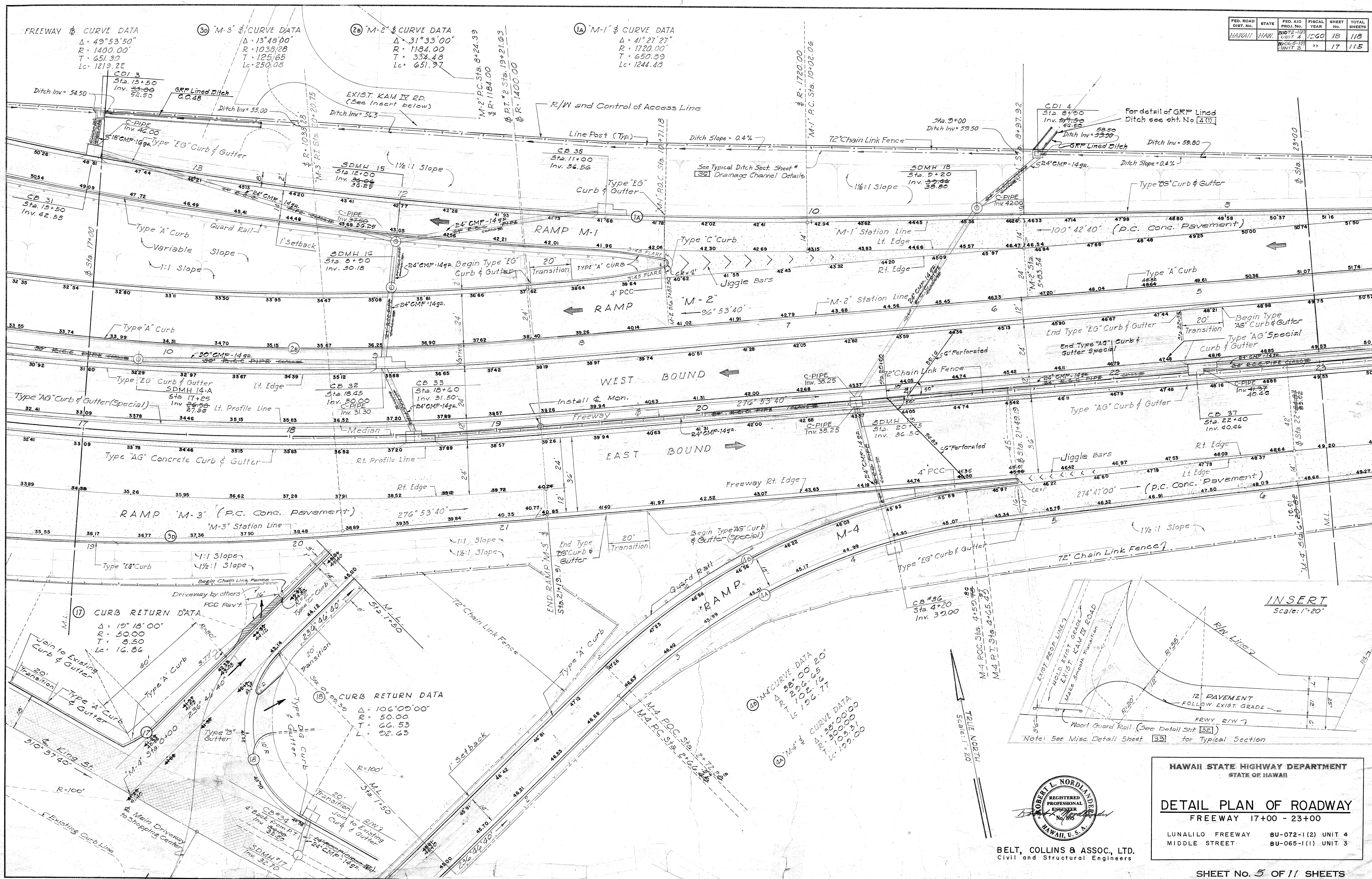
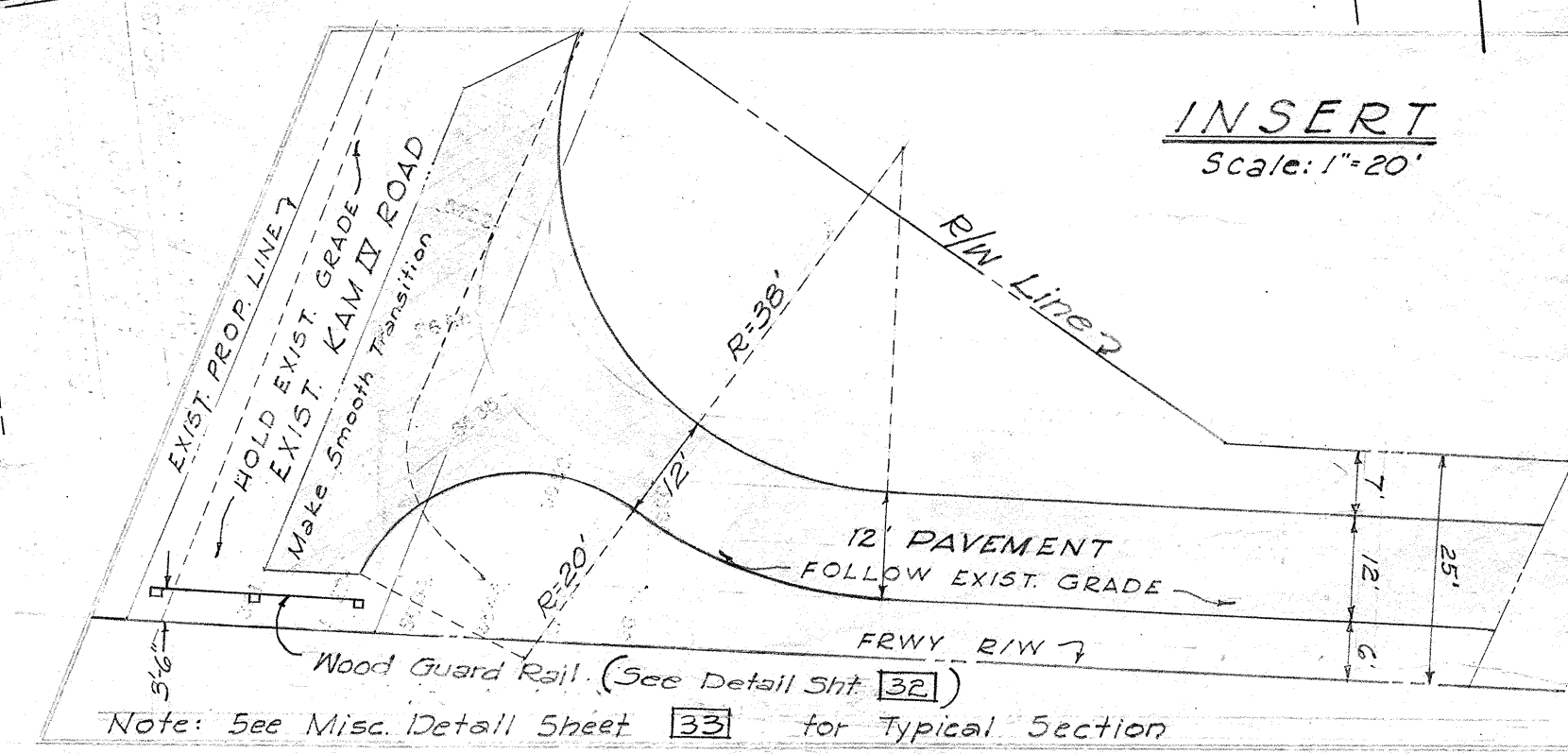


