

Revised: Oct. 16, 1970

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(11)	1969	156	258

ELECTRICAL SYMBOLS

●	LIGHT, 250W. MERCURY-VAPOR, SINGLE ARM STANDARD
○	LIGHT, 700W. MERCURY-VAPOR, TWIN ARM STANDARD
●	LIGHT, 400W. MERCURY-VAPOR, SINGLE ARM STANDARD
⊙	JUNCTION BOX, CAST METAL
⊥	SIGN LIGHT, FLUOR, 1500 MA LAMPS
○	LIGHT, 400W. MERCURY-VAPOR, SINGLE ARM W/ WOOD POLE
○	WOOD POLE, POLE HT: 25'-0" CLASS 3
⊥	ELEC. PB. STATE HIGHWAY, TYPE "B", 18" X 24"
⊥	ELEC. PB. STATE HIGHWAY, TYPE "C", 18" X 36"
---	AERIAL 2-2#6 AAAC POLYETHYLENE TRIPLEX W/ MESSENGER
---	AERIAL CONDUCTOR W/ DEADEND ASS'Y
---	RIGID STEEL CONDUIT AT CONC. STRUCTURE
---	PVC CONDUIT BELOW GRADE, SEE SCH'D
---	EXST. WIRING
---	DOWN GUY ASS'Y
⊥	DUCT SECTION, SEE SCHEDULE
HT	DRY TRANS. RAIN-TIGHT ENCL.
⊙	PHOTO ELECTRIC SWITCH, FUSED, RAIN-TIGHT ENCL.
⊥	GUARD RAIL
⊙	REINSTALL LIGHT ASS'Y & REPLACE 200V BALLAST W/ 480V, 400W UNIT
⊥	ELEC. PB. STATE HIGHWAY, TYPE "A", 30" X 36"

MODIFY CONC. BASE TO RAISE LIGHT APPROX. 7" HIGHER.

NO CHANGE FOR HH EXCEPT DISC. SOURCE FROM MOANALUA TERRACE GARDEN APTS.

1/2" 2#6 DISC. & ABANDON.

ABANDON HH.

1" 2#0 DISC. & ABANDON

1" 2#0 W/ 3" CONC. JACKET & RESTORE.

MODIFY CONC. BASE TO RAISE LIGHT FOR NEW GRADE APPROX. 2'-0" HIGHER.

RELOCATE NW OF NEW CURB PER DET. B/E-3 (SHIFT NOT SHOWN TO SCALE FOR CLARITY)

FLUSH COUPLING & PLUG AT END FACE. SEE MEDIAN BARRIER DETAIL.

GENERAL NOTE:

GROUND ALL METAL POLES BY BONDING POLE AND GROUND ROD WITH #10 TW (GREEN) TO A #6 TW GROUNDING WIRE WHICH IN TURN SHALL BE CONNECTED TO THE SERVICE EQUIPMENT GROUND.

PLAN A

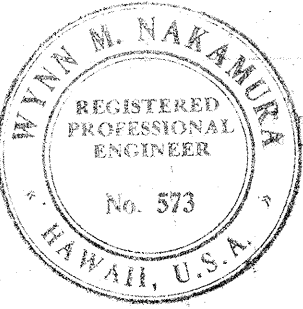
PLAN B

FLEX. CONNECTION BETWEEN ABUTMENT & BRIDGE SEE DETAIL.

RED HILL ACCESS GRADE SEPARATION.

NORTH FRONTAGE ROAD

SOUTH FRONTAGE ROAD



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Wynn Nakamura

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HIGHWAY LIGHTING SYSTEM
PLANS A & B

MOANALUA ROAD

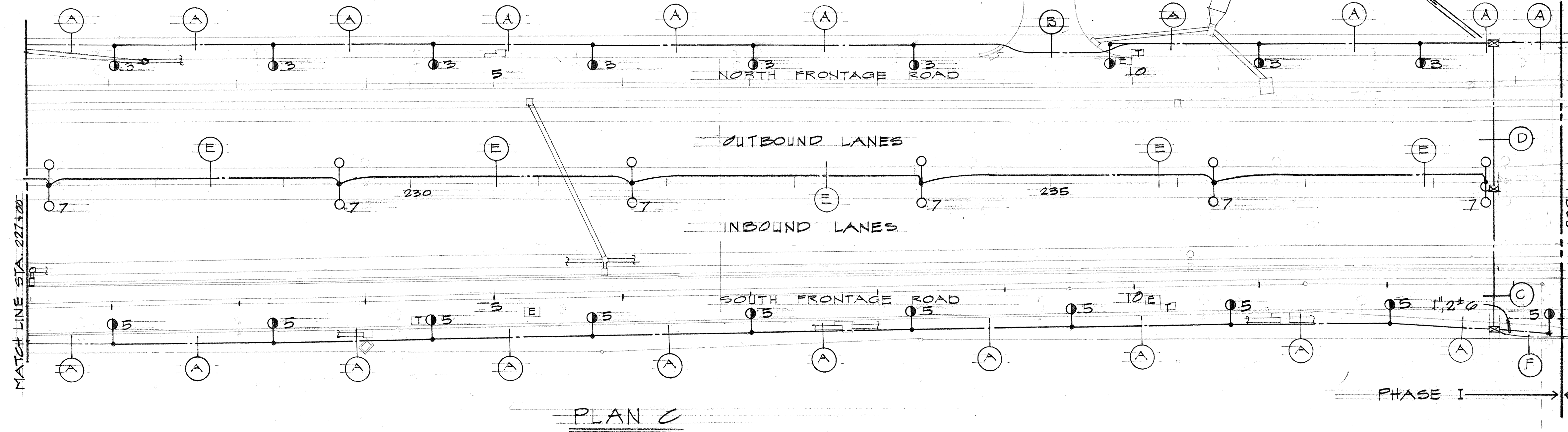
FAP PROJ. NO. F-078-1(11)

SC. 1" = 50'-0"

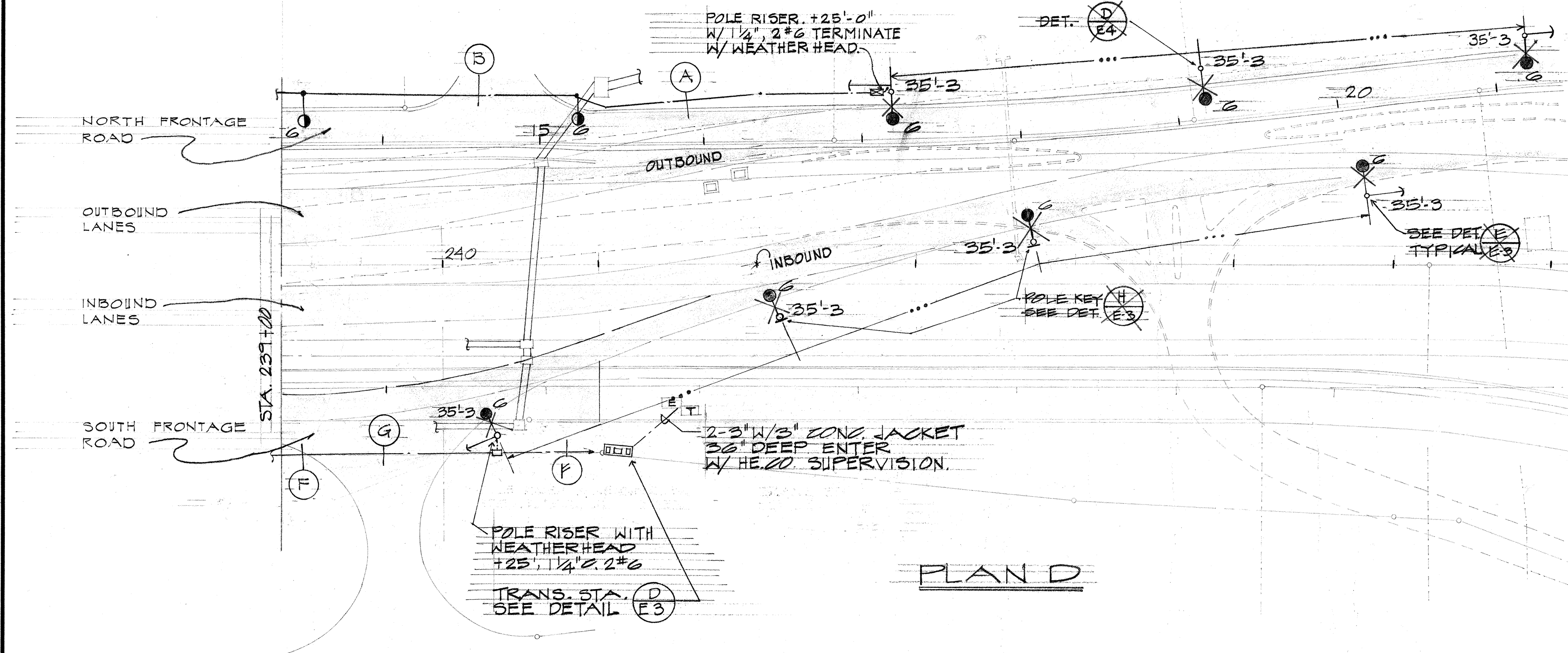
SHEET No. E-1 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(11)	1969	157	258

