

ST. TAMMANY PARISH MICHAEL B. COOPER PARISH PRESIDENT

March 1, 2021

Please find the following addendum to the below mentioned BID.

Addendum No.: 2

Bid#: 21-3-2

Project Name: Lake Front Pump Station Phase 3

Bid Due Date: Thursday, March 4, 2021

GENERAL INFORMATION:

- 1. In Section 01010, **DELETE** Paragraph 3.7.B.16 in its entirety.
- 2. **DELETE** Section 01025 Measurement and Payment and REPLACE in its entirety with the attached **REVISED** Section 01025 Measurement and Payment.

QUESTION AND ANSWER:

- Question 1. Are we still pricing a new 350 hp motor? Specification 01010 3.7 Schedule of Values (B.16) "Furnish and Install New 350hp Electric Motor". If this is still required of the bid, please add a bid item for this item.
- **Answer 1.** A new 350 HP motor is not part of this scope.

ATTACHMENTS:

1. REVISED Section 01025 – Measurement and Payment

End of Addendum # 2

REVISED

SECTION 01025 - MEASUREMENT AND PAYMENT

<u> PART 1 -- GENERAL</u>

1.1 THE REQUIREMENT

- **A.** Payment for the various items on the Bid Form, as further specified herein, will constitute all compensation to be received by the CONTRACTOR for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the WORK all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of permits and cost of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA).
- **B.** No separate payment will be made for any item that is not specifically set forth in the Bid Schedule. Include all costs for the WORK within the prices named in the Bid Schedule for the various appurtenant items of work.

1.2 ACCURACY

- **A.** The ENGINEER will utilize the accepted Schedule of Values for the purpose of estimating the value of WORK completed for the evaluation of requests for payment.
- **B.** The terms "lump sum, each, or unit" when used as a unit of measure for payment will mean complete payment for the work described in the contract.

1.3 MOBILIZATION (Ref. No. 1)

- A. Measurement: No Measurement will be made for this item.
- **B.** Payment: Payment for mobilization will be made at the lump sum price on the Bid Form, or portions thereof, in accordance with the table below. The price listed in the Bid Form will constitute full compensation for all labor, materials, equipment and other services necessary for the completion of mobilization, all in accordance with the requirements of the Contract Documents.

| Percent of Total Contract Amount Earned | Allowable Percent of Lump Sum Price for Mobilization |
|---|--|
| 1 st Application for Payment | 25 |
| 10 | 50 |
| 25 | 75 |
| 50 | 100 |

1.4 TEMPORARY SIGNS AND BARRICADES (Ref. No. 2)

- A. Measurement: No Measurement will be made for this item.
- **B.** Payment: Payment for mobilization will be made at the lump sum price on the Bid Form, or portions thereof, in accordance with the table below. The price listed in the Bid Form will constitute full compensation for all labor, materials, equipment, and other services necessary for the provision of temporary signs and barricades, inclusive of labor, materials, equipment and other services for traffic control and the provision, installation, and removal of the project sign, and all other items necessary for the provision of temporary signs and barricades all in accordance with the requirements of the Contract Documents.

| Percent of Total Contract Amount Earned | Allowable Percent of Lump Sum Price for Temporary Signs and Barricades |
|---|--|
| 1 st Application for Payment | 15 |
| 10 | 25 |
| 25 | 75 |
| 50 | 100 |

1.5 CONSTRUCTION LAYOUT AND ELEVATION CERTIFICATE (REF. NO. 3)

- A. Measurement: No Measurement will be made for this lump sum item.
- **B.** Payment: Payment for this item will be made at the lump sum price on the Bid Form, or portions thereof, in accordance with the table below. The price listed in the Bid Form will constitute full compensation for all labor, materials, equipment and other services necessary for the completion of construction layout, inclusive of the elevation certificate, all in accordance with the requirements of the Contract Documents.

| Percent of Total Contract Amount Earned | Allowable Percent of Lump Sum Price for Temporary Signs and Barricades |
|---|--|
| 1 st Application for Payment | 15 |
| 10 | 25 |
| 25 | 75 |
| 50 | 95 (Final 5% will be paid upon receipt of required elevation certificate) |

1.6 REMOVE AND DELIVER EXISTING 54" PUMP MOTORS TO REPAIR FACILITY (Ref. No. 4)

- A. Measurement: No Measurement will be made for this lump sum item.
- **B.** Payment: Payment will be made at, on in portions thereof in proportion to the percentage of work acceptably completed, the lump sum bid price named in the Bid Form. The price listed in the Bid Form will constitute full compensation for all labor, materials, equipment, and services necessary for the removal and delivery of both existing 54" pump motors to an approved motor repair facility in accordance with the Contract Documents.

1.7 DISMANTLE EXISTING 54" PUMP MOTORS AT REPAIR FACILITY (Ref. No. 5)

- A. Measurement: No Measurement will be made for this lump sum item.
- **B.** Payment: Payment will be made at, on in portions thereof in proportion to the percentage of work acceptably completed, the lump sum bid price named in the Bid Form. The price listed in the Bid Form will constitute full compensation for all labor, materials, equipment, and services necessary for the dismantling of the existing 54" pump motors at an approved motor repair facility in accordance with the Contract Documents.

1.8 REPAIR OF 54" PUMP MOTOR (Ref. No. 6)

- A. Measurement: No Measurement will be made for this lump sum item.
- B. Payment: Payment will be made at, on in portions thereof in proportion to the percentage of work acceptably completed, the lump sum bid price named in the Bid Form. The price listed in the Bid Form will constitute full compensation for all labor, materials, equipment, and services necessary for the repair of one of the two existing motors at the motor repair facility, all in compliance with the requirements of the HDCA PROJECT 2016-13 01025 28
 LAKEFRONT DPS PUMP REPAIR AND MOTOR ELEVATIONS RELEASED FOR BIDS AND CONSTRUCTION

Contract Documents.

1.9 REMOVE AND DELIVER 54" PUMPS TO REPAIR FACILITY (Ref. No.7)

- A. Measurement: No Measurement will be made for this lump sum item.
- **B.** Payment: Payment will be made at, on in portions thereof in proportion to the percentage of work acceptably completed, the lump sum bid price named in the Bid Form. The price listed in the Bid Form will constitute full compensation for all labor, materials, equipment, and services necessary for the removal and delivery of the existing 54" pumps to an approved repair shop in accordance with the Contract Documents.

1.10 DISMANTLE 54" PUMPS AT REPAIR FACILTY (Ref. No. 8)

- A. Measurement: No Measurement will be made for this lump sum item.
- **B.** Payment: Payment will be made at, on in portions thereof in proportion to the percentage of work acceptably completed, the lump sum bid price named in the Bid Form. The price listed in the Bid Form will constitute full compensation for all labor, materials, equipment, and services necessary for the dismantling of the existing 54" pumps at the approved repair shop in accordance with the requirements of the Contract Documents.

1.11 REBUILD, MODIFY, TEST AND INSTALL 54" DRAINAGE PUMP (Ref. No. 9)

- A. Measurement: No Measurement will be made for this lump sum item.
- **B.** Payment: Payment will be made at, on in portions thereof in proportion to the percentage of work acceptably completed, the lump sum bid price named in the Bid Form. The price listed in the Bid Form will constitute full compensation for all labor, materials, equipment, and services necessary for the modification, testing, and reinstallation of an existing 54" pump in accordance with the Contract Documents, including design and engineering services, materials, modifications, rehabilitation and fabrication of components, assembly of the modified pump, delivery of the modified pump to the site, installation of the modified pump, and startup of the modified pump, all in accordance with the requirements of the Contract Documents.

1.12 REMOVE AND DELIVER 20" PUMP TO REPAIR FACILITY (Ref. No. 10)

- A. Measurement: No Measurement will be made for this lump sum item.
- **B.** Payment: Payment will be made at, on in portions thereof in proportion to the percentage of work acceptably completed, the lump sum bid price named in the Bid Form. The price listed in the Bid Form will constitute full compensation for all labor, materials, equipment, and services necessary for the removal and delivery of the existing 20" pump to an approved repair shop in accordance with the requirements of the Contract Documents.

1.13 MODIFY, TEST, AND REINSTALL 20" PUMP (Ref. No. 11)

- A. Measurement: No Measurement will be made for this lump sum item.
- **B.** Payment: Payment will be made at, on in portions thereof in proportion to the percentage of work acceptably completed, the lump sum bid price named in the Bid Form. The price listed in the Bid Form will constitute full compensation for all labor, materials, equipment, and services necessary for the modification, testing, and reinstallation of an existing 20" pump in accordance with the Contract Documents, including design and engineering services, materials, modifications, fabrications of components, assembly of the modified pump, delivery of the modified pump to the site, installation of the modified pump, and startup of the modified pump, all in accordance with the requirements of the Contract Documents.

1.14 MODIFY STRUCTURAL STEEL PLATFORM FOR ELECTRICAL PANELS (Ref. No. 12)

- A. Measurement: No Measurement will be made for this lump sum item.
- **B.** Payment: Payment will be made at, on in portions thereof in proportion to the percentage of work acceptably completed, the lump sum bid price named in the Bid Form. The price listed in the Bid Form will constitute full compensation for all labor,

HDCA PROJECT 2016-13 01025 - 29 LAKEFRONT DPS PUMP REPAIR AND MOTOR ELEVATIONS – RELEASED FOR BIDS AND CONSTRUCTION materials, equipment, and services necessary for the modification of the elevated electrical control panel structure for the installation of the electrical equipment and control panel racks in accordance with the Contract Documents including fabrication of components, installation, and all other work necessary to prepare the existing structure for installation of control and electrical panels all in accordance with the requirements of the Contract Documents.

1.15 ELECTRICAL WORK (Ref. No. 13)

- A. Measurement: No Measurement will be made for this lump sum item.
- **B.** Payment: Payment will be made at, on in portions thereof in proportion to the percentage of work acceptably completed, the lump sum bid price named in the Bid Form. The price listed in the Bid Form will constitute full compensation for all labor, materials, equipment, and services necessary for the installation of electrical and control components in accordance with the Contract Documents, including control panel fabrication, installation, raceway work, conductors, interconnections, and all electrical tests.

1.16 DELIVER UNREPARIED 54" PUMP TO OWNER (Ref. No. 14)

- **A.** Measurement: No Measurement will be made for this lump sum item. No payment will be made for this item until condition assessments of the existing motors have been made.
- **B.** Payment: Payment will be made at, on in portions thereof in proportion to the percentage of work acceptably completed, the lump sum bid price named in the Bid Form. The price listed in the Bid Form will constitute full compensation for all labor, materials, equipment, and services necessary for the procurement and installation of a new 350 HP motor in accordance with the Contract Documents.

1.17 DELIVER UNREPAIRED 54" PUMP MOTOR TO OWNER (Ref. No. 15)

- A. Measurement: No Measurement will be made for this lump sum item.
- **B.** Payment: Payment will be made at, on in portions thereof in proportion to the percentage of work acceptably completed, the lump sum bid price named in the Bid Form. The price listed in the Bid Form will constitute full compensation for all labor, materials, equipment, and services necessary for the packaging and delivery of the unrepaired 54" pump components to the OWNER, all in accordance with the requirements of the Contract Documents.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

- END OF SECTION -



February 10, 2021

Please find the following addendum to the below mentioned BID.

Addendum No.: 1

Bid#: 21-3-2

Project Name: Lake Front Pump Station Phase 3

Bid Due Date: Thursday, March 4, 2021

GENERAL INFORMATION:

PLANS:

DELETE the plans issued with the procurement package and REPLACE with the attached drawings. The plans issued with the procurement package had the signature inadvertently removed. (Attached)

SPECIFICATIONS:

Section 16100. DELETE Paragraph 2.5 B in its entirety and REPLACE with the following:

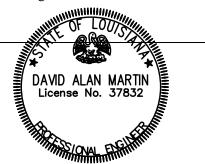
B. Manual Transfer Switches

1. Furnish and install 480-volt manual transfer switches between the meters (or current transformers) and control panels as indicated. Install 3 pole switches rated at the amperages shown. Provide NEMA 3R enclosures. Provide Cutler Hammer DTxxxURK or approved equal with Myers hub (Cutler Hammer DHSxxxHM or equal) for generator pass through. Modify existing MTS to be relocated with Myers hub for generator pass through.

End of Addendum #1

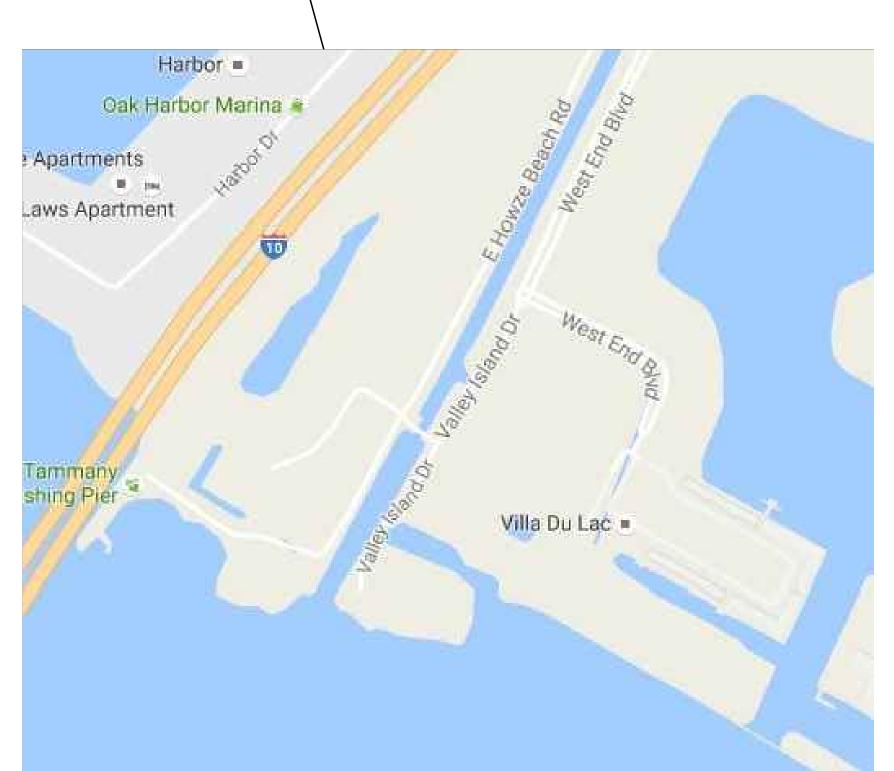
ATTACHMENTS:

1. Signed Plans.pdf



PROCUREMENT DEPARTMENT P.O. BOX 628 | COVINGTON, LOUISIANA | 70434 | PROCUREMENT@STPGOV.ORG | 985-898-2520 <u>WWW.STPGOV.ORG</u> Version 2020 Q1

CONTRACT DRAWINGS FOR LAKEFRONT PUMP STATION, PHASE 3 FEDERAL EMERGENCY MANAGEMENT AGENCY P.W. #00872-V1 **ST. TAMMANY PARISH, LOUISIANA** PARISH PROJECT No. EN14000002 **HDCA PROJECT NO. 2016-13** PROJECT LOCATION -



PREPARED FOR



ST. TAMMANY PARISH GOVERNMENT DEPARTMENT OF PUBLIC WORKS 21454 KOOP DRIVE MANDEVILLE, LA 70471

> PARISH PRESIDENT HON. MICHAEL COOPER

CHAIRMAN, PARISH COUNCIL HON. MICHAEL LORINO, JR.

VICE-CHAIRMAN, PARISH COUNCIL HON. RYKERT O. TOLEDANO, JR.

PARISH COUNCIL

| | <u> </u> |
|------------------------------|-------------|
| HON. MARTY DEAN | DISTRICT 1 |
| HON. DAVID R. FITZGERALD | DISTRICT 2 |
| HON. MARTHA J. CAZAUBON | DISTRICT 3 |
| HON. MICHAEL LORINO, JR. | DISTRICT 4 |
| HON. RYKERT O. TOLEDANO, JR. | DISTRICT 5 |
| HON. RICHARD E. TANNER | DISTRICT 6 |
| HON. JAMES J. DAVIS | DISTRICT 7 |
| HON. CHRIS CANULETTE | DISTRICT 8 |
| HON. MIKE M. SMITH | DISTRICT 9 |
| HON. MAUREEN "MO" O'BRIEN | DISTRICT 10 |
| HON. STEVE STEFANCIK | DISTRICT 11 |
| HON. JERRY BINDER | DISTRICT 12 |
| HON. JAKE A. AIREY | DISTRICT 13 |
| HON. THOMAS J. ""T.J." SMITH | DISTRICT 14 |
| | |

PROJECT AREA



PROJECT AERIAL

ST. TAMMANY PARISH GOVERNMENT 21454 KOOP DRIVE MANDEVILLE, LA 70471

APPROXIMATE PROJECT SITE GPS COORDINATES 30° 12'42.05" N 89° 47'23.32" W

RELEASED FOR BIDS & CONSTRUCTION DECEMBER, 2020



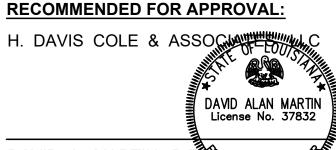


H. Davis Cole & Associates, LLC Consulting Engineers

NEW ORLEANS OFFICE 40 Poydras Street, Suite 1850 New Orleans, Louisiana 70112 Telephone: 504.836.2020 -acsimile: 504.836.2010

ebsite: www.hdaviscole.com Email: info@hdaviscole.com

PROJECT LOCATION



DAVID A. MARTIN, P.E VICE - PRESIDENT/PROJÉ 37832 LICENSE No.

DATE

COVER SHEET

CO-1 COVER SHEET

GENERAL

- G1 LIST OF DRAWINGS
- G2 GENERAL NOTES AND SPECIFICATIONS
- G3 GENERAL NOTES AND SPECIFICATIONS
- G4 DRAWINGS STANDARDS AND SYMBOLS
- G5ABBREVIATIONSG6PIPING SCHEDULE

DEMOLITION

01-D1 DEMOLITION DETAILS

| 01-C1 | EXISTING SITE PLAN |
|-------|-------------------------|
| 01-C2 | REHABILITATED SITE PLAN |

STRUCTURAL

| S1 | STRUCTURAL DETAILS AND SECTIONS |
|-------|---------------------------------|
| 01-S1 | STRUCTURAL PLAN AND SECTIONS |

MECHANICAL

| 01-M1 | MECHANICAL PLAN |
|-------|---------------------|
| 01-M2 | MECHANICAL SECTIONS |

ELECTRICAL

- E1 ELECTRICAL SYMBOLS AND ABBREVIATIONS
- E2 ELECTRICAL DETAILS
- E3 CABLE AND CONDUIT SCHEDULE/RACK
- ELEVATIONS
- E4 RISER DIAGRAMS
- E5 ONE LINE DIAGRAMS
- 01-E1 REHABILITATED ELECTRICAL SITE PLAN

LIST OF DRAWINGS

| | | 2 LAKEFRONT PUMP STATION. PHASE 3 | DATE: | DESIGNED BY: | | | | | | |
|----|------|-----------------------------------|-----------------|--------------|------------------|----------------|----------------------|-----------------|-------------|---|
| | IEET | | DEC, 2020 | DAM | | | | SUBMITTED BY: | | 04 100/201 |
| 2 | | ST. TAMMY PARISH | | | | | | DAVID A. MARTIN | 37832 | |
| | | ST TAMMANY PARISH GOVERNMENT | DETAILED BY: | DRAWN BY: | | | Y | | LICENSE NO. | |
| ЭF | G1 | 21454 KOOP DRIVE | DAM | DAM | | | | | | License No. 37832 |
| | | | | | | - | | SUBMITTED BY: | | |
| 2 | | IVIAINUE VILLE, LA 7047 I | HDC PROJECT NO. | CHECKED BY: | | | Associates, LLC | H. DAVIS COLE | 30219 | |
| 0 | | | | | MARK DESCRIPTION | DATE BY CHK'D. | Consulting Engineers | COMPANY OFFICER | LICENSE NO. | THE POLY |
| | | LIST OF DRAWINGS | 2016-13 | DAM | REVISION RECORD | CORD | NEW ORLEANS, LA | | | and the second se |

| <u>GEI</u> 1) | NERAL THESE NOTES AND SPECIFICATIONS ARE GENERAL AND APPLY TO THE ENTIRE PROJECT UNLESS THERE ARE SPECIFIC INDICATIONS OTHERWISE. NOTES AND SPECIFICATIONS ARE CONTINUED THROUGHOUT THE PLANS. | | OI RE TF IT M |
|------------------|---|------------------------|--|
| 2) | THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF CONSTRUCTION A MINIMUM OF ONE WEEK PRIOR TO THE BEGINNING OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT THE CONCLUSION OF CONSTRUCTION TO ALLOW FOR INSPECTION OF THE PROJECT. | 14) | OI W C(|
| 3) | IN THE EVENT OF DISCREPANCIES, CONFLICTS, OR OMISSIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OBTAIN WRITTEN INSTRUCTIONS FROM THE ENGINEER PRIOR TO PROCEEDING WITH AFFECTED WORK. | | PL CO IN S ⁻ Eľ |
| 4) | THE CONTRACTOR SHALL HAVE THE COMPLETE AND SOLE RESPONSIBILITY FOR THE JOB SITE INCLUDING THE SAFETY OF PERSONS, PROPERTY, AND ADJACENT IMPROVEMENTS. ANY INSPECTION BY THE ENGINEER WILL BE SOLELY TO DETERMINE COMPLIANCE WITH THE PLANS AND SPECIFICATIONS AND WILL NOT INCLUDE ANY REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES. | | BA S ⁻ Ol C(SI AI |
| 5) | THESE DRAWINGS ARE SCALED FOR PRODUCTION ON 22" X 34" MEDIA (ANSI - D SHEET SIZE). PRINTS ON OTHER SIZED MEDIA SHALL BE SCALED ACCORDINGLY. | 15) | ti Ni Pi |
| 6) | THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION OF ALL TEMPORARY UTILITIES HE DEEMS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN THE MOST EFFICIENT MANNER PRACTICAL. THE COST OF PROVISION OF THESE TEMPORARY UTILITIES SHALL BE BORNE BY THE CONTRACTOR AND SHALL BE INCLUDED IN THE PRICE OF THE WORK. | 16) | tł IM D/ A Te |
| 7) | TEMPORARY UTILITIES SHALL BE OF NEW OR USED MATERIALS AND EQUIPMENT, WHICH ARE IN SUBSTANTIALLY UNDAMAGED CONDITION AND WITHOUT SIGNIFICANT DETERIORATION AND WHICH ARE RECOGNIZED IN THE CONSTRUCTION INDUSTRY, BY COMPLIANCE WITH APPROPRIATE STANDARDS, AS BEING SUITABLE FOR INTENDED USE IN EACH CASE. WHERE A PORTION OF TEMPORARY UTILITY IS PROVIDED BY UTILITY COMPANY, THE | 17) | TH AI W IN |
| | CONTRACTOR SHALL PROVIDE THE REMAINING PORTION WITH MATCHING AND COMPATIBLE MATERIALS AND EQUIPMENT AND SHALL COMPLY WITH RECOMMENDATIONS OF UTILITY COMPANY. | 18) | Tł Tł Ol Dl |
| 8) | THE CONTRACTOR SHALL PROVIDE POWER REQUIRED FOR ITS OPERATIONS UNDER THE CONTRACT, AND SHALL PROVIDE AND MAINTAIN ALL TEMPORARY POWER LINES REQUIRED TO PERFORM THE WORK IN A SAFE AND SATISFACTORY MANNER. | 19) | SE IN IN |
| 9) | THE CONTRACTOR SHALL PROVIDE A WEATHERPROOF, GROUNDED, TEMPORARY POWER DISTRIBUTION SYSTEM SUFFICIENT FOR PERFORMANCE OF ENTIRE WORK OF PROJECT, INCLUDING TEMPORARY ELECTRICAL HEATING WHERE INDICATED, OPERATION OF TEST EQUIPMENT AND TEST OPERATION OF BUILDING EQUIPMENT AND SYSTEMS WHICH CANNOT BE DELAYED UNTIL PERMANENT POWER CONNECTIONS ARE OPERABLE, TEMPORARY OPERATION OF OTHER TEMPORARY FACILITIES, | - , | BF SF W IN SF AF |
| | INCLUDING PERMANENT EQUIPMENT AND SYSTEMS WHICH MUST BE PLACED IN OPERATION PRIOR TO USE OF PERMANENT POWER CONNECTIONS (PUMPS, HVAC EQUIPMENT, ELEVATORS, AND SIMILAR EQUIPMENT), AND POWER FOR TEMPORARY OPERATION OF EXISTING FACILITIES (IF ANY) AT THE SITE DURING CHANGE-OVER TO NEW PERMANENT POWER SYSTEM. PROVIDE CIRCUITS OF ADEQUATE SIZE AND PROPER POWER CHARACTERISTICS FOR EACH USE; RUN CIRCUIT WIRING GENERALLY OVERHEAD, AND RISE VERTICALLY IN LOCATIONS WHERE IT WILL BE LEAST | 20) | Tł CC PL M AI Tł AI SI |
| | EXPOSED TO POSSIBLE DAMAGE FROM CONSTRUCTION OPERATIONS AND WILL RESULT IN MINIMAL INTERFERENCE WITH PERFORMANCE OF THE WORK; PROVIDE RIGID STEEL CONDUIT OR EQUIVALENT RACEWAYS FOR WIRING WHICH MUST BE EXPOSED ON GRADE, FLOORS, DECKS, OR OTHER EXPOSURES TO DAMAGE OR ABUSE. WIRING FOR TEMPORARY ELECTRIC | 21) | |
| | LIGHT AND POWER SHALL BE PROPERLY INSTALLED AND MAINTAINED AND SHALL BE SECURELY FASTENED IN PLACE. ELECTRICAL FACILITIES SHALL CONFORM TO THE REQUIREMENTS OF SUBPART K OF THE OSHA SAFETY AND HEALTH STANDARDS FOR CONSTRUCTION. | 22) | N(Eľ D/ Pf |
| 10) | WORK CONDUCTED AT NIGHT OR UNDER CONDITIONS OF DEFICIENT DAYLIGHT SHALL BE SUITABLY LIGHTED TO INSURE PROPER WORK AND TO AFFORD ADEQUATE FACILITIES FOR INSPECTION AND SAFE WORKING CONDITIONS. | 23) | SE PF OI FE M |
| 11) | THE CONTRACTOR SHALL PROVIDE A GENERAL, WEATHERPROOF, GROUNDED TEMPORARY LIGHTING SYSTEM IN EVERY AREA OF CONSTRUCTION WORK, TO PROVIDE SUFFICIENT ILLUMINATION FOR SAFE WORK AND TRAFFIC CONDITIONS. RUN CIRCUIT WIRING GENERALLY OVERHEAD, AND RISE VERTICALLY IN LOCATIONS WHERE IT WILL BE LEAST EXPOSED TO POSSIBLE DAMAGE FROM CONSTRUCTION OPERATIONS ON GRADE, FLOORS, DECKS, OR OTHER AREAS OF POSSIBLE DAMAGE OR ABUSE. | 24) | TH CC F/ W S/ |
| 12) | THE CONTRACTOR SHALL PROVIDE AN ADEQUATE SUPPLY OF WATER OF A QUALITY SUITABLE FOR ALL DOMESTIC AND CONSTRUCTION PURPOSES. THE CONTRACTOR SHALL NOT MAKE CONNECTION TO OR DRAW WATER FROM ANY FIRE HYDRANT OR PIPELINE WITHOUT FIRST OBTAINING PERMISSION OF THE AUTHORITY HAVING JURISDICTION OVER THE USE OF SAID FIRE | PR(1) 2) | TH VI OI TH |
| | HYDRANT OR PIPELINE AND FROM THE AGENCY OWNING THE AFFECTED WATER SYSTEM. FOR EACH SUCH CONNECTION MADE, THE CONTRACTOR SHALL FIRST ATTACH TO THE FIRE HYDRANT OR PIPELINE A VALVE AND A METER, IF REQUIRED BY THE SAID AUTHORITY, OF A SIZE AND TYPE ACCEPTABLE TO SAID AUTHORITY AND AGENCY. THE CONTRACTOR SHALL | <u>UTI</u> 1) | SI FI LIT |
| 13) | PAY ALL PERMIT AND WATER CHARGES. THE CONTRACTOR SHALL MAKE ITS OWN INVESTIGATION OF THE CONDITION | •) | L(C(|

13) THE CONTRACTOR SHALL MAKE ITS OWN INVESTIGATION OF THE CONDITION

OF AVAILABLE PUBLIC AND PRIVATE ROADS AND OF CLEARANCES. RESTRICTIONS, BRIDGE LOAD LIMITS, AND OTHER LIMITATIONS AFFECTING TRANSPORTATION AND INGRESS AND EGRESS TO THE SITE OF THE WORK. T SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT AND MAINTAIN ANY HAUL ROADS REQUIRED FOR ITS CONSTRUCTION OPERATIONS.

