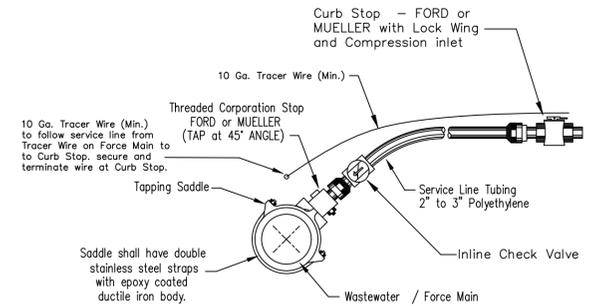
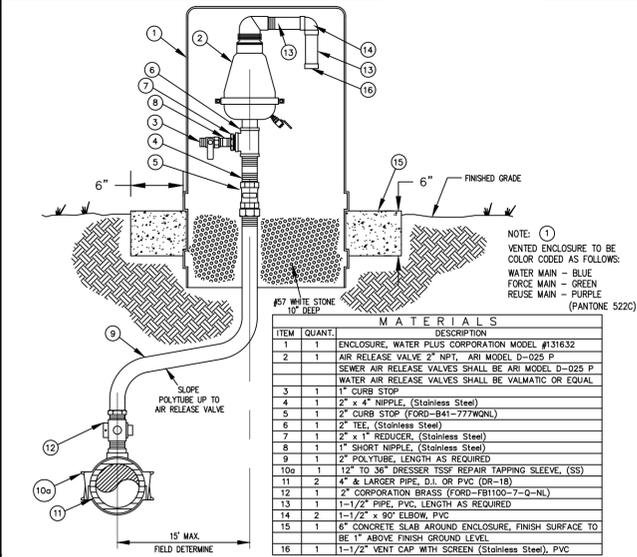


**Gravity Sewer Video Inspection Notes:**  
**Sewer and Stormwater Pipe Installations:** All gravity piping shall be flushed, cleaned and checked for line and grade and air tested according to sewer air testing specifications. No section of pipe shall have more than 1/2" of standing water at any time during the video inspection. Jet vac trucks are not allowed to be used in the pipe while the pipe is being video inspected. For all gravity sewer mains installed a video inspection is to be conducted when backfill reaches a minimum of 3 feet above the pipe crown or upon completion of placement of the stabilized subgrade. After conducting the video inspections, a thumb drive containing all the video recordings and sewer inspection reports shall be submitted to the City's Utilities Department. The thumb drive shall contain all video recording of installed gravity wastewater pipes including video of the insides of all sewer manholes and manhole channels. Submit pipe videoing and sewer inspection reports to Scott Zender at the Utilities Department for review prior to the start of road paving.



DATE: 01/07/26 **FORCE MAIN TAPPING SLEEVE & VALVE** S407  
 City of DeLand - Standard Details

DATE: 01/07/26 **GRAVITY SEWER VIDEO REQUIREMENTS** S408  
 City of DeLand - Standard Details

DATE: 01/07/26 **OFFSET AIR RELEASE VALVE** S311A  
 City of DeLand - Standard Details

DATE: 01/07/26 **2" - 3" FORCE MAIN INLINE TAP CONNECTION** S300  
 City of DeLand - Standard Details



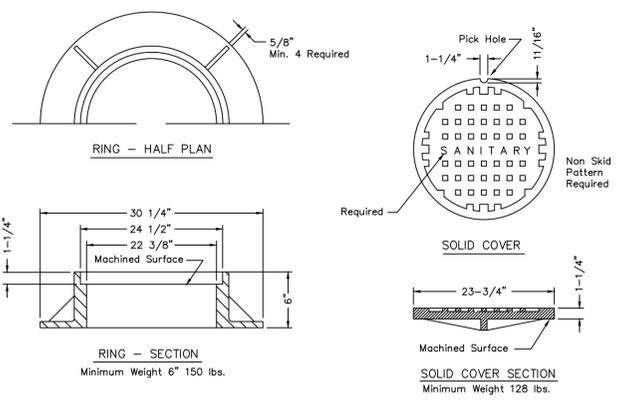
CITY OF DELAND, FLORIDA  
 1102 S. GARFIELD AVENUE, DELAND, FLORIDA 32724

DATE: 01/07/26  
 CHECKED BY: DON JAMES

SCALE: NOT TO SCALE  
 DRAWN BY: ERIC SAMPSON

TITLE:  
**SANITARY DETAILS**

FILE:  
 drive letter/details locations

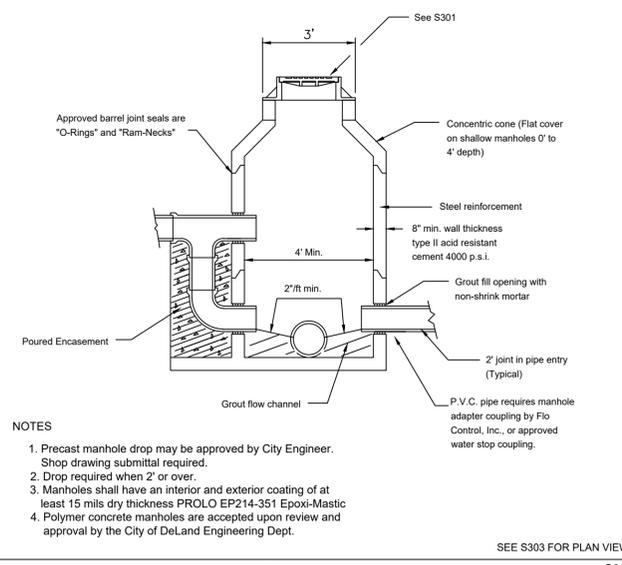


NOTE:  
Manufacturers model of storm ring and cover to be approved by City Engineer.

DATE: 01/07/26

**SANITARY MANHOLE COVER - USF 170-E** S301

City of DeLand - Standard Details



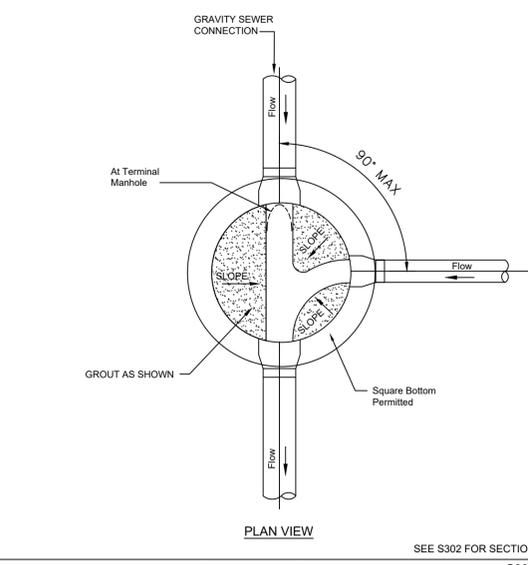
NOTE:  
1. Precast manhole drop may be approved by City Engineer. Shop drawing submittal required.  
2. Drop required when 2' or over.  
3. Manholes shall have an interior and exterior coating of at least 15 mils dry thickness PROLO EP214-351 Epoxi-Mastic  
4. Polymer concrete manholes are accepted upon review and approval by the City of DeLand Engineering Dept.

SEE S303 FOR PLAN VIEW

DATE: 01/07/26

**SANITARY MANHOLE** S302

City of DeLand - Standard Details



NOTE:  
1. PRECAST MANHOLE DROP MAY BE APPROVED BY CITY ENGINEER. SHOP DRAWING SUBMITTAL REQUIRED.  
2. DROP REQUIRED WHEN 2' OR OVER.  
3. MANHOLES SHALL HAVE AN INTERIOR AND EXTERIOR COATING OF AT LEAST 15 MILS DRY THICKNESS PROLO EP214-351 EPOXI-MASTIC OR PROTECH EW-1 COATING TOP TO BOTTOM.

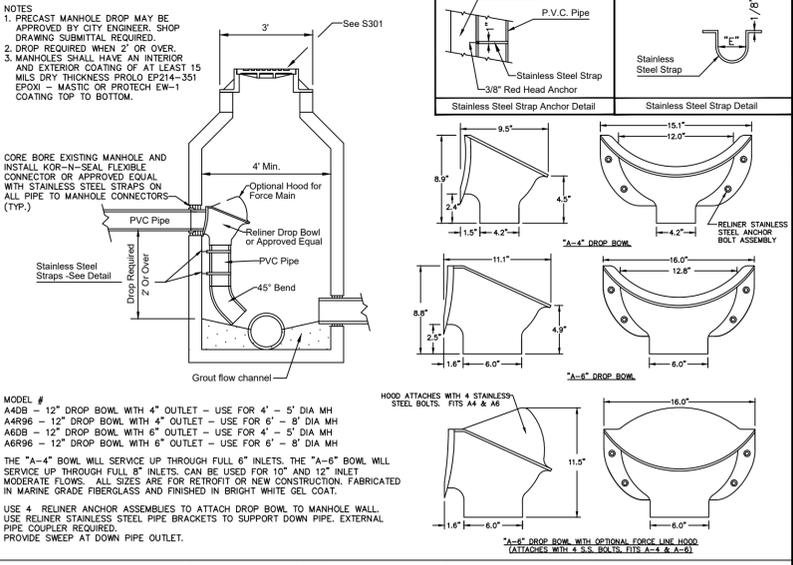
CORE BORE EXISTING MANHOLE AND INSTALL KOR-N-SEAL FLEXIBLE CONNECTOR OR APPROVED EQUAL WITH STAINLESS STEEL STRAPS ON ALL PIPE TO MANHOLE CONNECTORS (TYP.)

