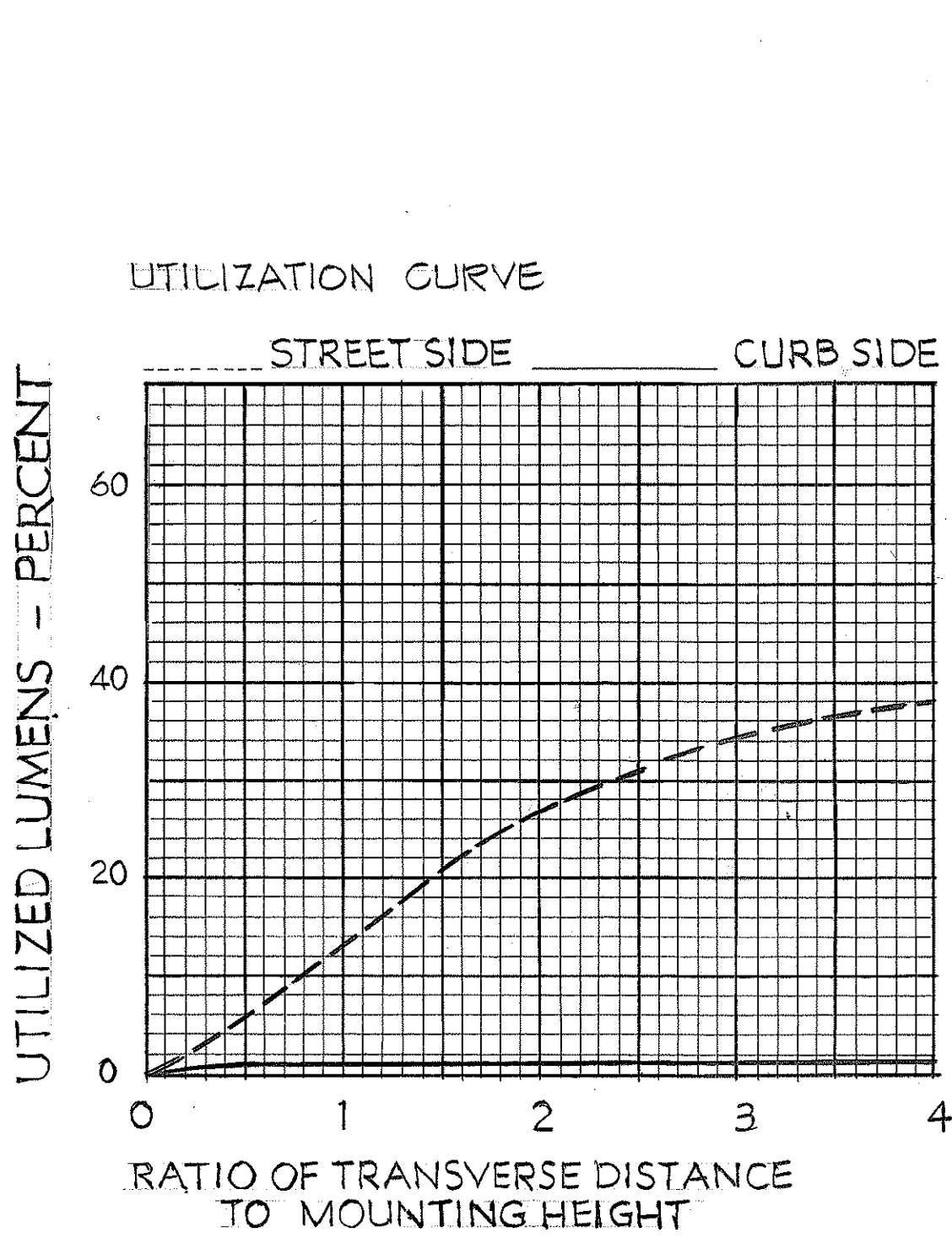