- WHEREVER NECESSARY, TO MAINTAIN VEHICULAR CROSSINGS, THE OF THE AUTHORITY HAVING JURISDICTION IN EACH CASE, AND THE AUTHORITY FOR APPROVAL, AS MAY BE REQUIRED.
- THE CONTRACTOR SHALL MAKE ITS OWN ARRANGEMENTS FOR ANY PROPER EXECUTION OF THE WORK.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND TEMPORARY RELOCATION.
- WHICH MIGHT RESULT IN CONSIDERABLE EXPENSE, LOSS OR NECESSARY FOR THE PROTECTION THEREOF HAVE BEEN MADE.
- THEIR REMOVAL AND REARRANGEMENT, IN ORDER THAT THESE OPERATIONS MAY PROGRESS IN A REASONABLE MANNER, THAT NTERRUPTED.
- APPROVED BY THE LOCAL FIRE AUTHORITY.
- PLANS, PROCEDURES, AND ORGANIZATION NECESSARY TO PROVIDE SEQUENCE.
- DAMAGE TO OWNER'S PROPERTY RESULTING FROM HIS FAILURE TO PROVIDE SECURITY MEASURES AS SPECIFIED.
- PROVIDED TO PROTECT THE EXISTING FACILITIES DURING NORMAL OPERATION, BUT SHALL ALSO INCLUDE SUCH ADDITIONAL SECURITY MEASURES AS REQUIRED TO PROTECT THE SITE.
- CONSTRUCTION EQUIPMENT, AND TEMPORARY STRUCTURES AND SATISFACTORILY PERFORMED THE FINAL CLEANUP OF THE SITE.

IECT LAYOUT

- FIELD IF CONDITIONS JUSTIFY SUCH A VARIATION.

T SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY OCATION AND DEPTH OF ALL EXISTING UTILITIES BEFORE STARTING CONSTRUCTION.

CONTRACTOR SHALL PROVIDE SUITABLE TEMPORARY BRIDGES OR STEEL PLATES OVER UNFILLED EXCAVATIONS, EXCEPT IN SUCH CASES AS THE CONTRACTOR SHALL SECURE THE WRITTEN CONSENT OF THE RESPONSIBLE NDIVIDUALS OR AUTHORITIES TO OMIT SUCH TEMPORARY BRIDGES OR STEEL PLATES, WHICH WRITTEN CONSENT SHALL BE DELIVERED TO THE ENGINEER PRIOR TO EXCAVATION. ALL SUCH BRIDGES OR STEEL PLATES SHALL BE MAINTAINED IN SERVICE UNTIL ACCESS IS PROVIDED ACROSS THE BACKFILLED EXCAVATION. TEMPORARY BRIDGES OR STEEL PLATES FOR STREET AND HIGHWAY CROSSING SHALL CONFORM TO THE REQUIREMENTS CONTRACTOR SHALL ADOPT DESIGNS FURNISHED BY SAID AUTHORITY FOR SUCH BRIDGES OR STEEL PLATES, OR SHALL SUBMIT DESIGNS TO SAID

NECESSARY OFF-SITE STORAGE OR SHOP AREAS NECESSARY FOR THE

MPROVEMENTS NOT DESIGNATED FOR REMOVAL AND SHALL RESTORE DAMAGED OR TEMPORARILY RELOCATED UTILITIES AND IMPROVEMENTS TO A CONDITION EQUAL TO OR BETTER THAN PRIOR TO SUCH DAMAGE OR

THE CONTRACTOR'S OPERATIONS ADJACENT TO PROPERTIES OF RAILWAY AND UTILITY COMPANIES OR ADJACENT TO OTHER PROPERTY, DAMAGE TO NCONVENIENCE, SHALL NOT COMMENCE UNTIL AFTER ALL ARRANGEMENTS

THE CONTRACTOR SHALL COOPERATE WITH OWNERS OF UTILITY LINES IN DUPLICATION OF REARRANGEMENT WORK MAY BE MINIMIZED AND THAT SERVICES RENDERED BY THOSE PARTIES WILL NOT BE UNNECESSARILY

N THE EVENT OF INTERRUPTION OF UTILITY SERVICES DUE TO ACCIDENTAL BREAKAGE OR BEING EXPOSED OR UNSUPPORTED, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE PROPER AUTHORITY AND SHALL COOPERATE WITH SUCH AUTHORITY IN RESTORATION OF SERVICE. IF UTILITY SERVICE IS NTERRUPTED, CONTINUOUS COOPERATION WILL BE REQUIRED UNTIL SERVICE IS RESTORED. NO WORK SHALL BE UNDERTAKEN AROUND FIRE HYDRANTS UNTIL PROVISIONS FOR CONTINUED SERVICE HAVE BEEN

THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN AN EFFECTIVE QUALITY CONTROL PROCESS. THE QUALITY CONTROL PROCESS SHALL CONSIST OF MATERIALS, EQUIPMENT, WORKMANSHIP, FABRICATION, CONSTRUCTION AND OPERATIONS WHICH COMPLY WITH THE CONTRACT REQUIREMENTS. THE PROCESS SHALL COVER CONSTRUCTION OPERATIONS BOTH ONSITE AND OFFSITE, AND SHALL BE KEYED TO THE PROPOSED CONSTRUCTION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE SITE. AND ALL WORK. MATERIALS. EQUIPMENT AND EXISTING FACILITIES THEREON, AGAINST THEFT, VANDALS, AND OTHER UNAUTHORIZED PERSONS.

NO CLAIM SHALL BE MADE AGAINST OWNER BY REASON OF ANY ACT OF AN EMPLOYEE OR TRESPASSER, AND CONTRACTOR SHALL MAKE GOOD ALL

SECURITY MEASURES SHALL BE AT LEAST EQUAL TO THOSE USUALLY FENCING, BARRICADES, LIGHTING, WATCHMAN SERVICES AND OTHER

THE CONTRACTOR SHALL PROMPTLY REMOVE FROM THE VICINITY OF THE COMPLETED WORK. ALL RUBBISH. UNUSED MATERIALS. CONCRETE FORMS. FACILITIES USED DURING CONSTRUCTION. FINAL ACCEPTANCE OF THE WORK BY THE OWNER WILL BE WITHHELD UNTIL THE CONTRACTOR HAS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND VERIFYING ALL MEASUREMENTS PRIOR TO AND DURING THE ENTIRE PERIOD OF CONSTRUCTION. MEASUREMENTS SHALL BE CONTINUOUSLY VERIFIED.

THE MEASUREMENTS, EQUIPMENT ARRANGEMENTS, LINES, AND GRADES SHOWN ON THE PLANS MAY BE VARIED SLIGHTLY BY THE ENGINEER IN THE

2) THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO EXISTING UTILITIES WHICH OCCURS DURING CONSTRUCTION AND SHALL IMMEDIATELY REPORT ANY DAMAGE TO THE AFFECTED UTILITY OWNERS. ALL REPAIRS OF THE DAMAGED UTILITIES SHALL BE REPAIRED IN ACCORDANCE WITH THE INSTRUCTIONS OF THE AFFECTED UTILITY AND ALL COSTS ASSOCIATED THEREWITH SHALL BE BORNE BY THE CONTRACTOR.

METALS

- 1) THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SHALL MAKE ANY FIELD MEASUREMENTS NECESSARY AND SHALL BE FULLY RESPONSIBLE FOR ACCURACY AND LAYOUT OF WORK. THE CONTRACTOR SHALL REVIEW THE DRAWINGS, AND ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO STARTING FABRICATION.
- 2) UNLESS OTHERWISE INDICATED, FABRICATED STEEL METALWORK SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
- 3) UNLESS OTHERWISE INDICATED, STAINLESS STEEL METALWORK AND BOLTS SHALL BE OF TYPE 316 STAINLESS STEEL
- 4) UNLESS OTHERWISE INDICATED, ALUMINUM METALWORK SHALL BE OF ALLOY 6061-T6. ALUMINUM IN CONTACT WITH CONCRETE, MASONRY, WOOD, POROUS MATERIALS, OR DISSIMILAR METALS SHALL HAVE CONTACT SURFACES COATED IN ACCORDANCE WITH SECTION 09800.
- 5) UNLESS OTHERWISE INDICATED, IRON CASTINGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 48, CLASS 50B OR BETTER.
- 6) STRUCTURAL STEEL SHALL COMPLY WITH THE TABLE BELOW:

| WIDE FLANGE SHAPES | ASTM A 992 |
|--------------------------------|--|
| OTHER SHAPES, PLATES, BARS | ASTM A 36 |
| PIPE, PIPE COLUMNS BOLLARDS | ASTM A 53, TYPE E OR S, GRADE B STANDARD WEIGHT UNLESS NOTED OTHERWISE |
| HSS | ASTM 500 GRADE B |

- 7) UNLESS OTHERWISE INDICATED, BOLTS, ANCHOR BOLTS, WASHERS, AND NUTS SHALL BE STEEL AS INDICATED. THREADS ON GALVANIZED BOLTS AND NUTS SHALL BE FORMED WITH SUITABLE TAPS AND DIES SUCH THAT THEY RETAIN THEIR NORMAL CLEARANCE AFTER HOT-DIP GALVANIZING. EXCEPT AS OTHERWISE INDICATED, STEEL FOR BOLT MATERIAL, ANCHOR BOLTS, AND CAP SCREWS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
- STRUCTURAL CONNECTIONS: ASTM A 307, GRADE A OR B, HOT-DIP GALVANIZED.
- ANCHOR BOLTS: ASTM A 307, GRADE A OR B, OR ASTM A 36, HOT-DIP GALVANIZED.
- HIGH STRENGTH BOLTS WHERE INDICATED: ASTM A 325.
- PIPE AND EQUIPMENT FLANGE BOLTS: ASTM A 193, GRADE B-7.
- 8) BOLTS, NUTS, AND WASHERS IN THE LOCATIONS LISTED BELOW SHALL BE STAINLESS STEEL AS INDICATED.
- BURIED LOCATIONS.
- SUBMERGED LOCATIONS.
- LOCATIONS INDICATED BY THE CONTRACT DOCUMENTS OR DESIGNATED BY THE ENGINEER TO BE PROVIDED WITH STAINLESS STEEL BOLTS.
- 9) UNLESS OTHERWISE INDICATED, STAINLESS STEEL BOLTS, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE TYPE 316 STAINLESS STEEL, CLASS 2, CONFORMING TO ASTM A 193 FOR BOLTS AND TO ASTM A 194 FOR NUTS. THREADS ON STAINLESS STEEL BOLTS SHALL BE PROTECTED WITH AN ANTISEIZE LUBRICANT SUITABLE FOR SUBMERGED STAINLESS STEEL BOLTS, TO MEET GOVERNMENT SPECIFICATION MIL-A-907E. BURIED BOLTS IN POORLY DRAINED SOIL SHALL BE COATED THE SAME AS THE BURIED PIPE. ANTI - SEIZE LUBRICANT SHALL BE CLASSIFIED AS ACCEPTABLE FOR POTABLE WATER USE BY THE NSF.
- 10) BOLT AND NUT MATERIAL SHALL BE FREE-CUTTING STEEL
- 11) NUTS SHALL BE CAPABLE OF DEVELOPING THE FULL STRENGTH OF THE BOLTS. THREADS SHALL BE COARSE THREAD SERIES CONFORMING TO THE REQUIREMENTS OF THE AMERICAN STANDARD FOR SCREW THREADS. BOLTS AND CAP SCREWS SHALL HAVE HEXAGON HEADS AND NUTS SHALL BE HEAVY HEXAGON SERIES.
- 12) BOLTS AND NUTS SHALL BE INSTALLED WITH WASHERS FABRICATED OF MATERIAL MATCHING THE BASE MATERIAL OF BOLTS, EXCEPT THAT HARDENED WASHERS FOR HIGH STRENGTH BOLTS SHALL CONFORM TO THE REQUIREMENTS OF THE AISC SPECIFICATION. LOCK WASHERS FABRICATED OF MATERIAL MATCHING THE BOLTS SHALL BE INSTALLED WHERE INDICATED.
- 13) THE LENGTH OF EACH BOLT SHALL BE SUCH THAT THE BOLT EXTENDS AT LEAST 1/8-INCH BEYOND THE OUTSIDE FACE OF THE NUT BEFORE TIGHTENING, EXCEPT FOR ANCHOR BOLTS, WHICH SHALL BE FLUSH WITH THE FACE OF THE NUT BEFORE TIGHTENING.
- 14) ADHESIVE ANCHORS AND RODS: UNLESS OTHERWISE INDICATED, DRILLED CONCRETE OR MASONRY ANCHORS SHALL BE ADHESIVE ANCHOR AND ROD SYSTEMS AS SPECIFIED BELOW

BELOW GROUND PROTECTION CENTER (LA. ONE CALL). . 811

CONTRACTOR SHALL CONTACT EACH AGENCY AND COMPANY RELATIVE TO THE EXACT LOCATION OF ITS UNDERGROUND INSTALLATION PRIOR TO ANY RELIANCE UPON THE ACCURACY OF SUCH LOCATION SHOWN. AT LEAST 72 HOURS PRIOR TO EXCAVATING, THE CONTRACTOR SHALL CALL LOUISIANA ONE CALL TO MARK THE UTILITIES THROUGH THE CONSTRUCTION AREA. EXISTING UTILITIES SHALL BE MARKED WITH SPRAY PAINT OR STAKES IN THE FIELD PRIOR TO EXCAVATION.

RES

A. ANCHORS AND RODS SHALL EMPLOY AN INJECTABLE ADHESIVE. ADHESIVE SHALL BE FURNISHED IN SIDE-BY-SIDE REFILL PACKETS THAT KEEP COMPONENTS SEPARATE PRIOR TO INSTALLATION. SIDE - BY - SIDE REFILL PACKETS SHALL ACCEPT STATIC MIXING NOZZLES WHICH THOROUGHLY COMBINES COMPONENTS AND ALLOWS INJECTION DIRECTLY INTO DRILLED HOLE. ONLY INJECTION TOOLS AND STATIC MIXING NOZZLES AS RECOMMENDED BY MANUFACTURER SHALL BE USED. MANUFACTURER'S **RECOMMENDED INSTRUCTIONS SHALL BE FOLLOWED. INJECTION ADHESIVE** SHALL BE HILTI - HY 500 MAX - SD OR EQUAL.

B. ANCHOR RODS SHALL BE FURNISHED WITH CHAMFERED ENDS SO THAT EITHER END WILL ACCEPT A NUT AND WASHER. ALTERNATIVELY. ANCHOR RODS SHALL BE FURNISHED WITH AT 45 DEGREE CHISEL END ON ONE END TO ALLOW FOR EASY INSERTION INTO AN ADHESIVE - FILLED HOLE. ANCHOR RODS SHALL BE MANUFACTURED TO MEET ISO 898 CLASS 5.8, ASTM A193 GRADE B7 (HIGH STRENGTH CARBON STEEL ANCHOR). ANCHOR RODS SHALL BE HILTI HAS RODS OR EQUAL.

16) POWDER-DRIVEN PINS FOR INSTALLATION IN CONCRETE OR STEEL SHALL BE HEAT-TREATED STEEL ALLOY. IF THE PINS ARE NOT INHERENTLY SUFFICIENTLY CORROSION-RESISTANT FOR THE CONDITIONS TO WHICH THEY WILL BE EXPOSED. THEY SHALL BE PROTECTED IN AN ACCEPTABLE MANNER. PINS SHALL HAVE CAPPED OR THREADED HEADS CAPABLE OF TRANSMITTING THE LOADS THE SHANKS ARE REQUIRED TO SUPPORT. PINS THAT ARE CONNECTED TO STEEL SHALL HAVE LONGITUDINAL SERRATIONS AROUND THE CIRCUMFERENCE OF THE SHANK. POWDER-DRIVEN PINS SHALL BE INSTALLED BY A CRAFTSPERSON CERTIFIED BY THE MANUFACTURER AS BEING QUALIFIED TO INSTALL THE MANUFACTURER'S PINS. PINS SHALL BE DRIVEN IN ONE INITIAL MOVEMENT BY AN INSTANTANEOUS FORCE THAT HAS BEEN CAREFULLY SELECTED TO ATTAIN THE REQUIRED PENETRATION. DRIVEN PINS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS WHERE "D" = PIN'S SHANK DIAMETER.

MATEF PENETR BY P CONCF STE

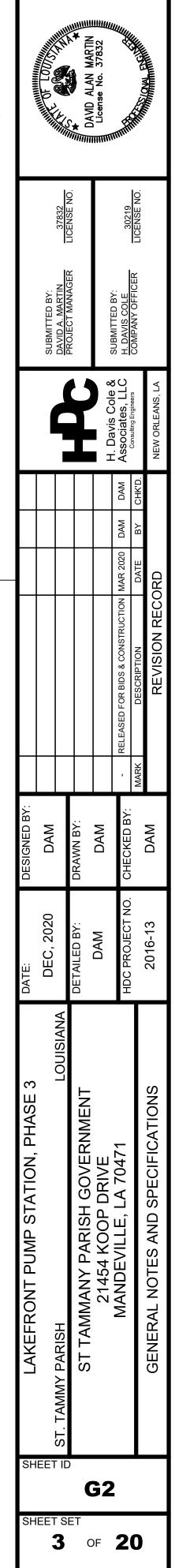
UTILITY DIRECTORY

PROJECT CONTACTS

| ENGINEER | H. DAVIS COLE & ASSOCIATES, LLC. DAVID A. MARTIN, P.E. (504) 836-2020 dmartin@hdaviscole.com |
|------------------------------------|---|
| OWNER | ST. TAMMANY PARISH GOVERNMENT CHRISTOPHER CORVERS (985) 898-2552 cjcorvers@stpgov.org |
| | DONNA O'DELL, pH.D., P.E. (985) 898-2552 dodell@stpgov.org |
| RESIDENT PROJECT REPRESENTATIVE | TBD |

15) EXPANDING-TYPE ANCHORS (WEDGE ANCHORS) ARE PROHIBITED.

| RIAL RATED PIN | MATERIAL MINIMUM THICKNESS | PIN SHANK PENETRATION IN SUPPORTING MATERIAL | MINIMUM SPACE FROM PIN'S CL TO EDGE OF PENETRATED MATERIAL | MINIMUM PIN SPACING |
|----------------------|----------------------------------|---|--|---------------------------|
| RETE | 16D | 6D MINIMUM | 14D | 20D |
| EL | 1⁄4" | STEEL THICKNESS | 4D | 7D |



METALS CON'T

- 17) IMPACT ANCHORS SHALL BE AN EXPANSION TYPE ANCHOR IN WHICH A NAIL TYPE PIN IS DRIVEN TO PRODUCE THE EXPANSIVE FORCE. THE PIN SHALL HAVE A ZINC SLEEVE WITH A MUSHROOM STYLE HEAD AND STAINLESS STEEL NAIL PIN. ANCHORS SHALL BE METAL HIT ANCHORS, MANUFACTURED BY HILTI, INC., RAWL ZAMAC NAILIN, MANUFACTURED BY THE RAWLPLUG COMPANY; OR EQUAL.
- 18) STRUCTURAL STEEL SHALL BE FABRICATED IN ACCORDANCE WITH THE DRAWINGS, AISC SPECIFICATIONS, AND AS SHOWN ON THE SHOP DRAWINGS. MATERIALS SHALL BE PROPERLY MARKED AND MATCH MARKED FOR FIELD ASSEMBLY. WHERE FINISHING IS REQUIRED, ASSEMBLY SHALL BE COMPLETED INCLUDING BOLTING AND WELDING OF UNITS. BEFORE START OF FINISHING OPERATIONS. SHOP AND FIELD CONNECTIONS SHALL BE BOLTED OR WELDED AS INDICATED. ALL CONNECTIONS SHALL DEVELOP FULL STRENGTH OF MEMBERS JOINED AND SHALL CONFORM TO AISC STANDARD CONNECTIONS. UNLESS OTHERWISE INDICATED, WELDS SHALL CONFORM TO AISC LRFD SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.
- 19) WELDING SHALL BE BY THE METAL-ARC METHOD OR GAS-SHIELDED ARC METHOD AS DESCRIBED IN THE AMERICAN WELDING SOCIETY'S "WELDING HANDBOOK" AS SUPPLEMENTED BY OTHER PERTINENT STANDARDS OF THE AWS. QUALIFICATION OF WELDERS SHALL BE IN ACCORDANCE WITH THE AWS STANDARDS GOVERNING SAME. IN ASSEMBLY AND DURING WELDING, THE COMPONENT PARTS SHALL BE ADEQUATELY CLAMPED, SUPPORTED, AND RESTRAINED TO MINIMIZE DISTORTION AND FOR CONTROL OF DIMENSIONS. WELD REINFORCEMENT SHALL BE AS INDICATED BY THE AWS CODE. UPON COMPLETION OF WELDING, WELD SPLATTER, FLUX, SLAG, AND BURRS LEFT BY ATTACHMENTS SHALL BE REMOVED. WELDS SHALL BE REPAIRED TO PRODUCE A WORKMANLIKE APPEARANCE, WITH UNIFORM WELD CONTOURS AND DIMENSIONS. SHARP CORNERS OF MATERIAL THAT IS TO BE PAINTED OR COATED SHALL BE GROUND TO A MINIMUM OF 1/32-INCH ON THE FLAT.
- 20) STRUCTURAL STEEL PLATES SHAPES, BARS, AND FABRICATED ASSEMBLIES REQUIRED TO BE GALVANIZED SHALL, AFTER THE STEEL HAS BEEN THOROUGHLY CLEANED OF RUST AND SCALE, BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A 123. ANY GALVANIZED PART THAT BECOMES WARPED DURING THE GALVANIZING OPERATION SHALL BE STRAIGHTENED. BOLTS, ANCHOR BOLTS, NUTS, AND SIMILAR THREADED FASTENERS, AFTER BEING PROPERLY CLEANED, SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A 153. FIELD REPAIRS TO DAMAGED GALVANIZING SHALL BE MADE BY PREPARING THE SURFACE AND APPLYING A COATING. SURFACE PREPARATION SHALL CONSIST OF REMOVING OIL, GREASE, SOIL, AND SOLUBLE MATERIAL BY CLEANING WITH WATER AND DETERGENT (SSPC SP1) FOLLOWED BY BRUSH OFF BLAST CLEANING (SSPC SP7), OVER AN AREA EXTENDING AT LEAST 4-INCHES INTO THE UNDAMAGED AREA. COATING SHALL BE APPLIED TO AT LEAST 3-MILS DRY FILM THICKNESS. USE ZINC-CLAD XI BY SHERWIN-WILLIAMS, GALVAX BY ALVIN PRODUCTS, OR GALVITE BY ZRC WORLDWIDE.
- 21) DRILLED ANCHORS AND REINFORCING BARS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. HOLES SHALL BE ROUGHENED WITH A BRUSH ON A POWER DRILL, CLEANED AND DRY. DRILLED ANCHORS SHALL NOT BE INSTALLED UNTIL THE CONCRETE HAS REACHED THE REQUIRED 28-DAY COMPRESSIVE STRENGTH. ADHESIVE ANCHORS SHALL NOT BE LOADED UNTIL THE ADHESIVE HAS REACHED ITS INDICATED STRENGTH IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

STRUCTURAL CONCRETE AND REINFORCEMENT

- 1) ALL STRUCTURAL CONCRETE SHALL BE CAST IN PLACE AND SHALL BE PER SECTION 03901. REINFORCING STEEL FOR CONCRETE SHALL COMPLY WITH THE FOLLOWING UNLESS OTHERWISE SPECIFIED:
- 2) REINFORCING STEEL USED IN STRUCTURES SHALL BE GRADE 60. BARS SMALLER THAN NO. 3 NEED NOT BE DEFORMED. ALL DEFORMED BARS SHALL COMPLY WITH ITEMS 1, 2, OR 3 BELOW. SIZE W 5 WIRE COMPLYING WITH ITEM 4 BELOW MAY BE USED IN LIEU OF BARS SMALLER THAN NO BILLET-STEEL DEFORMED AND PLAIN BARS SHALL COMPLY WITH ASTM 615 AND SHALL BE PRODUCED AT A MILL LISTED ON THE LDOTD AML (FORMERLY QPL 71). RAIL-STEEL AND AXLE-STEEL DEFORMED AND PLAIN BARS SHALL COMPLY WITH ASTM A 996. COLD-DRAWN STEEL WIRE SHALL COMPLY WITH ASTM A 1064 WITH THE FOLLOWING AMENDMENT: FOR MATERIAL TESTING OVER 110,000 PSI TENSILE STRENGTH IN HIGH STRENGTH APPLICATIONS SUCH AS SPIRALS AND TIES. THE 25 PERCENT MINIMUM REDUCTION IN AREA SHALL BE REDUCED 5 PERCENT FOR EACH 10,000 PSI INCREMENT OF TENSILE STRENGTH EXCEEDING 110,000 PSI. WELDED STEEL WIRE FABRIC SHALL CONFORM TO ASTM A 1064. EPOXY COATED REINFORCING STEEL AND PATCHING MATERIALS SHALL COMPLY WITH AASHTO M 284 AND SHALL BE LISTED ON THE LDOTD AML (FORMERLY QPL 51).
- 3) TOLERANCES IN PLACING REINFORCING SHALL BE:

| ± ³ / ₈ " FOR MEMBERS | | ~/- Q" |
|---|-----------------|---------|
| | WITH THICKINESS | = 8</td |

- $\pm \frac{1}{2}$ " FOR MEMBERS WITH THICKNESS > 8"
- CONCRETE COVER SHALL BE AS FOLLOWS:

| | FOR CONCRETE PLACED AGAINST EARTH 3" |
|----|--|
| | FOR SURFACES IN CONTACT WITH WATER2 $\frac{1}{2}$ " |
| | FOR FORMED SURFACES IN CONTACT WITH EARTH2" |
| | FOR UNDERSIDE OF SLABS OVER WATER, BEAMS, |
| | AND COLUMNS NOT IN CONTACT WITH WATER OR EARTH 2" |
| | FOR ALL OTHER SURFACES2" |
| 5) | WALLS AND SLABS WITH A SINGLE LAYER OF REINFORCEMENT SHALL HAVE THAT REINFORCEMENT CENTERED, UNLESS NOTED OTHERWISE. |
| 6) | ALL JOINT SURFACES SHALL BE ROUGH AND THOROUGHLY CLEANED. |

- 7) DOWELS, PIPES, WATERSTOPS, AND OTHER EMBEDDED MATERIALS SHALL BE HELD SECURELY IN POSITION WHILE CONCRETE IS BEING PLACED.
- 8) REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY PIPE, PIPE FLANGE, METAL CONDUIT, OR OTHER METAL PARTS EMBEDDED IN CONCRETE. A MINIMUM OF 2 INCHES CLEARANCE SHALL BE PROVIDED IN ALL CASES

- EXCEED ONE THIRD OF THE MEMBER THICKNESS
- 10) SLABS WITH SLOPING SURFACES SHALL HAVE THE INDICATED SLAB FROM THE SLAB SURFACE.
- CURTAINS OF REINFORCEMENT ARE REQUIRED:
- A. IN SLABS, #4 RISER OR Z SHAPE SPACER BARS AT 36 INCHES O.C MAXIMUM EACH WAY TO SUPPORT TOP BARS.
- WAY
- 12) VERTICAL REINFORCEMENT FOR CONCRETE OR MASONRY SHALL BE SPACING SHALL BE PROVIDED.
- 13) SEALANT SHALL BE PLACED AT THE TOP OF ALL JOINTS RECEIVING THICKNESS.
- 14) ALL EXPOSED CONCRETE CORNERS SHALL HAVE A $\frac{3}{4}$ " CHAMFER.
- CONCRETE STRUCTURES, ACI 315, LATEST EDITION.
- 16) ALL LAP SPLICES SHALL BE A MINIMUM OF 40 BARS DIAMETER UNLESS THAN 50% ARE SPLICED WITHIN THE LAP LENGTH.
- 17) SLAB SHALL BE GIVEN A SMOOTH TROWEL FINISH.
- PLACEMENT.)
- LATEST EDITION.
- 20) CALCIUM CHLORIDE AND/OR CHLORIDE CONTAINING ADMIXTURES SHALL NOT BE USED
- COMPONENTS FOR REVIEW.

GROUT

- FLUID CONSISTENCY. NON NON-SHRINK GROUT SHALL MEET THE COMPANY: CG 200 PC BY HILTI. OR EQUAL
- SPECIALLY BLENDED AGGREGATE, EACH PRE-MEASURED AND ARE NOT ACCEPTABLE. VARIATION OF COMPONENT RATIOS IS NOT SHALL BE FIVE STAR DP EPOXY GROUT BY FIVE STAR PRODUCTS. INC.: SIKA CORPORATION: OR EQUAL.

EARTHWORK

- FOR CONSTRUCTION OF THE WORK. COMPLETE AND IN PLACE. IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. EXCEPT WHEN TO PERFORMING ANY EXCAVATION OR PLACING ANY FILL.
- 3) THE CONTRACTOR SHALL REMOVE AND EXCLUDE WATER, INCLUDING IS COMPLETE AND FIELD SOILS TESTING HAS BEEN COMPLETED.
- 4) SOILS WHICH DO NOT MEET LIQUID LIMIT OR PLASTICITY INDEX PLASTICITY INDEX. SOILS MAY BE TREATED WITH LIME TO REDUCE PLASTICITY INDEX ONLY WITH THE APPROVAL OF THE ENGINEER.

