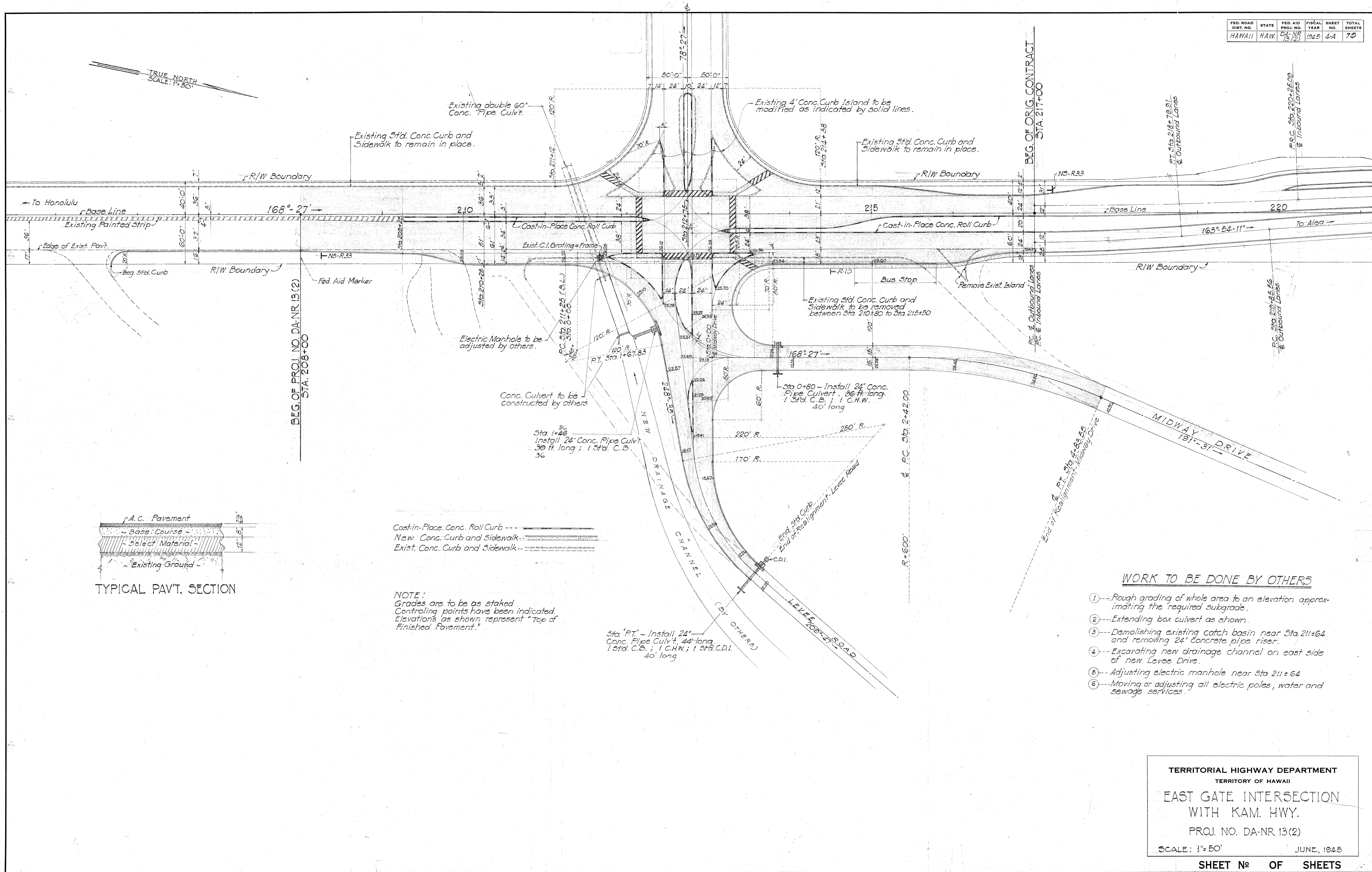


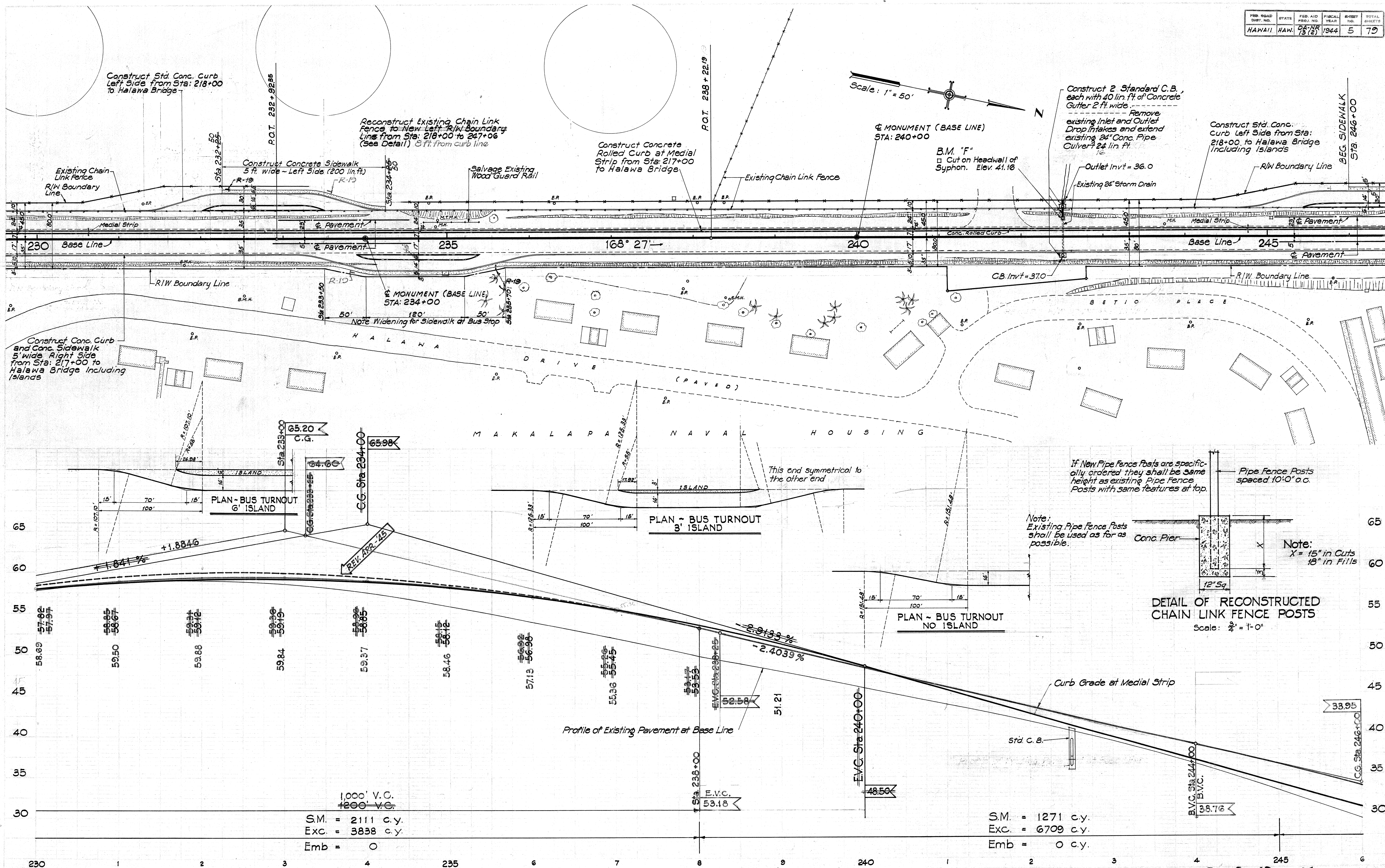
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	DA-NR 13(2)	1945	4-A	70

