FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	55	405

TYPE I, CONC. MEDIAN BARRIER (By others)

SCALE: 3/4"=1'-0"

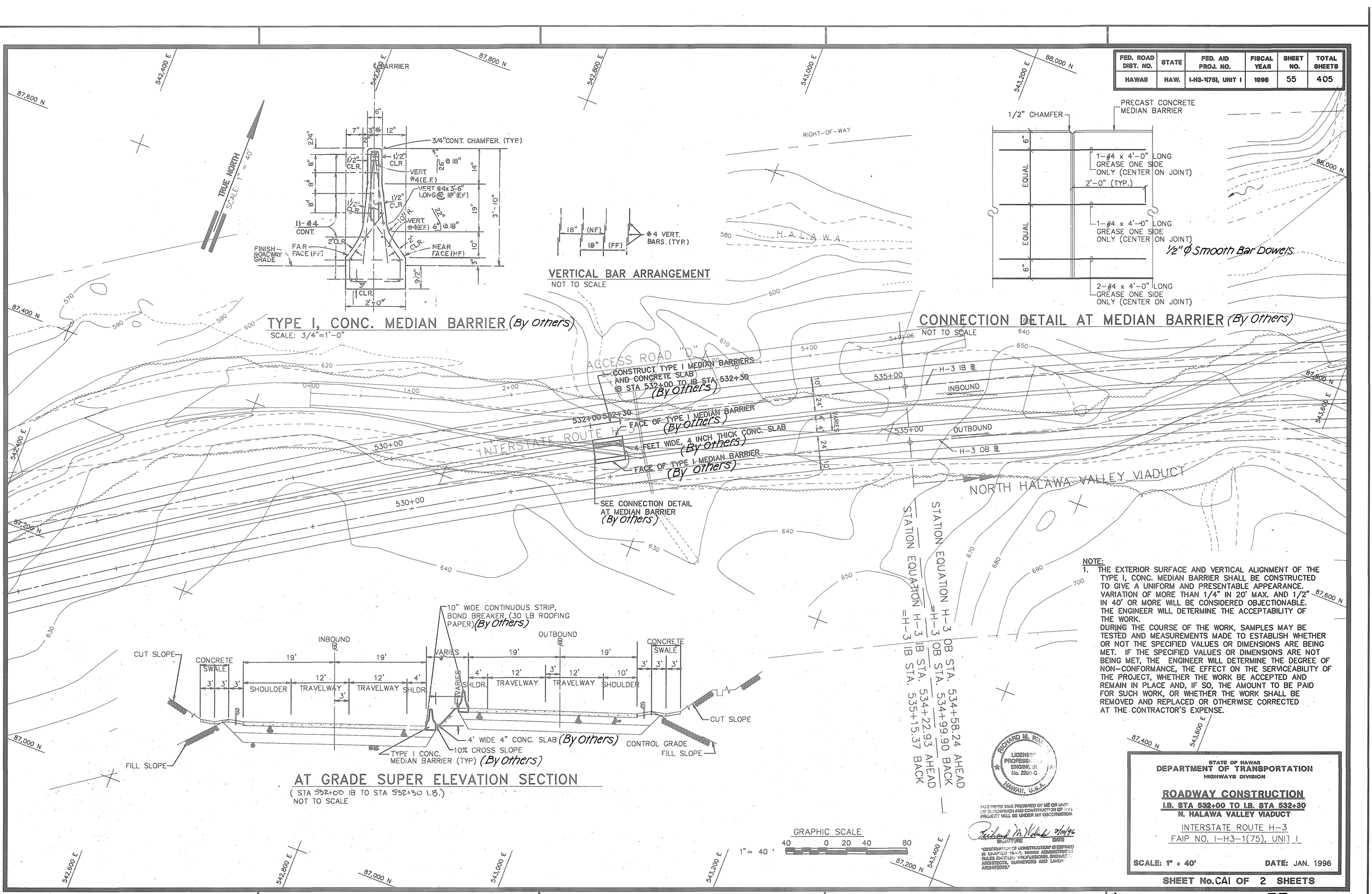
VERTICAL BAR ARRANGEMENT

NOT TO SCALE

½" ϕ Smooth Bar Dowels

CONNECTION DETAIL AT MEDIAN BARRIER (By Others)

NOT TO SCALE



AT GRADE SUPER ELEVATION SECTION

(STA 532+00 IB TO STA 532+30 I.B.)