9) ALL ITEMS EMBEDDED IN CONCRETE SHALL BE PLACED ON CENTER AT LEAST 4 TIMES THEIR OUTSIDE DIMENSION. THE OUTSIDE DIMENSION SHALL NOT

THICKNESS MAINTAINED AS THE MINIMUM. SLAB BOTTOMS CAN EITHER SLOPE WITH THE TOP SURFACE OR BE LEVEL. REINFORCEMENT IN SLAB WITH SLOPING SURFACES SHALL BE PLACED AT THE REQUIRED CLEARANCE

11) ASIDE FROM NORMAL ACCESSORIES USED TO HOLD REINFORCING BARS FIRMLY IN POSITION. THE FOLLOWING SHALL BE ADDED WHERE TWO

B. IN WALLS. #3 U OR Z SHAPE SPACERS AT 72 INCHES O.C. MAXIMUM EACH

SPLICED WITH DOWEL BARS OF THE SAME SIZE AND SPACING FROM THE FOUNDATION USING A STANDARD SPLICE LENGTH. HORIZONTAL CORNER BARS, WITH FULL TENSION LAPS, MATCHING CONTINUOUS BAR SIZE AND

EXPANSION JOINT FILLER. SEALANT DEPTH SHALL NOT EXCEED JOINT FILLER

15) FABRICATIONS AND PLACING OF REINFORCING BARS SHALL CONFORM TO THE MANUAL OF STANDARDS PRACTICE FOR DETAILING REINFORCED

OTHERWISE NOTED. SPLICES SHALL BE STAGGERED SUCH THAT NOT MORE

18) CONCRETE SHALL BE PLACED PER THE REQUIREMENTS OF ACI 350 (HOT WEATHER CONCRETE PLACEMENT) AND ACI 306 (COLD WEATHER CONCRETE

19) CONCRETE SHALL BE CURED AND TESTED PER REQUIREMENTS OF ACI 318,

21) CONTRACTOR SHALL SUBMIT MIX DESIGN INCLUDING PROPORTIONS OF ALL

1) UNLESS NOTED OTHERWISE, GROUT SHALL BE NON - SHRINK GROUT HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI WHEN MIXED AT A REQUIREMENTS OF ASTM C 1107, GRADE B OR C, WHEN MIXED TO FLUID, FLOWABLE, AND PLASTIC CONSISTENCIES. NON-SHRINK GROUT SHALL BE MASTERFLOW 713 PLUS BY MBT-CHEMREX; FIVE STAR GROUT BY FIVE STAR PRODUCTS; SIKAGROUT 212 BY SIKA CORPORATION; PREMIER BY L&M CONSTRUCTION CHEMICALS; HIGH-FLOW GROUT BY EUCLID CHEMICAL

2) WHERE INDICATED, EPOXY GROUT SHALL BE UTILIZED, EPOXY GROUT SHALL BE A FLOWABLE, NON-SHRINK, 100 PERCENT SOLIDS SYSTEM. THE EPOXY GROUT SYSTEM SHALL HAVE 3 COMPONENTS: RESIN, HARDENER, AND PREPACKAGED. THE RESIN COMPONENT SHALL NOT CONTAIN ANY NON-REACTIVE DILUENTS. RESINS CONTAINING BUTYL GLYCIDYL ETHER (BGE) OR OTHER HIGHLY VOLATILE AND HAZARDOUS REACTIVE DILUENTS PERMITTED UNLESS SPECIFICALLY RECOMMENDED BY THE MANUFACTURER. MANUFACTURER'S INSTRUCTIONS SHALL BE PRINTED ON EACH CONTAINER IN WHICH THE MATERIALS ARE PACKAGED. NON-SHRINK EPOXY GROUT

MASTERFLOW 648 CP PLUS BY MBT-CHEMREX; SIKADUR 42 GROUT-PAK BY

1) THE CONTRACTOR SHALL PERFORM EARTHWORK INDICATED AND REQUIRED SPECIFICALLY PROVIDED TO THE CONTRARY, EXCAVATION SHALL INCLUDE THE REMOVAL OF MATERIALS, INCLUDING OBSTRUCTIONS THAT WOULD INTERFERE WITH THE PROPER EXECUTION AND COMPLETION OF THE WORK. THE REMOVAL OF SUCH MATERIALS SHALL CONFORM TO THE LINES AND GRADES INDICATED OR ORDERED. UNLESS OTHERWISE INDICATED, THE ENTIRE SITE SHALL BE STRIPPED OF VEGETATION AND DEBRIS AND SHALL BE GRUBBED, AND SUCH MATERIAL SHALL BE REMOVED FROM THE SITE PRIOR

2) THE CONTRACTOR SHALL FURNISH, PLACE, AND MAINTAIN SUPPORTS AND SHORING THAT MAY BE REQUIRED FOR THE SIDES OF EXCAVATIONS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE STABILITY AND SAFETY OF ALL EXCAVATIONS. EXCAVATIONS SHALL BE SLOPED OR OTHERWISE SUPPORTED IN A SAFE MANNER IN ACCORDANCE WITH APPLICABLE STATE SAFETY REQUIREMENTS AND THE REQUIREMENTS OF OSHA SAFETY AND HEALTH STANDARDS FOR CONSTRUCTION (29CFR1926).

STORMWATER, GROUNDWATER, IRRIGATION WATER, AND WASTEWATER, FROM EXCAVATIONS. DEWATERING WELLS, WELL-POINTS, SUMP PUMPS, OR OTHER MEANS SHALL BE USED TO REMOVE WATER AND CONTINUOUSLY MAINTAIN GROUNDWATER AT A LEVEL AT LEAST 2 FEET BELOW THE BOTTOM OF EXCAVATIONS BEFORE THE EXCAVATION WORK BEGINS AT EACH LOCATION. WATER SHALL BE REMOVED AND EXCLUDED UNTIL BACKFILLING

REQUIREMENTS SHALL NOT BE BLENDED TO REDUCE LIQUID LIMIT OR

5) USABLE SOILS SHALL HAVE A MAXIMUM PI OF 25 AND A MAXIMUM ORGANIC CONTENT OF 5 PERCENT. SOILS WITH A SILT CONTENT OF 50 PERCENT OR GREATER AND ALSO A PI OF 10 OR LESS WILL NOT BE ALLOWED.

6) UNLESS NOTED OR SPECIFIED OTHERWISE, GEOTEXTILE FABRIC SHALL BE GEOTEXTILE CLASS A LISTED ON THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT APPROVED MATERIALS LIST

GRANULAR MATERIAL SHALL BE MISSISSIPPI RIVER "PUMPED SAND", DOTD CLASSIFICATION OF A-4 OR BETTER HAVING A MAXIMUM LIQUID LIMIT OF 25 AND A MAXIMUM PLASTICITY INDEX OF 6. ALL SANDS SHALL BE FREE OF TRASH, WEEDS, LUMPS, HUMUS, PIECES OF WOOD OR ANY OTHER DELETERIOUS MATERIAL. GRANULAR MATERIAL SHALL HAVE A GROUP INDEX NUMBER NOT TO EXCEED 6. MATERIALS SHALL BE PLACED, PROPERLY SHAPED AND UNIFORMLY COMPACTED BY APPROVED METHODS TO A MINIMUM OF 95 PERCENT OF MAXIMUM DRY DENSITY. MAXIMUM DRY DENSITY WILL BE DETERMINED IN ACCORDANCE WITH DOTD TR 415 OR TR 418 AND IN-PLACE DENSITY WILL BE DETERMINED IN ACCORDANCE WITH DOTD TR 401. GRANULAR MATERIALS SHALL NOT BE DISPLACED DURING SUBSEQUENT OPERATIONS.

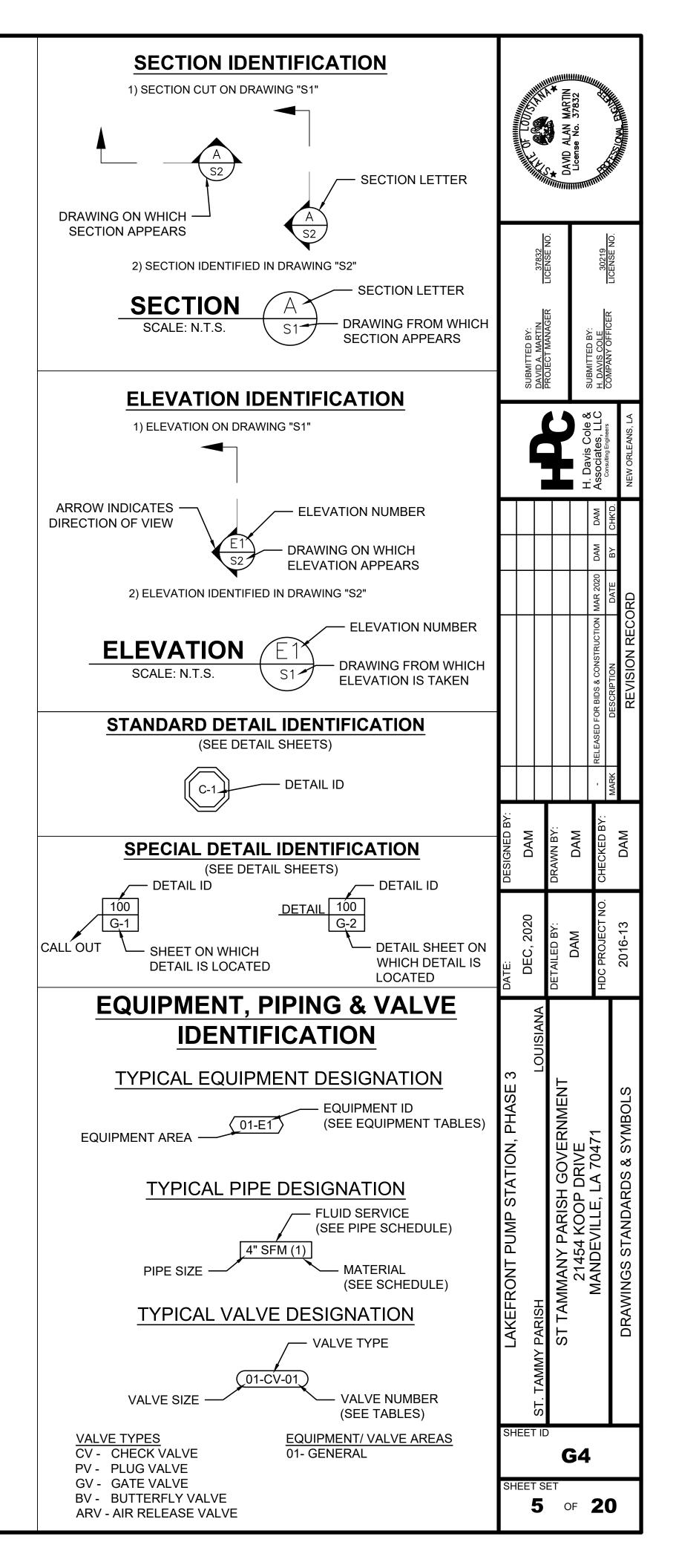
8) BEDDING MATERIAL SHALL BE CRUSHED LIMESTONE FOR PIPE BEDDING SHALL BE #57 STONE AS INDICATED BELOW. BEDDING MATERIAL SHALL BE FREE OF SOIL, ROOTS, DEBRIS, DELETERIOUS MATERIALS, OR OTHER RUBBISH. THE LIMESTONE SHALL BE WRAPPED WITH GEOTEXTILE FABRIC AS INDICATED ON THE DRAWINGS OR AS SPECIFIED. CRUSHED CONCRETE OR OTHER ALTERNATE BEDDING MATERIALS WILL NOT BE ACCEPTED. STONE SHALL BE SUPPLIED FROM A SOURCE LISTED ON THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT APPROVED MATERIALS LIST (QPL 2). GEOTEXTILE FABRIC SHALL BE PLACED IN ACCORDANCE WITH PLAN DETAILS PRIOR TO PLACING BEDDING MATERIAL CARE SHALL BE TAKEN TO PREVENT DAMAGE TO GEOTEXTILE FABRIC DURING PLACEMENT OF BEDDING MATERIAL. MATERIALS SHALL BE PLACED IN LIFTS, SHAPED, AND UNIFORMLY COMPACTED TO 75 PERCENT OF RELATIVE DENSITY.

- 9) WHERE AREAS ARE INDICATED TO BE OVER-EXCAVATED, EXCAVATION SHALL BE TO THE DEPTH INDICATED, AND BACKFILL SHALL BE INSTALLED TO THE GRADE INDICATED. WHEN ORDERED TO OVER-EXCAVATE AREAS DEEPER AND/OR WIDER THAN REQUIRED BY THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL OVER-EXCAVATE TO THE DIMENSIONS ORDERED AND BACKFILL TO THE INDICATED GRADE ANY OVER-EXCAVATION CARRIED BELOW THE GRADE ORDERED OR INDICATED SHALL BE BACKFILLED AND COMPACTED TO THE REQUIRED GRADE WITH GRANULAR MATERIAL OR NON -PLASTIC EMBANKMENT AS PART OF THE WORK.
- 10) UNLESS OTHERWISE INDICATED, EXCESS EXCAVATED MATERIAL SHALL BE THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF EXCESS EXCAVATED MATERIAL. MATERIAL SHALL BE DISPOSED OF AT AN APPROVED ON-SITE DISPOSAL AREA IF APPROVED BY THE OWNER OR OFF-SITE AT A LOCATION ARRANGED BY THE CONTRACTOR IN ACCORDANCE WITH LAWS AND **REGULATIONS REGARDING DISPOSAL OF SUCH MATERIAL**

| SF | | LAKEFRONT PUMP STATION. PHASE 3 | DATE: | DESIGNED BY: | | | | | | |
|----------------------|------|----------------------------------|----------------|--------------|---|--------------------|----------------------|--------------------------------|-------------|-------------------|
| IEET | IEET | | DEC, 2020 | DAM | | | | SUBMITTED BY: | | |
| ⁻ si 4 | | ST. TAMMY PARISH | | | | | | DAVID A. MARTIN | 37832 | |
| | | ST TAMMANY PARISH GOVERNMENT | DETAILED BY: | DRAWN BY: | | | Y | | LICENSE NO. | |
| DF | G3 | 21454 KOOP DRIVE | DAM | DAM | | | | | | License No. 37832 |
| 2 | } | MANDEVILLE, LA 70471 | HDC PROJECT NO | CHECKED BY. | - RELEASED FOR BIDS & CONSTRUCTION MAR 2020 DAM | N MAR 2020 DAM DAM | Associates, LLC | SUBMITTED BY: H. DAVIS COLE | 30219 | |
| 0 | | | | | MARK DESCRIPTION | DATE BY CHK'D. | Consulting Engineers | COMPANY OFFICER | LICENSE NO. | |
| | | GENERAL NOTES AND SPECIFICATIONS | 2016-13 | DAM | REVISION RECORD | CORD | NEW ORLEANS, LA | | | |

| | CONCRETE (PLAN AND SECTION) | | SUPPLY OR OUTSIDE AIR DUCT (FIRST DIMENSION, DUCT WIDTH) |
|----------------------|--|------------|--|
| | GROUT OR SAND (PLAN OR SECTION) | | EXHAUST OR RETURN AIR DUCT (FIRST DIMESION, DUCT WIDTH) |
| | BRICK (PLAN AND SECTION) | | CEILING SUPPLY DIFFUSER |
| | CMU (PLAN AND SECTION) | | (SIZE IN INCHES) |
| | STEEL/ METAL/ FRP (SMALL SCALE SECTION) | | CEILING RETURN OR EXHAUST AIR GRILLE O REGISTER (SIZE IN INCHES, WIDTH X HEIGHT |
| | STEEL/ GRATING/ FRP (SMALL SCALE SECTION) | | EXHAUST OR AIR GRILLE OR REGISTER (SIZE IN INCHES, WIDTH X HEIGHT) |
| | CHECKERPLATE (SECTION) | | SUPPLY GRILLE OR REGISTER (SIZE IN INCHES, WIDTH X HEIGHT) |
| | GRATING (PLAN) | | AIR TURNING VANES IN DUCT |
| (111111111111111111) | GRATING OR SOLID FRP GRATING (SECTION) | | |
| | SAFETY GRATING (PLAN) | | DEFLECTING DAMPER |
| | SAFETY GRATING (PLAN) | FHC | FIRE HOSE CABINET |
| | SAFETY GRATING (PLAN) | FE O | FIRE EXTINGUISHER |
| | WOOD (ELEVATION OR PLAN) | | UNIT HEATER |
| | LUMBER (NOMINAL) | | UNIT HEATER |
| | LUMBER (TRIMMED) | | BALL VALVE |
| | GLULAM (SECTION) | | DIAPHRAGM VALVE |
| | GLULAM (ELEVATION) | | CHECK VALVE |
| | PLYWOOD (SMALL SCALE) | | PRESSURE RELEASE VALVE |
| | STRUCTURE OR FACILITY | | BACK PRESSURE VALVE |
| | EXISTING STRUCTURE OR FACILITY | M P | MOTOR OPERATOR FOR VALVE |
| | FUTURE STRUCTURE OR FACILITY | | (M = ELECTRIC / P = PNEUMATIC) |
| | OPENING | | TEMPERATURE CONTROL VALVE |
| | SPAN ARROW EARTH/ GRADE | | SOLENOID VALVE |
| | GRAVEL/ LIMESTONE/ AGGREGATE BASE | | MULTIPORT VALVE - 3WAYS |
| | | | MULTIPORT VALVE - 4WAYS |
| | CENTERLINE | | |
| CL & PL PL | CENTERLINE | | FLOAT OPERATED VALVE |
| | PROPERTY LINE RIGHT OF WAY | ₹ | NEEDLE VALVE |
| ESMT | EASEMENT | | PRESSURE RELIEF VALVE |
| TEMP ESMT | TEMPORTRY EASEMENT | | |
| G | UTILITY LINE (SEE DIRECTORY BELOW) | | ANGLE VALVE |
| G | GAS LINE (SIZE NOTED WHERE LARGER THAN 3") | - <u>х</u> | HOSE BIBB (H/B) |
| | | | INJECTOR OR EDUCTOR |
| 2" W — TEL — | WATER LINE (SIZE INDICATED) UNDERGROUND TELEPHONE | | |
| | | <u> </u> | AIR VACUUM AND AIR RELEASE ASSEMBLY |
| | SANITARY SEWER (SIZE INDICATED) | | PIPE ANCHOR |
| | OVERHEAD WIRES STORM DRAIN (SIZE INDICATED) | -0- | POWER POLE |
| —— FOC — | FIBER OPTIC CABLE | | PIPELINE (CIVIL SHEETS) |
| | COMMUNICATION CABLE FENCE (NEW) | | 24" Ø AND LARGER |
| | FENCE (NEW) FENCE (EXISTING) | | PIPELINE (CIVIL SHEETS) 12" Ø TO 20" Ø |
| | WATER COURSE | | PIPELINE (CIVIL SHEETS) 10" Ø AND SMALLER |
| | TRAIL OF DIRT ROAD | | FLOW DIRECTION |
| 125 | | FLOW 💆 | |
| 125 | MAJOR CONTOUR LINE (NEW) | | VEGETATION |

| | ISOLATION VAULT & MAJOR BLOWOFF VAULT (IN PLAN) | | PROGRESSIVE CAVITY, POSITIVE DISPLACEMENT PUMP |
|---|---|--|---|
| | CATHODIC TEST STATION (IN PROFILE) | ⋳ | PROGRESSIVE CAVITY, POSITIVE DISPLACEMENT PUMP |
| T | CATHODIC TEST STATION (IN PROFILE) <u>TYPES:</u> CTS CORROSION TEST STATION CATS CASING TEST STATION IJTS INSULATING JOINT TEST STATION FPTS FOREIGN PIPELINE TEST STATION | ि द्र ि | PRESSURE GAUGE |
| FH | CSTS CURRENT SPAN TEST STATION FIRE HYDRANT | | PRESSURE GAUGE WITH DIAPHRAGM SEAL |
| O | MANHOLE | इ र | PRESSURE SWITCH |
| PCOTG | PRESSURE CLEANOUT TO GRADE | (S) | |
| О <u>Сто</u> б Стоб | CLEANOUT TO GRADE | | PRESSURE SWITCH WITH DIAPHRAGM SEAL |
| | REDUCER OR INCREASER (PROVIDED SIZE) | | FLANGED FITTING |
| ETS | ELECTROLYSIS TEST STATION | | MECHANICAL - TYPE FITTING (GROOVED) |
| $\overline{\Delta}_{\overline{\mathrm{MCO}}} \mid_{\mathrm{MCO}}$ | WALL CLEANOUT | | SCREWED, WELDED, SOCKET-WELD, BELL & SPIGOT OR HUBLESS FITTING |
| QFCO | | | SLEEVE TYPE COUPLING |
| | FLOOR CLEANOUT | | FLANGED ADAPTER - SET SCREW TYPE |
| O | HUB DRAIN | ── ●── | MECHANICAL - TYPE COUPLING |
| | FLOOR DRAIN | | FLEXIBLE COUPLING |
| \mathbf{X} | FLOOR SINK | | UNION |
| | |] | QUICK DISCONNECT COUPLING |
| — | CHANGE IN PIPING MATERIAL | | CAPPED END OR PLUGGED END |
| ► | BACKWATER VALVE | | BLIND FLANGE |
| - > - | BACKFLOW PREVENTER | | REDUCER OR INCREASER |
| ۲۲ | STOP GATE | | |
| | | Ý | DRAIN FLOW TUBE |
| [•] | SLIDE GATE | — <u>MM</u> | MAGNETIC METER |
| [_] | SLUICE GATE | Г Г Г | DENSITY METER |
| ──⊗─── | GATE VALVE, BURIED WITH VALVE BOX | P M | PROPELLER METER |
| @ | BUTTERFLY VALVE, BURIED WITH VALVE BOX | U M | ULTRASONIC METER |
| — o — | ECCENTRIC PLUG VALVE, BURIED VALVE BOX | | ORIFACE PLATE FLANGES |
| | LUBRICATED PLUG VALVE, BURIED WITH VALVE BOX | | ROTAMETER |
| | GATE VALVE | | CONDENSATE TRAP |
| | | | |
| | ECCENTRIC PLUG VALVE | — × — | PIPE SUPPORT ON PLAN |
| | GLOBE VALVE | Ų | PULSATION DAMPENER |
| —Bo° | BUBLE LEVEL CONTROL | | |
| | CENTRIFUGAL OR TURBINE PUMP OR FAN | | EXPANSION CHAMBER WITH RUPTURE DISC |
| →-T_ | | k k k k k k k k k k k k k k k k k k k | RUPTURE DISC |
| | METERING PUMP | FG ———————————————————————————————————— | FLOW SIGHT GLASS |
| | | | |



| ^ | AIR |
|---------------------|--|
| A | AIR |
| A/C | AIR CONDITIONING |
| AASHO | AMERICAN ASSOCIATION OF STATE HIGHWAY AND |
| AB ABAN | TRANSPORTATION OFFICIALS ANCHOR BOLTS ABANDON |
| ABAND | ABANDONED |
| ABBR | ABBREVIATION |
| ABS | ABSOLUTE TEMPERATURE |
| AC | ACTIVATED CARBON/ ASPHALTIC CONCRETE/ |
| ACI ACOUS | ALTERNATE CURRENT AMERICAN CONCRETE INSTITUTION ACOUSTIC/ ACOUSTICAL |
| ACP | ASBESTOS CEMENT PIPE/ ASPHALTIC CONCRETE PAVEMENT |
| ADD | ADDITION |
| ADH | ADHESIVE |
| ADJ | ADJUSTABLE |
| ADJ AER AFF | ABOVE FINISHED FLOOR |
| AFTS | AIR FLOW TEST STATION |
| AISC | AMERICAN INSTITUTION OF STEEL CONSTRUCTION |
| ALT | ALTERNATIVE |
| ALUM | ALUMINUM |
| AMB | AMBIENT |
| ANSI | AMERICAN NATIONAL STANDARDS INSTITUTE |
| API | AMERICAN PETROLEUM INSTITUTE |
| APPD | APPROVED |
| APPROX | APPROXIMATE |
| APPURTS | APPURTENANCES |
| ARCH | ARCHITECTURE AMERICAN RAILWAY ENGINEERING ASSOCIATION |
| ASME | AMERICAN SOCIETY OF MECHANICAL ENGINEERS |
| ASPH | ASPHALT |
| ASTM | AMERICAN SOCIETY FOR TESTING AND MATERIALS |
| AT | ACOUSTICAL TILE |
| ATM | ATMOSPHERE |
| AV/RV | AIR VACUUM AND AIR RELEASE VACUUM |
| AVE | AVENUE |
| AWPA | AMERICAN WOOD PRESERVERS ASSOCIATION |
| AWS | AMERICAN WELDING SOCIETY |
| AWWA | AMERICAN WATER WORKS ASSOCIATION |
| B&S | BELL AND SPIGOT |
| B/W | BACK OF WALL/ BACK OF WALK |
| BC | BEGIN CURVE/ BOLT CIRCLE/ BETWEEN CENTERS |
| BCR | BEGIN CURB RETURN |
| BD | BOARD |
| BDRY | BOUNDARY |
| BF | BLIND FLANGE/ BOTTOM OF FOOTING |
| BFP | BACK FLOW PREVENTER |
| BHP | BRAKE HORSEPOWER |
| BLDG | BUILDING |
| BLK | BLACK/ BLOCK |
| BLKG | BLOCKING |
| BLVD | BOULEVARD |
| BM | BEAM/ BENCHMARK |
| BO | BLOW-OFF ASSEMBLY |
| BOD | BIOCHEMICAL OXYGEN DEMAND |
| BOP | BOTTOM OF PIPE |
| BOT | BOTTOM |
| BPV | BACK PRESSURE VALVE |
| BRK | BRICK/ BREAK |
| BSMT | BASEMENT |
| BT | BOLT |
| BTU | BRITISH THERMAL UNIT |
| BV | BUTTERFLY VALVE |
| BVC | BEGIN VERTICAL CURVE |
| BWV | BACK WATER VALVE |
| C | CENTIGRADE/ CHANNEL/ CEMENT |
| C&G | CURB AND GUTTER |
| CAB | CABINET/ CRUSHED AGGREGATE BASE |
| CAP | CAPACITY |
| CATS | CASING TEST STATION |
| CB | CATCH BASIN/ CHALK BOARD/ CURB |
| CC | CLOSED CIRCUIT TV/ CENTER TO CENTER |
| CD | CEILING DIFFUSER |
| CEM | CEMENT |
| CF | CURB FACE OR CUBIC FEET |
| CFH | CUBIC FEET PER HOUR |
| CFM | CUBIC FEET PER MINUTE |
| CFS | CUBIC FEET PER SECOND |
| CFS CHEM CHG | CHEMICAL CHANGE |
| CHKD | CHECKED |
| CI | CAST IRON |
| CIP | CAST IRON PIPE/ CAST IN PLACE |
| CIPP | CAST IN PLACE PIPE |
| CJ | CONSTRUCTION JOINT |
| CL | CHLORINE GAS/ CHLORINATOR/ CENTERLINE |
| CLF | CHAIN LINK FENCE |
| CLG | CEILING |
| CLOS | CLOSET |
| CLR | CLEAR/ CLEARANCE |
| CM | CENTIMETER |
| CMB | CRUSHED MISCELLANEOUS BASE |
| CMC | CEMENT MORTAR-COATED |
| CML | CEMENT MORTAR-LINED |
| CML&C | CEMENT LINED AND COATED |
| CML&C CMP CMU | CORRUGATED METAL PIPE CONCRETE MASONRY UNIT |
| CO | CLEANOUT |
| COL | COLUMN |
| COMP | COMPRESSOR |
| CONC | CONCRETE/ CONCENTRIC |
| COND | CONDENSER/ CONDENSATE |
| CONN | CONNECTION |
| CONST | CONSTRUCT/ CONSTRUCTION |
| CONT | CONTINUED/ CONTINUOUS |
| CONTR | CONTRACTOR |
| COORD | COORDINATE |
| COR | CORNER |
| COTG | CLEANOUT TO GRADE |
| _ | |
| | |

| CPLG CPVG CS CSP CSTS CT CTR CTS CTSK CU CULV CV CY CYL | COUPLING CHLORINATED POLYVINYL CHLORIDE CAUSTIC SODA/ CAST STEEL CORRUGATED STEEL PIPE CURRENT SPAN TEST STATION CERAMIC TILE CENTER CORROSION TEST STATION COUNTERSUNK COPPER/ CUBIC CULVERT CHECK VALVE CUBIC YARD CYLINDER | FOM FOS FOW FPC FPM FPS FPTS FR FRP FS FT FTG FUR FUT |
|--|--|--|
| d DAD DAFT DB DBL DC DEG DET DF DH DIA DIAG DIAPH DIAFF DIP DIR DISCH DISCH DISCH DISCH DISCH DISCH DISCH DISCH DISCH DN DO DPW DR DS DT DWG | | FV FWD G GA GALV GANC GB GEN GEN GFA GIP GLB GLB GLV GPD GPH GRD GRTG GSP GV GYP |
| DWLS DWY E E/O EA EB EC CC ECR EF EG EGL EL ECC ECR EF EG EGL EL EL EC EN ENCL ENG ENT EP T EQ UIP ESMT ETB ETC EVAP EVC EXC EXC EXC EXC EXC EXC EXC EXC EXC EX | DRIVEWAY EAST EAST OF EACH EXPANSION BOLT OR ANCHOR END CURVE ECCENTRIC END CURB RETURN EACH FACE/ EXHAUST FAN EFFLUENT EXHAUST GRADE/ EDGE OF GUTTER/ EXHAUST GRILLE ENERGY GRADE LINE ELEVATION ELECTRICAL/ ELECTRONIC EDGE NAILING ENCLOSURE ENGINE ENGINE ENGINE ENGINE ENGINE ENGINE EDGE OF PAVEMENT ETHYLENE PROPYLENE EQUAL EQUIPMENT EASEMENT EMULSION TREATED BASE ET CETERA EVAPORATOR END VERTICAL CURVE EACH WAY/ EYE WASH EXISTING EXCAVATION EXHAUST EXTRA HEAVY EXISTING EXCANAION EXTRANED EXTRANED EXTRA HEAVY EXISTING EXPANSION | H H&V H/B H DRWL H DRWL H H H H H H H H H H H H H H H H H H H |
| F&C F&I FA FAB FAI FB FCO FD FDR FE FDR FE FEM FF FG FH FIG FIN FIX FL FLEX FLG | FURNISH AND INSTALL FOUL AIR FABRICATE/ FABRICATION FRESH AIR INTAKE FLAT BAR/ FLOOR BEAM/ FIELD BOOK FLOOR CLEANOUT FLOOR DRAIN FEEDER FIRE EXTINGUISHER/ FINAL EFFLUENT FEMALE (PIPE THREAD) FLAT FACE/ FAR FACE/ FINISHED FLOOR FINISHED GRADE FIRE HYDRANT/ FLAT HEAD FIGURE FINISHED FIXTURE FLOWLINE/ FLOOR FLEXIBLE FLANGED/ FLOORING FLANGED | JAN JT K KG KM KV KWH L LAB LAM LAT LAV LB LCP LD LDG LDG LDG LDG LDG LDG LDG LDG LDG |