This sheet added to Project June 26, 1945

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

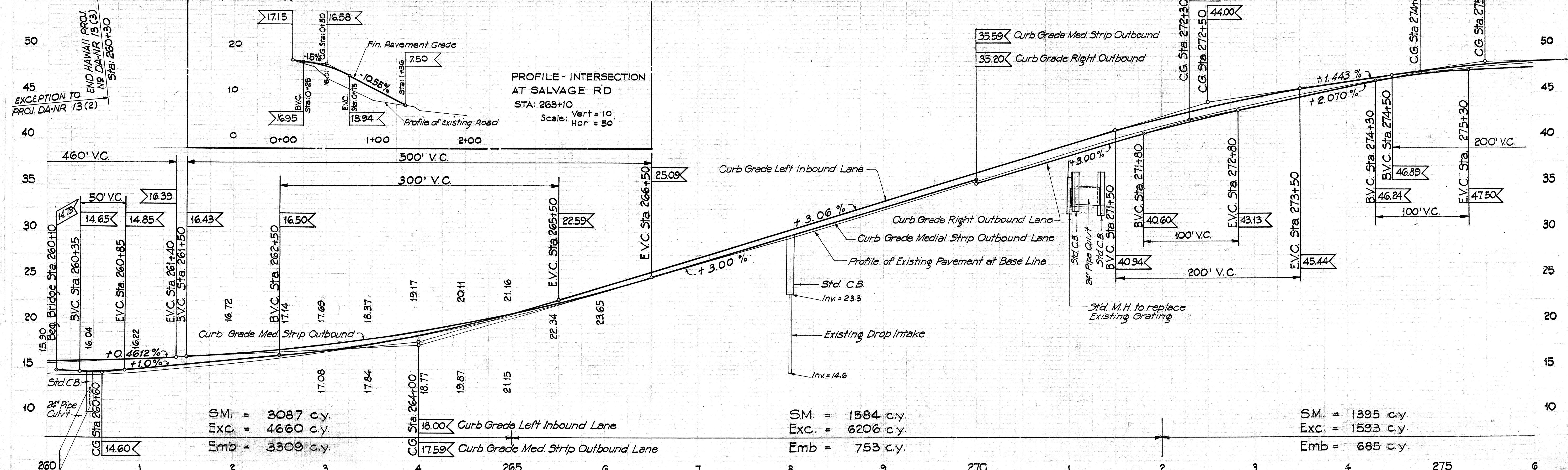
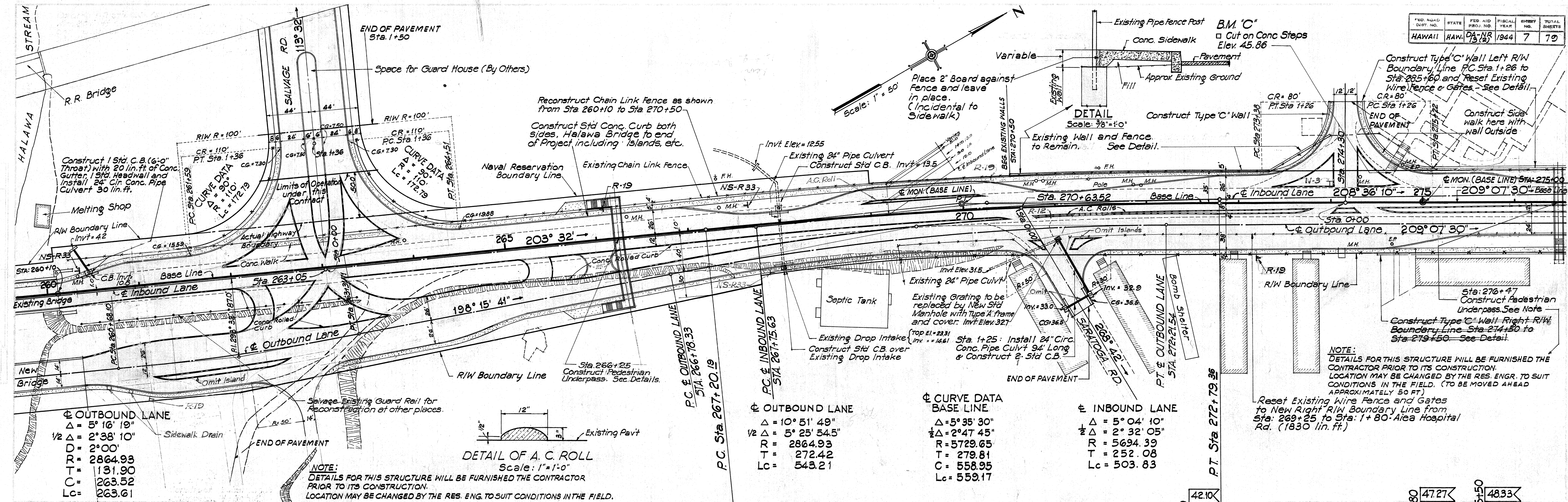


5143.41



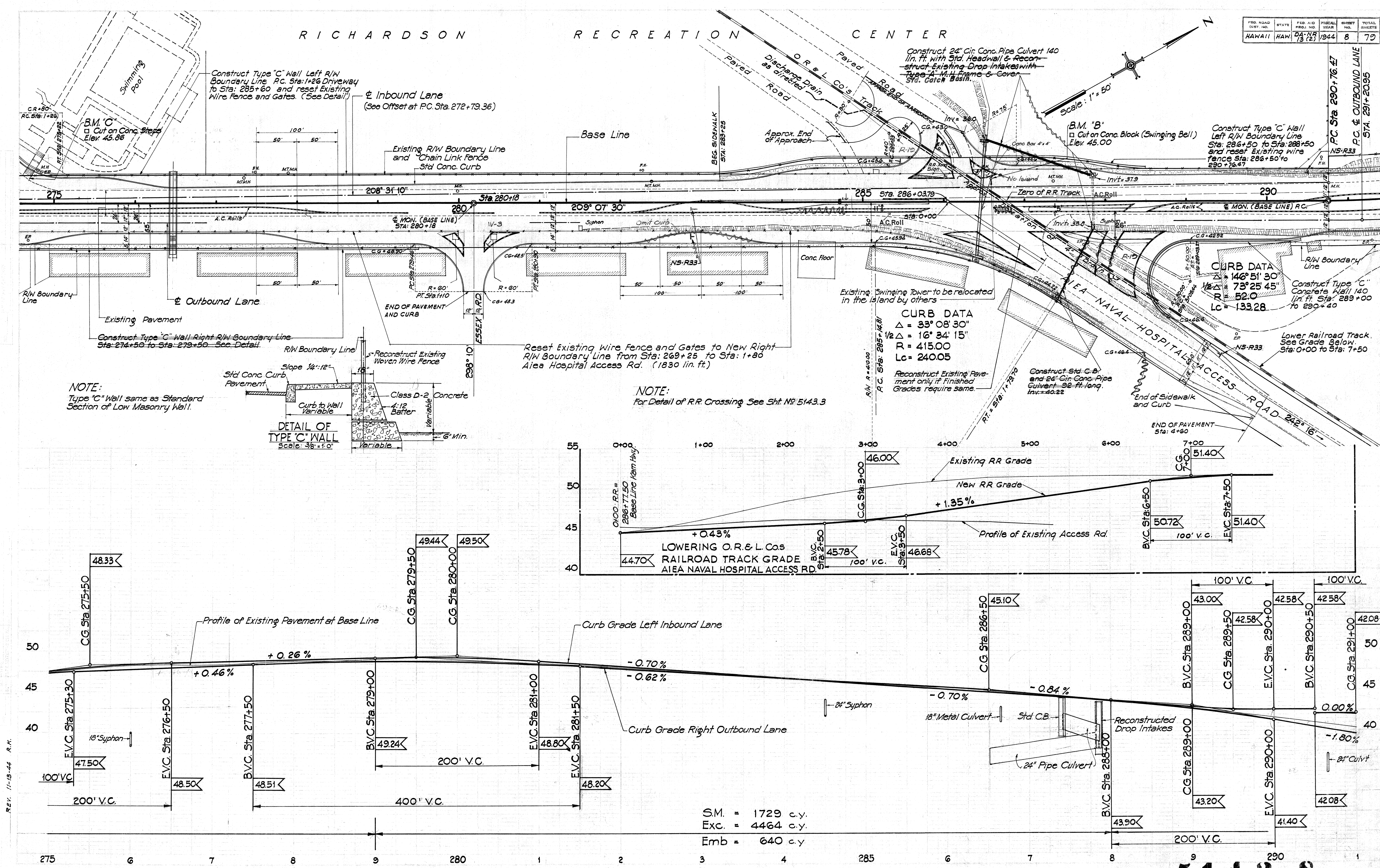
5143.5

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	DA-NR 13(2)	1944	7	70



5143.7

Revision 11-15-44
3-7-45



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	DA-NR 13 (2)	1944	8	70

S.M. = 1729 c.y.
Exc. = 4464 c.y.
Emb. = 640 c.y.

5143.8

CURVE DATA
 INBOUND LANE
 $\Delta = 14^\circ 28' 53"$
 $\frac{1}{2}\Delta = 7^\circ 14' 26.5"$
 $R = 1281.77$
 $T = 162.85$
 $C = 323.10$
 $LC = 323.96$

NOTE:
 All Std. C.B. to have 6'-0" Throat with
 20 lin. ft. Conc. Gutter 2'-0" wide.

