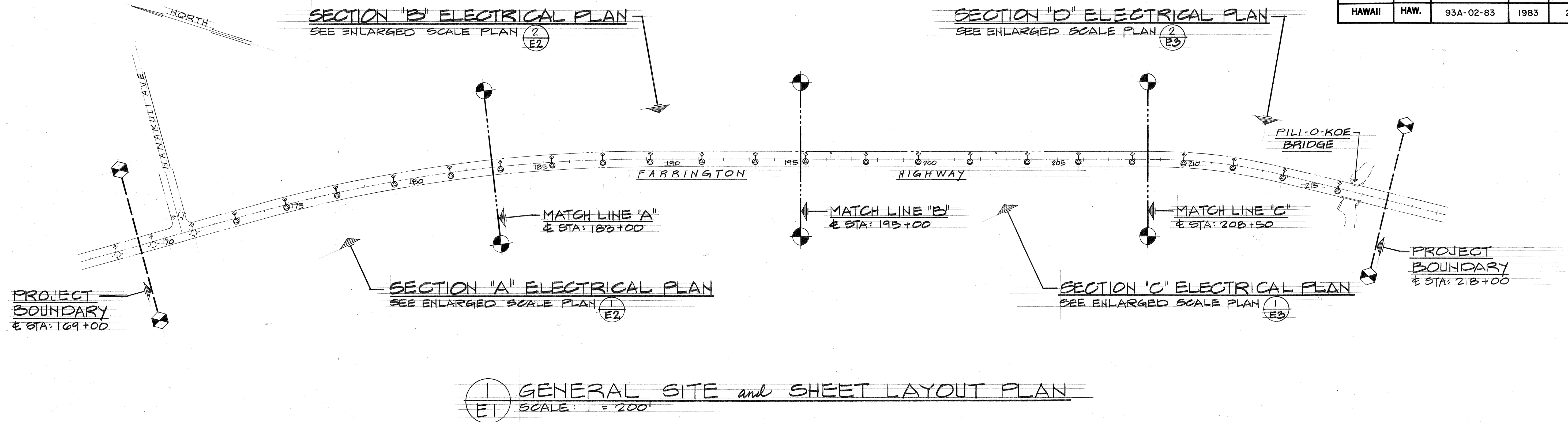


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	93A-02-83	1983	2	5

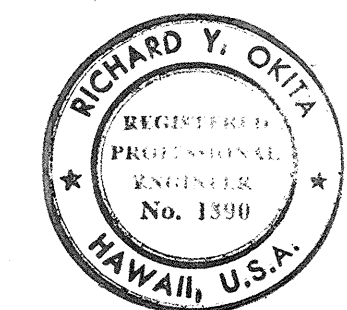


- GENERAL CONSTRUCTION NOTES**
- THE CONTRACTOR SHALL OBTAIN A CONSTRUCTION PERMIT FROM THE STATE'S HIGHWAY DISTRICT ENGINEER AT 727 KAKOI STREET PRIOR TO THE COMMENCEMENT OF WORK WITHIN STATE HIGHWAY RIGHT-OF-WAY.
 - CONSTRUCTION AND RESTORATION OF ALL EXISTING HIGHWAY FACILITIES WITHIN STATE RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE SECTIONS OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", DATED 1976, AND THE "SPECIFICATION FOR INSTALLATION OF MISCELLANEOUS IMPROVEMENTS WITHIN STATE HIGHWAYS", DATED APRIL 1, 1974 OF THE STATE HIGHWAYS DIVISION.
 - ALL LANES SHALL BE OPENED TO TRAFFIC DURING THE MORNING PEAK HOURS FROM 6:00AM TO 8:30AM AND DURING THE AFTERNOON PEAK HOURS FROM 3:00 PM TO 6:00PM, AND DURING OFF WORK HOURS, ONLY ONE LANE SHALL BE CLOSED AT ANY OTHER TIME.
 - THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION AND FOR THE CONVENIENCE AND SAFETY OF PUBLIC TRAFFIC. ALL SUCH PROTECTIVE FACILITIES AND PRECAUTIONS TO BE TAKEN SHALL CONFORM WITH THE "RULES AND REGULATIONS GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON OR ADJACENT TO PUBLIC STREETS AND HIGHWAYS" ADOPTED BY THE HIGHWAY SAFETY COORDINATOR, AND THE U.S. FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, PART VI - TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS", DATED 1971.
 - IT IS NOT THE INTENT OF THESE PLANS AND SPECIFICATIONS TO IMPLY THAT ALL EXISTING UTILITIES ARE SHOWN ON THE PLANS. ONLY THOSE UNDERGROUND PIPES, CABLES,