USE 4' REINER ANCHOR ASSEMBLIES TO ATTACH DROP BOWL TO MANHOLE WALL. USE REINER STAINLESS STEEL PIPE BRACKETS TO SUPPORT DOWN PIPE. EXTERNAL PIPE COUPLER REQUIRED. PROVIDE SWEEP AT DOWN PIPE OUTLET.

DATE: 01/07/26

**SANITARY MANHOLE** S303

City of DeLand - Standard Details



DATE: 01/07/26

**SANITARY MANHOLE - INSIDE DROP FOR GRAVITY & FORCE MAIN** S304

City of DeLand - Standard Details



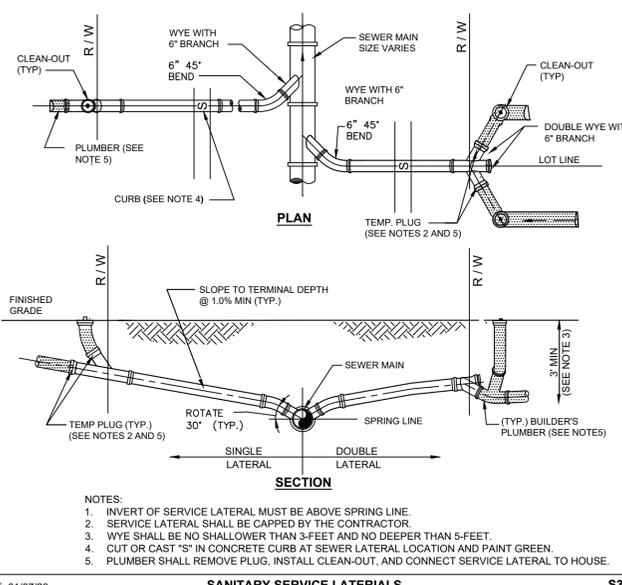
CITY OF DELAND, FLORIDA  
1102 S. GARFIELD AVENUE, DELAND, FLORIDA 32724

DATE: 01/07/26  
CHECKED BY: NAME

SCALE: NOT TO SCALE  
DRAWN BY: ERIC SAMPSON

SANITARY DETAILS

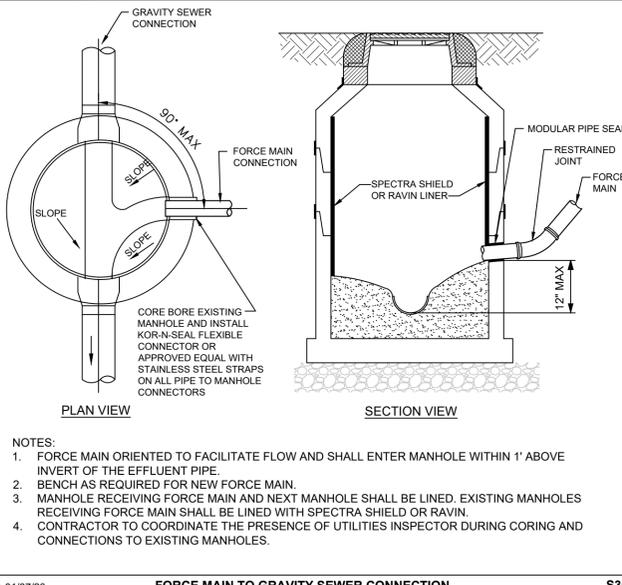
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DATE: 01/07/26

**SANITARY SERVICE LATERALS** S305

City of DeLand - Standard Details

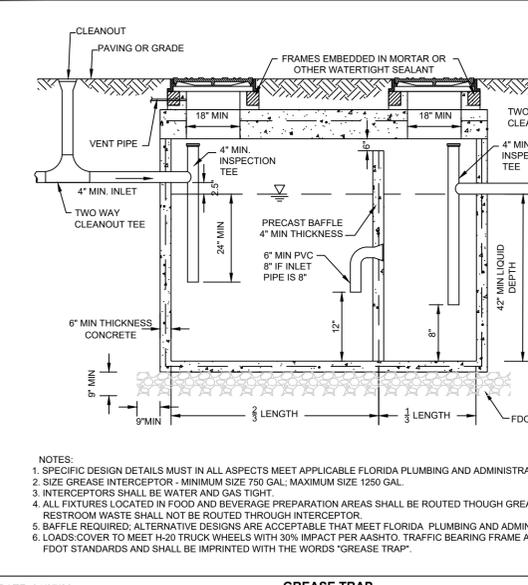


NOTE:  
1. FORCE MAIN ORIENTED TO FACILITATE FLOW AND SHALL ENTER MANHOLE WITHIN 1' ABOVE INVERT OF THE EFFLUENT PIPE.  
2. BENCH AS REQUIRED FOR NEW FORCE MAIN.  
3. MANHOLE RECEIVING FORCE MAIN AND NEXT MANHOLE SHALL BE LINED. EXISTING MANHOLES RECEIVING FORCE MAIN SHALL BE LINED WITH SPECTRA SHIELD OR RAVIN.  
4. CONTRACTOR TO COORDINATE THE PRESENCE OF UTILITIES INSPECTOR DURING CORING AND CONNECTIONS TO EXISTING MANHOLES.

DATE: 01/07/26

**FORCE MAIN TO GRAVITY SEWER CONNECTION** S306

City of DeLand - Standard Details

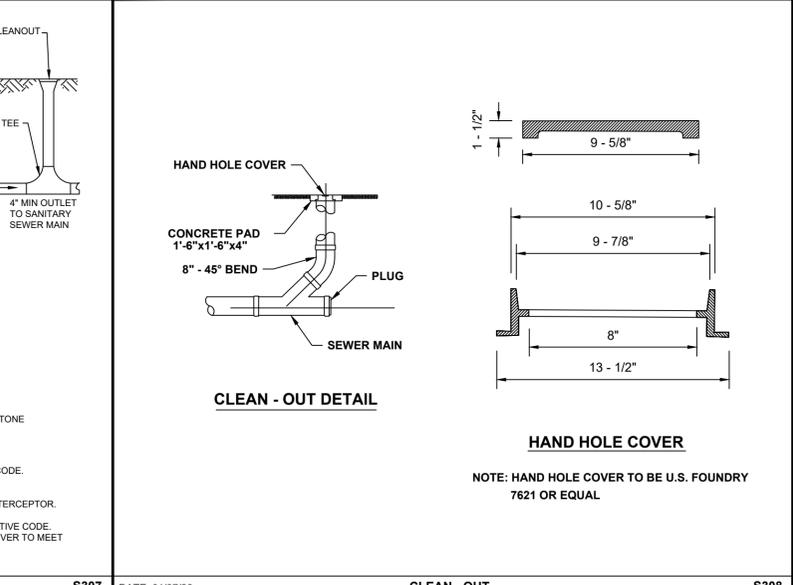


NOTE:  
1. SPECIFIC DESIGN DETAILS MUST IN ALL ASPECTS MEET APPLICABLE FLORIDA PLUMBING AND ADMINISTRATIVE CODE.  
2. SIZE GREASE INTERCEPTOR - MINIMUM SIZE 750 GAL. MAXIMUM SIZE 1250 GAL.  
3. INTERCEPTORS SHALL BE WATER AND GAS TIGHT.  
4. ALL FIXTURES LOCATED IN FOOD AND BEVERAGE PREPARATION AREAS SHALL BE ROUTED THROUGH GREASE INTERCEPTOR. RESTROOM WASTE SHALL NOT BE ROUTED THROUGH INTERCEPTOR.  
5. BAFFLE REQUIRED. ALTERNATIVE DESIGNS ARE ACCEPTABLE THAT MEET FLORIDA PLUMBING AND ADMINISTRATIVE CODE.  
6. LOADS COVER TO MEET H-20 TRUCK WHEELS WITH 30% IMPACT PER ASHTO. TRAFFIC BEARING FRAME AND COVER TO MEET FDOT STANDARDS AND SHALL BE IMPRINTED WITH THE WORDS "GREASE TRAP".