NOTE:
 Construct Hand-Placed Rock Fill
 from Sta. 316+50 to Sta. 323+00.
 Estimated Quantity = 260 C.Y.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	DA-NR 13(2)	1944	10	79

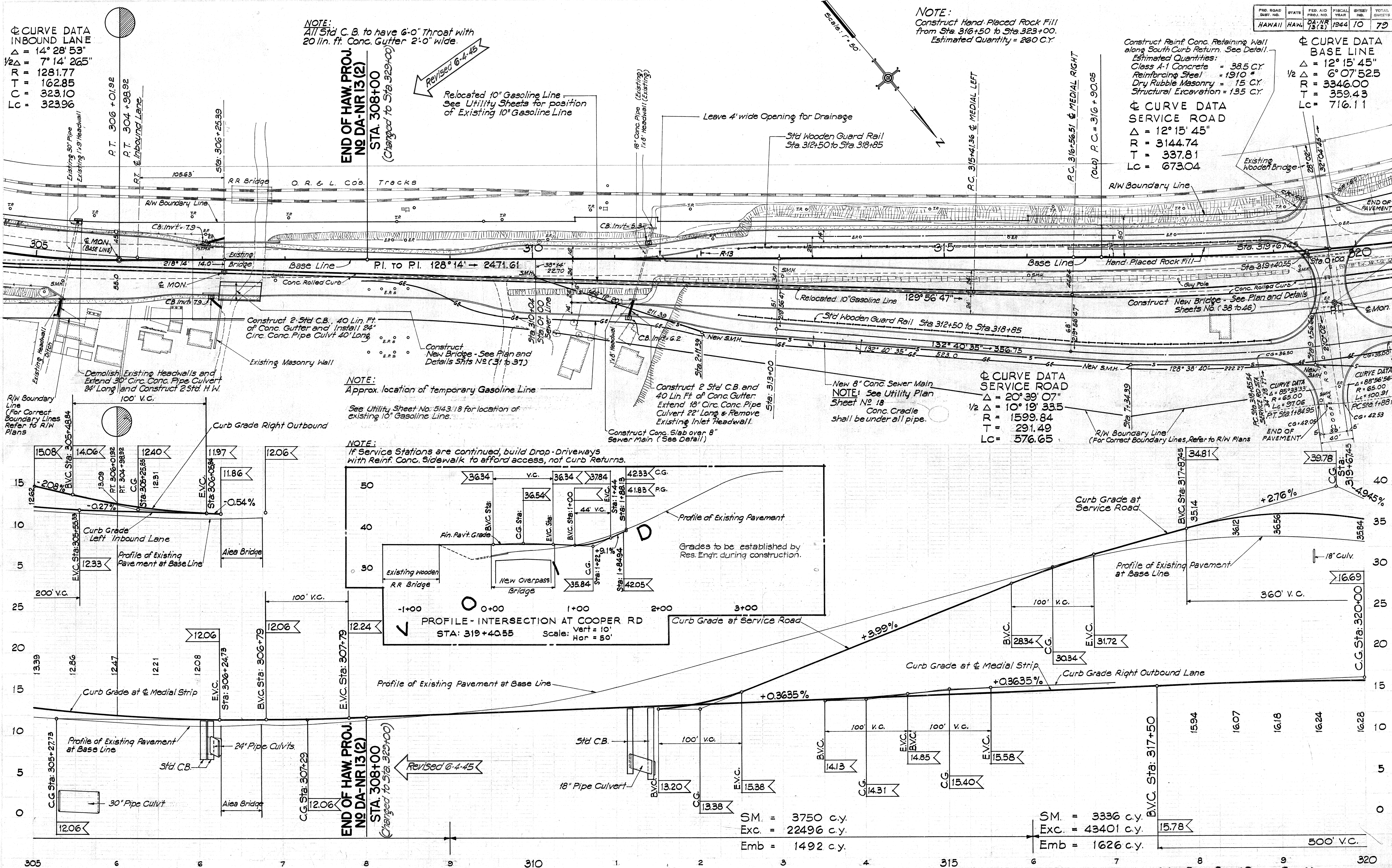
CURVE DATA
 BASE LINE
 $\Delta = 12^\circ 15' 45"$
 $\frac{1}{2}\Delta = 6^\circ 07' 52.5"$
 $R = 3346.00$
 $T = 359.43$
 $LC = 716.11$

Construct Reinf. Conc. Retaining Wall
 along South Curb Return. See Detail.
 Estimated Quantities:
 Class A-1 Concrete = 38.5 CY
 Reinforcing Steel = 1910 #
 Dry Rubble Masonry = 15 CY
 Structural Excavation = 135 CY.

CURVE DATA
 SERVICE ROAD
 $\Delta = 12^\circ 15' 45"$
 $R = 3144.74$
 $T = 337.81$
 $LC = 673.04$

CURVE DATA
 SERVICE ROAD
 $\Delta = 20^\circ 39' 07"$
 $\frac{1}{2}\Delta = 10^\circ 19' 33.5"$
 $R = 1599.84$
 $T = 291.49$
 $LC = 576.65$

CURVE DATA
 $\Delta = 88^\circ 56' 56"$
 $R = 65.00$
 $T = 97.06$
 $LC = 100.91$
 $PC Sta. 316+85.54$
 $PT Sta. 317+84.95$
 $CG Sta. 317+85.23$
 $CG = 42.53$



Revision 11-15-44
 Revision C-4-45

5143.10

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	DA-NR 13 (2)	1944	10A	79

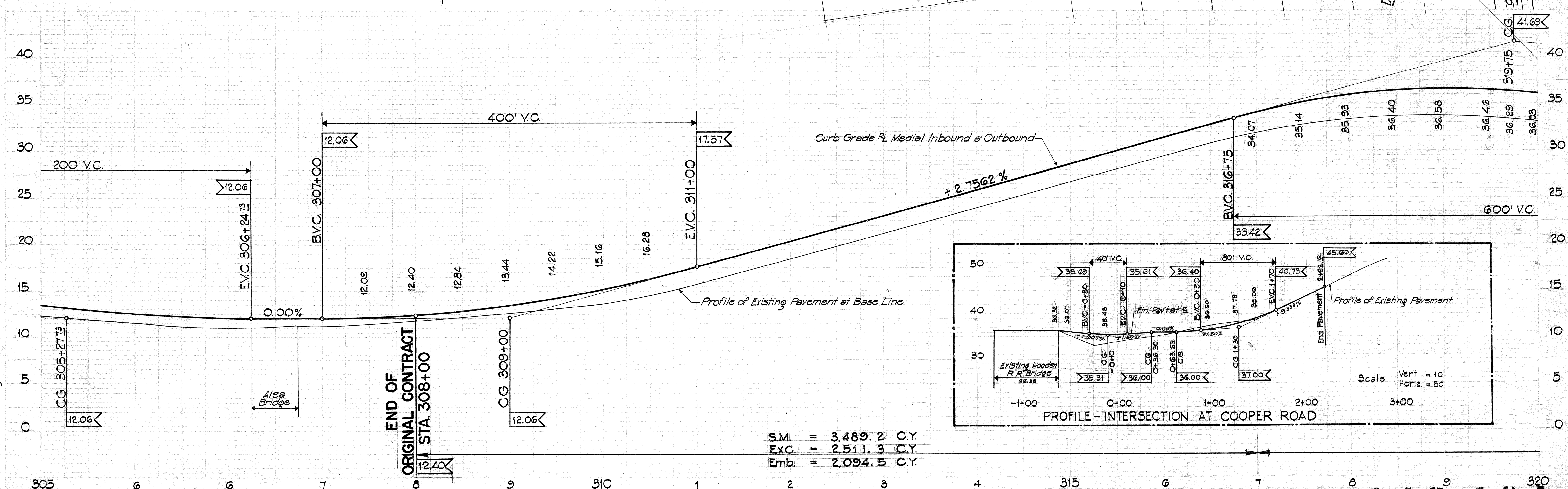
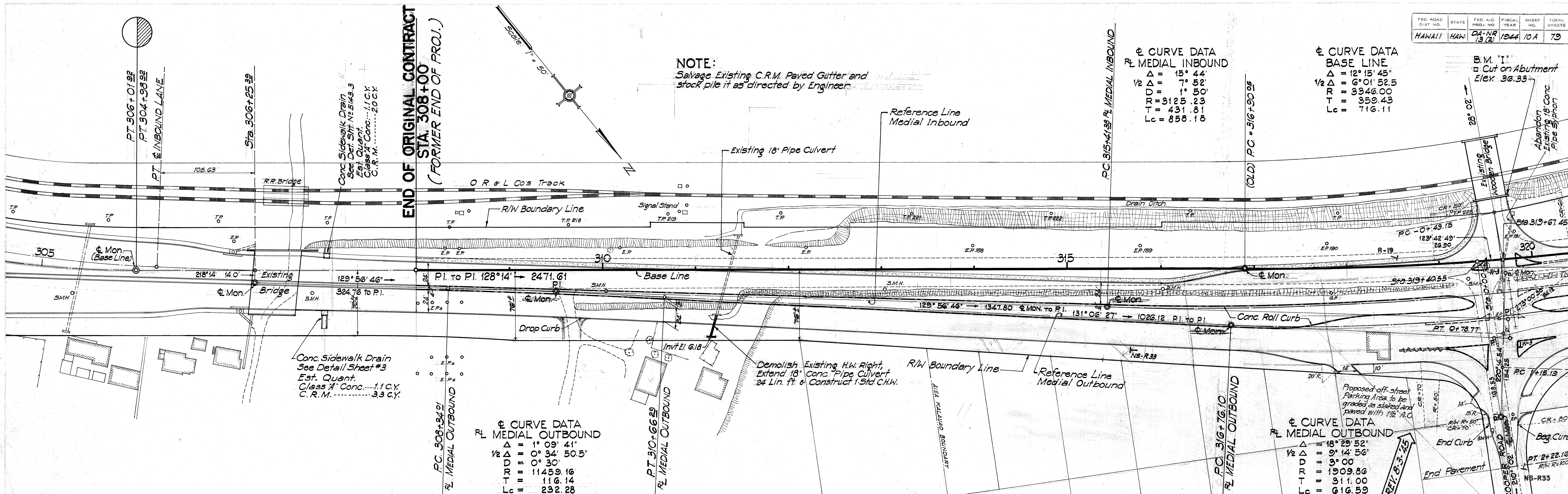
NOTE:

