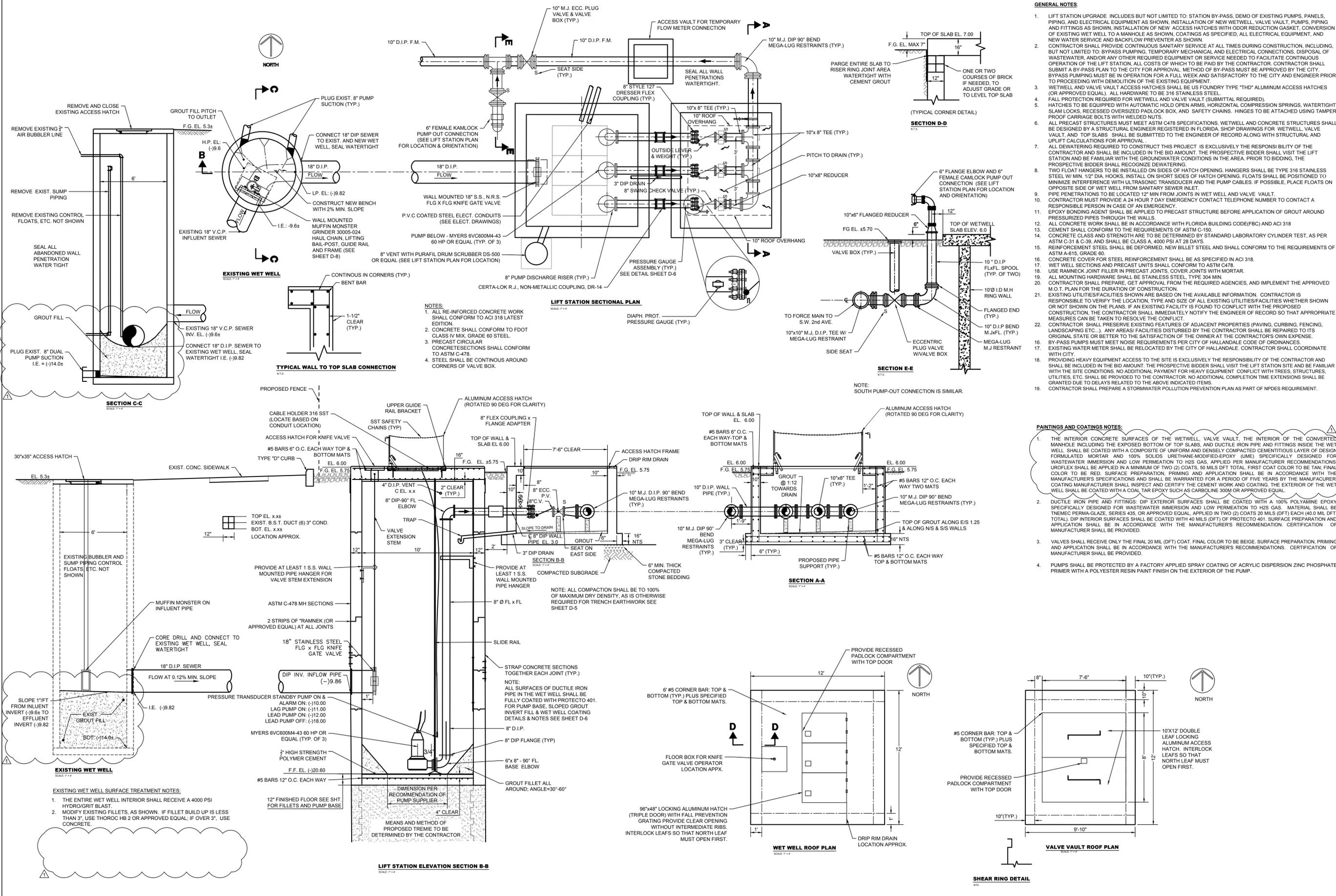


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- GENERAL NOTES:**
- LIFT STATION UPGRADE INCLUDES BUT NOT LIMITED TO: STATION BY-PASS, DEMO OF EXISTING PUMPS, PANELS, PIPING, AND ELECTRICAL EQUIPMENT AS SHOWN. INSTALLATION OF NEW WETWELL, VALVE VAULT, PUMPS, PIPING AND FITTINGS AS SHOWN. INSTALLATION OF NEW ACCESS HATCHES WITH ODOR REDUCTION GASKET, CONVERSION OF EXISTING WET WELL TO A MANHOLE AS SHOWN. COATINGS AS SPECIFIED, ALL ELECTRICAL EQUIPMENT, AND NEW WATER SERVICE AND BACKFLOW PREVENTER AS SHOWN.
 - CONTRACTOR SHALL PROVIDE CONTINUOUS SANITARY SERVICE AT ALL TIMES DURING CONSTRUCTION, INCLUDING, BUT NOT LIMITED TO: BY-PASS PUMPING, TEMPORARY MECHANICAL AND ELECTRICAL CONNECTIONS, DISPOSAL OF WASTEWATER, AND/OR ANY OTHER REQUIRED EQUIPMENT OR SERVICE NEEDED TO FACILITATE CONTINUOUS OPERATION OF THE LIFT STATION. ALL COSTS OF WHICH TO BE PAID BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT A BY-PASS PLAN TO THE CITY FOR APPROVAL. METHOD OF BY-PASS MUST BE APPROVED BY THE CITY. BY-PASS PUMPING MUST BE IN OPERATION FOR A FULL WEEK AND SATISFACTORY TO THE CITY AND ENGINEER PRIOR TO PROCEEDING WITH DEMOLITION OF THE EXISTING EQUIPMENT.
 - WETWELL AND VALVE VAULT ACCESS HATCHES SHALL BE US FOUNDRY TYPE "HD" ALUMINUM ACCESS HATCHES (OR APPROVED EQUAL). ALL HARDWARE TO BE 316 STAINLESS STEEL.
 - FALL PROTECTION REQUIRED FOR WETWELL AND VALVE VAULT (SUBMITTAL REQUIRED).
 - HATCHES TO BE EQUIPPED WITH AUTOMATIC HOLD OPEN ARMS, HORIZONTAL COMPRESSION SPRINGS, WATER-TIGHT SLAM LOCKS, RECESSED OVERSIZED PADLOCK BOX, AND SAFETY CHAINS. HINGES TO BE ATTACHED USING TAMPER PROOF CARRIAGE BOLTS WITH WELDED NUTS.