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BU-072-1(2)	1960	18	118
		BU-065-1(1)	"	17	115



DATE	10-1-60
DESIGNED BY	B. Collins
DRAWN BY	B. Collins
CHECKED BY	B. Collins
NOTED BY	B. Collins
ORIGINAL PLAN	No. 1
NOTE BOOK	No. 1



HAWAII STATE HIGHWAY DEPARTMENT
 STATE OF HAWAII

DETAIL PLAN OF ROADWAY
 FREEWAY 17+00 - 23+00

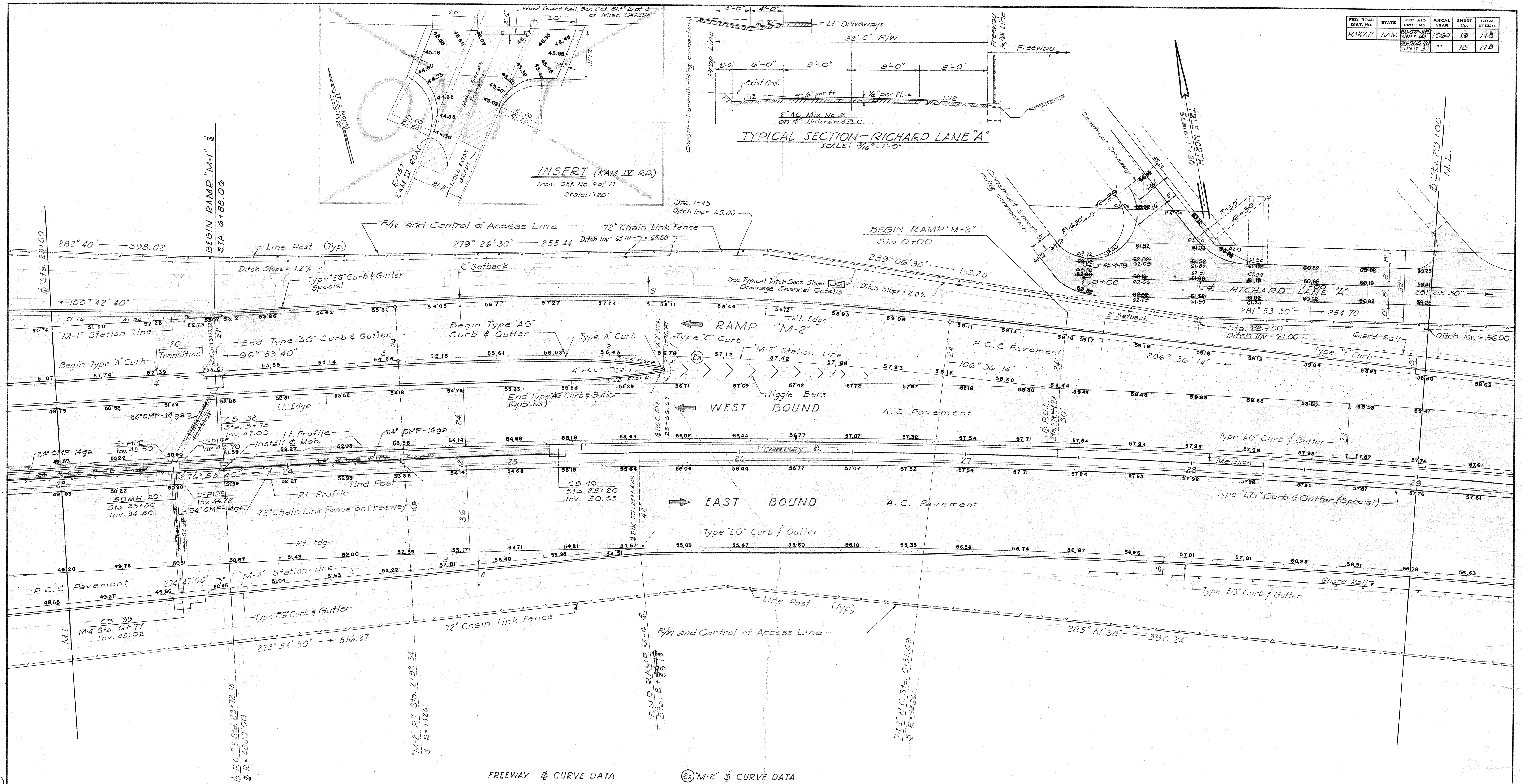
LUNALILO FREEWAY BU-072-1(2) UNIT 4
 MIDDLE STREET BU-065-1(1) UNIT 3

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 Civil and Structural Engineers