Salvage Existing C.R.M. Paved Gutter and stock pile it as directed by Engineer.

ϕ CURVE DATA
 R_L MEDIAL INBOUND
 $\Delta = 15^\circ 44'$
 $\frac{1}{2} \Delta = 7^\circ 52'$
 $D = 1^\circ 50'$
 $R = 3125.23$
 $T = 431.81$
 $L_c = 858.18$

Δ CURVE DATA
 BASE LINE
 Δ = 12° 15' 45"
 1/2 Δ = 6° 01' 52.5
 R = 3346.00
 T = 359.43
 Lc = 716.11

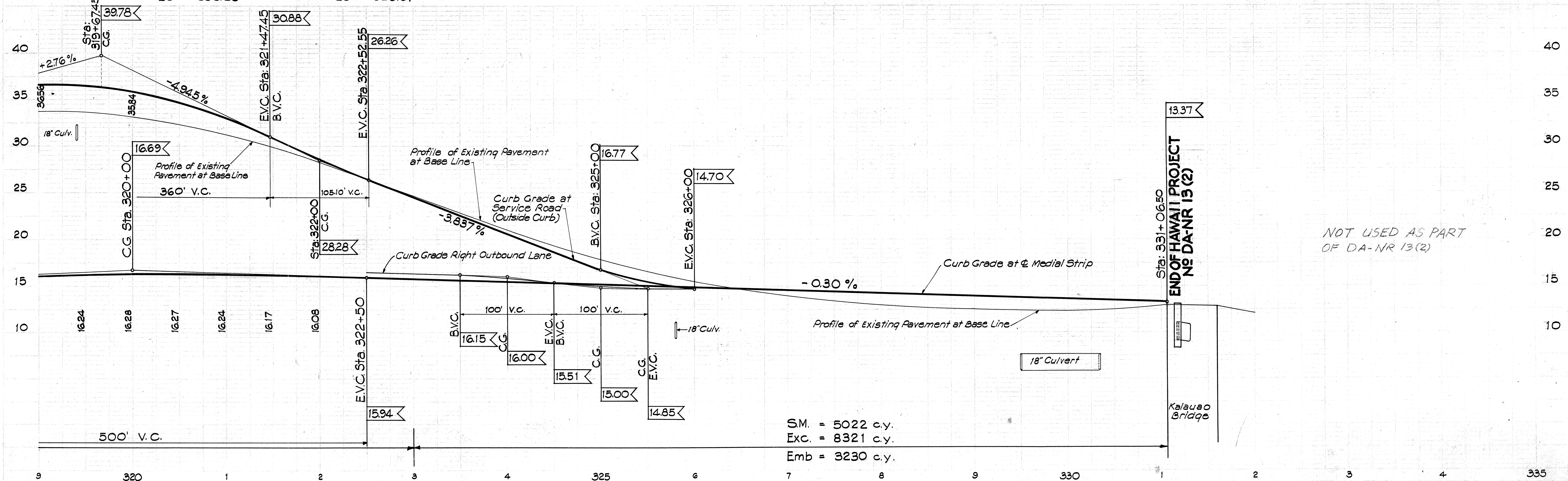
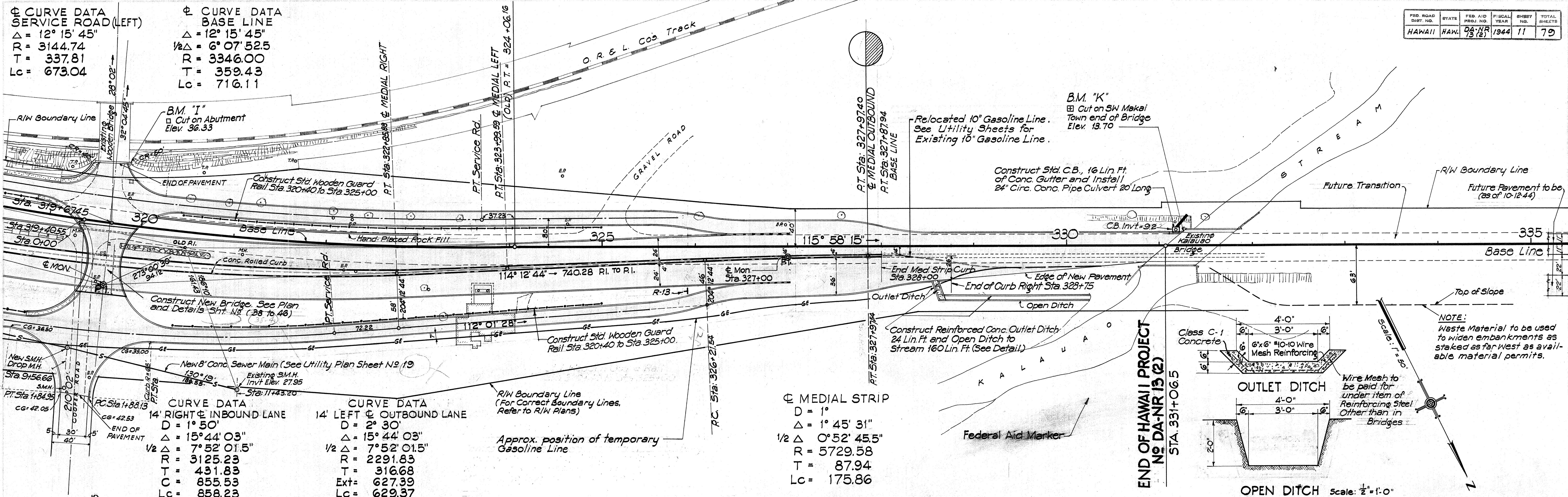
B.M. "I"
☒ Cut on Abutment
 Flex 36 33



S.M. = 3,489.2 C.Y.
EXC. = 2,511.3 C.Y.
Emb. = 2,094.5 C.Y.