NOT TO SCALE

NOTE:

1. THE EXTERIOR SURFACE AND VERTICAL ALIGNMENT OF THE TYPE I, CONC. MEDIAN BARRIER SHALL BE CONSTRUCTED TO GIVE A UNIFORM AND PRESENTABLE APPEARANCE. VARIATION OF MORE THAN 1/4" IN 20' MAX. AND 1/2" IN 40' OR MORE WILL BE CONSIDERED OBJECTIONABLE. THE ENGINEER WILL DETERMINE THE ACCEPTABILITY OF THE WORK.
   DURING THE COURSE OF THE WORK, SAMPLES MAY BE TESTED AND MEASUREMENTS MADE TO ESTABLISH WHETHER OR NOT THE SPECIFIED VALUES OR DIMENSIONS ARE BEING MET. IF THE SPECIFIED VALUES OR DIMENSIONS ARE NOT BEING MET, THE ENGINEER WILL DETERMINE THE DEGREE OF NON-CONFORMANCE, THE EFFECT ON THE SERVICEABILITY OF THE PROJECT, WHETHER THE WORK BE ACCEPTED AND REMAIN IN PLACE AND, IF SO, THE AMOUNT TO BE PAID FOR SUCH WORK, OR WHETHER THE WORK SHALL BE REMOVED AND REPLACED OR OTHERWISE CORRECTED AT THE CONTRACTOR'S EXPENSE.

GRAPHIC SCALE

1" = 40 '

40 0 20 40 80

RICHARD M. WOLKEN LICENSED PROFESSIONAL ENGINEER No. 2209-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Richard M. Wolken 3/19/96
SIGNATURE DATE

"OBSERVATION OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS."

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY CONSTRUCTION

I.B. STA 532+00 TO I.B. STA 532+30

N. HALAWA VALLEY VIADUCT

INTERSTATE ROUTE H-3

FAIP NO. I-H3-1(75), UNIT I

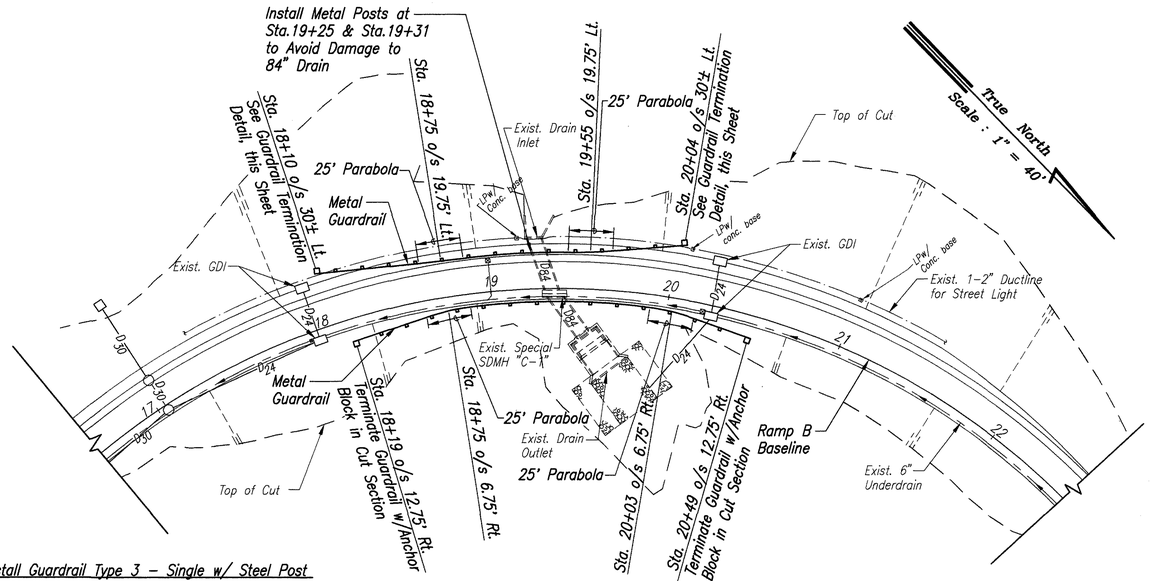
SCALE: 1" = 40' DATE: JAN. 1996

SHEET No. CAI OF 2 SHEETS

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

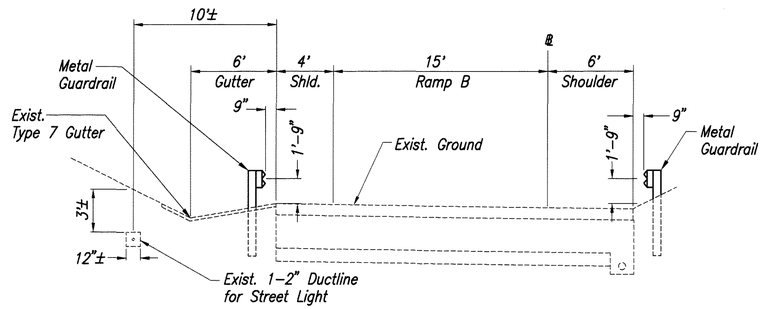
"AS-BUILT"

