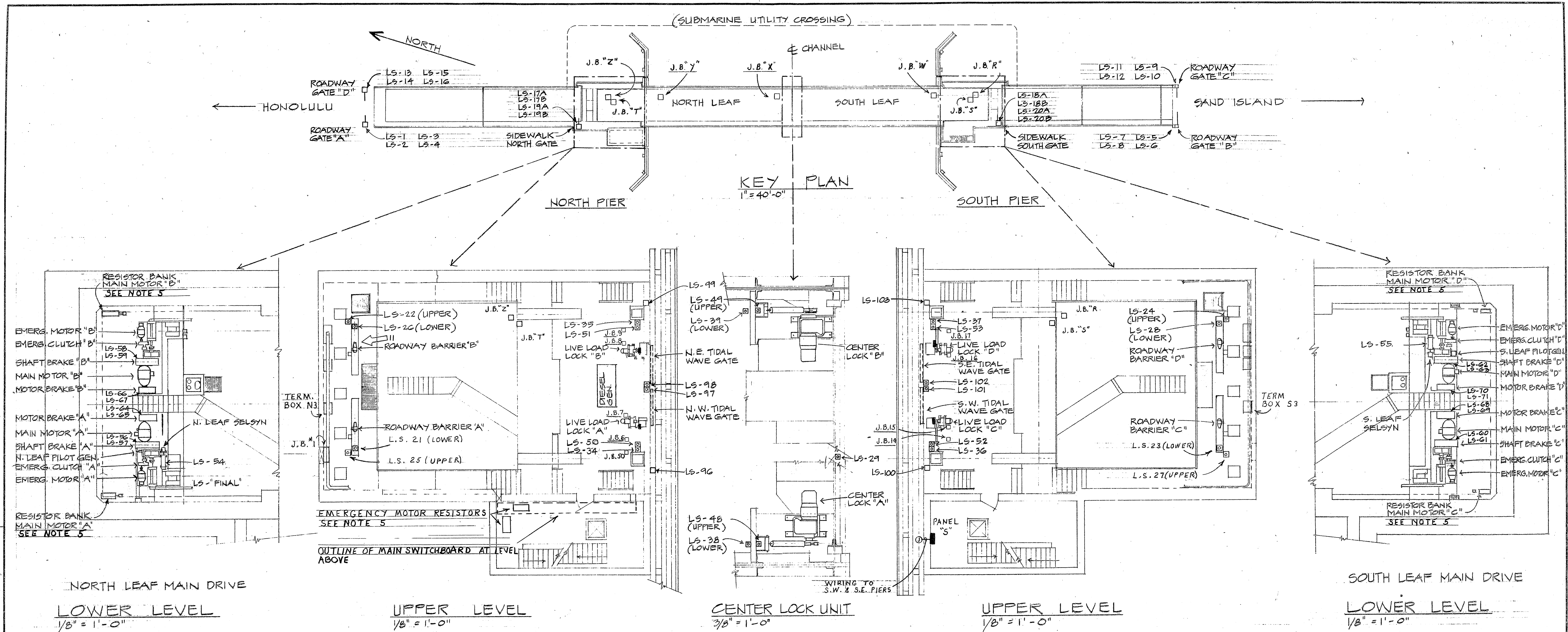




MOTOR EQUIPMENT REPAIR SCHEDULE

ITEM NO.	ITEM NAME	DESCRIPTION	PROCEDURE SEE SPECS. SEC. XIII	PHOTO NO SHEET 5
1	MAIN MOTORS A, B, C, & D	50HP, FAIRBANKS MORSE, TYPE QHZE, 720 RPM, POLYPHASE SLIP RING INDUCTION MOTOR, FRAME 5F 5052, ORDER # 715357 HOUSE 425, BALL BEARING PROTECTED TYPE, 400 W. HEATER.	1	23
2	MAIN MOTOR BRAKES A, B, C, & D	800# G.E. CR 9516-465 THRUSTOR, DWG. M-9714893, MAR. 6, 1950.	6	23
3	EMERG. MOTORS A, B, C, & D	10HP, FAIRBANKS MORSE, TYPE QHZE, 1200 RPM, POLYPHASE SLIP RING INDUCTION MOTOR FRAME 4SF 326, ORDER # 715356 HOUSE 425, SEALED BEARINGS, 200 W HEATER, CUTLER HAMMER TYPE CDB. 80# TORQUE BRAKE (DWG. B-88-875, 3-24-6)	1, 7	23
4A, 4B	LIVE LOAD LOCK MOTORS A, B, C, & D	2 HP, (U) LIFE LINE A, FRAME 213, MODEL ADNV. WITH BRAKE	(4A) 1, (4B) 2, 3, 4, & 5	21
5	EMERG. CLUTCHES A, B, C, & D	CUTLER HAMMER 600#	7	23
6	SHAFT BRAKES A, B, C, & D	1600# G.E. CR 9516-466 THRUSTOR, DWG. M-9741239, JULY 18, 1951.	6	23
7	SELSYN'S N. LEAF & S. LEAF	HENSCHEL CORPORATION, POSITION TRANSMITTER, DWG. 10-1051-42, 11 APRIL 1960	1	22
8A, 8B	ROAD BARRIER MOTORS A, B, C, & D	5HP, CUTLER HAMMER, DWG. C57-1069 ITEM 18, TYPE SPECIAL (DWG. 186789 D2)	(8A) 1, (8B) 2, 3, 4, & 5	17
9	PILOT GENERATORS, N. LEAF & S. LEAF	G.E. TACHOMETER GENERATOR (FORT WAYNE) BC426AB179G (DWG. 42-48 930, DEC. 3, 1959) AND (DWG. 125A 243, DEC. 15, 1960).	1	23
10A, 10B	CENTER LOCK UNIT MOTORS A & B	2 HP, (U) LIFE LINE, FRAME 184, MODEL ASNV WITH BRAKE	(10A) 1, (10B) 2, 3, 4, & 5	(SHT 4) 9
11A, 11B	TIDAL WAVE GATE MOTORS N.E., N.W., S.E., & S.W.	1/3HP, CUTLER HAMMER "BOSTON GEAR" (DATA SHEET 30-615), SPECIAL MYLAR INSULATION: DOUBLE IMPREGNATED, FRAME 5C, 1750 RPM, VWF152-3000 REDUCER, 7900# FT.	(11A) 1, (11B) 2, 3, 4, & 5	21
12	RESISTOR BANKS FOR MOTORS A, B, C, & D	CUTLER HAMMER DWG. C57-1069 ITEM 18 (SEE PHOTO #53).	8	24