- DUCTLINES, ETC. KNOWN TO EXIST BY THE ENGINEER FROM HIS SEARCH OF THE RECORDS AT THE TIME OF DESIGN ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL ARRANGE WITH THE RESPECTIVE UTILITY COMPANIES TO TONE AND MARK THE LOCATION AND DEPTH OF THE EXISTING FACILITIES AS REQUIRED.
- THE CONTRACTOR SHALL EXERCISE PROPER CARE WHEN EXCAVATING IN AREAS WITH EXISTING UNDERGROUND FACILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR AND/OR PAY ANY DAMAGES TO THE EXISTING FACILITIES. DAMAGES TO THE EXISTING FACILITIES SHALL BE REPORTED IMMEDIATELY TO THE UTILITY COMPANY CONCERNED.
 - THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED INTO THE DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS. THE COSTS INCURRED FOR ANY REMEDIAL ACTION BY THE ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
 - THE CONTRACTOR SHALL KEEP ALL WALKWAYS, DRIVEWAYS AND ROADWAYS OPEN FOR PEDESTRIAN AND/OR VEHICULAR TRAFFIC. SAFETY BARRIERS AND APPROPRIATE WARNING SIGNS AND DEVICES SHALL BE PROVIDED AT ALL TIMES FOR THE SAFETY OF PEDESTRIANS AND/OR VEHICLES.
 - THE CONTRACTOR SHALL AT HIS OWN EXPENSE KEEP THE PROJECT AREA AND ALSO THE SURROUNDING AREA FREE FROM DUST HUISSANCES. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE DEPT. OF HEALTH, STATE OF HAWAII.
 - THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES AS SHOWN ON THE PLANS ARE FROM THE LATEST AVAILABLE DATA BUT ARE NOT GUARANTEED AS TO ACCURACY, OR THAT OTHER OBSTACLES MAY NOT BE ENCOUNTERED DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL PAY FOR ALL DAMAGES TO THE EXISTING UTILITIES.

ELECTRICAL SYMBOL LIST	
•JP15X	JOINT WOOD POLE, NEW, "JP15X" INDICATES POLE ADDRESS
⌋⊙	NEW ST. LT. LUMINAIRE & BRACKET ARM W/250WATT HIGH PRESSURE SODIUM LAMP & PHOTOELECTRIC CONTROL UNIT
⌋⊙	NEW ST. LT. LUMINAIRE & BRACKET ARM W/250WATT HIGH PRESSURE SODIUM LAMP & PHOTOELECTRIC CONTROL UNIT TO REPLACE EXISTING.
Ⓢ	DETAIL INDICATOR
Ⓢ	UPPER HALF - DETAIL NO.
Ⓢ	LOWER HALF - SHEET NO. (LOCATION)
Ⓢ	UPPER HALF: 506 - HECO CONTRACT NO.
Ⓢ	LOWER HALF: 346 - LIGHT NO.
Ⓢ	STREET LIGHT DATA (I.D. TAG)
Ⓢ	UPPER HALF: N250 - LAMP TYPE/WATTS
Ⓢ	LOWER HALF: III - IES TYPE DISTR.
Ⓢ	Ⓢ STA: 211+83 - Ⓢ ROAD STATION
②→	NOTE INDICATOR
⊙	EXISTING JOINT WOOD POLE
⌋⊙	EXISTING STREET LIGHT LUMINAIRE MOUNTED ON WOOD POLE
---	EXISTING GUY & ANCHOR
—E _{OH}	EXISTING OVERHEAD ELECTRIC LINE
—T _{OH}	EXISTING OVERHEAD TELEPHONE LINE
—SL _{OH}	EXISTING OVERHEAD STREET LIGHT CIRCUIT
—TV _{OH}	EXISTING OVERHEAD CATV LINE
—TS _{OH}	EXISTING OVERHEAD TRAFFIC SIGNAL LINE
—SC	EXISTING UNDERGROUND SIGNAL CORPS CABLE
—W	EXISTING WATER LINE
---W---	EXISTING WATER LINE (ABANDONED)

ABBREVIATIONS	
slpb	STREET LIGHT PULLBOX
tsc	TRAFFIC SIGNAL CONTROLLER
tsp	TRAFFIC SIGNAL POLE
tspb	TRAFFIC SIGNAL PULLBOX
wmh	WATER MANHOLE
JP	JOINT POLE
HECO	HAWAIIAN ELECTRIC COMPANY, INC.
HTCO	HAWAIIAN TELEPHONE COMPANY
UG	UNDERGROUND
OH	OVERHEAD
HPS	HIGH PRESSURE SODIUM
ST	STREET
LT	LIGHT
STA	STATION
Ⓢ	CENTERLINE
MTO	MOUNTED
O.C.	ON CENTER
DISTR	DISTRIBUTION
GALV	GALVANIZE OR GALVANIZED
IES	ILLUMINATING ENGINEERING SOCIETY
PVC	POLYVINYLCHLORIDE



