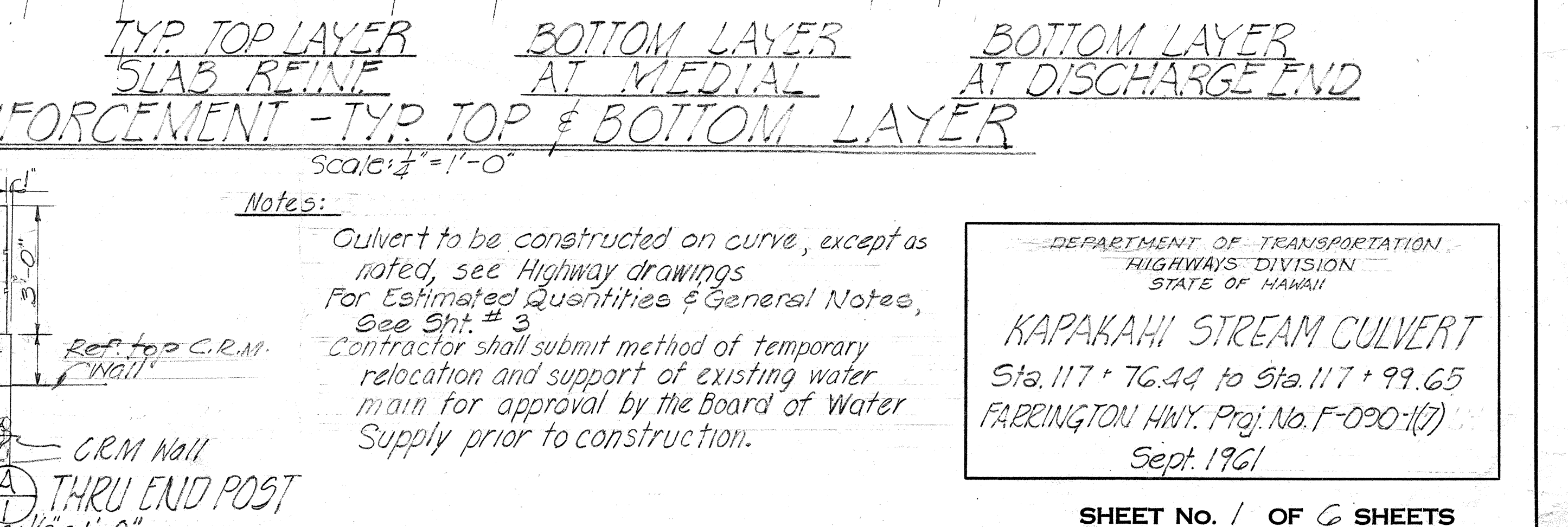
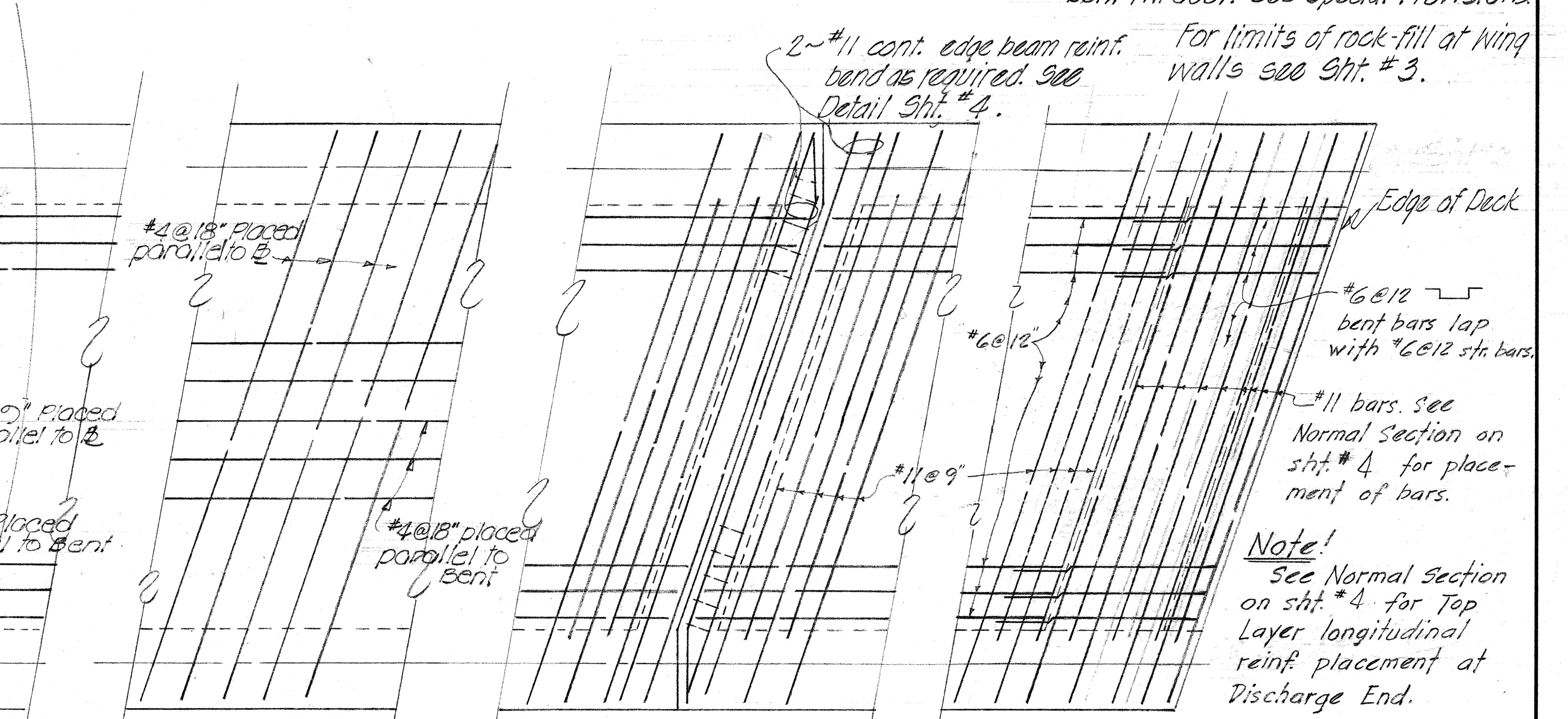
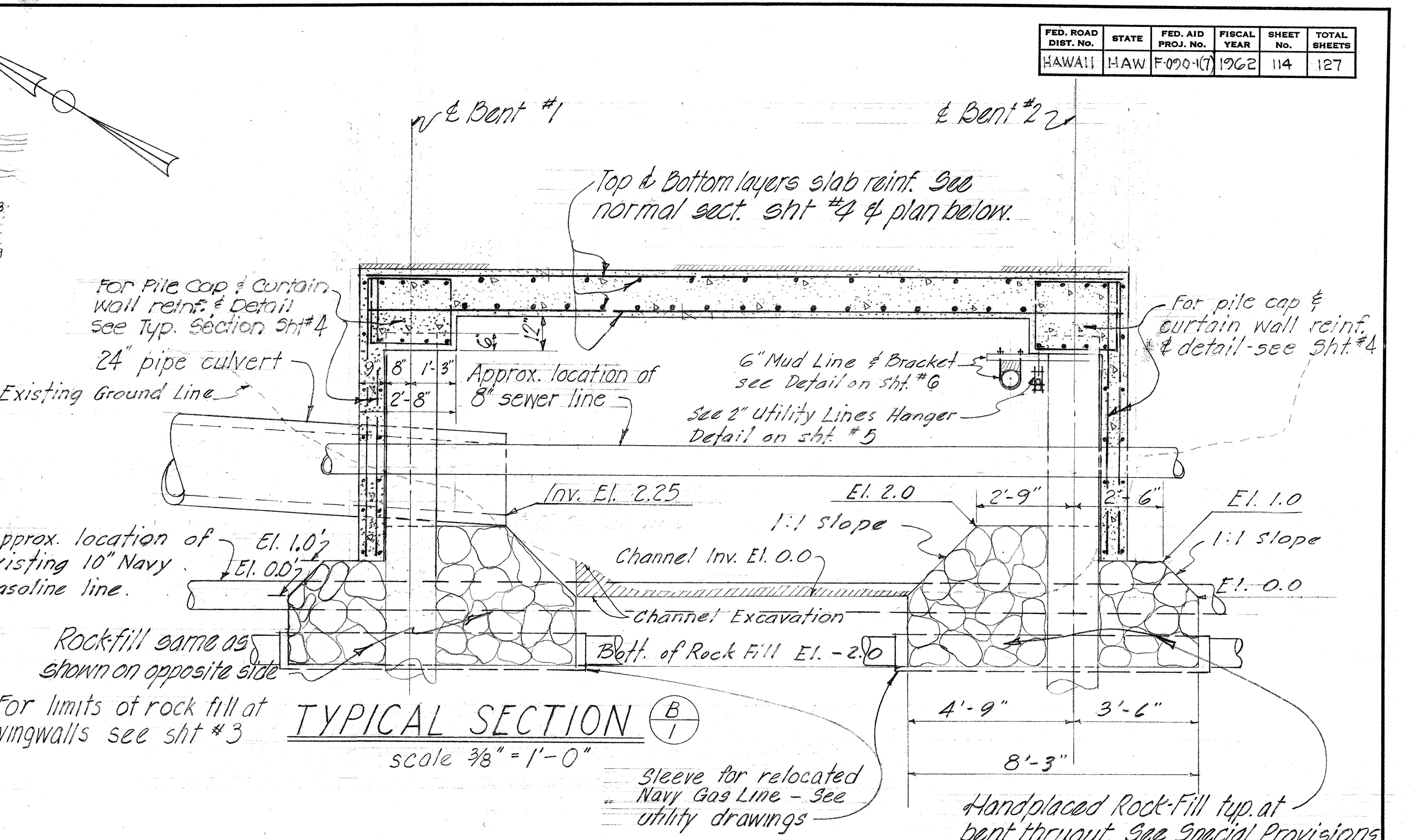
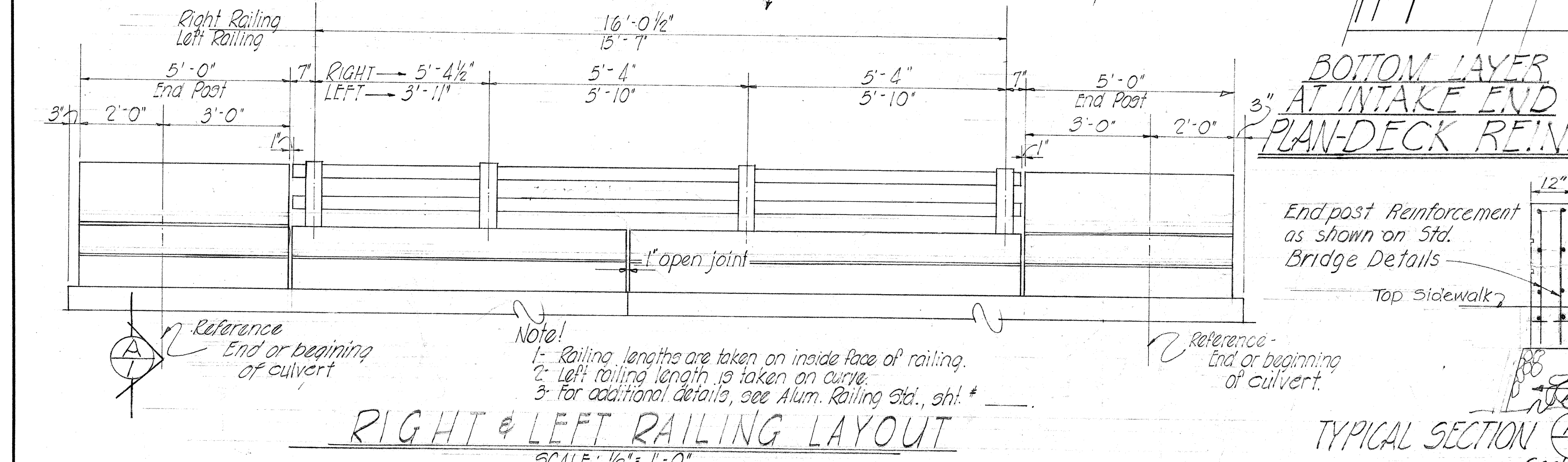
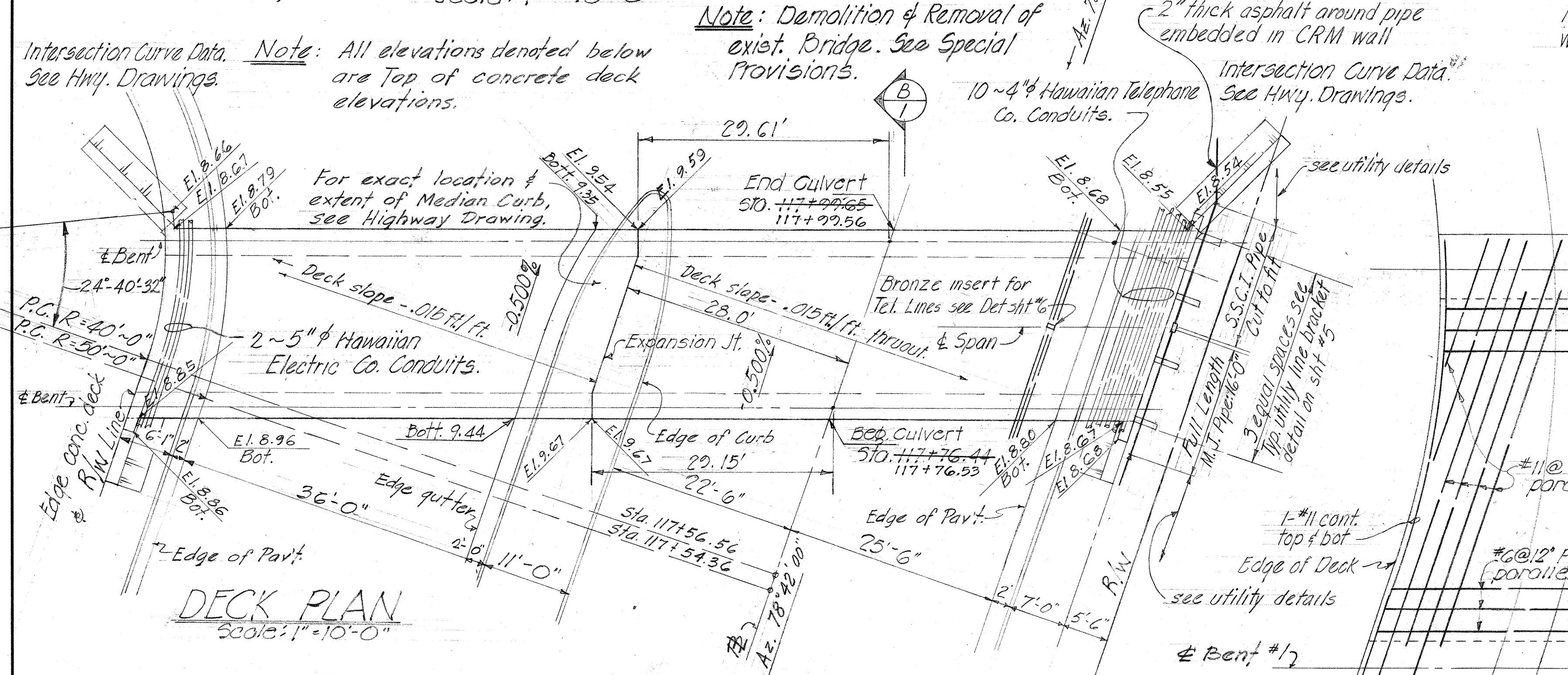
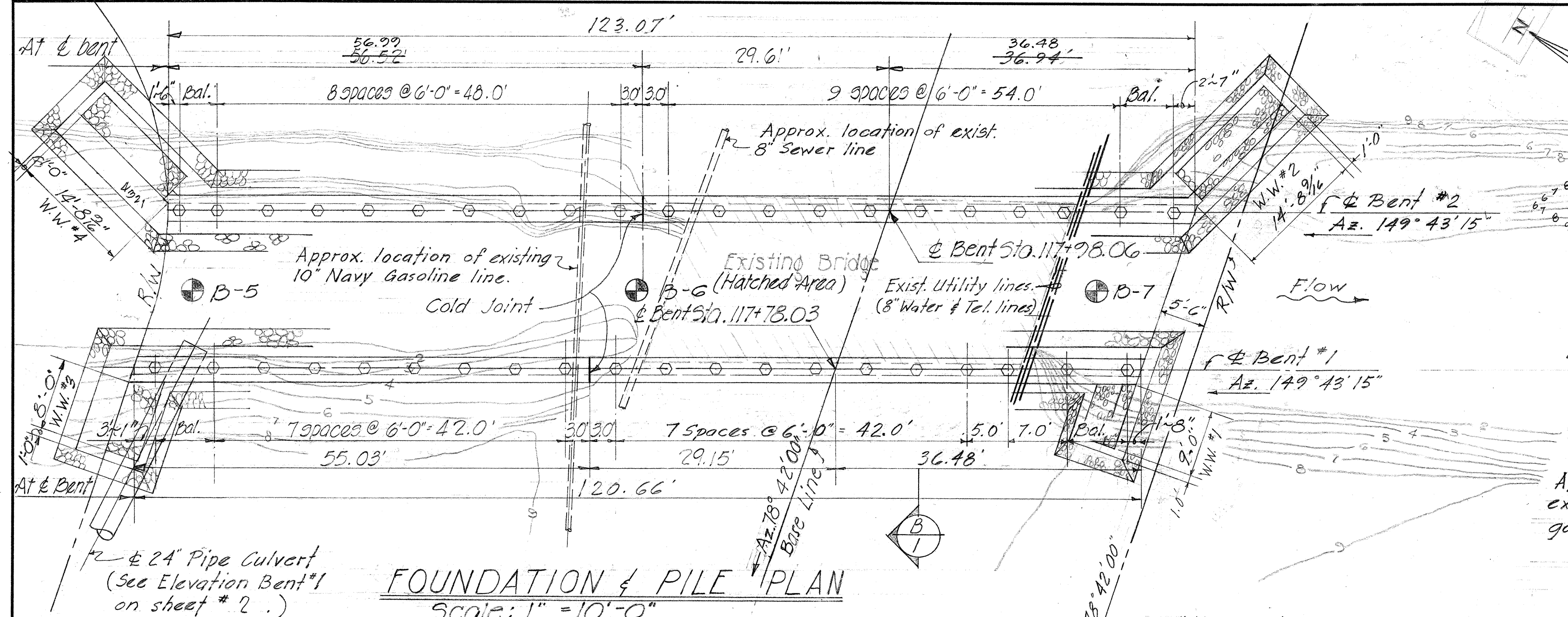