LIMIT SWITCH REPAIR SCHEDULE

ITEM NO.	ITEM DESCRIPTION	WORK UNDER THIS CONTRACT
21	ROADWAY GATE TURNABLES GATE "A" LS-1, LS-2 GATE "B" LS-5, LS-6 GATE "C" LS-9, LS-10 GATE "D" LS-13, LS-14	REPLACE WITH NEW CUTLER HAMMER WATER-TIGHT SWITCHES - TYPE E50 SPDT MAINTAINED CONTACT.
22	ROADWAY GATE ARMS GATE "A" LS-3, LS-4 GATE "B" LS-7, LS-8 GATE "C" LS-11, LS-12 GATE "D" LS-15, LS-16	REPLACE WITH NEW CUTLER HAMMER WATER-TIGHT SWITCHES, TYPE E50 SPDT MOMENTARY CONTACT
23	SIDEWALK GATE ARMS NORTH LS-17A, 17B, 19A, 19B SOUTH LS-18A, 18B, 20A, 20B	REPLACE WITH NEW C.H. TYPE E50 SPDT MOMENTARY CONTACT REPLACE WITH NEW C.H. TYPE E50 SPDT MOMENTARY CONTACT
24	TIDAL WAVE GATES NORTH-SOUTH LS-97, 98, 101, 102 NORTH-SOUTH LS-96, 99, 100, 103	REPLACE WITH NEW C.H. WATER TIGHT SWITCHES, TYPE E50 SPDT MAINTAINED CONTACT REPLACE WITH NEW C.H. WATER TIGHT SWITCHES, MARINE TYPE E50 SPDT MOMENTARY
25	CENTER LOCKS LS-38, 48, 39, 49	REPLACE WITH C.H. WATER-TIGHT MARINE TYPE E50 SPDT MOMENTARY CONTACT
26	ROADWAY BARRIERS, NORTH-SOUTH LS-21, 25, 22, 26, 23, 27, 24, 28	THESE SWITCHES SHALL BE OPENED, INSPECTED, CLEANED AND ADJUSTED AS REQUIRED BY PROPER BRIDGE OPERATION.
27	MAIN MOTOR A, B, C, & D BRAKES LS-69, 65, 66, 67, 68, 69, 70, 71	REPLACE WITH G.E. TRACK TYPE CR 9440J1C1 1-N.O., 1-N.C.
28	SHAFT BRAKES A, B, C & D LS-56, 57, 58, 59, 60, 61, 62, 63	REPLACE WITH G.E. TRACK TYPE CR 9440J1C1 1-N.O., 1-N.C.
29	LEAF POSITION SWITCHES LS-54 & LS-55	INSPECT, CLEAN AND SERVICE CHAIN DRIVES FROM SELSYNS (SEE PHOTO 22)
30	LIVE LOAD LOCK A, B, C, & D LS-50, 51, 52, & 53 LS-34, 35, 36, & 37	REPLACE WITH NEW C.H. WATER TIGHT, 2 NO., TYPE 6984 1-N.C.

NOTES

- LIMIT SWITCH DESIGNATIONS "LS-1", "LS-55", ETC. CORRESPOND TO ITEM NO.'S FOR LIMIT SWITCHES SHOWN ON C.H. ELECTRICAL EQUIPMENT LISTS 185509D4-16 AND 185509D4-17.
- FOR MAINTAINING CONDUCTOR IDENTITY, SEE SPECS. SEC. 13.4.
- THE STATE WILL FURNISH TO THE CONTRACTOR COPIES OF CUTLER HAMMER DRAWINGS 185509D4-1 THROUGH 20 (WHICH ARE THE WIRING DIAGRAMS AND EQUIPMENT LISTS) AND 185765DA-1 THROUGH 13 (WHICH ARE SCHEMATIC CONNECTION DIAGRAMS).
- WHERE LIMIT SWITCHES ARE TO BE REPLACED, CONTRACTOR SHALL VERIFY CONTACT ARRANGEMENTS IN SERVICE, AND REESTABLISH CIRCUITRY AS IS EXISTING.
- DISCONNECT FROM MOTORS FOR INSULATION TEST.



This work was prepared by me or under my supervision.
James J. Oberhauser
Professional Engineer

REV	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS DIVISION				
JOB TITLE ELECTRICAL & RELATED MACHINERY REPAIRS BASCULE BRIDGE - HONOLULU, HAWAII				
SHEET TITLE MOTOR EQUIPMENT & LIMIT SWITCHES				
DESIGNED BY: J.O.	APPROVED BY:		SHEET	
DRAWN BY: P.O.	CHIEF, HARBORS DIVISION		2	
CHECKED BY: J.O.	JOB NUMBER		8	
DATE: 7-10-78	H.C.1343		8	
SCALE:				