

GENERAL NOTES

1. CONTRACTOR IS ADVISED THAT THE FINISH GRADE ALONG THE LOW EDGE OF PAVEMENT MUST BE ACCURATELY CONSTRUCTED TO THE ELEVATIONS SHOWN ON PLANS. DEVIATIONS IN EXCESS OF 0.02 FEET FROM PLAN ELEVATIONS MAY BE CAUSE FOR REJECTION OF PAVEMENT.
2. FOR PRIVATE DRIVEWAY DETAILS AND TYPICAL PROFILES, SEE PLAN SHT. NO. C-13
3. FOR GRADE ADJUSTMENT WALL DETAILS, SEE PLAN SHT. NO. C-12
4. FOR ROAD CROSS SECTIONS, SEE PLAN SHT. NO. H-1 TO NO. H-14.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	12	123

STA. 124+84 TO STA. 125+35 LT.
CONSTRUCT 51±LF, TYPE "A" GRADE ADJUSTMENT WALL @ R/W.

STA. 125+60 (± DWY.) LT.
10' WIDE CONC. DROP DWY. REMOVE EXIST. CONC. DWY. & CONSTRUCT NEW CONC. DWY. WITH 24±LF TYPE "D" WALL TYPE I PROFILE

STA. 126+94 (± DWY.) LT.
18' WIDE CONC. DROP DWY. SCARIFY EXIST. A.C. DWY. & CONSTRUCT NEW A.C. DWY. WITH 32±LF TYPE "D" WALL TYPE I PROFILE

STA. 127+41 (± DWY.) LT.
14' WIDE CONC. DROP DWY. REMOVE EXIST. CONC. DWY. & CONSTRUCT NEW CONC. DWY. WITH 38±LF TYPE "D" WALL

STA. 128+31 (± DWY.) LT.
20' WIDE CONC. DROP DWY. REMOVE EXIST. CONC. DWY. & CONSTRUCT NEW CONC. DWY. TYPE I PROFILE.

EAST HIND DRIVE

STA. 126+35.27 TO STA. 126+60 LT. MEDIAN
INSTALL BREAKAWAY CABLE TERMINAL

PROVIDE OPENINGS FOR SIDEWALK CULVERTS

STA. 126+60 TO STA. 129+00 LT. MEDIAN
INSTALL 240 LF METAL GUARD RAIL

Constr. Grated Drop Inlet and Install 8" PVC Pipe

Exist 18" CMP

BEGIN PROJECT @ STA. 124+00

STA. 126+35.27 TO STA. 126+60 RT. MEDIAN
INSTALL BREAKAWAY CABLE TERMINAL (BCT)

STA. 124+38 (± DWY.) RT.
14' WIDE CONC. DROP DWY. CONSTRUCT NEW A.C. DWY. OVER EXIST. DIRT DWY. WITH 20±LF, TYPE "D" WALL TYPE I PROFILE

STA. 124+52 (± DWY.) RT.
14' WIDE CONC. DROP DWY. CONSTRUCT NEW A.C. DWY. OVER EXIST. DIRT DWY. WITH 20±LF, TYPE "D" WALL TYPE I PROFILE

STA. 125+54 (± DWY.) RT.
20' WIDE CONC. DROP DWY. SCARIFY EXIST. A.C. DWY. & CONSTRUCT NEW A.C. DWY. WITH 44±LF, TYPE "D" WALL TYPE I PROFILE

STA. 127+14 (± DWY.) RT.
12' WIDE CONC. DROP DWY. SCARIFY EXIST. A.C. DWY. & CONSTRUCT NEW A.C. DWY. WITH 60±LF, TYPE "D" WALL TYPE I PROFILE.

STA. 127+60.96
END BUS STOP

STA. 128+54 (± DWY.) RT.
13' WIDE CONC. DROP DWY. REMOVE EXIST. A.C. DWY. AND CONSTRUCT NEW CONC. DWY. WITH 80±LF, TYPE "D" WALL, TYPE II PROFILE

STA. 128+95 (± DWY.) RT.
18' WIDE CONC. DROP DWY. REMOVE EXIST. BRICK DWY. AND CONSTRUCT NEW BRICK DWY. WITH 56±LF, TYPE "D" WALL, TYPE I PROFILE. BRICK PAVING SHALL BE PAID FOR UNDER ITEM 411.1220, 4-INCH REINFORCED CONC. PAVEMENT FOR PRIVATE DWYS.

127+22±
STA. 128+60 TO STA. 128+86 RT.
CONSTRUCT 26±LF, TYPE "B" GRADE ADJUSTMENT WALL WITH RAILING @ R/W.

55±
STA. 125+64 TO STA. 128+48 RT.
CONSTRUCT 270±LF TYPE "B" GRADE ADJUSTMENT WALL WITH RAILING @ R/W

LEGEND

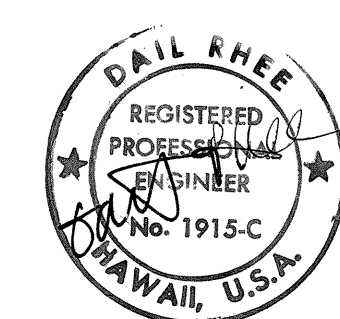
- 7.50 (E)
6.30
6.30
- EXISTING ELEVATIONS (BOTTOM CURB) FROM PREVIOUS CONSTRUCTION
- NEW CONSTRUCTION PAVEMENT ELEVATIONS (BOTTOM CURB)

CURVE DATA

①
Δ = 1° 21' 24"
Δ/2 = 0° 40' 42"
R = 4235.00
T = 50.14
CH = 100.28
LC = 100.28

NOTES:

1. FOR METAL GUARDRAIL DETAILS, SEE STANDARD PLAN TE-50 & 51.
2. FOR BREAKAWAY CABLE TERMINAL (BCT) DETAILS, SEE STANDARD PLAN TE-01.
3. FOR CONCRETE BARRIER DETAIL, SEE STANDARD PLAN TE-03.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAIL PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-1(34)B

SCALE: 1"=20' DATE: SHEET NO. C-1 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	13	193

STA. 1+14.88 (KIRKWOOD ST.)
TO 132+67 LT. (KAL. HWY.)
CONSTRUCT 78 ± LF TYPE "C"
GRADE ADJUSTMENT WALL @ R/W

TRUE NORTH
SCALE: 1" = 20'