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56.99' 56.52' 29.61' 36.48' 36.94'

Balance 12 spaces @ 8'-0" = 96'-0"

Expansion Joint

Utility Line hanger locations

R/W

See Typ. utility (Line Bracket Det. on sheet # 5)

Pile Cutoff El. 5.97

See Det. (A)

6" Mud Line

2-2" utility lines Mud Line Bracket Locations

Reference Bottom of slab line

Traffic Lite Detcat. Cable in 2" conduit

Pile cutoff El. 6.83

Ref. Top pile cutoff line -1.58 % slope

Pile cutoff El. 7.68

Ref. Top pile cutoff line -1.58 % slope

Elevation 9.59

Elevation 9.54

Pile cutoff El. 7.50

Reference- Top pile cutoff line El. 9.35

-1.25 % slope

Pile cutoff El. 6.85

Exist. ground line

12 spaces @ 8'-0" = 96'-0"

8" sewer line see reinf. details below

Pile Tip El. -52.0 min. thruout

9 spaces @ 6'-0" = 54'-0"

3'-0" 3'-0"

8 spaces @ 6'-0" = 48'-0"

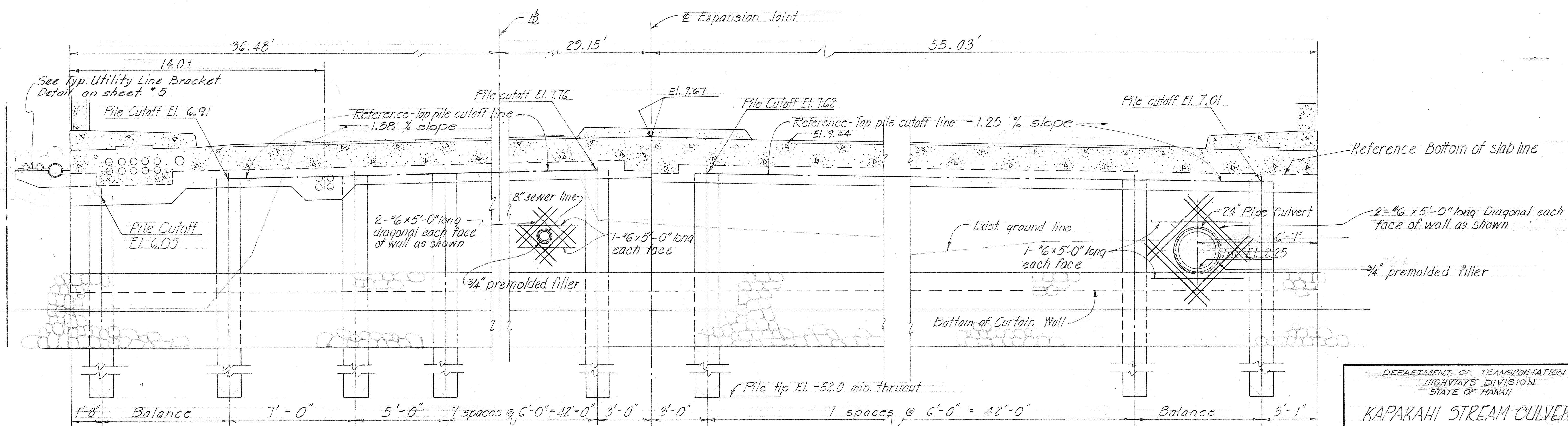
1'-6" Balance

2'-7" Balance

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F-090-H(7)	1962	115	127

Note:
Base length of piles to be 63'-0"