5⁸ 1 4 3⁹, 1 0³²⁰ A

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	DA-NR 13(2)	1944	11	79



5143.11

CURVE DATA
 COOPER ROAD
 $\Delta = 12^\circ 12' 54''$
 $\frac{1}{2}\Delta = 6^\circ 06' 27''$
 $R = 600.00$
 $T = 64.20$
 $L_c = 127.92$

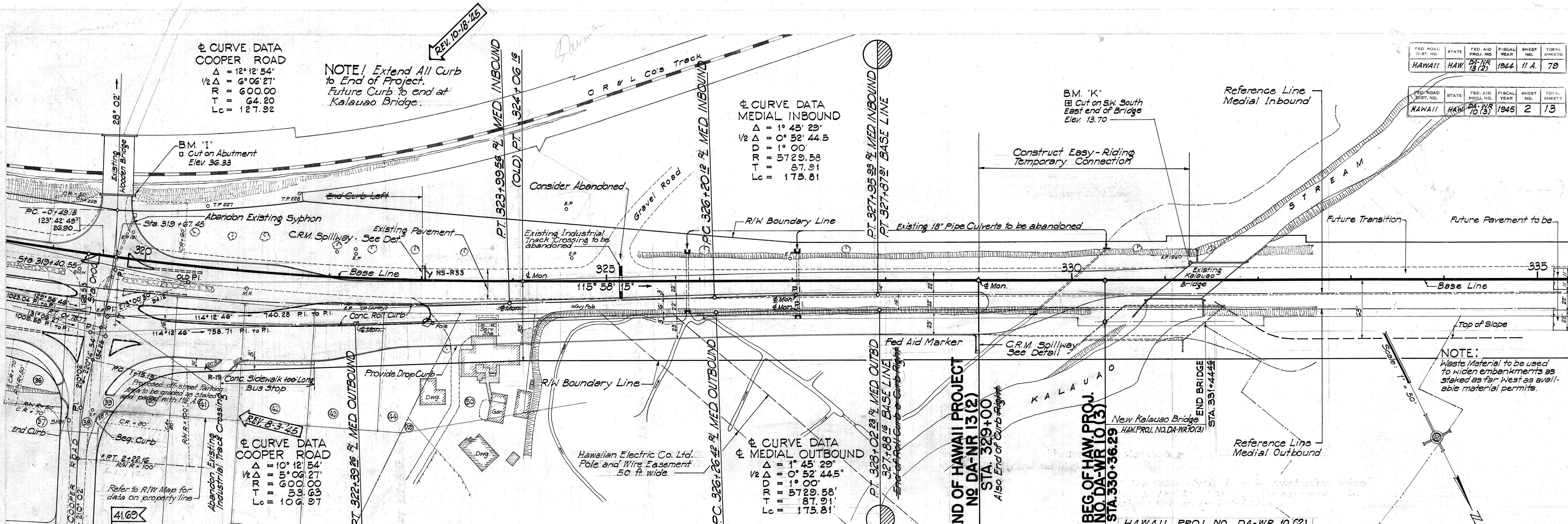
NOTE: Extend All Curb
 to End of Project.
 Future Curb to end at
 Kalauao Bridge.

CURVE DATA
 MEDIAL INBOUND
 $\Delta = 1^\circ 45' 29''$
 $\frac{1}{2}\Delta = 0^\circ 52' 44.5''$
 $R = 1^\circ 00'$
 $T = 5729.58$
 $L_c = 175.81$

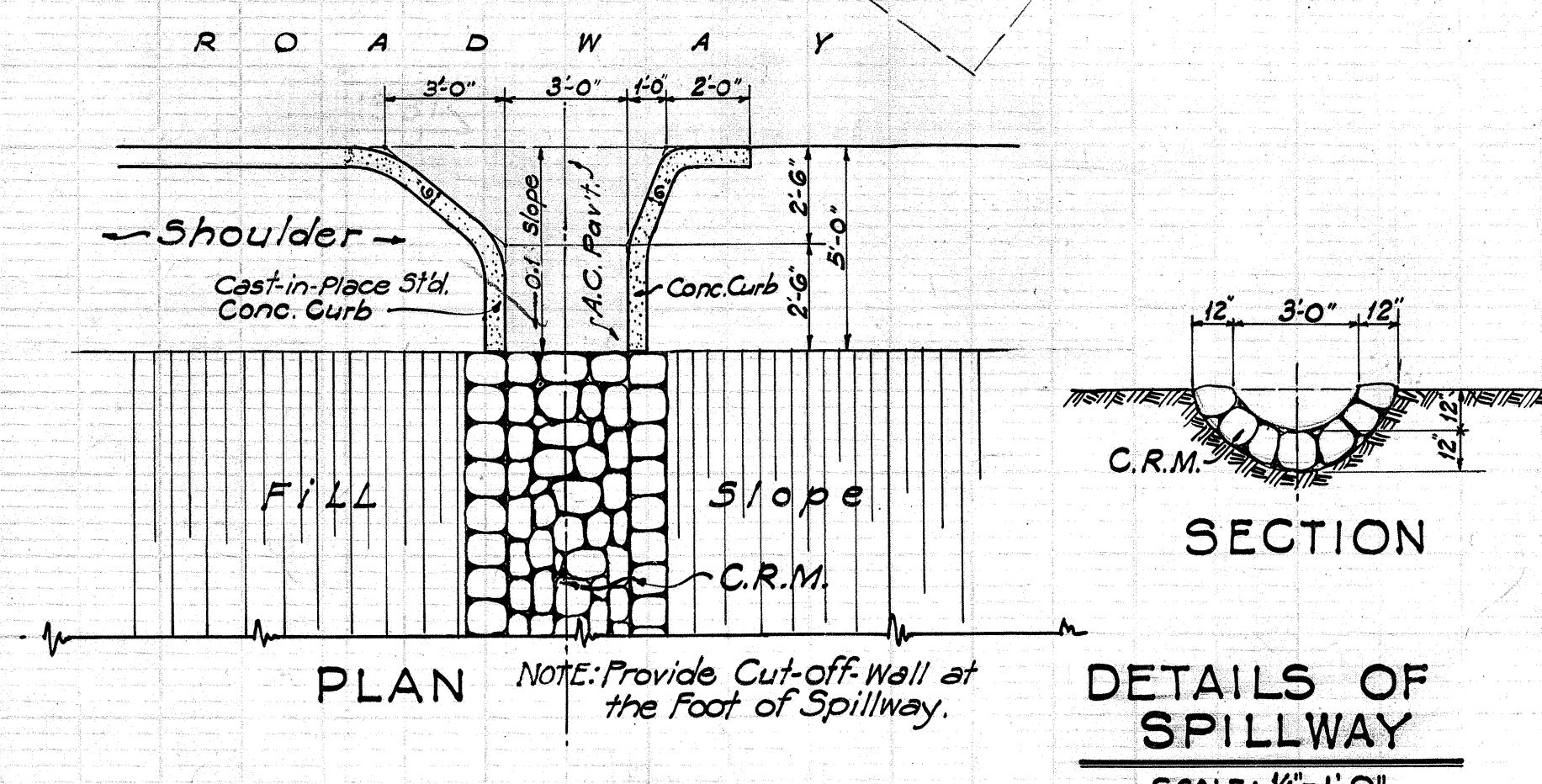
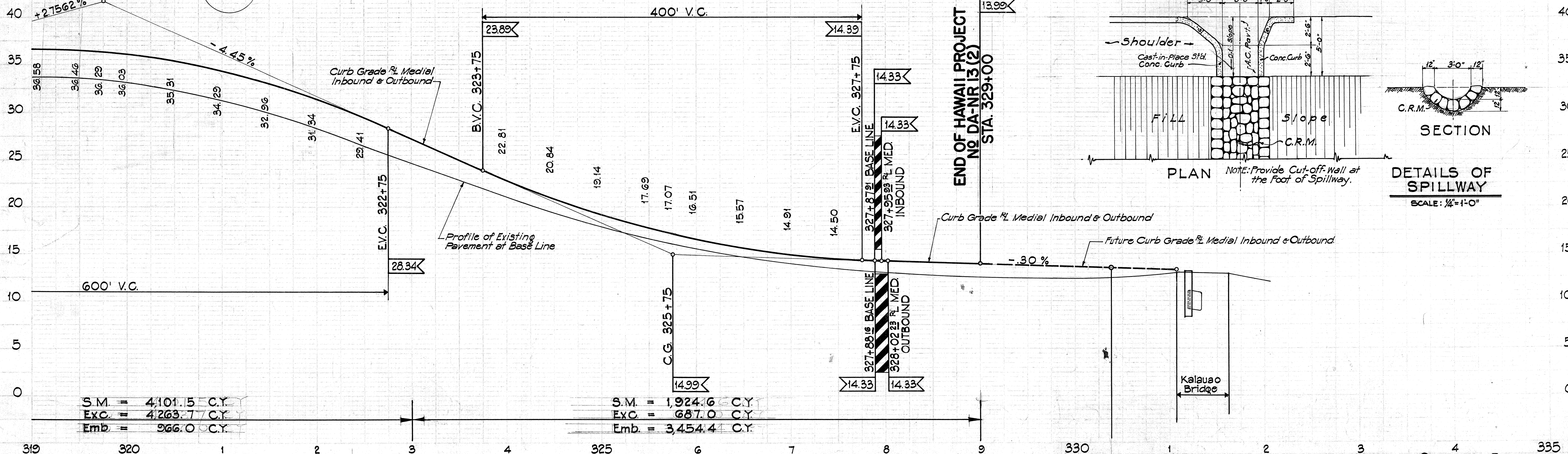
CURVE DATA
 MEDIAL OUTBOUND
 $\Delta = 1^\circ 45' 29''$
 $\frac{1}{2}\Delta = 0^\circ 52' 44.5''$
 $R = 1^\circ 00'$
 $T = 5729.58$
 $L_c = 175.81$

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	DA-NR 13(2)	1944	11 A	79

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	DA-NR 10(3)	1945	2	13



NOTE:
 Waste Material to be used
 to widen embankments as
 staked as far West as avail-
 able material permits.



