REVISIONS			
SYM	DESCRIPTION	DATE	SIGNATURE
1	LOCATED LGT IN LN. VALVE ENCL., ADDED RECPT. TO LN. ENCL. ADDED NOTE TO ANNUNCIATOR IN BMT.	11-7-61	PAM
2	"AS BUILT"	9-18-64	J.F.K.

RAMP

FURNISH & INSTALL COLUMN LIGHT SEE DETAIL (D)

EXISTING BOTTLE STORAGE & MANIFOLDS

EXISTING EXPERIMENT SERVICE PAD

RUN CONDUIT ON EXISTING SUPPORTS OVER VAULT ROOF

22'

BENJAMIN FIXTURE 500W LAMP

12'-0"

5W

2" PIPE COLUMN SET IN CONCRETE

COLUMN LIGHT ELEVATION (D)

NO SCALE

NOTES

1. CONDUIT SHALL BE RIGID GALVANIZED WIRE SHALL BE NO 14 TW. CONDUIT INSTALLED BELOW GRADE SHALL BE COVERED WITH (2) COATS ASPHALT BASE PAINT (P&B OR EQUAL - AFTER INSTALLATION

SYMBOLS & LEGEND

- (A) COLUMN LIGHT - (BENJAMIN NO. N-5631-W - FOR 2 INCH PIPE COLUMN - 500 WATT. MOGUL BASE LAMP FIXTURE TO BE 12'-0" ABOVE GRADE
- VAPORTITE FIXTURE - 100 WATT LAMP. PYLE NATIONAL NO. AOWXF-1110 - WITH 4 INCH JET BOX.
- TOGGLE SWITCH - SPST - T RATED IN WATER PROOF ENCLOSURE IF REQD
- HUBBELL # 5242 DUPLEX RECPT. IN ANFS BOX WITH HUBBELL # 5221 W.P. COVER.

EXISTING SPARE PR TO (4) FROM CABINET TBV - EXTEND TO UBW TERMINAL STRIP AT PANEL BM 2

PANEL "LA" 100/200V 3Ø 4W EXISTING USE EXISTING 20A 1P SPACE C/BKR

EXIST #8 BIRDWAY

EXIST BELL BOX CAT BA6PLR

44'C #12

PANEL "BM 2"

EXIST 3"C (FROM 3 ANNUNCIATORS TO BM 2 TERMINALS) INSTALL 20 PR #16 TW SHIELDED TWISTED PAIRS IN POINT TO POINT BLOCK AT BM 2 TERMINALS USE EXIST ANNUNCIATORS AT BM 2 USE EXIST KNOCKOUTS AT BUCKEYE WINDOWS TO FOLLOW SHIELD COOLING TOWER ET 101 SUMP

ANNUNCIATOR AT BM 2

CONTROL ROOM

HIGH BAY AREA

PANEL "LC" 120/208 V 3Ø 4W EXIST

1.000 EXIST 400 A 3Ø SPACE C/BKRS (3 REQD)

CKT 2, 4, 6

CONNECT TO (4) EXIST SPARE PR TERMINALS IN "TBV"

TERMINAL CABINET "TBV" EXIST

ELECTRICAL SWGR RM.

EXIST 3"C W/ (2) #6 & (1) #12 TW

TEMPERATURE SW ALLEN BRADLEY BUL 837 CAT 837 NC 11 FMC. ADJUST TO SET POINT TO 40° STAGE LINE. REMOVE EXIST. INSULATION & CLEAN PIPE FOR GOOD METALLIC CONTACT. STRAP BULB TO PIPE WITH COPPER STRAPS & FILL SPACE WITH THERMOMIX INSULATE ASSEMBLY W/ 1" FIBERGLASS W/ JACKET. REF (E)

EXIST 4" COOLING TOWER RETURN

EXIST 4" COOLING TOWER WATER SUPPLY

COOLING TOWER

PUMP'S PIPE & FLEX

SUMP PIT

MANHOLE

LOW LEVEL PROBE SEE (F)