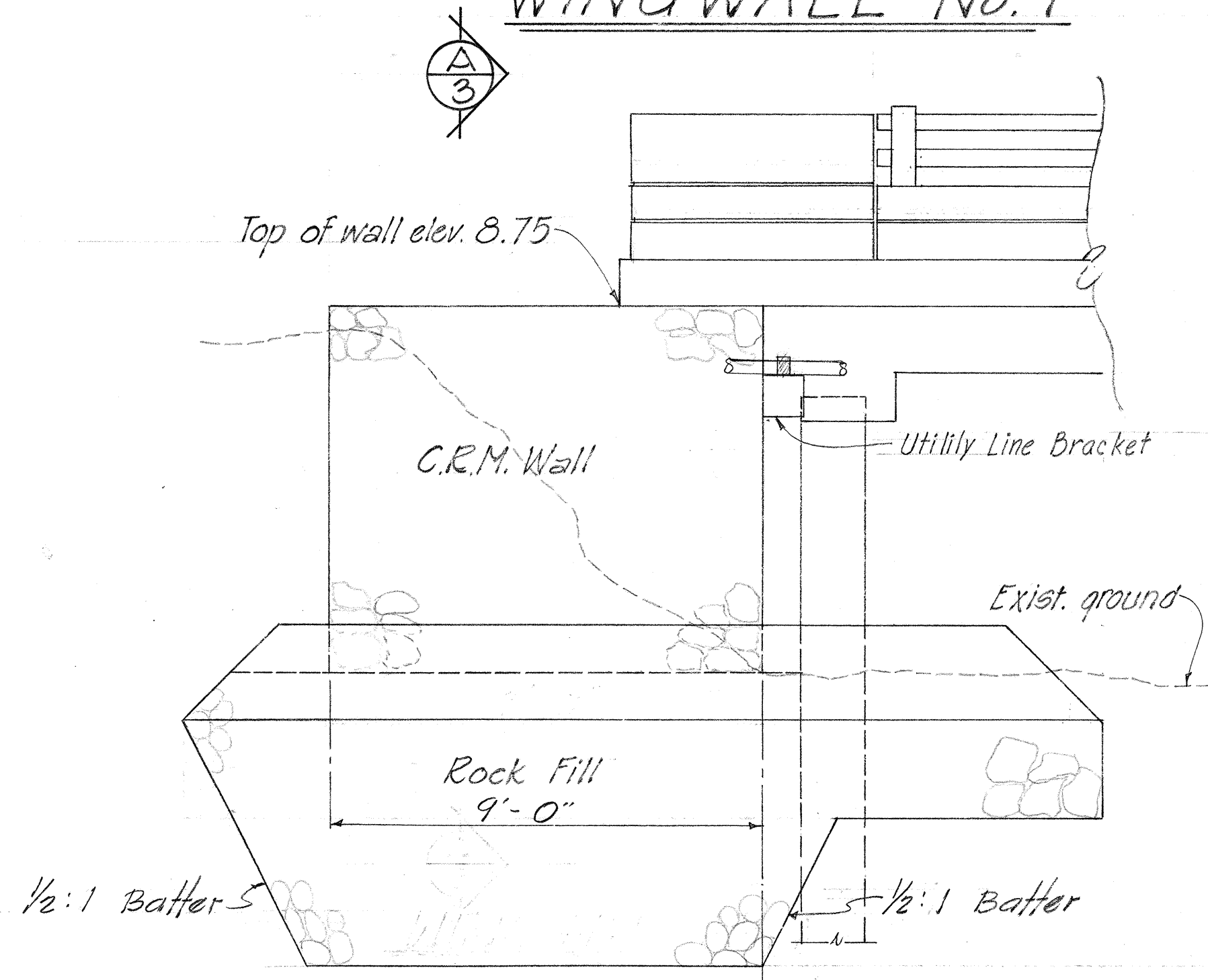
Scale: $\frac{3}{8}" = 1' - 0"$



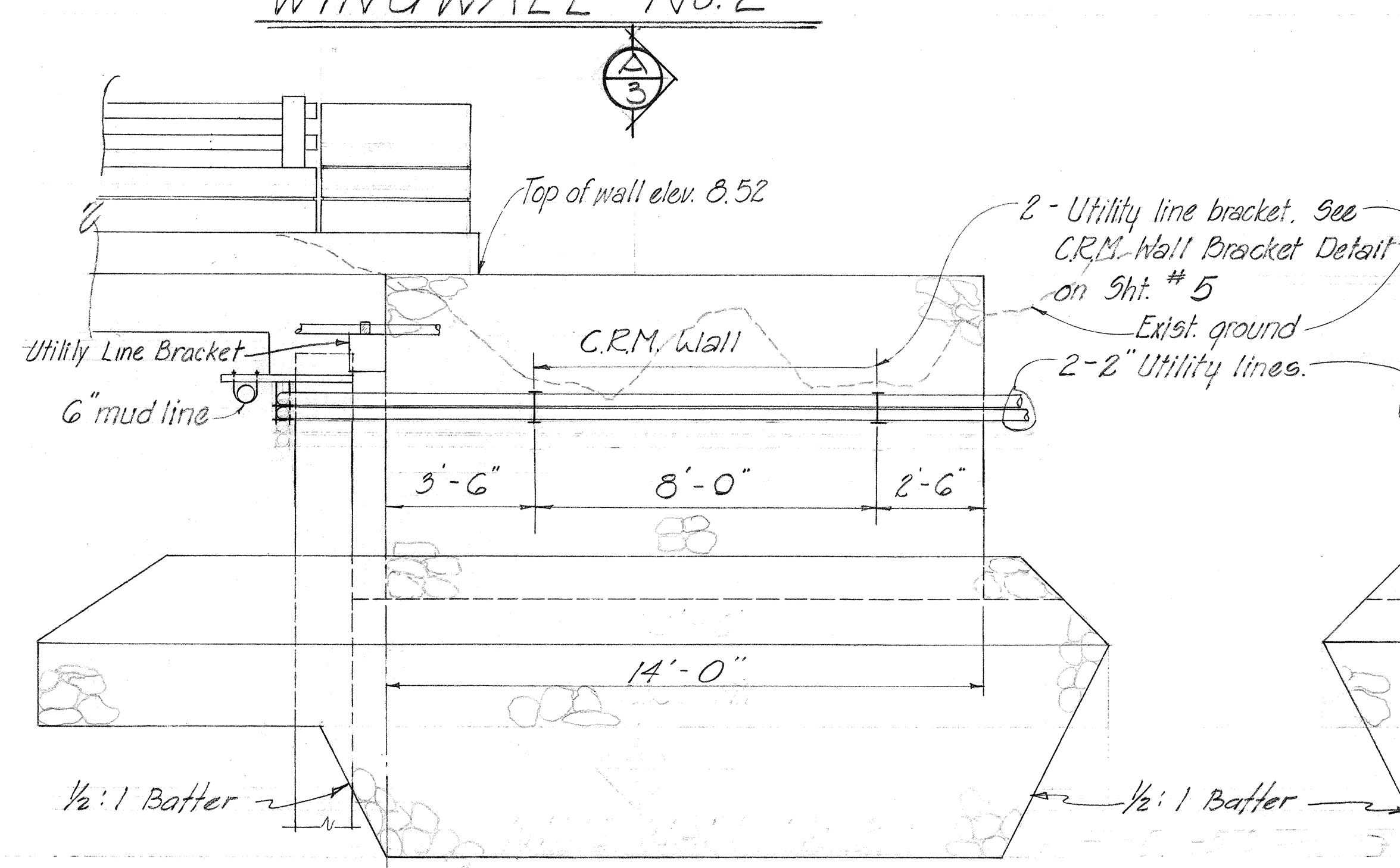
Scale: $\frac{3}{8}" = 1' - 0"$