MATCH LINE @ STA. 129+00

MATCH LINE @ STA. 134+50

(A) CURVE DATA
Δ = 2° 04' 04"
Δ/2 = 1° 02' 02"
R = 5754.00
T = 103.84
CH = 207.65
LC = 207.66

(B) CURVE DATA
Δ = 1° 50' 20"
Δ/2 = 0° 55' 10"
R = 4000.00
T = 64.19
CH = 128.37
LC = 128.38

STA. 129+55 (± DWY.) LT.
18' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 14 ± LF, TYPE "D" WALL
TYPE I PROFILE

STA. 129+90 (± DWY.) LT.
18' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 8 ± LF, TYPE "D" WALL
TYPE I PROFILE

STA. 129+00 TO STA. 134+00 LT. MEDIAN
INSTALL 500 LF METAL GUARD RAIL

PROVIDE OPENINGS
FOR SIDEWALK
CULVERTS

JOIN EXIST. CURB WITH
SMOOTH TRANSITION
END SIDEWALK AT
EXIST. CATCH BASIN

KIRKWOOD STREET

STA. 1+14.88
KIRKWOOD ST.

STA. 134+00 TO STA. 134+50 LT. MEDIAN
INSTALL 50 LF CONC. BARRIER (TYPE 4A)

EXIST. R/W

253° 53' 55"
254° 22' 46"

330.07 (P.C.C. STA. 131+53.76 TO P.I. STA. 134+84.10)

133 252° 37' 46" 212.52

(BIKELANE)
R=4043.00'
Δ=2° 33' 00"

252° 37' 46"

EXIST. CMU WALL
253° 53' 55"

EXIST. R/W

239.45

STA. 134+00 TO STA. 134+50
INSTALL 50 LF CONC. BARRIER (TYPE 4A)

STA. 131+95.18 KAL. HWY.
= 0+00 KIRKWOOD ST.

STA. 131+91.40 (± 47.27 RT.)
INSTALL ST. SURVEY MONUMENT

STA. 130+81 (± DWY.) RT.
12' WIDE CONC. DROP DWY.
CONSTRUCT NEW CONC. DWY.
OVER EXIST. DIRT DWY.
WITH 80 ± LF, TYPE "D" WALL,
TYPE II PROFILE

Sta. 130+88 ± to Sta. 132+62 ±
Install Handrail

STA. 132+73 (± DWY.) RT.
20' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY.
AND CONSTRUCT NEW A.C. DWY.
WITH 38 ± LF, TYPE "D" WALL
ALONG EXIST. EDGE OF DWY.

STA. 129+03 TO STA. 130+45 RT.
CONSTRUCT 142 ± LF, TYPE "A" GRADE
ADJUSTMENT WALL @ R/W

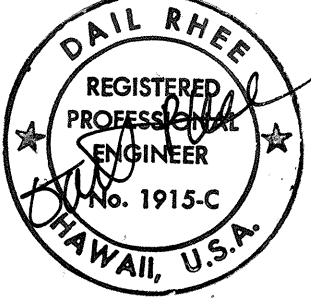
88 ± 132+61 ±
STA. 130+45 TO STA. 134+50 RT.
CONSTRUCT 385 ± LF, TYPE "B" GRADE
ADJUSTMENT WALL WITH RAILING @ R/W

CURVE DATA

(2) Δ = 2° 33' 00"
Δ/2 = 1° 16' 30"
R = 4054.00'
T = 90.23'
CH = 180.41'
LC = 180.43'

(3) Δ = 2° 33' 00"
Δ/2 = 1° 16' 30"
R = 4043.00'
T = 89.98'
CH = 179.92'
LC = 179.94'

(4) Δ = 24° 35' 15"
Δ/2 = 12° 17' 37.5"
R = 56.00'
T = 60.67'
CH = 82.30'
LC = 92.45'



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAIL PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-1(34)B

SCALE: 1" = 20' DATE:

SHEET No. C-2 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	14	193

Sta. 135+00± Lt.
Constr. 12' Dwy.

STA. 137+47 (± Dwy.) Lt.
16' WIDE CONC. DROP DWY.
REMOVE EXIST. "FUTURA STONE" DWY.
& CONSTRUCT NEW FUTURA STONE
DWY. MATCH EXIST. FINISH.
TYPE III PROFILE.

NOTE: SPECIAL FINISH FOR DWY.
SHALL BE INCIDENTAL TO ITEM
411.1220, 4-INCH REINFORCED CONC.
PAVEMENT FOR PRIVATE DWYS.

STA. 134+50 TO STA. 140+00 LT. MEDIAN
INSTALL 550 LF CONC. BARRIER (TYPE 4A)

STA. 137+75 TO STA. 138+00 LT.
CONSTRUCT 113± LF TYPE "C" GRADE
ADJUSTMENT WALL @ R/W.

STA. 137+64 (± Dwy.) Lt.
18' WIDE CONC. DROP DWY.
REMOVE EXIST. CONC. DWY. &
CONSTRUCT NEW CONC. DWY.
TYPE III PROFILE.

STA. 138+24 (± Dwy.) Lt.
10' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 22± LF TYPE "D" WALL
TYPE III PROFILE.

STA. 139+25 (± Dwy.) Lt.
20' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
TYPE II PROFILE.

Sta. 138+29± to Sta. 138+85±
Constr. Tile Wall Type U, 6'H

STA. 140+00 TO STA. 140+25 LT. MEDIAN
INSTALL BREAKAWAY CABLE TERMINAL

TRUE NORTH
SCALE: 1" = 20'

MATCH LINE @ STA. 134+50

MATCH LINE @ STA. 140+50

STA. 136+05.41 (96 47.33' RT.)
INSTALL STATE SURVEY MONUMENT

① CURVE DATA

$\Delta = 1^\circ 16' 09''$
 $\frac{\Delta}{2} = 0^\circ 38' 04.5''$
 $R = 5,000.00'$
 $T = 55.38'$
 $CH = 110.75'$
 $LC = 110.76'$

STA. 134+50 TO STA. 140+50 RT. MEDIAN
INSTALL 600 LF CONC. BARRIER (TYPE 4A)

CURVE DATA

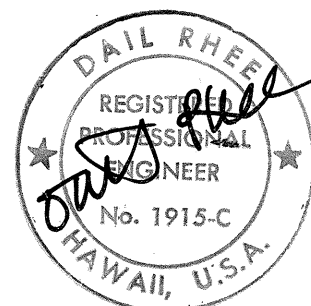
⑤ $\Delta = 2^\circ 23' 09''$
 $\frac{\Delta}{2} = 1^\circ 11' 34.5''$
 $R = 1446.69'$
 $T = 30.13'$
 $CH = 60.24'$
 $LC = 60.24'$

⑥ $\Delta = 2^\circ 23' 09''$
 $\frac{\Delta}{2} = 1^\circ 11' 34.5''$
 $R = 1435.69'$
 $T = 29.90'$
 $CH = 59.78'$
 $LC = 59.78'$

KAWAIKUI BEACH PARK

NOTE: FOR PARK IMPROVEMENTS
SEE PLAN SHT. NO. L-27.