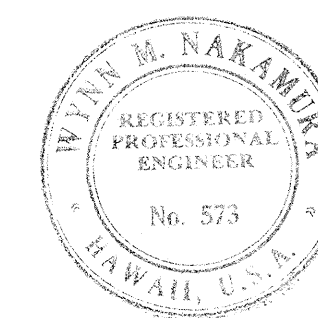
REVISED: Feb. 25, 1971



PLAN C



PLAN D



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Wynn H. Nakamura

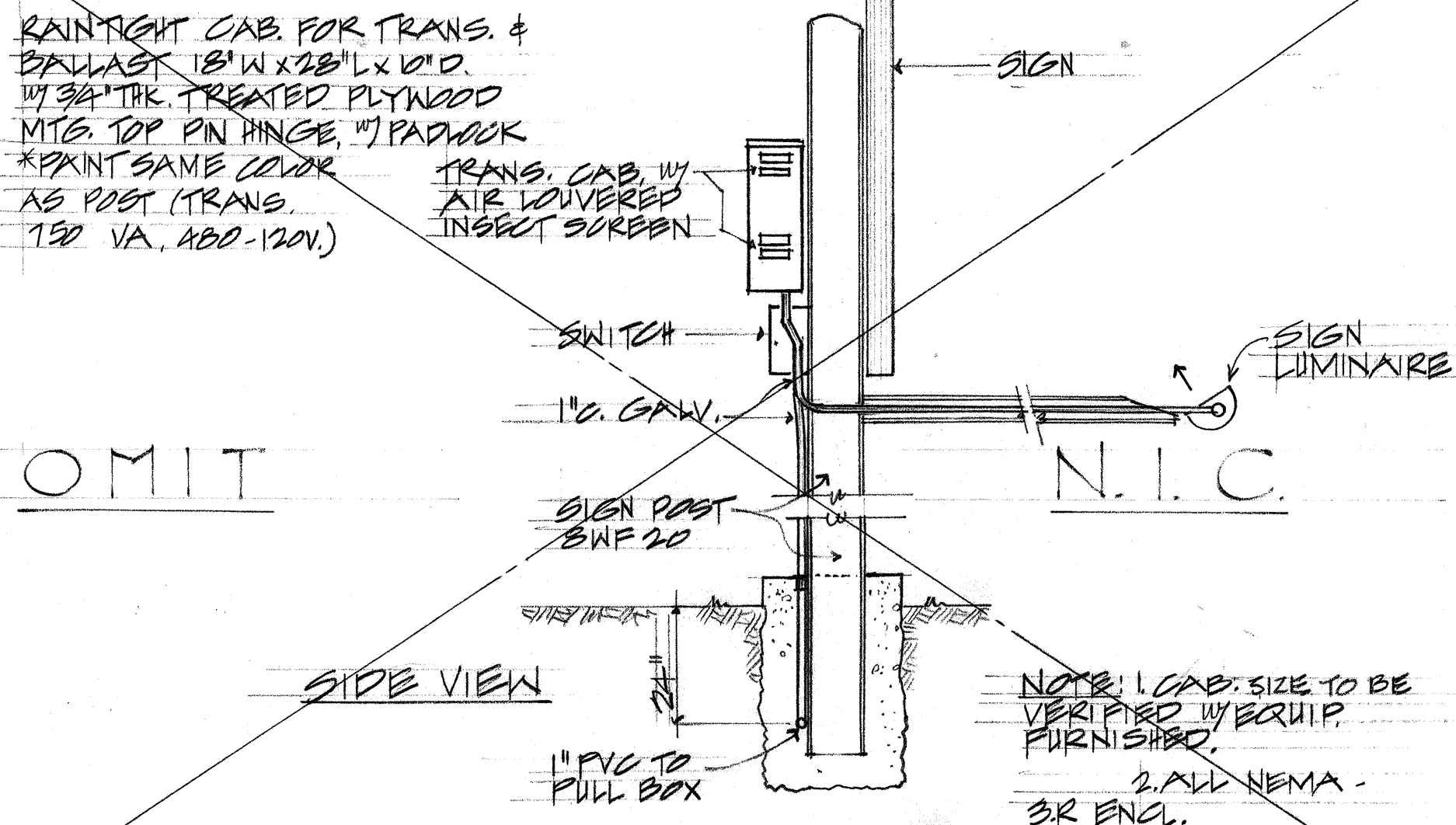
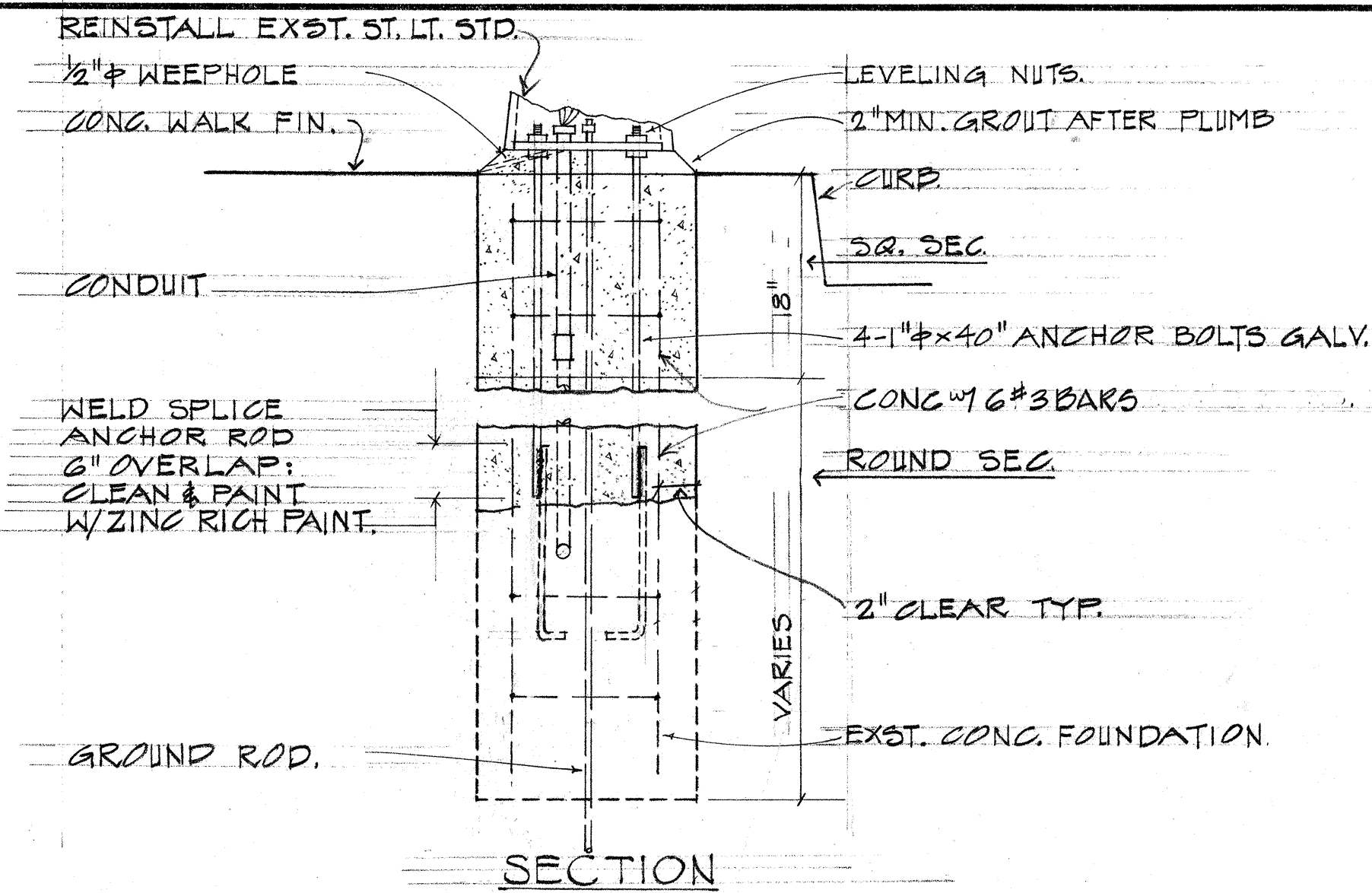
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HIGHWAY LIGHTING SYSTEM
PLANS C & D
MOANALUA ROAD
PAP PROJ. NO. F-078-1(11)
SC. 1" = 50'-0"

SHEET No. E-2 OF 7 SHEETS

ADD. 157

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



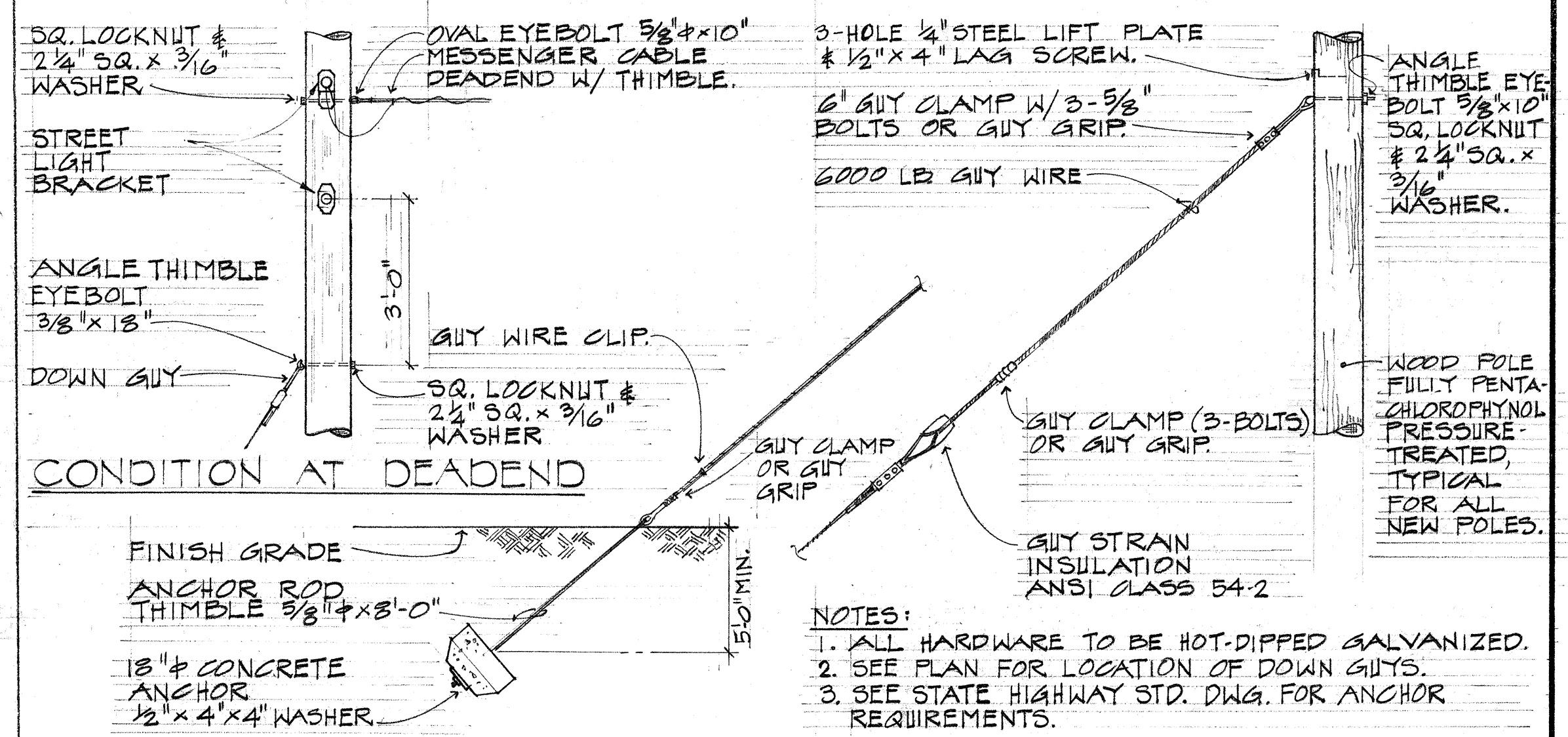
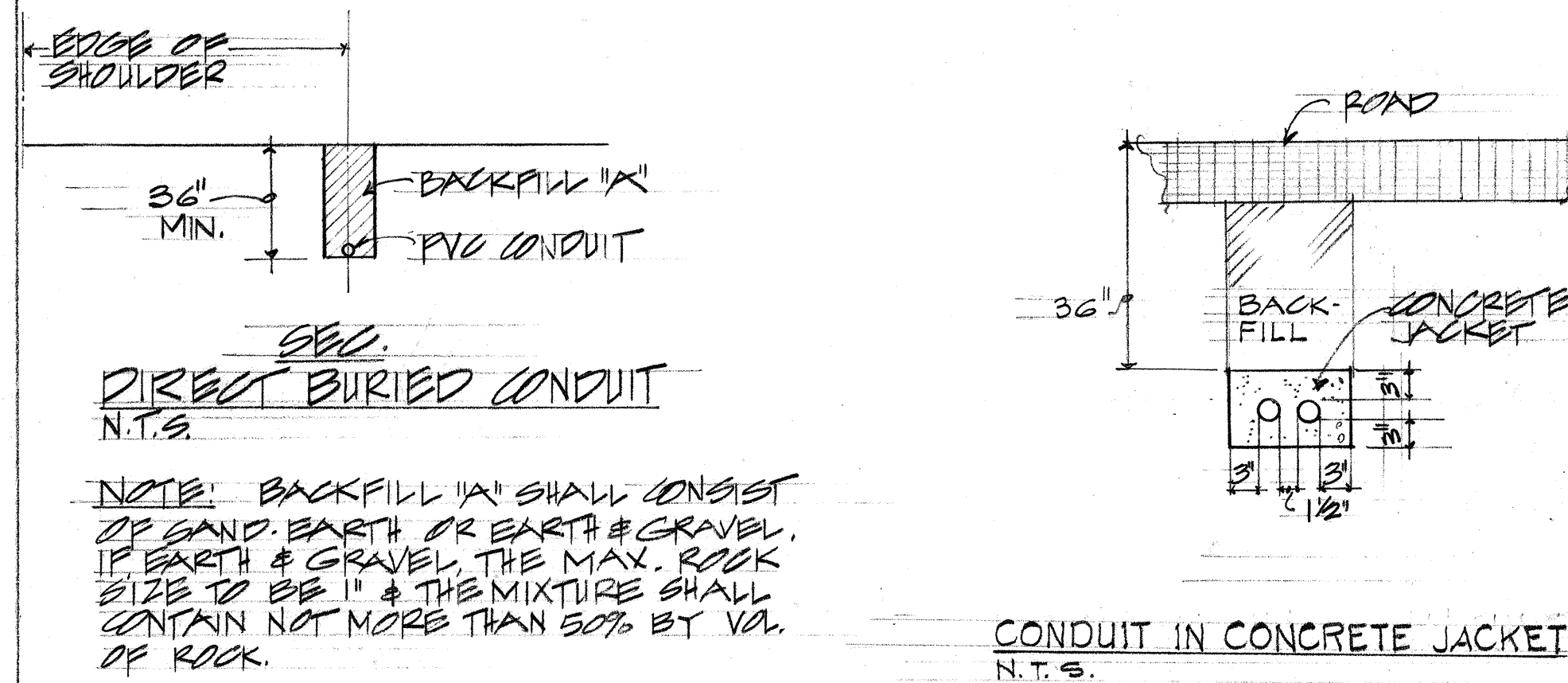
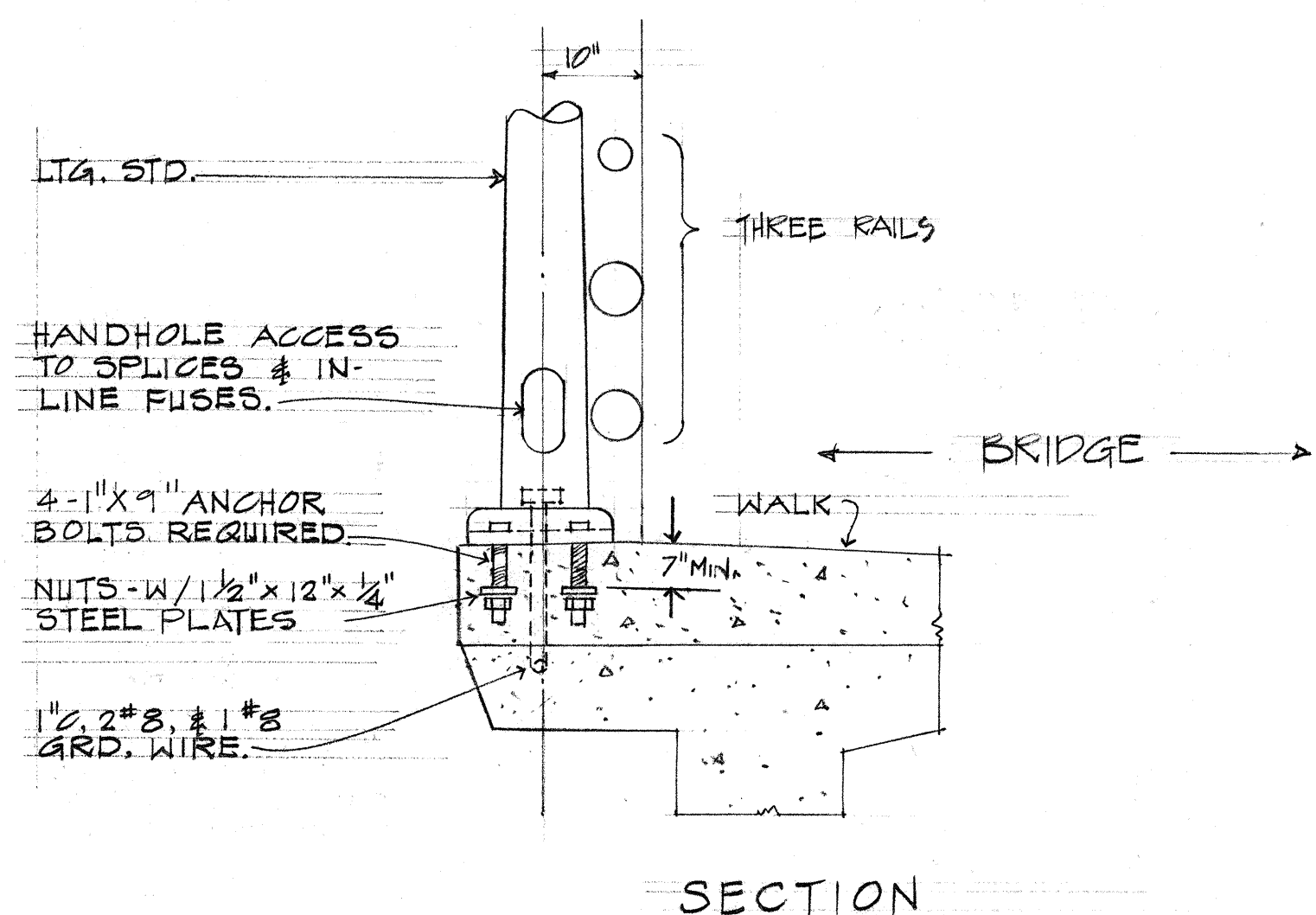
FEEDER SCHEDULE			
SEC.	CONDUIT	REMARKS	
A	CKT. #3, 5, 6	1-1 1/2"	DIRECT BURIED
B	CKT. #3, 5, 6	1-1 1/2"	ROAD X-ING CONCRETE JACKET
C	CKT. #3, 6, 7	2-1 1/2"	ROAD X-ING CONCRETE JACKET
D	CKT. #3, 6	2-1 1/2"	ROAD X-ING CONCRETE JACKET
E	CKT. #7	1-2"	W/IN CONC. BARRIER OR CONC JACKET
F	CKT. #3, 5, 6, 7	3-1 1/2"	DIRECT BURIED
G	CKT. #3, 5, 6, 7	3-1 1/2"	CONCRETE JACKET

