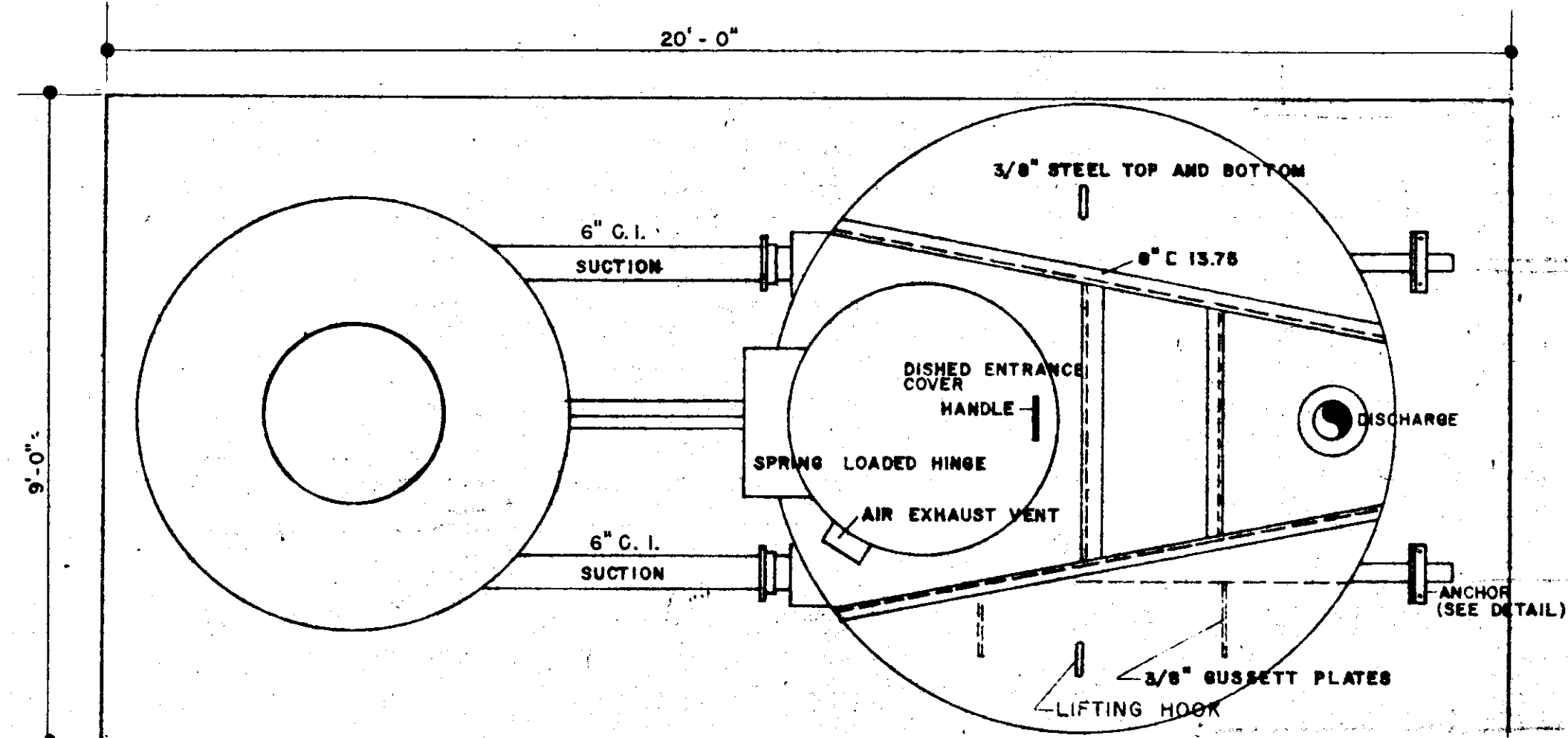
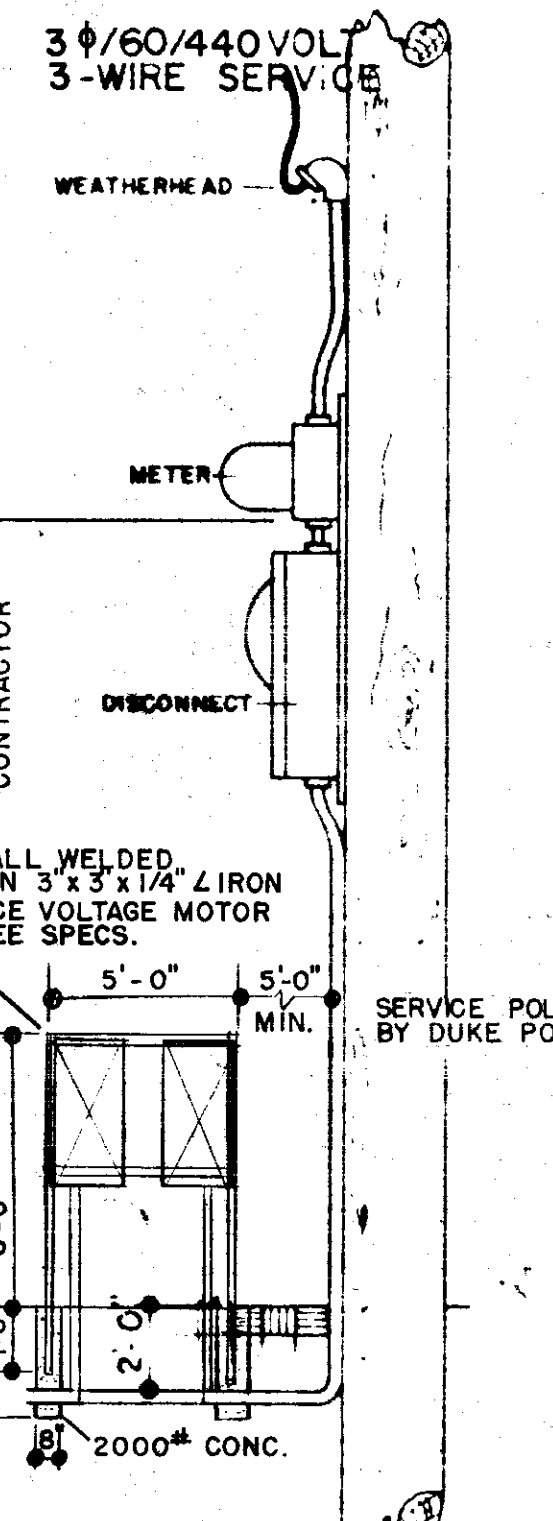
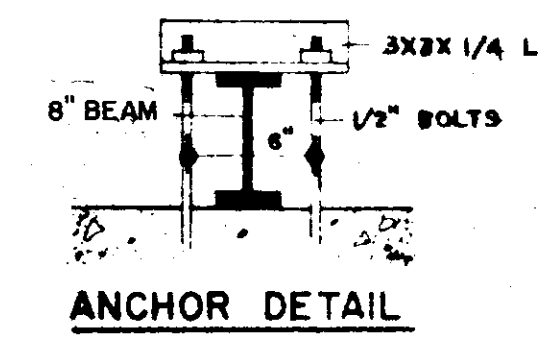