| FACE OF MASONRY | LP | LOW POINT/ LOW PRESSURE/ LAMP POST | PNL | PANE |
|---|--------------|---|-----------------|----------------------------|
| FACE OF STUD FACE OF WALL | LSSRB | LOUISIANA STANDARD SPECIFICATION FOR ROADS AND BRIDGES | POB POC | POIN POIN |
| FLEXIBLE PIPE COUPLING | LT | LEFT/ LIGHT | POC POT | POIN |
| FEET PER MINUTE | LTS | LIME TREATED SOIL | PP | POWE |
| FEET PER SECOND FOREIGN PIPE TEST STATION | LW LWL | LOW WATER LOW WATER LEVEL | PPD PPH | POUN POUN |
| FRAME | LWR | LOWER | PPM | POUN |
| FIBERGLASS REINFORCED PLASTIC FIBERGLASS SURFACE/ FARSIDE/ FLOOR SINK/ | М | METER/ MALE (PIPE THREAD) | PR PRC | PAIR POINT |
| FORGED STEEL/ FROTH SPRAY | MACH | MACHINE | PRCT | PREC |
| FEET/ FOOT FOOTING | MAG MAINT | MAGNETIC MAINTENANCE | PREFAB PRESS | PREF. PRES |
| FURRING | MAINT | MANUAL | PROF | PROF |
| FUTURE | MAS | MASONRY | PRV | PRES |
| FIELD VERIFY FORWARD | MATL MAX | MATERIAL MAXIMUM | PRVC | VALV POIN |
| | MB | MAIL BOX/ MACHINE BOLT | PS | PRES |
| GAS GAGE/ GAUGE | MCC MCR | MOTOR CONTROL CENTER MIDDLE OF CURB RETURN | PSF PSI | POUN POUN |
| GALLON | MEAS | MEASURE | PSIA | POUN |
| GALVANIZED GUY ANCHOR | MECH MED | MECHANICAL MEDIUM | PSIG PT | POUN POIN |
| GRADE BREAK | MEMB | MEMBER | PTFE | POIN |
| GENERAL/ GENERATOR | MFRD | | PV | PLUG |
| GROOVED FLANGE ADAPTER GALVANIZED IRON | MGD MH | MILLION GALLONS PER DAY MANHOLE | PVC PVDF | POLY POLY |
| GALVANIZED IRON PIPE | MHT | MEAN HIGH TIDE | | |
| GLASS/ GROUND LINE/ GRADE LINE GLUE LAMINATED BEAM | MHW MI | MEAN HIGH WATER MALLEABLE IRON/ MILE | QT QTY | QUAF QUAN |
| GLOBE VALVE | MICRON | 1/ 1,000,000 TH METER | QUAD | QUAE |
| GAS METER GUY POLE | MIL MIN | MILITARY/ 1/1,000 TH INCH MINIMUM/ MINUTE | R | RADIL |
| GALLONS PER DAY | MIR | MIRROR | R&O | ROCK |
| GALLONS PER HOUR GALLONS HER MINUTE | MISC MK | MISCELLANEOUS MARK | R/W RAC | RIGH ⁻ RECY |
| GRADE | MLW | MEAN LOW WATER | RAG | RETU |
| GRADE/ GROUND | mm MO | MILLIMETER MOTOR OPERATED/ MASONRY OPENING | RAP | RECL |
| GRATING GALVANIZED STEEL PIPE | MOD | MODEL/ MODIFICATION | RAS RC | RETU REINF |
| GATE VALVE | MON | MONUMENT/ MONITOR | RCP | REINF |
| GYPSUM | MOR MS | MORTAR MOP SINK | RD RED | ROAD REDU |
| HIGH/ HEIGHT | MSL | MEAN SEA LEVEL | REF | REFE |
| HEATING AND VENTILATING HOSE BIBB | MTC MTD | MECHANICAL-TYPE COUPLING MOUNTED | REG REINF | REGU REINF |
| HOUSE CONNECTION | MTG | MOUNTING | REQD | REQU |
| HEADER HARDWARE | MTL MTR | METAL MOTOR | RESIL RET | RESIL RETA |
| HEADWALL | | | REV | REVIS |
| HEXAGONAL MERCURY | N NaOCl | NORTH SODIUM HYPOCHLORITE | RF | ROOF |
| HYDRAULIC GRADE LINE | NaOH | SODIUM HYDROXIDE (CAUSTIC SODA) | RFG FGE | ROOF REGIS |
| HANGER | NBS | NATION BUREAU OF STANDARDS | RH | REDH |
| HOLLOW METAL HORIZONTAL | NC NEC | NORMALLY CLOSED NATIONAL ELECTRIC CODE | RM RO | ROON |
| HIGH POINT/ HORSE POWER/ HIGH PRESSURE | NEMA | NATIONAL ELECTRICAL MANUFACTURERS | RPM | REVO |
| HIGH PRESSURE GAS HEAT RETURN/ HOUR | NF | ASSOCIATION NEAR FACE | RR RS | RAILF RAISI |
| HEATING | NFPA | NATION FIRE PROTECTION ASSOCIATION | RSL | RAW |
| HEATER HORIZONTAL AND VERTICAL CONTROL POINT | NG NIC | NATION GRADE/ NATURAL GAS NOT IN CONTRACT | RT RTP | RIGH ⁻ REINF |
| HEATING, VENTILATION AND AIR CONDITION/ HIGH | NO | NORMALLY OPEN | RW | REDV |
| VOLTAGE AC POWER LINE HOT WATER/ HEADWORK | NOM NPS | NOMINAL NOMINAL PIPE SIZE | RWL | RAIN |
| HARDWOOD | NPT | NATIONAL PIPE THREAD | S | SOUT |
| | NRCP | NON-REINFORCED CONCRETE PIPE | S/O | SOUT |
| HAND WHEEL OPERATED HYDRAULIC/ HYDRANT | NRS NS | NON-RAISING STEM NEAR SIDE | SA SAN | SAMF SANIT |
| | NTS | NOT TO SCALE | SBR | STYR |
| INSIDE AND OUTSIDE INSIDE DIAMETER | OBJ | OBJECT | SC SCCP | SPAC STEE |
| INSIDE FACE | OC | ON CENTER/ OVER-CROSSING | SCD | SCRE |
| INSULATING JOINT TEST STATION INCH | OD OE | OUTSIDE DIAMETER/ OVERALL DIMENSION OUTER EDGE | SCFM SCH | STAN SCHE |
| INCLUDE/ INCLUDING | OF | OVERFLOW/ OUTSIDE FACE | SD | STOR |
| INFLUENT INSULATION | OFD OFF | OVERFLOW DRAIN OFFICE | SDR | STAN RATIC |
| INSPECTION | OFF | OVERHEAD | SEC | SECO |
| INSTRUMENT INT | OPER OPNG | OPERATOR/ OPERATING OPENING | SER | SERIE |
| IRON PIE | OPNG | OPPOSITE | SETT SF | SETT SQUA |
| IRON PIPE SIZE IRRIGATION | ORIG OS&Y | ORIGINAL OUTSIDE SCREW & YORK | SH | SHOV SHEL |
| IRRIGATION | OSA | OUTSIDE SCREW & FORK | SHELV SHT | SHEE |
| JANITOR JOINT | OSHA | OCCUPATIONAL SAFETY & HEALTH | SHTG | SHEA |
| 30101 | OWG | ADMINISTRATION OIL, WATER, GAS | SIM SL | SIMIL SLUD |
| KELVIN/ KILO/ KARAT | OZ | OUNCE | SLDG | SLIDII |
| KILOGRAM KILOMETER | Р | POLE/ PAGE/ PIPE | SLG SOG | SLUIC SLAB |
| KILOVOLT | P/S | POLE AND SHELF | SOLN | SOLU |
| KILOWATT KILOWATT HOUR | PA PART | PLANTING AREA PARTITION | SP SPEC | STAT SPEC |
| | PAVMT | PAVEMENT | SPK | SPIKE |
| LITER/ LENGTH/ ANGLE LABORATORY | PB PC | POLYBUTYLENE/ PULL BOX POINT OF CURVATURE/ PRIMARY CLARIFIER/ | SQ SST | SQUA STAIN |
| LAMINATED | | PORTLAND CEMENT | SSB | SELE |
| LATERAL LAVATORY | PCC | PORTLAND CEMENT CONCRETE/ POINT OF COMPOUND CURVE | SSPWC | STAN CONS |
| POUND | PCCP | PRE-STRESSED CONCRETE CYLINDER PIPE | SSU | SECO |
| LOCAL CONTROL PANEL LOCAL DEPRESSION | PCOTG | | ST | STRE |
| LANDING | PCVC PE | POINT OF COMPOUND VERTICAL CURVE POLYETHYLENE/ PLANT EFFLUENT/ | STA STC | STAT SLEE |
| LOUISIANA DEPARTMENT OF TRANSPORTATION | | POLYELECTROLYTE POLYMER | STD | STAN |
| AND DEVELOPMENT LINEAR FEET | PG pH | PRESSURE GAUGE HYDROGEN ION CONCENTRATION | STK STL | STAK STEE |
| LENGTH/ LONG | PI | PLANT INFLUENT/ POINT OF INTERSECTION | STM | STEA |
| LAMP HOLE/ LEFT HAND LIVE LOAD | PK PL | PARKING PLATE/ PROPERTY LINE/ PLACE | STR SUCT | STRA SUCT |
| LONG LEG HORIZONTAL | PLAS | PLASTER/ PLASTIC | SV | SOLE |
| LONG LEG VERTICAL LOCATION | PLT PLWD | PLANT PLYWOOD | SW SWD | SIDEV SIDEV |
| LAYOUT LINE | PM | PRESSED METAL | SWGR | SWIT |
| LONGITUDINAL | PNEU | PNEUMATIC | SWR | SIDEV |
| | | | | |
| | | | | |

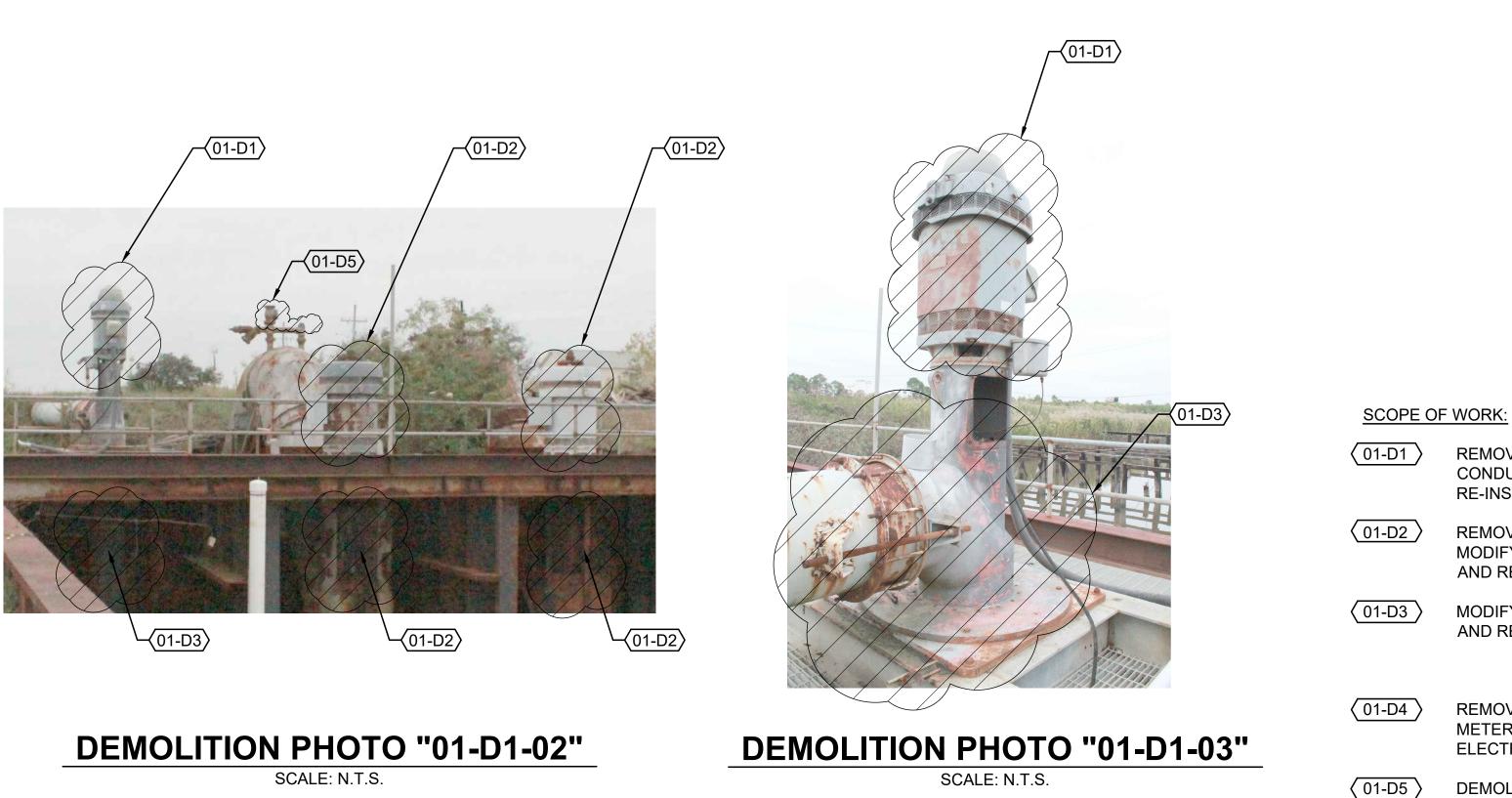
| | PANEL POINT OF BEGINNING POINT OF CONNECTION | SY SYM SYS | SQUARE YARD SYMMETRICAL/ SYMBOL SYSTEM | | |
|----------|---|------------------|--|---|---|
| | POINT OF TANGENT POWER POLE/ POLYPROPYLENE | T T&B | THERMOSTAT/ TREAD OF STAIR/ TANGENT/ TOP | | License No. 37832 |
| | POUNDS PER DAY POUNDS PER HOUR | T&G | TOP AND BOTTOM TONGUE AND GROOVE | | |
| | POUNDS PER MINUTE PAIR | TAN TB | TANGENT TACK BOARD | | |
| - | POINTS OF REVERSE CURVE | TBE | THREAD BOTH ENDS | | |
| T FAB | PRECAST/ PERCENT PREFABRICATED | TBM TC | TEMPORARY BENCH MARK TOP OF CURB | | MILLIN. |
| SS F | PRESSURE PROFILE | TCV TEL | TEMPERATURE CONTROL VALVE TELEPHONE | | |
| | PRESSURE REGULATING, RELIEF, OR REDUCING | TEMP | TEMPERATURE/ TEMPORARY | | |
|) | VALVE POINT OF REVERSE VERTICAL CURVE | TF TH | TOP OF FOOTING TEST HOLE | 832 SE NO. | 30219 LICENSE NO. |
| | PRESSURE SWITCH POUNDS PER SQUARE FOOT | THK THR | THICK/ THICKNESS THRESHOLD | 37832 LICENSE 1 | 302 CENS |
| | POUNDS PER SQUARE INCH | THR'D | THREADED | | |
| | POUNDS PER SQUARE INCH ABSOLUTE POUNDS PER SQUARE INCH GAUGE | TK TL | TANK/TACK TRAVERSE LINE | IĽ. | lr. |
| | POINT OF TANGENCY/ PAINT/ PRESSURE TREATED | TOC | TOP OF CONCRETE | SUBMITTED BY: DAVID A. MARTIN PROJECT MANAGER | SUBMITTED BY: H. DAVIS COLE COMPANY OFFICER |
| | POLYTETRAFLUOROETHYLENE (TEFLON) PLUG VALVE | TOE TOL | THREAD ONE END TOILET | ED B MAR | ED B COLI Y OF |
| | POLYVINYL CHLORIDE/ POLYVINYL CONDUIT (PIPE) POLYVINYLIDENE FLUORIDE (KYNAR) | TOM TOP | TOP OF MASONRY TOP OF PIPE | MITT JECT | MITT AVIS IPAN |
| | | TOPO | TOPOGRAPHIC | SUB DAV PRC | SUB CON |
| | QUARRY TILE QUANTITY | TOS TOW | TOP OF STEEL TOP OF WALL | | |
|) | QUADRANGLE/ QUADRANT | TP | TELEPHONE POLE | | ة LC& |
| | RADIUS/ RISER/ RATE OF SLOPE | TR TRANS | TRACT TRANSMITTER/ TRANSITION/ TRANSMISSION | | H. Davis Cole & Associates, LLC Consulting Engineers |
| | ROCK AND OIL RIGHT OF WAY | TS TSB | TRAFFIC SIGNAL TOP SET BASE | | avis voiat |
| | RECYCLED ASPHALT CONCRETE | TSC | TRAFFIC SIGNAL CONDUIT | | H. C SSC SSC |
| | RETURN AIR GRILLE RECLAIMED ASPHALT PAVEMENT | TV TW | THERMOSTATIC VALVE/ TELEVISION THERMOMETER WELL/ TRAVELED WAY | | |
| | RETURN ACTIVATED SLUDGE REINFORCED CONCRETE | TYP | TYPICAL | | DAM CHK'D. |
| | REINFORCED CONCRETE PIPE | UB | UNION BONNET | | |
| | ROAD/ ROOF DRAIN/ ROUND REDUCER/ REDUCING | UBC UC | UNIFORM BUILDING CODE UNDER-CROSSING | | DAM BY |
| | REFERENCE/ REFER/ REFRIGERATOR | UG | UNDERGROUND | | 2020 TE |
| = | REGULATING REINFORCE/ REINFORCED | UGC UH | UNDERGROUND CONDUIT UNIT HEATER | | MAR 20 DATE |
|) | REQUIRED | UL UNO | UNDERWRITER'S LABORATORIES UNLESS NOTED OTHERWISE | | |
| - | RETAINING/ RETURN | UOI | UNLESS OTHERWISE INDICATED | | CONSTRUCTION MAR |
| | REVISION ROOF/ RAISED FOUNDATION/ ROUGH FACE | UR USA | URINAL UNDERGROUND SERVICE ALERT | | ISTRL |
| | ROOFING REGISTERED GEOTECHNICAL ENGINEER | UDGS | UNITED STATES GEOLOGICAL SURVEY | | 3IDS & CONSTR CRIPTION |
| | REDHEAD/ RIGHT HAND | V | VALVE/ VERTICAL/ VENT/ VOLT/ VOLUME | | BIDS & (|
| | ROOM ROUGH OPENING | VAC VAR | VACUUM VARIES/ VARIABLE | | FOR B DESC |
| | REVOLUTIONS PER MINUTE | VB | VALVE BOX | | |
| | RAILROAD RAISING STEAM | VC VCP | VERTICAL CURVE VITRIFIED CLAY PIPE | | RELEASED |
| | RAW SLUDGE RIGHT | VERT VOL | VERTICAL VOLUME | | |
| | REINFORCED THERMOSETTING PLASTIC REDWOOD | VPI VTC | VERTICAL POINT OF INSERTION VENT TO CEILING | | - MARK |
| | REDWOOD RAINWATER LEADER | VTR | VENT THROUGH ROOF | .∵ | |
| | SOUTH/ SCUM/ SINK/ SECOND/ SLOPE/ SAND | VWC VWM | VINYL WALL COVERING VERIFY WITH MANUFACTURER | ED BY M: BY: | |
| | SOUTH OF SAMPLE | W | WEST/ WASTE/ WIDTH/ WIDE FLANGE | DESIGNED DAM DRAWN BY | DAM CKED B) |
| | SANITARY | W/ | WITH | DES | CHE |
| | STYRENE BUTADIENE (RUBBER) SPACE CHEMICAL/ SECONDARY CLARIFIER | W/0 WC | WEST OF/ WITHOUT WATER COLUMN/ WATER CLOSET | | _ |
|) | STEEL CYLINDER CONCRETE PIPE SCREWED | WCO WD | WALL CLEANOUT WOOD | 0 | NO. |
| 1 | STANDARD CUBIC FEET PER MINUTE | WDW | WINDOW | 2020 BY: | M ECT |
| | SCHEDULE STORM DRAIN | WH WI | WATER HEATER/ WALL HEATER WROUGHT IRON | E: DEC, 20 AILED BY | DAM PROJECT |
| | STANDARD THERMOPLASTIC PIPE DIMENSION | WM | WATER METER | DATE: DE | U I |
| | RATIO SECONDARY/ SECTION | WOG WP | WATER, OIL OR GAS WATERPROOFING/ WORKING PRESSURE/ WEAK | DE | ЙН |
| | SERIES SETTING | WPJ | POINT WEAKEN PLANE JOINT | ₹ | |
| | SQUARE FOOT | WS | WATER SURFACE | LOUISIANA | |
| V | SHOWER SHELVING | WSTP WT | WATER STOP WEIGHT | SIU | |
| i | SHEET SHEATHING/ SHEETING | WWF WWP | WELDED WIRE FABRIC WATER WORKING PRESSURE | LO 3 | |
| | SIMILAR | WWTP | WASTE WATER TREATMENT PLANT | | |
| | SLUDGE SLIDING | XCONN | CROSS CONNECTION | PHASE | |
| | SLUICE GATE SLAB ON GRADE | XS XSEC | EXTRA STRONG CROSS SECTION | | — |
| | SOLUTION | XSS | DOUBLE EXTRA STRONG | | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| | STATIC PRESSURE SPECIFICATION | YD | YARD | STATION SH GOVE | DRIVE LA 7047 |
| | SPIKE | YR | YEAR | TAT H G | |
| | STAINLESS STEEL | Z | ZERO/ ZONE | s ST ISH | KOOP DRI VILLE, LA 7 |
| Ċ | SELECT SUB-BASE STANDARD SPECIFICATION FOR PUBLIC WORKS | ZN | ZINC | PUMP | 21454 KOO NDEVILLE |
| - | CONSTRUCTION | # & | | D d J | <u>Т</u> <u></u> |
| | SECONDS SAYBOLT UNIVERSAL STREET/ STATE | & @ | AND AT | | 145 NDI |
| | STATION SLEEVE-TYPE COUPLING | | | ŌŻ | MAI MAI |
| | STANDARD | | | L I I | - |
| | STAKE STEEL | | | | |
| | STEAM STRAIGHT/ STRUCTURAL | | | LAI ST | |
| | SUCTION | | | Σ | |
| | SOLENOID VALVE SIDEWALK | | | TAMMY | |
| ξ | SIDEWALK DRAIN SWITCHGEAR | | | ST. T | |
| • | SIDEWALL REGISTER | | | | |
| | | | | SHEET ID | G5 |
| | | | | | |
| | | | | SHEET SET | DF 20 |
| | I | | | · · | |