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BU-072-1(2)	1960	19	118
		BU-065-1(1)		10	178

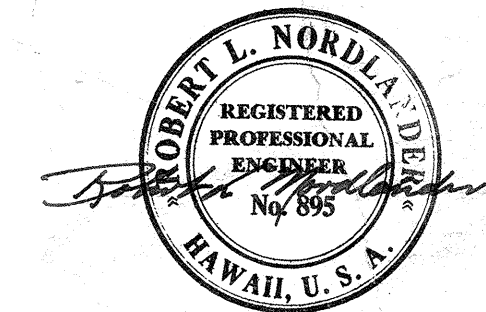
TYPICAL SECTION - RICHARD LANE "A"
SCALE: 3/8" = 1'-0"

INSERT (KAM II RD.)
From Sht. No. 4 of 11
Scale: 1" = 20'



FREEWAY & CURVE DATA
 Δ = 36° 06' 20"
 R = 4000.00'
 T = 1381.43'
 L = 2660.27'

② "M-2" & CURVE DATA
 Δ = 9° 42' 34"
 R = 1426.00'
 T = 121.12'
 L = 241.65'



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Civil and Structural Engineers

HAWAII STATE HIGHWAY DEPARTMENT
 STATE OF HAWAII
DETAIL PLAN OF ROADWAY
 FREEWAY 23+00 - 29+00
 LUNALILO FREEWAY BU-072-1(2) UNIT 4
 MIDDLE STREET BU-065-1(1) UNIT 3

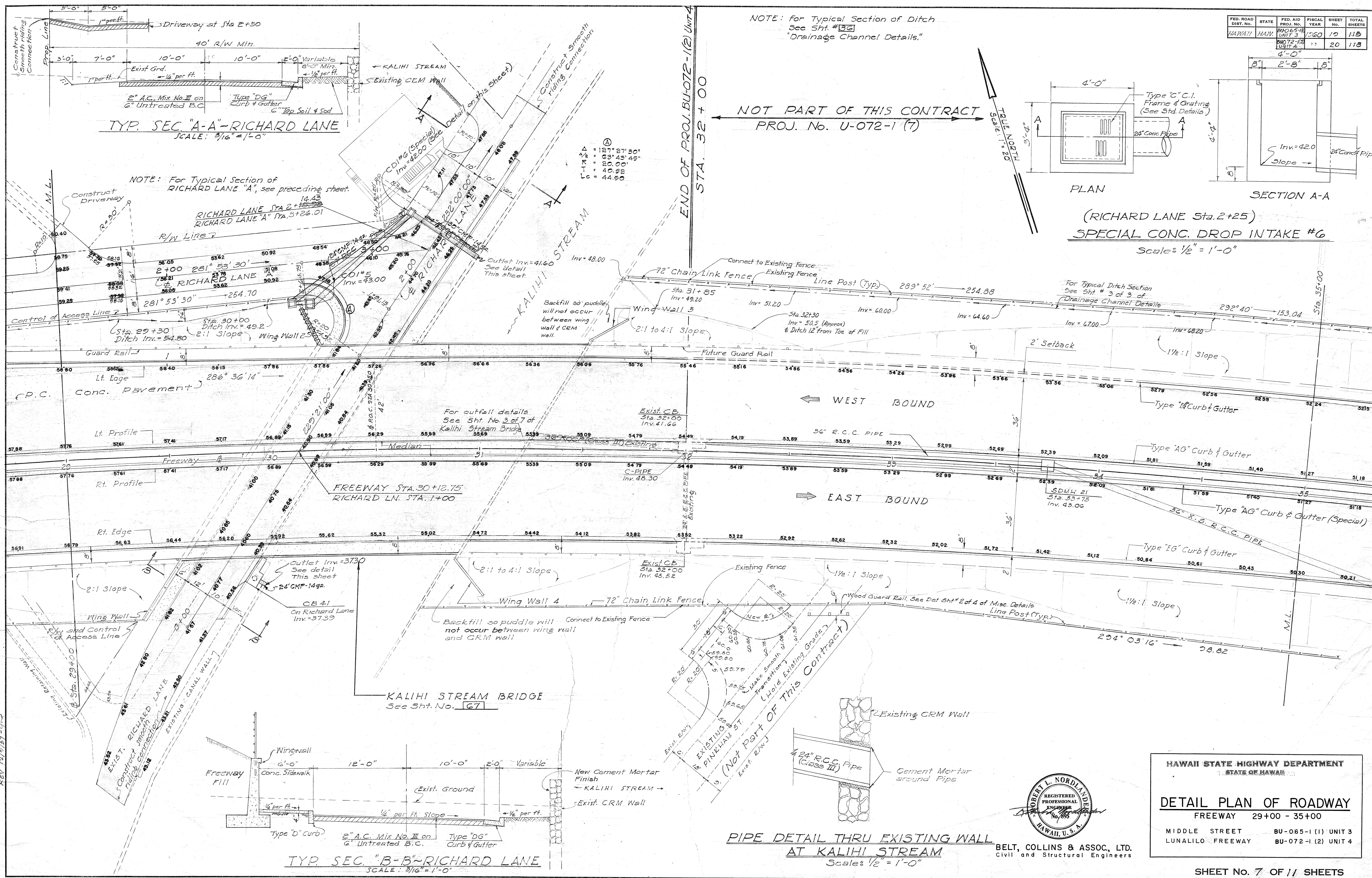
SHEET No. 6 OF 11 SHEETS

\$174.19 \$161.18

DATE	BY
3-24	W. J. Nordlund
3-24	W. J. Nordlund
3-24	W. J. Nordlund
3-24	W. J. Nordlund
3-24	W. J. Nordlund
3-24	W. J. Nordlund
3-24	W. J. Nordlund
3-24	W. J. Nordlund
3-24	W. J. Nordlund
3-24	W. J. Nordlund