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	56	405

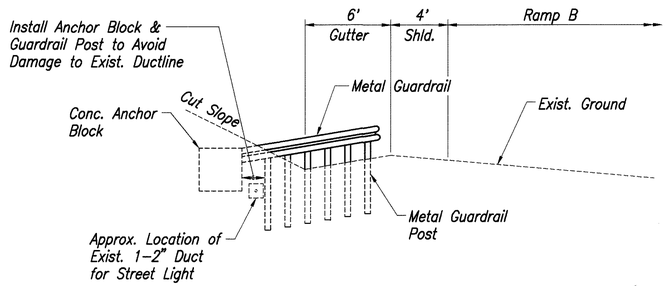


Install Guardrail Type 3 – Single w/ Steel Post
Ramp B Sta. 18+10 to Sta. 20+04 Lt. (205 Lin. Ft.)
Ramp B Sta. 18+19 to Sta. 20+49 Rt. (225 Lin. Ft.)

RAMP B GUARDRAIL INSTALLATION
Scale: 1"=40'



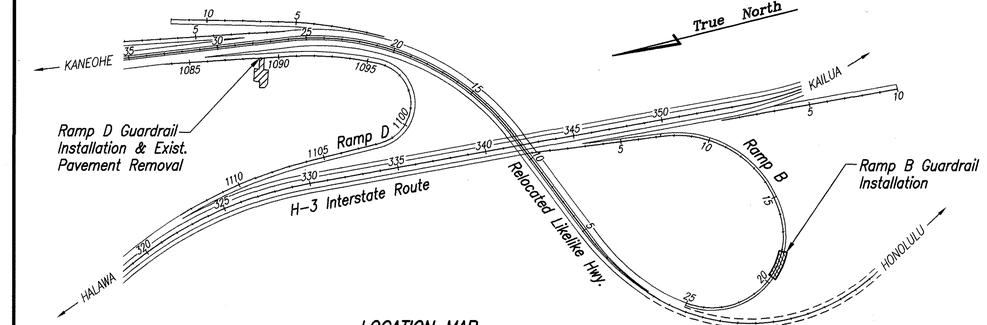
TYPICAL RAMP B GUARDRAIL INSTALLATION
Scale: 1"=5'-0"



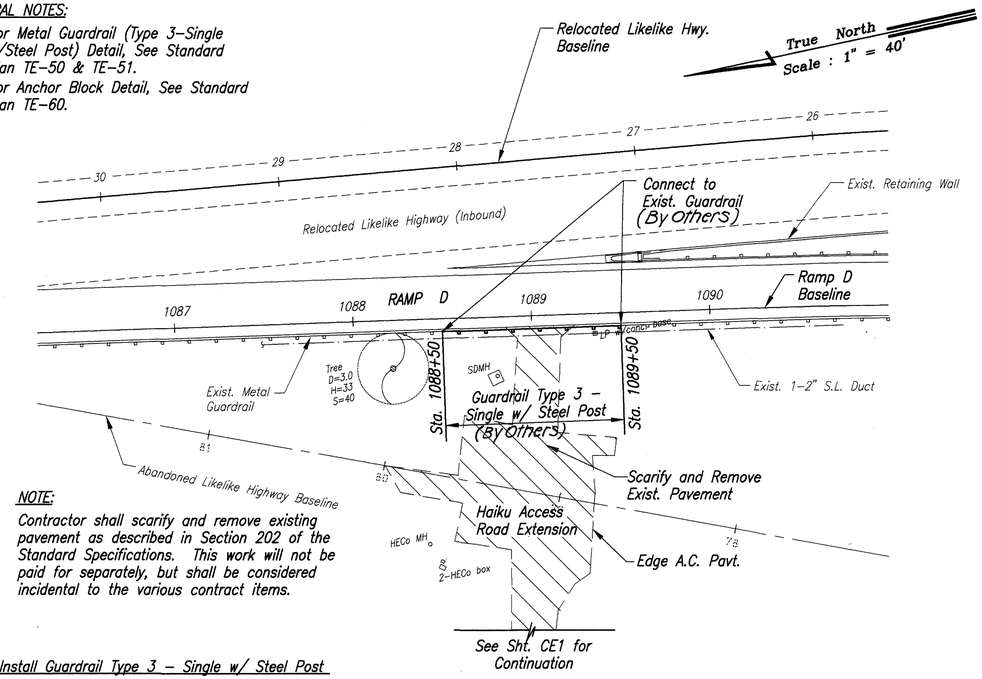
DETAIL-GUARDRAIL TERMINATION
Scale: 1"=5'-0"

GENERAL NOTES:

1. *For Metal Guardrail (Type 3-Single w/Steel Post) Detail, See Standard Plan TE-50 & TE-51.*
2. *For Anchor Block Detail, See Standard Plan TE-60.*



LOCATION MAP
Scale: 1" = 400'



NOTE:
Contractor shall scarify and remove existing pavement as described in Section 202 of the Standard Specifications. This work will not be paid for separately, but shall be considered incidental to the various contract items.