SHEET No. 2 OF 6 SHEETS

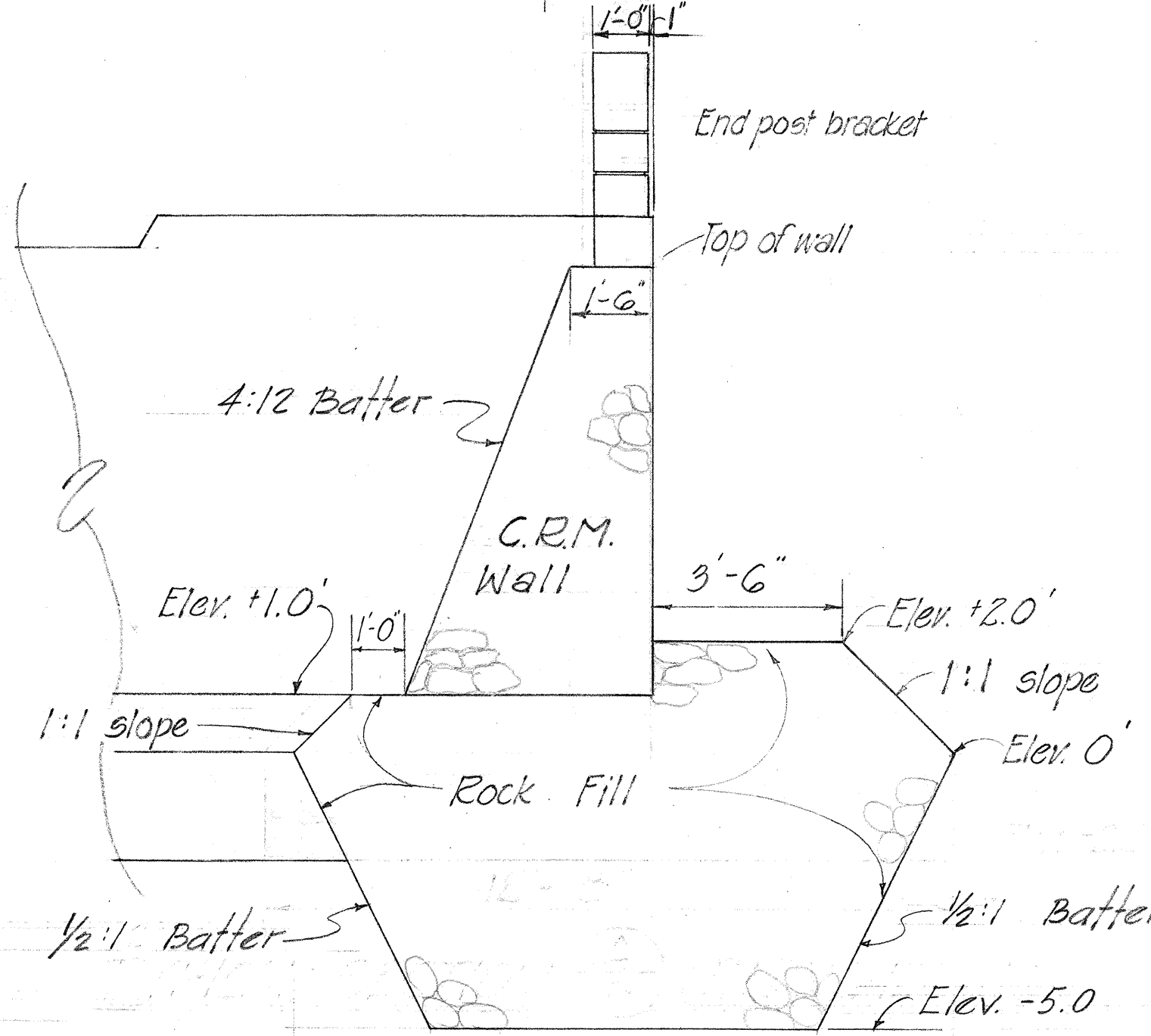
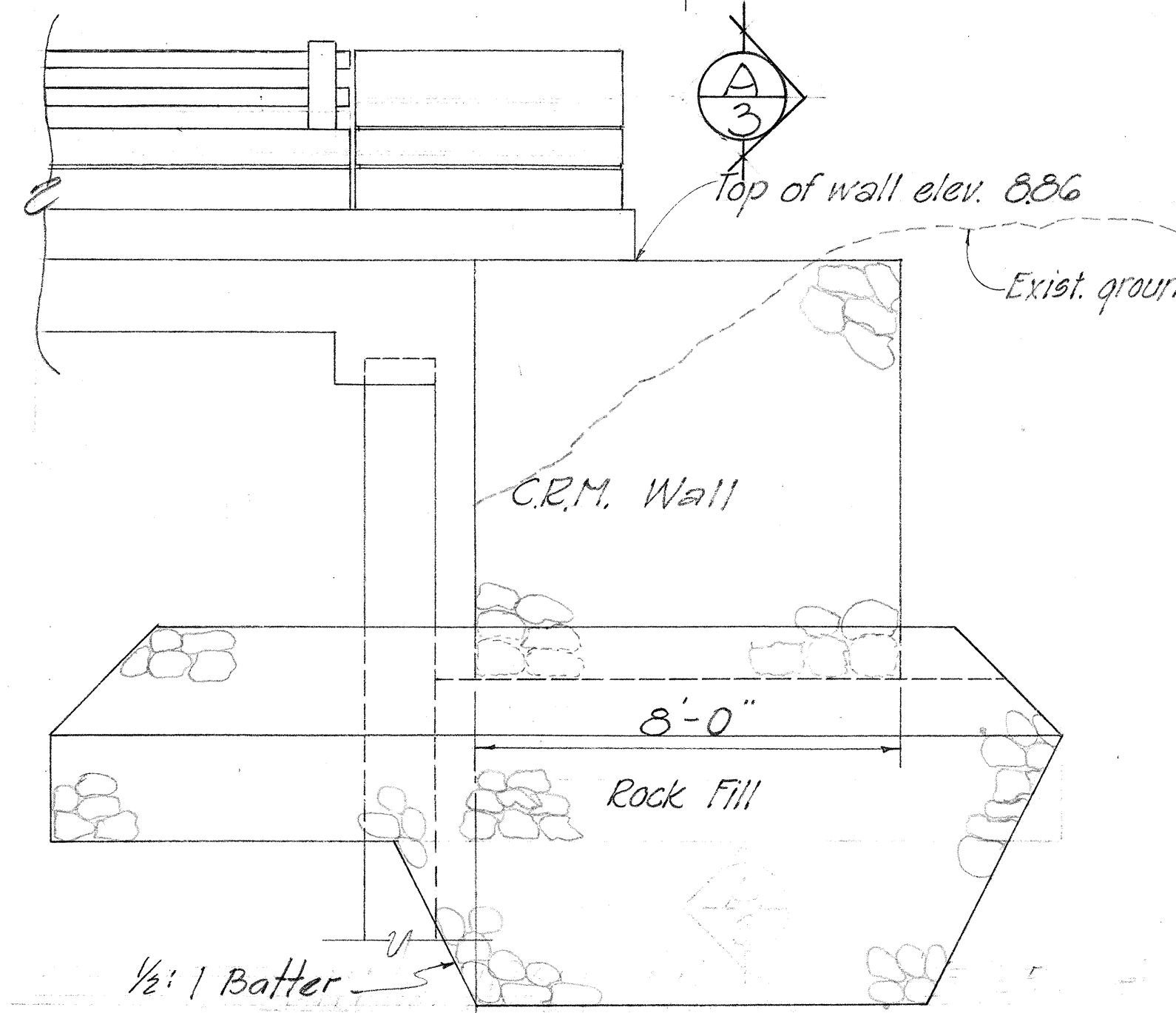
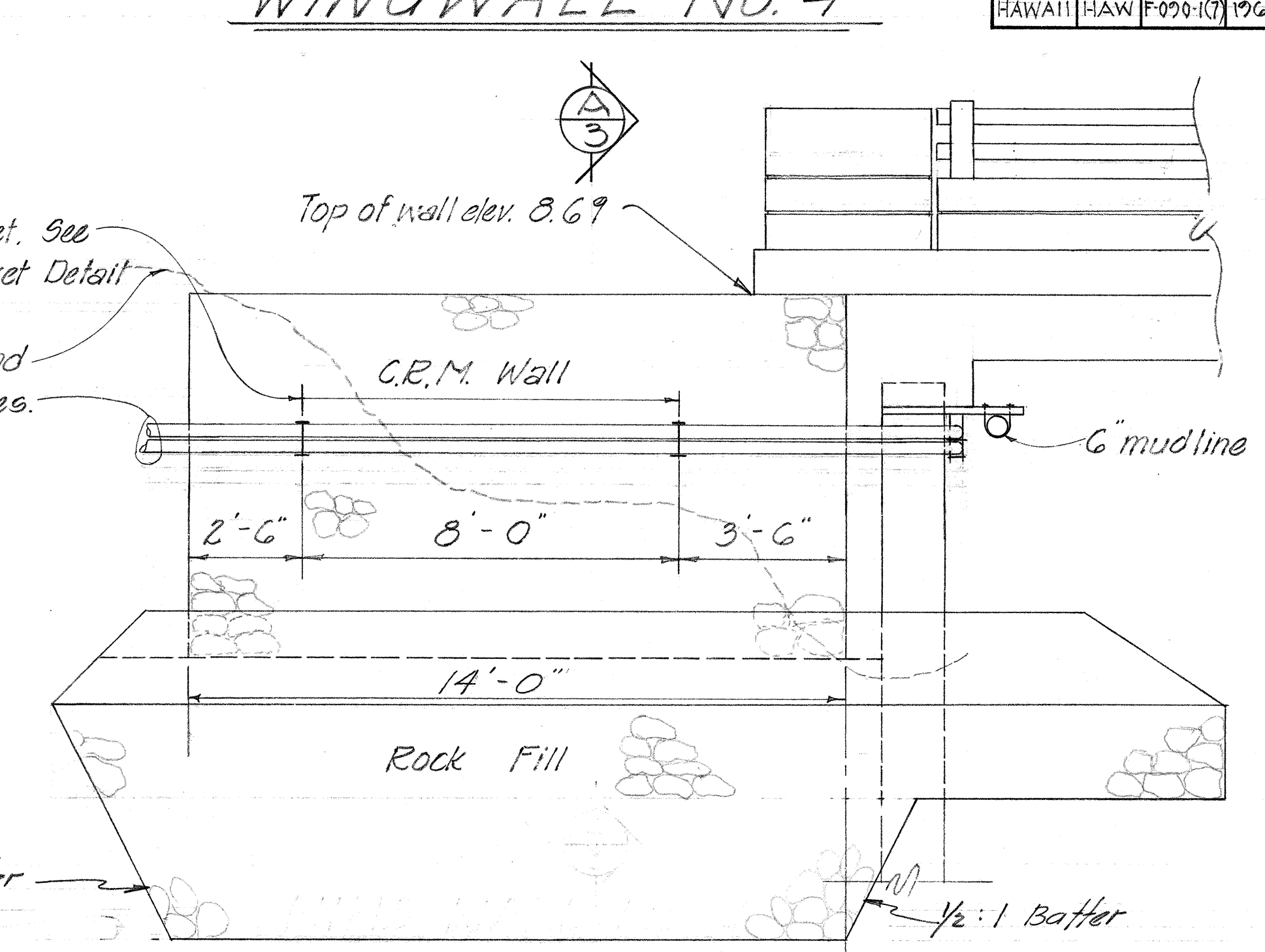
WINGWALL No. 1