ORIGINAL PLAN	NO.
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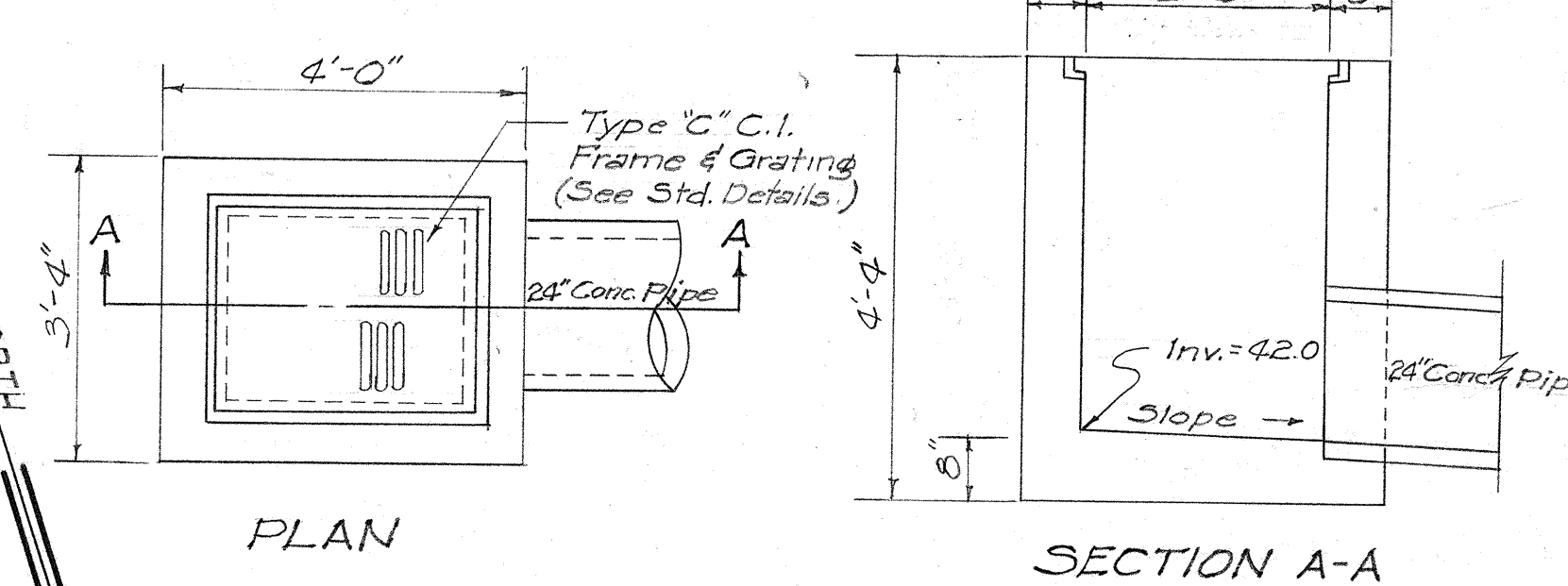
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	065-111	1960	10	115
		065-111		20	115



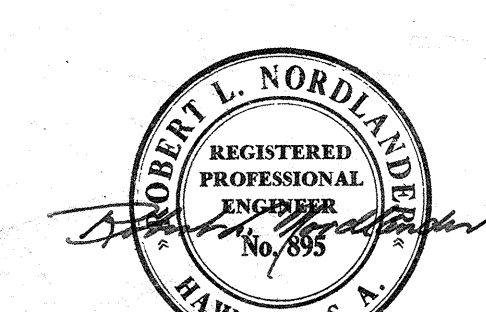
DATE	DESIGNED BY	CHECKED BY
12/15/57	W. J. ...	W. J. ...
PLAN	QUANTITIES BY	NOTE BOOK
	W. J. ...	W. J. ...

NOTE: For Typical Section of Ditch see Sht. #3 of 3 of "Drainage Channel Details."

NOT PART OF THIS CONTRACT
PROJ. No. U-072-1 (7)



PIPE DETAIL THRU EXISTING WALL AT KALIHI STREAM
Scale: 1/2" = 1'-0"