STA. 139+21 (± Dwy.) Rt.
24' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 50± LF CONC. CURB, TYPE 3D.
MATCH INTO EXIST. REMOVE
CONC. CURB AS NECESSARY.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAIL PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.

F.A. PROJECT NO. F-072-1(34)B

SCALE: 1" = 20'

DATE:

SHEET No. C-3 OF 14 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
QUANTITIES BY	DESIGNED BY	
CHECKED BY		

STA. 140+82 TO STA. 141+86 LT.
CONSTRUCT 103± LF, CRM RETAINING
WALL. FOR DETAIL, SEE PLAN SHT. NO.

STA. 145+35 (4 DWY.)/LT.
10' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
TYPE III PROFILE.

STA. 145 + 83 (E Dwy.) LT.
10' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
TYPE IV PROFILE.



SCALE : 1" = 20' DATE: _____

SHEET No.C-4 OF 14 SHEETS

15

FOR DETAILS AND GRADING
IN "JUGHANDLE TURNAROUND"
SEE PLAN SHT. NO. C-11

STA. 0+43 JUGHANDLE (& DWY.) RT.
12' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 35" LF TYPE "D" WALL
TYPE I PROFILE.
(REMOVE LOOSE STONE WALL
WITHIN CONSTR. AREA. WORK
IS INCIDENTAL TO DRIVEWAY).

43+75 TO STA. 144+00 RT. MEDIAN
ALL BREAKAWAY CABLE TERMINAL

STA. 144+04 (E Dwy.) RT
10' WIDE CONC. DROP DWY.
(PRIVATE DRIVEWAY BY
OWNER).

STA. 144+00 TO STA. 146+00 RT. MEDIAN.
INSTALL 200 LF CONC. BARRIER (TYPE 4A)

STA. 144+77 (4 DWY.) RT.
10' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 64± LF TYPE "D" WALL
TYPE I PROFILE.

STA. 145 + 73 (E D.WY.) RT.
10' WIDE CONC. DROP D.WY.
REMOVE EXIST. A.C. D.WY. &
CONSTRUCT NEW CONC. D.WY.
WITH 4G $\pm$ LF TYPE "D" WALL
TYPE II PROFILE.

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

STA. 145+88 TO STA. 147+20 LT.
CONSTRUCT 125± LF TYPE "A" GRADE
ADJUSTMENT WALL @ R/W.
DELETE @ DWYS.

STA. 147+20 TO STA. 0+77 (HAWAII LOA) LT.
CONSTRUCT 32± LF TYPE "C" GRADE
ADJUSTMENT WALL @ R/W.

STA. 0+83 (HAWAII LOA) TO STA. 148+83 LT.
CONSTRUCT 110± LF TYPE "A" GRADE
ADJUSTMENT WALL @ R/W.

STA. 148+23 TO STA. 151+23 LT.
CONSTRUCT 270± LF TYPE "A" GRADE
ADJUSTMENT WALL @ R/W
DELETE @ DWYS.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	16	123

STA. 146+33 (± DWY.) LT.
10' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 28± LF TYPE "D" WALL
TYPE I PROFILE.

HAWAII-LOA
STREET

STA. 148+86 (± DWY.) LT.
10' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 24± LF TYPE "D" WALL
TYPE I PROFILE.

STA. 149+52 (± DWY.) LT.
10' WIDE CONC. DROP DWY.
REMOVE EXIST. CONC. DWY. &
CONSTRUCT NEW CONC. DWY.
TYPE III PROFILE.

STA. 150+44 (± DWY.) LT.
10' WIDE CONC. DROP DWY.
REMOVE EXIST. CONC. DWY. &
CONSTRUCT NEW CONC. DWY.
TYPE I PROFILE.

STA. 151+18 (± DWY.) LT.
10' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
TYPE I PROFILE.

STA. 147+50 TO STA. 148+00 LT. MEDIAN
INSTALL 50 LF TRANSITION CONC. BARRIER
HEIGHT 1'-0" TO 2'-8"

STA. 148+00 TO STA. 151+50 LT. MEDIAN
INSTALL 350 LF CONC. BARRIER (TYPE 4A)

Extend A.C. Dwy.
50' to Garage

Constr.
Grade
Adjust.
Wall at
R.O.W.

TRUE NORTH
SCALE: 1"=20'

MATCH LINE @ STA. 146+00

MATCH LINE @ STA. 151+50

APPROXIMATE
EDGE OF NEW FILL
PROVIDE
OPENING FOR
SIDEWALK
CULVERT

PROVIDE
OPENING FOR
SIDEWALK
CULVERT

PROVIDE
OPENING FOR
SIDEWALK
CULVERT

PROVIDE
OPENING FOR
SIDEWALK
CULVERT

Install Sidewalk Culvert
w/6" PVC Opening

TRANSITION HEIGHT
2'-8" TO 1'-0"

TRANSITION HEIGHT
1'-0" TO 2'-8"

Remove
Mango Tree

Relocate
Coconut Tree

STA. 146+00 TO STA. 146+50 RT. MEDIAN
INSTALL 50 LF TRANSITION CONC. BARRIER
(TRANSITION HEIGHT 2'-8" TO 1'-0")

STA. 147+75 TO STA. 148+00 RT. MEDIAN
INSTALL BREAKAWAY CABLE TERMINAL

STA. 148+00 TO STA. 151+50 RT. MEDIAN
INSTALL 350 LF CONC. BARRIER (TYPE 4A)

STA. 147+10 (± DWY.) RT.
20' WIDE CONC. DROP DWY.
REMOVE EXIST. BRICK DWY. &
CONSTRUCT NEW BRICK DWY.
TYPE III PROFILE.

STA. 147+60 (± DWY.) RT.
20' WIDE CONC. DROP DWY.
REMOVE EXIST. BRICK DWY. &
CONSTRUCT NEW BRICK DWY.
TYPE III PROFILE.

STA. 148+72 (± DWY.) RT.
14' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
TYPE III PROFILE.