WINGWALL No. 2



WINGWALL No. 4



Design Data:
Loading: H 20 - S16 - 44
Allowable Stress:
Cast in place conc.
fs = 20,000 psi
fc = 4,200 psi
n = 10

GENERAL NOTES

Specifications : AASHTO
Standard Specifications for Highway Bridges (7th Edition) with
Subsequent additions and modifications.

Materials :
All concrete Class A-1, except concrete for Prestressed Concrete
Piles, See Special Provisions.
Admixture shall be added to all concrete, See Special Provisions.
All Structural Steel Rolled Sections, Bars, Plates, Rods, Nuts, Bolts
and Washers, except as otherwise noted, shall be Structural Carbon Steel
A.S.T.M. Designation A-7 hot dipped galvanized.
Hand placed Rock Fill - see Special Provisions. (Excavation at abutments for
Kapakahi Stream Culvert shall be incidental to hand placed rock fill
and will not be paid for separately.)

Construction Method :
Concrete piles shall have a maximum bearing of
32 tons.
All welding shall conform to the latest specifications for Welding
Highway and Repair, of the American Welding Society.
Curbs, sidewalks and railings on bridges shall not be poured
until after release of falsework.

General :
Details of Prestressed Concrete Piles same as shown for Waipahu
Stream Bridge, Sht. #4 of 5.
All Structural Steel Rolled Sections, Bars, Plates, Rods, Nuts, Bolts and
Washers, shall be incidental to concrete and will not be paid separately.
The contractor shall verify and expose exact locations of all existing under-
ground AVGAS, Sewer and all other utility lines before commencing
with pile driving.

Cover for reinforcing bars shall be as follows,
unless otherwise noted:
2" for formed walls.
1 1/2" for deck slab
2 1/2" to main reinforcement of beam
3" for footing

WINGWALL No. 3

TYPICAL SECTION (A/3) THRU WINGWALLS

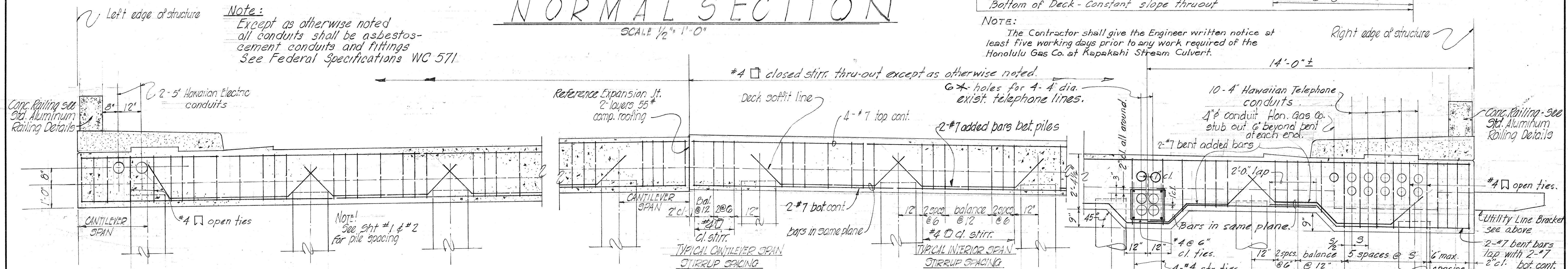
C.R.M. WINGWALL ELEVATIONS

Scale: 3/8" = 1'-0"