Install Guardrail Type 3 – Single w/ Steel Post
Ramp D Sta. 1088+50 to Sta. 1089+50 Rt. (100 Lin. Ft.)

RAMP D GUARDRAIL INSTALLATION AND EXISTING PAVEMENT REMOVAL
Scale: 1"=40'

ARNOLD H. FUKUMOTO
LICENSED PROFESSIONAL ENGINEER
No. 8393-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

83-63.6 F:\RAMP-D.DNG D:H3 FIN. CONTR. P:1=40 05/23/96 kai

DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY CONSTRUCTION
KANEOHE INTERCHANGE

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I

SCALE: AS NOTED DATE: JAN., 1996

SHEET No. CA2 OF 2 SHEETS

"AS-BUILT"

56

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	ADD. 56S-1	405

E 562,800

N 82,400

N 82,000

Kaneohe Interchange
℄ STA. 354+37.14
=Windward Hwy. ℄ 399+00

R/W

INBOUND

OUTBOUND

Interstate Route H-3
Baseline

Windward Highway
Emergency Escape Ramp
Baseline

Pav't. Connection
See Detail, Sht CA2B

Sta. 5+00 (o/s 29.5'± Lt.)
Connect to Exist. Guardrail

Sta. 5+25
Underdrain Outlet

Sta. 5+85
o/s 21' Lt.

Exist. Metal
Guardrail

25' Parabola

Sta. 7+45
Cleanout

Sta. 7+50
Underdrain Outlet
See Detail, Sht. CA2B

Remove Exist.
Guardrail
As Required (500LF±)

New A.C. Pav't.
Section

Sta. 9+95
Cleanout

Edge of Exist. PCC
Pavement

Existing
A.C. Pavement

3°39'43"

1000.00

24'

352 353 354 400 401 402 403 404 405

Sta. 352+57

Sta. 353+07

℄ Bearing
Abutment

Begin Emergency Escape Ramp
Sta. 0+00
Kaneohe Interchange
= ℄ Sta. 353+30.54
(o/s 64.00' Rt.)

Exist. Street
Light Ductbank

Exist. Edge
Pavement

Metal Guardrail Connection
to Conc. Barrier, See
Detail, this Sheet

Vehicle Arresting
Barrier (Typical)
See Detail, Sht. CA2B

Exist.
Underdrain

Exist. Metal
Guardrail

Remove exist.
Double Guardrail
as Required (450 LF±)

End Emergency Escape
Ramp Sta. 10+00

E 562,400

Win. Hwy. Emer. Escape
Ramp Sta. 2+81.34
(o/s 26.00' Lt.)
=Windward Hwy.
℄ Sta. 400+71.49
(o/s 44.58' Rt.)

Win. Hwy. Emer. Escape
Ramp Sta. 3+91.81
(o/s 31.00' Lt.)
=Windward Hwy.
℄ Sta. 401+79.57
(o/s 50.77' Rt.)

Ramp B
Baseline

Refer to Standard Plan TE-55

* Transition Section
10'-0"

Sta. 6+00

Sta. 6+10

Sta. 6+20
Net 1

Guardrail
Type I

Construction
Joint

Metal Guardrail
w/Rubrail

2'-8"

3'-10"

A
CA2A | CA2B

ELEVATION
METAL GUARDRAIL CONNECTION TO CONCRETE BARRIER
Not to Scale

* Transition Section will be paid for under Proposal Item No. 606.7540

True North
Scale : 1" = 40'

NOTE:
The rails, posts and other reusable parts of the existing guardrails shall remain the property of the State and shall be cleaned, hauled and stockpiled at the location ordered by the Engineer. The rails, posts and other reusable parts of the existing guardrail may be used to install the new guardrail sections, as ordered by the Engineer.

Install Vehicle Arresting Barrier
Windward Emergency Escape Ramp:
Net 1 @ Sta. 6+20
Net 2 @ Sta. 6+40
Net 3 @ Sta. 6+60
Net 4 @ Sta. 8+20
Net 5 @ Sta. 8+40
Net 6 @ Sta. 8+60

PLAN
Scale: 1" = 40'

6" Perforated Underdrain Pipe
Sta. 5+25 Lt. to Sta. 7+45 Lt.
Sta. 7+50 Lt. to Sta. 9+95 Lt.