S.M. = 4,101.5 C.Y.
 Exc. = 4,263.7 C.Y.
 Emb. = 966.0 C.Y.

S.M. = 1,924.6 C.Y.
 Exc. = 687.0 C.Y.
 Emb. = 3,454.4 C.Y.

5157.2

5143.11A

Φ CURVE DATA
BASE LINE

Δ = 12° 15' 45"
1/2 Δ = 6° 07' 52.5"
R = 3346.00
T = 359.43
Lc = 716.11

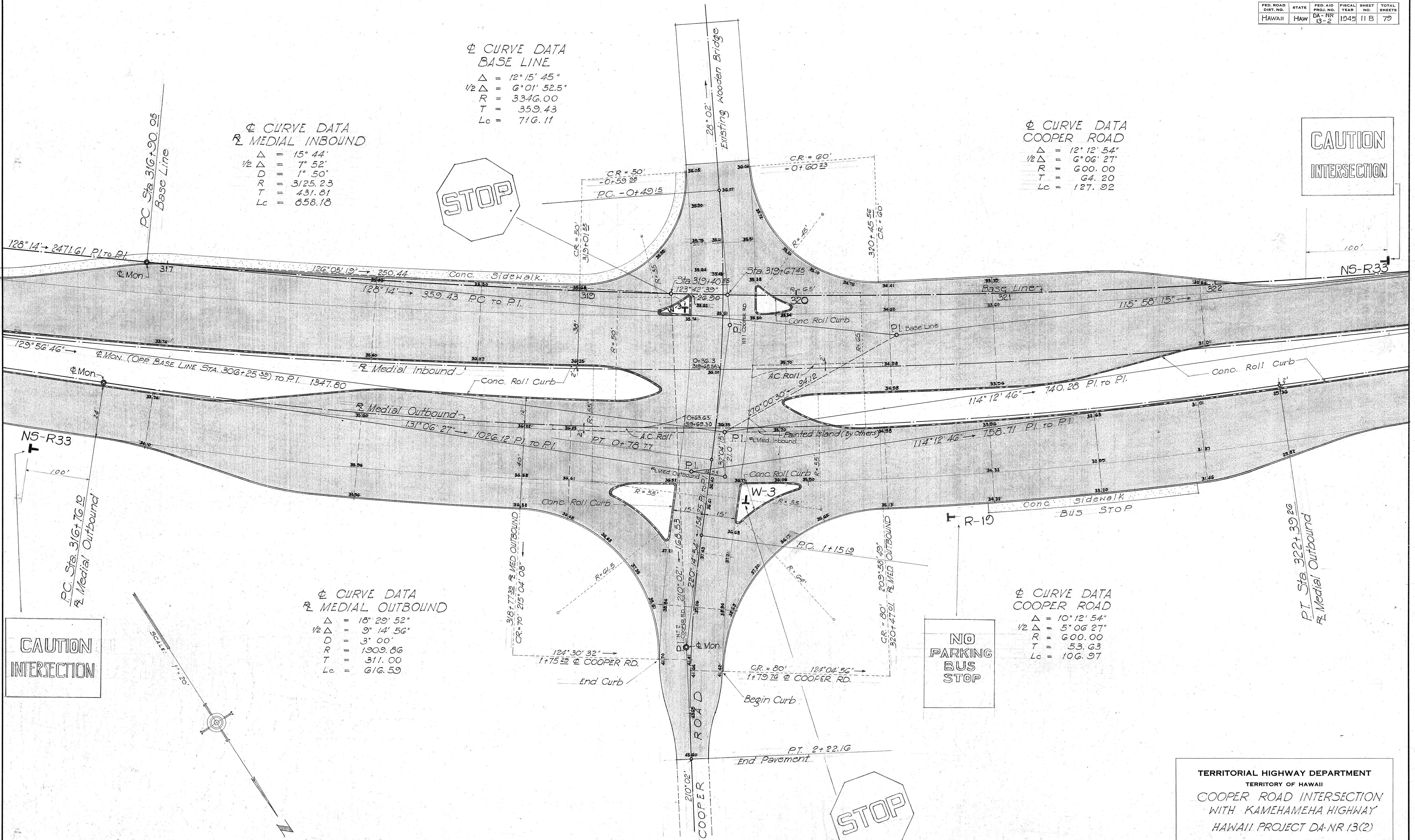
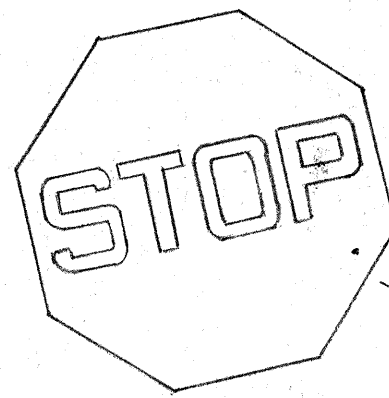
Φ CURVE DATA
R MEDIAL INBOUND

Δ = 15° 44'
1/2 Δ = 7° 52'
D = 1° 50'
R = 3125.23
T = 431.81
Lc = 658.18

Φ CURVE DATA
COOPER ROAD

Δ = 12° 12' 54"
1/2 Δ = 6° 06' 27"
R = 600.00
T = 64.20
Lc = 127.92

CAUTION
INTERSECTION



Φ CURVE DATA
R MEDIAL OUTBOUND

Δ = 18° 29' 52"
1/2 Δ = 9° 14' 56"
D = 3° 00'
R = 1909.86
T = 311.00
Lc = 616.59

Φ CURVE DATA
COOPER ROAD

Δ = 10° 12' 54"
1/2 Δ = 5° 06' 27"
R = 600.00
T = 53.63
Lc = 106.97

NO
PARKING
BUS
STOP

CAUTION
INTERSECTION

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
COOPER ROAD INTERSECTION
WITH KAMEHAMEHA HIGHWAY
HAWAII PROJECT DA-NR 13(2)

SCALE: 1" = 20'

SHEET No OF SHEETS

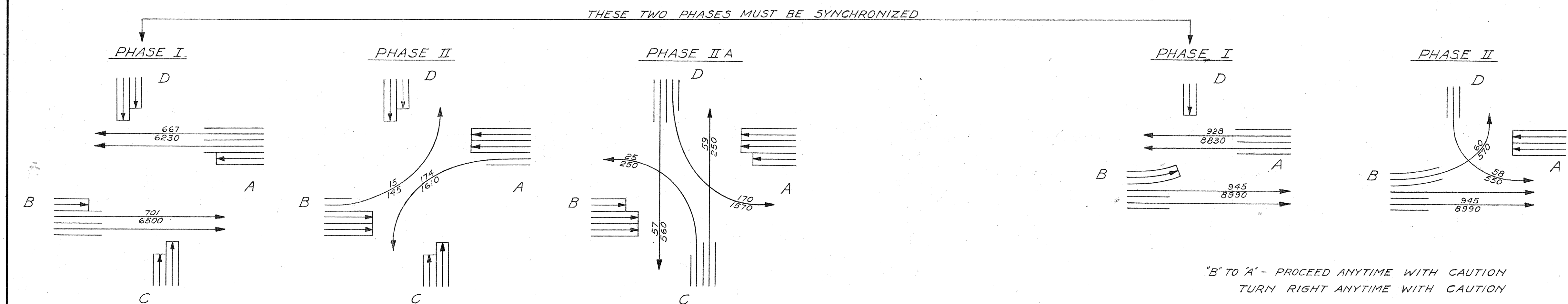
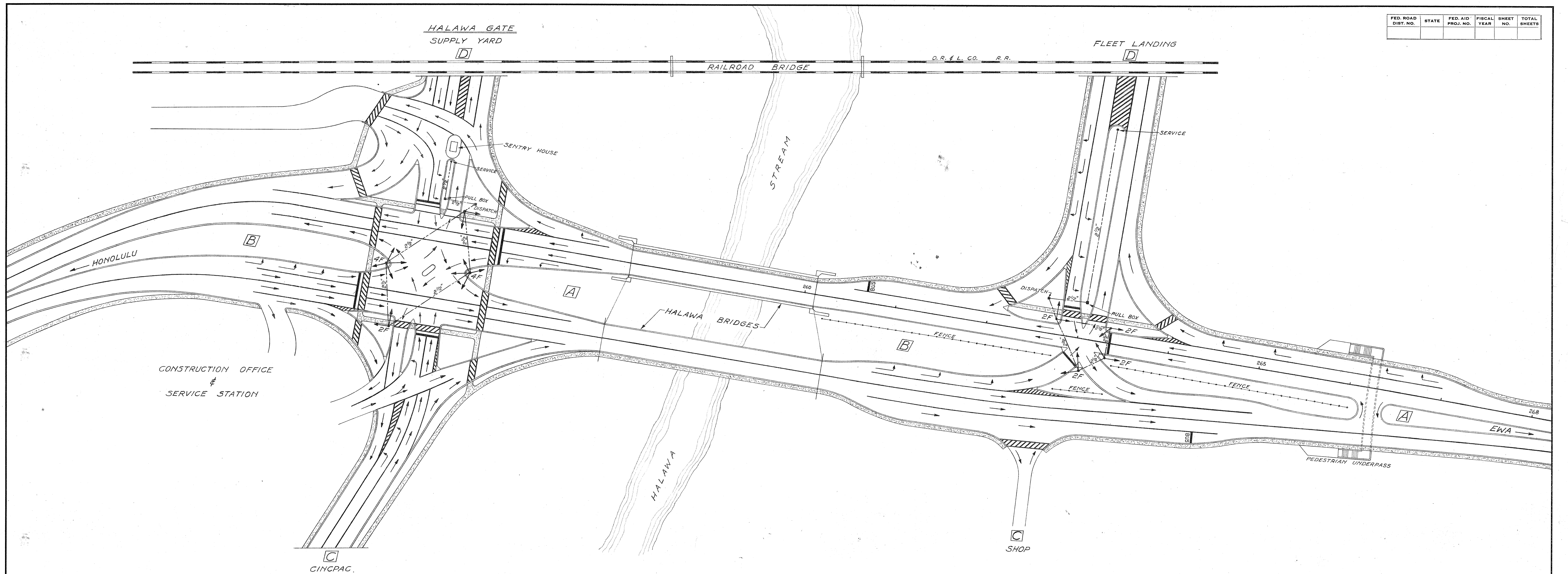
5143, 11B