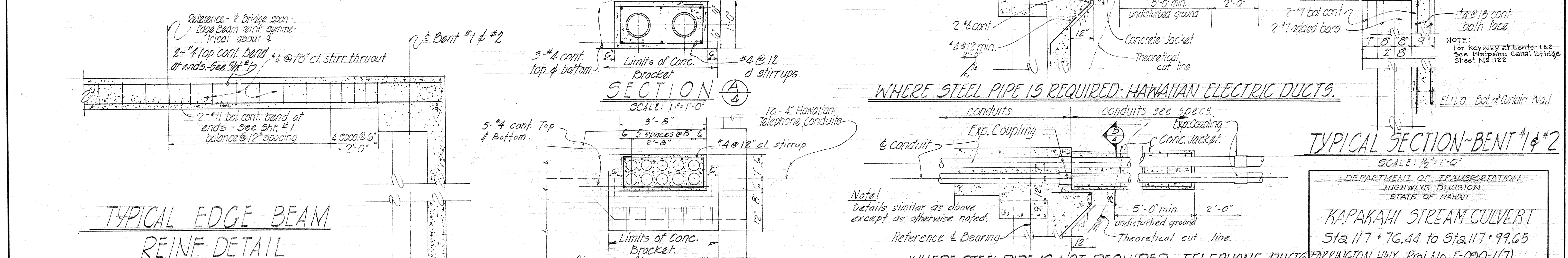
ESTIMATED QUANTITIES

Class A-1 Concrete	Lump Sum (227 c.y.)	Concrete Piles	2,583.0 lin. ft.
Reinforcing Steel	Lump Sum (33,362 lbs.)	Aluminum Railing	33.75 lin. ft.
Channel Excavation	21 c.y.	Concrete Railing & End Post	54.0 lin. ft.
Hand Placed Rock Fill	368 c.y.	Asphalt Concrete Pavement Mix	19.5 tons
C.R.M. Wall	29 c.y.	Bituminous Tack Coat	59 gals.

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SCALE: $\frac{1}{2}" = 1'-0"$



SCALE: $\frac{1}{2}" = 1'-0"$

SCALE: 1" = 1'-0"