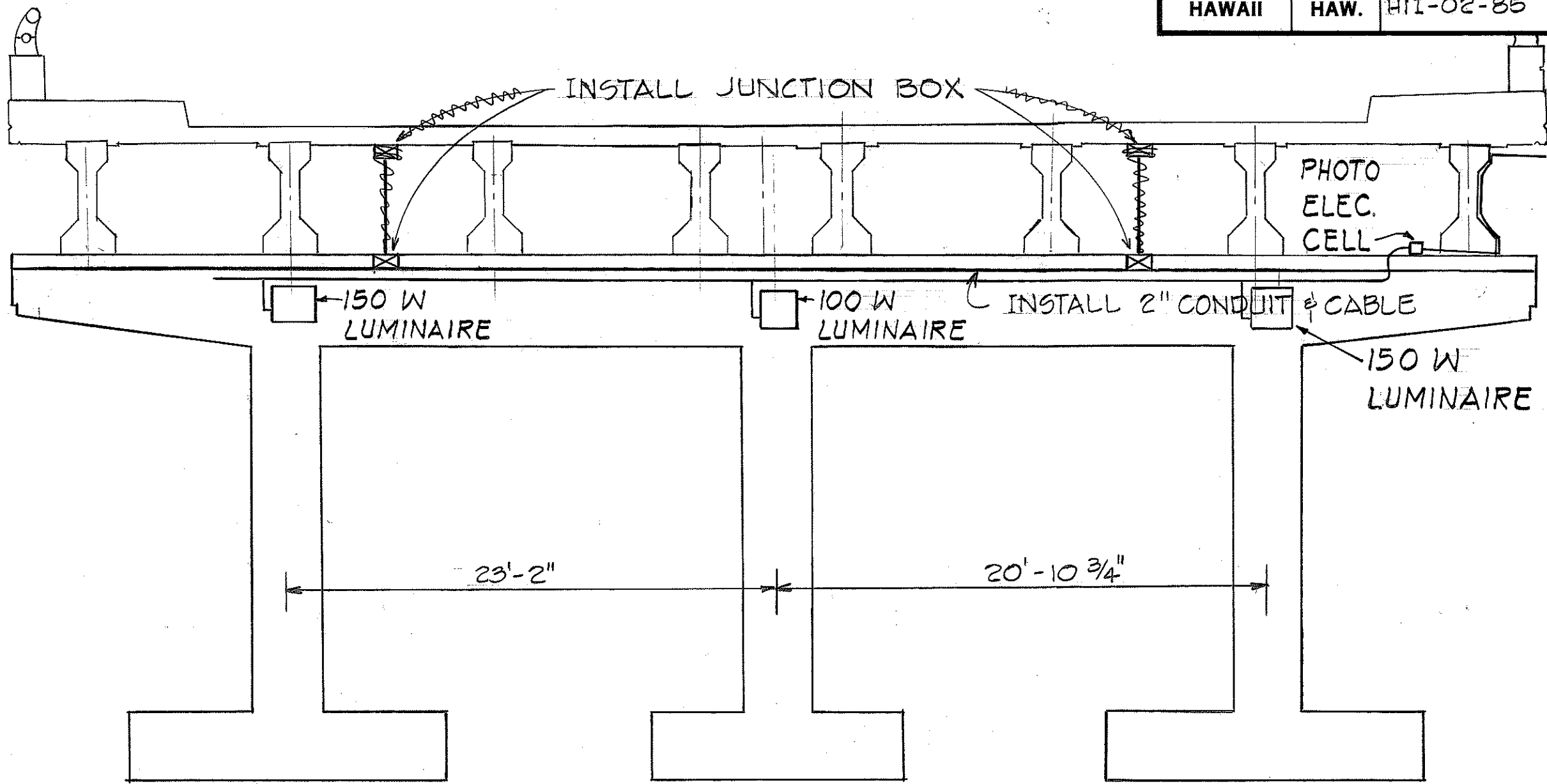


FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HII-02-85	1985	5	15

GENERAL NOTES:

- The Contractor shall make all arrangements with HECO (Hawaiian Electric Company) and pay for power connections.
- The Contractor shall make the necessary hookup of the overhead cable to the HECO secondary line on Power Pole #17.
- The HECO secondary line is 120/240 volts.
- The Contractor shall provide shop drawings for installation of underpass lights between joists. The shop drawings shall include the location of anchor bolts.
- The Contractor shall consult the State Bridge Design Section on the location of reinforcing steel for the bridge deck. The Contractor shall avoid all existing reinforcing steel in drilling for placement of anchor bolts. If a rebar is hit, the Contractor shall relocate the placement of the underpass light and fill the drill holes.
- The Contractor shall be responsible for verifying location of rebars and avoiding any existing reinforcing steel bars.

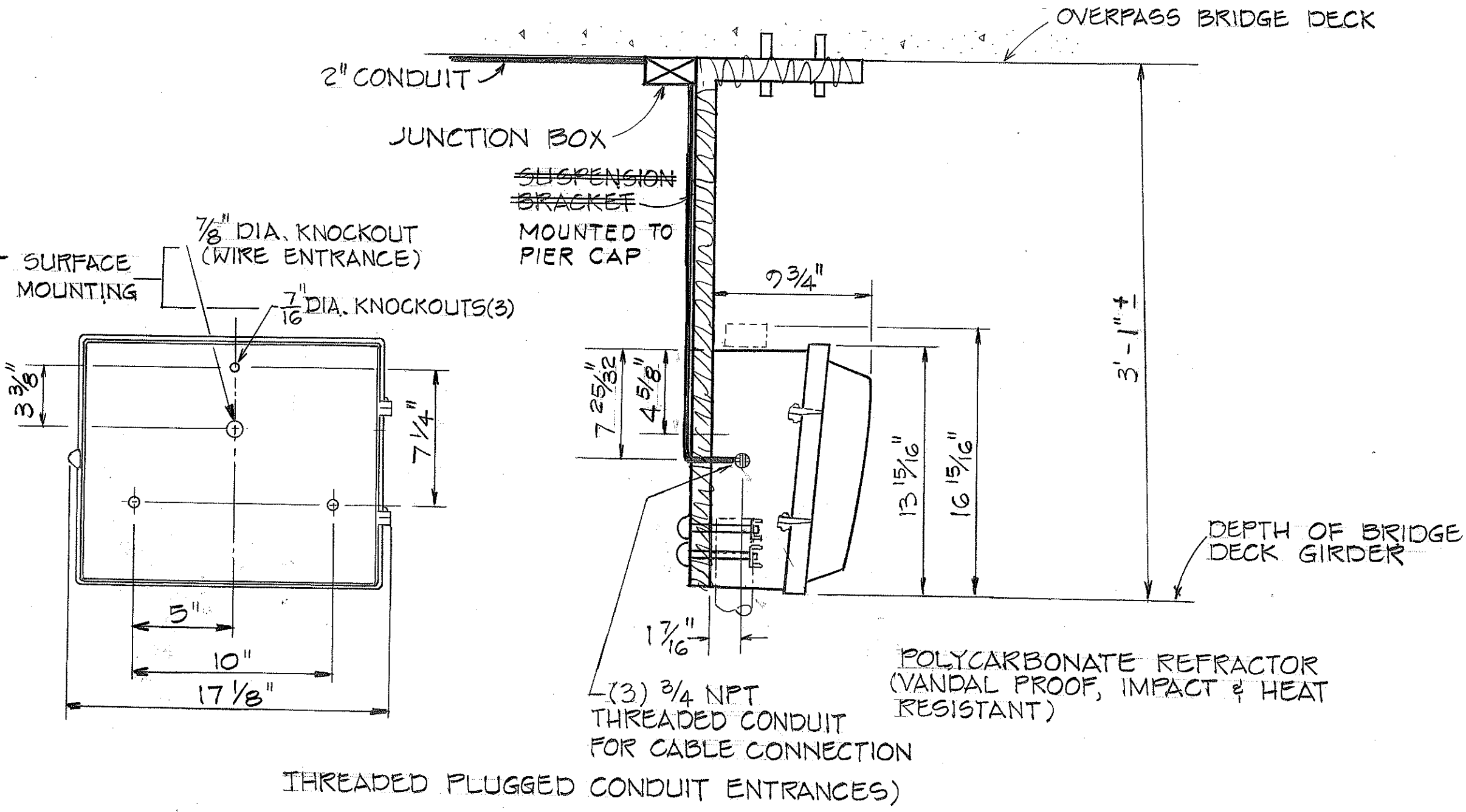


ILLUMINATION DATA

RATIO OF LONGITUDINAL DISTANCE TO MOUNTING HEIGHT

	7.0	6.0	5.0	4.0	3.0	2.0	1.0	0.0
2.0	.00008	.00011	.00015	.00018	.00015	.00013	.00013	.00023
1.5	.00009	.00014	.00022	.00033	.00045	.00035	.00014	.00082
1.0	.00011	.00018	.00029	.00053	.00094	.00178	.00247	.01017
0.5	.00016	.00026	.00043	.00072	.00193	.00592	.01010	.01100
0.0	.00029	.00050	.00095	.00191	.00453	.01300	.04590	.12300
0.5	.00045	.00085	.00172	.00395	.00958	.02740	.09240	.44100
1.0	.00060	.00113	.00223	.00469	.01030	.02510	.06090	.43100
1.5	.00071	.00125	.00230	.00442	.00879	.02000	.10600	.37300
2.0	.00074	.00124	.00211	.00365	.00640	.01680	.09490	.25800
2.5	.00074	.00116	.00177	.00275	.00574	.01810	.06580	.14000
3.0	.00070	.00099	.00142	.00235	.00510	.01650	.04510	.07640
3.5	.00061	.00084	.00123	.00225	.00510	.01390	.03150	.04325
4.0	.00053	.00073	.00117	.00202	.00462	.01110	.02150	.02660

TO CONVERT ILLUMINATION DATA TO FT-C (ON HORIZONTAL SURFACE) MULTIPLY BY 1 0'



UTILIZATION & ISOFOOTCANDLE CURVES

LAMP DATA: 150 WATT HPS

ANSI/IES TYPE: SHORT/SEMI-CUT OFF/TYPER IV

LUMINAIRE: STANDARD REFLECTOR
STANDARD REFRACTOR
FIXED SOCKET POSITION

BRIDGE WALL MOUNTING DETAILS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UNDERPASS LIGHTING DETAILS
KEEAUMOKU STREET CROSSWALK
AND FOOTPATH

PROJECT NO. HII-02-85

SCALE: AS SHOWN DATE: JAN. 1985

SHEET NO. 12 OF 12 SHEETS

DATE	
DESIGNED BY	
DRAWN BY	
CHECKED BY	
NOTED BY	
PLANNED BY	
ORIGINAL PLAN	
NO.	