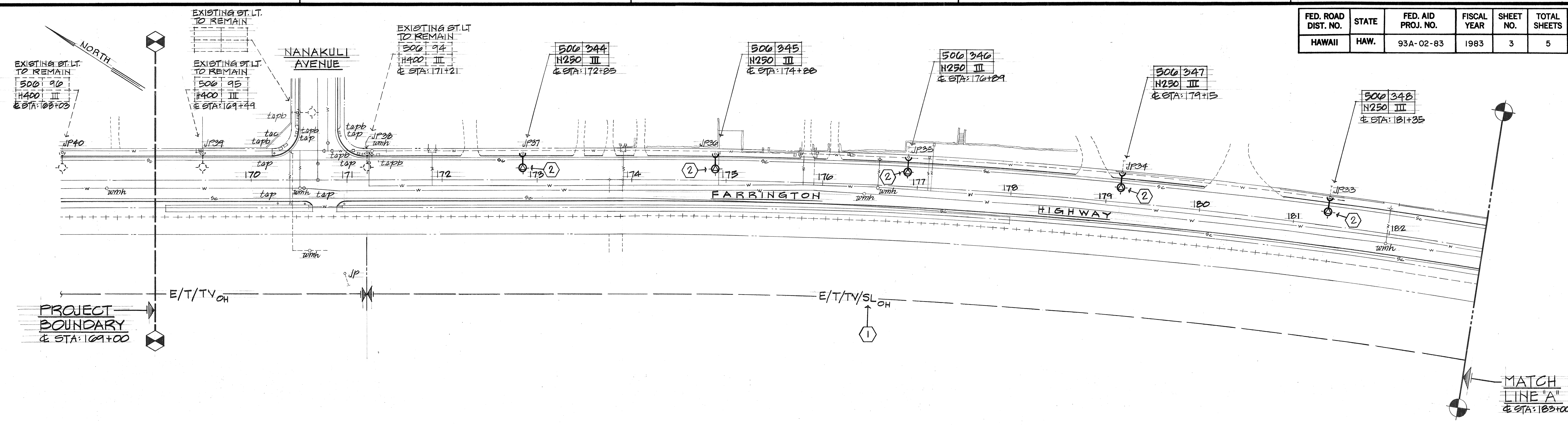
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Richard Y. Ohta

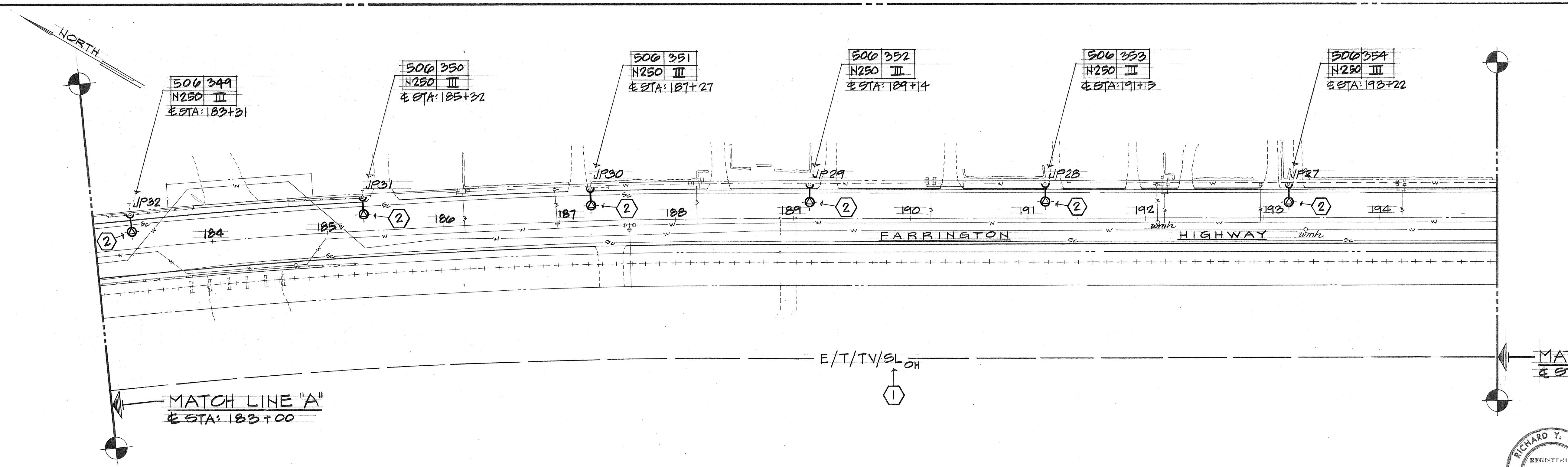
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HIGHWAY LIGHTING IMPROVEMENT
OF
FARRINGTON HIGHWAY
NANAKULI AVE TO PILI-O-KOE BRIDGE
PROJECT NO. 93A-02-83
**GENERAL SITE and SHEET
LAYOUT PLAN**
SHEET NO. E1 OF 5 SHEETS

