
- Product Data: Nozzle connection / tapping schedule.

4. CONSTRUCTION REQUIREMENTS

- A. IDENTIFYING MARKINGS. Each ductile iron pipe length and fitting shall be clearly marked with the pressure rating, metal thickness class, heat mark, net weight (excluding lining or coating) and name of the manufacturer. In addition, each item of piping shall be marked with an identifying mark corresponding to the appropriate mark on the shop drawing for that item of piping.
- B. DAMAGED OR DEFECTIVE MATERIALS. No broken, cracked, deformed, misshapen, imperfectly coated, or otherwise damaged or defective pipe or fittings shall be used. All such material shall be removed from the site of the work.
- C. HANDLING. Proper and suitable tools and appliances for safe and convenient handling and laying of pipe and fittings shall be used. Great care shall be taken to prevent the pipe coating from being damaged, particularly any linings on the inside of pipes and fittings. All pipe and fittings shall be carefully examined by the CONTRACTOR for defects just before installation and no defective pipe

or fitting shall be installed. If any defective pipe or fitting is discovered after having been installed, it shall be removed and replaced in a satisfactory manner with a sound pipe or fitting by the CONTRACTOR at his own expense. All pipes and fittings shall be thoroughly cleaned before they are installed and shall be kept clean until they are used in the completed work. Open ends of pipe shall be kept plugged with a bulkhead during construction.

- D. CUTTING. Whenever pipe requires cutting to fit the lines or install new fittings, the work shall be done in such a manner as to leave a smooth end at right angles to the axis of the pipe. All cutting of ductile iron pipe shall be done with a cutting saw. All burrs shall be removed from the inside and outside edges of all cut pipes.
- E. JOINING. All flanges shall be true and perpendicular to the axis of the pipe. Flanges shall be cleaned of all burrs, deformations, or other imperfections before joining. Flanged joints shall be installed to ensure uniform gasket compression. All bolting shall be pulled up to the specified torque by cross over sequence. Where screwed flanges are used, the finished pipe edge shall not extend beyond the face of the flange, and the flange neck shall completely cover the threaded portion of the pipe. Connections to equipment shall be made in such a way that no strain is placed on the equipment flanges. Connecting flanges must be in proper position and alignment and no external force may be used to bring them together properly.
- F. STEEL COMPONENTS. Any steel components of the system shall be galvanized or shop-coated with an approved painting system.
- G. JOINTS OF DISSIMILAR METALS. When a flanged joint consists of a ductile iron flange mated to a steel or alloy flange, the steel flanges shall be flat-faced and furnished with full-faced gaskets, insulating bushings, and stainless steel bolts.
- H. CUT-INS TO EXISTING PIPING. In general, and unless otherwise shown, cut-ins to existing ductile iron piping shall be made using ductile iron cutting-in sleeves. Cutting-in sleeves shall have a pressure rating not less than that of the existing pipeline and shall be furnished with a mechanical joint end on one end and a plain end on the other.
- I. DRILLING AND TAPPING. Contractor shall verify available tapping width prior to ordering materials. Wherever required ductile iron pipe and fittings and cast iron pipes and fittings shall be drilled and tapped to receive drainage or any other piping. All holes shall be drilled accurately at right angles to the axis of any pipe or fitting. Where plugs are drilled, holes shall be at right angles to the face of the plug. Where the size of the pipe to be connected is such as to require bosses for connections and when the pipe wall thickness is too thin to permit the effective length of pipe threads to be utilized as necessary for the size pipe being connected by threads, the CONTRACTOR shall furnish such pipe with cast-on bosses suitable for drilling, tapping, and connecting such pipe. Alternatively, where shown or specified a tapping saddle clamp may be used in lieu of a cast-on

boss. Saddle clamp shall be of the heavy-duty type with O-ring gaskets and two heavy U-Bolt clamps. All tapping shall be carefully and neatly done by skilled workmen with suitable tools. The connection shall be made in a thorough and workmanlike manner using proper fittings and specials to suit actual conditions. Existing pipelines that may be cut or damaged during the performance of work under this item shall be removed, reconnected, and returned to service in equal or better condition in which they were found.