DATE: 01/07/26

**GREASE TRAP** S307

City of DeLand - Standard Details

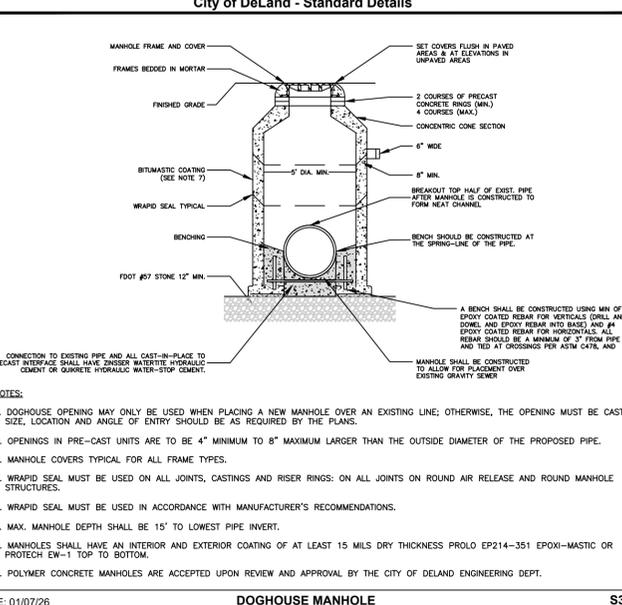


NOTE: HAND HOLE COVER TO BE U.S. FOUNDRY 7621 OR EQUAL

DATE: 01/07/26

**CLEAN - OUT** S308

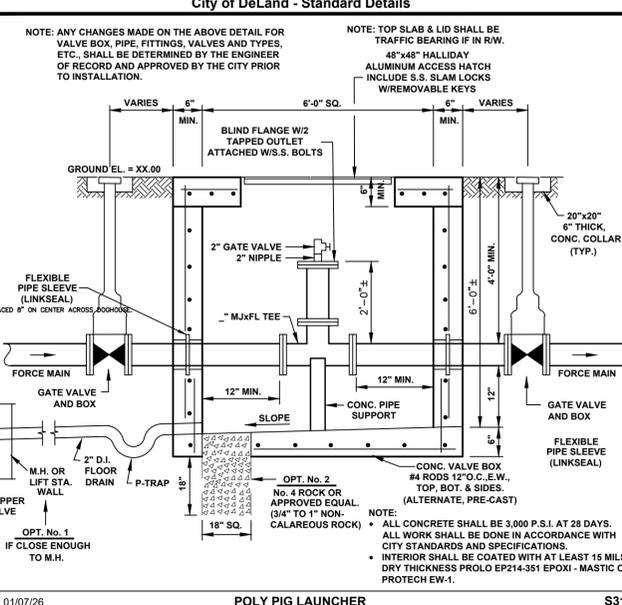
City of DeLand - Standard Details



DATE: 01/07/26

**DOGHOUSE MANHOLE** S309

City of DeLand - Standard Details



NOTE: ANY CHANGES MADE ON THE ABOVE DETAIL FOR VALVE BOX, PIPE, FITTINGS, VALVES AND TYPES, ETC. SHALL BE DETERMINED BY THE ENGINEER OF RECORD AND APPROVED BY THE CITY PRIOR TO INSTALLATION.

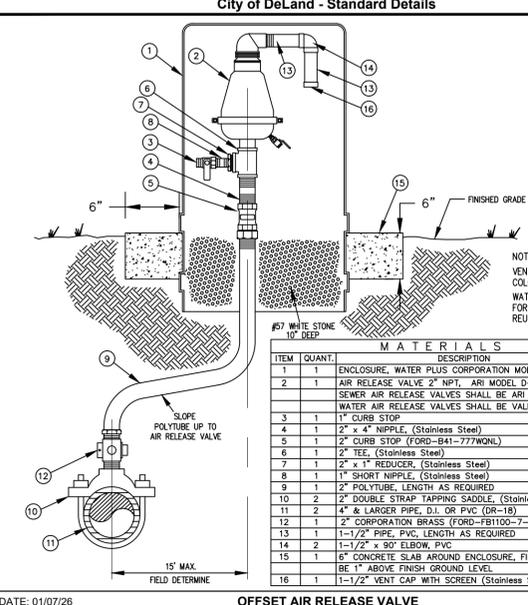
NOTE: TOP SLAB & LID SHALL BE TRAFFIC BEARING IF IN RW. 48"x48" HALLIDAY ALUMINUM ACCESS HATCH INCLUDE S.S. SLAM LOCKS WIRE-REMOVABLE KEYS

NOTE: ALL CONCRETE SHALL BE 3,000 P.S.I. AT 28 DAYS. ALL WORK SHALL BE DONE IN ACCORDANCE WITH CITY STANDARDS AND SPECIFICATIONS.  
INTERIOR SHALL BE COATED WITH AT LEAST 15 MILS DRY THICKNESS PROLO EP214-351 EPOXI-MASTIC OR PROTECH EW-1.

DATE: 01/07/26

**POLY PIG LAUNCHER** S310

City of DeLand - Standard Details



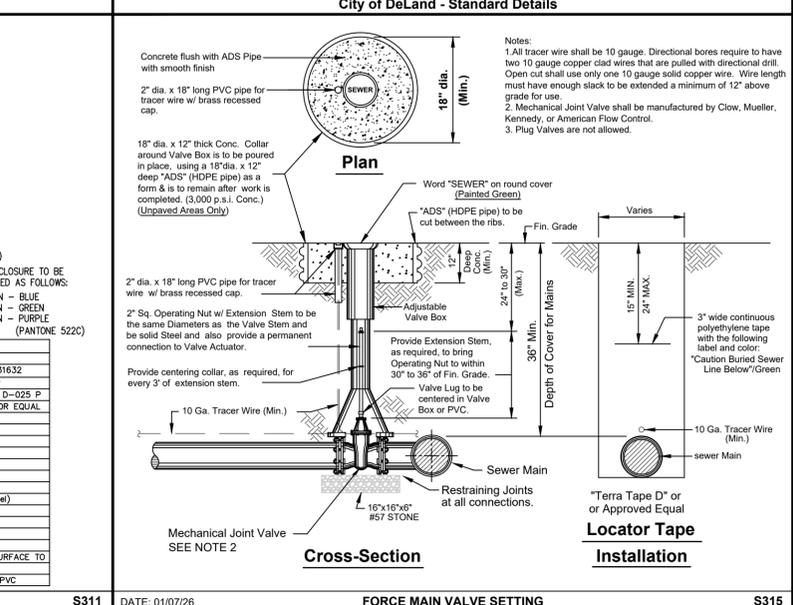
NOTE: ① VENTED ENCLOSURE TO BE COLOR CODED AS FOLLOWS:  
WATER MAIN - BLUE  
FORCE MAIN - GREEN  
REUSE MAIN - PURPLE (PANTONE 522C)

ITEM	QUANT.	DESCRIPTION
1	1	ENCLOSURE, WATER PLUS CORPORATION MODEL #31632
2	1	AIR RELEASE VALVE 2" NPT, ARI MODEL D-025 P
3	1	SEWER AIR RELEASE VALVES SHALL BE ARI MODEL D-025 P
4	1	WATER AIR RELEASE VALVES SHALL BE VALMATIC OR EQUAL
5	1	1" CURB STOP
6	1	2" x 4" NIPPLE, (Stainless Steel)
7	1	2" x 1" REDUCER, (Stainless Steel)
8	1	1" SHORT NIPPLE, (Stainless Steel)
9	1	2" POLYTUBE, LENGTH AS REQUIRED
10	2	DOUBLE STRAP TAPPING SADDLE, (Stainless Steel)
11	2	4" & LARGER PIPE, D.I. OR PVC (DR-10)
12	1	2" CORPORATION BRASS (FORD-FH100-7-Q-NL)
13	1	1-1/2" PIPE, PVC, LENGTH AS REQUIRED
14	2	1-1/2" x 90° ELBOW, PVC
15	1	6" CONCRETE SLAB AROUND ENCLOSURE, FINISH SURFACE TO BE 1" ABOVE FINISH GROUND LEVEL
16	1	1-1/2" VENT CAP WITH SCREEN (Stainless Steel), PVC

DATE: 01/07/26

**OFFSET AIR RELEASE VALVE** S311

City of DeLand - Standard Details



NOTE:  
1. All tracer wire shall be 10 gauge. Directional bores require to have two 10 gauge copper clad wires that are pulled with directional drill. Open cut shall use only one 10 gauge solid copper wire. Wire length must have enough slack to be extended a minimum of 12' above grade for use.  
2. Mechanical Joint Valve shall be manufactured by Clow, Mueller, Kennedy, or American Flow Control.  
3. Plug Valves are not allowed.