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
DESIGNED BY	_____
NOTED BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
NO.	_____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	93A-02-83	1983	3	5

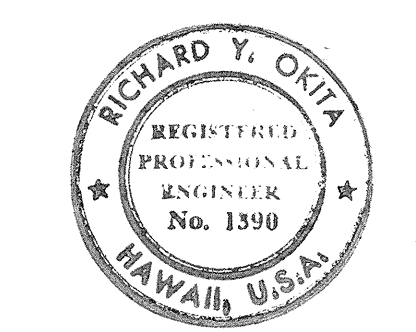


1 SECTION "A" ELECTRICAL PLAN
E2 SCALE: 1" = 50'



- NOTES: (THIS SHEET ONLY)
- 1 DISCONNECT & REMOVE EXISTING OVERHEAD STREET LIGHT CIRCUITING & RELATED CROSSARM.
 - 2 DISCONNECT & REMOVE EXISTING STREET LIGHT LUMINAIRE & BRACKET ARM. IN ITS PLACE PROVIDE NEW STREET LIGHT LUMINAIRE & BRACKET ARM PER DETAIL E4.

2 SECTION "B" ELECTRICAL PLAN
E2 SCALE: 1" = 50'



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HIGHWAY LIGHTING IMPROVEMENT
OF
FARRINGTON HIGHWAY
NANAKULI AVE TO PILI-O-KOE BRIDGE
PROJECT NO. 93A-02-83

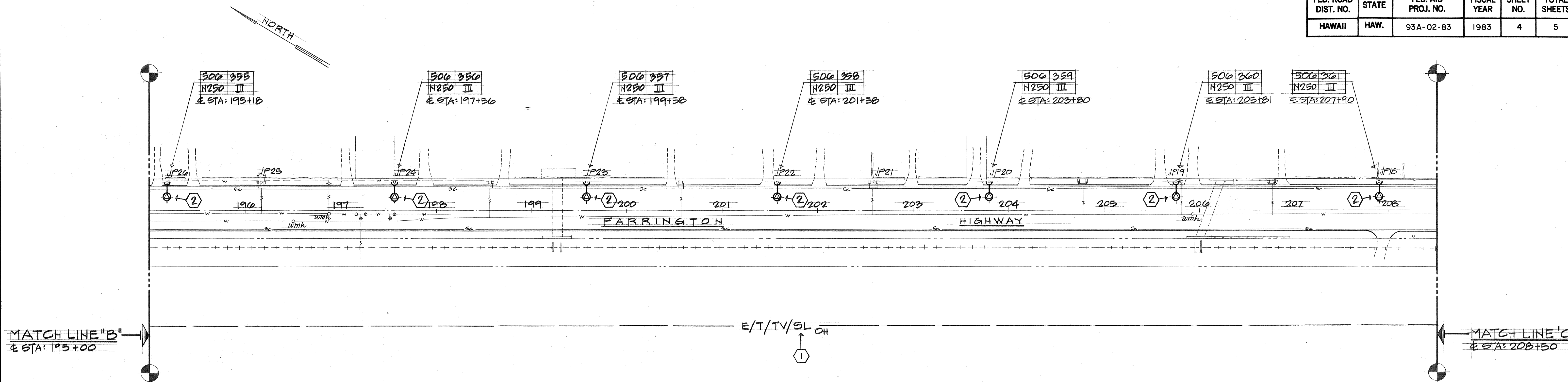
SECTIONS "A" & "B"
ELECTRICAL PLANS

SHEET NO. E2 OF 5 SHEETS

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
NOTED BY	_____
QUANTITIES BY	_____
DESIGNED BY	_____
CHECKED BY	_____
NOTED BY	_____
QUANTITIES BY	_____
DESIGNED BY	_____
CHECKED BY	_____
NOTED BY	_____
QUANTITIES BY	_____