STA. 149+10 (± DWY.) RT.
12' WIDE CONC. DROP DWY.
REMOVE EXIST. CONC. DWY. &
CONSTRUCT NEW CONC. DWY.

STA. 150+08 (± DWY.) RT.
20' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 42± LF TYPE "D" WALL

STA. 151+04 (± DWY.) RT.
12' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 24± LF TYPE "D" WALL
TYPE I PROFILE

NOTE: BRICK PAVING SHALL BE PAID FOR
UNDER ITEM 411.1220, 4-INCH
REINFORCED CONC. PAVEMENT
FOR PRIVATE DWYS.

Sta. 149+47 RT.
Construct Driveway

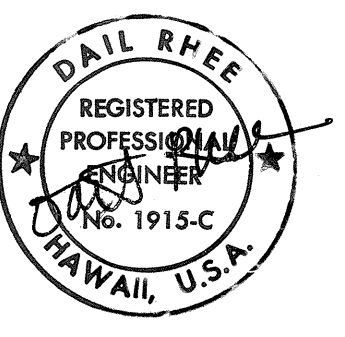
± CURVE DATA

$\Delta = 10^\circ 03'$
 $\Delta/2 = 5^\circ 01' 30''$
 $R = 3149.31$
 $T = 276.91$
 $CH = 551.70$
 $LC = 552.41$

STA. 146+60 TO STA. 147+37 RT.
CONSTRUCT 67± LF TYPE "C" GRADE
ADJUSTMENT WALL @ R/W.
DELETE @ DWY.

STA. 147+37 TO STA. 148+60 RT.
CONSTRUCT 103± LF TYPE "A" GRADE
ADJUSTMENT WALL @ R/W
DELETE @ DWY.

STA. 148+79 TO STA. 154+50 RT.
CONSTRUCT 487± LF TYPE "A" GRADE
ADJUSTMENT WALL @ R/W
DELETE @ DWYS.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAIL PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-1(34)B
SCALE: 1"=20' DATE:

SHEET NO. C-5 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	17	123

STA. 155+60 TO STA. 157+00 LT.
CONSTRUCT 204± LF TYPE "C" GRADE
ADJUSTMENT WALL @ R/W.
DELETE @ DWYS.

TRUE NORTH
SCALE: 1"=20'

STA. 151+00 (± DWY) LT.
12' WIDE CONC. DROP DWY.
REMOVE EXIST. CONC. DWY. &
CONSTRUCT NEW CONC. DWY.
TYPE I PROFILE.

STA. 152+52 (± DWY) LT.
10' WIDE CONC. DROP DWY.
REMOVE EXIST. CONC. DWY. &
CONSTRUCT NEW CONC. DWY.
TYPE I PROFILE.

STA. 152+80 (± DWY) LT.
10' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
TYPE I PROFILE.

STA. 153+01 (± DWY) LT.
10' WIDE CONC. DROP DWY.
CONSTRUCT NEW A.C. DWY.
OVER EXIST. DIRT. DWY.
TYPE I PROFILE.

STA. 154+85 (± DWY) LT.
12' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.

STA. 155+54 (± DWY) LT.
10' WIDE CONC. DROP DWY.
REMOVE EXIST. CONC. DWY. &
CONSTRUCT NEW CONC. DWY.
WITH 20± LF TYPE "D" WALL
TYPE III PROFILE.

STA. 156+42 (± DWY) LT.
12' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 28± LF TYPE "D" WALL
TYPE III PROFILE.

STA. 157+24 (± DWY) LT.
14' WIDE CONC. DROP DWY.
CONSTRUCT NEW A.C. DWY.
OVER EXIST. DIRT. DWY.
TYPE III PROFILE.

STA. 151+50 TO STA. 153+00 LT. MEDIAN
INSTALL 150 LF CONC. BARRIER (TYPE 4A)

STA. 153+00 TO STA. 155+50 LT. MEDIAN
INSTALL 250 LF METAL GUARD RAIL

STA. 155+50 TO STA. 156+75 LT. MEDIAN
INSTALL BREAKAWAY CABLE TERMINAL

Sta. 156+23 Lt.
Constr. Driveway

MATCH LINE @ STA. 151+50

MATCH LINE @ STA. 157+50

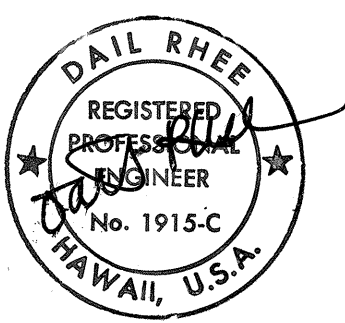
TRANSITION HEIGHT
2'-8" TO 1'-0"

STA. 151+50 TO STA. 152+00 RT. MEDIAN
INSTALL 50 LF TRANSITION CONC. BARRIER
(TYPE 4A) HEIGHT 2'-8" TO 1'-0".

STA. 152+00 TO STA. 155+25 RT. MEDIAN
INSTALL 325 LF METAL GUARD RAIL

STA. 155+25 TO STA. 156+50 RT. MEDIAN
INSTALL BREAKAWAY CABLE TERMINAL

STA. 156+05 (± DWY) RT.
12' WIDE CONC. DROP DWY.
CONSTRUCT NEW A.C. DWY.
OVER EXIST. DIRT. DWY.
WITH 40± LF TYPE "D" WALL
TYPE I PROFILE.



Sta. 157+05± to Sta. 157+50
Install Handrail

STA. 151+48 (± DWY) RT.
18' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
TYPE I PROFILE.

STA. 152+20 (± DWY) RT.
20' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
TYPE I PROFILE.

STA. 153+04 (± DWY) RT.
14' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
TYPE I PROFILE.

STA. 153+84± (± DWY) RT.
20' WIDE CONC. DROP DWY.

STA. 155+14± (± DWY) RT.
20' WIDE CONC. DROP DWY.

STA. 155+08 (± DWY) RT.
13' WIDE CONC. DROP DWY.
CONSTRUCT NEW A.C. DWY.
OVER EXIST. DIRT. DWY.
WITH 32± LF TYPE "D" WALL
TYPE I PROFILE.

STA. 154+80 TO STA. 155+70 RT.
CONSTRUCT 74± LF CMU WALL
FOR DETAIL, SEE PLAN SHT. NO.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAIL PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-1(34)B
SCALE: 1"=20' DATE: _____

SHEET No. C-6 OF 14 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
TRACED BY		
DESIGNED BY		
CHECKED BY		
NO.		