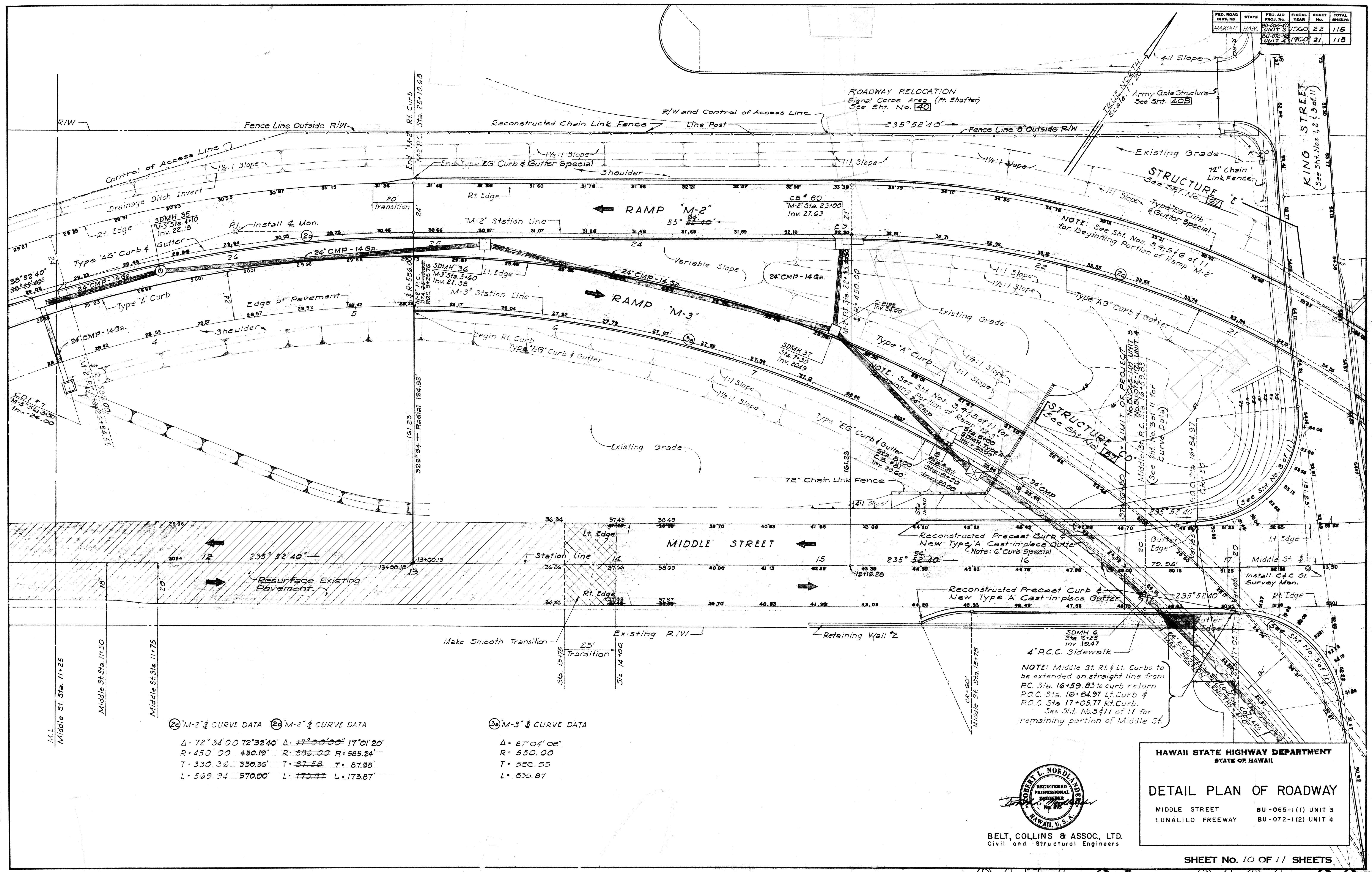


HAWAII STATE HIGHWAY DEPARTMENT
STATE OF HAWAII

DETAIL PLAN OF ROADWAY
FREEWAY 29+00 - 35+00

MIDDLE STREET BU-065-1 (1) UNIT 3
LUNALILO FREEWAY BU-072-1 (2) UNIT 4

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	BU-065-1(1)	1960	22	116
		BU-072-1(2)	1960	21	118



DATE	DESIGNED BY	DRAWN BY	CHECKED BY
11-26	W. J. ...	...	...
11-26	...	...	...
11-26	...	...	...
11-26	...	...	...
11-26	...	...	...
11-26	...	...	...
11-26	...	...	...
11-26	...	...	...
11-26	...	...	...
11-26	...	...	...

(20) M-2' CURVE DATA	(20) M-2' CURVE DATA	(30) M-3' CURVE DATA
$\Delta = 72^\circ 34' 00''$	$\Delta = 72^\circ 32' 40''$	$\Delta = 87^\circ 04' 02''$
$R = 450.00$	$R = 450.19$	$R = 550.00$
$T = 330.36$	$T = 330.36$	$T = 522.55$
$L = 569.34$	$L = 570.00$	$L = 835.87$