- J. WELDING. Field welding of nozzle connections shall be in accordance with Specification Section 05 50 00 *Structural Metalwork*.
- K. SCHEDULING OF WORK. Cut-ins to existing and operating pipelines shall be done at times agreeable to the Owner upon approval of the Engineer.
- L. FIELD TESTING. After all piping has been placed and anchored, each run of newly laid pipe, or any valved section thereof, shall be tested by the CONTRACTOR in the presence of the Engineer, and tests shall be continued until all leaks have been made tight to the satisfaction of the Engineer. Leak testing shall be completed by filling the wet well with water from an acceptable nearby source and initiating normal operation of the pumping system. All exposed pipe, fittings, valves, and joints shall be carefully examined during testing. No leakage shall be allowed. Leakage may be determined by visual inspection of pipes, valves and joints or by other methods approved by the Engineer. The CONTRACTOR shall take all precautions necessary to protect any equipment that might be damaged by the pressures before in the tests. Delicate equipment shall be valved off, removed, or otherwise protected. Any leakage developing during the test shall be corrected at the Contractor's expense by tightening, replacing packing or gaskets, or replacing defective portions of the piping system. Caulking will not be permitted. The Contractor shall bear the complete cost of the tests, including set-up, labor, temporary piping, blocking, gauges, bulkheads, water, air, soap solutions, and any other materials required to conduct the tests.

END OF SECTION

SECTION 40 05 53

PROCESS VALVES FOUR-INCH DIAMETER AND LARGER

1. DESCRIPTION

This work consists of furnishing and installing the required valves for process piping as specified herein and/or shown in the drawings.

2. MATERIALS

Check valves shall be suitable for abrasive service, and shall be of the flanged, full body type with no internal moving parts except for the resilient disc. The valve body shall be constructed of ductile iron ASTM A-536 with flow area equal to the nominal pipe inside diameter throughout the valve. Seat shall be constructed on a 45 degree angle to reduce disc travel. The seat and internal body shall be fully coated with an epoxy suitable for use in both potable water and wastewater applications. The domed bonnet shall be manufactured of ductile iron ASTM A536 Grade 65-45-12. The bonnet-to-body seal shall be provided by a gasket to allow easy removal and replacement of the access bonnet. Bonnet bolting shall be SAE Grade 5. The resilient disc shall feature a fully encapsulated steel pressure plate with integral molded O-ring on the face of the elastomer. Nylon reinforcements shall be provided in the flexible hinge area of the disc assembly. If requested the manufacturer shall furnish certified results of a proof of design test performed at an independent testing laboratory. Testing shall include a million-cycle test to demonstrate the durability of the flexible connection.

Resilient Wedge Gate valves shall be suitable for abrasive service and shall be manufactured in compliance with the latest edition of ANSI/AWWA C515. The valve body shall be constructed of ductile iron ASTM A-536. All internal and external ferrous cast surfaces of the valve body and bonnet shall be fully coated with an epoxy suitable for use in both potable water and wastewater applications. Stems shall be non-rising unless otherwise specified. Valves shall be handwheel operable unless otherwise specified.

Knife Gate valves shall be suitable for abrasive service and shall be manufactured in compliance with the latest edition of ANSI/AWWA C520 and MSS SP-81. The valve body shall be constructed of ductile iron ASTM A-536 and be lined with stainless steel. Flanges shall be compliant with ANSI B-16.5. Knife gates shall be unidirectional, installed to prevent effluent from backflowing into the valved section of the system. All internal and external ferrous cast surfaces of the valve body and bonnet shall be fully coated with an epoxy suitable for use in both potable water and wastewater applications. Stems shall be non-rising unless otherwise specified. Valves shall be handwheel operable unless otherwise specified.

3. SUBMITTALS

General Submittals:

- Product Data: Check Valves
- Product Data: Resilient Wedge Gate Valves
- Product Data: Knife Gate Valves
- Product Data: Adjustable Stem Guides

4. CONSTRUCTION REQUIREMENTS

- A. INSTALLATION. Installation shall be in accordance with Specifications Section 40 05 19 *Ductile Iron Process Pipe*.
- B. Knife gate valves shall *not* be installed such that the gate opens directly downwards (i.e. 90 degrees below parallel to the floor). The stem and gate shall be positioned not less than 30 degrees above the straight-down position (i.e. not more than 60 degrees below parallel to the floor), unless otherwise specified by engineer.

END OF SECTION

SECTION 43 23 00

DRY LOCATION LIQUID PUMPS

1. DESCRIPTION

This work consists of furnishing, installing, and starting up/commissioning pumps and associated pump station equipment and accessories as shown or reasonably expected to be included in the project plans and specifications. The Contractor shall provide all materials, components, labor, and incidentals for a complete and functional installation that meets the performance requirements of the pump station as defined or reasonably expected to be included therein.

Contractor shall confirm layout of all equipment and electrical panels to assure NEC code requirements are satisfied for clearance. Contractor shall submit proposed layout to Owner or Engineer for approval prior to installation.

2. MATERIALS

2.1. Pump Assemblies

2.1.1. Manufacturer

- a. Pumps shall be assembled and tested in the United States of America.
- b. All pumps shall be provided by a single manufacturer with service centers and spare parts stock available within 200 miles of installation.
- c. Pumps shall be manufactured by a company regularly engaged in the manufacture and assembly of similar units for a minimum of five (5) years.
- d. Manufacturer shall be certified to ISO 9001 and shall provide a valid certificate upon request.