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(11)	1969	159	258

REVISED: Feb. 25, 1971

G
E-4 EXIST. LIGHT STD FOUNDATION MODIFICATION
N.T.S.

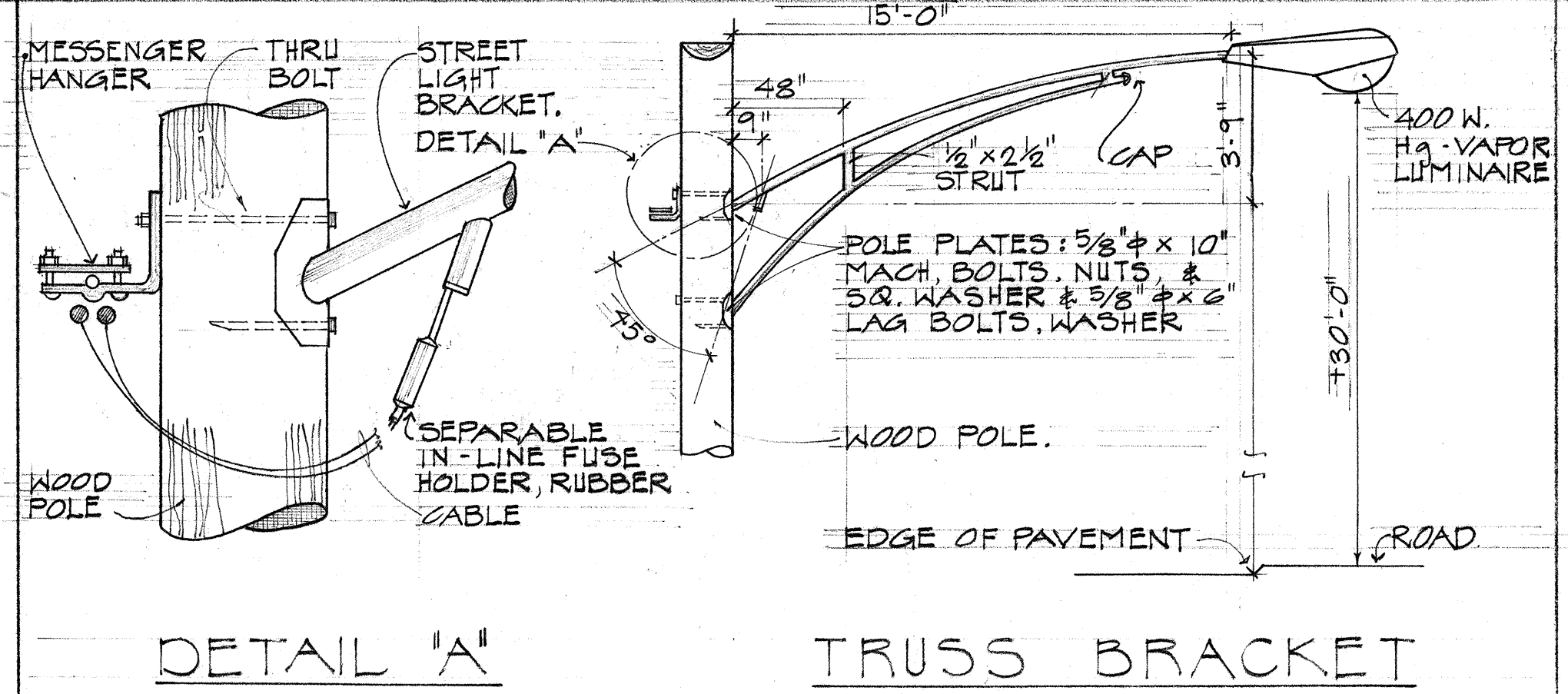
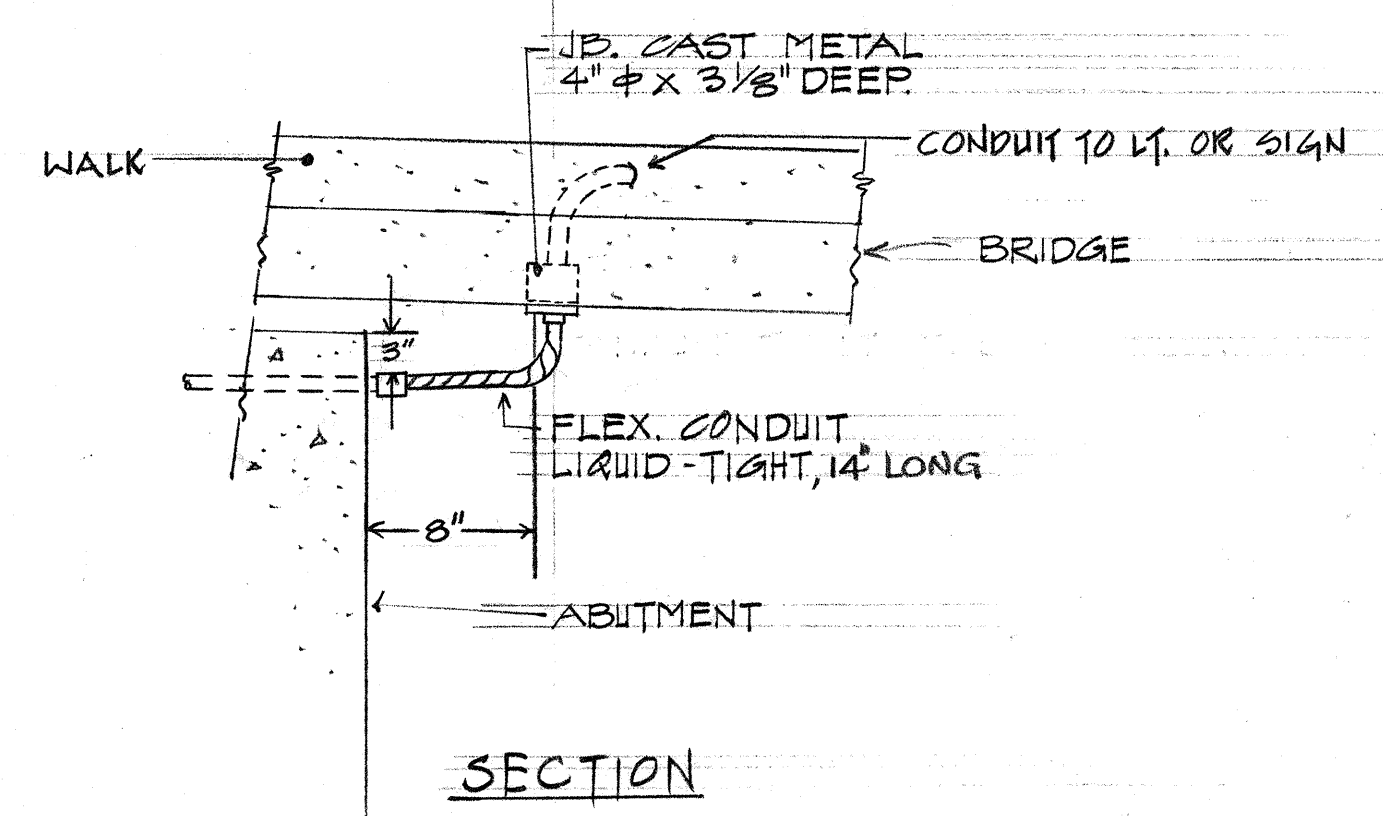
F
E-4 SIGNS 'A' & 'B' DETAILS
N.T.S.



A
E-4 STREET LIGHT STANDARD AT BRIDGE
N.T.S.

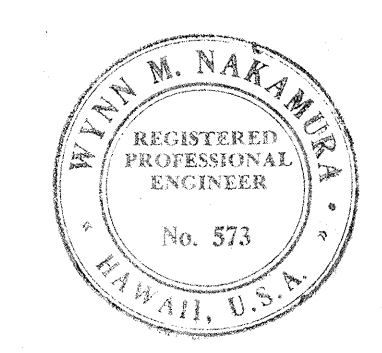
C
E-4 TYPICAL DUCT SECTIONS
N.T.S.

E
E-4 DOWN GUY ASSEMBLY DETAILS
N.T.S.



B
E-4 TYPICAL WIRING AT BRIDGE ABUTMENT
N.T.S.