Cleanouts
Sta. 7+45 Lt.
Sta. 9+95 Lt.

Guardrail Type 3-Single w/Rubrail on Steel Post
Win. Emer. Escape Ramp Sta. 5+50 to Sta. 6+00 Rt. (50 Lin. Ft.)
Win. Emer. Escape Ramp Sta. 5+00 to Sta. 6+00 Lt. (100 Lin. Ft.)

Guardrail Type I (See Sheet CA1 for Detail)
Win. Emer. Escape Ramp Sta. 6+10 to Sta. 10+00 Rt. (390 Lin Ft.)
Win. Emer. Escape Ramp Sta. 6+10 to Sta. 10+00 Lt. (390 Lin Ft.)

3. Excavate Unsuitable Material at Sta. 5+00 to Sta. 10+00. Dispose of Unsuitable Material away from Job Site. Install Filter Material. Backfill w/Surge Rock and Compact.

51'

Varies (25' to 31')
Emergency Escape Ramp

Grade Control at
Exist. Edge Pav't.
10'±

Existing
Service Road

Guardrail Type 3
Single W/Rubrail
on Steel Post

Varies

Baseline

5'

2'-0"

Exist. Edge
Pavement

Exist. Metal
Guardrail to
be Removed

Exist. Metal
Guardrail

Exist. Metal
Guardrail

12"
(Typ.)

Prime Coat

Pav't.
Crown

Pav't. Connection
See Detail, Sht. CA2B

2' Rounding

Varies
0%-2%

2%±

Remove Exist. Gravel
and Backfill with
Selected Material

Permeable
Separator

4" ACP, Mix IV
8" Untreated Permeable Base Course
24" Aggregate Subbase
Compacted Subgrade

Exist. 6" Perforated
Underdrain Pipe

℄ 6" Perforated
Underdrain Pipe
See Detail, Sht. CA2B

TYPICAL SECTION
WINDWARD HWY. EMERGENCY ESCAPE RAMP
Sta. 5+00 to Sta. 6+00
Scale: 1"=5'-0"

Note:
1. Transition Cross Slope from Exist. Slope at Sta. 5+00 (0%±) to 2% at Sta. 6+00
2. Existing Gravel to be removed may be used as Type A Trench Backfill, as ordered by the Engineer. See Note 3 above.

51'

2'-0"

24'-0"
Emergency Escape Ramp

Grade Control at
Exist. Edge Pav't.
10'±

Existing
Service Road

Baseline

5'

Guardrail Type I

Exist. Edge
Pavement

Guardrail
Type I. See
Detail, Sht. CA1

12"

12"
(Typ.)

Exist. Metal
Guardrail to
be Removed

Exist. Metal
Guardrail

Exist. Metal
Guardrail to
be Removed

Prime Coat

Pav't. Connection
See Detail, Sht. CA2B

2' Rounding

2%

2%

2%±

Remove Exist. Gravel
and Backfill with
Selected Material

Permeable
Separator

4" ACP, Mix IV
8" Untreated Permeable Base Course
24" Aggregate Subbase
Compacted Subgrade

Exist. 6" Perforated
Underdrain Pipe

℄ 6" Perforated
Underdrain Pipe
See Detail, Sht. CA2B

TYPICAL SECTION
WINDWARD HWY. EMERGENCY ESCAPE RAMP
Sta. 6+00 to Sta. 10+00
Scale: 1"=5'-0"

ARNOLD H. FUKUMOTO
LICENSED PROFESSIONAL ENGINEER
No. 8393-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Arnold Fukumoto

DATE	REVISION
4/22/96	Sheet Added for Windward Escape Ramp Arresting Barrier Installation.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY CONSTRUCTION
WINDWARD HIGHWAY
EMERGENCY ESCAPE RAMP

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I

SCALE: AS NOTED DATE: APRIL, 1996

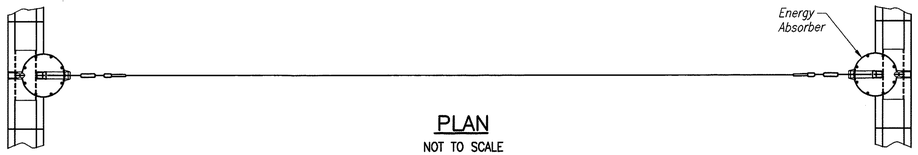
SHEET No. CA2A OF 2 SHEETS

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

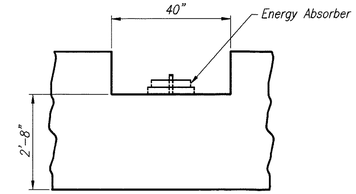
83-45.6 F:\MEO-CON\DWG\H3 FIN-CON 1-40 04/16/96 KY