DATE: 01/07/26

**FORCE MAIN VALVE SETTING** S315

City of DeLand - Standard Details



**City of DeLand, Engineering Services**  
 1102 S. Garfield Avenue, DeLand, Florida 32724

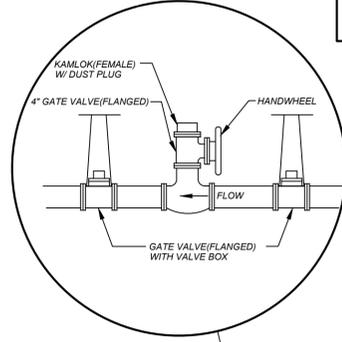
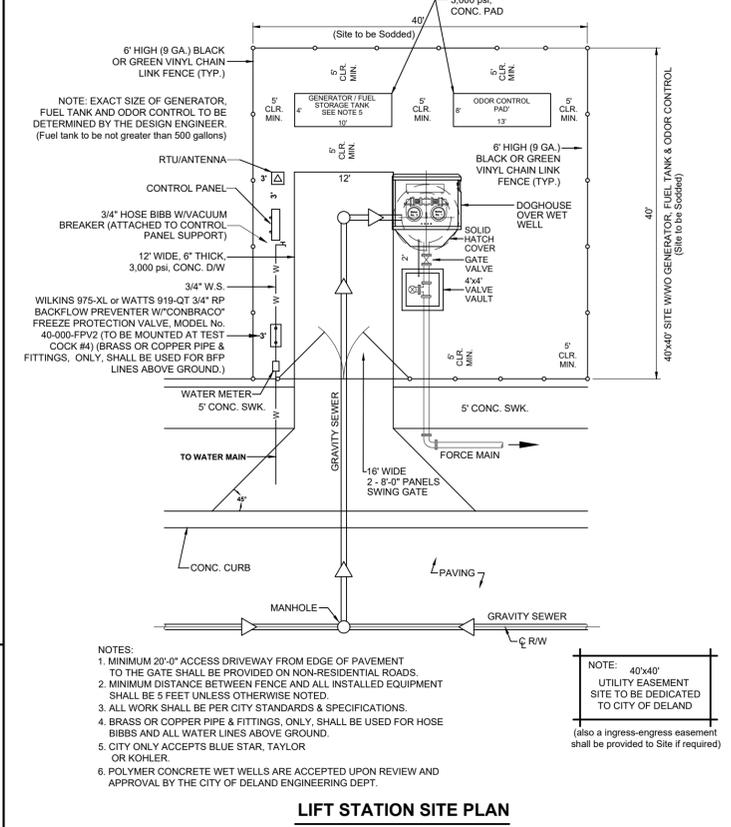
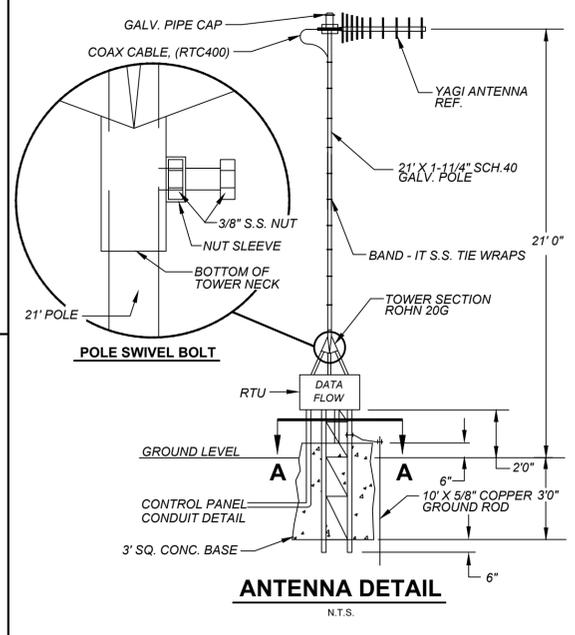
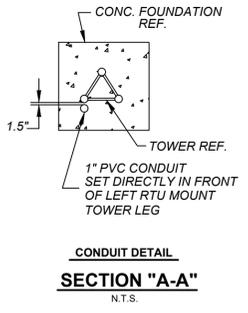
# SANITARY LIFT STATION

DATE: 01/07/26  
 CHECKED BY:  
 SCALE: NOT TO SCALE  
 DRAWN BY: ERIC SAMPSON

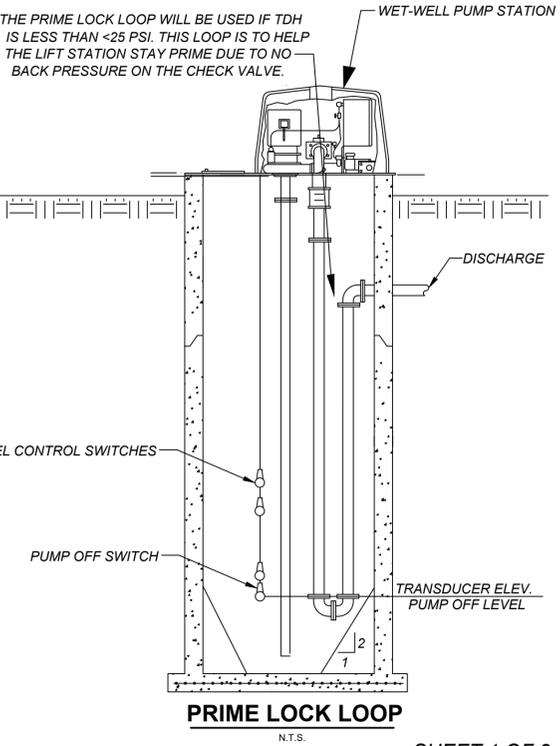
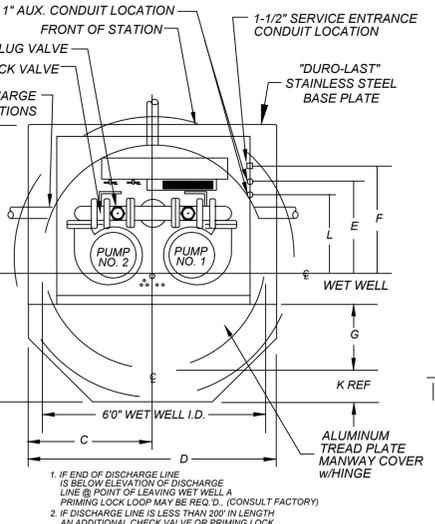
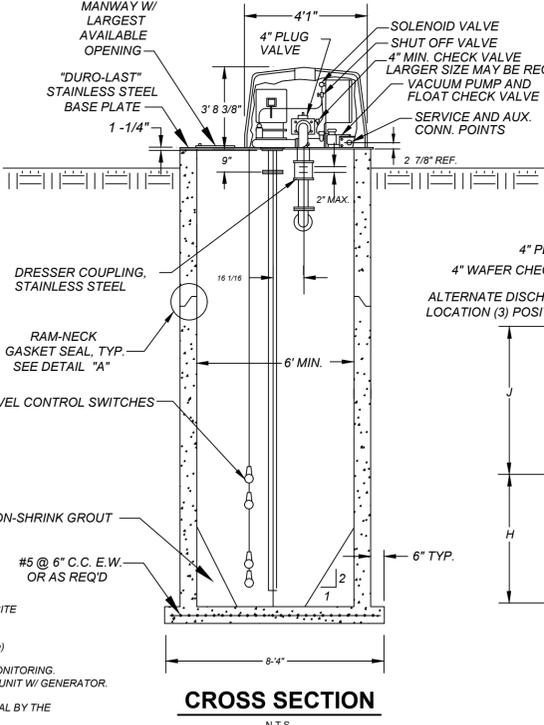
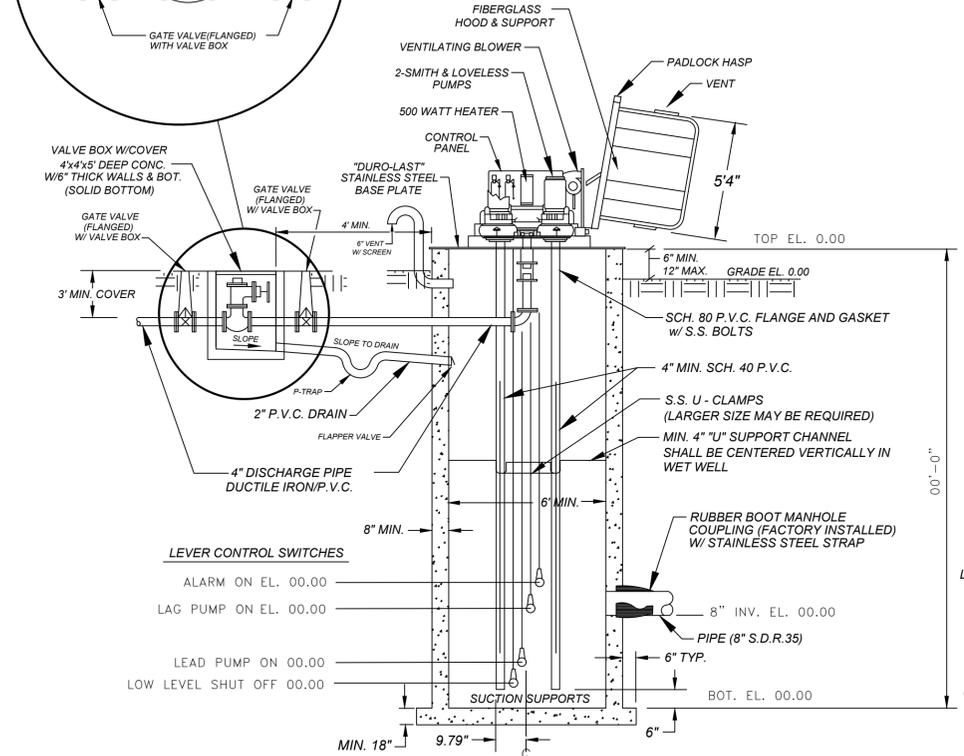
### SPARE PARTS

- VACUUM PUMP AND FLOAT CHECK VALVE
- CHECK VALVE
- CW OR CCW IMPELLER
- PARKER SOLENOID VALVE (25 PSI)
- MECHANICAL SEAL
- SONIC START VACUUM DOME HOUSING
- SONIC START REPLACEMENT PRIME SENSOR