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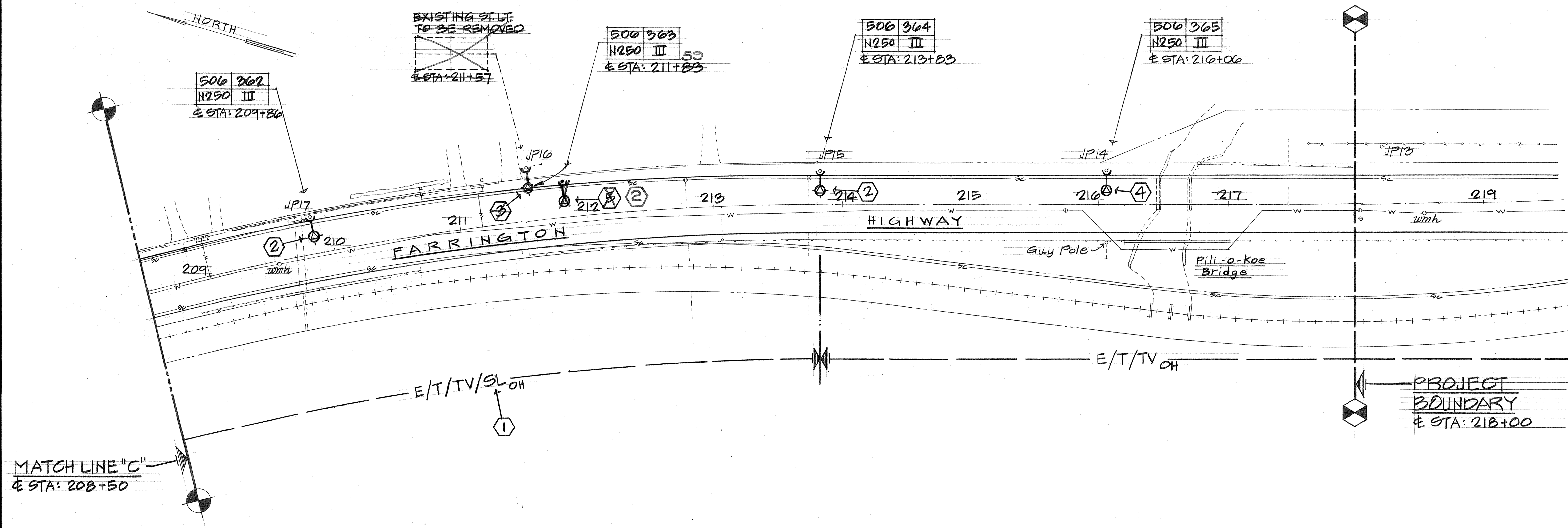
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	93A-02-83	1983	4	5



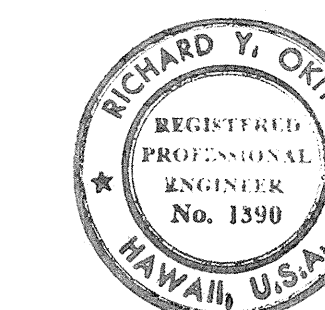
SECTION "C" ELECTRICAL PLAN E3 SCALE: 1" = 50'

NOTES!! (THIS SHEET ONLY)

- DISCONNECT & REMOVE EXISTING OVERHEAD STREET LIGHT CIRCUITING & RELATED CROSSARM.
- DISCONNECT & REMOVE EXISTING STREET LIGHT LUMINAIRE & BRACKET ARM. IN ITS PLACE PROVIDE NEW STREET LIGHT LUMINAIRE & BRACKET ARM PER DETAIL E4.
- DISCONNECT & REMOVE EXISTING STREET LIGHT LUMINAIRE & BRACKET ARM.
- PROVIDE NEW STREET LIGHT LUMINAIRE & BRACKET ARM ON EXISTING JOINT WOOD POLE PER DETAIL E4.
- PROVIDE NEW WOOD POLE WITH STREET LIGHT LUMINAIRE & BRACKET ARM PER DETAIL E4.



SECTION "D" ELECTRICAL PLAN E3 SCALE: 1" = 50'

