



- NOTES**
- ① GALVANIZED SHEET STEEL DUCTWORK COMPLYING WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS, SUBMIT SHOP DRAWINGS (TYPICAL) △
 - ② POWER (3#2, #8G), H-O-A STARTER CONTROL (6#12) AND SUBMERSIBLE PUMP THERMAL SENSOR SUPPLEMENTAL OVERLOAD PROTECTION (4#14) IN 2" C TO MCC. △
 - ③ NEMA TYPE 4 JUNCTION BOX AT CEILING FOR JUNCTION BETWEEN MOTOR CABLE AND CONDUIT SYSTEM. INSTALL 1-1/4" C SUPPORT BETWEEN CEILING AND FLOOR FOR MOTOR CABLE SUPPORT. △
 - ④ NEMA TYPE 4 DEVICE ENCLOSURE WITH LOCAL PUMP CONTROL FOR TAGS HS-1 THROUGH HS-5. CONSISTING OF:
* H-O-A WITH PADLOCKABLE STOP POSITION
* STATUS INDICATING LIGHTS (TAGS Q1-1A/1B THROUGH Q1-5A/5B). △
 - ⑤ NEMA TYPE 4 JUNCTION BOX AT CEILING. CONNECT LEVEL PROBE (LSLL-1 THROUGH LSHH-1) CABLES, 7 SETS OF TWO-PAIR #16 TWISTED PAIR CONTROL TO PLC CABINET IN MCC. USE 1-1/4" C △ 2" C △
 - ⑥ INTRUSION ALARM DOOR SWITCHES. CONNECT TO ASSOCIATED ALARM PANEL. THEN INSTALL CONTROL CONDUCTORS TO PLC CABINET IN MCC. PROVIDE LOCAL POWER FROM PANEL "L2". △
 - ⑦ GAS ANALYZER. CONNECT TO PLC CABINET IN MCC. PROVIDE LOCAL POWER FROM PANEL "L2". FOXBORO, TYPE MIRAN. WALL-MOUNT AT LEVEL OF LSHH-1. △
 - ⑧ NEMA TYPE 4 JUNCTION BOX AT CEILING --- CONNECT SUMP PUMP PROBE CABLES OF LEVEL PROBES LSL-1 AND LSH-1 USING TWO SETS OF TWO-PAIR #16 TWISTED PAIR CONTROL CABLES IN 2" C TO PLC IN MCC. △
 - ⑨ SUPPLY FAN SF-1, .75 HP 230 V SINGLE PHASE. PROVIDE WITH SIZE 1 COMBINATION STARTER WITH NON-FUSED DISCONNECT IN NEMA 12 ENCLOSURE AND 2PST LINE VOLTAGE THERMOSTAT (10 A CONTACT, ADJUSTABLE 50 TO 110 DEG F), SET AT 95 DEG F. 2#12 & 1#12G (1" C TO PANEL "L2") △
 - ⑩ POWER (3#10, #12G) AND CONTROL (8#12) IN 1" C TO MCC △
 - ⑪ 7.5 KVA, 480 V TO 120/240 V SINGLE PHASE, TOTALLY ENCLOSED NONVENTILATED, DRY-TYPE TRANSFORMER. WALL MOUNTED ABOVE PANEL "L2". 2#12 & 1#12G (1" C TO PANEL "L2") PRIMARY; 2#8, 1#8G, 3/4" C SECONDARY TO PANEL "L2". △
 - ⑫ WET LOCATION CONVENIENCE RECEPTACLES, WALL MOUNTED IN SURFACE MOUNTED CAST BOX WITH WEATHER PROTECTIVE COVER. ONE NEMA 5-20R DUPLEX, ONE NEMA 6-20R SINGLE. CONNECT TO GFI BREAKERS IN PANEL "L2". △
 - ⑬ 12" X 10" DUCT DOWN TO PUMP PIT TO A POINT +2" ABOVE PIT 6" ABOVE FLOOR GRADING FLOOR. 580 CFM. △
 - ⑭ 12" X 50" AIR INTAKE STATIONARY CONTINUOUS BLADE LOUVER, SPECIFICATIONS SECTION 670, 1640 CFM. △
 - ⑮ DUCTWORK --- COMPLY WITH APPLICABLE RECOMMENDATIONS OF SMACNA "HVAC DUCT CONSTRUCTION STANDARDS". USE DUCT MATERIAL OF GALVANIZED SHEET STEEL WITH PHOSPHATIZED FINISH MEETING ASTM A 527, COATING DESIGNATION G 90. CONNECT FAN WITH FLEXIBLE DUCT CONNECTOR. MAKE DUCT TURNS WITH FABRICATED TURNING VANES. BALANCE SYSTEM AFTER INSTALLATION MEETING AABC "NATIONAL STANDARDS FOR TOTAL SYSTEMS BALANCE." PROVIDE REPORT OF AS-LEFT VALUES. △
 - ⑯ 4 - DUCT MOUNTED AIR SUPPLY DIFFUSERS, 265 CFM EACH, WITH OPPOSED BLADE VOLUME DAMPERS. △
 - ⑰ NEMA TYPE 4 JUNCTION BOX AT CEILING (TYPICAL). △
 - ⑱ SUPPLY FAN "SF-1", LOREN COOK 135CF, 1650 CFM, 1" EXT SP, 3/4 HP, 230V, SINGLE PHASE. △
 - ⑲ HEAT DETECTOR, RATE-OF-RISE AND FIXED TEMPERATURE TYPE, 136 DEG RATE OF RISE, MOISTURE-PROOF. SIMPLEX ID #2098-9431 MODEL 4256-2 OR EQUAL. 2#14, 1" C TO PLC CABINET IN MCC. △
 - ⑳ ELECTRICALLY OPERATED VALVE, 440V, THREE PHASE WITH LOCAL OPEN/STOP/CLOSE AND LOCAL/REMOTE HANDSWITCHES. PROVIDE LOCKOUT FOR STOP. 3#10, 1#10G, 1" C TO PANEL "L4" (3P20A CIRCUIT 30, 32, 34) AND 4#14, 1" C TO PLC CABINET IN MCC △
 - ㉑ SOLENOID VALVE, 2#12, 1#12G, 1" C TO HS-5. △

PUMP ROOM PLAN
SCALE: 1/2" = 1'-0"

RECORD DRAWINGS

CLV DRAWING No. 107-V2011

09-17-92			
10/7/92	BE	RECORD DRAWINGS	
10/16/92	HR	ADDENDUM NO. 1	
MARK	DATE	BY	REVISION

DESIGNED: HR	PROJECT ENGINEER	DATE:
DRAWN: ARG		
CHECKED: GWS	PROJECT MANAGER	DATE:

Boyle Engineering Corporation
consulting engineers
Suite 300
1785 E. Sahara Ave. 300
Las Vegas, NV 89104
(702) 731-3311

CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

OGDEN AVENUE UNDERPASS AND ROADWAY
PUMPING STATION
ELECTRICAL AND VENTILATION

DRAWING
E5
115 OF 125
OGSHE005

32-116