| | | | IATERIALS (| SEE SCH A | T RIGHT) | | | IREMENTS | | | T T |
|------------|--|----------------|-------------------|----------------|------------------|------------------|-----------------|---------------------|--------------------|--------------------|-------------------|
| | FUNCTION | | D PIPING | | D PIPING | | | | | | |
| | | | OTE 14) | - | OTE 13) | MINIMUM | | LEAKAGE | PIPE | PIPE | LETTER |
| | THIS LIST INCLUDES SOME LINES NOT USED IN THE PROJECT | 2" DIA | 2 ½" DIA | 2" DIA | 2 1⁄2" DIA | TEST PRESSURE | TEST MEDIUM | ALLOWANCE | COLOR (EXPOSED | MARKER (EXPOSED | COLOR (EXPOSED |
| | | AND SMALLER | AND LARGER | AND SMALLER | AND LARGER | PSI | MEDION | (SEE NOTE 2) | PIPE) | PIPE) | PIPE) |
| А | AERATION | 1,16,18 | 5,11,16,18 | 1,16,18 | 5,11,16,18 | 25 | AIR | (A)(D) | NOTE 17 | BLUE | WHITE |
| AW | AERATED WATER | 16 | 11 | 16 | 11,32 | 25 | AIR | (A)(D) | AQUA | BLUE | WHITE |
| BD | BOTTOM DRAIN | | 26 | | 26 | 50 | WATER | (A) | NOTE 17 | GREEN | WHITE |
| BP BW | BYPASS FILTER BACKWASH | | 8 | | 8 | 25 75 | WATER WATER | (A) (A) | NOTE 17 NOTE 17 | GREEN GREEN | WHITE |
| C | CONDENSATE | 29* | 29* | 29* | 29* | 125 | WATER | (X) | NOTE 17 | YELLOW | BLACK |
| CAW | CHANNEL AGITATION WATER | 16 | 16 | 16 | 16 | 25 | WATER | (A) | NOTE 17 | YELLOW | BLACK |
| CD | CHEMICAL DRAIN AND VENT | 13,17,23 | 13,17,23 | 13,17,23 | 13,17,23 | NOTE 7 | | | NOTE 17 | YELLOW | BLACK |
| CL | CHLORINE (GAS OR LIQUID STATE) | 10 | | 10 | | 300 | DRY AIR | (A)(D) | YELLOW | YELLOW | BLACK |
| CLS | | 16 | 16 | 16 | 16 | 125 | WATER | (A) | YELLOW | YELLOW | BLACK |
| CLV CN | CHLORINE GAS UNDER VACUUM CENTRATE | 16 | 16 26 | 16 | 16 26 | 15 IN Hg 50 | VACUUM WATER | (A)(E) (A) | YELLOW NOTE 17 | YELLOW GREEN | BLACK WHITE |
| CS | CAUSTIC SODA | 6 | 6 | 6 | 6 | 125 | WATER | (A) | YELLOW | YELLOW | BLACK |
| CSL | CIRCULATED SLUDGE | | 30 | | 30 | 50 | WATER | (A) | BROWN | YELLOW | BLACK |
| CV | CHLORINATOR VENT AND DETECTION | 16 | 16 | 16 | 16 | NOTE 8 | | | YELLOW | YELLOW | BLACK |
| DCS | LINE DEFOAMING CHEMICAL SOLUTION | 16 | 16 | 16 | 16 | 125 | WATER | (A) | NOTE 17 | GREEN | WHITE |
| DN | DECANT | | 26 | | 26 | 50 | WATER | (A) | NOTE 17 | GREEN | WHITE |
| DSL | DIGESTED SLUDGE | | 30 | | 30 | 50 | WATER | (A) | BROWN | YELLOW | BLACK |
| DW | DEMINERALIZED WATER | 16,18 | 16,18 | 16,18 | 16,18 | 125 | WATER | (A) | NOTE 17 | GREEN | WHITE |
| EE EWR | ENGINE EXHAUST ENGINE COOLING WATER RETURN | 14* 1* | 14* 1* | 14 | 14 | NOTE 8 125 | WATER | | NOTE 17 NOTE 17 | YELLOW GREEN | BLACK WHITE |
| EWR | ENGINE COOLING WATER RETORN | 1* | 1* | 1 | 1 | 125 | WATER | (A) (A) | NOTE 17 NOTE 17 | GREEN | WHITE |
| F | FROTH | 30 | 30 | 30 | 30 | 50 | WATER | (A) (A) | NOTE 17 NOTE 17 | YELLOW | BLACK |
| FA | FOUL AIR | | 18 | | 18 | 10 | AIR | (A)(D) | NOTE 17 | YELLOW | BLACK |
| FAW | FILTERED AIR WASH | 16 | 11 | 16 | 11,32 | 25 | AIR | (A)(D) | NOTE 17 | | |
| FE | | | 8 | | 8 | 50 | WATER | (A) | NOTE 17 | GREEN | WHITE |
| FIW | FINISHED WATER | 16 | 11 | 16 | 11,32 11,32 | 25 | WATER | (A) | BLUE | BLUE | WHITE |
| FLW FM | FILTERED WATER FORCE MAIN | 16 | 11 8,26 | 16 | 11,32 8,26 | 25 125 | WATER WATER | (A) (A) | AQUA NOTE 17 | AQUA YELLOW | WHITE BLACK |
| FOR | FUEL OIL RETURN | 9 | 9 | 9 | 9 | 125 | AIR | (A)(D) | NOTE 17 NOTE 17 | YELLOW | BLACK |
| FOS | FUEL OIL SUPPLY | 9 | 9 | 9 | 9 | 125 | AIR | (A)(D) | NOTE 17 | YELLOW | BLACK |
| FS | FROTH SPRAY | 2 | 2 | 2 | 2 | 125 | WATER | (A) | NOTE 17 | GREEN | WHITE |
| FSP | FIRE PROTECTION SPRINKLER SYSTEM | NOTE 10 | NOTE 10 | NOTE 10 | NOTE 10 | NOTE 9 | WATER | | RED | RED | WHITE |
| G | | | 26 | | 26 | 50 | WATER | (A) | BROWN | YELLOW | BLACK |
| H HR | HYPOCHLORITE HEATING WATER RETURN | 16 1* | 16 1* | 16 1* | 16 1* | 125 125 | WATER WATER | (A) (A) | NOTE 17 NOTE 17 | YELLOW | BLACK |
| HS | HEATING WATER SUPPLY | 1* | 1* | 1* | 1* | 125 | WATER | (A) | NOTE 17 | YELLOW | BLACK |
| HWR | DOMESTIC HOT WATER RETURN | 24* | 2* | 24* | 2* | 125 | WATER | (A) | NOTE 17 | YELLOW | BLACK |
| HWS | DOMESTIC HOT WATER SUPPLY | 24* | 2* | 24* | 2* | 125 | WATER | (A) | NOTE 17 | YELLOW | BLACK |
| IA | INSTRUMENT AIR | 24 | 2 | 24 | 2 | 125 | AIR | (A)(D) | GREEN | BLUE | WHITE |
| IE | | | 8 | | 8,28 | 50 | WATER | 8(A)28(B) | NOTE 17 | GREEN | WHITE |
| LA LO | LIQUID ALUM LUBE OIL | 16 9 | 16 9 | 16 9 | 16 9 | 125 125 | WATER AIR | (A) (A)(D) | ORANGE RED | YELLOW YELLOW | BLACK BLACK |
| LPG | LIQUEFIED PETROLEUM GAS | 3 | 3 | 3 | 3 | NOTE 7 | AIR | | RED | YELLOW | BLACK |
| LS | LIME SLURRY | NOTE 15 | NOTE 15 | NOTE 15 | NOTE 15 | NOTE 8 | | | LIGHT | YELLOW | BLACK |
| LSP | | 2,16 | 2,16 | 2,16 | 2,16 | NOTE 7 | | | GREEN NOTE 17 | GREEN | WHITE |
| ML | MIXED LIQUOR | 2,10 | 2,8,26,28 | 2,10 | 2,8,26,28 | 50 | | 2,3,26(A) 28(B) | BROWN | YELLOW | BLACK |
| MG | NATURAL GAS | 9 | 9 | 9 | 9 | NOTE 7 | AIR | | RED | YELLOW | BLACK |
| OF | OVERFLOW | | 8 | | 8 | 25 | WATER | 2,8(A)12,28(B) | NOTE 17 | GREEN | WHITE |
| PA | PLANT AIR | 7 | 7 | 7 | 7 | 300 | AIR | 22(C) (A) | GREEN | BLUE | WHITE |
| PA PD | PLANT AIR PLANT DRAIN | 2 | 7 8,12 | 2 | 7 8,12,22,28 | NOTE 6 | WATER | (A) (A) | NOTE 17 | GREEN | WHITE |
| PEA | POLYMER - ANIONIC | 16 | 16 | 16 | 16 | 125 | WATER | (A) | GREEN | GREEN | WHITE |
| PEC | POLYMER - CATIONIC | 16 | 16 | 16 | 16 | 125 | WATER | (A) | GREEN | GREEN | WHITE |
| PEF | PRIMARY EFFLUENT | | 8,26 | | 8,26 | 25 | WATER | (B) | NOTE 17 | YELLOW | BLACK |
| PEN | POLYMER - NONIONIC | 16 | 16 | 16 | 16 | 125 | WATER | (A) | GREEN | GREEN | WHITE |
| PI PO | PLANT INFLUENT PLANT OVERFLOW | 2 | 21.26 8 | 2 | 21,26 8,28 | NOTE 6 NOTE 6 | WATER WATER | (B) 2,8(A) 28(B) | NOTE 17 NOTE 17 | YELLOW GREEN | BLACK WHITE |
| PTW | PRE-TREATED WATER | 16 | 11 | 16 | 11,32 | 25 | WATER | (A) | AQUA | GREEN | |
| | | 2,24 | | 2,24 | 2,11,19 | | | 2,11,24(A) | | OPEEN | |
| PW | | | 2 | | | 125 | WATER | 19(B) | BLUE | GREEN | WHITE |
| RAS REW | RETURN ACTIVATED SLUDGE RECLAIMED WATER | | 26 8 | | 26 8 | 50 75 | WATER WATER | (A) (A) | BROWN PURPLE | YELLOW PURPLE | BLACK WHITE |
| REW | RAW SLUDGE | | 30 | | 30 | 50 | WATER | (A) (A) | BROWN | YELLOW | BLACK |
| RW | RAW WATER | 2 | 8 | 2 | 8,28 | 125 | WATER | 2,8(A) 28(B) | GREEN | GREEN | WHITE |
| RWL | RAINWATER LEADER | 4,12 | 4,12 | 12 | 12 | NOTE 7 | | | NOTE 17 | GREEN | WHITE |
| S | | | 30 | | 26 | 50 | WATER | (A) | NOTE 17 | YELLOW | BLACK |
| SA SC | SAMPLE LINE (SEE LIST AT RIGHT) SPARE CHEMICAL | 16,18,24 16 | 16 | 16,18,24 16 | 16 | 125 125 | WATER WATER | (A) | NOTE 17 NOTE 17 | YELLOW YELLOW | BLACK BLACK |
| SC SD | SPARE CHEMICAL SANITARY DRAIN AND VENT | 16 4,12 | 16 12 | 16 12 | 16 12,21 | 125 NOTE 7 | WATER | (A) | BLACK | YELLOW | BLACK |
| SDR | STORM DRAIN | | 8 | | 22,28 | NOTE 7 | | 8,(A)28(B)22(C) | | GREEN | WHITE |
| SE | SECONDARY EFFLUENT | | 8,26 | | 8,26 | 50 | WATER | (A) | NOTE 17 | YELLOW | BLACK |
| SF | SLUDGE FILTRATE | | 26 | | 26 | 50 | WATER | (A) | BROWN | YELLOW | BLACK |
| SG | SLUDGE GAS | 31 | 31 | 31 | 31 | 15 | AIR | (A)(D) | BROWN | YELLOW | BLACK |
| SI SN | SODIUM SILICATE SUPERNATANT | 6,16 | 6,16 26 | 6,16 | 6,16 26 | 125 50 | WATER WATER | (A) (A) | NOTE 17 NOTE 17 | YELLOW YELLOW | BLACK BLACK |
| | SUPERNATANT SULFUR DIOXIDE (GAS OR LIQUID STATE) | 10 | | 10 | | 300 | DRY AIR | (A) (A)(D) | NOTE 17 NOTE 17 | YELLOW | BLACK |
| SOA | SULFURIC ACID | 25 | 25 | | | 125 | AIR | (A)(D) | YELLOW | RED | BLACK |
| SOS | SULFUR DIOXIDE SOLUTION | 16 | 16 | 16 | 16 | 125 | WATER | (A) | LIGHT GREEN | YELLOW | BLACK |
| SOV | SULFUR DIOXIDE GAS UNDER VACUUM | 16 | 16 | 16 | 16 | 15 IN Hg | VACUUM | (A)(E) | LIGHT | YELLOW | BLACK |
| | | | | | _ | <u> </u> | | | GREEN | | |
| SPD SS | SUMP PUMP DISCHARGE SANITARY SEWER | 2 | 26 12 | 2 | 26 12,21 | 50 NOTE 7 | WATER 00 | (A) | NOTE 17 BLACK | GREEN YELLOW | WHITE BLACK |
| ST | STEAM (LOW PRESSURE TO 10 PSI) | 29* | 29* | 29* | 29* | 125 | WATER | (A) | NOTE 17 | YELLOW | BLACK |
| SU | STRUCTURE UNDERDRAIN | | | | 20 | NO | TEST | REQUIRED | NOTE 17 | GREEN | WHITE |
| SUC | STRUCTURE UNDERDRAIN COLLECTOR | | 12 | | 12,21 | NOTE 6 | WATER | (C) | NOTE 17 | GREEN | WHITE |
| SW | FILTER SURFACE WASHWATER | 14,16,18 | 8,14,15,16, 18 | 2,16,18 | 2,8,15,16, 18 | 125 | WATER | (A) | NOTE 17 | GREEN | WHITE |
| TPR | THICKENER PRESSURIZED RECYCLE | | 26 | | 26 | 50 | WATER | (A) | NOTE 17 | NOTE 17 | NOTE 17 |
| TS | THICKENER SUBNATANT | | 26 | | 26 | 50 | WATER | (A) | NOTE 17 | NOTE 17 | NOTE 17 |
| TSL | THICKENED SLUDGE | | 30 | | 30 | 50 | WATER | (A) | BROWN | YELLOW | BLACK |
| TSO | THICKENER SUBNATANT OVERFLOW | | 26 | | 26 | 50 | WATER | (A) 2,11,24(A) | NOTE 17 | YELLOW | BLACK |
| UW | UTILITY WATER (NON-POTABLE WATER) | 2,24 | 2,11 | 2,24 | 2,11,19 | 125 | WATER | 2,11,24(A) 19(B) | PURPLE | YELLOW | BLACK |
| V | VACUUM | 24 | 2 | 24 | 2 | 15 IN Hg | VACUUM | (A)(E) | NOTE 17 | BLUE | WHITE |
| WAS | WASTE ACTIVATED SLUDGE | | 26 | | 26 | 50 | WATER | (A) | BROWN | YELLOW | BLACK |
| WLO | WASTE LUBE OIL | 9 | 9 | 9 | 9 | 50 NOTE 6 | | (A)(D) | RED | YELLOW | BLACK |
| WW | FILTER WASTE WASHWATER | | 8 | | 8 | NOTE 6 | WATER | (A) | NOTE17 | YELLOW | BLACK |
| | | | | | | | | | | | |

| | PIPING MATERIAL SCHEDUL | |
|-----------|--|--|
| GROUP No. | PIPING (SEE NOTE 13) | FITTINGS |
| 1 | STEEL, ASTM A53, SCH 40, BLACK WELDED | 2 1/2" AND SMALLER, MALLEABLE IRON, ANSI B16.3, THREADED, BANDED BLACK, 15 PSI OR STEEL, ANSI BI16.9, BUTT-WELDED. 3"AND LARGER, CA IRON, ANSI B16.1, 125 PSI FLGD OR MECH CPLG |
| 2 | STEEL, ASTM A53, SCH 40, BLACK WELDED, GALVANIZED | 2 1/2" AND SMALLER, MALLEABLE IRON, ANSI B16.3, THREADED, BANDED GALVANIZED 150 PSI. 3" AND LARGER, CAST IRON, ANSI B16.1, 125 PSI FL OR MECH CPLG |
| 3 | STEEL, ASTM A106 OR A53, SCH 80, SEAMLESS, BLACK | FORGED STEEL, ANSI B16.11, SOCKET WELDED OR THREADED, BLACK, 2000 PSI, OR STEEL, ANSI B16.9, BUTT-WELDED, SCH 80 |
| 4 | SAME AS GROUP 1 | CAST IRON, ASNI B16.12, THREADED, DRAINAGE PATTERN |
| 5 | WELDED STEEL, AWWA C200, UNLINED | WELDED STEEL, FABRICATED, AWWA C200, UNLINED |
| 6 | STEEL, ASTM A106, OR A53, SCH 40, SEAMLESS, BLACK | STEEL, ANSI B16.9, BUTT-WELDED. CAST IRON, ANSI B16.1, 125 PSI, FLGD FORGED STEEL, SOCKET WELDED. ANSI B16.11, 2000 PSI OR STEEL, ANS B16.5, 150 PSI FLGD |
| 7 | SAME AS GROUP NO. 2 | MALLEABLE IRON, ANSI B16.3, THREADED, BANDED, GALVANIZED, 300 PS |
| 8 | WELDED STEEL, AWWA C200 | WELDED STEEL, AWWA C200, FABRICATED |
| 9 | SAME AS GROUP NO. 1 | 2 1/2" AND SMALLER, MALLEABLE IRON, ANSI B16.3, THREADED, BANDED BLACK, 150 PSI. 3" AND LARGER, STEEL, ANSI B16.9, BUTT-WELDED |
| 10 | SAME AS GROUP NO. 3 | 1 1/4" AND SMALLER, FORGED STEEL, ANSI B16.11, THREADED OR SOCKI WELDED, BLACK, 3000 PSI, WITH FLGD AMMONIA UNIONS, 1 1/2" AND LARGER, STEEL, ANSI B16.9, BUTT-WELDED OR FLGD, SCH 80 |
| 11 | DUCTILE IRON, ANSI A21.51, (AWWA C151), 150 PSI, BELL AND SPIGOT, MECH JTS. MECH CPLG, OR 125 PSI FLGD (TYPICAL SERVICE- WATER LINES) | DUCTILE IRON OR CAST IRON, ANSI A21.10, OR AWWA C110, BELL AND SPIGOT, MECH CPLG, FLGD OR MECH JTS, 250 PSI, (PRESSURE RATING) AND SMALLER, 150 PSI, (PRESSURE RATING)14" AND LARGER, WITH 125 ANSI B16.1 FLANGES |
| 12 | CAST IRON SOIL, ANSI/ASTM A-74, SERVICE WEIGHT, BELL AND SPIGOT OR HUBLESS. AT THE OPTION OF THE CONTRACTOR, DUCTILE IRON (GROUP NO.11) MAY BE SUBSTITUTED | CAST IRON SOIL, ANSI/ASTM A-74, SERVICE WEIGHT, BELL AND SPIGOT HUBLESS. AT THE OPTION OF THE CONTRACTOR, DUCTILE IRON (GROU NO 11) MAY BE SUBSTITUTED |
| 13 | CORROSION RESISTANT (HIGH SILICON CONTENT) CAST IRON, SERVICE WEIGHT, BELL AND SPIGOT OR HUBLESS | CORROSION RESISTANT (HIGH SILICON CONTENT) CAST IRON, SERVICE WEIGHT, BELL AND SPIGOT OR HUBLESS |
| 14 | STAINLESS STEEL, TYPE 316, ASTM A 312, SCH 40S | STAINLESS STEEL, TYPE 316 ANSI B16.3, SCREWED, 150 PSI ANSI B16.9, BUTT-WELDED, SCH 40S, OR 150 PSI FLGD |
| 15 | STAINLESS STEEL, TYPE 316, ASTM A 312, SCH 10S | STAINLESS STEEL, TYPE 316 ANSI B16.9 BUTT-WELDED SCH 150 PSI FLG |
| 16 | POLYVINYL CHLORIDE, SCH 80, NORMAL IMPACT. ASTM D1785 | POLYVINYL CHLORIDE, SCH 80, NORMAL IMPACT, SOCKET SOLVENT WE JTS, ASTM D2467 |
| 17 | POLYPROPYLENE, ASTM D2146, SCH 40, WITH HEAT FUSED JTS | POLYPROPYLENE, SCH 40, DRAINAGE TYPE WITH HEAT FUSED SOCKET |
| 18 | FIBERGLASS REINFORCED PLASTIC, ASTM D2996, FILAMENT-WOUND, SOCKET AND SPIGOT ENDS, ADHESIVE BONDED. SEE SPECIFICATION 15860 | JTS FIBERGLASS REINFORCED PLASTIC, FILAMENT-WOUND, SOCKET ENDS, ADHESIVE BONDED, OR FIBERGLASS FLGD |
| 19 | POLYVINYL CHLORIDE PRESSURE PIPE ASTM D2241 WITH BELL AND SPIGOT JTS | CAST IRON, 150 PSI, FOR POLYVINYL CHLORIDE PIPE, AWWA C110 CEME MORTAR LINED, AWWA C104 |
| 20 | VITRIFIED CLAY, PERFORATED, ASTM C 700, EXTRA STRENGTH, FLEXIBLE COMPRESSION JTS FOR BELL AND SPIGOT PIPE OR PLAIN END WITH MECH COMPRESSION JTS | VITRIFIED CLAY, ASTM C700, FLEXIBLE JTS FOR BELL AND SPIGOT PIPE PLAIN END WITH MECH COMPRESSION JTS |
| 21 | VITRIFIED CLAY, ASTM C700, EXTRA STRENGTH, FLEXIBLE COMPRESSION JTS FOR BELL AND SPIGOT PIPE OR PLAIN END WITH MECH COMPRESSION JTS | VITRIFIED CLAY, ASTM C700, FLEXIBLE JTS FOR BELL AND SPIGOT PIPE PLAIN END WITH MECH COMPRESSION JTS |
| 22 | REINFORCED CONCRETE, ASTM C76, T&G JTS. (TYPICAL SERVICE-CULVERTS) | SAME AS GROUP NO. 8 |
| 23 | TEMPERED GLASS (ARMORED WHERE BURIED) ANSI/ASTM C599 | TEMPERED GLASS DRAINAGE TYPE WITH COMPRESSION COUPLING & TEFLON JTS, ANSI/ASTM C599 |
| 24 | COPPER, ASTM B88, TYPE K, SOFT TEMPERED WHERE BURIED, HARD TEMPERED WHERE EXPOSED | EXISTING |
| 25 | STEEL, ASTM A106 OR A53, SCH 40, SEAMLESS, BLACK, SARAN OR POLYPROPYLENE-LINED | STEEL, ANSI B16.5, 150 PSI FLGD, SARAN OR POLYPROPYLENE-LINED |
| 26 | SAME AS GROUP NO. 11 (TYPICAL SERVICE-SLUDGE AND SEWAGE LINES) | SAME AS GROUP NO. 11 |
| 27 | POLYVINYL CHLORIDE GRAVITY SEWER PIPE, ASTM D3034, BELL AND SPIGOT | POLYVINYL CHLORIDE, ANSI/ASTM D3034, BELL AND/OR SPIGOT |
| 28 | REINFORCED CONCRETE, AWWA C302, CLASS-SEE DRAWINGS. (TYPICAL SERVICE-PRESSURE PIPELINES) | SAME AS GROUP NO. 8 |
| 29 | SAME AS GROUP NO.1 | 2" AND SMALLER, MALLEABLE IRON, ANSI B16.3, THREADED, BANDED, BLACK, 150 PSI. 2 1/2" AND LARGER, STEEL ANSI B16.9, BUTT-WELDED |
| 30 | SAME AS GROUP NO. 11, GLASS-LINED OR STEEL ASTM A53, SCH 40, GLASS LINED | SAME AS GROUP NO. 11, GLASS-LINED OR STEEL, ANSI B16.9, SCH 40, GROOVED WITH MECH CPLG, GLASS-LINED |
| 31 | 2-2/1" AND SMALLER, STEEL, ASTM A106 OR A53, SCH 80, SEAMLESS, BLACK. 3" AND LARGER DUCTILE IRON, ANSI A21.51 (AWWA C151), OR CAST IRON ANSI A21.6 OR 21.8 MECH CPLG OR 125 PSI FLGD | $2\frac{1}{2}"$ AND SMALLER, FORGED STEEL, ANSI B16.11, SOCKET WELDED OR THREADED, BLACK 2000 PSI, OR STEEL ANSI B16.9 BUTT-WELDED SCH 8 AND LARGER, DUCTILE IRON OR CAST IRON, ANSI A21.20 AWWA C110, MECH COUPLING OR 125 PSI FLGD |
| 32 | 12" AND SMALLER, AWWA C-900 WITH RESTRAINED JOINTS, DR 18. 14" AND LARGER, AWWA C-905 WITH RESTRAINED JOINTS, DR 25 | SAME AS GROUP NO. 11 |
| 33 | HIGH DENSITY POLYETHYLENE, DUCTILE IRON PIPE (DIPS), DR 11 AWWA C-906, FUSION BUTT WELDED JOINTS AND FULLY RESTRAINED FITINGS | SAME AS GROUP NO. 11 |
| 34 | POLYETHYLENE SERVICE TUBE, PE 4710, COPPER TUBE SIZE ASTM, D2737, PRESSURE CLASS 250, DR9 | |
| 35 | CHLORINATED POLYVINYL CHLORIDE PRESSURE PIPE, ASTM F441, SCHEDULE 40 WITH SOLVENT WELDED JOINTS PER ASTM F493, SCREWED OR FLANGED JOINTS | SOLVENT WELDED: ASTM F439, SCHEDULE 80. THREADED FITTINGS: AS F437, SCHEDULE 80. FLANGED FITTINGS: ANSI / ASME B16.5 |
| 36 | REINFORCED CONCRETE PIPE ARCH, LDOTD AML, ASTM C506 AS MODIFIED, RUBBER GASKETED JOINTS | |
| 37 | PLASTIC DRAINAGE PIPE, RIBBED POLYVINYL CHLORIDE DRAINAGE PIPE, ASTM F794 OR F949 SERIES 46 WITH UV INHIBITORS, RUBBER GASKETED JOINTS | |
| 38 | BITUMINOUS COATED CORRUGATED STEEL PIPE AND PIPE ARCH, AASHTO M196, RUBBER GASKETED JOINTS WITH COUPLING BANDS | |
| 39 | CORRUGATED ALUMINUM PIPE AND PIPE ARCH PER AASHTO M196, RUBBER GASKETED JOINTS WITH COUPLING BANDS | |
| | | 1 |

| PIPE DIAMETER GENERAL NOTE | | | AVID ALAN MARTIN | License No. 37832 | | | |
|---|---------------------------------|----------------------------------|------------------------------|-------------------|-------------------------|-------------|---------------|
| ALTHOUGH SEVERAL PIPE MATERIALS ARE SHOWN THAT MAY BE USED FOR A GIVEN FUNCTION, ONLY THE CALLED PIPING MATERIAL SHOWN ON THE CONSTRUCTION DRAWINGS & SPECIFICATIONS SHALL BE USED. THE CONTRACTOR DOES NOT HAVE THE OPTION TO USE A DIFFERENT MATERIAL. | | | | | mini | | |
| NOTE 1 PROPRIETARY NAMES HAVE BEEN QUOTED FOR IDENTIFICATION PURPOSES ONLY. SUBSTITUTIONS WILL BE PERMITTED SUBJECT TO PROVISIONS OF THE SPECIFICATIONS. IF VALUES ARE NOT SPECIFIED IN SPECIFICATIONS, FOLLOW THE SCHEDULE. | | 37832 | ENSE NO. | | 30219 | ENSE NO. | |
| <u>NOTE 2</u> LEAKAGE ALLOWANCE IS A FOLLOWS: (A) PIPES SO DESIGNATED SHALL SHOW ZERO LEAKAGE. | | | | | | | |
| (B) PIPES SO DESIGNATED SHALL SHOW ZERO LEAKAGE FOR UNBURIED PIPE & NOT MORE THAN 0.02 GALLONS PER HOUR PER INCH DIAMETER PER 100' OF BURIED PIPE (C) PIPES SO DESIGNATED SHALL NOT SHOW LEAKAGE OF MORE THAN 0.15 GALLON PER HOUR PER INCH OF DIAMETER PER 100' OF BURIED PIPE. (D) PIPES SO DESIGNATED SHALL NOT SHOW A LOSS OF PRESSURE OF MORE THAN 5%. | | SUBMITTED BY: DAVID A. MARTIN | KUJEC I MANAGER | SUBMITTED BY: | H. DAVIS COLE | | |
| (E) PIPES SO DESIGNATED SHALL NOT SHOW A LOSS OF PRESSURE OF MORE THAN 5%. | | ש <u>ו</u> ם מ | | ৵ | о тр | Т | |
| NOTE 3 FOR FIELD TEST PROCEDURES AND ADDITIONAL TEST REQUIREMENTS, SEE PIPING SECTION OF SPECS. NOTE 4 | | 4 | | Javis Cole | ociates, LL | ORLEANS. LA | |
| ANY DEVIATION FOR THE PIPING MATERIALS OR FIELD TEST REQUIREMENTS, SHOWN WILL BE NOTED IN THE SPECIFICATIONS OR ON THE DRAWINGS. | | | | Ц Ц Ц | SSS | NEW | |
| NOTE 5 PIPING GROUP NUMBER SHOWN THUS SHALL BE INSTALLED. SEE PIPING SECTION OF SPECIFICATIONS FOR INSULATING MATERIALS. | | | | \rightarrow | + | CHKD | |
| NOTE 6 STATIC WATER TEST WITH SURFACE 5' ABOVE HIGH POINT OF PIPE. | | | | | | В | |
| NOTE 7 INSPECTION & TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE PLUMBING CODE. | | | | | Σ | | 2 |
| NOTE 8 NO APPARENT LEAKS UNDER NORMAL OPERATING CONDITIONS. | | | | | FOR BIDS & CONSTRUCTION | ЦЦ | |
| NOTE 9 INSPECTION & TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE NFPA STANDARDS. | | | | | S & CONS | REVISION | $\frac{5}{2}$ |
| NOTE 10 PIPING MATERIALS SHALL BE IN ACCORDANCE WITH NFPA STANDARDS. | | | | | FOR BID | DESCK | - 1 |
| NOTE 11 VALVES 8" & LARGER SEE VALVE SCH FOR SPECIAL VALVES SEE SPECS | | | | | RELEASED | | |
| CHANGE IN PIPING MATERIAL GROUP NUMBERS IS INDICATED THUS: | | | | | _ | MAKK | |
| FOR PIPING LINING AND COATING, SEE SPECIFICATIONS. | B .: | | | | | | 1 |
| EXPOSED PIPING SHALL BE PAINTED IN ACCORDANCE WITH SPECIFICATIONS. COLORS TO BE SELECTED BY ENGINEER. | DESIGNED | DAM | DRAWN BY: | DAM | CHECKED BY | DAM | |
| PIPING MATERIAL SHALL BE NON-ABRASIVE FLEXIBLE RUBBER HOSE & QUICK CONNECTION CPLG WITH GROUP No. 1 AT EQUIPMENT. | Ш О | | DR | | | | - |
| NOTE 16 VALVES 2 $\frac{1}{2}$ " AND SMALLER MAY HAVE SCREWED ENDS. VALVES 3" AND LARGER SHALL HAVE FLGD ENDS UNLESS OTHERWISE INDICATED. | | DEC, 2020 | ED BY: | NAM | HDC PROJECT NO | 2016-13 | |
| NOTE 17 PIPE COLOR AS DIRECTED BY OWNER OR ENGINEER. | DATE: | ПË П | DETAILED BY | _ | HDC PF | 20 | |
| | LAKEFRONT PUMP STATION, PHASE 3 | LOUISIANA | ST TAMMANY PARISH GOVERNMENT | 21454 KOOP DRIVE | MANDEVILLE, LA 70471 | VG SCHEDULE | |
| | | T. TAMMY PARISH |) | 2145 | | DNIdId | |





DEMOLITION PHOTO "01-D1-01" SCALE: N.T.S.





DEMOLITION PHOTO "01-D1-04" SCALE: N.T.S. **DEMOLITION PHOTO "01-D1-05"**

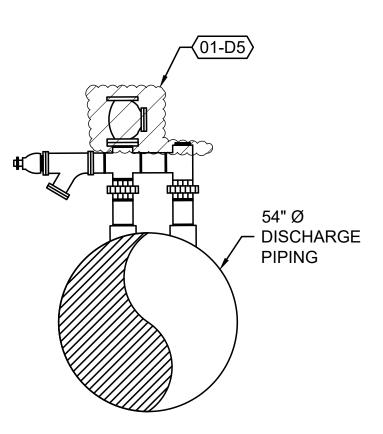
SCALE: N.T.S.



DEMOLITION PHOTO "01-D1-06"

SCALE: N.T.S.

- D1 REMOVE EXISTING PUMP MOTOR, JUNCTION BOX, CONDUIT, AND APPURTENANCES. RETAIN FOR RE-INSTALLATION.
- -D2 REMOVE EXISTING 54" DRAINAGE PUMP AND MOTOR. MODIFY AND REHABILITATE ONE PUMP AND ONE MOTOR AND RETURN UNREPAIRED ITEMS TO OWNER
- D3 MODIFY 20" PUMP COLUMN PER MECHANICAL DRAWINGS AND RE-INSTALL.
- -D4 REMOVE EXISTING CONTROL PANEL, DISCONNECT, METER, AND SWITCH. RELOCATE AS ILLUSTRATED ON ELECTRICAL PLANS.
- D5 DEMOLISH AND DISPOSE OF EXISTING CHECK VALVE AND FLANGE AND EXISTING 6" NPT CAP.