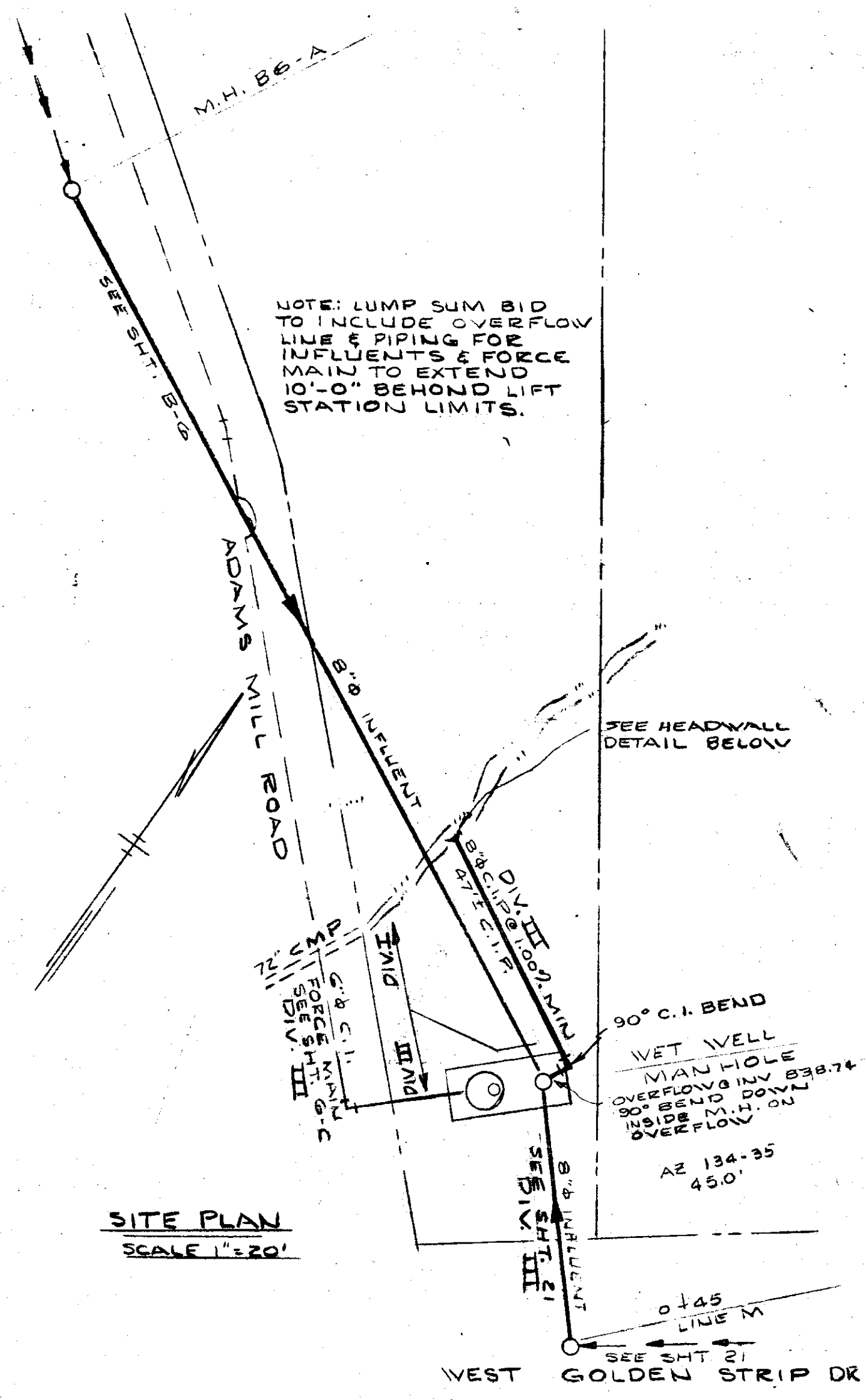
NO.	DATE	REVISION	BY
1		PROJECT REMOVED HOLD ADDED DIVISIONS	RE



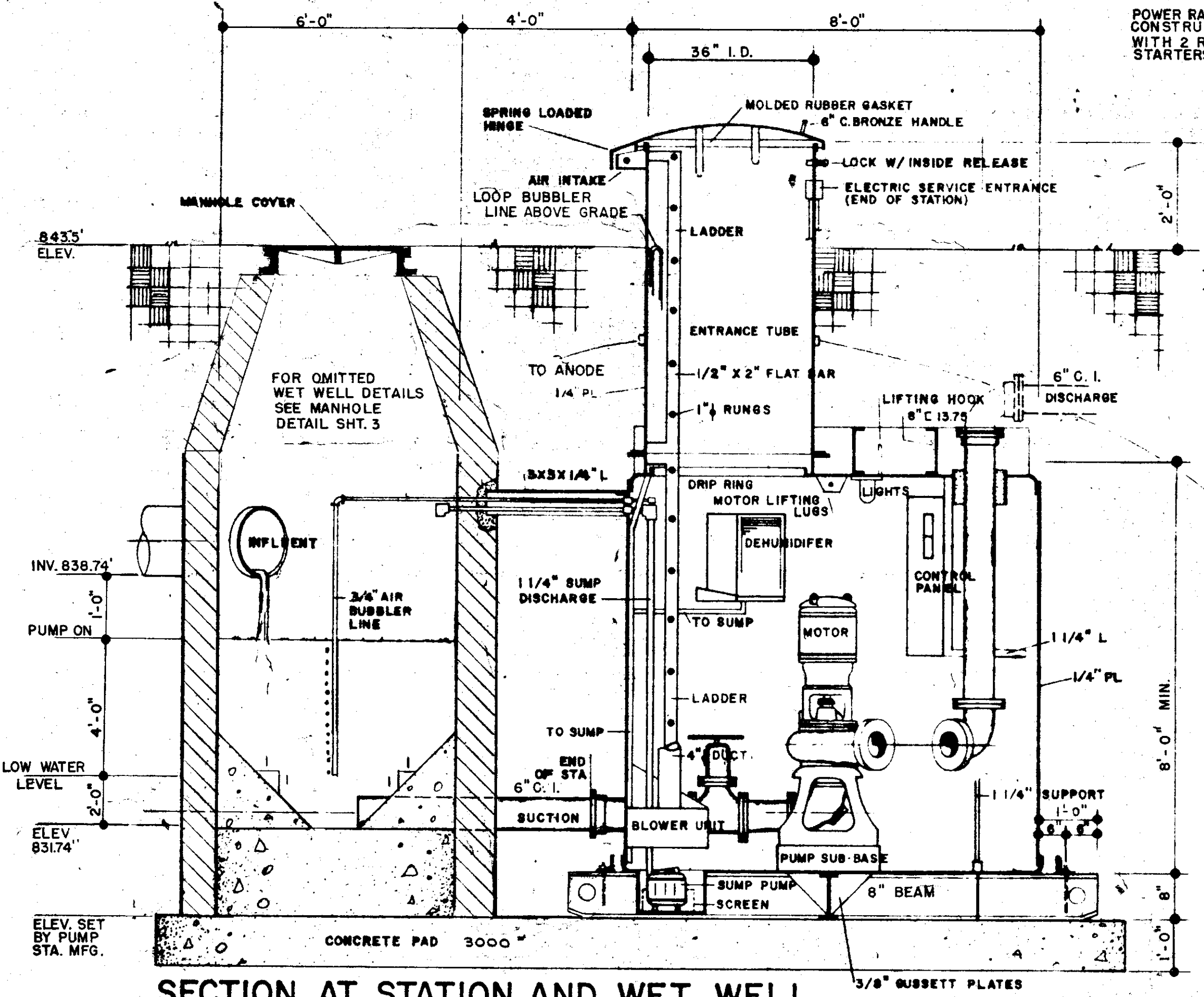