5143, 11B

This sheet added to Proj. June 4, 1945.

DATE	BY
DESIGNED BY	
DRAWN BY	
CHECKED BY	
NOTE BOOK	
QUANTITIES CHECKED BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS



"B" TO "A" - PROCEED ANYTIME WITH CAUTION
TURN RIGHT ANYTIME WITH CAUTION

TURN RIGHT ANYTIME WITH CAUTION

PHASE DIAGRAM

- 2F - TWO FACE SIGNAL
2 STANDARD 3-LIGHT SIGNAL HEADS POST TOP
MOUNTED 10' HIGH ON 4" IRON PIPE STANDARD.
- 4F - FOUR FACE SIGNAL
4 STANDARD 3-LIGHT SIGNAL HEADS POST TOP
MOUNTED 10' HIGH ON 4" IRON PIPE STANDARD.

PHASE DIAGRAM

TOP FIGURE IS PEAK HOUR TRAFFIC
LOWER FIGURE IS 12 HOUR TRAFFIC

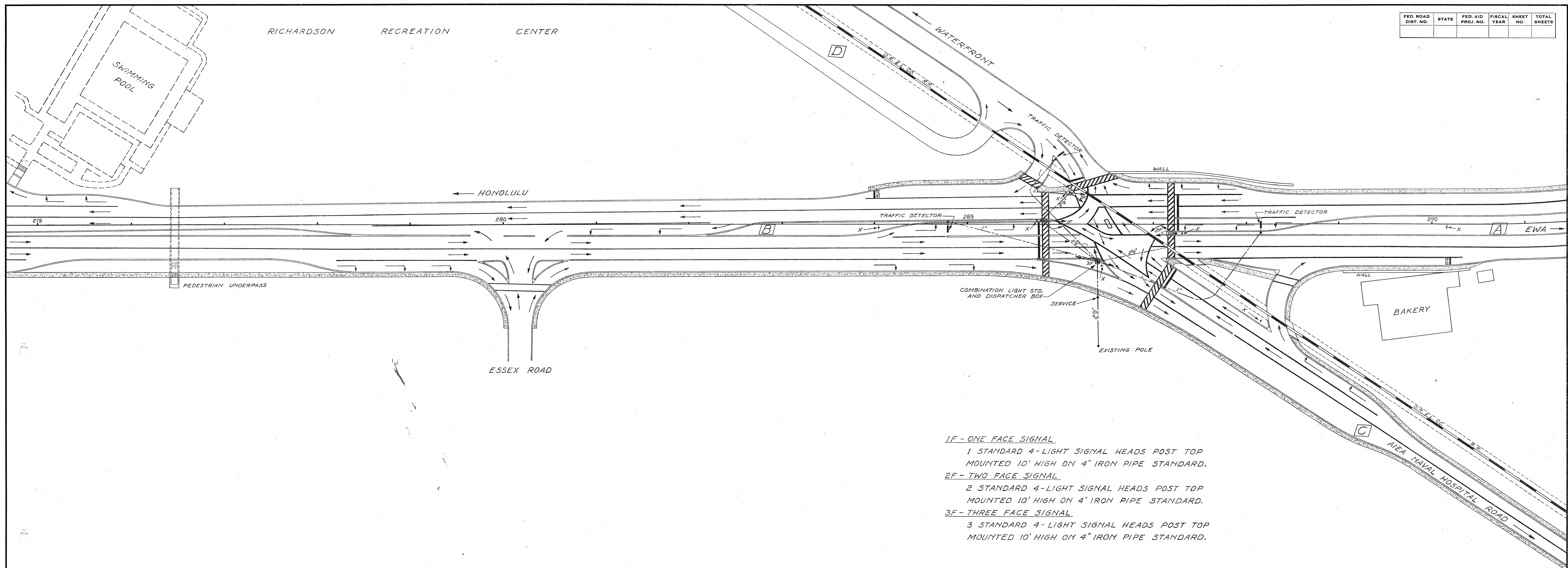
HAWAII HIGHWAY PLANNING SURVEY
OF THE
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
DA-NR-13(2)
HALAWA AND FLEET LANDING
SIGNALIZED INTERSECTIONS
JUNE, 1945
SCALE: 1" = 50'-0"

SHEET No OF SHEETS

5143.11C

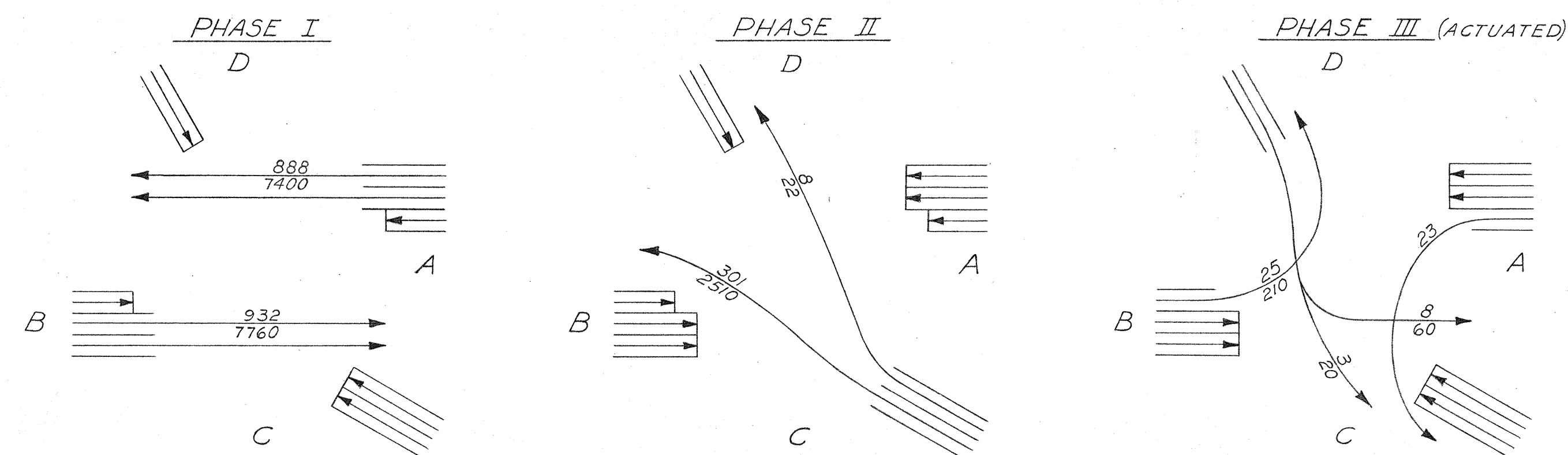
ORIGINAL PLAN	DESIGNED BY	DATE
NOTED BY	TRACED BY	
CHECKED BY	CHECKED BY	
NO.		