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STATE OF HAWAII

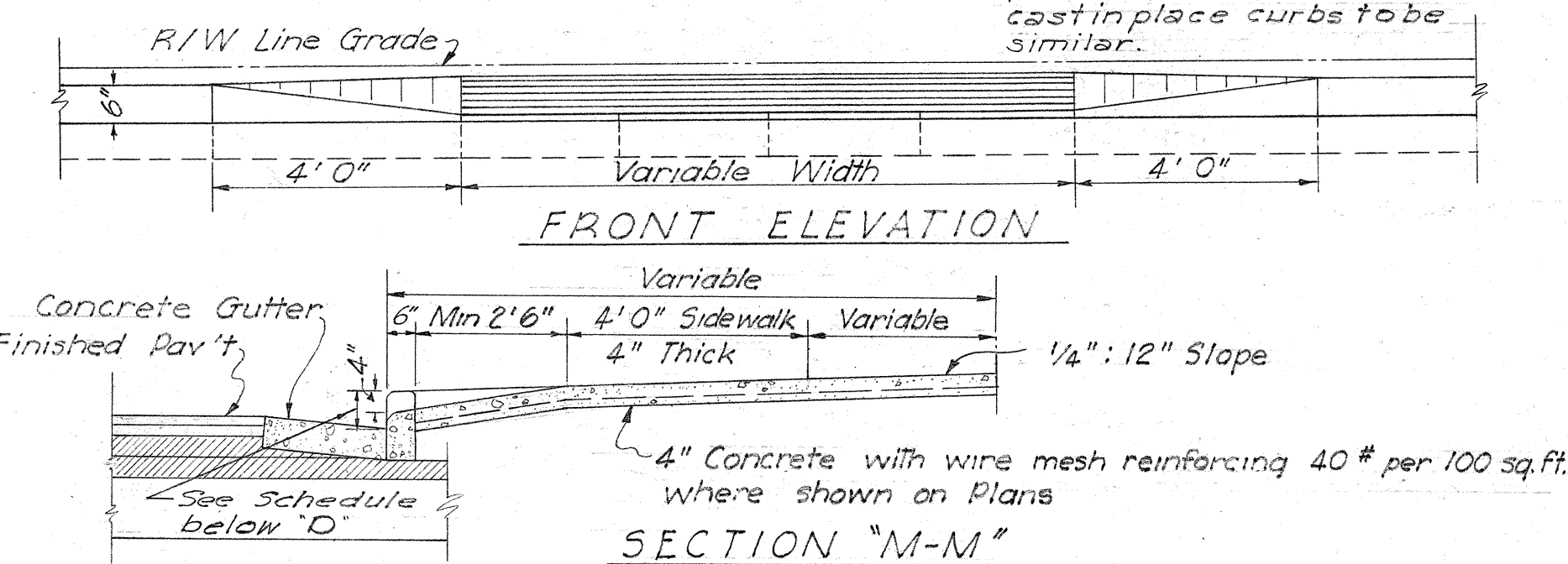
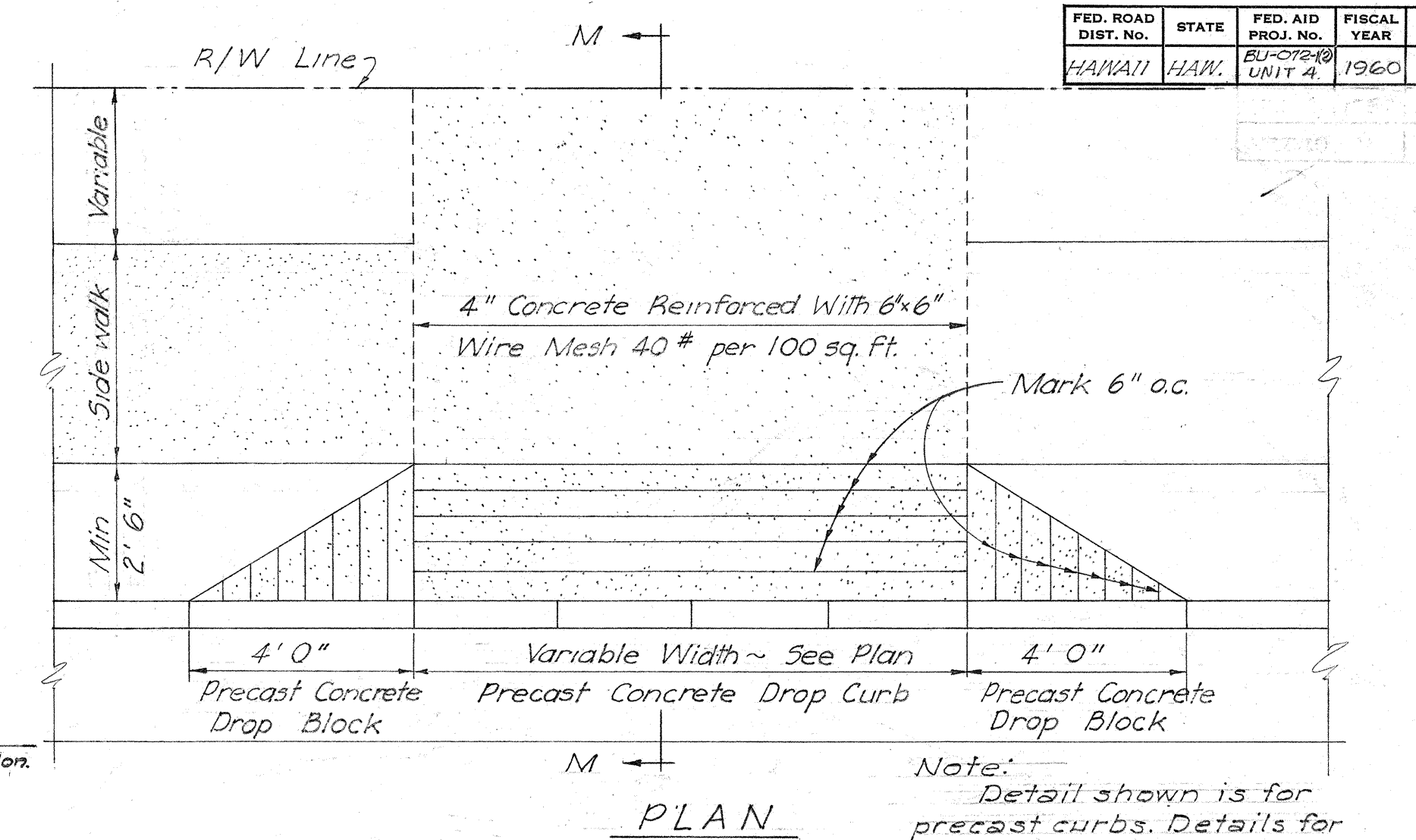
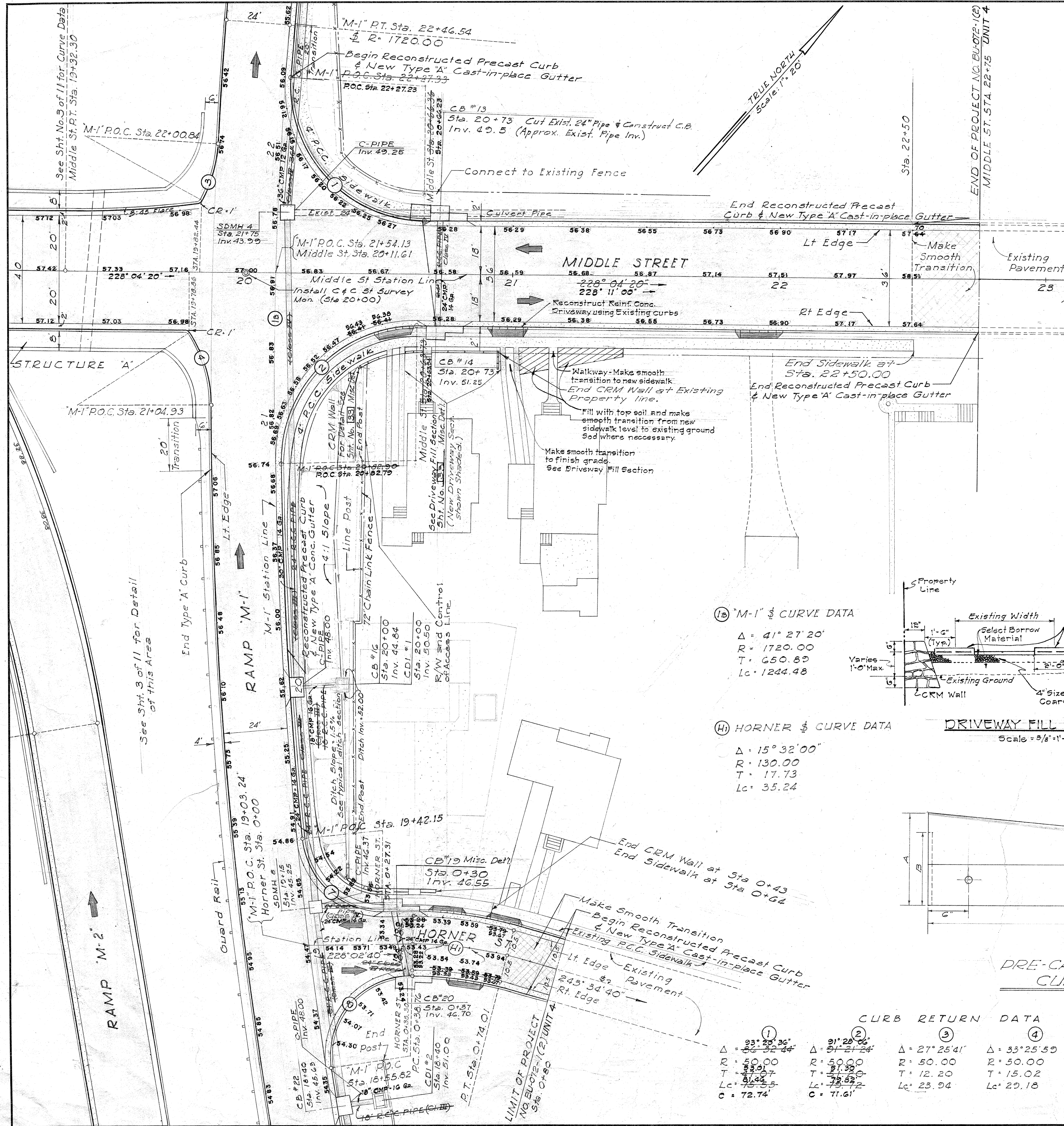
DETAIL PLAN OF ROADWAY