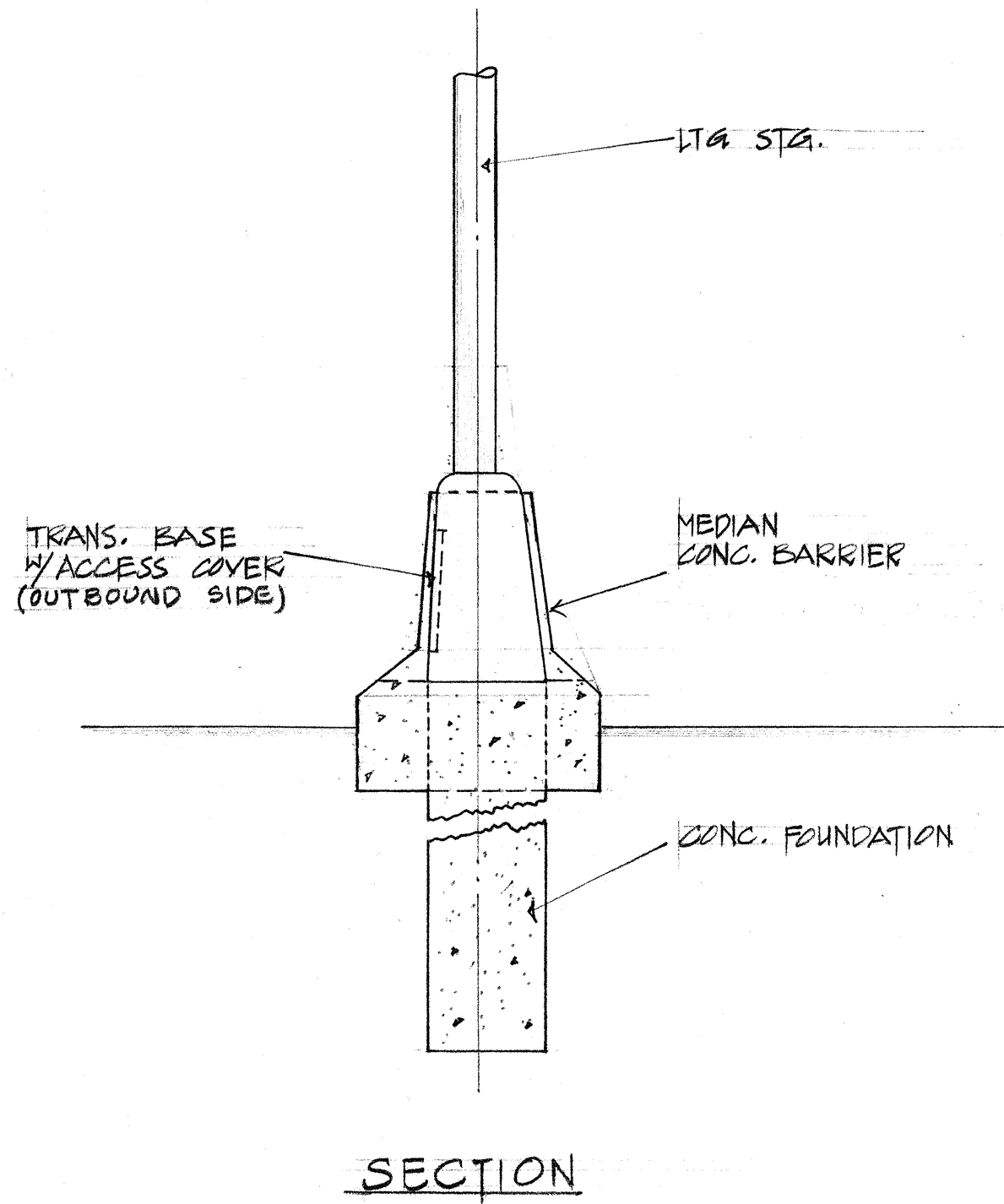
D
E-4 WOOD POLE STREET LIGHT DETAIL
N.T.S.



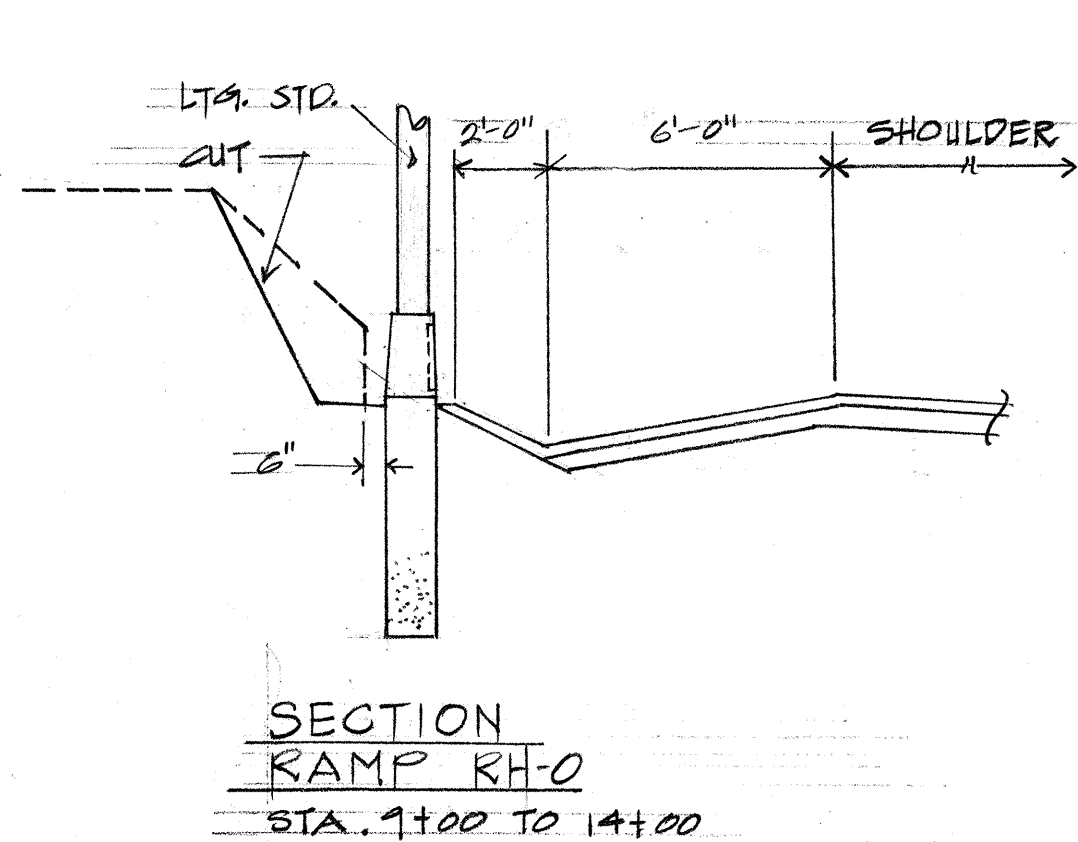
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HIGHWAY LIGHTING SYSTEM
MISC. ELECTRICAL DETAILS
MOANALUA ROAD
FAP PROJ. NO. F-078-1(11)
SCALE AS NOTED

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Wynn Nakamura

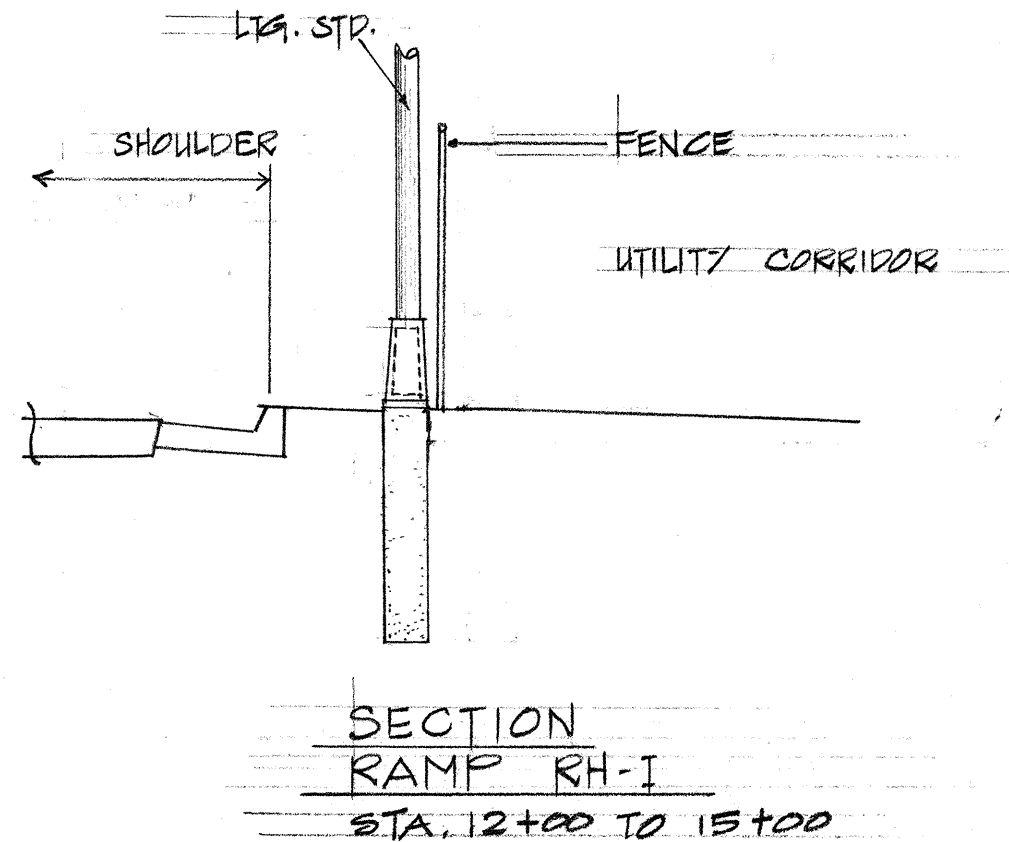
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(11)	1969	160	258