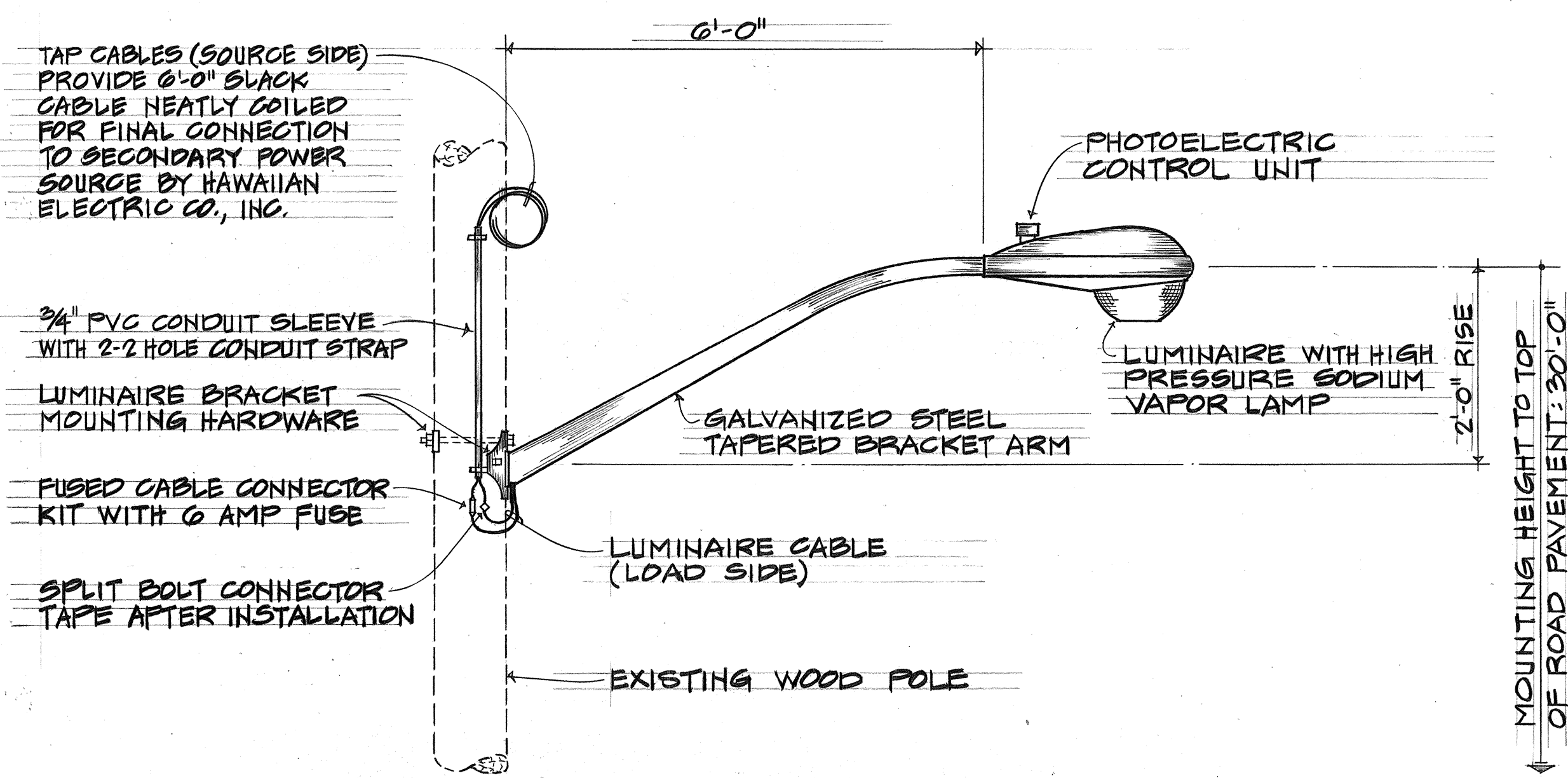


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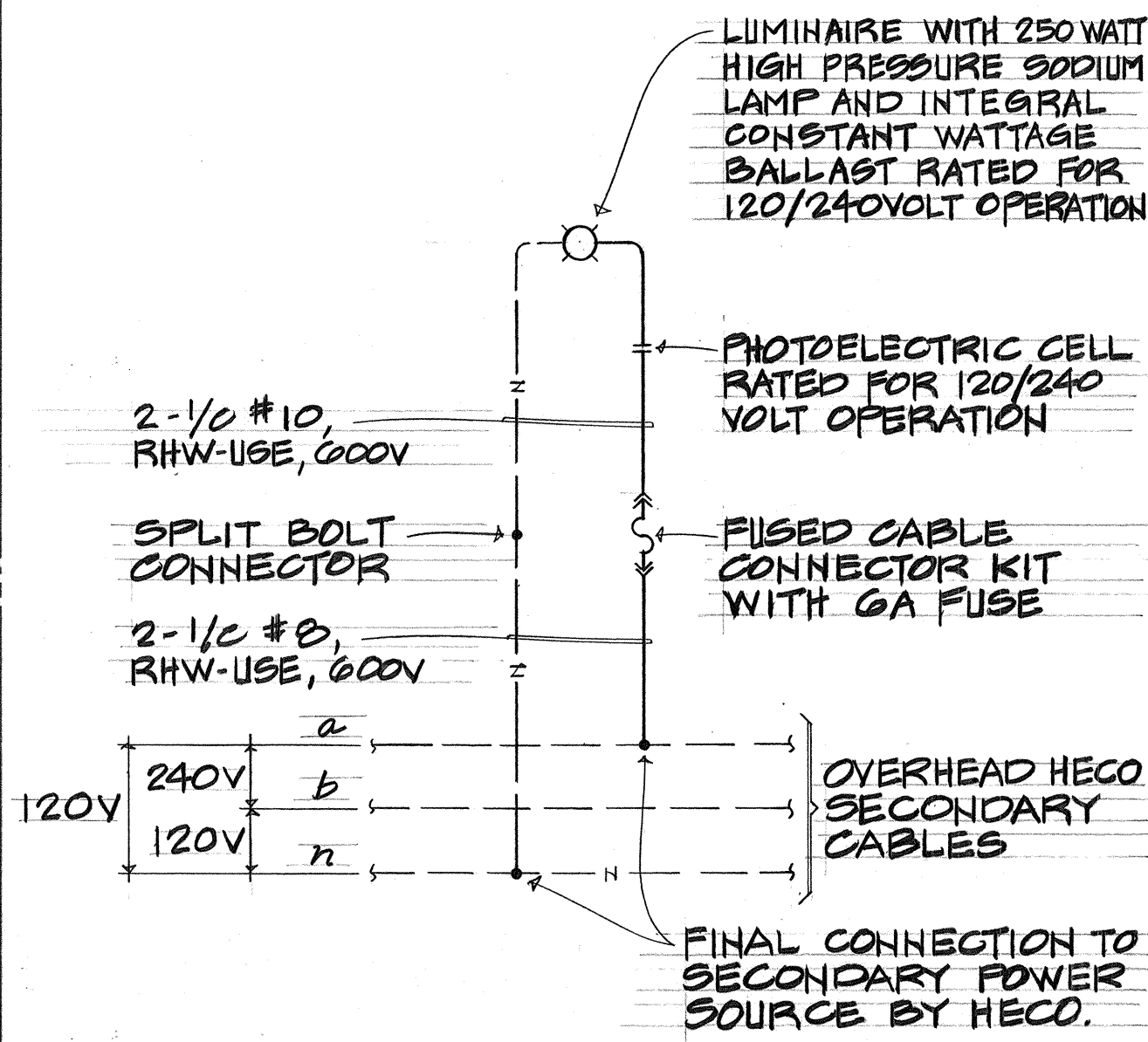
R. Orita