MIDDLE STREET BU-065-1(1) UNIT 3
LUNALILO FREEWAY BU-072-1(2) UNIT 4

SHEET No. 10 OF 11 SHEETS

\$174.21 \$161.22

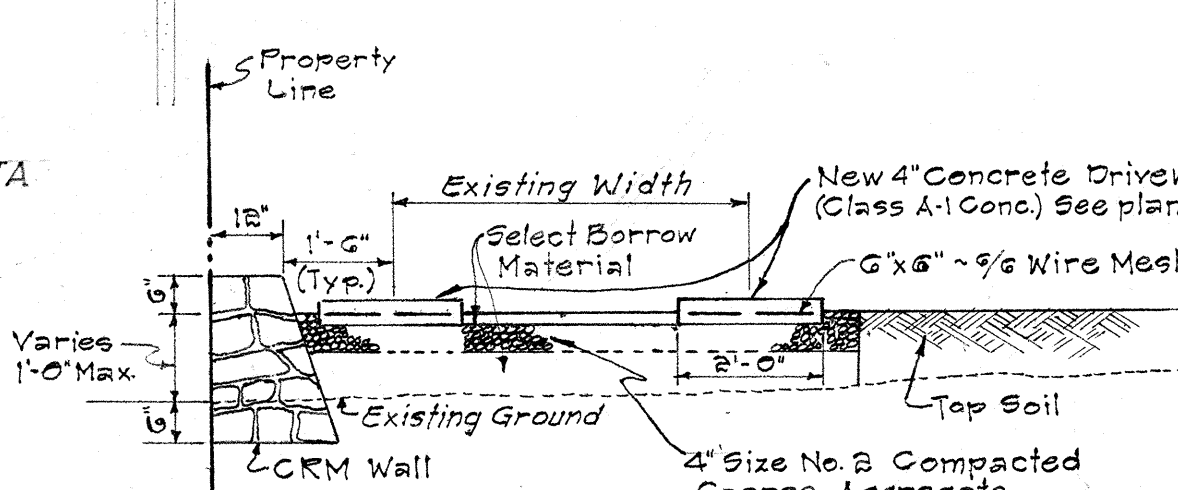
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BU-072-1(2)	1960	22	118



TYPICAL DETAIL of REINF. CONC. DRIVEWAY
Scale: 3/8" = 1' 0"