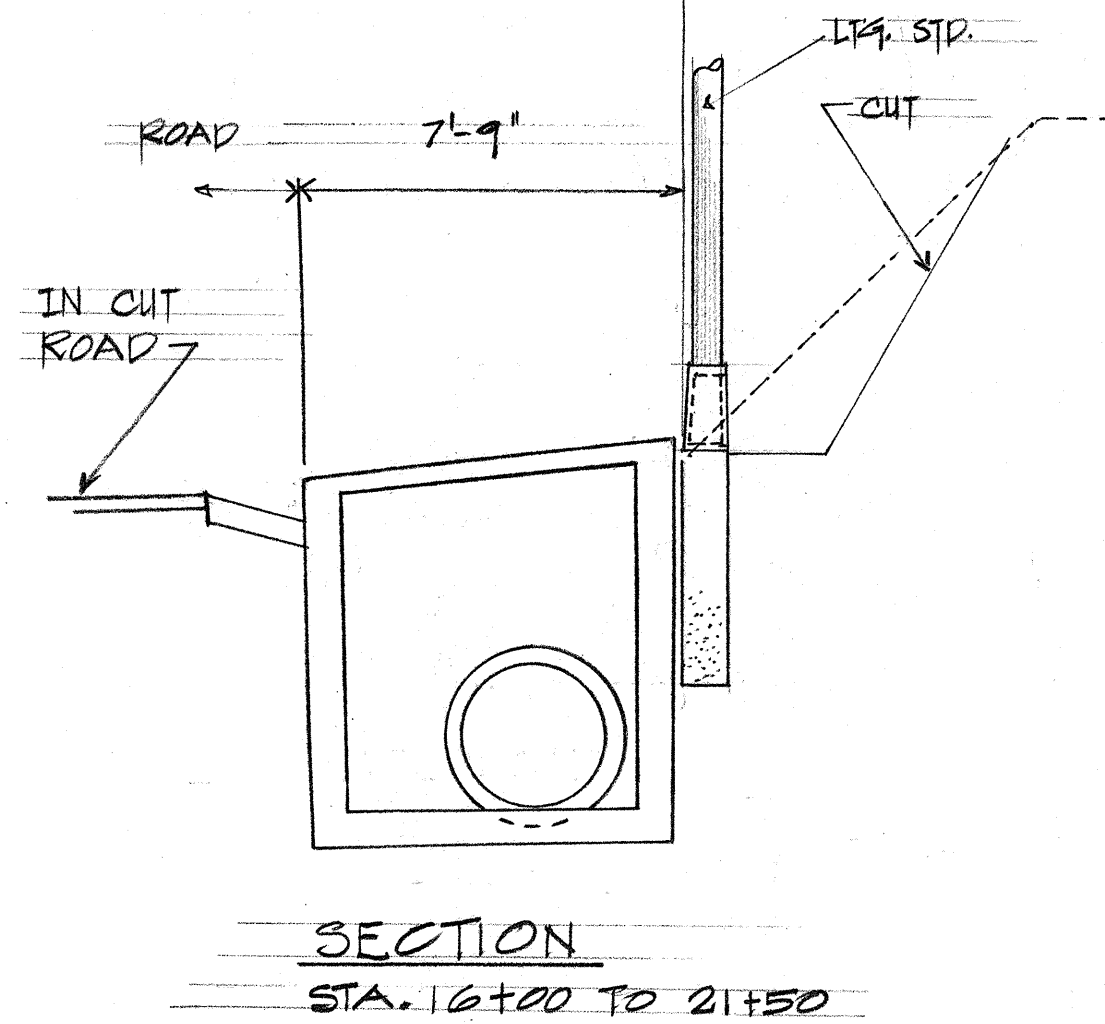
A TYPICAL MEDIAN LIGHT STANDARD
E-5 AT MOANALUA ROAD



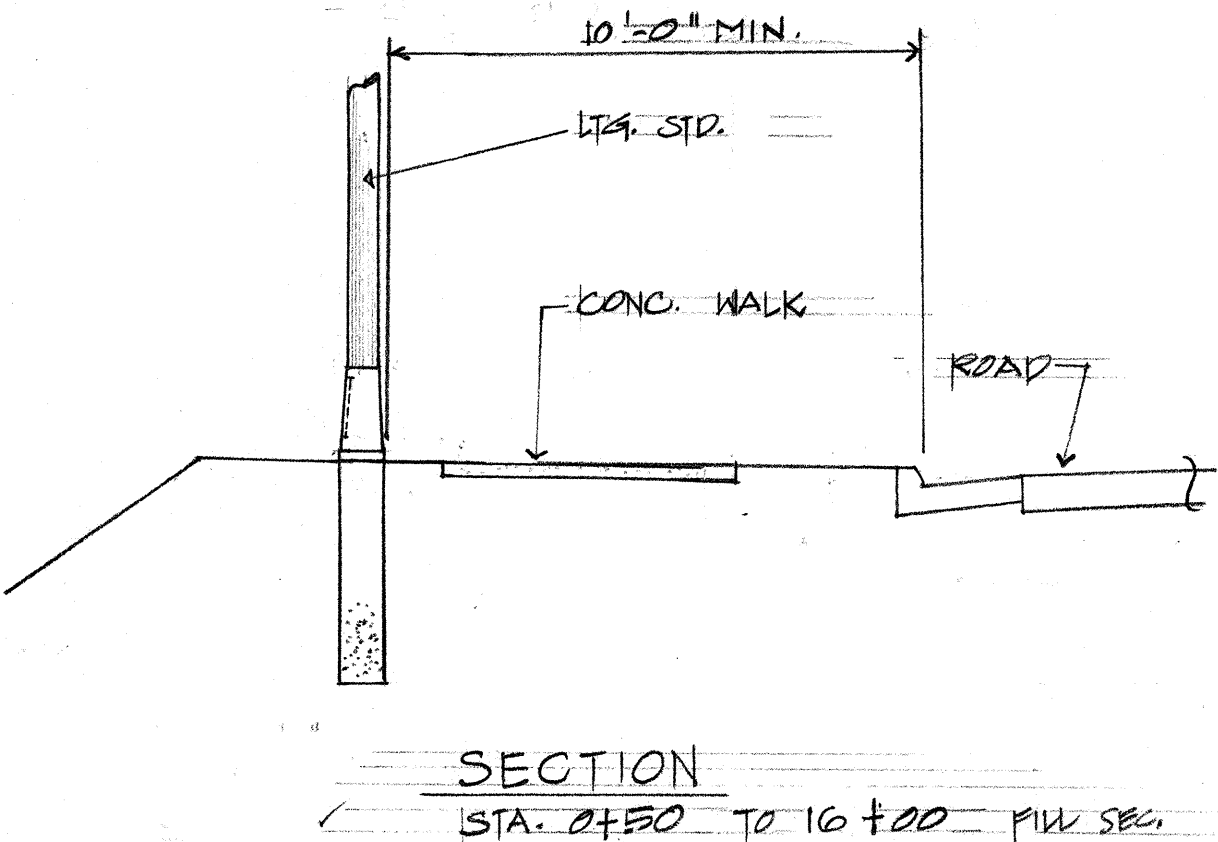
B LIGHT STANDARD AT
E-5 RAMP RH-0



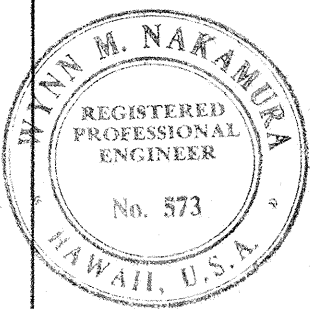
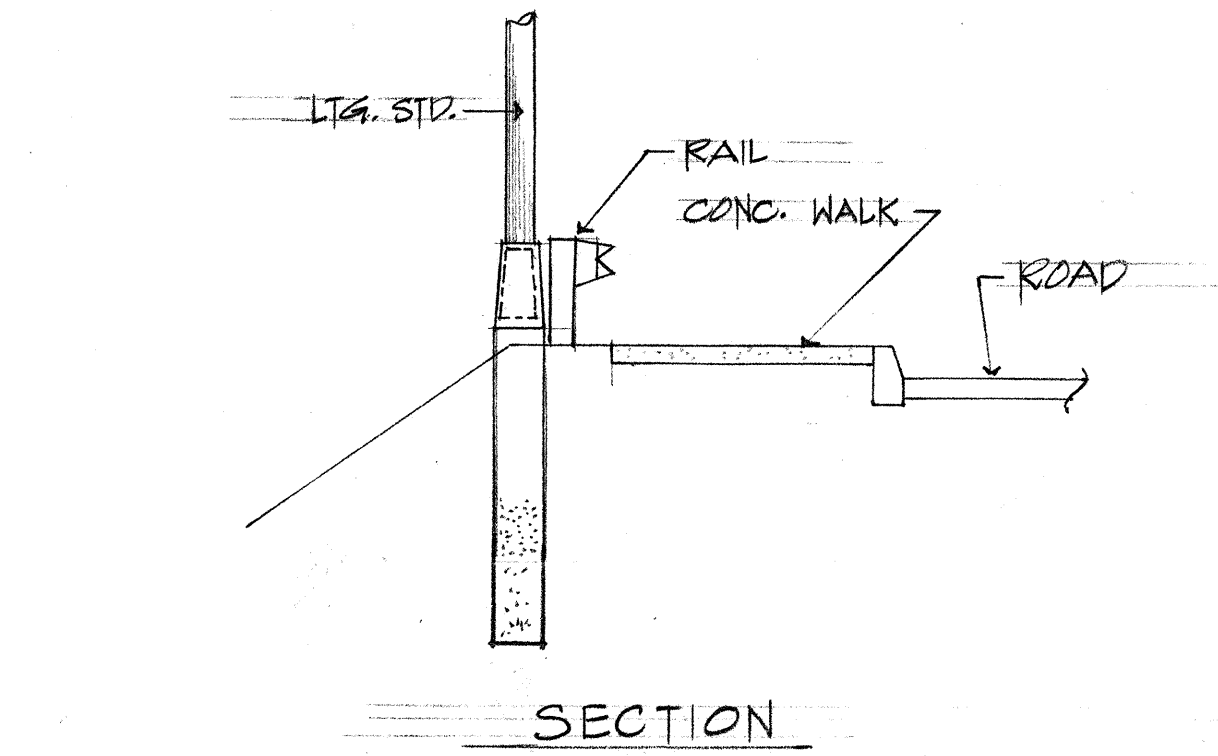
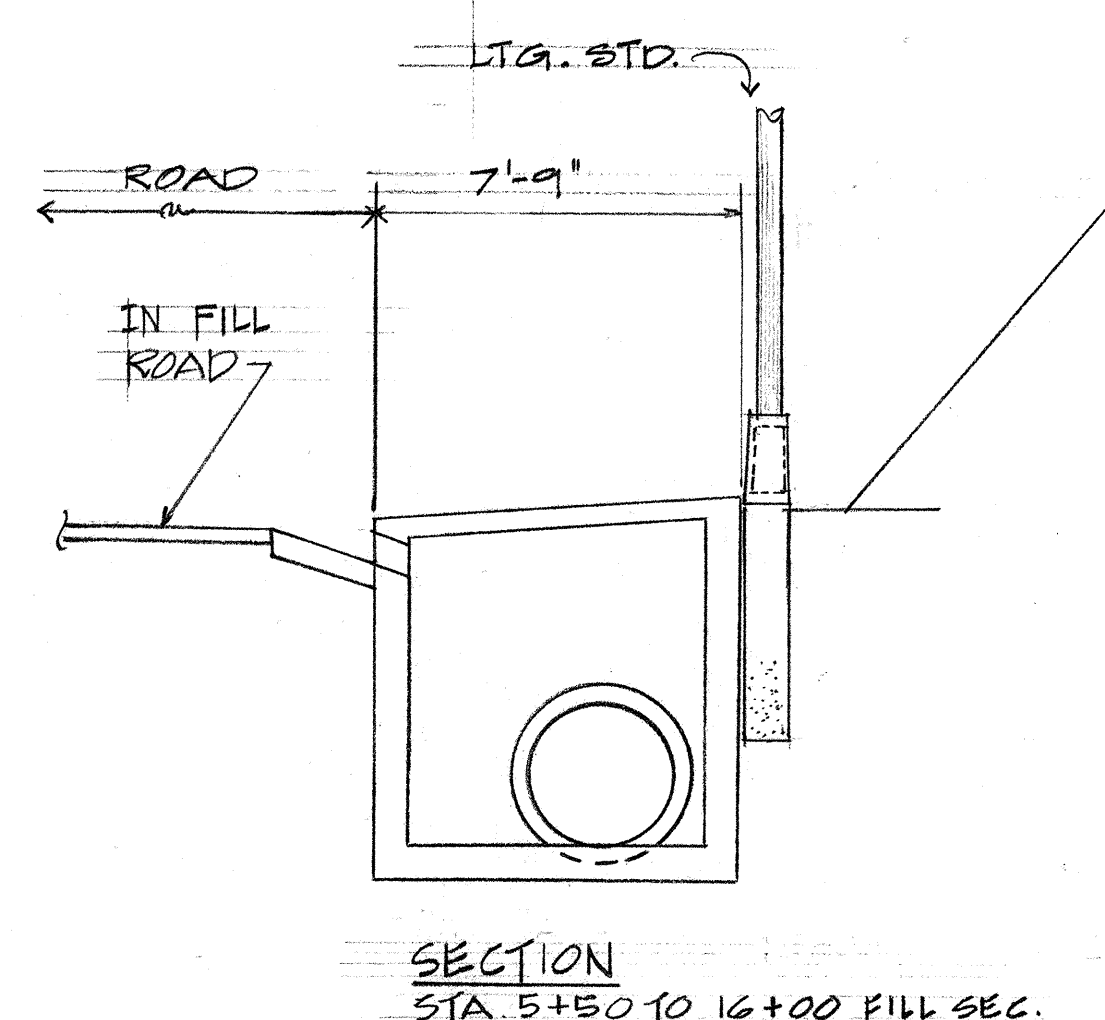
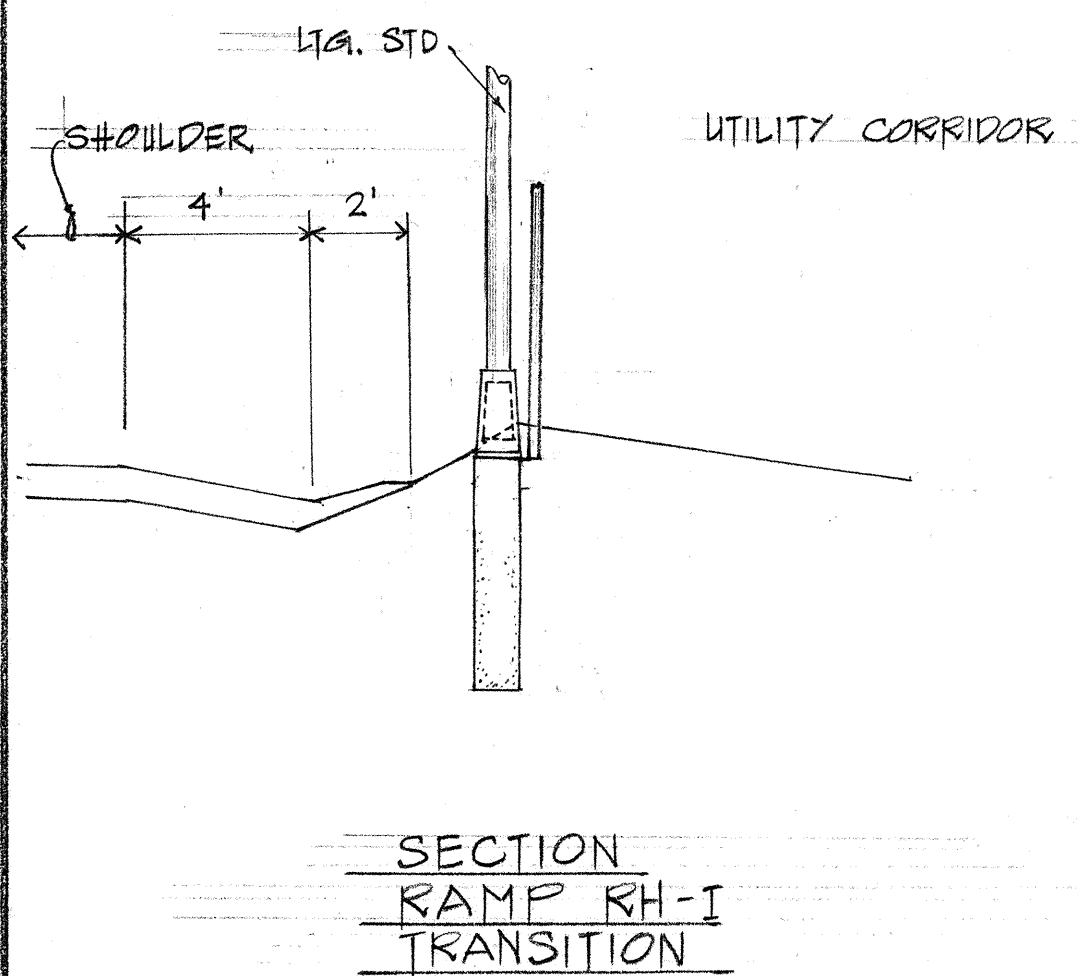
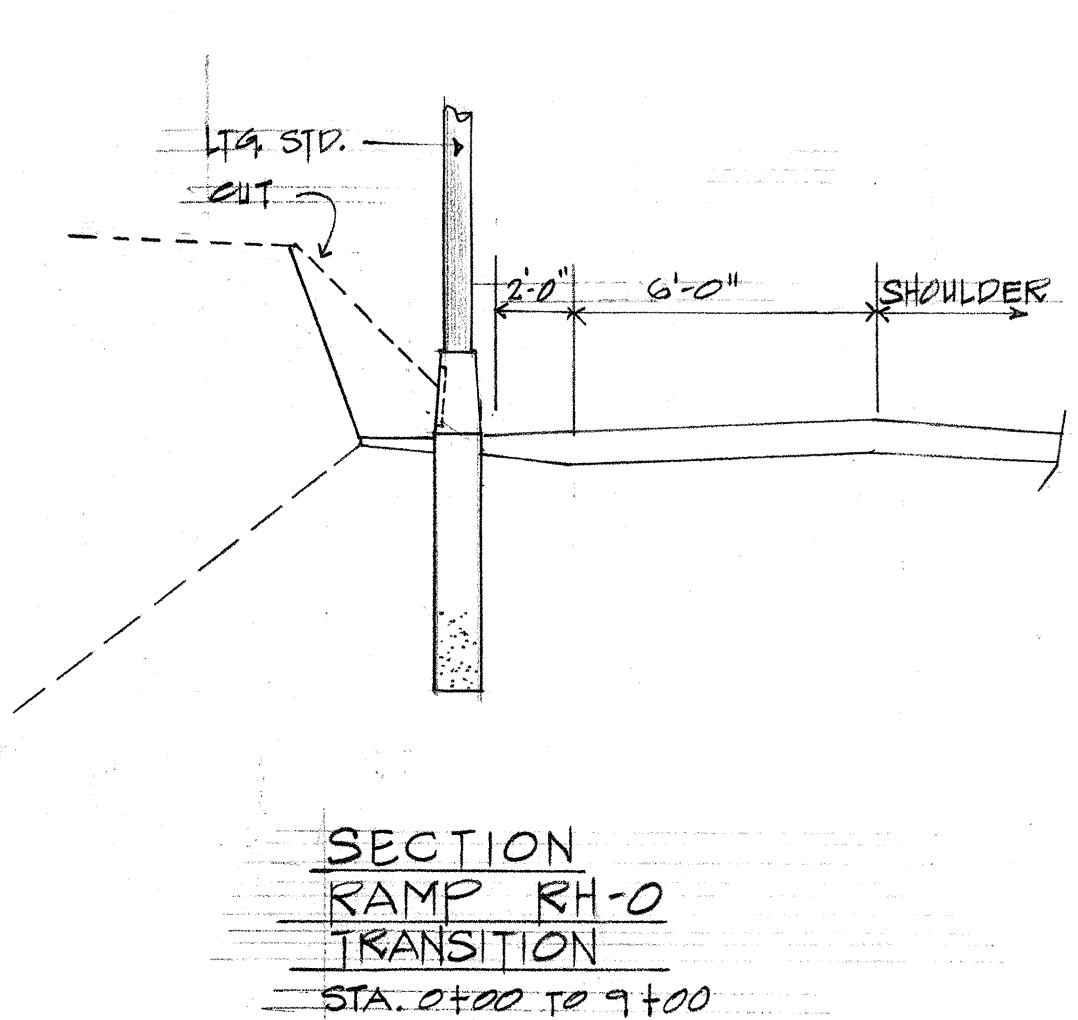
C LIGHT STANDARD AT
E-5 RAMP RH-1