 - ALL PRECAST STRUCTURES MUST MEET ASTM C478 SPECIFICATIONS. WETWELL AND CONCRETE STRUCTURES SHALL BE DESIGNED BY A STRUCTURAL ENGINEER REGISTERED IN FLORIDA. SHOP DRAWINGS FOR WETWELL, VALVE VAULT, AND TOP SLABS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD ALONG WITH STRUCTURAL AND UPLIFT CALCULATIONS FOR APPROVAL.
 - ALL DEWATERING REQUIRED TO CONSTRUCT THIS PROJECT IS EXCLUSIVELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE BID AMOUNT. THE PROSPECTIVE BIDDER SHALL VISIT THE LIFT STATION AND BE FAMILIAR WITH THE GROUNDWATER CONDITIONS IN THE AREA. PRIOR TO BIDDING, THE PROSPECTIVE BIDDER SHALL RECOGNIZE DEWATERING.
 - TWO FLOAT HANGERS TO BE INSTALLED ON SIDES OF HATCH OPENING. HANGERS SHALL BE TYPE 316 STAINLESS STEEL W/ MIN. 1/2" DIA. HOOKS. INSTALL ON SHORT SIDES OF HATCH OPENING. FLOATS SHALL BE POSITIONED TO MINIMIZE INTERFERENCE WITH ULTRASONIC TRANSDUCERS AND THE PUMP CABLES. IF POSSIBLE, PLACE FLOATS ON OPPOSITE SIDE OF WET WELL FROM SANITARY SEWER INLET.
 - PIPE PENETRATIONS TO BE LOCATED 12" MIN FROM JOINTS IN WET WELL AND VALVE VAULT.
 - CONTRACTOR MUST PROVIDE A 24 HOUR 7 DAY EMERGENCY CONTACT TELEPHONE NUMBER TO CONTACT A RESPONSIBLE PERSON IN CASE OF AN EMERGENCY.
 - EPOXY BONDING AGENT SHALL BE APPLIED TO PRECAST STRUCTURE BEFORE APPLICATION OF GROUT AROUND PRESSURIZED PIPES THROUGH THE WALLS.
 - ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH FLORIDA BUILDING CODE (FBC) AND ACI 318.
 - CEMENT SHALL CONFORM WITH THE REQUIREMENTS OF ASTM C-150.
 - CONCRETE CLASS AND STRENGTH ARE TO BE DETERMINED BY STANDARD LABORATORY CYLINDER TEST, AS PER ASTM C-31 & C-39, AND SHALL BE CLASS A, 4000 PSI AT 28 DAYS.
 - REINFORCEMENT STEEL SHALL BE DEFORMED, NEW BILLET STEEL AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-616, GRADE 60.
 - CONCRETE COVER FOR STEEL REINFORCEMENT SHALL BE AS SPECIFIED IN ACI 318.