TOP VIEW OF STATION AND WET WELL



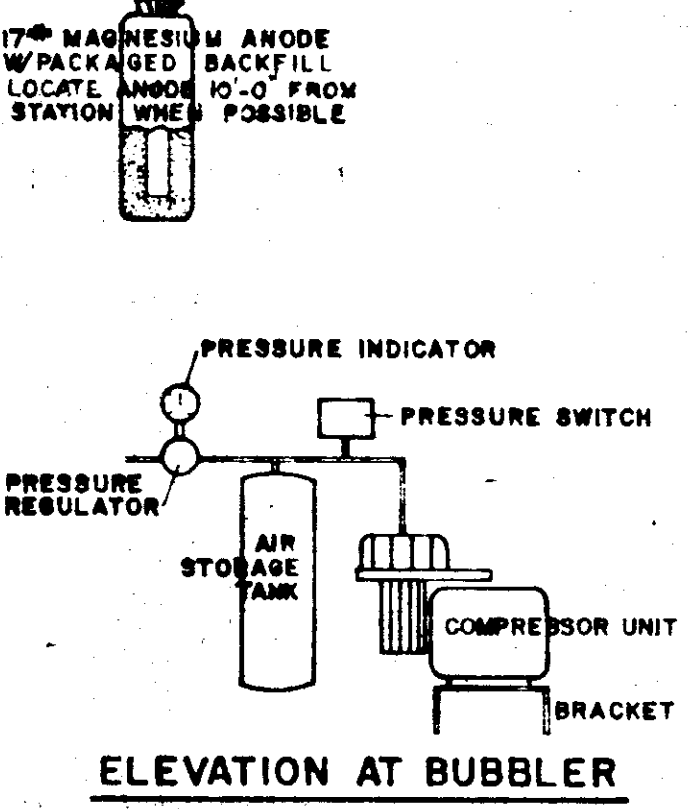
TYPICAL SERVICE POLE
SEE INSTALLATION INSTRUCTIONS FOR RECOMMENDED WIRE, CONDUIT, AND DISCONNECT SIZES.