"AS-BUILT" ADD. 56S-1

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	ADD. 56S-2	405

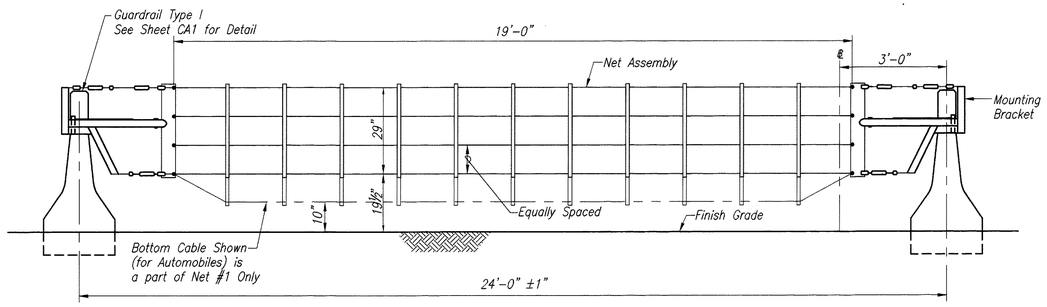


PLAN
NOT TO SCALE

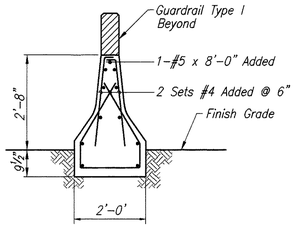


Side View of Barrier Depicting Cutout for Energy Absorber

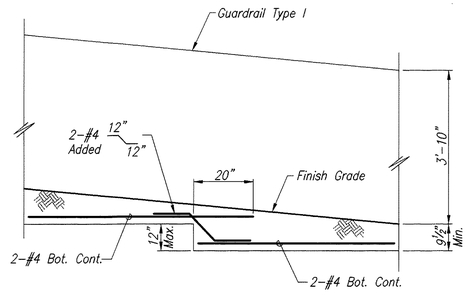
ELEVATION
NOT TO SCALE



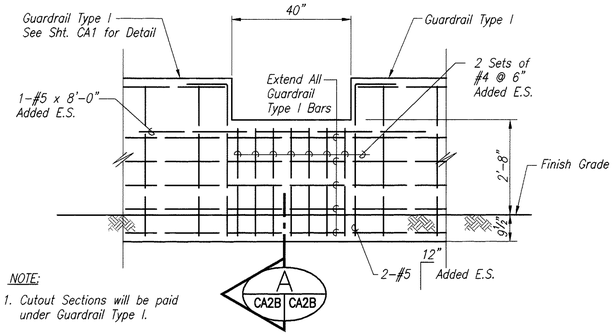
VEHICLE ARRESTING BARRIER
NOT TO SCALE



SECTION A
SCALE: ½"=1'-0"
CA2A CA2B
CA2B



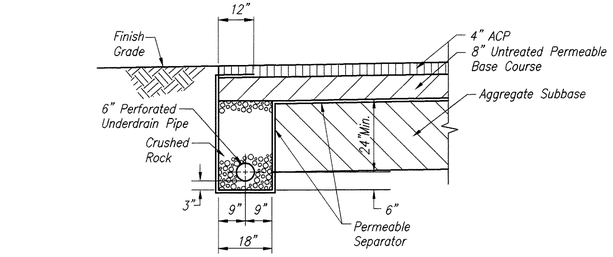
TYP. STEP FOOTING ELEVATION
NOT TO SCALE



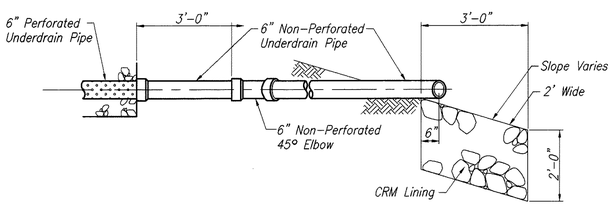
A
CA2B CA2B

NOTE:
1. Cutout Sections will be paid under Guardrail Type I.
2. Net Assembly shall be Normal to Finish Grade.