D LIGHT STANDARD AT
E-5 SOUTH FRONTAGE



E LIGHT STANDARD AT
E-5 NORTH FRONTAGE

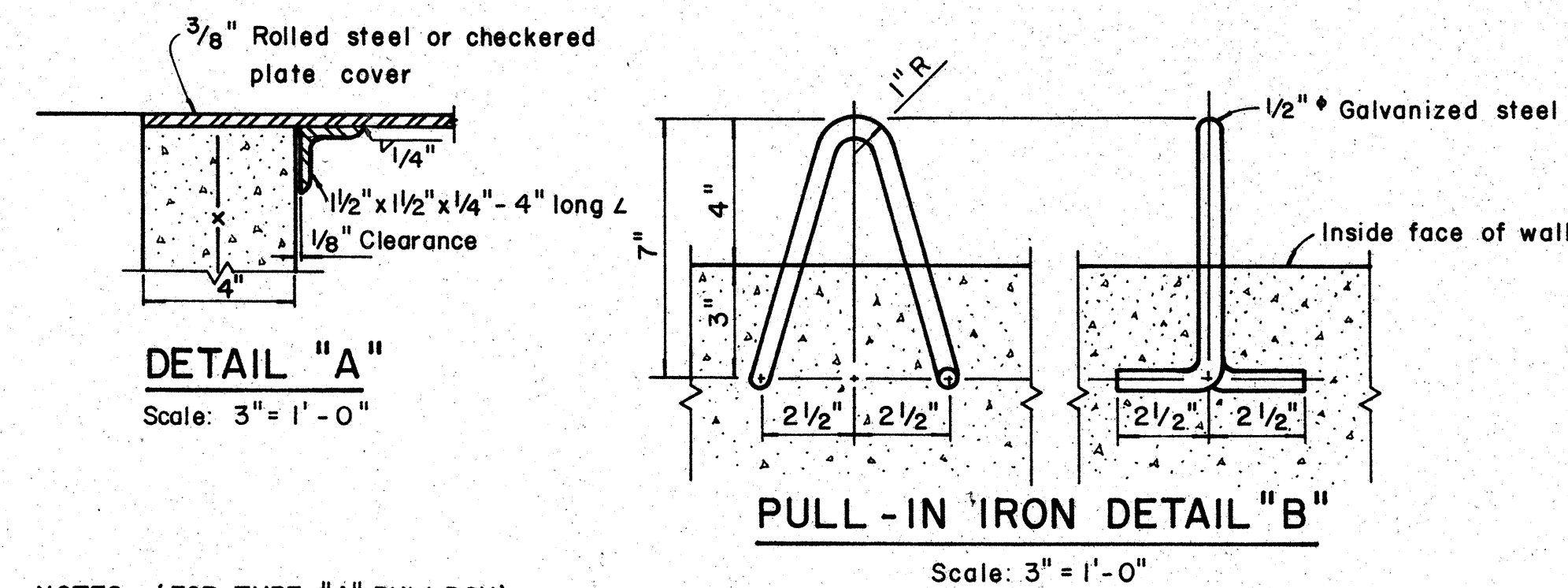
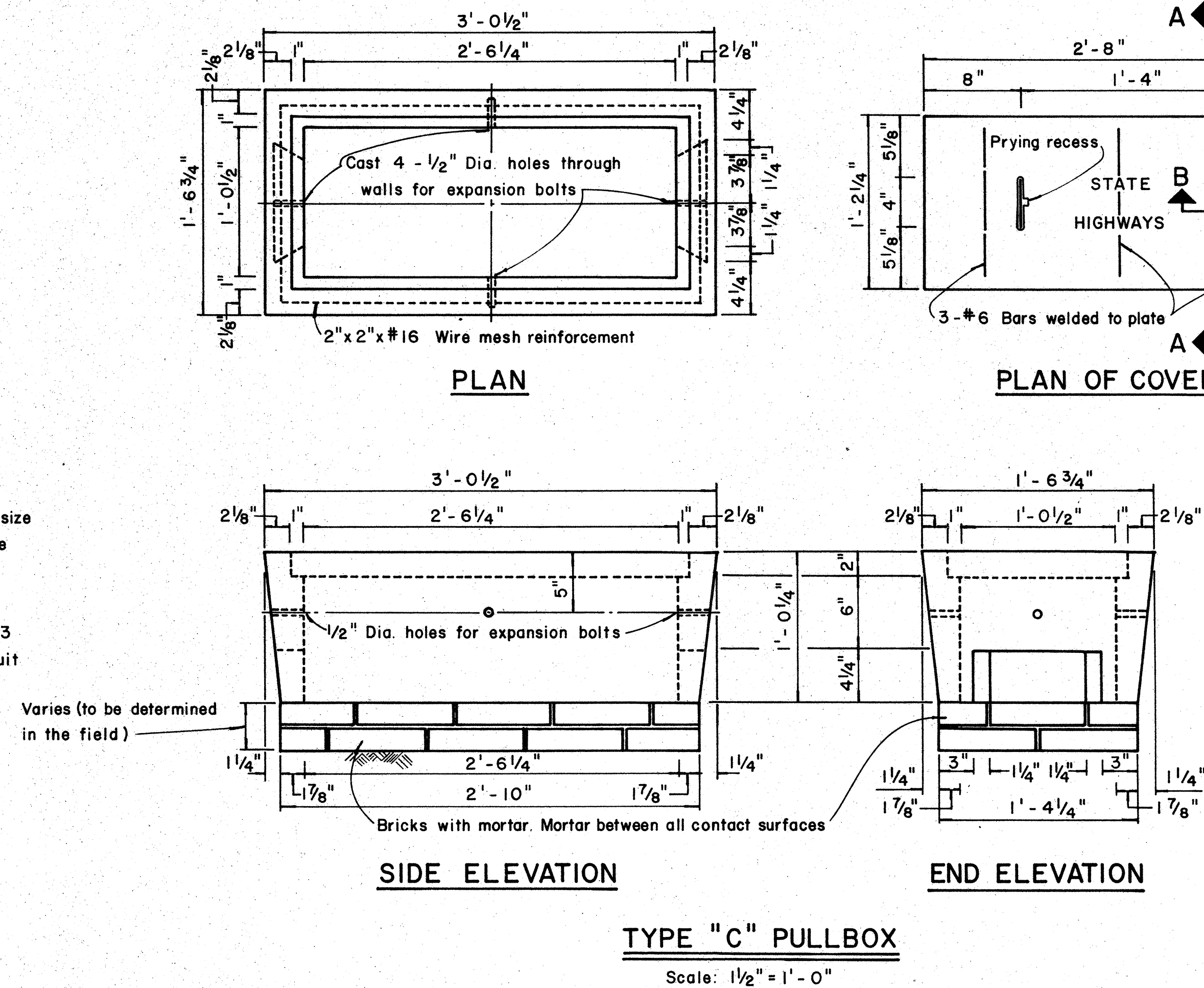
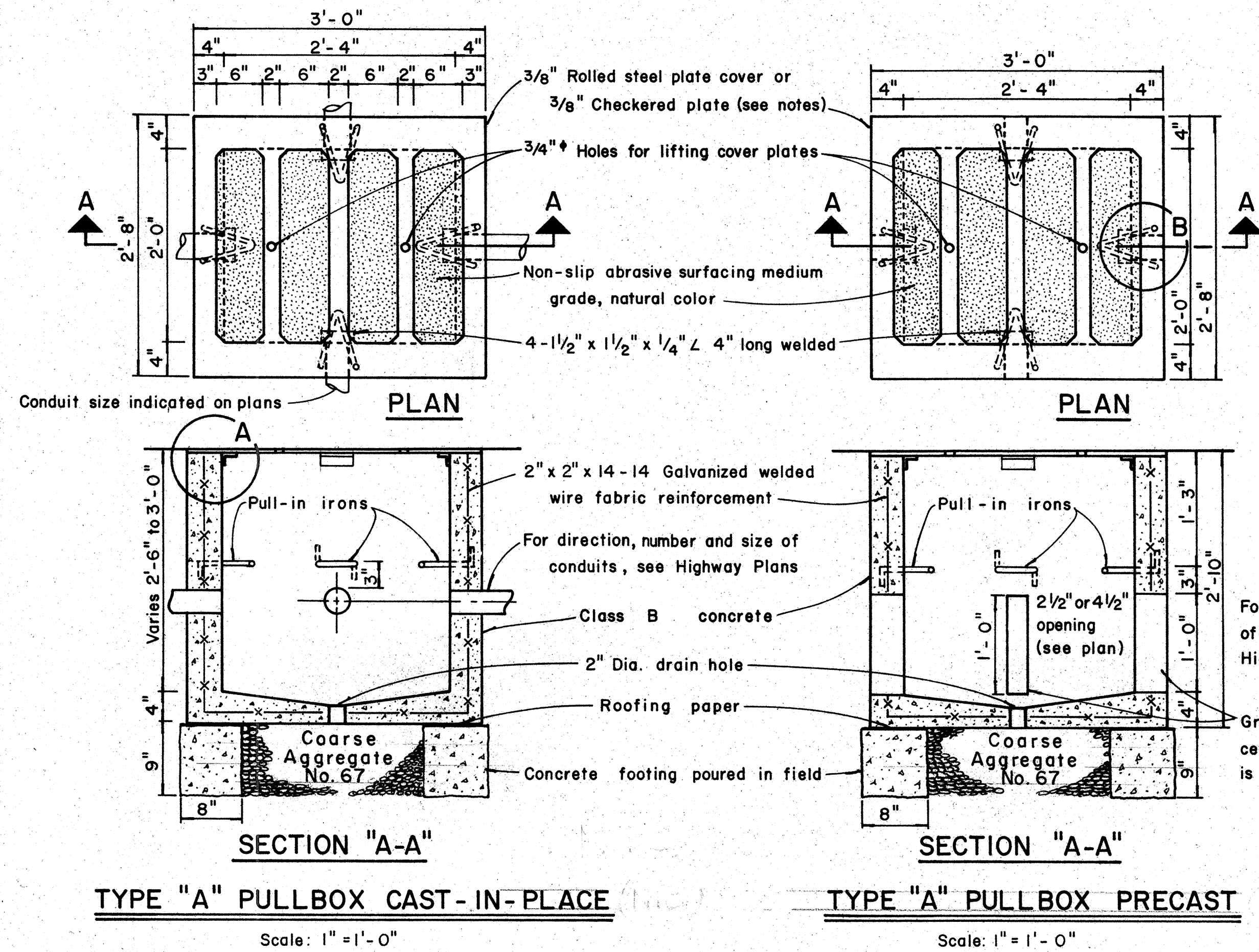


THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION
Wynn M. Nakamura

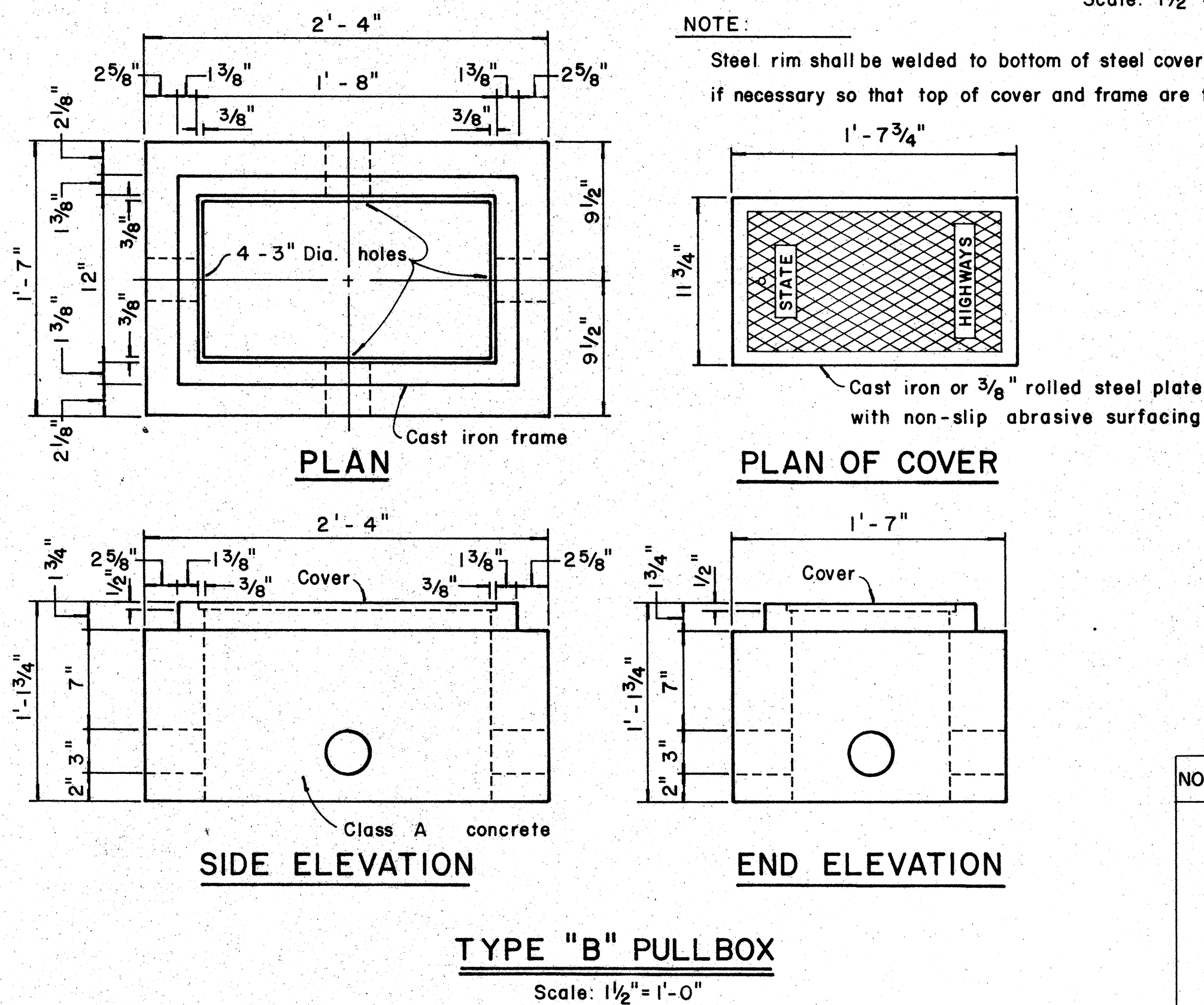
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STREET LIGHTING
MOUNTING DETAILS
MOANALUA ROAD
FAP. PROJ. NO. F-078-1(11)
SC. 4"=1'-0"

SHEET No. E-5 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	P-078-100	1969	161	258



- NOTES: (FOR TYPE "A" PULLBOX)
- 3/8" Rolled steel plate cover with non-slip abrasive surfacing medium grade, natural color shall be used on all pullboxes located on sidewalk areas where pedestrians are walking.
 - 3/8" Checkered plate cover shall be used on all pullboxes located in median areas and other locations where there are no pedestrians walking.
 - Pull irons shall be placed opposite each conduit slot.
 - Covers on all pullboxes located in sidewalk areas shall be set flush with the concrete sidewalk.
 - Each pullbox shall have a pair of pull irons opposite each other for lifting purposes.



APPROVAL RECOMMENDED:
Evelyn Tanaka
TRAFFIC ENGINEER
12/29/69
DATE

APPROVED:
[Signature]
ASSISTANT CHIEF, ENGINEERING
12-30-69
DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