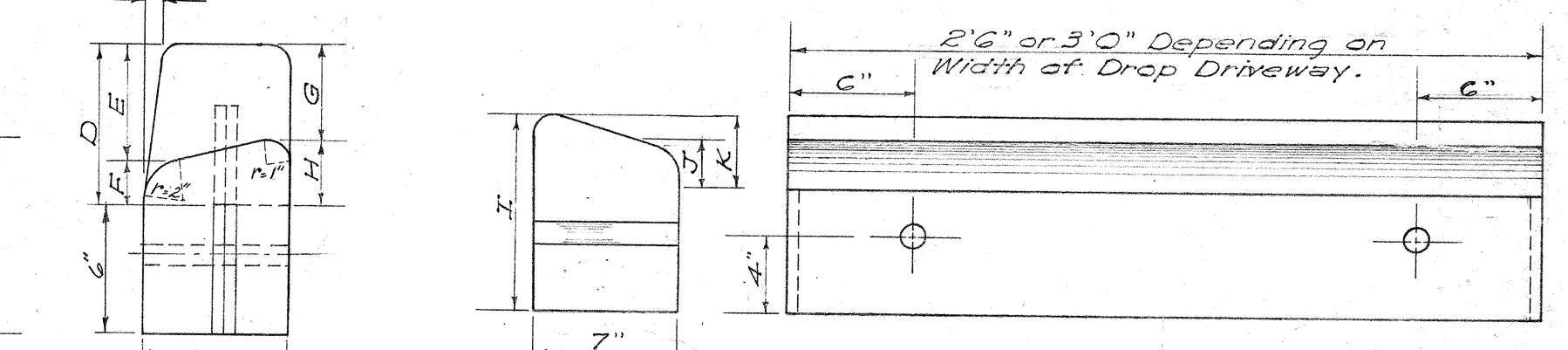
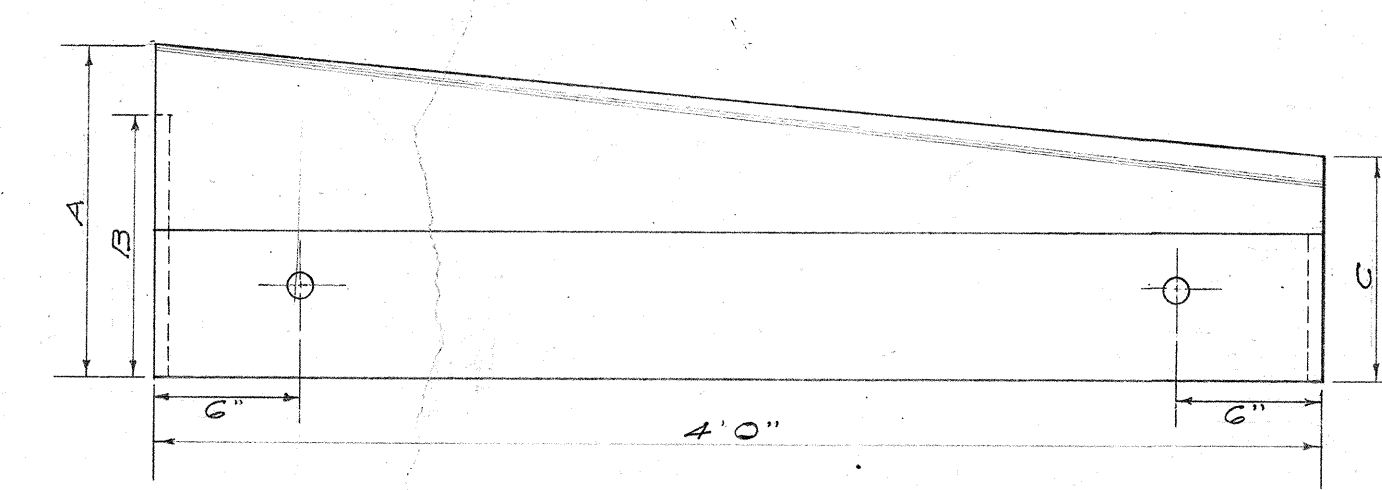
(B) "M-1" & CURVE DATA
 $\Delta = 41^\circ 27' 20''$
 $R = 1720.00$
 $T = 650.82$
 $Lc = 1244.48$

(H) HORNER & CURVE DATA
 $\Delta = 15^\circ 32' 00''$
 $R = 130.00$
 $T = 17.73$
 $Lc = 35.24$



Schedule For Pre-Cast Concrete Drop Curb & Concrete Driveway Curbs

	A	B	C	D	E	F	G	H	I	J	K
Pre-Cast Concrete Curbs Adjacent to Drop Curbs.	14"	11"	9 1/2"	8"	5 1/2"	2 1/2"	4 1/2"	3 1/2"	2 1/2"	3 1/2"	2 1/2"
Cast-In Place Curbs Adjacent to drop Curbs.	12"	9"	8 3/8"	6"	4"	2"	3 1/2"	2 1/2"	5 1/2"	2 1/2"	2"



CURB RETURN DATA

	(1)	(2)	(3)	(4)	(7)	(8)
Δ	$33^\circ 20' 36''$	$31^\circ 28' 06''$	$27^\circ 25' 41''$	$33^\circ 25' 59''$	$83^\circ 59' 23''$	$98^\circ 52' 57''$
R	50.00	50.00	50.00	50.00	30.00	50.00
T	12.20	12.20	12.20	15.02	27.01	35.05
Lc	23.94	23.94	23.94	29.18	43.98	51.77

ROBERT L. NORDLANDER
 REGISTERED PROFESSIONAL ENGINEER
 No. 88
 BELT, COLLINS & ASSOC., LTD.
 Civil and Structural Engineers

HAWAII STATE HIGHWAY DEPARTMENT
 STATE OF HAWAII
 DETAIL PLAN OF ROADWAY
 MIDDLE ST. 20+00- 22+75
 LUNALILO FREEWAY BU-072-1(2) UNIT 4