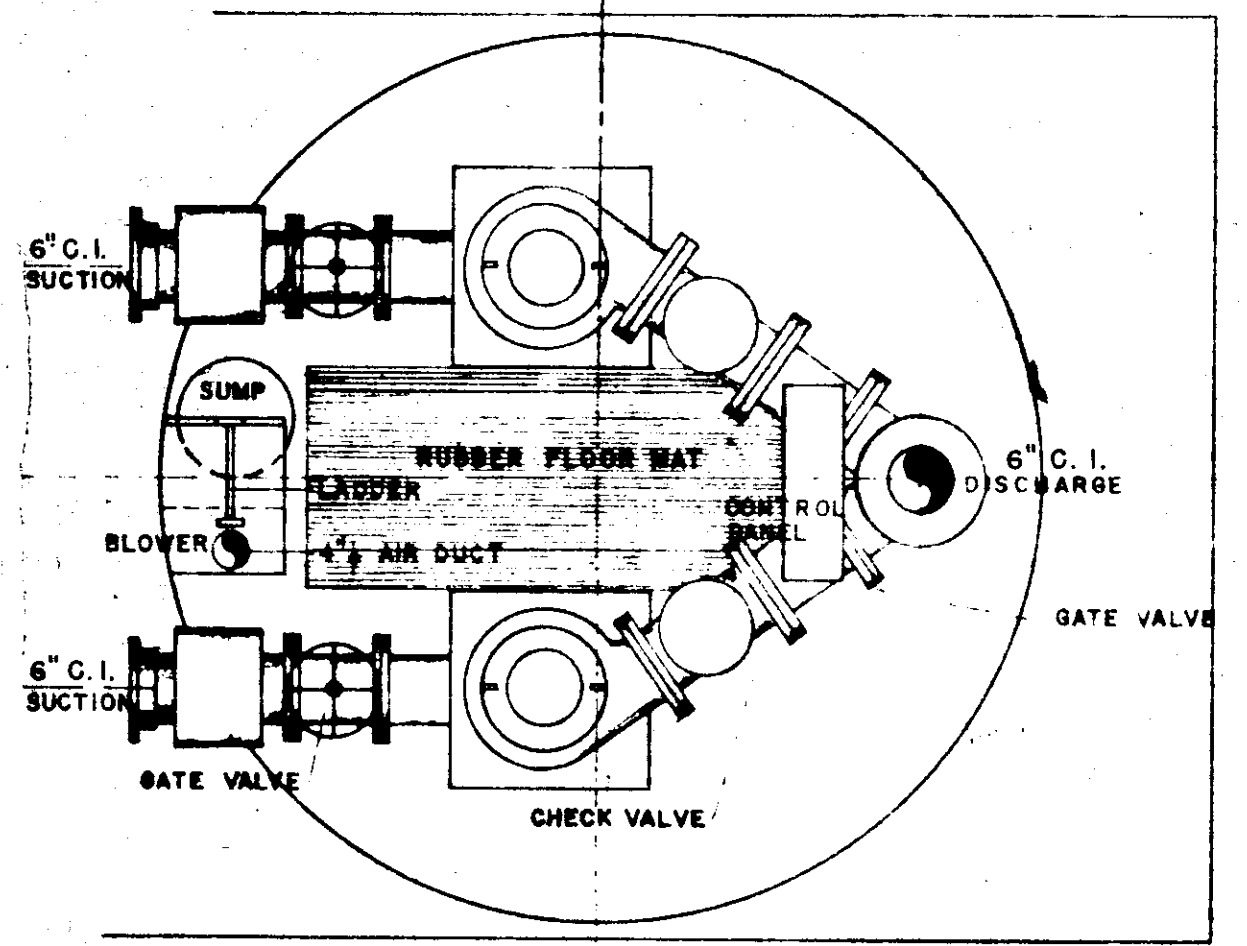
SITE PLAN
SCALE 1\"/>



SECTION AT STATION AND WET WELL



ELEVATION AT BUBBLER



PLAN OF STATION

SPECIFICATIONS

GENERAL: Furnish and install one factory built pumping station consisting of a welded steel pump chamber entrance tube with cover, two sewage pumps with motors, ladder, exhaust blower, dehumidifier, sump pump, piping and valves, air bubbler controller, control panel, and motor starters mounted above ground, all assembled, piped, and wired for operation.

PUMP CHAMBER AND ENTRANCE TUBE: The station shall be furnished in two sections consisting of the pump chamber and the entrance tube, which shall be field welded together at the job site. The pump chamber shall be 8'-0" I.D. fabricated from 1/4" steel shell with 3/8" structural grade steel top and bottom heads fillet welded inside and out to the periphery of the pump chamber. The top and bottom of the pump chamber shall be reinforced to withstand hydrostatic up-lift forces, overburden and any surface traffic. A 36" I.D. entrance tube shall be furnished in the required length, including cover. All welds are to be continuous and water tight.

The entrance tube cover shall be of the non-traffic bearing, concealed, tamper-proof, hinged, drip-proof design and shall have a flush-mounted bronze lock.

CORROSION PROTECTION: After fabrication, the pump chamber, entrance tube, access ladder, entrance cover, and power rack shall be sandblasted and painted with one coat epoxy resin inside and out, and after assembly, testing, etc., shall receive two coats of a polyamide-cured epoxy resin paint. Two magnesium anodes with 10' of copper cable also shall be furnished as well as a rubber floor matting cemented to the pump chamber floor.

PUMPS: The pumps shall be vertical pedestal mounted with flexibly coupled motors, each capable of delivering 310 GPM at 130 ft. TDH, with a 25 HP 1750 RPM open drip-proof motor. Impellers shall be of a single suction, 2-vane type and shall be hydraulically and dynamically balanced by means other than add-on weights.

Automatic grease lubricators of the 2 & F type shall be furnished to lubricate and seal the packing boxes of each pump.