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	18	173

§ CURVE DATA

Δ = 10° 00'
 4/2 = 5' 00'
 R = 2300.00
 T = 201.22
 CH = 400.92
 LC = 401.43

STA. 0+25± (W. HALEMAUMAU ST.)
 TO STA. 161+00
 CONSTRUCT 20± LF TYPE "A"
 GRADE ADJUSTMENT WALL @ R/W.

STA. 161+23 (E Dwy.) LT.
 10' WIDE CONC. DROP DWY.
 SCARIFY EXIST. A.C. DWY. &
 CONSTRUCT NEW A.C. DWY.
 WITH 40± LF TYPE "D" WALL
 TYPE I PROFILE.

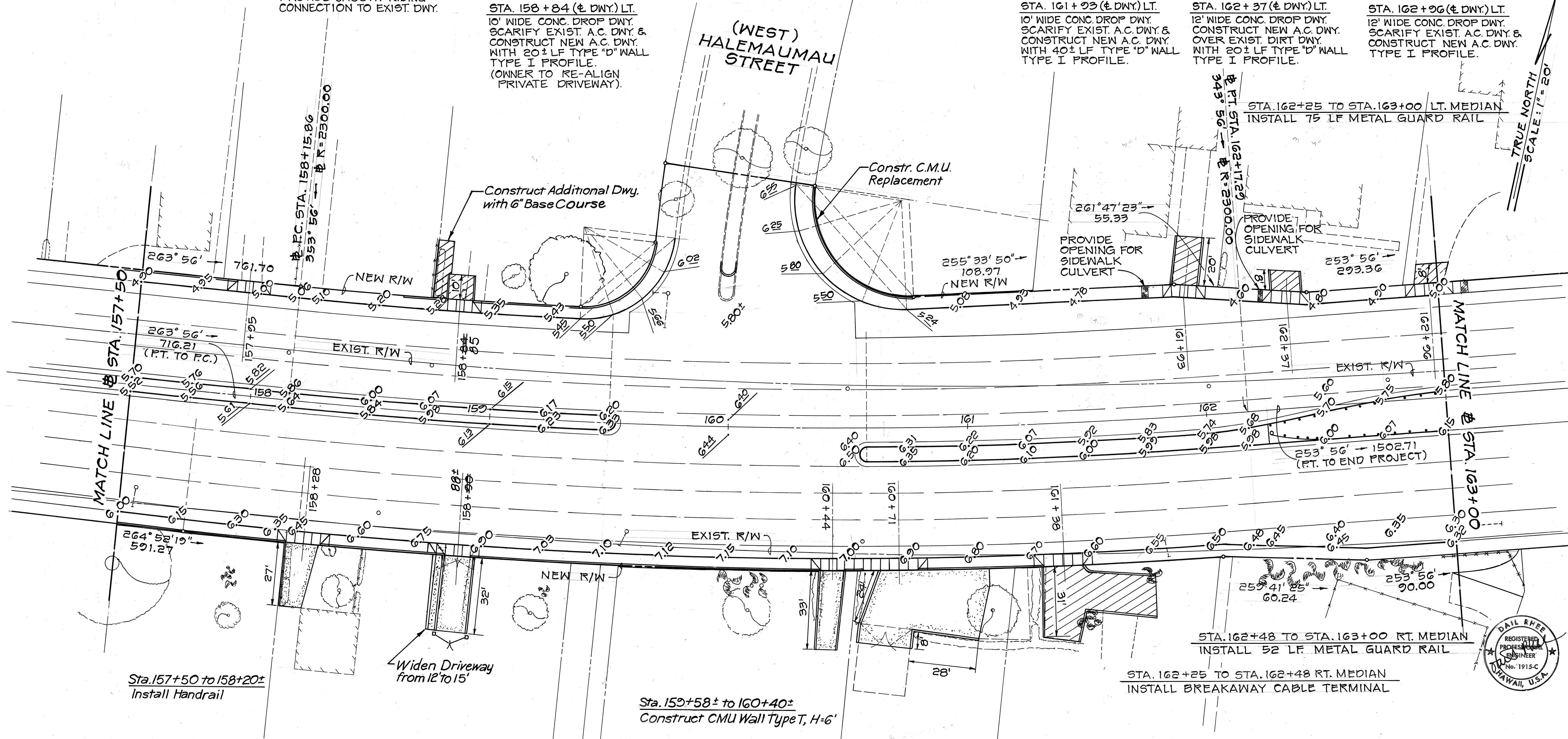
STA. 162+37 (E Dwy.) LT.
 12' WIDE CONC. DROP DWY.
 CONSTRUCT NEW A.C. DWY.
 OVER EXIST. DIRT DWY.
 WITH 20± LF TYPE "D" WALL
 TYPE I PROFILE.

STA. 162+26 (E Dwy.) LT.
 12' WIDE CONC. DROP DWY.
 SCARIFY EXIST. A.C. DWY. &
 CONSTRUCT NEW A.C. DWY.
 TYPE I PROFILE.

STA. 158+60 TO
 STA. 0+70± (W. HALEMAUMAU ST.) LT.
 CONSTRUCT 125± LF TYPE "A"
 GRADE ADJUSTMENT WALL @ R/W.
 DELETE @ DWY.

STA. 158+84 (E Dwy.) LT.
 10' WIDE CONC. DROP DWY.
 SCARIFY EXIST. A.C. DWY. &
 CONSTRUCT NEW A.C. DWY.
 WITH 20± LF TYPE "D" WALL
 TYPE I PROFILE.
 (OWNER TO RE-ALIGN
 PRIVATE DRIVEWAY).

STA. 157+25 (E Dwy.) LT.
 10' WIDE CONC. DROP DWY.
 PROVIDE SMOOTH RIDING
 CONNECTION TO EXIST. DWY.



Sta. 157+50 to 158+20±
 Install Handrail

Widen Driveway
 from 12' to 15'

Sta. 159+58± to 160+40±
 Construct CMU Wall Type T, H=6'

Sta. 162+25 to 162+48 RT. MEDIAN
 INSTALL BREAKAWAY CABLE TERMINAL

Sta. 162+48 to 163+00 RT. MEDIAN
 INSTALL 52 LF. METAL GUARD RAIL

STA. 158+28 (E Dwy.) RT.
 14' WIDE CONC. DROP DWY.
 REMOVE EXIST. CONC. DWY. &
 CONSTRUCT NEW CONC. DWY.
 WITH 27± LF TYPE "D" WALL
 TYPE II PROFILE.