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HIGHWAY LIGHTING IMPROVEMENT
OF
FARRINGTON HIGHWAY
NANAKULI AVE TO PILI-O-KOE BRIDGE
PROJECT NO. 93A-02-83
SECTIONS "C" & "D"
ELECTRICAL PLANS
SHEET NO. E3 OF 5 SHEETS

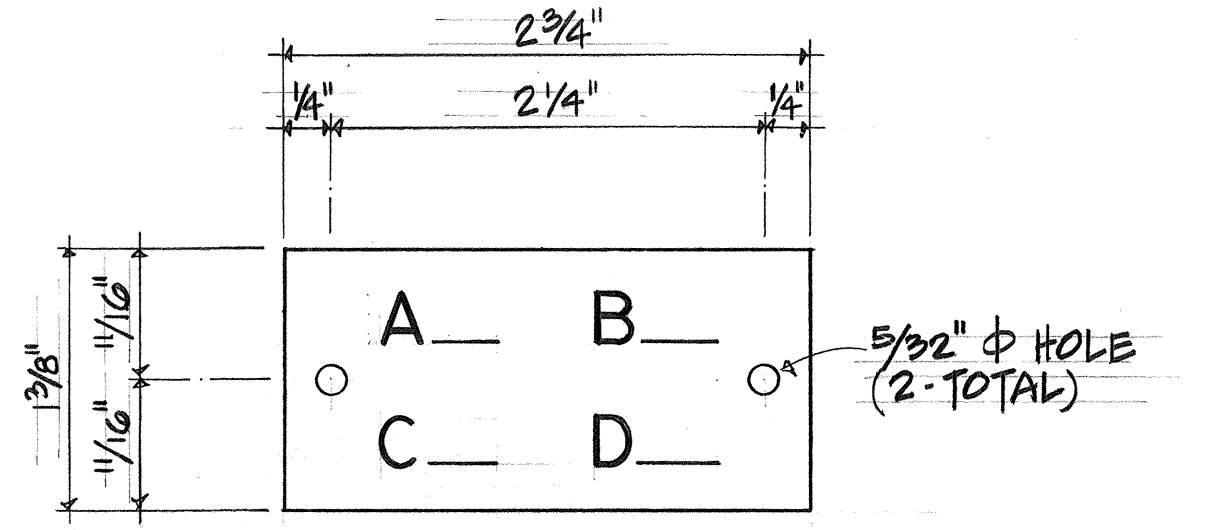
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	93A-02-83	1983	5	5