BLOWER AND PIPING: Furnish one exhaust blower capable of changing air within the pump chamber in 1.8 minutes. The blower shall be controlled by each pump starter and by an automatic switch actuated by raising of the entrance tube cover.

Air intake and exhaust piping shall be 4" terminating in a 180° screened return bend at a point above finished grade. This piping will be furnished by equipment manufacturer. Intake and exhaust lines must be 24" apart and shall discharge in opposite directions to prevent recirculation.

DEHUMIDIFIER: Furnish one dehumidifier controlled by an adjustable humidistat wired in series with a low temperature switch. The unit shall be capable of servicing 13,000 cu. ft. of space and removing 3 GPM of condensate water.

SUMP PUMP: Furnish one submersible sump pump, all bronze construction, capable of discharging 20 GPM at 20' TDH including 1-1/4" galvanized steel discharge piping and valves.

LIQUID LEVEL CONTROLLER: To control the operation of the pumps corresponding with the variations of sewage levels in the wet well, an air bubbler system shall be provided, complete with compressor, air storage tank, air flow meter, pressure regulator, wet well level gauge, and pressure switches for each pump. The air flow meter shall be calibrated to read in C.F.H. and shall be adjustable. The pressure switches shall be of the mercury tube type and shall have independent "Start" and "Stop" adjustments for each pump capable of a minimum differential of two inches of liquid. The compressor shall be directly connected to a drip-proof brushless type electric motor and shall be of adequate capacity for the service intended with adjustable pressure switch and pressure gauge.

PIPING: Each pump shall be furnished with a 6" C.I. suction line, including a size gate valve, terminating in a mechanical joint connection exterior to the pump chamber. Discharge piping shall be flanged cast iron, terminating in a 6" mechanical joint connection at top of pump chamber, exterior to station. Each discharge line shall include one 6" gate and 6" check valve.