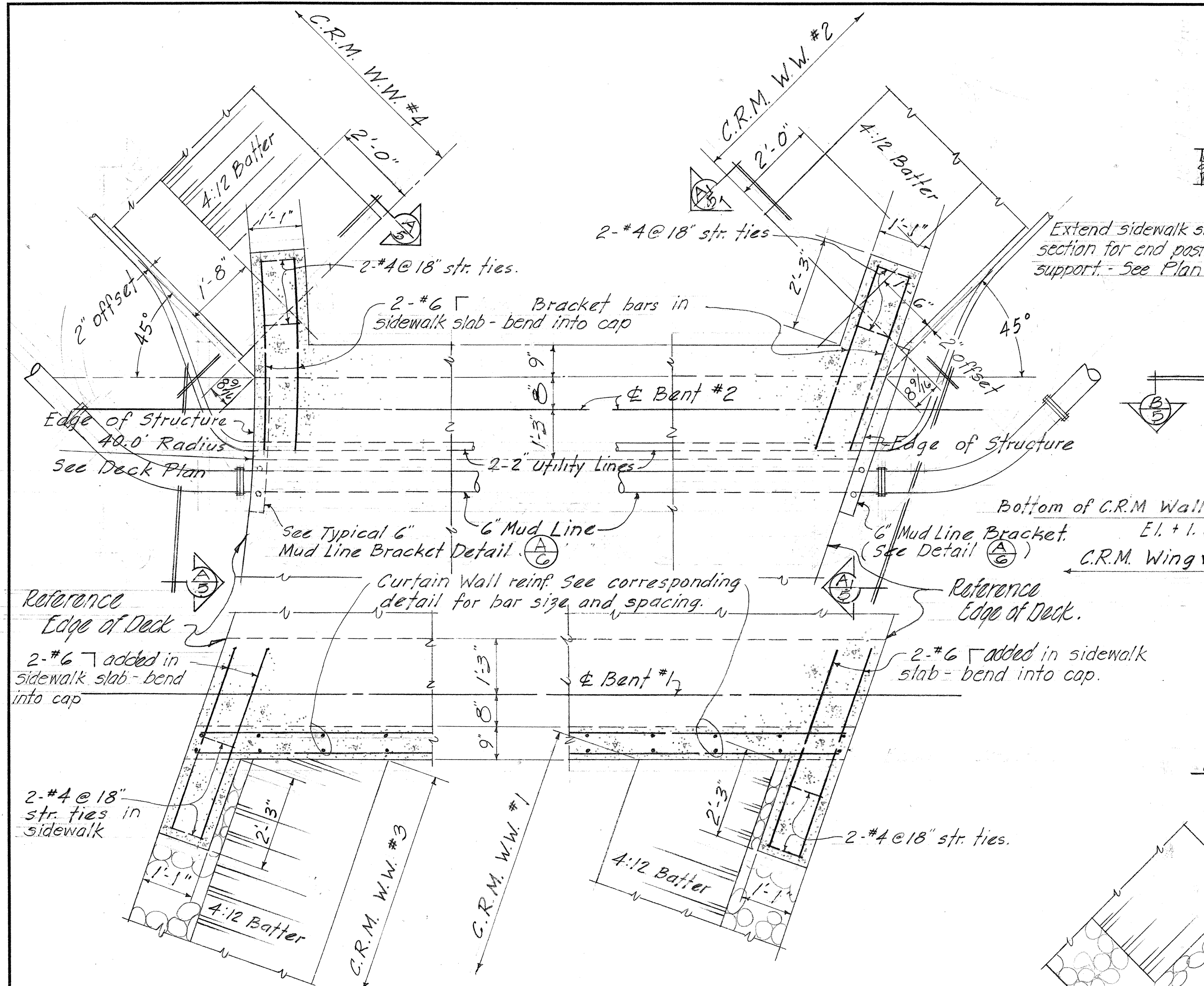
Scale: $\frac{1}{2}" = 1'-0"$

Note!
Details, similar as above
except as otherwise noted

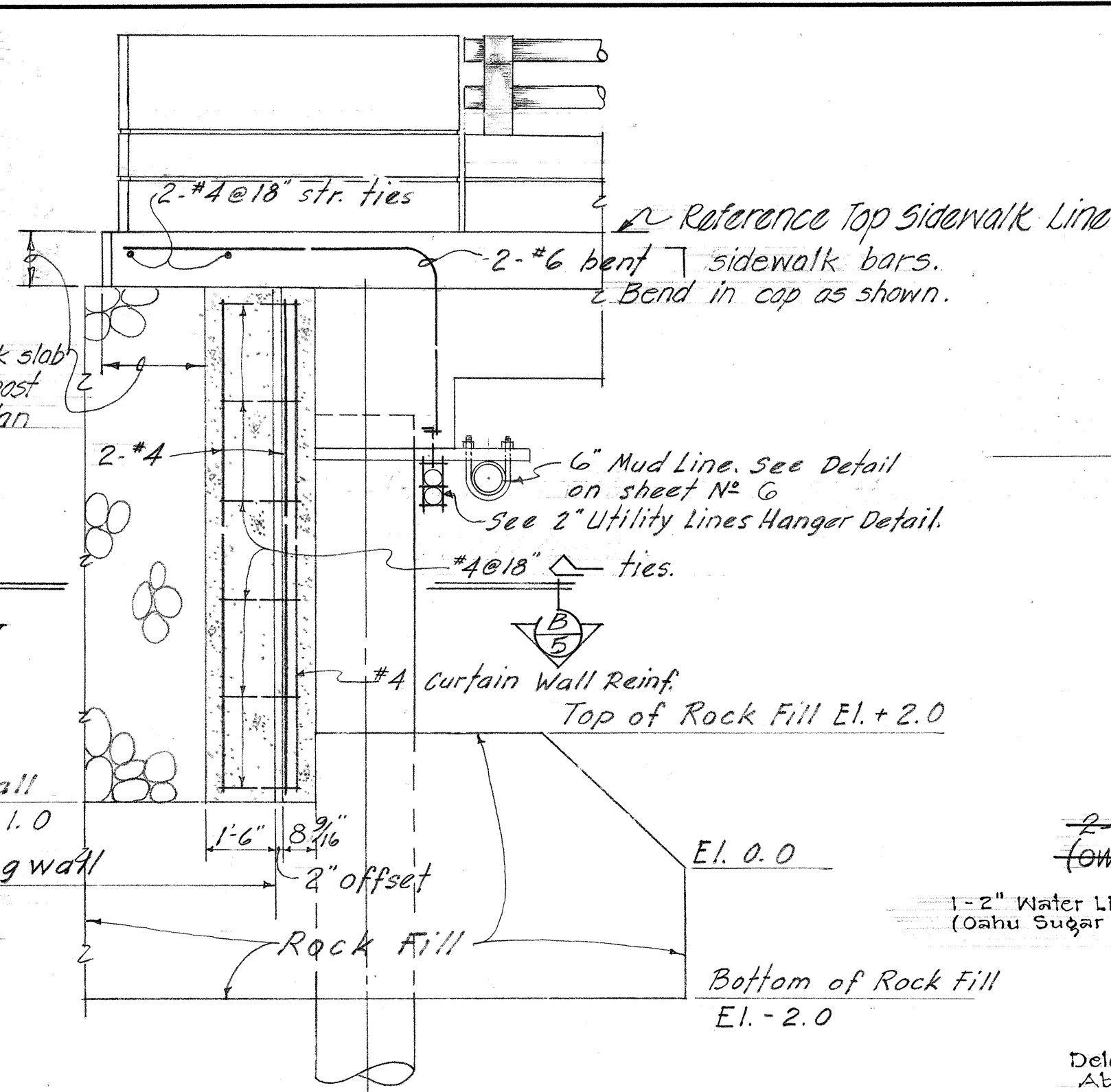
TYPICAL CONDUIT APPROACH

SCALE: $\frac{1}{2}" = 1'-0"$

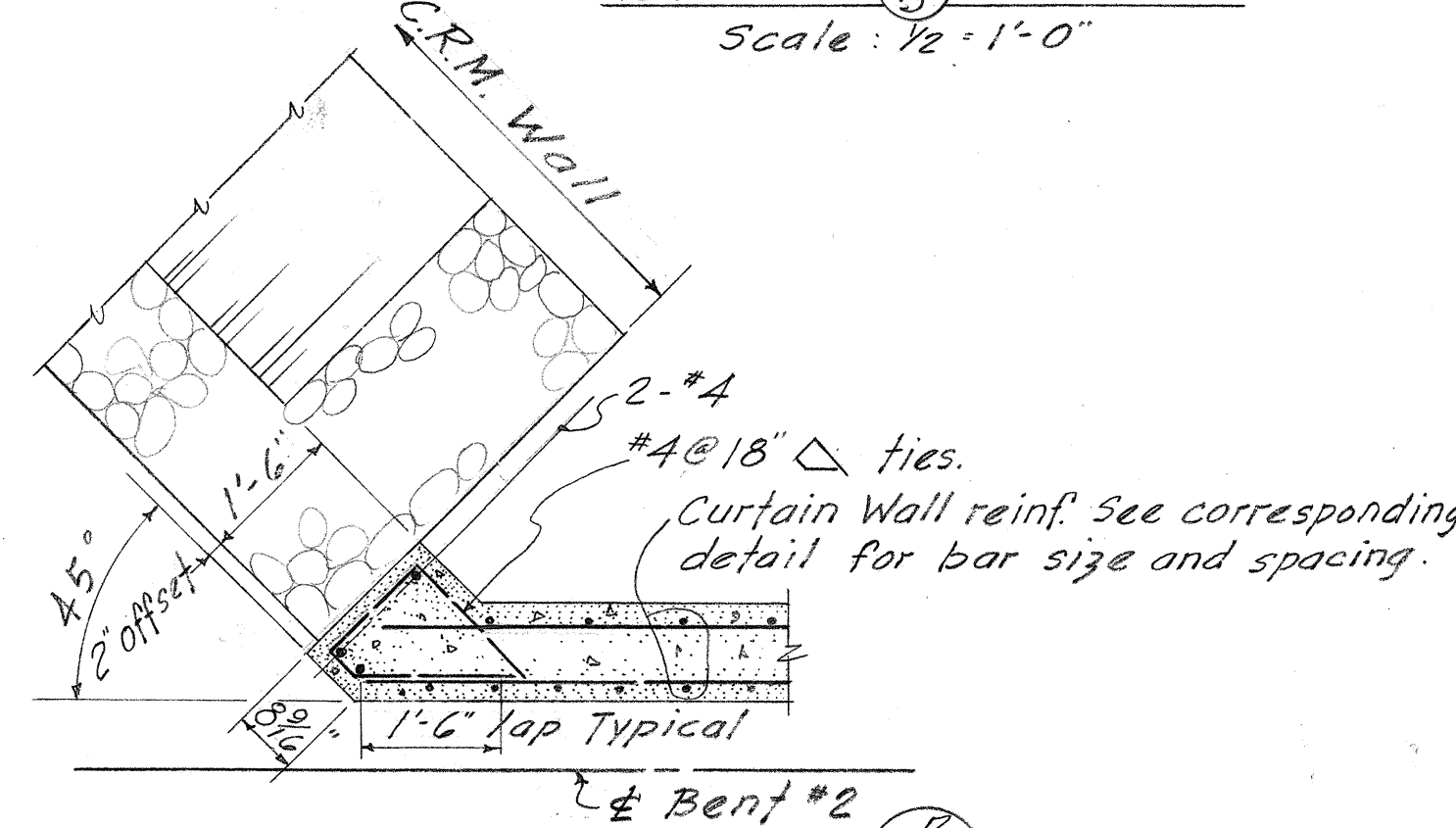
KAPAKAHI STREAM CULVERT
Sta 117 + 76.44 to Sta 117 + 99.65
FARRINGTON HWY. Proj. No. F-000-1(7) U
Sept. 1961



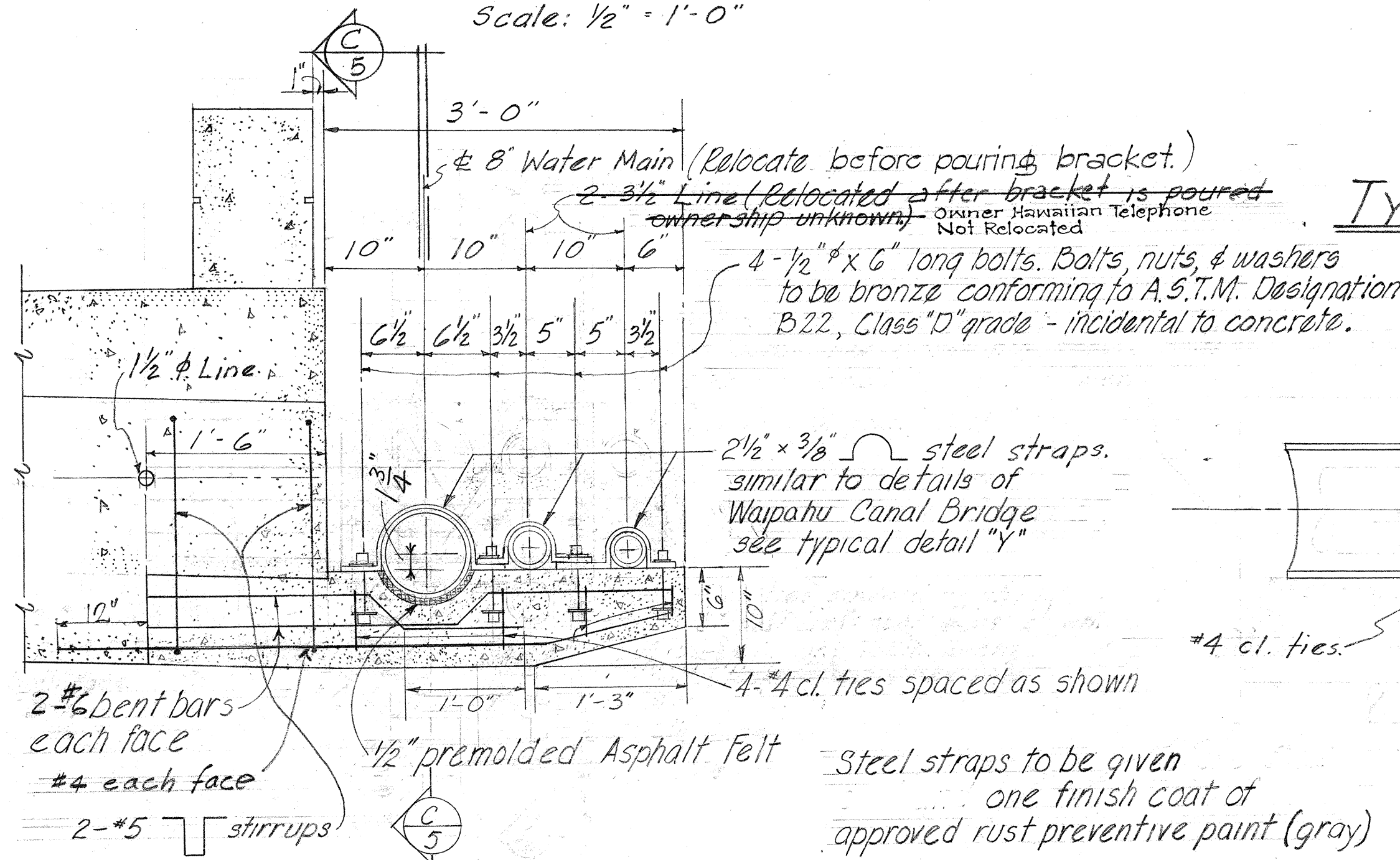
PLAN ~ END POST SUPPORT @ BENT N^o1 & N^o2
Scale: 1/2" = 1'-0"