 - WET WELL SECTIONS AND PRECAST UNITS SHALL CONFORM TO ASTM C478.
 - USE RAINNEK JOINT FILLER IN PRECAST JOINTS. COVER JOINTS WITH MORTAR.
 - ALL MOUNTING HARDWARE SHALL BE STAINLESS STEEL, TYPE 304 MIN.
 - CONTRACTOR SHALL PREPARE, GET APPROVAL FROM THE REQUIRED AGENCIES, AND IMPLEMENT THE APPROVED M.O.T. PLAN FOR THE DURATION OF CONSTRUCTION.
 - EXISTING UTILITIES/FACILITIES SHOWN ARE BASED ON THE AVAILABLE INFORMATION. CONTRACTOR IS RESPONSIBLE TO VERIFY THE LOCATION, TYPE AND SIZE OF ALL EXISTING UTILITIES/FACILITIES WHETHER SHOWN OR NOT SHOWN ON THE PLANS. IF AN EXISTING FACILITY IS FOUND TO CONFLICT WITH THE PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD SO THAT APPROPRIATE MEASURES CAN BE TAKEN TO RESOLVE THE CONFLICT.
 - CONTRACTOR SHALL PRESERVE EXISTING FEATURES OF ADJACENT PROPERTIES (PAVING, CURBING, FENCING, LANDSCAPING ETC.). ANY AREA/FACILITIES DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED TO ITS ORIGINAL STATE OR BETTER TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S OWN EXPENSE.
 - BY-PASS PUMPS MUST MEET NOISE REQUIREMENTS PER CITY OF HALLANDALE CODE OF ORDINANCES.
 - EXISTING WATER METER SHALL BE RELOCATED BY THE CITY OF HALLANDALE. CONTRACTOR SHALL COORDINATE WITH CITY.
 - PROVIDING HEAVY EQUIPMENT ACCESS TO THE SITE IS EXCLUSIVELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE BID AMOUNT. THE PROSPECTIVE BIDDER SHALL VISIT THE LIFT STATION SITE AND BE FAMILIAR WITH THE SITE CONDITIONS. NO ADDITIONAL PAYMENT FOR HEAVY EQUIPMENT, CONFLICT WITH TREES, STRUCTURES, UTILITIES, ETC. SHALL BE PROVIDED TO THE CONTRACTOR. NO ADDITIONAL COMPLETION TIME EXTENSIONS SHALL BE GRANTED DUE TO DELAYS RELATED TO THE ABOVE INDICATED ITEMS.
 - CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN AS PART OF NPDES REQUIREMENT.