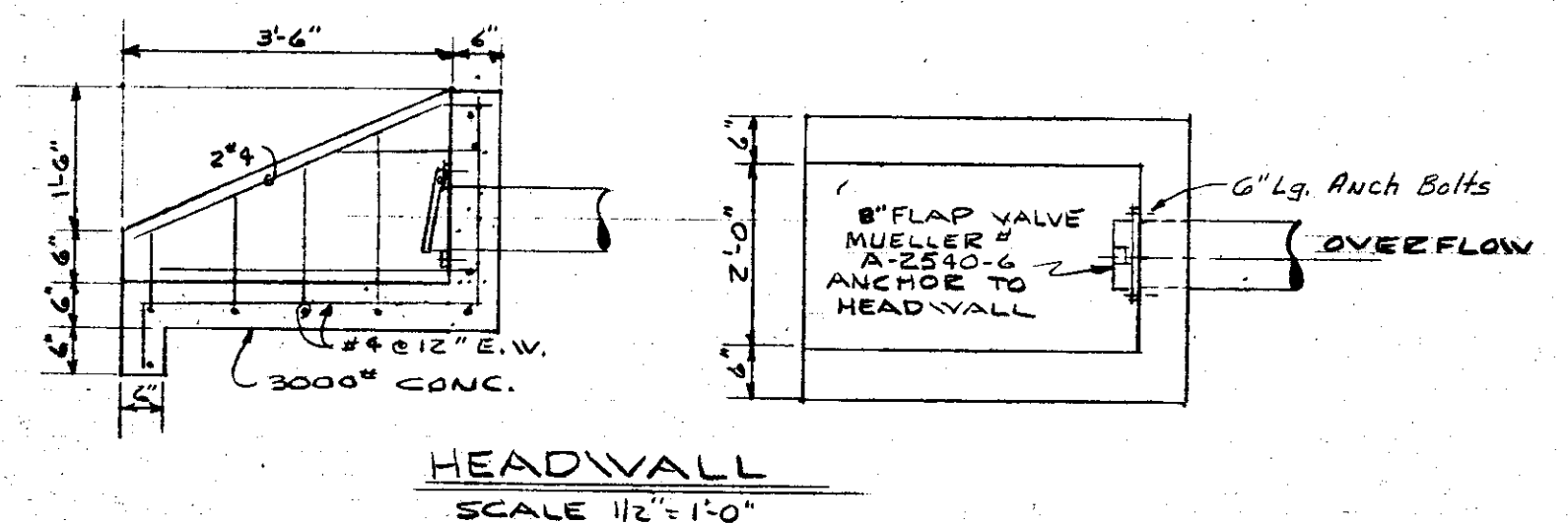
CONTROL PANEL: Furnish one wall-mounted, NEMA 1 enclosed, panel for 1 phase, 60 cycle, 110 volt service. Motor control and utility circuits to be wired for 110 volt service, 110 volt transformer is to be provided. Wiring shall comply with N.E.C. All outlets and breakers shall have identifying name plates. Breakers shall be flush type, externally operated.

The panel shall include one breaker for utility circuits; one breaker each for dehumidifier and service outlet, lights and exhaust blower, sump pump, and motor control circuit for two combination reduced voltage starters & H-O-A selector switches; electric pump alternator; relay and low temperature cut-off for dehumidifier and thermal strip heater. The pumps are not to be operated in parallel. Two combination reduced voltage starters for sewage pumps with 3 coil overload, 110 volt operating coil in a locking type keyed alike NEMA IV enclosure above ground as shown on the drawing.

SHOP TESTING: The completed station shall be given an operational test of all equipment at factory to check for excessive vibration, leakage and operation of control system. Pumps shall recirculate water under simulated service conditions and pump controller shall be adjusted to that approximately required by the job conditions.

PUMP STATION PLAN & DETAILS

NOT TO SCALE



HEADWALL
SCALE 1/2\"/>

	TOWN OF MAULDIN GREENVILLE COUNTY, S.C. PUMP STATIONS & FORCE MAIN	SHEET NO 6-B
	ADAMS MILL ROAD PUMP STATION	DWN R.L.C. CKD T.T.
	PIEDMONT ENGINEERS & ARCHITECTS 420 PARK AVE, GREENVILLE, S.C.	APPD JOB 2020 DATE 6-23-67