1 STREET LIGHT LUMINAIRE MOUNTING DETAIL
E4 NOT TO SCALE



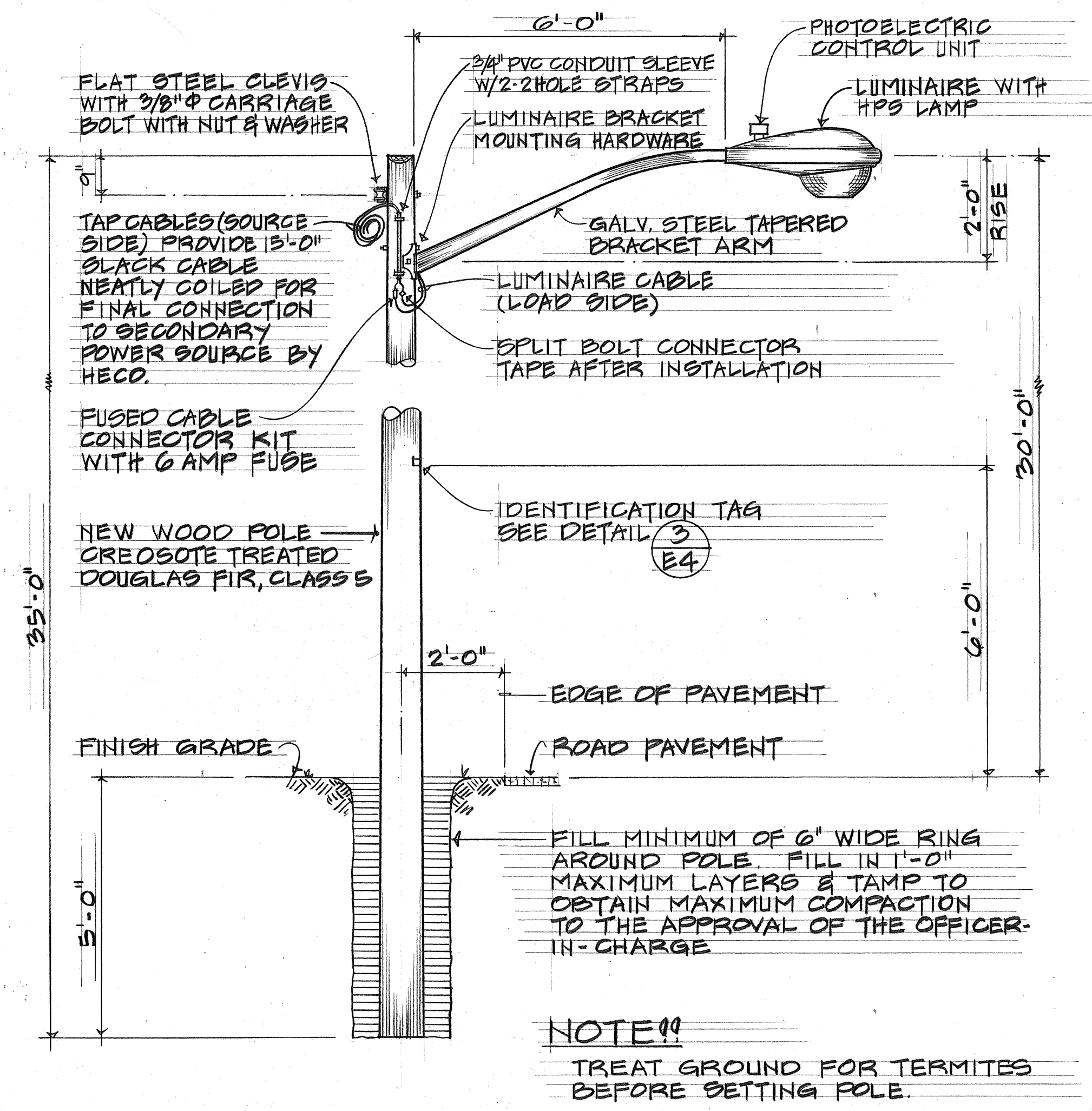
2 TYPICAL OVERHEAD STREET LIGHT CONNECTION DIAGRAM
E4 NOT TO SCALE



ENGRAVING SCHEDULE
A - HECO CONTRACT NO. B - LIGHT NO.
C - LAMP DATA D - REFRACTOR DATA (IES ROMAN NUMERAL)

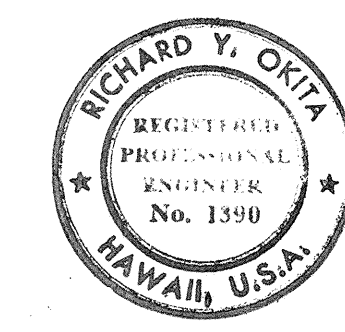
POLE TAG
1. MAKE FROM 3-PLY LAMINATED PLASTIC (BLACK-WHITE-BLACK) WITH 1/4" HIGH COMMERCIAL GOTHIC LETTERS, ENGRAVED.
2. ATTACH TO POLE WITH NO. 7 CADMIUM PLATED SCREWS.
3. DRILL NO. 29 HOLES IN POLE.
4. ATTACH 6'-0" ABOVE CURB, IF NO CURB, 6'-0" ABOVE FINISH GRADE. ATTACH ON STREET SIDE.

3 IDENTIFICATION TAG DETAIL
E4 NOT TO SCALE



4 NEW STREET LIGHT LUMINAIRE and WOOD POLE DETAIL
E4 NOT TO SCALE

ORIGINAL	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NOTE BOOK	
No.	



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HIGHWAY LIGHTING IMPROVEMENT
OF
FARRINGTON HIGHWAY
NANAKULI AVE TO PILI-O-KOE BRIDGE
PROJECT NO. 93A-02-83
TYPICAL STREET LIGHT and MISCELLANEOUS DETAILS
SHEET NO. E4 OF 5 SHEETS

446.005/c