**MOTORS:**  
 THE PUMP MOTORS SHALL BE VERTICAL, SOLID SHAFT, NEMA P-BASE, SQUIRREL-CAGE INDUCTION TYPE, SUITABLE FOR 3 PHASE, 60 CYCLE, 480 VOLT ELECTRIC CURRENT. THEY SHALL HAVE CLASS F INSULATION. INSULATION TEMPERATURE SHALL, HOWEVER, BE LIMITED TO CLASS B. THE MOTORS SHALL HAVE NORMAL STARTING TORQUE AND LOW-STARTING CURRENT, AS SPECIFIED BY NEWMAN DESIGN CHARACTERISTICS. THEY SHALL BE OPEN DRIP-PROOF DESIGN WITH FORCED AIR CIRCULATION BY INTEGRAL FAN. OPENINGS FOR VENTILATION SHALL BE UNIFORMLY SPACED AROUND THE FRAME. LEADS SHALL BE TERMINATED IN CAST CONNECTION BOX AND SHALL BE CLEARLY IDENTIFIED.  
 THE MOTORS SHALL HAVE 1.15 SERVICE FACTOR. THE SERVICE FACTOR SHALL BE RESERVED THE OWNER'S PROTECTION. THE MOTORS SHALL NOT BE OVERLOADED BEYOND THEIR NAMEPLATE RATING, AT THE DESIGN CONDITIONS, NOR AT ANY HEAD IN THE OPERATING RANGE AS SPECIFIED UNDER OPERATING CONDITIONS.  
 THE MOTOR-PUMP SHAFT SHALL BE CENTERED, IN RELATION TO THE MOTOR BASE, WITHIN 0.005". THE SHAFT RUBOUT SHALL NOT EXCEED 0.005".  
 THE MOTORS SHAFT SHALL BE EQUAL OR EXCEED THE DIAMETER SPECIFIED UNDER MAIN PUMPS AT ALL POINTS FROM IMMEDIATELY BELOW THE TOP BEARING TO THE TOP OF THE IMPELLER HUB. A BEARING CAP SHALL BE PROVIDED TO HOLD THE BOTTOM MOTOR BEARING IN A FIXED POSITION. BEARING HOUSINGS SHALL BE PROVIDED WITH FITTING FOR LUBRICATION AS WELL AS PURGING OLD LUBRICANT. THE MOTORS SHALL BE FITTED WITH HEAVY LIFTING EYES OR LUGS, EACH CAPABLE OF SUPPORTING THE ENTIRE WEIGHT OF THE PUMP AND MOTOR.



### SEE PAGE 2 & 3 FOR CONTROL PANEL RACK AND SET-UP

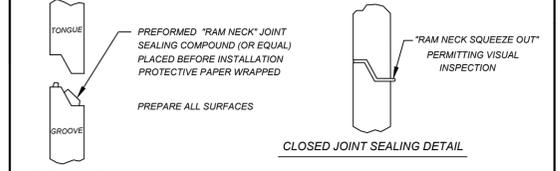


- ALL MAJOR COMMERCIAL OR RESIDENTIAL PROJECTS MUST PROVIDE AN ON-SITE GENERATOR OR CONTRIBUTE TO THE GENERATOR FUND.
- GENERATOR MAKE SHALL BE A BLUE STAR, TAYLOR OR KOHLER
- DIESEL FUEL TANK WITH THREE DAY RUN TIME MIN. (500 Gallon Maximum Storage)
- AUTOMATIC TRANSFER SWITCH SHALL BE REQUIRED.
- GENERATOR SHALL BE CONNECTED TO THE REMOTE TELEMETRY UNIT FOR MONITORING.
- NEW SUBDIVISIONS OF 80 HOMES OR MORE WILL BE REQUIRED TO PROVIDE A UNIT W/ GENERATOR. (LESS THAN 80 HOMES WILL PAY A PRO RATA SHARE \$450 PER UNIT)
- POLYMER CONCRETE WET WELLS ARE ACCEPTED UPON REVIEW AND APPROVAL BY THE CITY OF DELAND ENGINEERING DEPT.

- BACKFLOW PREVENTER SHALL BE WILKINS 3/4" 975-XL RP OR WATTS 3/4" 919-QT RP, W/ "CONBRACO" FREEZE PROTECTION VALVE, MODEL No. 40-000-PPV2, TO BE MOUNTED AT TEST COCK #4.
- ALL 3/4" HOSE BIBBS SHALL ALSO HAVE A VACUUM BREAKER.
- LIFT STATION SITE SHALL BE SODDED.
- PRIOR TO ACCEPTANCE OF THIS LIFT STATION, CITY STAFF WILL OBSERVE THAT THIS STATION WILL PUMP DOWN TO THE CITY'S SPECIFIED CUT-OFF LEVEL, UNDER THE CONDITIONS OF A FULL DISCHARGE PRESSURE SEWER, BEING PRESSURIZED W/ ALL OTHER PUMP STATIONS OPERATING, IF THERE EXISTS A MANIFOLD CONDITION. THE DEVELOPER WILL SUPPLY LABOR AND MATERIALS FOR THIS DEMONSTRATION.
- DO NOT PLACE TRANSFORMERS OR OTHER APPURTENANCES WITHIN THE DESIGNATED EASEMENT THAT WILL IMPEDE MAINTENANCE ACTIVITIES OF THIS STATION.
- ORIENTATE THE MANWAY TOWARD THE STREET SIDE FOR EASY ACCESS BY OPERATING & MAINTENANCE PERSONNEL.
- PROVIDE ADEQUATE PAVING (CONC. OR ASPHALT) 12' WIDE DRIVE FROM STREET TO PUMP STATION FOR SAFE ACCESS OF EMERGENCY GENERATOR, SEWER CLEANER, AND OTHER MAINTENANCE VEHICLES.
- FENCE WITH 6' HIGH COMMERCIAL GRADE CYCLONE FENCE, USING TWO 8' FOOT GATES. FENCE SHOULD BE LOCATED IN SUCH A WAY AS NOT TO INTERFERE WITH ANY PANEL DOORS OR HATCH OPENINGS, AND GATE POSITIONED TO ALLOW EASY ACCESS TO WET WELL. (BLACK OR GREEN VINYL COATED). (REFER TO SITE PLAN)
- A 40' x 40' TRACT SHALL BE DEDICATED TO THE CITY OF DELAND FOR THE LIFT STATION SITE.
- PROVIDE "DURO-LAST" STAINLESS STEEL BASE PLATE ON LIFT STATION.
- BRASS OR COPPER PIPE & FITTINGS, ONLY, SHALL BE USED FOR BFP & HOSE BIBBS AND LINES ABOVE GROUND.
- ALL SEWER AIR RELEASE VALVES SHALL BE 2" A.R.I. MODEL D-025TPO2.
- MIN. 2'x2' AROUND AND 6' CLEARANCE ABOVE METER

**CONTROLS:**  
 THE CONTROL EQUIPMENT SHALL BE MOUNTED IN A NEMA TYPE 1 STEEL ENCLOSURE WITH A REMOVABLE ACCESS COVER. THE CIRCUIT BREAKERS, STARTER RESET BUTTONS, AND CONTROL SWITCHES SHALL BE OPERABLE WITHOUT REMOVING THE ACCESS COVER, FOR DEADFRONT OPERATION.  
 A GFCI TYPE CONVENIENCE OUTLET SHALL BE PROVIDED ON THE SIDE OF THE CABINET FOR OPERATION OF 120 VOLT AC DEVICES. THERMAL MAGNETIC AIR CIRCUIT BREAKERS SHALL BE PROVIDED FOR BRANCH DISCONNECT SERVICE AND SHORT CIRCUIT PROTECTION OF ALL MOTOR CONTROL AND AUXILIARY CIRCUITS.  
 MAGNETIC ACROSS-THE-LINE STARTERS WITH UNDER-VOLTAGE RELEASE AND OVERLOAD COILS FOR EACH PHASE SHALL BE PROVIDED FOR EACH PUMP MOTOR TO GIVE POSITIVE PROTECTION. EACH SINGLE-PHASE AUXILIARY MOTOR SHALL BE EQUIPPED WITH AN OVER-CURRENT PROTECTION DEVICE IN ADDITION TO THE BRANCH CIRCUIT BREAKER, OR SHALL BE IMPEDANCE PROTECTED. ALL SWITCHES SHALL BE LABELED AND A CODED WIRING DIAGRAM SHALL BE PROVIDED.  
 TO CONTROL THE OPERATION OF THE PUMPS WITH VARIATIONS OF LIQUID LEVEL IN THE WET WELL, A MINIMUM OF FOUR (4) DISPLACEMENT SWITCHES SHALL BE PROVIDED. A 30' CORD SHALL BE PROVIDED WITH EACH SWITCH. THE CORD SHALL HAVE A CORROSION-RESISTANT VINYL JACKET AND BE MULTI-STRANDED IN ORDER TO PREVENT FATIGUE.  
 AN AUTOMATIC ALTERNATOR WITH MANUAL SWITCH SHALL BE PROVIDED TO CHANGE THE SEQUENCE OF OPERATION OF THE PUMPS EVERY EIGHT HOURS. ALTERNATING THE PUMPS AT LESS THAN EIGHT HOUR INTERVALS WILL NOT BE ACCEPTABLE. PROVISIONS SHALL ALSO BE MADE FOR THE PUMPS TO OPERATE IN PARALLEL SHOULD THE LEVEL IN THE WET WELL CONTINUE TO RISE ABOVE THE STARTING LEVEL FOR THE LAG PUMP.