AIR RELEASE VALVE DEMOLITION

SCALE: N.T.S.

| LAKEFRONT P | LAKEFRONT PUMP STATION. PHASE 3 | DATE: | DESIGNED BY: | | | | | | | |
|------------------|---------------------------------|-----------------|--------------|-------|---|-----------|----------------------|-----------------|----------------------|---|
| | | DEC, 2020 | DAM | | | | | SUBMITTED BY: | | OF LOUSIN |
| ST. TAMMY PARISH | LOUISIANA | | | | | | | DAVID A. MARTIN | 37832 1 ICENSE NO | |
| ST TAMMAI | ST TAMMANY PARISH GOVERNMENT | DETAILED BY: | DRAWN BY: | | | | | | LICENSE NO. | |
| 21 | 21454 KOOP DRIVE | DAM | DAM | | | | | | | LAVIU ALAN MAK IIN License No. 37832 |
| | | | | | | _ | H. Davis Cole & | SUBMITTED BY: | | |
| MAN | MANUEVILLE, LA 70471 | HDC PROJECT NO. | CHECKED BY: | - REI | RELEASED FOR BIDS & CONSTRUCTION MAR 2020 DAM | DAM DAM | Associates, LLC | H. DAVIS COLE | 30219 | |
| | | | | MARK | DESCRIPTION | BY CHK'D. | Consulting Engineers | COMPANY OFFICER | LICENSE NO | |
| DEN | DEMOLITION DETAILS | 2016-13 | DAM | | REVISION RECORD | | NEW ORLEANS, LA | | | |



NOTES BY SYMBOL:

A EXISTING LAKEF EXISTING ELEVATED PLATFORM

GENERAL NOTES:

| N |
|---|
| |
| |

| FRONT | PUMP | STATION | (TO BE | REHABILI | TATED) |
|-------|------|---------|------------|----------|--------|
| - | - | - | \ - | | , |

B EXISTING CANAL (NO WORK - TO REMAIN)

C CLECO SUBSTATION (NO WORK - TO REMAIN)

D EXISTING SERVICE POINT AND CONTROL PANEL (EQUIPMENT TO BE RELOCATED TO ELEVATED PLATFORM)

1. AERIAL IMAGE COURTESY OF GOOGLE EARTH. AERIAL IS FOR REFERENCE OF GENERAL LOCATION ONLY. SURFACE AND BELOW SURFACE FEATURE LOCATIONS SHALL BE FIELD VERIFIED.

| Lakefront pump station, place Date: Desciene BY: DescieneBY: Desciene BY: DescieneBY: Desciene BY: Desciene BY: | SUBMITTED BY: | PROJECT MANA | SUBMITTED BY: | H. DAVIS COLE | | |
|--|----------------------------|------------------------|------------------|------------------------------|-------------|-------------------------------|
| CONT PUMP STATION, PHASE 3DATE:DEC; 2020DESIGNED BY:In Ensigned BY: <t< td=""><td></td><td>Y</td><td>H. Davis Cole &</td><td>Associates, LLC</td><td>5</td><td>NEW ORLEANS, LA</td></t<> | | Y | H. Davis Cole & | Associates, LLC | 5 | NEW ORLEANS, LA |
| RONT PUMP STATION, PHASE 3DATE:DESIGNED BY:DESIGNED BY:DESIGNE | | | | | | |
| RONT PUMP STATION, PHASE 3DATE:DESIGNED BY:LOUISIANADEC, 2020DAMMANY PARISH GOVERNMENTDETAILED BY:DAM21454 KOOP DRIVEDAMDAM21454 KOOP DRIVEDAMDAMMANDEVILLE, LA 70471HDC PROJECT NO.CHECKED BY:ING & PROPOSED SITE PLAN2016-13DAMING & PROPOSED SITE PLAN2016-13DAM | | | | 2020 DAN | - | |
| RONT PUMP STATION, PHASE 3DATE:DESIGNED BY:LOUISIANADEC, 2020DAMMANY PARISH GOVERNMENTDETAILED BY:DAM21454 KOOP DRIVEDAMDAM21454 KOOP DRIVEDAMDAMMANDEVILLE, LA 70471HDC PROJECT NO.CHECKED BY:ING & PROPOSED SITE PLAN2016-13DAMING & PROPOSED SITE PLAN2016-13DAM | | | | CTION MAR | DA | ECORD |
| RONT PUMP STATION, PHASE 3DATE:DESIGNED BY:LOUISIANADEC, 2020DAMMANY PARISH GOVERNMENTDETAILED BY:DAM21454 KOOP DRIVEDAMDETAILED BY:MANDEVILLE, LA 70471DAMDAMING & PROPOSED SITE PLAN2016-13DAMING & PROPOSED SITE PLAN2016-13DAM | | | | RELEASED FOR BIDS & CONSTRUC | DESCRIPTION | REVISION R |
| RONT PUMP STATION, PHASE 3DATE:LOUISIANALOUISIANADEC, 2020MANY PARISH GOVERNMENTDETAILED BY:DETAILED BY:21454 KOOP DRIVEDAMDAM21454 KOOP DRIVEDAMDAM21454 KOOP DRIVEDAMDAM105 & PROPOSED SITE PLAN2016-13105 & PROPOSED SITE PLAN2016-13 | | | | - | MARK | |
| RONT PUMP STATION, PHASE 3 LOUISIANA AMANY PARISH GOVERNMENT 21454 KOOP DRIVE MANDEVILLE, LA 70471 ING & PROPOSED SITE PLAN | DESIGNED BY: | DRAWN BY: | DAM | | | |
| RONT PUMP STATION, PHASE 3 MANY PARISH GOVERNMENT 21454 KOOP DRIVE MANDEVILLE, LA 70471 ING & PROPOSED SITE PLAN | рате: DEC, 2020 | Detailed BY: | DAM | HDC PROJECT NO. | 01 0100 | CI-0107 |
| | RONT PUMP STATION, PHASE 3 | MANY PARISH GOVERNMENT | 21454 KOOP DRIVE | MANUEVILLE, LA 10411 | | EXISTING & PROPOSED SITE PLAN |
| | SHEET | |)F | 2(|) | |

GRAPHIC SCALE



GENERAL NOTES:

NOTES BY SYMBOL:

< E>



1. AERIAL IMAGE COURTESY OF GOOGLE EARTH. AERIAL IS FOR REFERENCE OF GENERAL LOCATION ONLY. SURFACE AND BELOW SURFACE FEATURE LOCATIONS SHALL BE FIELD VERIFIED.

(A) EXISTING LAKEFRONT PUMP STATION (TO BE REHABILITATED)

B EXISTING CANAL (NO WORK - TO REMAIN)

C CLECO SUBSTATION (NO WORK - TO REMAIN)

 D
 RELOCATED SERVICE POLE FOR 75HP PUMP

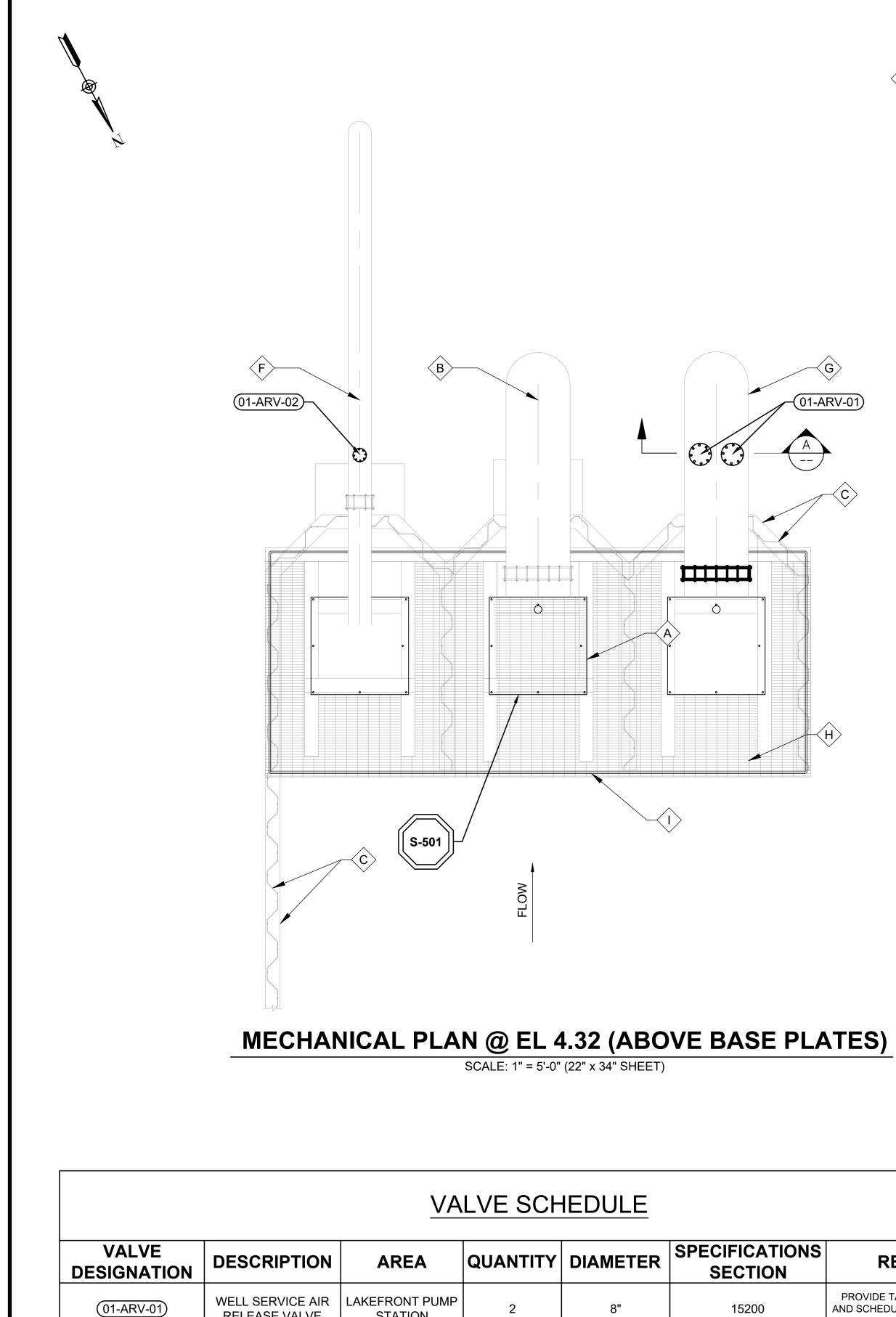
CONTROL AND POWER DISTRIBUTION EQUIPMENT FOR 75HP PUMP (RELOCATE EXISTING CONTROL PANEL, LOAD BREAK DISCONNECT, LINE BREAK DISCONNECT, AND METER TO NEW RACK ON ELEVATED PLATFORM.

 F
 NEW SERVICE POLE FOR 350 HP PUMP

G CONTROL AND POWER DISTRIBUTION EQUIPMENT FOR 350 HP PUMP (SEE ELECTRICAL FOR LOCATIONS AND REQUIRMENTS

| 0 | | | ļ | 5' | 1 | 0' |
|---|---|-----|-----|---------|---|----|
| | G | RAF | PHI | C SCALE | | |

SUE H. D PHASE STATION, AKFF SHEET ID 01-C2 SHEET SET **10** OF **20**



2

1

STATION

LAKEFRONT PUMP

STATION

RELEASE VALVE

WELL SERVICE AIR

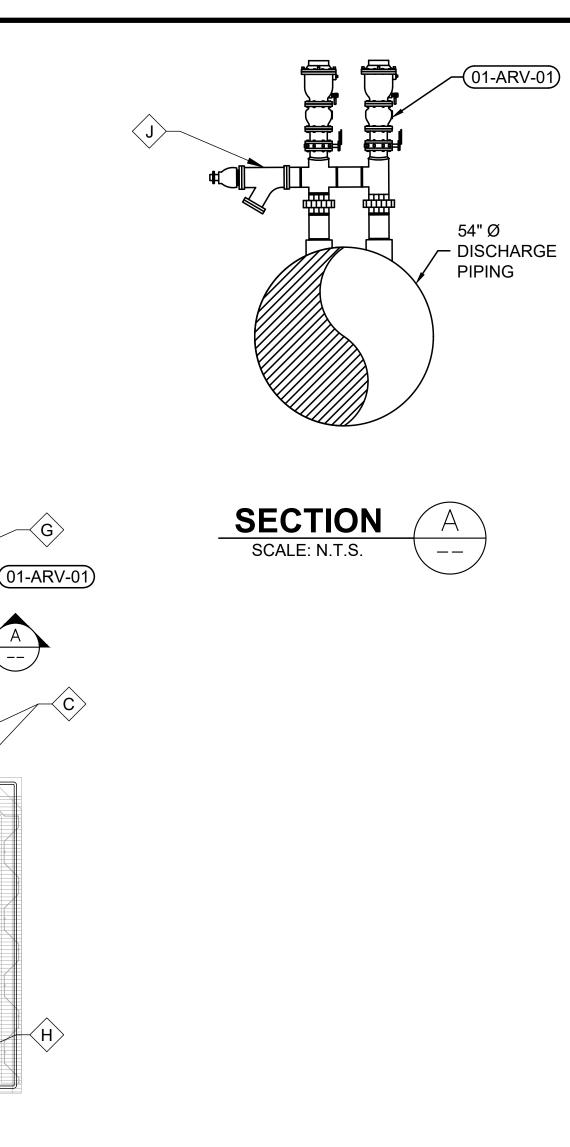
RELEASE VALVE

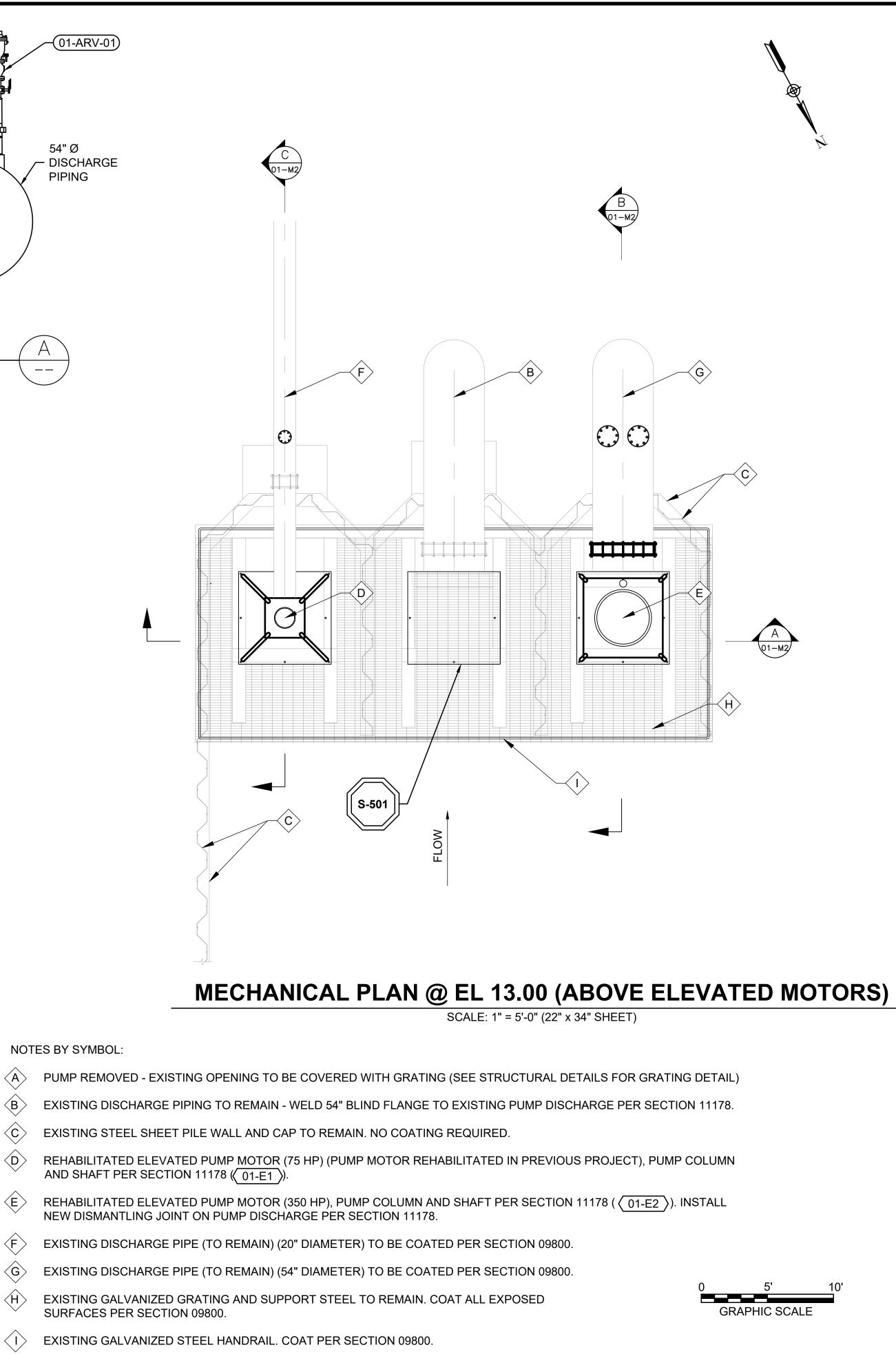
(01-ARV-02)

8"

4"

15200



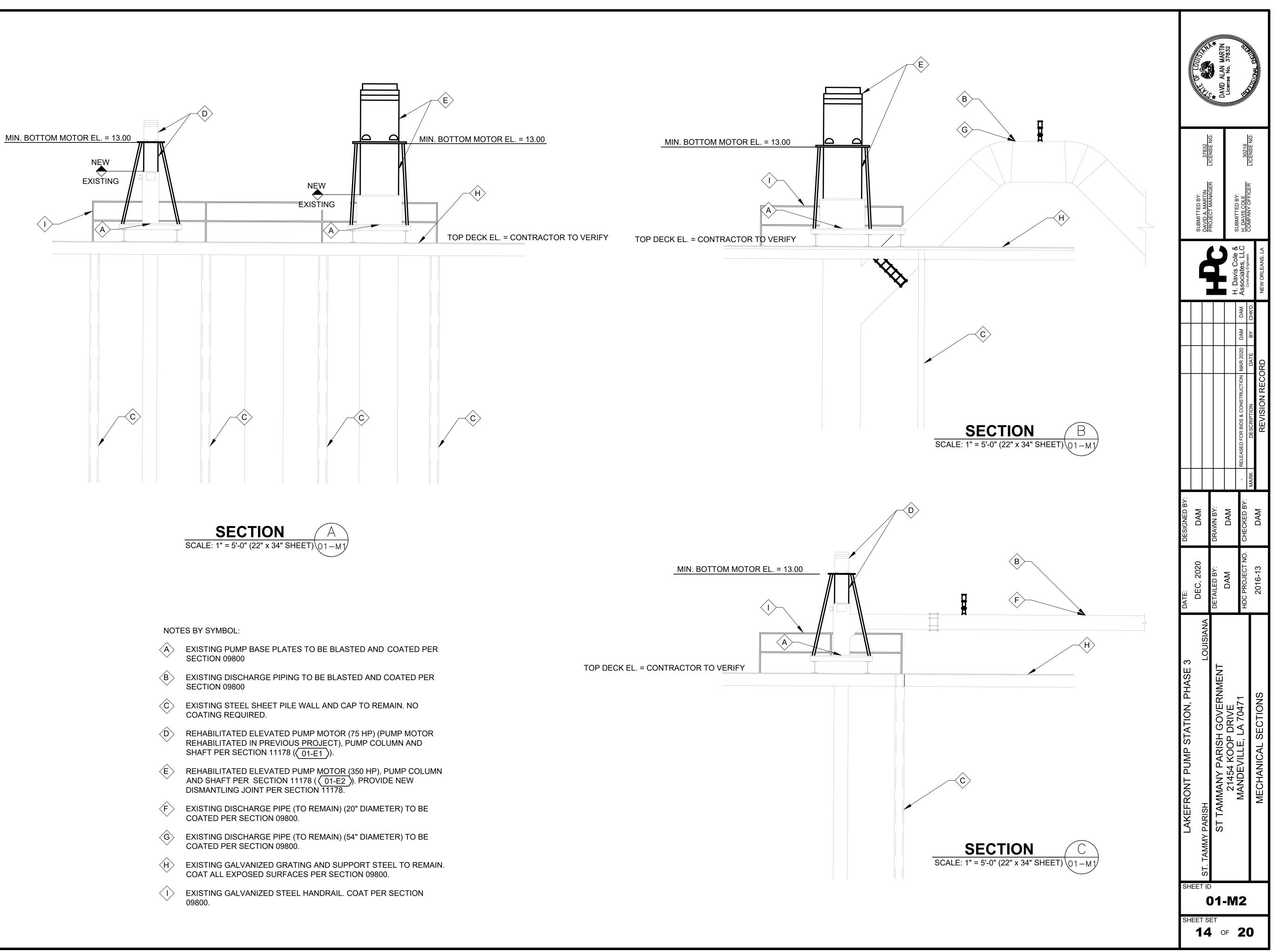


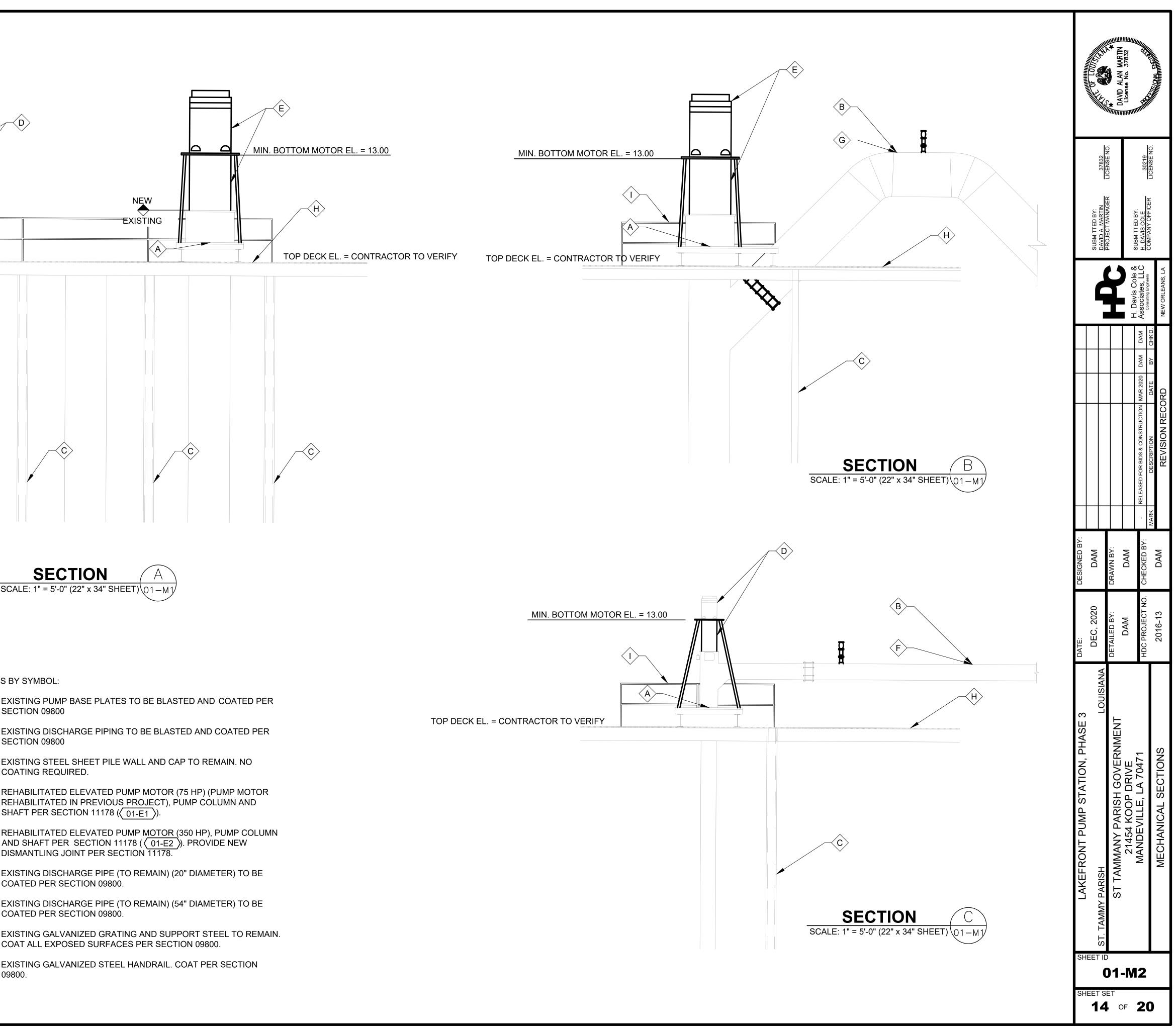
| TIONS N | REMARKS |
|------------|---|
| | PROVIDE TAPPED BLIND FLANGE AND SCHEDULE 40 STEEL NIPPLE TO CONNECT TO EXISTING NPT PIPING. |
| | PROVIDE TAPPED BLIND FLANGE AND SCHEDULE 40 STEEL NIPPLE TO CONNECT TO EXISTING NPT PIPING. |

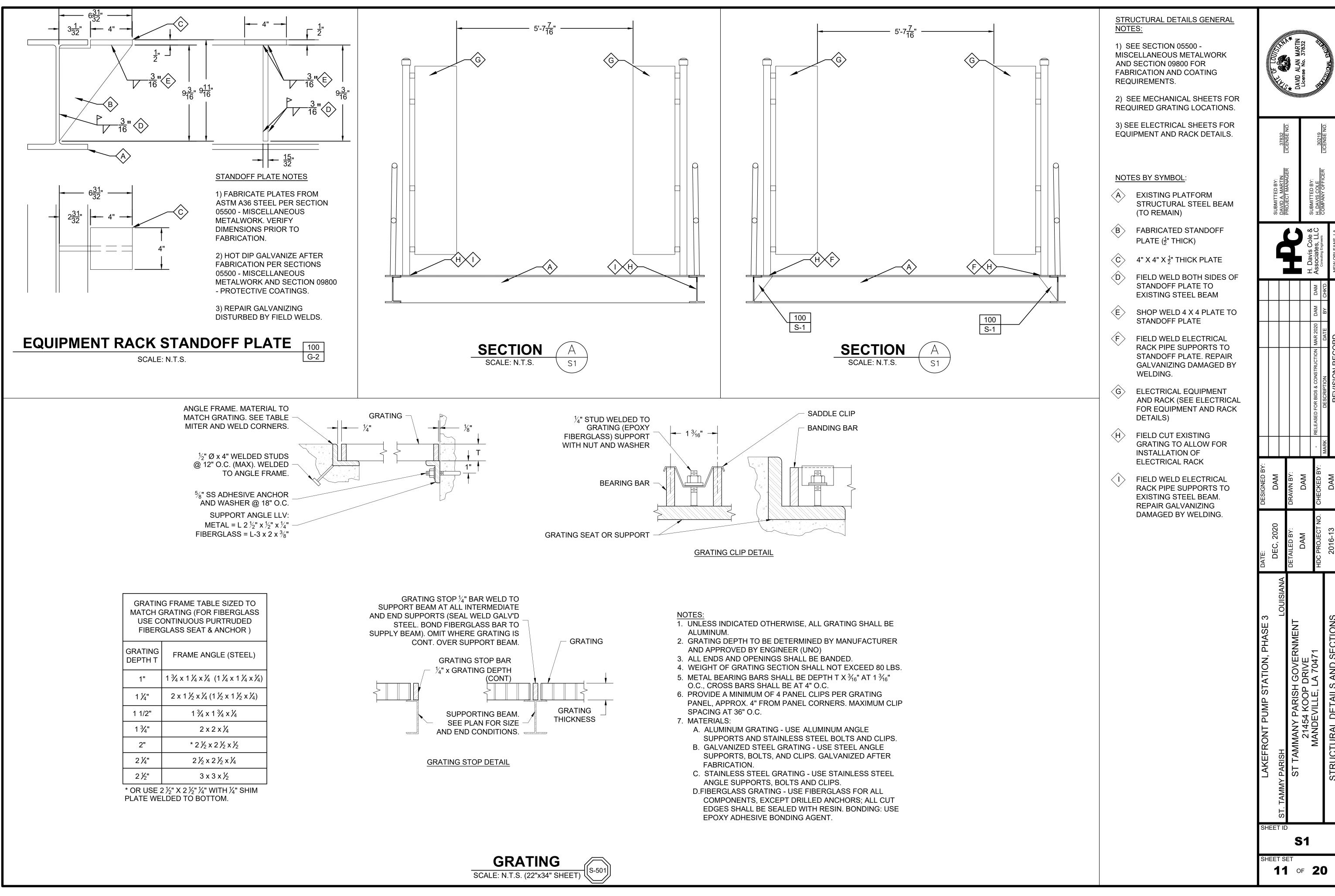
NOTES BY SYMBOL:

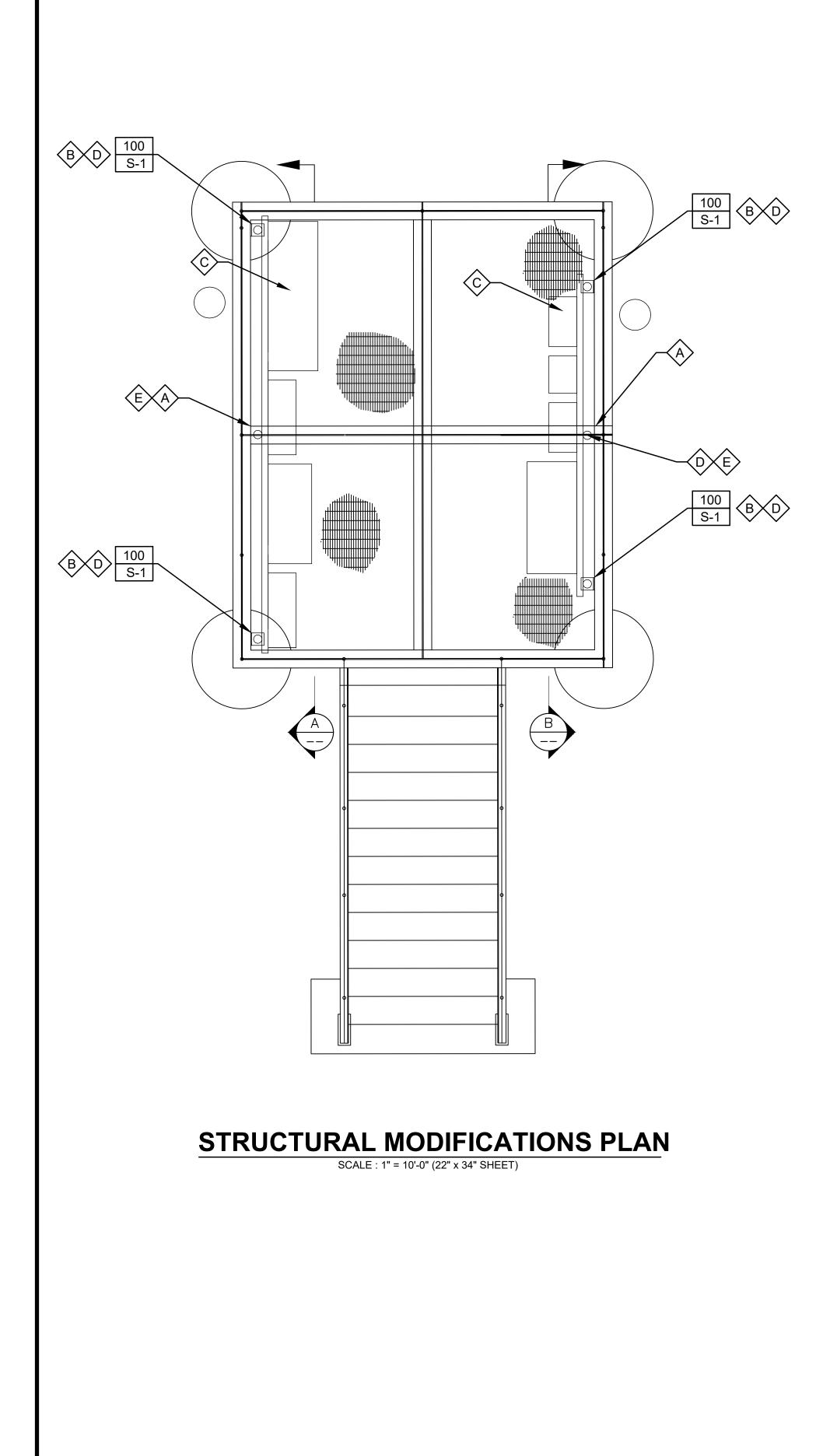
- $\langle c \rangle$ EXISTING STEEL SHEET PILE WALL AND CAP TO REMAIN. NO COATING REQUIRED.
- < E>
- $\langle F \rangle$ EXISTING DISCHARGE PIPE (TO REMAIN) (20" DIAMETER) TO BE COATED PER SECTION 09800.
- $\langle G \rangle$
- $\langle H \rangle$ EXISTING GALVANIZED GRATING AND SUPPORT STEEL TO REMAIN. COAT ALL EXPOSED SURFACES PER SECTION 09800.
- $\langle \mathbf{I} \rangle$ EXISTING GALVANIZED STEEL HANDRAIL. COAT PER SECTION 09800.
- $\langle J \rangle$ EXISTING MANUAL AIR RELEASE ASSEMBLY TO BE REMOVED AND REPLACED. (SEE VALVE SCHEDULE, THIS SHEET)