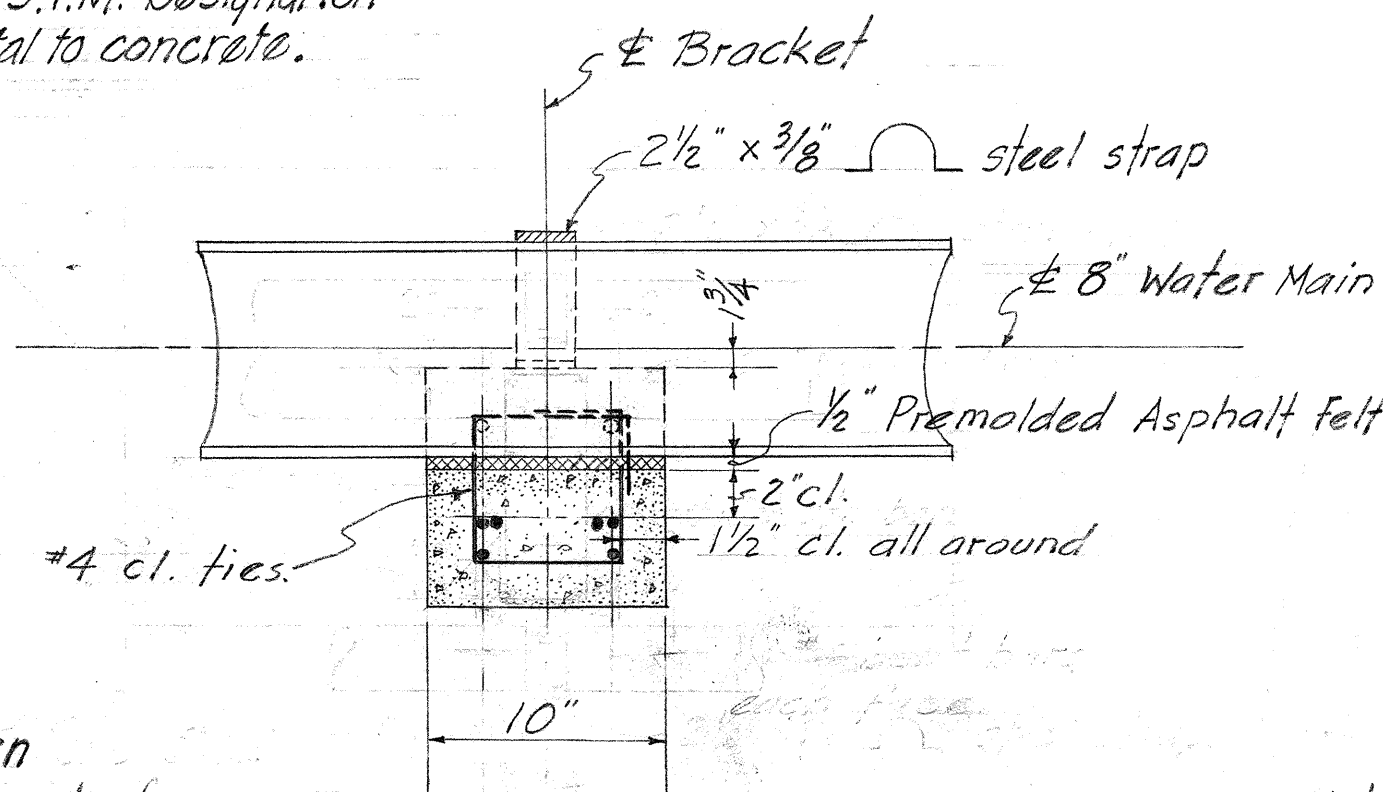
TYPICAL ELEVATION
Elevation similar
Scale: 1/2" = 1'-0"



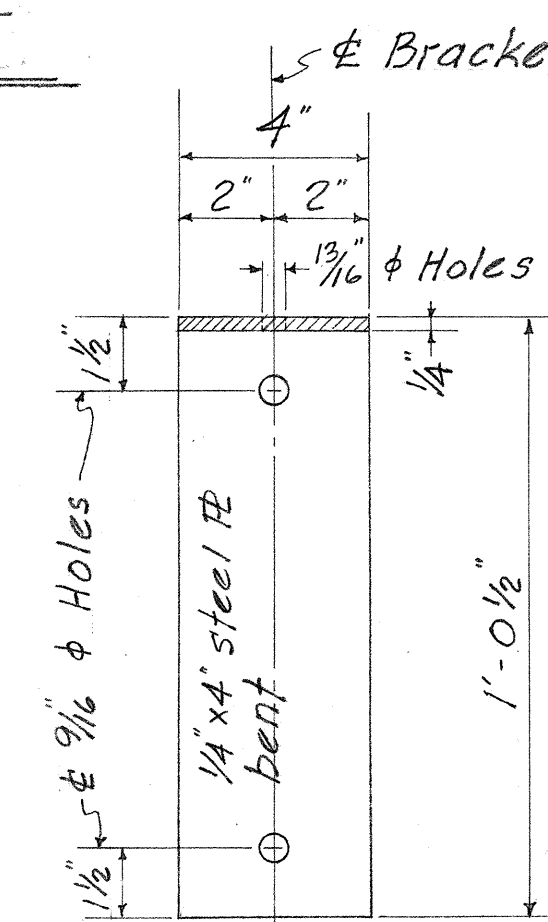
TYPICAL SECTION
Scale: 1/2" = 1'-0"



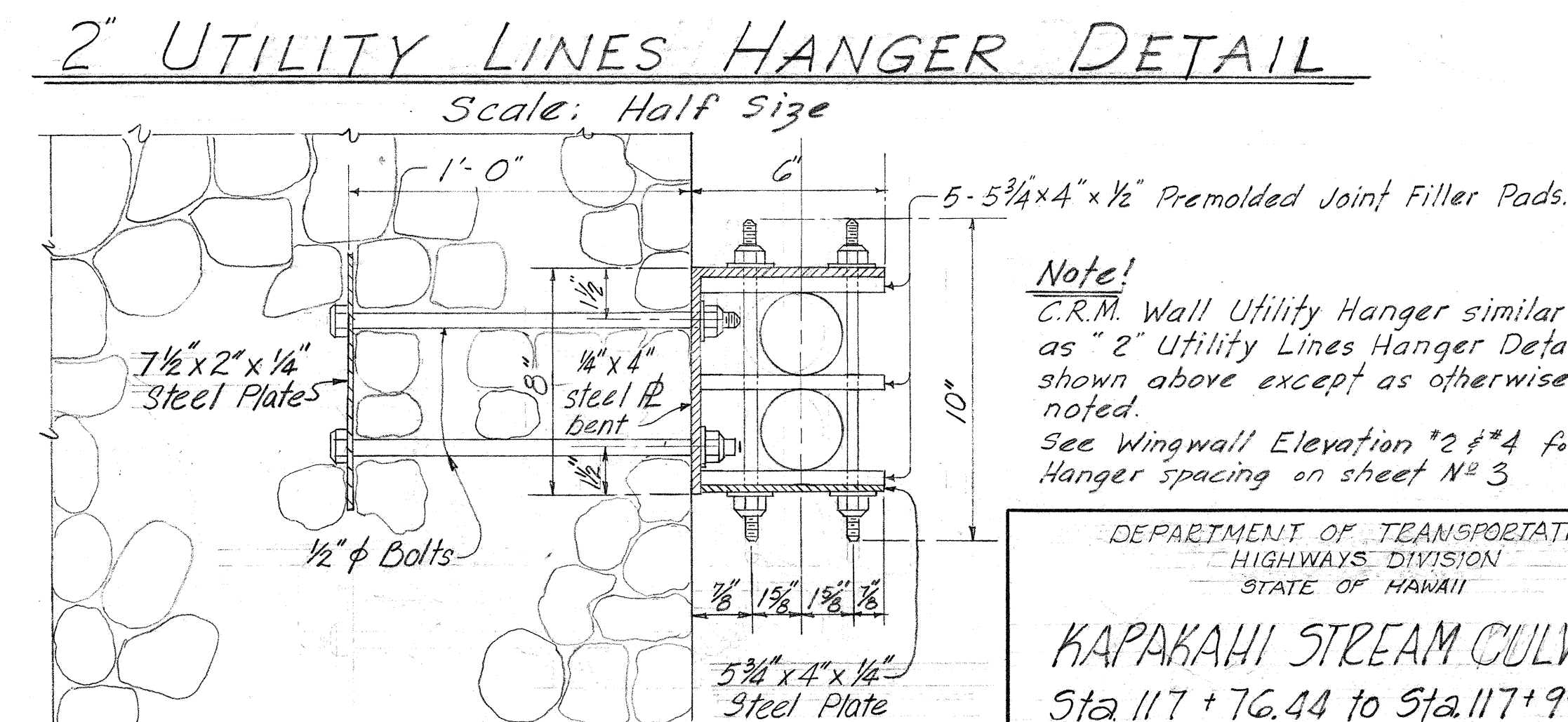
TYPICAL UTILITY LINE BRACKET DETAIL
Scale: 1" = 1'-0"



SECTION
Scale: 1/2" = 1'-0"



FRONT ELEVATION
Note: Utility Hanger not shown.



SIDE ELEVATION

C.R.M. WALL BRACKET DETAIL
Scale: 3" = 1'-0"

Note!
For 2" Utility Lines Hanger spacing see Elevation - Bent N^o2 on sheet N^o 2 & 3

Φ PILE @ BENT N^o2

Note!
C.R.M. Wall Utility Hanger similar as "2" Utility Lines Hanger Detail" shown above except as otherwise noted. See Wingwall Elevation #2 for Hanger spacing on sheet N^o 3

DEPARTMENT OF TRANSPORTATION
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SHEET No. 5 OF 6 SHEETS