WET WELL DIA.	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	DIM "H"	DIM "J"	DIM "K"	DIM "L"
6'-0"	2'	1'-1 13/16"	3'-4"	6'-8"	2'-1 3/8"	2'-5 7/8"	1'-8"	3'-10"	3'-5 1/2"	10'	1'-8 7/8"



### PLAN VIEW N.T.S.

MACH. CHAMBER (SHOWN LESS HOOD)

**Wet Well (Anti-Floatation)**  
 Displacement = XX,XXX lbs. Up  
 Structure = XX,XXX lbs. Down  
**Valve Vault (Anti-Floatation)**  
 Displacement = X,XXX lbs. Up  
 Structure = X,XXX lbs. Down

- IF END OF DISCHARGE LINE IS BELOW ELEVATION OF DISCHARGE LINE @ POINT OF LEAVING WET WELL A PRIMING LOCK LOOP MAY BE REQ'D. (CONSULT FACTORY)
- IF DISCHARGE LINE IS LESS THAN 200' IN LENGTH AN ADDITIONAL CHECK VALVE OR PRIMING LOCK LOOP MAY BE REQ'D. (CONSULT FACTORY)
- PROVIDE 60' SLOPE IN WET WELL, AS REQ'D.
- VOLUME IN GALLONS BETWEEN L.L. ON AND L.L. OFF SHOULD BE EQUAL OR GREATER THAN THE PUMPING RATE IN G.P.M.
- MAXIMUM CAPACITY - 400 G.P.M.



City of DeLand, Engineering Services  
1102 S. Garfield Avenue, DeLand, Florida 32724

DATE: 01/07/26

CHECKED BY:

SCALE: NOT TO SCALE

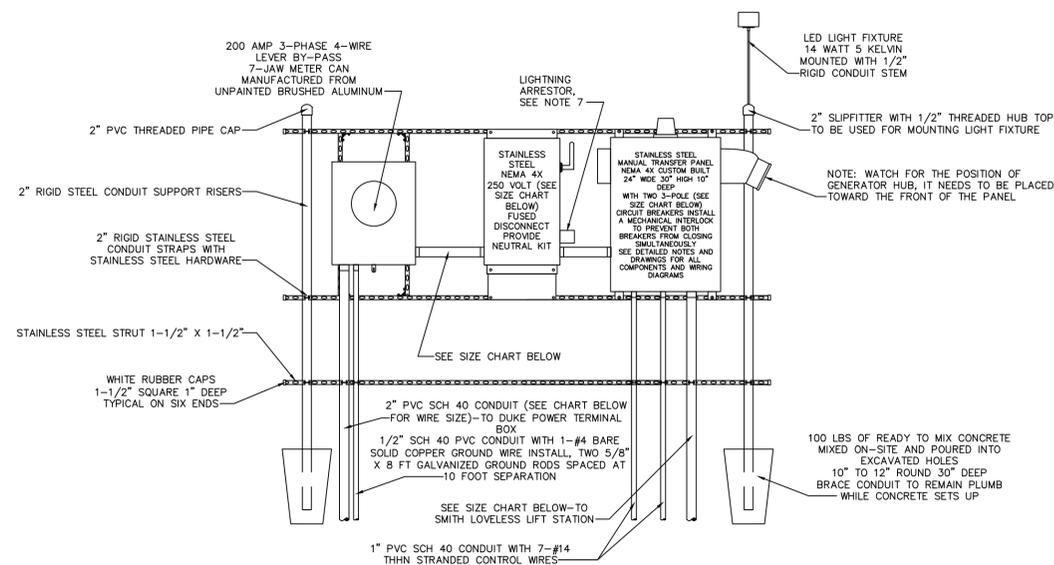
DRAWN BY: ERIC SAMPSON

SANITARY LIFT STATION

TITLE: PAGE 4 OF 5

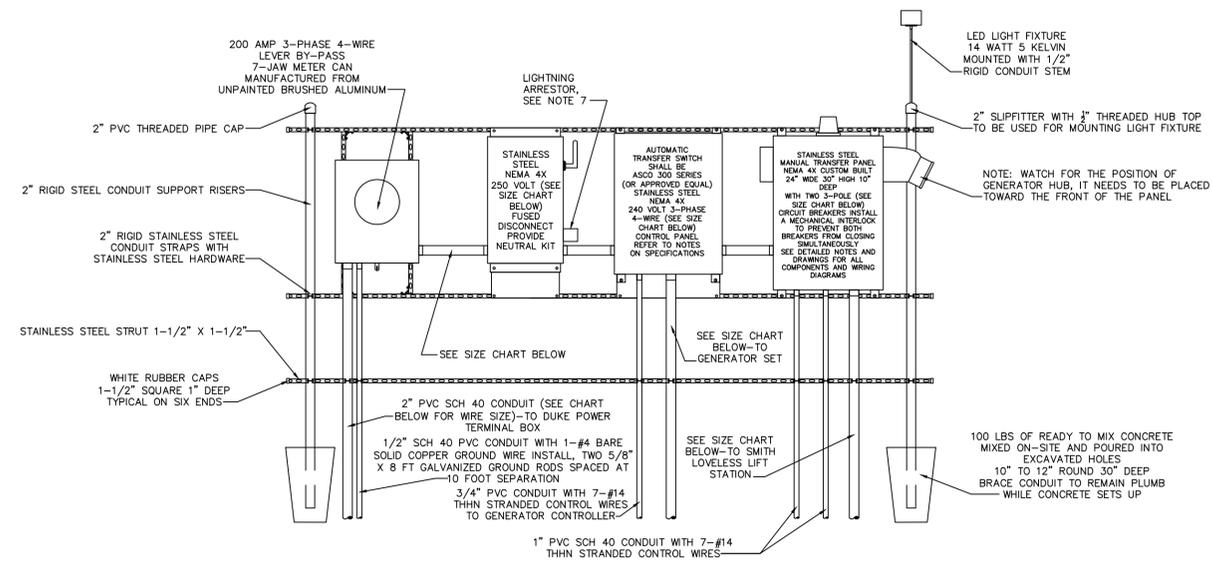
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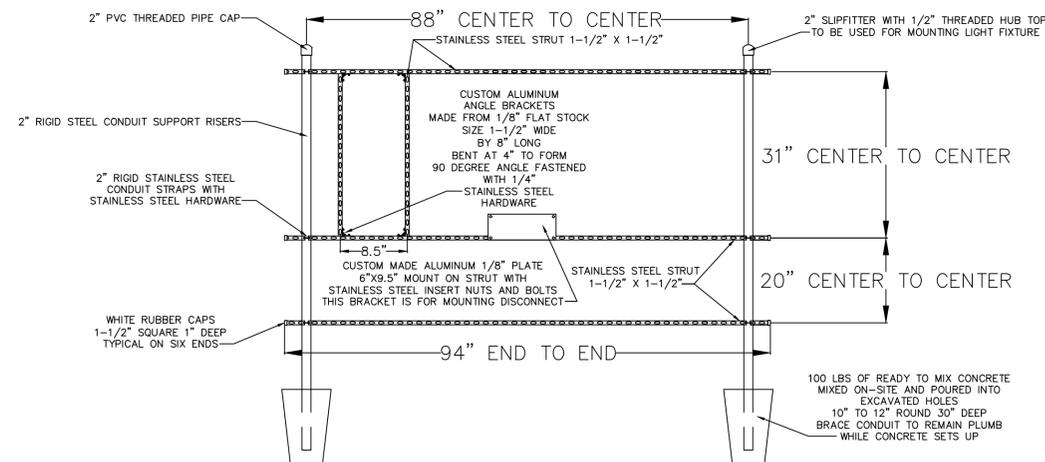


240 VOLT POWER RACK WITHOUT GENERATOR

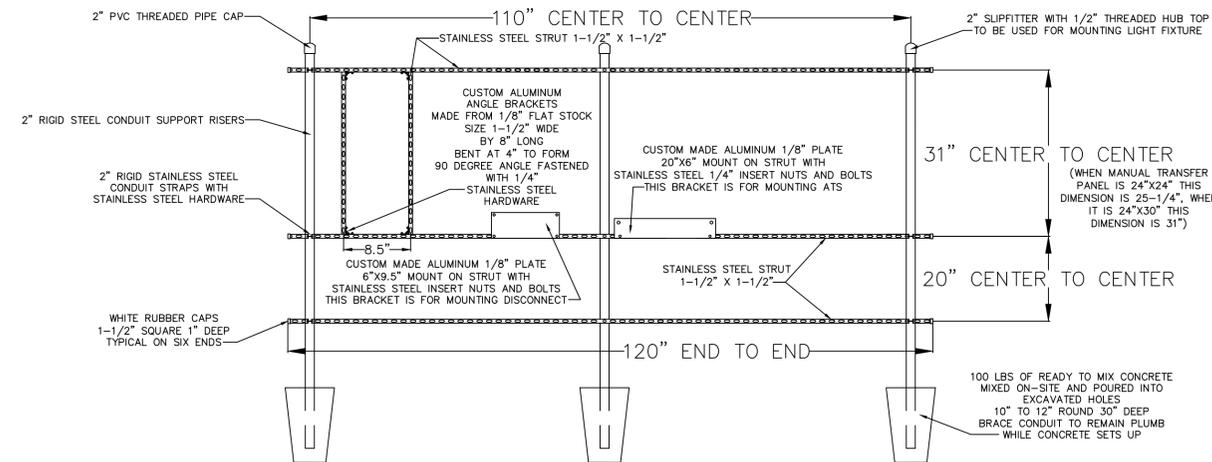
DETAIL "B"