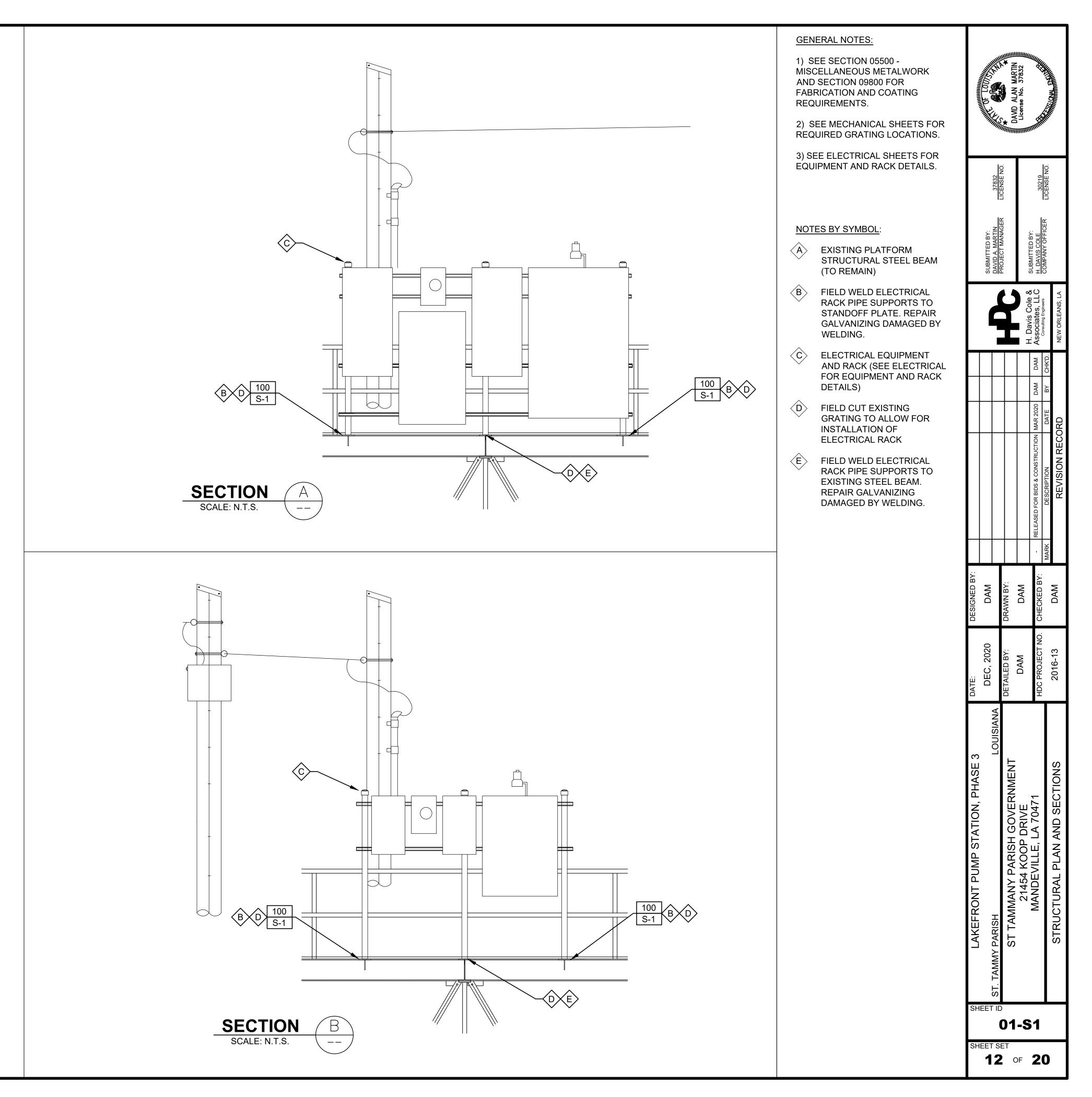
| SF | SF | LAKEFRONT PUMP STATION. PHASE 3 | DATE: | DESIGNED BY: | | | | | | | | |
|-----------|---------|---------------------------------|-----------------|--------------|------|---|---------------|---------------------|-------|----------------------------------|-------------|---------------------|
| ieet 1 | IEET | | DEC, 2020 | DAM | | | | | SUBI | SUBMITTED BY: | | |
| 5 3 | | ST. TAMMY PARISH LOUISIANA | | | | | | | DAV | DAVID A. MARTIN | 37832 | |
| |) D1 | ST TAMMANY PARISH GOVERNMENT | DETAILED BY: | DRAWN BY: | | | | | | | LICENSE NO. | |
| OF | -N | 21454 KOOP DRIVE | DAM | DAM | | | | | | | | LICENSE NO. 37832 |
| 2 | Л | MANDEVILLE LA 70471 | | | - | RELEASED FOR BIDS & CONSTRUCTION MAR 2020 | DAM | DAM Accoriates 11 C | 0, - | | | |
| 20 | 1 | | HDC PROJECT NO. | CHECKED BY: | + | | | - | | H. DAVIS COLE COMPANY OFFICER | 30219 | |
|) | | | | | MARK | | DAIE BY C | CHK'D. | | | LICENSE NO. | THE LOUIS ESCHARTER |
| | | MECHANICAL PLAN | 2016-13 | DAM | | REVISION RECORD | 0 | NEW ORLEANS, LA | 3, LA | | | |





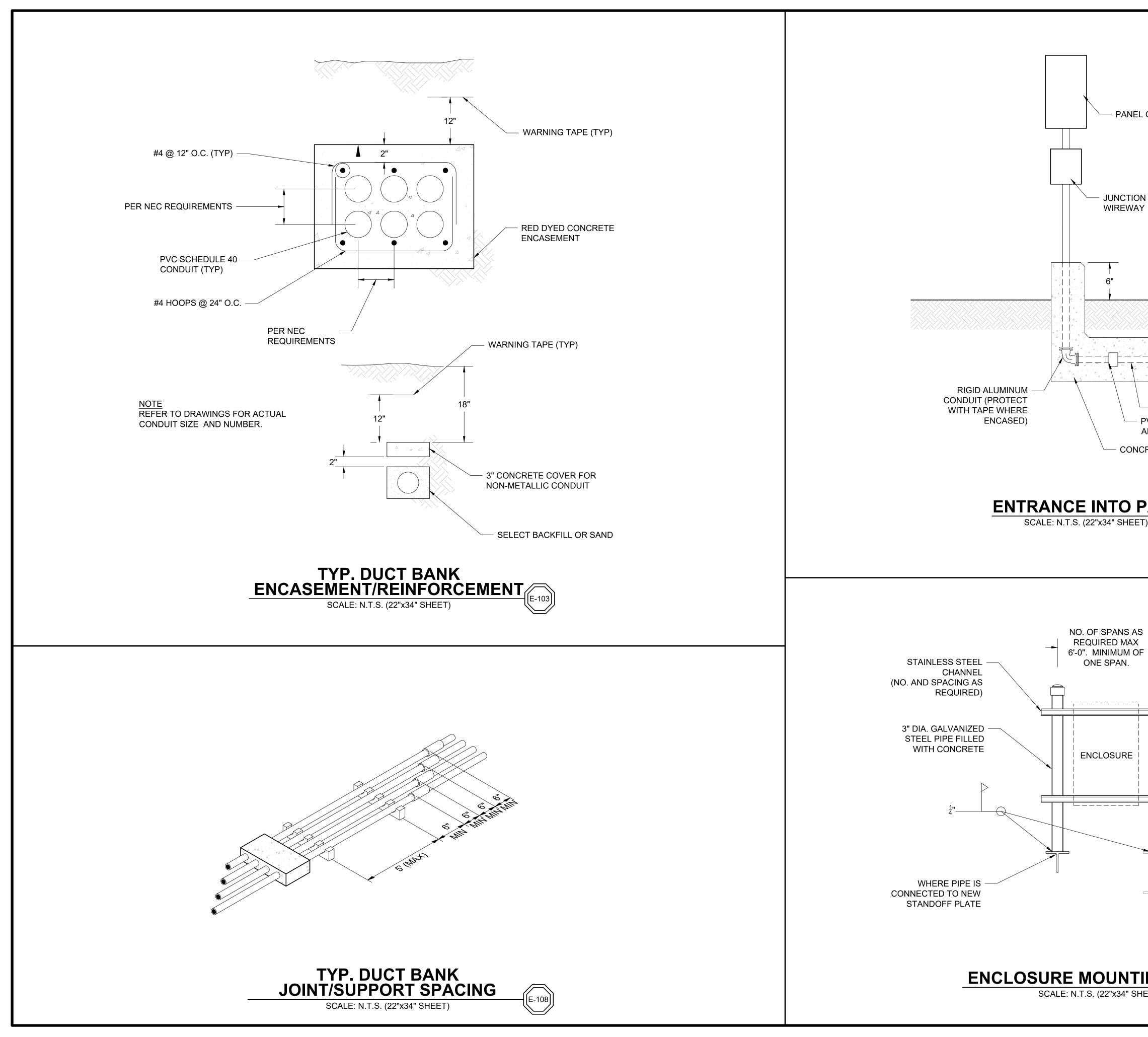






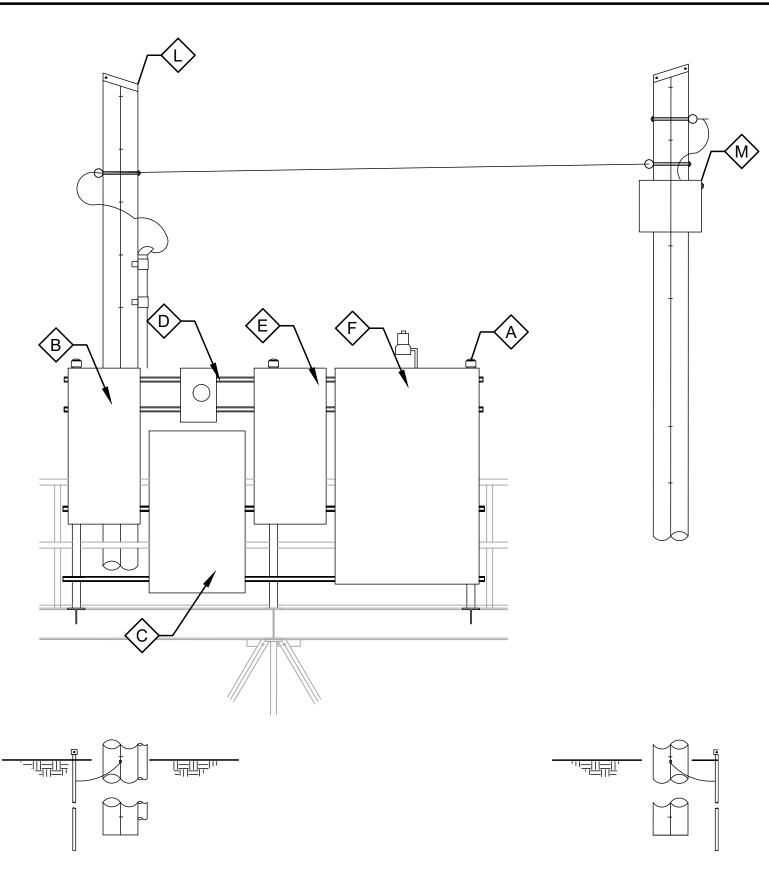
| | | F | |
|----------------------------------|--|-------------------|--|
| | GROUND BUS | WALL | FLOOR |
| | EXPOSED CONDUIT | \square | |
| · · | CONDUIT CONCEALED ABOVE FLOOR | \bigcirc | |
| | CONDUIT RUN UNDERGROUND OR IN CONCRETE | $ \rightarrow $ | \square |
| | EXPOSED CONDUIT RUN BEHIND OBSTRUCTION | * | \bigcirc^* |
| | BARE COPPER GROUND TO GROUND WIRE IN SLAB, OR UNDERGROUND GROUND GRID, SIZE AS NOTED | -4 | D |
| P1-1, 3, 7 | HOME RUN TO PANEL "LP1", CIRCUITS #1, 3, 7. CONDUCTORS SHALL BE NOTED IN PANEL SCHEDULE MINIMUM CONDUIT SIZE SHALL BE 3/4" WITH 2#12 & 1#12 GROUND | | \mathbf{i} |
| —Э— | CONDUIT RUN-CHANGE IN ELEVATION | C C | |
| o | CONDUIT BENDS TOWARD OBSERVER | + | *> |
| | CONDUIT BENDS AWAY FROM OBSERVER | | 1 |
|] | CONDUIT CAPPED, OR SEALED | K | 1 |
| \sim | FLEXIBLE LIQUID - TIGHT CONDUIT CONNECTION | | 1 |
| IM - 1 | INDICATES CONDUIT NUMBER FROM MCC OR PANEL "1M" CIRCUIT 1 | | |
| | EXIT LIGHT, SHOWN WITH TWO ILLUMINATED SIDES, ARROWS INDICATE DIRECTION OF EXIT "C" INDICATES FIXTURE TYPE | —-[—-c | }— → — |
| | CEILING OR PENDANT INCANDESCENT, "L" INDICATES FIXTURE TYPE. "2" INDICATES FIXTURE CONTROLLED BY SWITCH "2" | 30A |]- |
| B - TS | WALL BRACKET FLOOD, SPOTLIGHT, OR WALLPACK EXPOSED BACK AND CONCEALED CONDUIT "B" INDICATES FIXTURE TYPE. "TC" INDICATES FIXTURE CONTROLLED BY TIMER CONTROLLED SWITCH | נ] ד) א | |
| | POLE MOUNTED FIXTURE DISTRIBUTION TYPE AS INDICATED ON PLAN | | |
| 0 | FLUORESCENT LIGHTING FIXTURE UNSWITCHED (SWITCH AT LIGHTING PANEL ONLY) | |)] |
| E | FLUORESCENT LIGHTING FIXTURE ON EMERGENCY CIRCUIT | (|))_# |
| A 1 | FLUORESCENT LIGHTING FIXTURE ON NORMAL POWER | 0 |) |
| | BATTERY EMERGENCY TYPE "D" LIGHT FIXTURE | (M | <u>)</u> |
| S ^a | SINGLE POLE SWITCH. "a" INDICATES CIRCUIT SWITCH NUMBER | | j⊠ ¬ |
| \$ ₂ | DOUBLE POLE SWITCH, FLUSH MOUNT | | ' |
| <u>\$</u> 3 | THREE-WAY SWITCH, SURFACE MOUNT | | 3 |
| S ₄ | FOUR-WAY SWITCH | MC | N/N/N/N/N/N/N/N/N/N/N/N/N/N/N/N/N/N/N/ |
| S _K | KEY-OPERATED SWITCH | | |
| S _P S _M | SWITCH AND PILOT LIGHT MANUAL MOTOR STARTER | 60A | |
| | TRANSFER SWITCH * ATS = AUTOMATIC * MTS = MANUAL | | |
| | | | |

| | | El | ECTRICAL SYMBOLS | | | | | | <i>y</i> . |
|--------------|--|---|---|-------------------------------|--|-----------------------|---|---|--------------|
| AN V | IEW / ONE LINE DIAGRAM | | | | ONE LINE | DIAGRAM | | ALAN MARTIN | |
| LOOR | | I | COMBINATION ACROSS-THE-LINE, NON- REVERSING NEMA SIZE 2 MAGNETIC STARTER | TIMED CONTAC | CTS - CONTACT ACTION DELAYED AFTER COIL IS: | | NO/NC MAINTAINED PUSHBUTTON | DAVID A | SHUMMER. |
| \square | 120V SINGLE RECEPTCLE, NEMA CONFIGURATION | II _{REV.} | COMBINATION ACROSS-THE-LINE, REVERSING NEMA SIZE 2 MAGNETIC STARTER | م برہ | ENERGIZED NORMALLY OPEN WITH THE TIME DELAY CLOSING | ON OFF | TWO-POSITION SELECTOR SWITCH: | | |
| \bigcirc | 5-20 120V DUPLEX RECEPTACLE, NEMA CONFIGURATION 5-20 | | COMBINATION NEMA SIZE 3 MAGNETIC STARTER: SS - SOLID STATE MOTOR STARTER WITH NEMA RATED BY-PASS CONTACTOR AND OVERLOAD RELAYS | Ť | NORMALLY CLOSED WITH THE TIME DELAY OPENING DE-ENERGIZED | | H-HAND, M-MANUAL, R-REMOTE, L-LOCAL, A-AUTOMATIC, O-OFF THREE-POSITION SELECTOR SWITCH (SAME AS ABOVE) | 37832 LICENSE NO. 30219 | LICENSE NU. |
| ∕∕∕* | SINGLE SPECIAL-PURPOSE RECEPTACLE, 208V, | \square | REDUCED VOLTAGE SOFT STARTER | $\overset{\circ}{\checkmark}$ | NORMALLY OPEN WITH INSTANT CLOSING AND AND TIME DELAY OPENING | | | | Ľ |
| \bigcirc^* | 1 PHASE, ASTERISK INDICATES NUMBER SUCH AS AMPERAGE, UNLESS OTHERWISE NOTED | <u>50A</u> | MOLDED CASE CIRCUIT BREAKER, 3 POLE UNLESS OTHERWISE NOTED. 50A TRIP RATING. | <u>↓</u> 0 | NORMALLY CLOSED WITH INSTANT OPENING AND TIME DELAY CLOSING | | THREE-POSITION SPRING RETURN-TO-CENTER MOMENTARY CONTACT SWITCH ("LATCH- UNLATCH," "ON-OFF," ETC.) | SUBMITTED BY: DAVID A. MARTIN PROJECT MANAGEI SUBMITTED BY: H. DAVIS COLE | |
| | WELDING RECEPTACLE, 480V, 3 PHASE, 60A | <u>م</u> | * NA - NON-AUTOMATIC * MCP - MOTOR CIRCUIT PROTECTOR * TM - THERMAL MAGNETIC | XXXE | EXISTING CONDUIT/CABLE (SEE CONDUIT/CABLE SCHEDULE) | XXX | NEW CONDUIT/CABLE (SEE CONDUIT/CABLE SCHEDULE) | SUBMI DAVID PROJE SUBMI |)) |
| | SINGLE SPECIAL PURPOSE RECEPTACLE 480V.A.C. UNLESS OTHERWISE NOTED | 5 <u>0</u> A | DRAW-OUT CIRCUIT BREAKER, 3 POLE UNLESS OTHERWISE NOTED. 50A TRIP RATING. * NA - NON-AUTOMATIC | | ABBRE | VIATIONS | | s Cole & tes, LLC | EANS, LA |
| | CLOCK HANGER RECEPTACLE | ¥ | * MCP - MOTOR CIRCUIT PROTECTOR * TM - THERMAL MAGNETIC | AA A/C | ALARM ANNUNCIATOR AIR CONDITIONING | MCM MFM | THOUSAND CIRCULAR MILS MAGNETIC FLOW METER | H. Davi Associa | NEW ORI |
| | FLOOR TYPE TELEPHONE OUTLET | | LIGHTING ARRESTOR AND SURGE CAPACITOR | AF AMP APPR | AMPERE FRAME SIZE OF CKT. BKR. AMPERES, AMPERAGE APPROVED | MH MIN MOV | MANHOLE MINUTES, MINIMUM MOTOR OPERATED VALVE | DAM | CHK'D. |
| | SOUND OR PACING SYSTEM DEVICE. * DENOTES NUMBER TO DIFFERENTIATE BETWEEN DIFFERENT DEVICES | 650V | | ARC AT | ALUMINUM RIGID CONDUIT AMPERE TRIP | MS MS MT, MTD | MANUAL MOTOR STARTER MOUNT, MOUNTED | DAM | BY |
| | TELEPHONE SYSTEM OUTLET | | MOTOR; 10HP AS NOTED, * = FLA | ATS AUTO AWG | AUTOMATIC TRANSFER SWITCH AUTOMATIC AMERICAN WIRE GAUGE | NA NF NO, NOS | NON-AUTOMATIC NON-FUSED NUMBER, NUMBERS | AR 2020 | DATE SD |
| | COMPUTER OUTLET WITH ?"C.O. STUB UP INTO SUSPENDED CEILING | | TRANSFORMER WITH GROUNDED SECONDARY, KVA SIZE & VOLTAGE RATIO AS NOTED | BATT BCW BKR | BATTERY BARE COPPER WIRE BREAKER | NP NIC NITS | NAMEPLATE NOT IN CONTRACT NOT IN THIS SECTION | | RECOF |
| | LIGHTING PANEL | | | BBL C | BUBBLER CONDUIT | NTS OC | NOT TO SCALE ON CENTER | 8 & CONSTF | /ISION |
| | POWER PANEL | $480/120V \\ \cancel{480}/120V \\ \cancel{2}$ | POTENTIAL TRANSFORMER RATIO AND NUMBER PT'S AS NOTED DRAW-OUT INDICATED | CAB CC CD | CABINET CENTER TO CENTER CONTROL DEVICE | OL PB PLC | OVERLOAD RELAY PUSHBUTTON PROGRAMMABLE LOGIC CONTROLLER | PEOR BIDS | |
| | GROUND CONNECTION - BOLTED TYPE | (2) СТД | | CHLOR CKT | CHLORINE, CHLORINATION CIRCUIT | PNL PNLBD | PANEL PANEL BOARD | RELEASED | |
| | GROUND CONNECTION - EXOTHERMIC TYPE | 100:5 (3) | CURRENT TRANSFORMER, RATIO AND NUMBER OF CT'S AS NOTED | CO COND COMPT | CONDUIT ONLY CONDUIT COMPARTMENT | POS POT PRI | POSITION POTENTIOMETER PRIMARY | | MARK |
| | NEMA 4X S.S. DISCONNECT SWITCH (CONTINUOUS | | | COMPR CPT | COMPRESSOR CONTROL POWER TRANSFORMER (IN INDIVIDUAL STARTER CUBICLE) | PS PVC PW | PRESSURE SWITCH POLYVINYL CHLORIDE PART WINDING | ed BY: M 3Y: M D BY: | Δ |
| | RATING AS NOTED) | | GENERATOR | CR CT | CONTROL RELAY (MAGNETICALLY HELD) CURRENT TRANSFORMER | PWR REC, RECPTS | POWER RECEPTACLE, RECEPTACLES | DESIGNED DAM DRAWN BY DAM | DA |
| | | LCP | LOCAL CONTROL PANEL | CU DB DISC | COPPER DUCTBANK DISCONNECT | REQ'D RM SA | REQUIRED RUN CONTACTOR COIL STATUS ANNUNCIATOR | o v | |
| | LINE VOLTAGE THERMOSTAT | TVSS | TRANSIENT VOLTAGE SURGE SUPPRESSOR | DISTR DWG | DISTRIBUTION DRAWING | SCH SEC | SCHEDULE SECONDS, SECONDARY | C, 202(ED BY: DAM ROJECT | 016-13 |
| 1 | HEATER | РМ | POWER MONITOR OR PHASE MONITOR | EGC ELEV EMERG | EQUIPMENT GROUND CONDUCTOR ELEVATION EMERGENCY | SECT SEL SW SEQ | SECTION SELECTOR SWITCH SEQUENCE | DATE: DE DETAIL | 20 |
|] | HORN | AS | AMMETER SWITCH | ENCL EQPT | ENCLOSURE EQUIPMENT | SHLD SHT | SHIELDED SHEET | ANA | |
| | BELL | VS | VOLTAGE TRANSFER SWITCH | EXH EXIST FDR | EXHAUST EXISTING FEEDER | SIG SM SPECS | SIGNAL START CONTACTOR COIL SPECIFICATIONS | TOUISI | S |
| | TIMER SWITCH CONTROL | | CONTROL RELAY OR COIL | FLEX FLUOR | FLEXIBLE FLUORESCENT FUTURE | SP HTR S.S. | SPACE HEATER STAINLESS STEEL | ASE 3 | ATION |
| 1 | GROUND ROD 3/4" X 10'-0" (UNLESS OTHERWISE NOTED) | (CR) EXA | MPLE TD2 TIME DELAY RELAY NO. 2 CR1 CONTROL RELAY 1M STARTER NO. 1 MAIN CONTACTOR COIL | FUT GALV GEN | GALVANIZED GENERATOR | STA STD | SHUNT TRIP STATION STANDARD | V, PHASE ERNMENT E71 | REVI |
| | GROUND WELL | | NORMALLY OPEN CONTACT | GFI GRD HH | GROUND FAULT INTERRUPTER GROUND HAND HOLE | STL STR SV | STEEL STARTER SOLENOID VALVE | STATION, SH GOVEI DRIVE E, LA 7047 | D ABE |
| | MOTOR OPERATED VALVE (STARTER NOT INTEGRAL) | <u>-</u> | NORMALLY CLOSED CONTACT | HOA HTR | HAND-OFF-AUTOMATIC HEATER | SW SYS | SYSTEM | MP ST, ARISH KOOP 'ILLE, L | LS AN |
| | , MOTOR OPERATED VALVE WITH INTEGRAL STARTER | d° | NORMALLY OPEN LIMIT SWITCH | HLL HZ INCAND | HIGH LIQUID LEVEL SWITCH HERTZ INCANDESCENT | TACH TEMP TERM | TACHOMETER TEMPERATURE TERMINAL | | \$YMBO |
| | VARIABLE FREQUENCY DRIVE | 00 | NORMALLY CLOSED SWITCH | IND INSTR ISC | INDICATION (SYSTEM) INSTRUMENT SHORT CIRCUIT CURRENT, AMPS | THERM TR TS | THERMOSTAT TIME DELAY RELAY TIME SWITCH | EFRONT SH AMMAN 214 MAND | ICAL S |
| | | °↓° | FLOAT TYPE LIQUID LEVEL SWITCH, CLOSING ON RISING LEVEL | J BOX LOC | JUNCTION BOX LOCAL | TYP UG | TYPICAL UNDERGROUND | LAKE PARIS ST T/ | ECTR |
| | ELECTRICAL MOTOR OPERATED VALVE, WITH INTEGRAL REVERSING STARTER | <u>م</u> | FLOAT TYPE LIQUID LEVEL SWITCH, OPENING ON RISING LEVEL | LOS LCP LS | PUSHBUTTON W/"LOCK-OUT-STOP" LOCAL CONTROL PANEL LIMIT SWITCH | VP VFD W | VAPOR-PROOF VARIABLE SPEED DRIVE WATTS, WIRE | YMMA ⁻ | EL |
| | UNFUSED DISCONNECT SWITCH, SIZE AS NOTED | م ک | VACUUM OR PRESSURE SWITCH, CLOSING ON RISING PRESSURE | LGHT LTG LTNG | LIGHT, LIGHTS LIGHTING LIGHTNING | WP XFMR XMTR | WEATHERPROOF TRANSFORMER TRANSMITTER | ST. T | |
| | "60A" (60 AMP) WHERE NOTED | <u>م</u> | VACUUM OR PRESSURE SWITCH, OPENING ON RISING PRESSURE | MA MAN | MILLIAMPS MANUAL | XP | EXPLOSION-PROOF | SHEET ID | |
| | FUSE DISCONNECT SWITCH | | NORMALLY OPEN PUSHBUTTON, MOMENTARY CLOSE | MAG MAX MCC | MAGNETIC MAXIMUM MOTOR CONTROL CENTER | | | SHEET SET | |
| | OVERHEAD POLE LINE FUSE CUTOUT | مــلــم | NORMALLY CLOSE PUSHBUTTON, MOMENTARY OPEN | MCB | MAIN CONTROL BOARD | | | 15 of 2 | J |