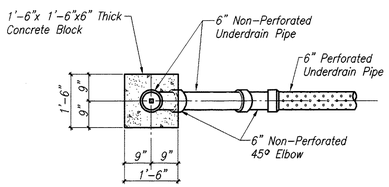
ELEVATION
CUTOUT FOR ENERGY ABSORBER
SCALE: ½"=1'-0"



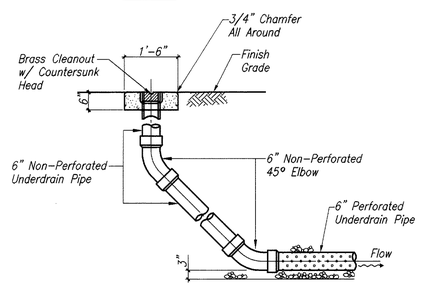
6" PERFORATED UNDERDRAIN PIPE DETAIL
SCALE: ½"=1'-0"



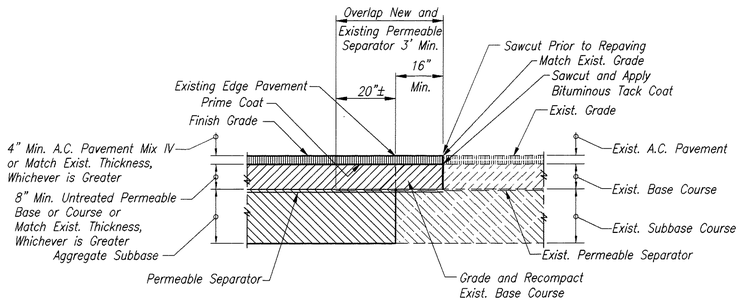
TYPICAL UNDERDRAIN OUTLET DETAIL
NOT TO SCALE



PLAN



TYPICAL CLEANOUT DETAIL
SCALE: ½"=1'-0"



PAVEMENT CONNECTION
NOT TO SCALE

4/22/96	Sheet Added for Windward Escape Ramp Details.
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY CONSTRUCTION
WINDWARD HIGHWAY
EMERGENCY ESCAPE RAMP