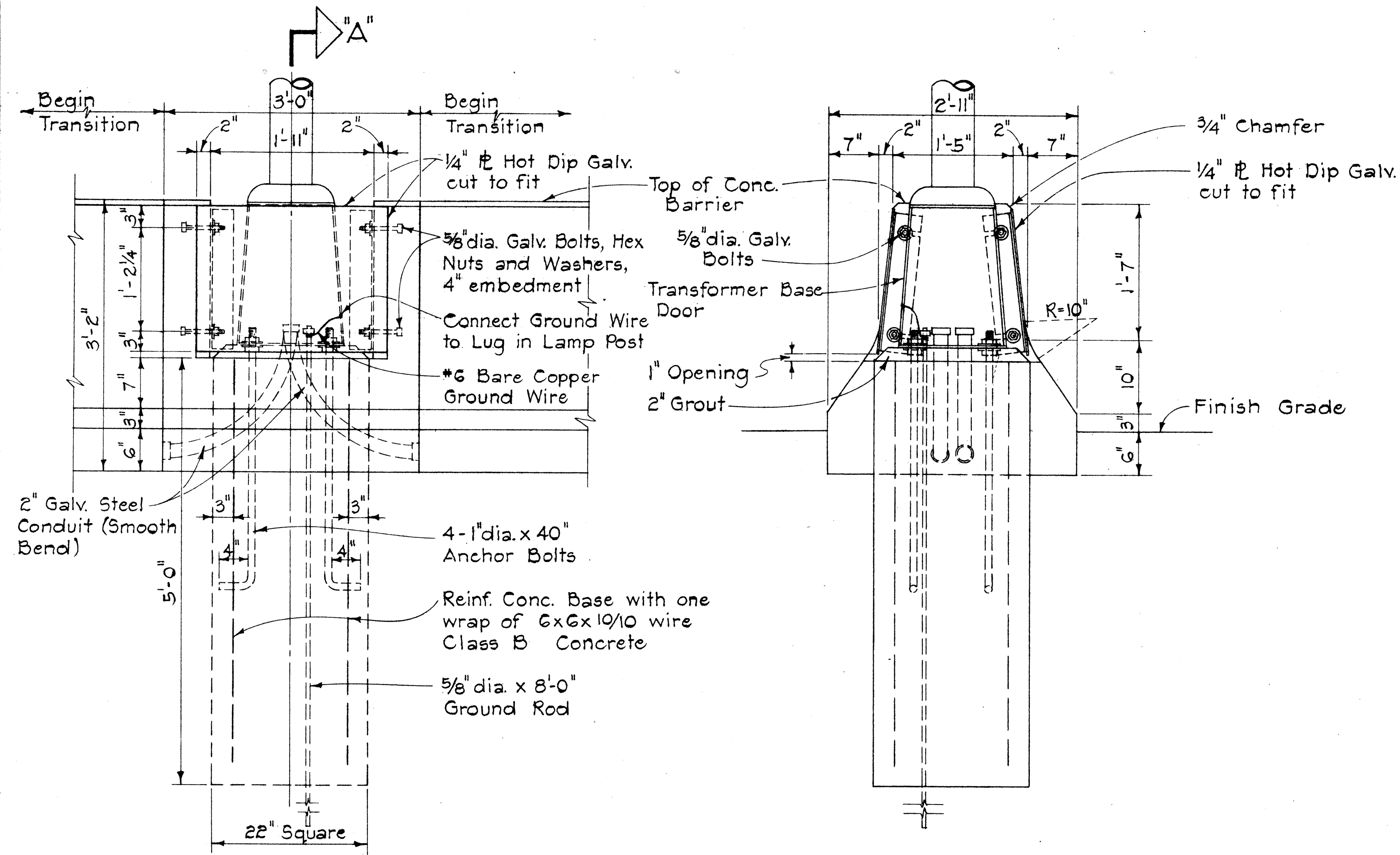
STANDARD DETAILS
PULLBOXES

HIGHWAY LIGHTING SYSTEM
MOANALUA ROAD

FAP PROJ. NO. P-078-1 (11)
Scale as noted

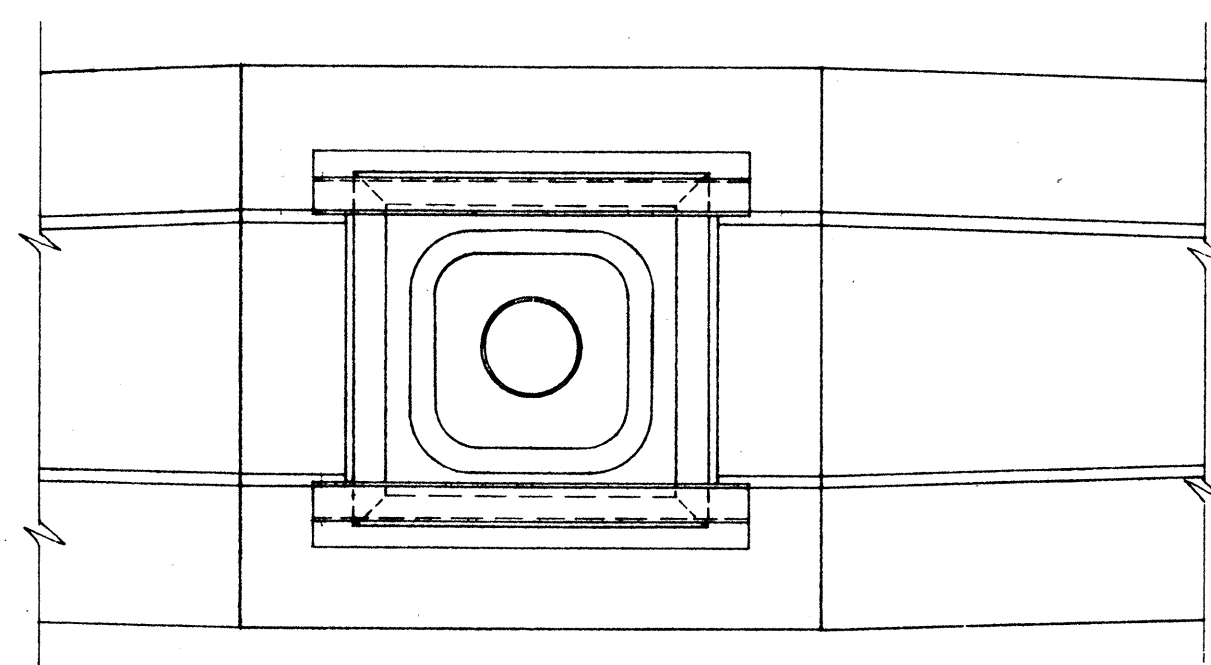
SHEET No. E-6 OF 7 SHEETS DT 401

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(11)	1969	162	258

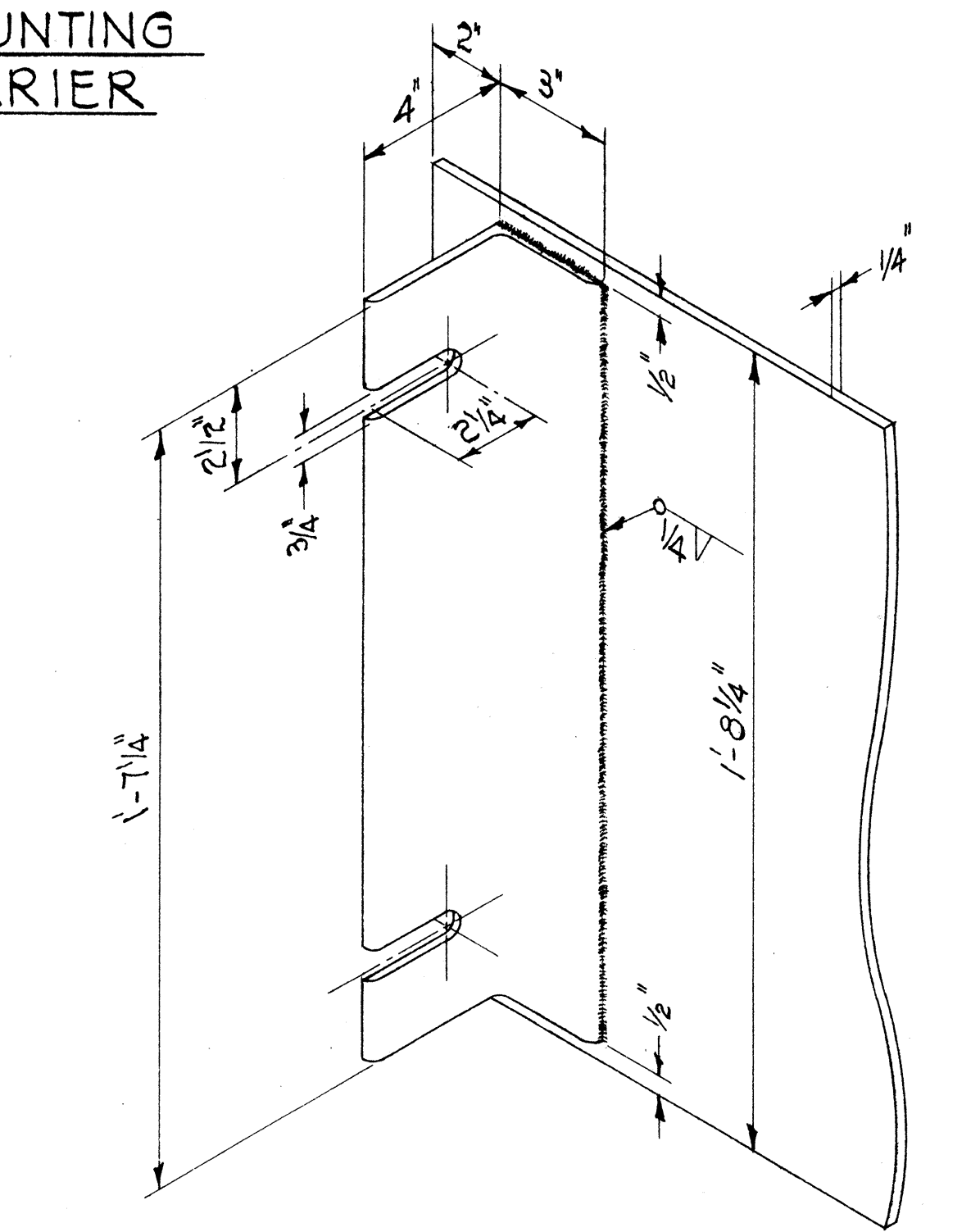


ELEVATION

HIGHWAY LIGHTING STANDARD MOUNTING
DETAIL ON TYPE "A" CONCRETE BARRIER
Scale: 1" = 1'-0"

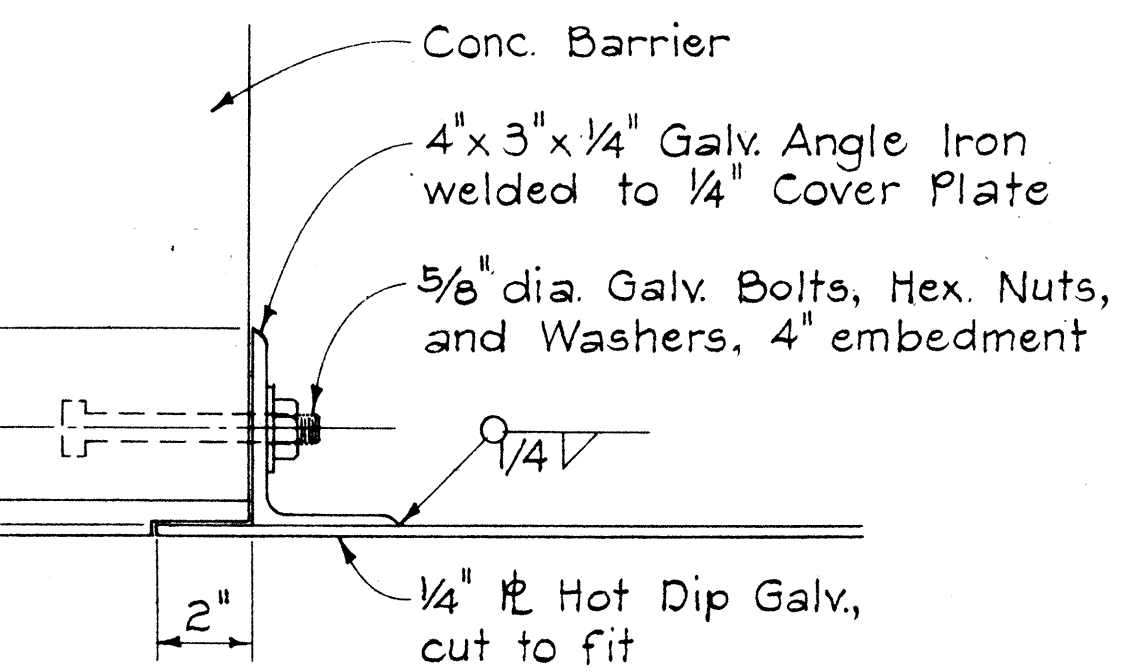


TYPICAL PLAN
Scale: 1" = 1'-0"



ANGLE IRON - COVER PLATE DETAIL
Scale: 3" = 1'-0"

HIGHWAY LIGHTING STANDARD MOUNTING
DETAIL ON TYPE "B" CONCRETE BARRIER
Scale: 1" = 1'-0"



COVER PLATE ANCHOR DETAIL
Scale: 3" = 1'-0"

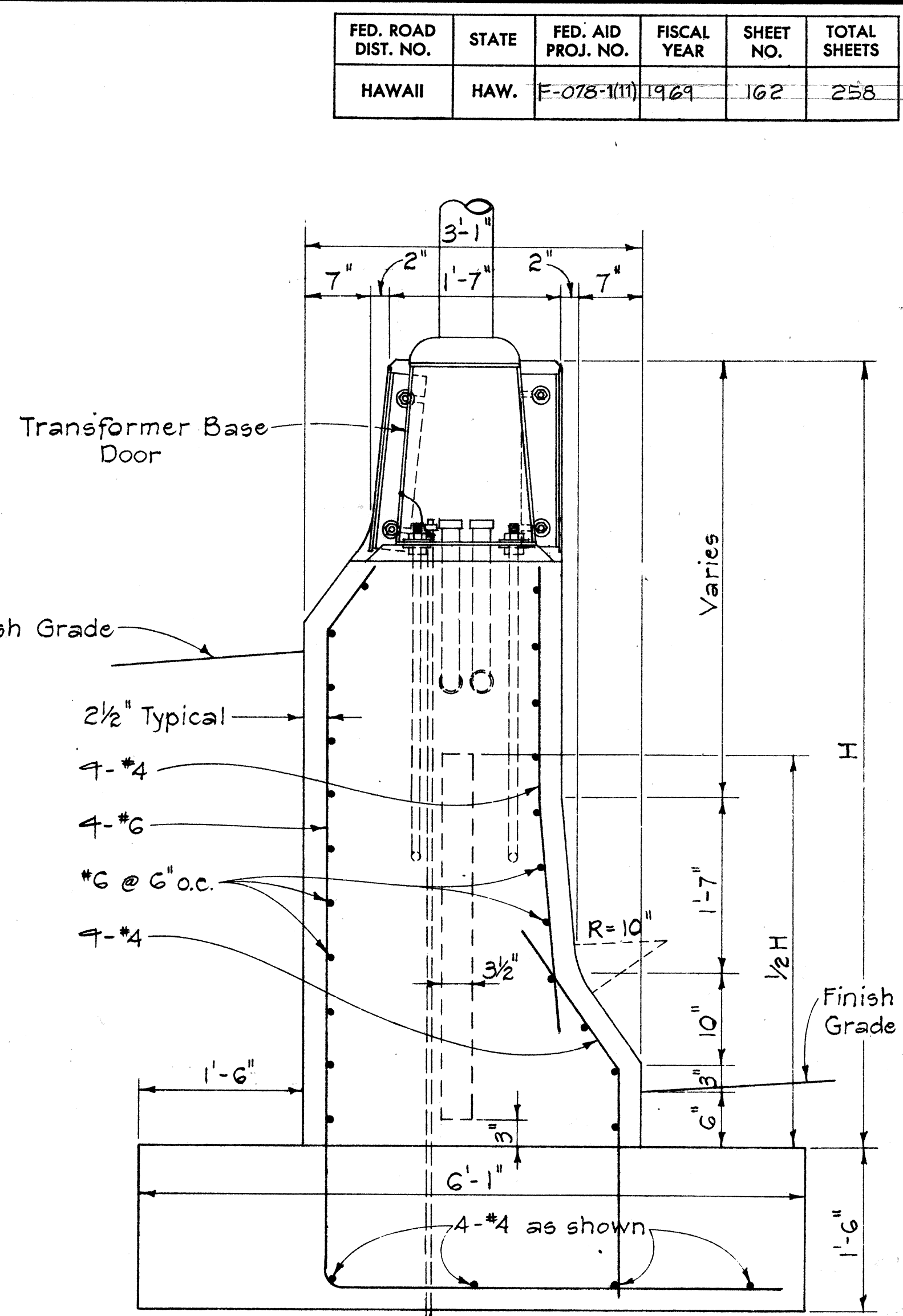
NOTES:

- Constructing conc. barrier foundation for Hwy. Lighting Standards shall consist of all work and materials necessary for constructing the 3'-0" concrete barrier section as shown on the plans. The work shall include furnishing and installing cover plate, angle iron, nuts and bolts and all other appurtenances, and labor including galvanizing, as shown and necessary to complete the work.

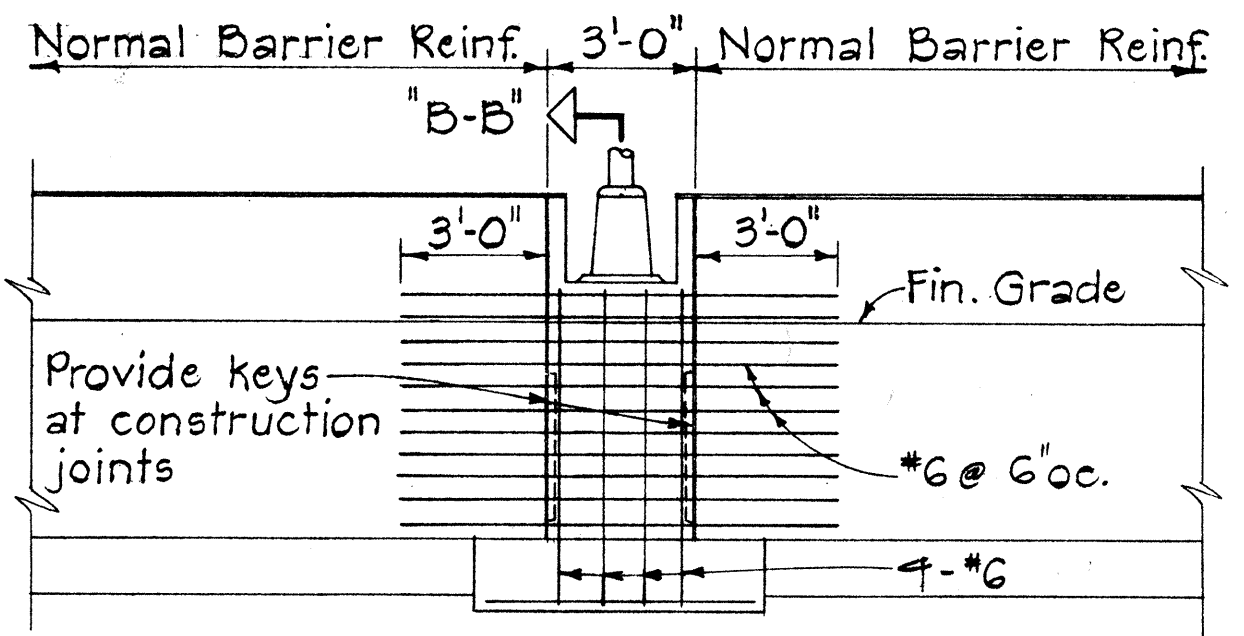
APPROVAL RECOMMENDED:
E. Tanaka
TRAFFIC ENGINEER 12/29/69
DATE

APPROVED:
W. J. Smith
ASSISTANT CHIEF, ENGINEERING 12-30-69
DATE

NO.	REVISION	APPROVED BY	DATE



SECTION "B-B"
Scale: 1" = 1'-0"



ELEVATION
Scale: 1/4" = 1'-0"

HIGHWAY LIGHTING STANDARD MOUNTING
DETAIL ON TYPE "C & D" CONC. BARRIER

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAIL
HIGHWAY LIGHTING
STANDARD MOUNTING
DET. ON CONG. BARRIER

Scale: As Shown Date: April 1969

SHEET No. E-7 OF 7 SHEETS DT 513