UTILITY SAME TRENCH AS WATER LINE

CONDUIT & 6 PR #16 TW SHIELDED CABLE TAPE & STRAP TO #2 PIPE IN SUMP MANHOLE & TERM TO BM 2 TERMINALS

EXIST

COLUMN LIGHT SEE (D)

LOW LEVEL ALARM RELAY BARRICK TYPE TG IN PCMA I ENCLOSURE SEE (B)

PRESSURE SW ALLEN BRADLEY BUL 836 CAT 837 AP 11 FMC INSTALL SW IN CTWS LINE SEE (E) FOR WIRING

PVC 4 FT. BELOW GRADE

LN_2

VALVE ENCLOSURE

NITROGEN HEATERS IN ENCLOSURE — INSTALL LIGHT INSIDE TO ILLUMINATE CONTROLS. INSTALL SWITCH INSIDE ADJACENT TO DOOR. 3W ALL THREE FIXTURES TOGETHER.

⚠1 INSTALL FIXTURE TO ILLUMINATE THE INSIDE OF THE VALVE ENCLOSURE INSTALL W.P. RECPT. INSIDE ENCL.

PLAN

SCALE 1/8" = 1'-0"

POSITION 1 (#8 STRIP) 0-C-OC-NO-NC-N

POSITION 2 (#12 STRIP) 0-OC-C-NO-NC-N

REAR VIEW AT THE ANNUNCIATOR NOT TO SCALE

POSITION 2 REMOVE JUMPER 0-OC-C-NO-NC-N

STRIP IDENTIFICATION AT REAR OF ANNUNCIATOR

TO ANNUNCIATOR AT PANEL BM 2 "SHIELD COOLING WATER"

#18 #22

PRESSURE SW OPENS ON DROP IN AT 80 PSIG ALARM SOUNDS WHEN PRESS DROPS BELOW 80 PSI

TEMP SW OPENS ON RISE SET AT 97°F ALARM SOUNDS WHEN TEMP RISES ABOVE 97°F.

TEMPERATURE & PRESSURE ALARM WIRING (C)

REMOVE JUMPER

0-OC-C-NO-NC-N

POSITION 1

EXIST 3/C #12 TW

TO 120V CKT PANEL 1C

#16 #11

TO ANNUNCIATOR AT PANEL BM 2 "COOLING TOWER ET 101 SUMP"

BARRICK TYPE TG LEVEL CONTROL RELAY 120V 60CY RELAY CONTACTS SHOWN IN DE-ENERGIZED (ALARM) CONDITION — ALARM SOUNDS WHEN WATER DROPS BELOW PROBE

EXIST CONNECTION AT SUMP HOUSING

WATER SET ALARM LEVEL

LOW LEVEL ALARM WIRING (B)

#16 #11 TW

BARRICK TYPE PCMA 1 ENCLOSURE

W.P. RECPT.

GRADE

#12 TW

TO LN STAND

CONDUIT TO ELEC EQUIP ROOM 1" & 6 #12

4" PIPE COUPLING WELDED TO PIPE PLATE

3/4" ST. PLATE SET IN MASTIC & BOLT TO SUMP

CONCRETE SUMP TANK

PROVIDE OPENING IN CONC. TANK

#16 STAINLESS STL HOSE BDG LENGTH AS REQ'D TO PROVIDE ALARM WHEN WATER LEVEL DROPS TO 6" BELOW TOP. I.L. OPEN PORTION OF THE FLOAT OPERATED MAKE UP VALVE, BUT NOT LOWER THAN 3" ABOVE PUMP SUCTION.

6" TO BOTTOM OF TANK

LOW LEVEL PROBE INSTALLATION (A)

NOT TO SCALE

REDUCED DRAWING

TWR-92144 CODE 92204

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ENVIRONMENTAL TEST BLDG 024
SANTA SUSANA
COOLING TOWER WATER ALARMS & LIGHTS

DRAWN	W. Wallbrecht	SIZE D	303-024-E8
CHECKED			
ENGINEER		SCALE	
APPROVED		SHEET NO.	OF