STA. 158+20 (E Dwy.) RT.
 15± WIDE CONC. DROP DWY.
 REMOVE EXIST. A.C. DWY. &
 CONSTRUCT NEW CONC. DWY.
 TYPE II PROFILE.

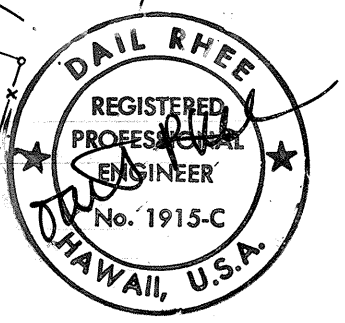
STA. 160+44 (E Dwy.) RT.
 10' WIDE CONC. DROP DWY.
 REMOVE EXIST. A.C. DWY. &
 CONSTRUCT NEW CONC. DWY.
 WITH 66± LF TYPE "D" WALL
 TYPE II PROFILE.

STA. 160+71 (E Dwy.) RT.
 16' WIDE CONC. DROP DWY.
 CONSTRUCT NEW CONC. DWY.
 OVER EXIST. GRAVEL DWY.
 WITH 68± LF TYPE "D" WALL
 TYPE III PROFILE.

STA. 161+38 (E Dwy.) RT.
 16' WIDE CONC. DROP DWY.
 SCARIFY EXIST. A.C. DWY. &
 CONSTRUCT NEW A.C. DWY.
 WITH 105± LF TYPE "D" WALL
 TYPE I PROFILE.

STA. 162+15 TO STA. 164+35 RT.
 CONSTRUCT 127± LF TYPE "A"
 GRADE ADJUSTMENT WALL @ R/W.
 DELETE @ DWYS.

04 158+20
 STA. 157+50 TO STA. 161+30 RT.
 CONSTRUCT 324± LF TYPE "A"
 ADJUSTMENT WALL @ R/W. "A"
 DELETE @ DWYS. 116± LF



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAIL PLAN

KALANIANA'OLE HIGHWAY

E. HIND DR. TO E. HALEMAUMAU ST.
 F.A. PROJECT NO. F-072-1(34)B
 SCALE: 1"=20' DATE: _____

SHEET NO. C-7 OF 14 SHEETS

STA. 163+02 TO STA. 165+65 LT.
CONSTRUCT 223± LF TYPE "A"
GRADE ADJUSTMENT WALL @ R/W
DELETE @ DWYS.

STA. 166+60 TO STA. 167+50 LT.
CONSTRUCT 90± LF TYPE "A"
GRADE ADJUSTMENT WALL @ R/W.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	10	123

STA. 163+77 (± DWY) LT.
10' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 24± LF TYPE "D" WALL
TYPE I PROFILE.
RELOCATE EXIST. GATE

STA. 164+16 (± DWY) LT.
10' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 28± LF TYPE "D" WALL
TYPE I PROFILE.

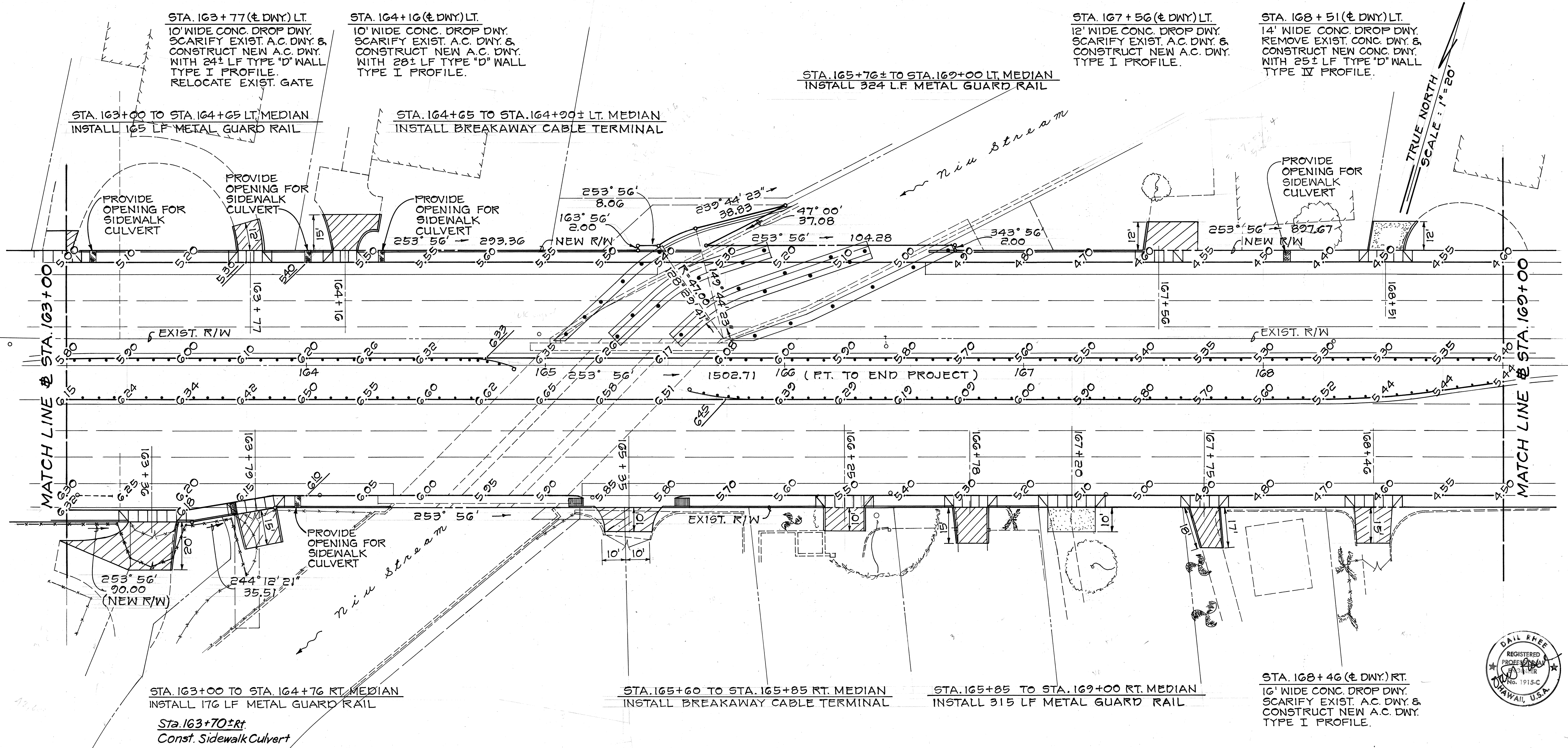
STA. 167+56 (± DWY) LT.
12' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
TYPE I PROFILE.