2.1.2. Pumps shall be 8"x6" dry run submersible, end suction, centrifugal, solids handling type appropriate for dry pit installation with permanently connected inlet and outlet pipes.

2.1.3. Motor will be capable of operating continuously when fully submerged, partially submerged, or unsubmerged.

2.1.4. Pump will be capable of operating continuously in a non-submerged condition, in a vertical position.

2.1.5. Entire assembly must be sized to fit through an existing 27.5-inch diameter hole in the surface layer of the structure, and a 27.5-inch square hole in the concrete slab between levels within the structure. Concrete structure shall not be modified.

2.1.6. Pumps shall have self-contained cooling systems, not reliant on ambient conditions for heat dissipation. Coolant shall be environmentally safe, non-toxic material.

2.1.7. Pump shall be capable of passing 3" diameter spherical solids.

2.1.8. Pump shall be capable of operating in a 40°C/104° F environment and handling liquids with temperatures to 40°C/104° F continuously.

2.1.9. Pumps shall be capable of the following performance

Primary Flow (minimum)	1700	US GPM
Primary Head	70	TDH – FT
Minimum Hydraulic Efficiency	70	%
Discharge Size	6	Inch
Suction Size	8	Inch
Motor Speed	1750	RPM
Motor Horsepower	50	HP
Frequency	60	Hz
Voltage	460	V
Phase	3	Ph

- 2.1.10. Pump Impeller shall be ASTM A532 Class III Type A White Iron. Impeller shall be capable of handling solids, fibrous materials, and other mater typically found in raw wastewater and roadway storm runoff.
- 2.1.11. Volute shall be single piece, non-concentric design with smooth passage of 3-inch spherical solids that may pass through impeller.
- 2.1.12. Pump seals should not require routine maintenance or adjustment but should be easily accessed for evaluation and replacement. Seals shall be commercially available and not proprietary to the pump manufacturer.
- 2.1.13. The volute shall include a drain port connection.
- 2.1.14. The volute discharge connection shall be a standard 125 lb. flange, slotted to accommodate ANSI or MM ISO Flanges.
- 2.1.15. The pump shall be equipped with a stainless steel nameplate, located in an easily accessible location. The following data will be included on the nameplate:
- a. Manufacturer's name
 - b. Pump part number, model number, and serial number
 - c. Motor horsepower rating
 - d. Voltage, phase and frequency
 - e. Motor speed
 - f. Motor service factor
 - g. Motor full load amps
 - h. Ambient temperature rating
 - i. Code letter
 - j. Pump weight
 - k. Impeller diameter
 - l. Motor insulation class
- 2.1.16 The pump shall meet all above listed requirements, or engineer approved equal.

2.2. Pump Stand

- 2.2.1. Stand shall be procured or fabricated to fit selected pump and secure it permanently to the concrete slab.
- 2.2.2. The stand shall be designed to handle the weight of the pump.
- 2.2.3. Stand shall allow adequate room to allow for efficient piping from the wet well to the suction inlet of the pump.

5. SUBMITTALS

General Submittals:

- Product Data: Pumps (including pumps and motors)

6. CONSTRUCTION REQUIREMENTS

- A. GENERAL. Install all equipment in accordance with manufacturer's instructions. System shall include all connectivity for a complete and functional system. All integration off all components shall be completed, tested, and commissioned by the Contractor prior to final acceptance.
- B. PUMP INSTALLATION. All equipment shall be mounted on bases and anchored in accordance with manufacturer recommendations. Contractor shall check all required clearances prior to installation.
- C. START-UP & TESTING.
 - i. Final testing shall be conducted in the presence of SWBNO Engineer and operations staff.
 - ii. The Contractor shall be responsible for programming settings and conducting start-up tests, and for adjusting the settings as necessary to achieve desired performance. The supplier shall provide qualified personnel to assist with pump start-up and adjustment of settings.
 - iii. Pumping system shall be tested for a minimum of 30 minutes using potable water. Contractor shall be responsible for supplying water and for conveying the water to the site and providing required meter and back-flow prevention check valve assembly.
 - iv. Each pump shall be cycled through the sequence of operation "pump on" as the level rises in the wet well and then "pump off" during draw down. Once each pump is tested separately, the pumps will be operated in parallel.
- D. ADJUSTING. Adjust parts for smooth, uniform operation. Contractor shall assist in system adjustments necessary to avoid vortexing.
- E. CLEANING. Contractor shall clean pump as recommended by manufacturer following installation. Do not use materials or methods which may damage finish or surrounding construction.
- F. ACCEPTANCE. The work will be accepted when Contractor has demonstrated successful operation and optimum performance of pumps, switches, and related equipment, to the satisfaction of the Owner and the Engineer.

END OF SECTION