240 VOLT POWER RACK WITH GENERATOR  
AUTOMATIC TRANSFER SWITCH



RACK FRAMING DETAILS  
240 VOLT WITHOUT AUTOMATIC TRANSFER SWITCH



RACK FRAMING DETAILS  
240 VOLT WITH AUTOMATIC TRANSFER SWITCH

CONTROL GENERATOR RECEPTACLE PANEL

- ENCLOSURE: NEMA 4X STAINLESS, 304 GRADE, 14 GAUGE, GASKETED, #4 BRUSHED FINISH, U.L. AND CSA APPROVED, HASP AND STAPLE FOR PADLOCKING, INSIDE PRINT POCKET, STAINLESS STEEL HINGE. MIN. SIZE 24" x 24" x 8" FOR UP TO 15 H.P.
- MAIN BREAKER: SQUARE D HEAVY DUTY SIZED PROPERLY FOR FULL LOAD OF STATION PLUS 25%.
- EMERGENCY BKR: SQUARE D HEAVY DUTY SIZED PROPERLY FOR FULL LOAD OF STATION PLUS 25%.
- MECH. INTERLOCK: ALL ALUMINUM AND STAINLESS STEEL W/ POSITIVE MEANS OF LOCKING OFF BREAKER NOT IN USE. THE BREAKERS WILL PROTRUDE THROUGH INNER DOOR.
- RECEPTACLE: RUSSELL STOLL JRS1044FR (230 VOLT ONLY), MELTRIC PART #37-98047 (480 VOLT ONLY).
- ANGLE ADAPTER: RUSSELL STOLL JAAB-10, 20 DEG. ADAPTER
- LIGHTNING ARRESTOR: HEAVY DUTY, SQUARE D PIN SDSA3650
- PHASE MONITOR: DIVERSIFIED PIN SLA-230-ASA, 8 PIN WITH N.O. AND N.C. CONTACTS WIRE TO TERMINAL FOR RTU EQUIPMENT.
- MANUFACTURER: STACON, EOS OR CITY OF DELAND APPROVAL
- HIGH WATER ALARM: RED, LEXAN, W/NO EXTERNAL SCREWS
- HVA RELAY: SQUARE D OR OMRON, 8 PIN DOUBLE POLE, DOUBLE THROW WIRED TO RTU TERMINAL
- ALARM HORN: RED, WHEELLOCK PIN 31T-115 MOUNTED TO RED WEATHER PROOF CAST BOX ON EXTERIOR OF ENCLOSURE.
- ALARM RELAY: SQUARE D OR OMRON, 8 PIN DOUBLE POLE, DOUBLE THROW WIRED TO RTU TERMINAL
- ALARM RESET/SIL: SQUARE D, WEATHER PROOF MOUNTED ON EXTERIOR OF ENCLOSURE.
- ENCL. BACKPLATE: ALUMINUM, 12 GAUGE
- TERMINAL STRIP: BUCHANON PIN 0625
- GROUND LUG: BUCHANON PIN 824
- NEUTRAL LUG: BUCHANON PIN 824
- MAIN LOAD LUG: SQUARE D PIN L3
- LABELS: ALL BREAKERS AND SWITCHES TO BE IDENTIFIED BY PERMANENTLY ATTACHED LABEL TO PANEL DOOR INTERIOR
- MOUNTING SCREWS: STAINLESS STEEL 304
- SCHEMATIC DWG: PROTECTED BY PLASTIC COATING AND ATTACHED TO PANEL DOOR INTERIOR.
- MANUFACTURER: STACON, EOS OR CITY OF DELAND APPROVAL
- R.T.U.: DATA FLOW MELBOURNE FLA. (R.T.U. 204) OR EQUAL TO BE INSTALLED BY CITY-DEVELOPER TO BEAR ALL COSTS.
- PROVIDE SPARE PARTS - SEE SPARE PARTS LIST
- WET WELL TO BE COATED INSIDE AND OUT WITH MIN. 24 MILS OF COAL/TAR EPOXY
- EQUIVALENT PRODUCTS CAN ONLY BE APPROVED UPON RECEIPT OF WRITTEN AUTHORIZATION FROM THE CITY OF DELAND.

SIZE CHART

- STEP #1: DETERMINE LIFT STATION SIZE & SPECIFICATIONS FROM THE UTILITY CONTRACTOR OR CITY OF DELAND ENGINEERING DEPT.
- STEP #2: MAKE NOTE OF THE FOLLOWING: THE VOLTAGE FOR THE STATION, THE NUMBER OF PUMPS (2 OR 3) & THE HORSEPOWER OF PUMPS.
- STEP #3: REFER TO THE ELECTRICAL SERVICE DATA CHARTS FOR THE STANDARD 2 PUMP OR 3 PUMP STATION (FOUND ON SHEET 3 OF 3).
- STEP #4: USE THE VOLTAGE COLUMN AND THE HORSEPOWER ROW TO FIND THE TOTAL STATION FULL LOAD AMPS.
- STEP #5: UPON DETERMINING THE FULL LOAD AMPS OF THE STATION, THE SERVICE ENTRANCE SIZE SHALL NOT BE SMALLER THAN 100 AMPS. STATIONS THAT REQUIRE A SERVICE SIZE LARGER THAN 100 AMPS SHALL BE SIZED CLOSEST TO THE STANDARD SIZES LISTED BELOW.

SERVICE SIZE	CONDUIT SIZE	WIRE SIZE	BREAKER OR FUSE RATING
100 AMP	1-1/2"	#3 THHN CU	100 AMP
125 AMP	1-1/2"	#2 THHN CU	125 AMP
150 AMP	2"	#1 THHN CU	150 AMP
200 AMP	2"	3/0 THHN CU	200 AMP
225 AMP	2-1/2"	4/0 THHN CU	225 AMP



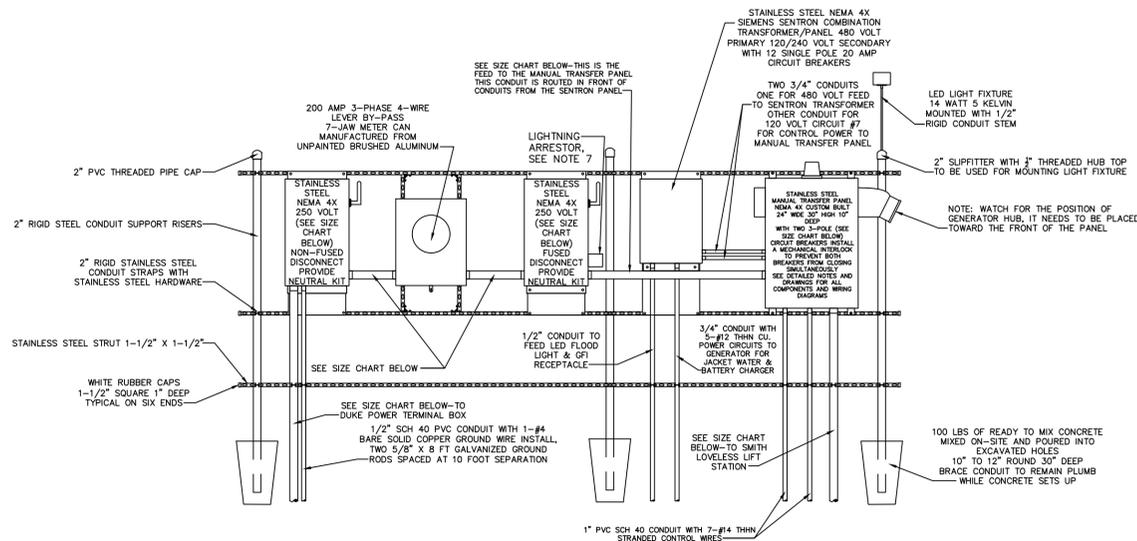
City of DeLand, Engineering Services  
1102 S. Garfield Avenue, DeLand, Florida 32724

DATE: 01/07/26  
CHECKED BY:

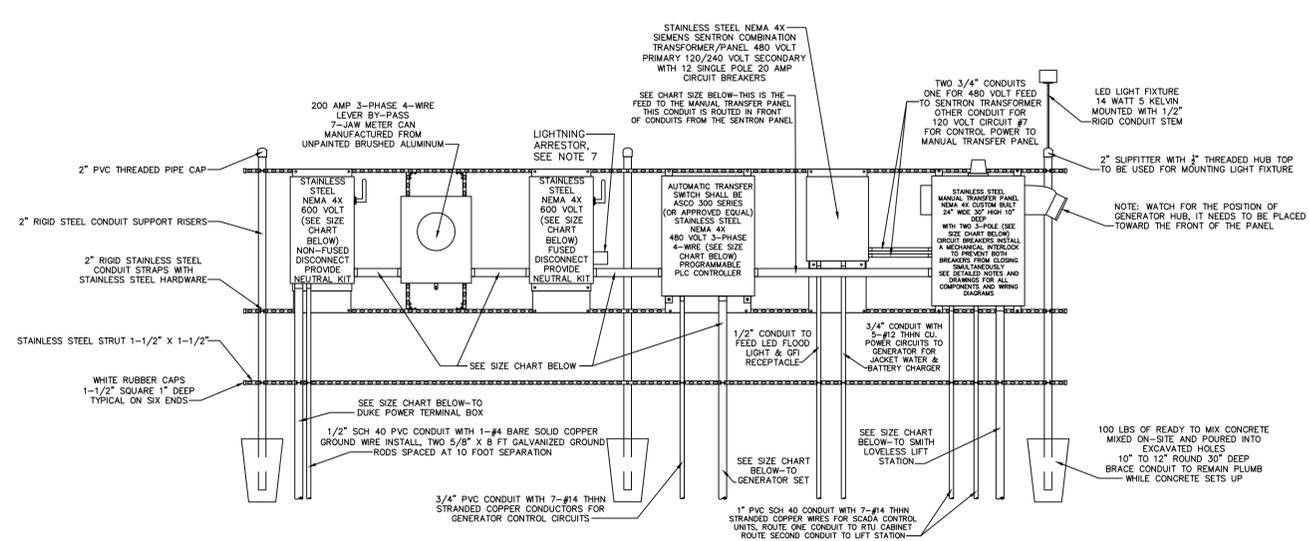
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DRAWN BY: ERIC SAMPSON