- PAINTINGS AND COATINGS NOTES:**
- THE INTERIOR CONCRETE SURFACES OF THE WETWELL, VALVE VAULT, THE INTERIOR OF THE CONVERTED MANHOLE INCLUDING THE EXPOSED BOTTOM OF TOP SLABS, AND DUCTILE IRON PIPE AND FITTINGS INSIDE THE WET WELL SHALL BE COATED WITH A COMPOSITE OF UNIFORM AND DENSELY COMPACTED CEMENTITIOUS LAYER OF DESIGN FORMULATED MORTAR AND 100% SOLIDS URETHANE-MODIFIED-EPOXY (UME) SPECIFICALLY DESIGNED FOR WASTEWATER IMMERSION AND LOW PERMEATION TO H2S GAS. APPLIED PER MANUFACTURER RECOMMENDATIONS. URETHANE SHALL BE APPLIED IN A MINIMUM OF TWO (2) COATS, 50 MILS DFT TOTAL. FIRST COAT COLOR TO BE TAN; FINAL COLOR TO BE RED. SURFACE PREPARATION, PRIMING AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND SHALL BE WARRANTED FOR A PERIOD OF FIVE YEARS BY THE MANUFACTURER. COATING MANUFACTURER SHALL INSPECT AND CERTIFY THE CEMENT WORK AND COATING. THE EXTERIOR OF THE WET WELL SHALL BE COATED WITH A COAL TAR EPOXY SUCH AS CARBOLINE 300M OR APPROVED EQUAL.
 - DUCTILE IRON PIPE AND FITTINGS: DIP EXTERIOR SURFACES SHALL BE COATED WITH A 100% POLYAMINE EPOXY SPECIFICALLY DESIGNED FOR WASTEWATER IMMERSION AND LOW PERMEATION TO H2S GAS. MATERIAL SHALL BE TMEC PERMA-GLAZE, SERIES 435, OR APPROVED EQUAL, APPLIED IN TWO (2) COATS (DFT) EACH (40.0 MIL DFT TOTAL). DIP INTERIOR SURFACES SHALL BE COATED WITH 40 MILS (DFT) OF PROTECTO 401. SURFACE PREPARATION AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. CERTIFICATION OF MANUFACTURER SHALL BE PROVIDED.
 - VALVES SHALL RECEIVE ONLY THE FINAL 20 MIL (DFT) COAT. FINAL COLOR TO BE BEIGE. SURFACE PREPARATION, PRIMING AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CERTIFICATION OF MANUFACTURER SHALL BE PROVIDED.
 - PUMPS SHALL BE PROTECTED BY A FACTORY APPLIED SPRAY COATING OF ACRYLIC DISPERSION ZINC PHOSPHATE PRIMER WITH A POLYESTER RESIN PAINT FINISH ON THE EXTERIOR OF THE PUMP.

DATE:	08-30-2019	AS SHOWN:	
SCALE:		DESIGN BY:	DLC
ADDENDUM #1:	02/20/2020	DRAWN BY:	DLC
DLC:		CHECKED BY:	PJG
		APPROVED BY:	PJG
		DATE:	

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**PUMP STATION NO. 8
 REPLACEMENT**

PREPARED FOR:
CITY OF HALLANDALE BEACH

PUMP STATION DETAILS

Patrick J. Gibney, State of Florida, Professional Engineer, License No. 49428
 This item has been electronically signed and sealed by Patrick J. Gibney, PE. On 2/20/2020 using a SHA authentication code.
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 Patrick J. Gibney
 Florida P.E. No. 49428

PROJECT NO.
17-0039-001-02

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