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS



- 1F - ONE FACE SIGNAL
1 STANDARD 4-LIGHT SIGNAL HEADS POST TOP MOUNTED 10' HIGH ON 4" IRON PIPE STANDARD.
- 2F - TWO FACE SIGNAL
2 STANDARD 4-LIGHT SIGNAL HEADS POST TOP MOUNTED 10' HIGH ON 4" IRON PIPE STANDARD.
- 3F - THREE FACE SIGNAL
3 STANDARD 4-LIGHT SIGNAL HEADS POST TOP MOUNTED 10' HIGH ON 4" IRON PIPE STANDARD.

NOTE:
X - TURN LEFT ON GREEN ARROW ONLY



TURN RIGHT ANYTIME WITH CAUTION

PHASE DIAGRAM

TOP FIGURE IS PEAK HOUR TRAFFIC
LOWER FIGURE IS 12 HOUR TRAFFIC

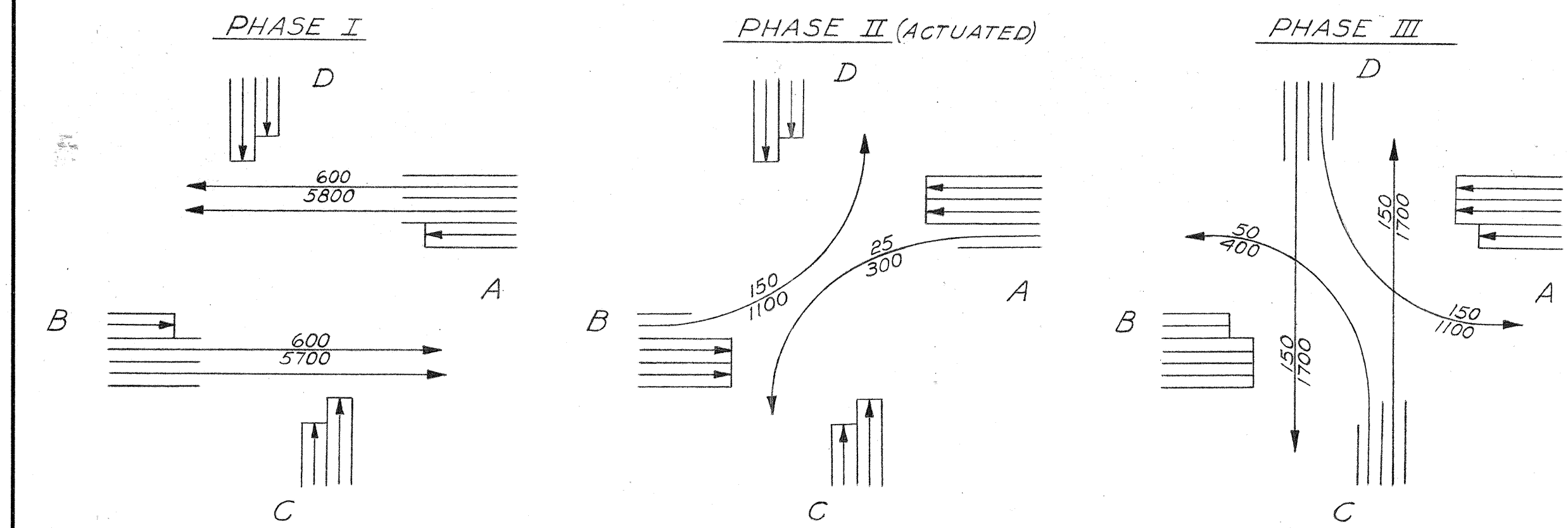
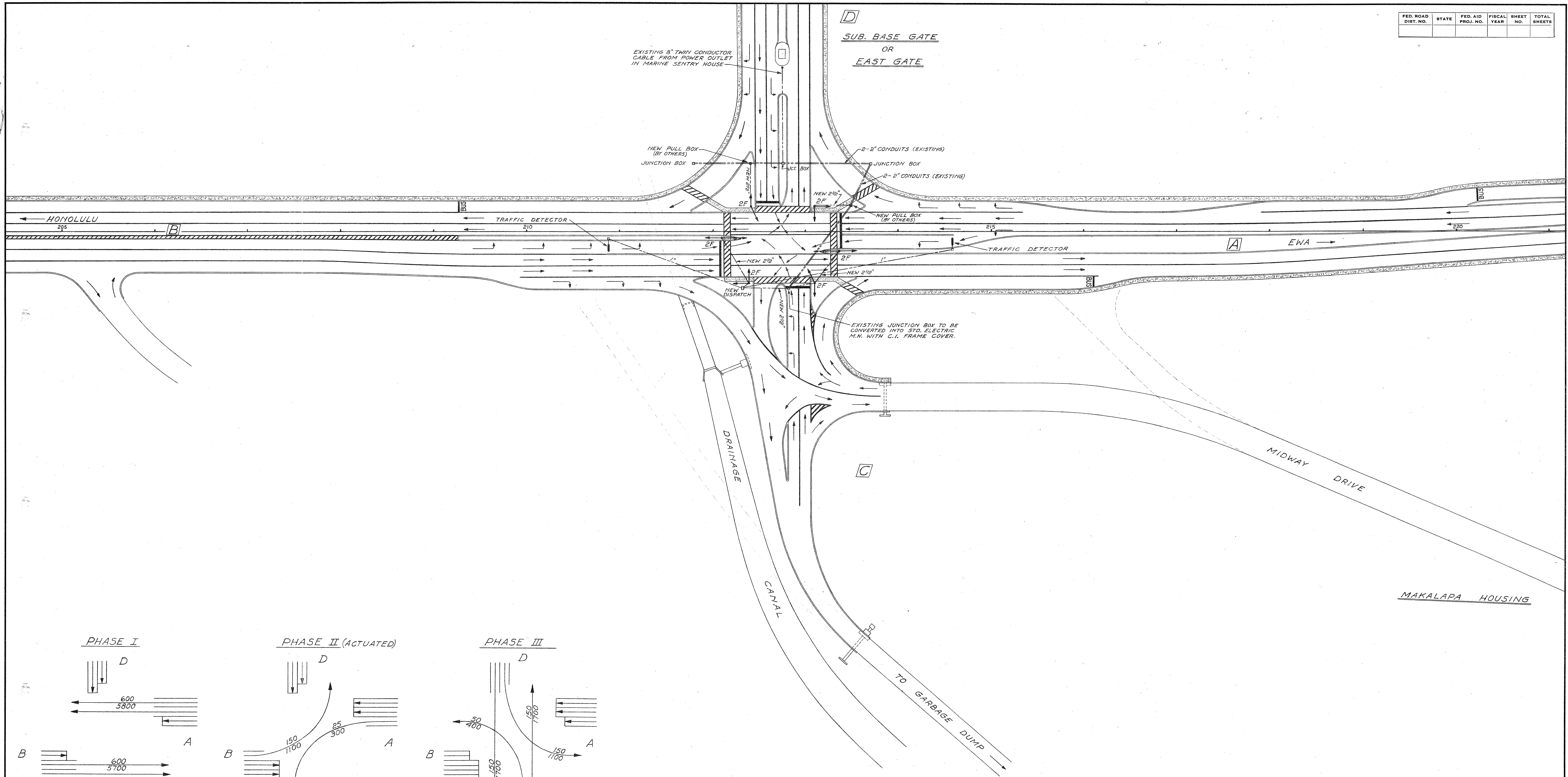
HAWAII HIGHWAY PLANNING SURVEY
OF THE
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
DA-NR-13(2)
KAMEHAMEHA HIGHWAY &
AIEA NAVAL HOSPITAL ROAD
SIGNALIZED INTERSECTION
JUNE, 1945
SCALE: 1" = 50'-0"

SHEET No OF SHEETS

5143.1111

SURVEY PLOTTED BY	DATE
DESIGNED BY	
DRAWN BY	
CHECKED BY	
QUANTITIES CHECKED BY	
CHECKED BY	
ORIGINAL PLAN	No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS



TURN RIGHT ANYTIME WITH CAUTION
PHASE DIAGRAM

2F - TWO FACE SIGNAL
2 STANDARD 4-LIGHT SIGNAL HEADS POST TOP
MOUNTED 10' HIGH ON 4" IRON PIPE STANDARD.

TRAFFIC FLOW SHOWN IS ESTIMATED FROM BEST AVAILABLE DATA
TOP FIGURE IS PEAK HOUR TRAFFIC
LOWER FIGURE IS 12 HOUR TRAFFIC

HAWAII HIGHWAY PLANNING SURVEY
OF THE
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
DA-NR-13(2)
KAMEHAMEHA HIGHWAY &
EAST GATE
SIGNALIZED INTERSECTION
JUNE, 1945
SCALE: 1" = 50'-0"