SANITARY LIFT STATION

DETAIL "C"

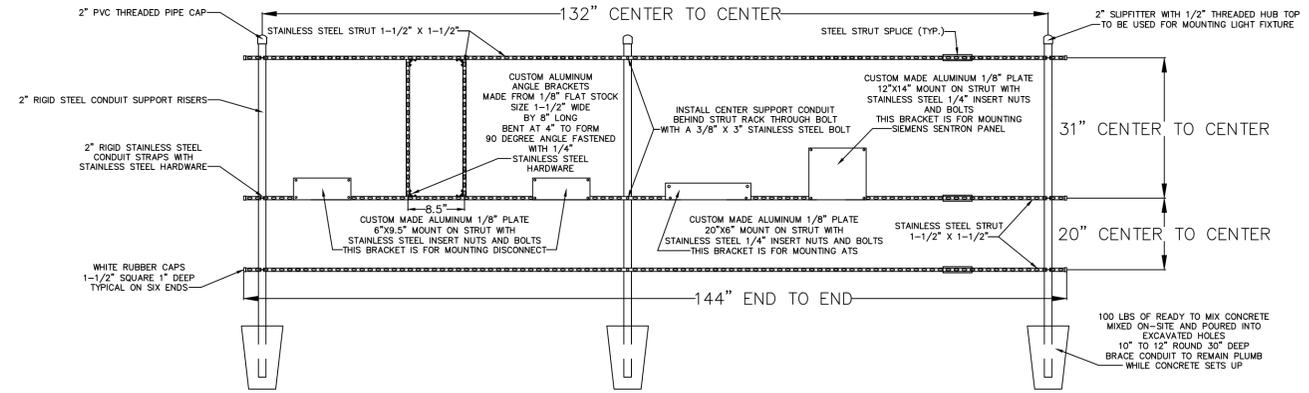
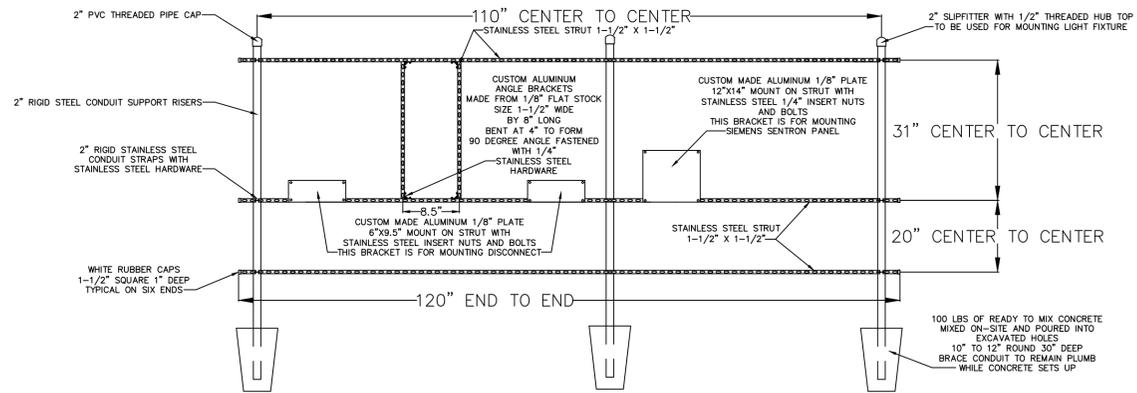


DETAIL "D"



480 VOLT POWER RACK WITHOUT GENERATOR  
AUTOMATIC TRANSFER SWITCH

480 VOLT POWER RACK WITH GENERATOR  
WITH AUTOMATIC TRANSFER SWITCH



RACK FRAMING DETAILS  
480 VOLT WITHOUT AUTOMATIC TRANSFER SWITCH

RACK FRAMING DETAILS  
480 VOLT WITH AUTOMATIC TRANSFER SWITCH

ELECTRICAL SERVICE DATA  
STANDARD 2-PUMP WET WELL MOUNTED PUMP STATION

ELECTRICAL SERVICE DATA  
STANDARD 3-PUMP WET WELL MOUNTED PUMP STATION

CONTROL GENERATOR RECEPTACLE PANEL

- ENCLOSURE: NEMA 4X STAINLESS, 304 GRADE, 14 GAUGE, GASKETED, #4 BRUSHED FINISH, U.L. AND CSA APPROVED, HASP AND STAPLE FOR PADLOCKING, INSIDE PRINT POCKET, STAINLESS STEEL HINGE, MIN. SIZE 24" X 24" X 8" FOR UP TO 15 H.P.
- MAIN BREAKER: SQUARE D HEAVY DUTY SIZED PROPERLY FOR FULL LOAD OF STATION PLUS 25%.
- EMERGENCY BKR: SQUARE D HEAVY DUTY SIZED PROPERLY FOR FULL LOAD OF STATION PLUS 25%.
- MECH. INTERLOCK: ALL ALUMINUM AND STAINLESS STEEL WIPOSITIVE MEANS OF LOCKING OFF BREAKER NOT IN USE. THE BREAKERS WILL PROTRUDE THROUGH INNER DOOR.
- RECEPTACLE: RUSSELL STOLL JRS1044FR (230 VOLT ONLY), MELTRIC PART #37-98047 (480 VOLT ONLY)
- ANGLE ADAPTER: RUSSELL STOLL JAAB-10, 20 DEG. ADAPTER
- LIGHTNING ARRESTOR: HEAVY DUTY, SQUARE D P/N SDASA3850, OR INTERMATIC AG503C 600V.
- PHASE MONITOR: DIVERSIFIED P/N SLA-230-ASA, 8 PIN WITH N.O. AND N.C. CONTACTS WIRE TO TERMINAL FOR RTU EQUIPMENT.
- HIGH WATER ALARM: RED, LEXAN, W/NO EXTERNAL SCREWS.
- HWA RELAY: SQUARE D OR OMRON, 8 PIN DOUBLE POLE, DOUBLE THROW WIRED TO RTU TERMINAL.
- ALARM HORN: RED, WHEELLOCK P/N 317-115 MOUNTED TO RED WEATHER PROOF CAST BOX ON EXTERIOR OF ENCLOSURE.
- ALARM RELAY: SQUARE D OR OMRON, 8 PIN DOUBLE POLE, DOUBLE THROW WIRED TO RTU TERMINAL.
- ALARM RESET/SIL: SQUARE D, WEATHER PROOF MOUNTED ON EXTERIOR OF ENCLOSURE.
- ENCL. BACKPLATE: ALUMINUM, 12 GAUGE
- TERMINAL STRIP: BUCHANON P/N 0625
- GROUND LUG: BUCHANON P/N 824
- NEUTRAL LUG: BUCHANON P/N 824
- MAIN LOAD LUG: SQUARE D P/N L13
- LABELS: ALL BREAKERS AND SWITCHES TO BE IDENTIFIED BY PERMANENTLY ATTACHED LABEL TO PANEL DOOR INTERIOR
- MOUNTING SCREWS: STAINLESS STEEL 304
- SCHEMATIC DWG.: PROTECTED BY PLASTIC COATING AND ATTACHED TO PANEL DOOR INTERIOR.
- MANUFACTURER: STACON, ECS OR CITY OF DELAND APPROVAL
- R.T.U.: (DATA FLOW MELBOURNE FLA. (R.T.U. 204) OR EQUAL TO BE INSTALLED BY CITY-DEVELOPER TO BEAR ALL COSTS.
- PROVIDE SPARE PARTS - SEE SPARE PARTS LIST
- WET WELL TO BE COATED INSIDE AND OUT WITH MIN. 24 MILS OF COAL/TAR EPOXY
- EQUIVALENT PRODUCTS CAN ONLY BE APPROVED UPON RECEIPT OF WRITTEN AUTHORIZATION FROM THE CITY OF DELAND.

MAIN PUMP MOTOR SIZE	TOTAL STATION FULL LOAD AMPS		
	208 VOLT	230 VOLT	460 VOLT
1	17.6	15.3	7.6
1-1/2	21.8	18.9	9.5
2	25.9	22.5	11.3
3	33.1	28.8	14.5
5	47.7	41.4	20.7
7-1/2	65.3	56.7	28.4
10	80.8	70.2	35.1
15	117.0	101.7	50.9
20	148.1	128.7	64.4
25	190.44	160.2	80.1
30	215.3	187.2	93.6
40	---	---	120.6
50	---	---	150.0

MAIN PUMP MOTOR SIZE	TOTAL STATION FULL LOAD AMPS		
	208 VOLT	230 VOLT	460 VOLT
1	27.3	23.7	11.9
1-1/2	33.3	28.9	14.5
2	39.3	34.1	17.1
3	49.6	43.2	21.6
5	70.6	61.4	30.7
7-1/2	96.1	83.5	41.8
10	118.5	103.0	51.5
15	170.9	148.5	74.3
20	215.7	187.5	93.8
25	---	---	116.5
30	---	---	136.0
40	---	---	175.0
50	---	---	217.3