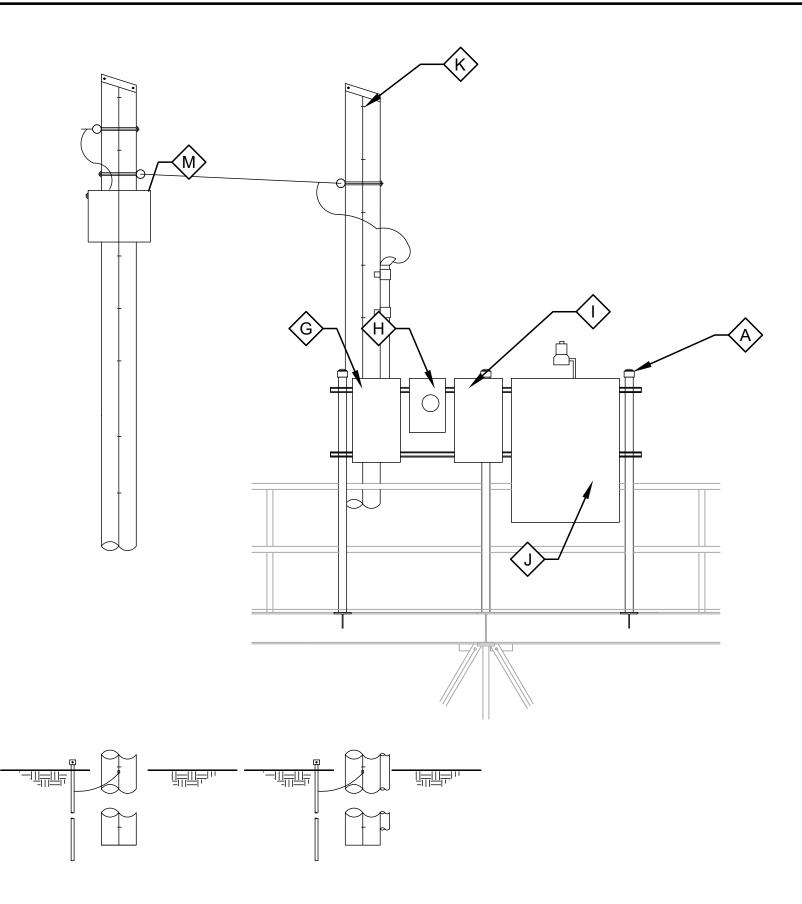


| L OR WIREWAY | | DAVID ALAN MARTIN | | |
|---|--|------------------------------|---|--------------------|
| N BOX OR | 37832 | LICENSE NO. | 30219 1071017 ND | |
| Y | SUBMITTED BY: DAVID A. MARTIN | PROJECT MANAGER | SUBMITTED BY: H. DAVIS COLE COMPANY OFFICER | _ |
| | | | H. Davis Cole & Associates, LLC ^{consulting Engineers} | NEW ORLEANS, LA |
| - PVC CONDUIT PVC TO RIGID ALUMINUM ADAPTER CRETE ENCASEMENT | | | ISTRUCTION MAR 2020 DAM DAM | |
| | DESIGNED BY: DAM | DRAWN BY: | DAM CHECKED BY: | DAM |
| S F PIPE CAP | DATE: DEC, 2020 | DETAILED BY: | LAM HDC PROJECT NO. | 2016-13 |
| NO. AND SPACING AS REQUIRED 24' MIN 24' MIN WHERE PIPE IS CONNECTED TO EXISTING STEEL BEAM | LAKEFRONT PUMP STATION, PHASE 3 ST TAMMY PARISH | ST TAMMANY PARISH GOVERNMENT | 21454 KOOP DRIVE MANDEVILLE, LA 70471 | ELECTRICAL DETAILS |
| ING STAND HEET) | SHEET I | E Set | :2 ⊧ 20 | |
| | | | | , |

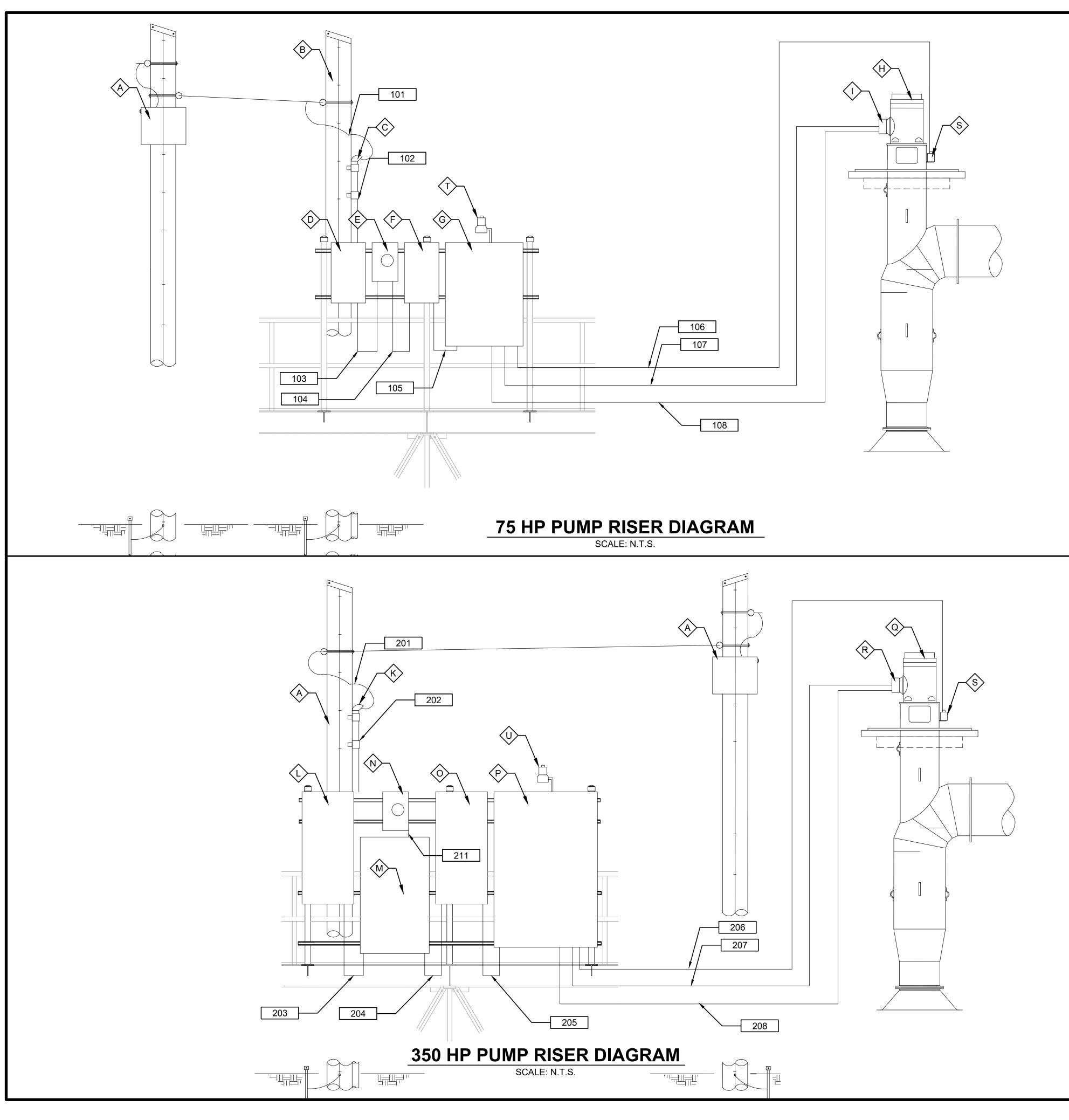
| | | CAE | BLE AND CONDUIT SCHEDULE | | |
|-------------------|--------------------------------|-----------------------------|--|---------------------------------------|------------|
| CONDUIT/CABLE TAG | CONDUIT SIZE | CABLE | TERMINATION (FROM) | TERMINATION (TO) | REM |
| 101 | N/A | 3 1/0 AWG, NO. 6 AWG G | SERVING TRANSFORMER | WEATHERHEAD | |
| 102 | 1-1/2" C | 3 1/0 AWG, NO. 6 AWG G | WEATHERHEAD | SAFETY SWITCH (LOAD BREAK DISCONNECT) | - |
| 103 | 1-1/2" C | 3 1/0 AWG, NO. 6 AWG G | SAFETY SWITCH (LOAD BREAK DISCONNECT) | SELF - CONTAINED METER | - |
| 104 | 1-1/2" C | 3 1/0 AWG, NO. 6 AWG G | SELF - CONTAINED METER | SAFETY SWITCH (LOAD BREAK DISCONNECT) | - |
| 105 | 1-1/2" C | 3 1/0 AWG, NO. 6 AWG G | SAFETY SWITCH (LOAD BREAK DISCONNECT) | PUMP CONTROL PANEL | - |
| 106 | <u>1</u> ² "C | 2 NO. 8 AWG, 1 NO. 12 AWG G | PUMP CONTROL PANEL LOW VOLTAGE SECTION | PUMP OILER SOLENOID VALVE | (B) (C) |
| 107 | ¹ / ₂ "C | 2 NO. 8 AWG, 1 NO. 12 AWG G | PUMP CONTROL PANEL LOW VOLTAGE SECTION | PUMP MOTOR TERMINATION BOX (HEATER) | \diamond |
| 108 | <u>1</u> "C | 2 NO. 8 AWG, 1 NO. 12 AWG G | PUMP CONTROL PANEL REDUCED VOLTAGE SOFT START | PUMP MOTOR TERMINATION BOX | È |
| 109 | ¹ / ₂ "C | 2 NO. 8 AWG, 1 NO. 12 AWG G | PUMP CONTROL PANEL LOW VOLTAGE SECTION | AREA LIGHT | ¢F> |
| 110 | <u>1</u> ² "C | FACTORY CABLE | PUMP CONTROL PANEL LOW VOLTAGE SECTION | FLOATS | <u> </u> |
| · | | 350 HO | RSEPOWER PUMP POWER RISER | | |
| 201 | N/A | 6 EA. 500 MCM, 1 3/0 AWG G | SERVING TRANSFORMER | WEATHERHEAD | |
| 202 | 2 EA 3"C | 6 EA. 500 MCM, 1 3/0 AWG G | WEATHERHEAD | SAFETY SWITCH (LOAD BREAK DISCONNECT) | - |
| 203 | 4"C | 6 EA. 500 MCM, 1 3/0 AWG G | SAFETY SWITCH (LOAD BREAK DISCONNECT) | CURRENT TRANSFORMER CABINET | - |
| 204 | 4"C | 6 EA. 500 MCM, 1 3/0 AWG G | CURRENT TRANSFORMER CABINET | SAFETY SWITCH (LINE BREAK DISCONNECT) | - |
| 205 | 4"C | 6 EA. 500 MCM, 1 3/0 AWG G | SAFETY SWITCH (LINE BREAK DISCONNECT) | PUMP CONTROL PANEL | - |
| 206 | <u>1</u> ² "C | 2 NO. 8 AWG, 1 NO. 12 AWG G | PUMP CONTROL PANEL LOW VOLTAGE SECTION | PUMP OILER SOLENOID VALVE | (H) |
| 207 | <u>1</u> "C | 2 NO. 8 AWG, 1 NO. 12 AWG G | PUMP CONTROL PANEL LOW VOLTAGE SECTION | PUMP MOTOR TERMINATION BOX (HEATER) | |
| 208 | 4"C | 6 EA. 500 MCM, 1. 3/0 AWG G | PUMP CONTROL PANEL REDUCED VOLTAGE SOFT START | PUMP MOTOR TERMINATION BOX | - |
| 209 | <u>1</u> "C | 2 NO. 8 AWG, 1 NO. 12 AWG G | PUMP CONTROL PANEL LOW VOLTAGE SECTION | AREA LIGHT | |
| 210 | MIN <u>1</u> ' C | FACTORY CABLE | PUMP CONTROL PANEL LOW VOLTAGE SECTION | FLOATS | |
| 211 | 3" C | 3 EACH 500 MCM | CURRENT TRANSFORMERS | SELF CONTAINED METER ENCLOSURE | |



CONTROL PANEL RACK ELEVATIONS SCALE: N.T.S.



| | ID CONDUIT SCHEDULE GENERAL NOTES: CTION 16100 FOR ADDITIONAL REQUIREMENTS | | | | | WW. | |
|--|--|----------------|----------------------------------|--------------|--------------------|---------------------------------------|---|
| | | | | | MAIN IIN 37832 | ×, | |
| | ID CONDUIT SCHEDULE NOTES BY SYMBOL: | | | |) ALAIN Ise No. | | WHAT IN |
| A VER | RIFY SIZE OF CABLE WITH SERVING UTILITY | | | | | mini | in the second |
| | RIFY CABLE SIZING WITH SOLENOID MANUFACTURER | | | | | | |
| C RE - | FEED EXISTING SOLENOID VALVE | | | <u>o</u> | | ļ | <u>j</u> |
| \sim | FEED EXISTING MOTOR HEATER | | 37832 | CENSE N | | 30219 1051955 NO | |
| <e -<="" re="" td=""><td>FEED MOTOR IN ELEVATED LOCATION</td><td></td><td></td><td>LIC</td><td></td><td></td><td></td></e> | FEED MOTOR IN ELEVATED LOCATION | | | LIC | | | |
| F RE - | FEED AREA LIGHT IN NEW LOCATION | | TIN | IAGER | | | |
| $\overline{\mathbf{X}}$ | FEED FLOATS. VERIFY CONDUIT SIZE WITH FLOAT | | SUBMITTED BY: DAVID A. MARTIN | DJECT MAN | SUBMITTED BY | H. DAVIS COLE COMPANY OFFICER | |
| | RIFY CABLE SIZING WITH SOLENOID MANUFACTURER | | SUE | PRO | SUP | | |
| | RIFY CONDUIT SIZE WITH FLOAT SUPPLIER | | | Ľ | Cole & | LLC | EANS, LA |
| | VIDE TWO WEATHERHEADS TO ACCOMODATE ALL IDUCTORS | | G | | H. Davis Co | Associates, L Consulting Engineers | NEW ORLEAN |
| | | | | | ∎ ±́ | _ | |
| | | | | | | | |
| | | | | | | DAM | ă |
| | | | | | | MAR 2020 | D SD |
| | | | | | | | CORI |
| | | | | | | STRUCTI | |
| | | | | | | & CONS | |
| | | | | | | FOR BIDS & CON | RE |
| RACK FLF | VATION GENERAL NOTES: | | | | | RELEASED FOR BIDS & CONSTRUCTION | |
| | ECTRICAL PLAN FOR LOCATIONS. | | | | $\left \right $ | _ | 4 |
| 2) SEE O I | NE LINE DIAGRAMS AND RISER DIAGRAMS FOR NT AND PANEL DETAILS. | 3Y: | | | | | |
| | CTION 16100 - GENERAL ELECTRICAL MENTS FOR ADDITIONAL REQUIREMENTS. | DESIGNED BY: | DAM | DRAWN BY: | DAM | CHECKED BY | DAM |
| RACK ELE | VATION NOTES BY SYMBOL: | | 0 | | | NO | |
| $\langle \hat{A} \rangle$ | EQUIPMENT RACK PER DETAIL | | , 2020 | D BY: | DAM | DJECT | 2016-13 |
| B | 600 AMP SAFETY SWITCH PER SECTION 16100 LOAD SIDE DISCONNECT) | DATE: | DEC, | DETAILED BY: | Δ | HDC PROJECT | 201 |
| ¢¢ | CURRENT TRANSFORMER CABINET PER SERVING UTILITY REQUIREMENTS (CT'S BY SERVING UTILITY) | | LOUISIANA | | | | |
| D | SELF - CONTAINED METER SOCKET PER SERVING UTILITY REQUIREMENTS (TO BE COMPATIBLE WITH CURRENT TRANSFORMERS PROVIDED BY SERVING UTILITY) | PHASE 3 | | GOVERNMENT | | _ | DULE |
| E | 600 AMP SAFETY SWITCH PER SECTION 16100 (LINE SIDE DISCONNECT/MANUAL TRANSFER SWITCH) | STATION, PHASE | | Ĭ | | | IT SCHEDULE |
| F | NEW CONTROL PANEL PER SECTION 16100 | Р S | | ARISH | KOOP | Ц Ч | CONDUIT |
| G | RELOCATED 200 AMP SAFETY SWITCH (LINE SIDE DISCONNECT) | T PUM | | L U | . ¥ į | | AND CO |
| H | RELOCATED SELF - CONTAINED METER AND METER SOCKET | AKEFRONT PUMP | Ϋ́ | TAMMANY | Ň | MAI | CABLE A |
| | RELOCATED 200 AMP SAFETY SWITCH (LOAD SIDE DISCONNECT) | LAKE | ш. | L S | | | Ũ |
| < L | RELOCATED PUMP CONTROL PANEL | | TAMMY | | | | |
| ĸ | RELOCATED SERVICE POLE | | ST. T | | | | |
| | NEW SERVICE POLE | SH | EET I | D | | | |
| < M> | COMPANY TRANSFORMER AND POLE (FOR ILLUSTRATIVE PURPOSES ONLY | SH | EET S | | E3 | | |
| | | | | | OF | 20 |) |



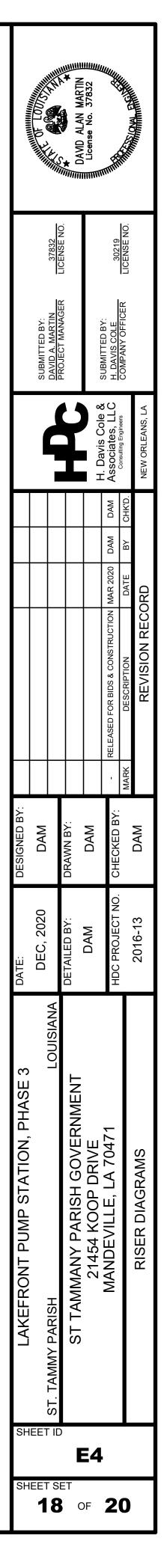
| RISER DIAGRAM GENERAL NOTES | : |
|------------------------------------|---|
| | - |

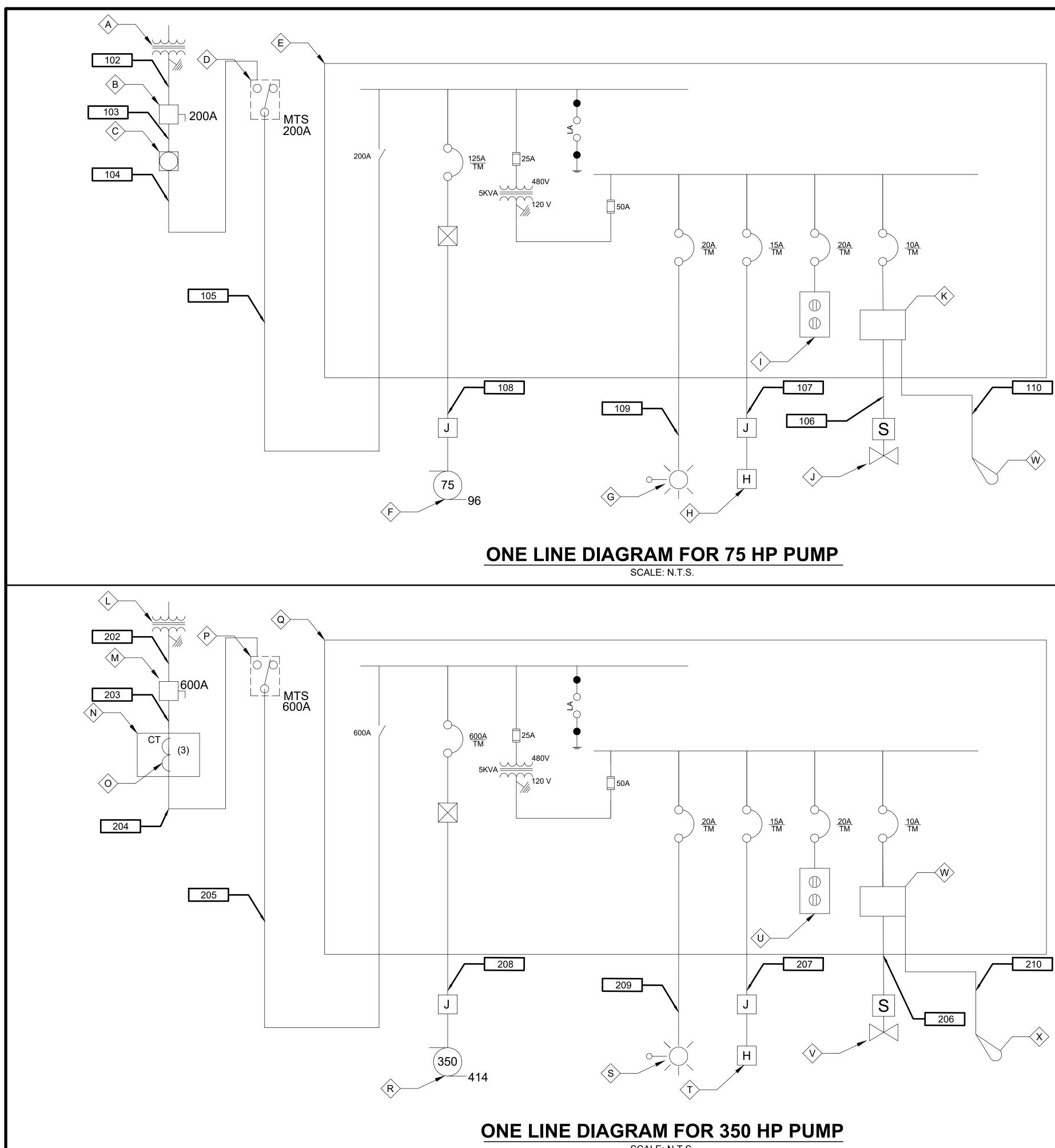
- 1) SEE SECTION 16100 FOR ADDITIONAL REQUIREMENTS
- 2) SEE SHEET E2 FOR CONDUIT AND CABLE SCHEDULE
- 3) SEE ONE LINE DIAGRAM, SHEET E4, FOR ADDITIONAL REQUIREMENTS

NOTES BY SYMBOL:

| $\langle \ell$ | POWER COMPANY POLE AND TRANSFORMER (FOR |
|----------------|---|
| | ILLUSTRATIVE PURPOSES ONLY) |

- (B) RELOCATED SERVICE POLE
- **C** RELOCATED WEATHERHEAD
- (D) RELOCATED LOAD SIDE DISCONNECT
- (E) RELOCATED SELF CONTAINED METER AND METER SOCKET
- **F** RELOCATED LOAD SIDE DISCONNECT
- G RELOCATED CONTROL PANEL
- (H) 75 HP PUMP
- $\langle I \rangle$ 75 HP PUMP MOTOR TERMINATION BOX
- J NEW SERVICE POLE
- K NEW WEATHERHEAD
- L NEW LINE SIDE DISCONNECT
- M NEW CURRENT TRANSFORMER CABINET
- NEW SELF CONTAINED METER SOCKET
- O NEW LOAD SIDE DISCONNECT
- (P) NEW PUMP CONTROL PANEL
- Q 350 HP PUMP
- $\langle R \rangle$ 350 HP PUMP MOTOR TERMINATION BOX
- (S) OILER AND OILER SOLENOID
- T RELOCATED LIGHT
- **V** NEW LIGHT WITH PHOTOCELL PER SECTION 16100





SCALE: N.T.S.

| CAB | LE AND CONDUIT SCHEDULE GENERAL NOTES: | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| 1) SEE SECTION 16100 FOR ADDITIONAL REQUIREMENTS. | | | | | | | | | |
| 2) SEE CONDUIT AND CABLE SCHEDULE FOR ADDITIONAL REQUIREMENTS. | | | | | | | | | |
| CAB | LE AND CONDUIT SCHEDULE NOTES BY SYMBOL: | | | | | | | | |
| A POWER COMPANY TRANSFORMER | | | | | | | | | |
| | RELOCATED SAFETY SWITCH (LINE SIDE DISCONNECT) | | | | | | | | |
| | RELOCATED SELF - CONTAINED METER AND METER SOCKET | | | | | | | | |
| | RELOCATED SAFETY SWITCH (LOAD SIDE DISCONNECT) | | | | | | | | |
| E | RELOCATED CONTROL PANEL | | | | | | | | |
| F | EXISTING 75 HP MOTOR | | | | | | | | |
| G | RELOCATED LIGHT | | | | | | | | |
| H | EXISTING 75 HP MOTOR HEATER | | | | | | | | |
| | EXISTING CONVENIENCE OUTLET | | | | | | | | |
| ¢ | EXISTING 75 HP OILER AND SOLENOID VALVE | | | | | | | | |
| ĸ | CONTROLS SECTION AND CIRCUITS - 75 HP PUMP | | | | | | | | |
| Ĺ | SERVING UTILITY TRANSFORMER | | | | | | | | |
| | NEW SAFETY SWITCH (LINE SIDE DISCONNECT) | | | | | | | | |
| $\langle N \rangle$ | NEW CT CABINET (BY CONTRACTOR) | | | | | | | | |
| $\langle 0 \rangle$ | NEW CURRENT TRANSFORMERS (BY SERVING UTILITY) | | | | | | | | |
| P | NEW SAFETY SWITCH (LOAD SIDE DISCONNECT) | | | | | | | | |
| $\langle \mathbf{Q} \rangle$ | NEW 350 HP PUMP CONTROL PANEL | | | | | | | | |
| | 350 HP PUMP MOTOR | | | | | | | | |
| $\langle s \rangle$ | NEW AREA LIGHT | | | | | | | | |
| | 350 HP PUMP MOTOR HEATER | | | | | | | | |
| Û | CONVENIENCE OUTLET | | | | | | | | |
| $\langle v \rangle$ | 350 HP PUMP OILER AND SOLENOID VALVE | | | | | | | | |
| Ŵ | RE-FED FLOATS | | | | | | | | |
| \otimes | NEW FLOATS | | | | | | | | |
| | | | | | | | | | |

| DAVID ALAN MARTIN License No. 37832 | | | | | | | | | | | |
|---|-----------------|--|--------------|---------------------|---|---|---|----------------------|------------------------|--|--|
| 37832 LICENSE NO. | | | | | 30219 LICENSE NO. | | | | | | |
| SUBMITTED BY: DAVID A. MARTIN PROJECT MANAGER | | | | | SUBMITTED BY: H. DAVIS COLE COMPANY OFFICER | | | | | | |
| H. Davis Cole & Associates, LLC | | | | | | | Associates, LLC | Consulting Engineers | NEW ORLEANS, LA | | |
| | | | | | | | M DAM | BY CHKD. | | | |
| | | | | | | | MAR 2020 DAI | DATE BY | RD | | |
| | | | | | | | RELEASED FOR BIDS & CONSTRUCTION MAR 2020 DAM | DESCRIPTION | REVISION RECORD | | |
| | | | | | | i | - RELE | MARK | | | |
| DESIGNED BY: | DAM | DAM | | DRAWN BY: DAM | | | CHECKED BY: | | DAM | | |
| DATE: | DEC, 2020 | | DETAILED BY: | DETAILED BY: DAM | | | HDC PROJECT NO. | | 2016-13 | | |
| LAKEFRONT PUMP STATION, PHASE 3 | | ST. TAMMY PARISH LOUISIANA LOUISIANA DE ST. TAMMANIY DARISH GOVERNMENT | | | | | | | ONE LINE DIAGRAM | | |
| SH | SHEET ID E5 | | | | | | | | | | |
| SH | еет 1 | 5 9 | | 0 | ۶F | | 2 | 0 | | | |



GENERAL NOTES:

1. AERIAL IMAGE COURT GENERAL LOCATION C LOCATIONS SHALL BE

NOTES BY SYMBOL: A EXISTING LAKEF B EXISTING CANAL CONTROL AND PC AND METER TO N ELEVATIONS AND D CONTROL AND PC **E** CONCRETE ENC F PROVIDE CONDU G NEW SERVICE PO UTILITY) H NEW SERVICE PO UTILITY) I ENTER CONTROL

| | | | £₽. | DAVID ALAN MARTIN License No. 37832 | - XY | A REAL PROPERTY AND A REAL |
|--|---------------------------------|----------------------------------|------------------|--|---|--|
| | | 37832 | LICENSE NO. | | 30219 11/2ENSE NO | |
| | | SUBMITTED BY: DAVID A. MARTIN | PROJECT MANAGER | | SUBMITTED BY: H. DAVIS COLE COMPANY OFFICER | |
| TESY OF GOOGLE EARTH. AERIAL IS FOR REFERENCE OF ONLY. SURFACE AND BELOW SURFACE FEATURE E FIELD VERIFIED. | | | | | M Associates, LLC | |
| RONT PUMP STATION (TO BE REHABILITATED) - (NO WORK) POWER DISTRIBUTION EQUIPMENT FOR 75 HP PUMP (RELOCATE ROL PANEL, LOAD BREAK DISCONNECT, LINE BREAK DISCONNECT, NEW RACK ON ELEVATED PLATFORM. CONSTRUCT RACK PER | | | - | | RELEASED FOR BIDS & CONSTRUCTION MAR 2020 DAM DAM | |
| D DETAIL E-420 POWER DISTRIBUTION EQUIPMENT FOR 350 HP PUMP. CONSTRUCT ATIONS AND DETAIL E-420 SASED DUCT BANK PER DETAIL | DESIGNED BY: | DAM | DRAWN BY: | DAM | CHECKED BY: - RELEASED FOR BID | μ |
| JIT SUPPORT PER DETAIL E-108 OLE FOR 350 HP PUMP (VERIFY LOCATION IN FIELD WITH SERVING OLE FOR 75 HP PUMP (VERIFY LOCATION IN FIELD WITH SERVING | DATE: DES | DEC, 2020 | DETAILED BY: DRA | W) | HDC PROJECT NO. CHE | 2016-13 |
| L AND POWER DISTRIBUTION EQUIPMENT PER DETAIL | LAKEFRONT PUMP STATION. PHASE 3 | | | ST TAMMANY PARISH GOVERNMENT 21454 KOOP DRIVE | MANDEVILLE, LA 70471 | REHABILITATED ELECTRICAL SITE PLAN |
| 0 5' 10' GRAPHIC SCALE | SHEET ID 01-E1 | | | | :1 | |
| | SHEET SET | | | | | |