STA. 168+51 (± DWY) LT.
14' WIDE CONC. DROP DWY.
REMOVE EXIST. CONC. DWY. &
CONSTRUCT NEW CONC. DWY.
WITH 25± LF TYPE "D" WALL
TYPE IV PROFILE.

STA. 163+00 TO STA. 164+65 LT. MEDIAN
INSTALL 165 LF METAL GUARD RAIL

STA. 164+65 TO STA. 164+90± LT. MEDIAN
INSTALL BREAKAWAY CABLE TERMINAL

STA. 165+76± TO STA. 169+00 LT. MEDIAN
INSTALL 324 LF METAL GUARD RAIL



STA. 163+00 TO STA. 164+76 RT. MEDIAN
INSTALL 176 LF METAL GUARD RAIL

Sta. 163+70± RT.
Const. Sidewalk Culvert

STA. 165+60 TO STA. 165+85 RT. MEDIAN
INSTALL BREAKAWAY CABLE TERMINAL

STA. 165+85 TO STA. 169+00 RT. MEDIAN
INSTALL 315 LF METAL GUARD RAIL

STA. 168+46 (± DWY) RT.
16' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
TYPE I PROFILE.

STA. 163+36 (± DWY) RT.
20' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 20± LF TYPE "D" WALL
TYPE I PROFILE.
RELOCATE EXIST. GATE.

STA. 163+79 (± DWY) RT.
16' WIDE CONC. DROP DWY.
CONSTRUCT NEW A.C. DWY.
OVER EXIST. DIRT DWY.
WITH 30± LF TYPE "D" WALL
TYPE I PROFILE.
RELOCATE EXIST. GATE.

STA. 165+35 (± DWY) RT.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.

STA. 166+25 (± DWY) RT.
16' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 20± LF TYPE "D" WALL
TYPE I PROFILE.

STA. 166+78 (± DWY) RT.
14' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 32± LF TYPE "D" WALL
TYPE I PROFILE.

STA. 167+20 (± DWY) RT.
20' WIDE CONC. DROP DWY.
CONSTRUCT NEW CONC.
DWY. OVER EXIST.
GRAVEL DWY.

STA. 167+75 (± DWY) RT.
12' WIDE CONC. DROP DWY.
CONSTRUCT NEW A.C. DWY.
OVER EXIST. GRAVEL DWY.
WITH 35± LF TYPE "D" WALL
TYPE I PROFILE.

STA. 165+00 TO STA. 166+17 RT.
CONSTRUCT 62± LF TYPE "A"
GRADE ADJUSTMENT WALL @ R/W.

STA. 166+33 TO STA. 167+70 RT.
CONSTRUCT 108± LF TYPE "A"
GRADE ADJUSTMENT WALL @ R/W.
DELETE @ DWYS.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAIL PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-1(34)B

SCALE: 1" = 20'

DATE:

SHEET No. 8 OF 14 SHEETS

STA. 162+27 TO STA. 162+88 LT.
CONSTRUCT 40± LF TYPE "A"
GRADE ADJUSTMENT WALL @ R/W.
DELETE @ DWYS.

STA. 170+85 TO STA. 171+35 LT.
CONSTRUCT 50± LF TYPE "C"
GRADE ADJUSTMENT WALL @ R/W.

STA. 162+18 (± DWY) LT.
16' WIDE CONC. DROP DWY.
REMOVE EXIST. CONC. DWY. &
CONSTRUCT NEW CONC. DWY.

STA. 162+40 (± DWY) LT.
12' WIDE CONC. DROP DWY.
CONSTRUCT NEW A.C. DWY.
OVER EXIST. GRAVEL DWY.
WITH 25± LF TYPE "D" WALL
TYPE I PROFILE.

STA. 162+63 (± DWY) LT.
10' WIDE CONC. DROP DWY.
CONSTRUCT NEW A.C. DWY.
OVER EXIST. DIRT DWY.
WITH 20± LF TYPE "D" WALL
TYPE I PROFILE.

STA. 170+80 (± DWY) LT.
12' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.

STA. 173+32.5 (± DWY) LT.
35' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
TYPE III PROFILE.
REMOVE EXIST. CURB (ISLAND)

Sta. 171+64± Lt.
Constr. Wheelchair
Ramp Type "B"

FOR IMPROVEMENTS TO NIU VALLEY SHOPPING CENTER
SEE PLAN SHT. NO. C-14

STA. 162+00 TO STA. 162+20
LT. MEDIAN. INSTALL
BREAKAWAY CABLE TERMINAL.

PROVIDE
OPENING FOR
SIDEWALK
CULVERT

MATCH LINE @ STA. 162+00

MATCH LINE @ STA. 174+50

TRUE NORTH
SCALE: 1" = 20'

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

STA. 162+72 (± DWY) RT.
20' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.

Constr. Wheelchair Ramp
Type "A" at Stas.
170+96± Rt.
171+61± Rt.

STA. 162+83 TO STA. 170+15 RT.
CONSTRUCT 32± LF TYPE "C"
GRADE ADJUSTMENT WALL @ R/W.

STA. 172+55 (± DWY) RT.
10' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 16± LF TYPE "D" WALL.
TYPE I PROFILE.

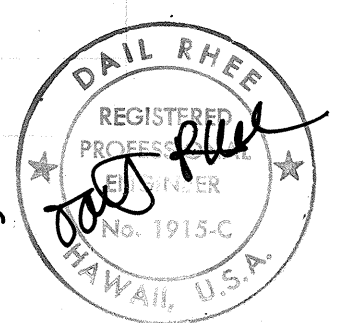
STA. 173+06 (± DWY) RT.
10' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 46± LF TYPE "D" WALL.
TYPE I PROFILE.
RAISE EXIST. GATE TO
NEW GRADE.

STA. 172+10 TO STA. 173+32 RT.
CONSTRUCT 142± LF TYPE "A"
GRADE ADJUSTMENT WALL @ R/W.
DELETE @ DWYS.

STA. 173+45 (± DWY) RT.
20' WIDE CONC. DROP DWY.
REMOVE EXIST. CONC. DWY. &
CONSTRUCT NEW CONC. DWY.
WITH 10± LF TYPE "D" WALL.

STA. 174+00 (± DWY) RT.
16' WIDE CONC. DROP DWY.
CONSTRUCT NEW A.C. DWY.
OVER EXIST. CORAL DWY.
WITH 42± LF TYPE "D" WALL.
TYPE I PROFILE.

STA. 174+20 (± DWY) RT.
24' WIDE CONC. DROP DWY.
REMOVE EXIST. CONC. DWY. &
CONSTRUCT NEW CONC. DWY.
WITH 36± LF TYPE "D" WALL.
TYPE III PROFILE.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

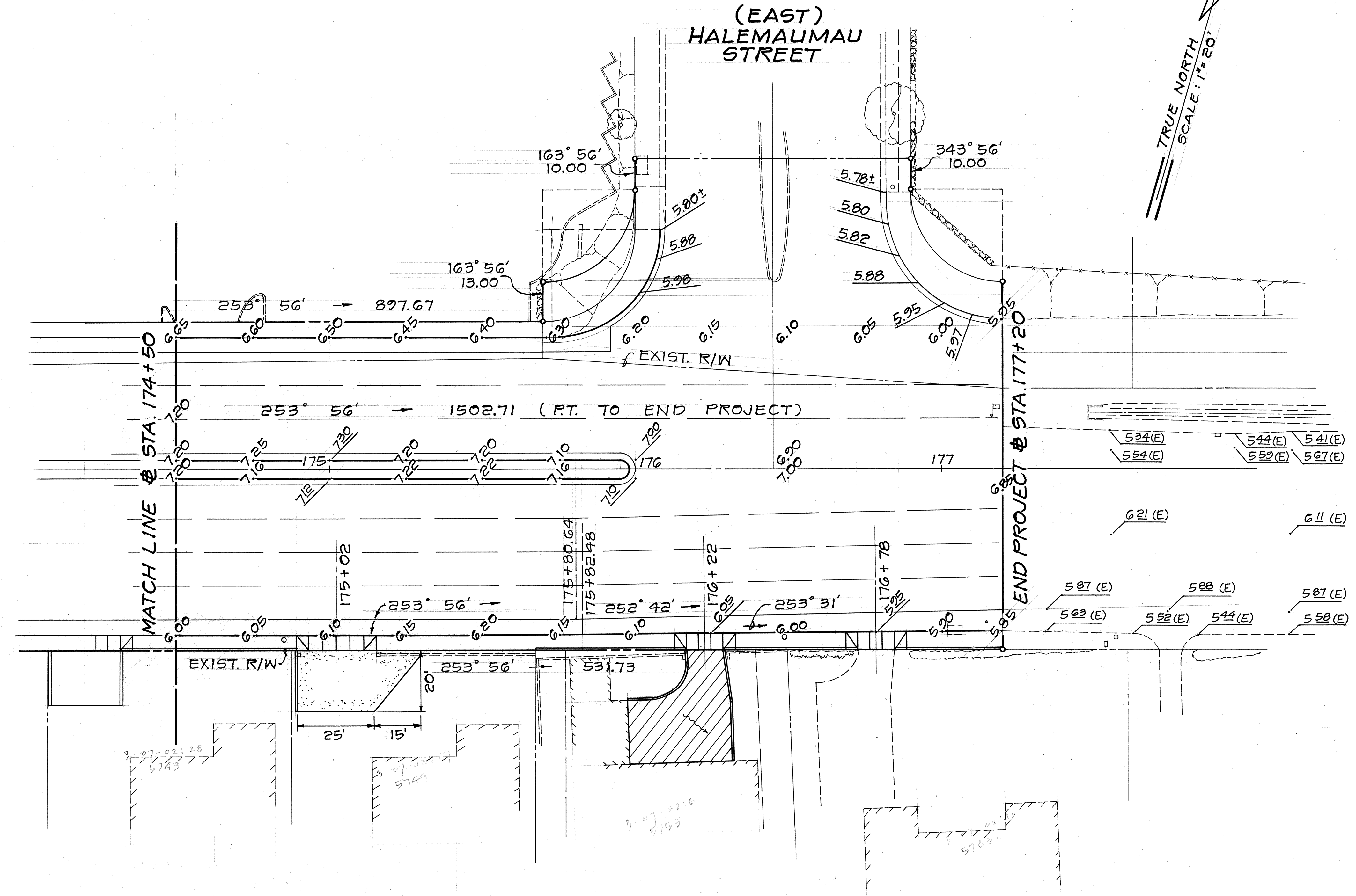
DETAIL PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-1(34)B
SCALE: 1" = 20' DATE:

SHEET NO. C-2 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	21	199

STA. 0+00 (E. HALEMAUMAU ST.)
TO STA. 177+10
CONSTRUCT 50± LF TYPE "A"
GRADE ADJUSTMENT WALL.



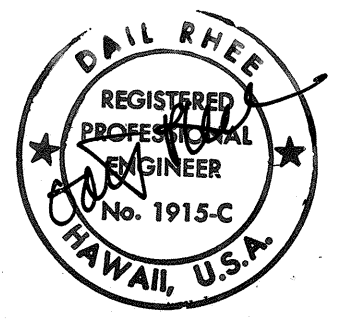
STA. 175+02 (± DWY) RT.
18' WIDE CONC. DROP DWY.
SAW CUT EXIST. CONC. PAV'T. &
CONSTRUCT NEW CONC. DWY.
WITH 20± LF TYPE "D" WALL
TYPE I PROFILE.

STA. 176+22 (± DWY) RT.
12' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY. &
CONSTRUCT NEW A.C. DWY.
WITH 67± LF TYPE "D" WALL
TYPE I PROFILE. (FILL
BETWEEN EXIST. WALL &
SIDEWALK & WARP DWY.
TO DRAIN TOWARD EAST).

STA. 176+78 (± DWY) RT.
12' WIDE CONC. DROP DWY.
SCARIFY EXIST. A.C. DWY.
(OWNER WILL CONSTRUCT
NEW A.C. DWY.).

STA. 174+32 TO STA. 174+80
CONSTRUCT 57± LF TYPE "A"
GRADE ADJUSTMENT WALL @ R/W.

STA. 175+68 TO STA. 176+72 RT.
CONSTRUCT 92± LF TYPE "B"
GRADE ADJUSTMENT WALL
WITH PIPE RAILING @ R/W.
DELETE @ DWYS. & @ EXIST. WALLS.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAIL PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-1(34)B
SCALE: 1"=20' DATE: _____

SHEET NO. C-10 OF 14 SHEETS

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