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I

SCALE: AS NOTED DATE: APRIL, 1996

ARNOLD H. FUKUMOTO
LICENSED PROFESSIONAL ENGINEER
No. 8393-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

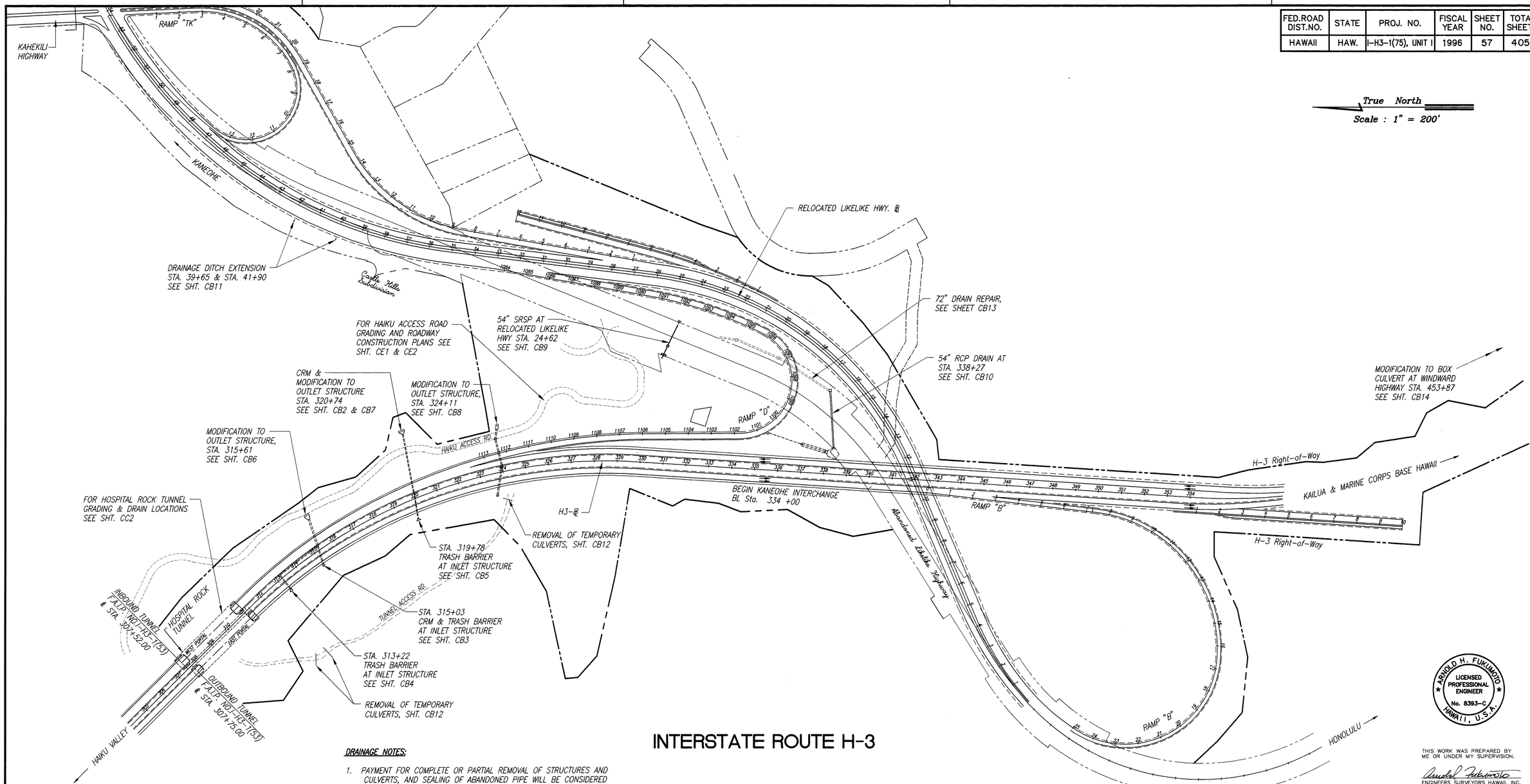
SHEET No. CA2B OF 2 SHEETS

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

83-456 FHWA-HAWAII D/13 FIN-CON Plot1=2 04/16/96 JY

ADD. 56S-2

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	57	405



INTERSTATE ROUTE H-3

GENERAL NOTES:

1. THE CONTRACTOR SHALL ACCESS THESE WORK SITES FROM STATE RIGHT-OF-WAY.
2. EXISTING CHAIN LINK FENCING THAT IS REMOVED BY THE CONTRACTOR FOR ACCESS SHALL BE REPLACED WITH TEMPORARY FENCING DURING NON-WORK HOURS. THE CONTRACTOR SHALL REPLACE THE PERMANENT CHAIN LINK FENCING ACCORDING TO STANDARD PLAN D-01 AT THE ORIGINAL LOCATION UPON COMPLETION OF THE WORK. ALL WORK REQUIRED FOR THE REMOVAL OF THE EXISTING FENCING, TEMPORARY FENCING AND REPLACEMENT OF THE PERMANENT CHAIN LINK FENCING SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS CONTRACT ITEMS.
3. THE CONTRACTOR SHALL INSPECT THESE WORK SITES PRIOR TO BIDDING. ALL WORK REQUIRED TO PROVIDE ACCESS TO THESE SITES SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS CONTRACT ITEMS.

DRAINAGE NOTES:

1. PAYMENT FOR COMPLETE OR PARTIAL REMOVAL OF STRUCTURES AND CULVERTS, AND SEALING OF ABANDONED PIPE WILL BE CONSIDERED INCIDENTAL TO VARIOUS CONTRACT ITEMS. DRAINAGE PIPES TO BE ABANDONED SHALL BE REMOVED AS NECESSARY TO FACILITATE CONSTRUCTION.
2. CONTRACTOR SHALL SEQUENCE CONSTRUCTION SUCH THAT EXIST. FACILITIES REMAIN IN SERVICE UNTIL NEW FACILITIES ARE IN SERVICE OR SHALL PROVIDE AND MAINTAIN, AS IS NECESSARY, TEMPORARY WATER DIVERSION FACILITIES.
3. THE CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL EXISTING LINES AND NOTIFY RESPECTIVE OWNERS BEFORE COMMENCING EXCAVATION WORK FOR DRAINLINES.
4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF PRE-CAST DRAINAGE STRUCTURES TO THE ENGINEER FOR APPROVAL. CONTRACTOR SHALL VERIFY LOCATION OF EXIST. UTILITIES PRIOR TO MANUFACTURING PRE-CAST BOX CULVERTS TO ENSURE CONFLICTS WITH PROPOSED DRAINAGE STRUCTURE DO NOT EXIST.
5. THE REFERENCE POINT FOR LOCATING STRUCTURES BY STATION AND OFFSETS IS AT THE CENTER OF THE MAIN BODY.
6. EXISTING DRAINAGE FACILITIES TO REMAIN AND LOCATED WITHIN PROJECT LIMITS SHALL BE CLEANED OF SILT AND DEBRIS. PAYMENT SHALL BE CONSIDERED INCIDENTAL TO VARIOUS CONTRACT ITEMS.
7. EXCEPT IN AREAS WHERE NEW PAVEMENT STRUCTURE IS BEING CONSTRUCTED, EXISTING PAVEMENT DAMAGED BY TRENCHING OR OTHER ACTIVITIES SHALL BE RESTORED AT NO COST TO THE STATE.
8. STEEL PLATES FOR COVERING TRENCHES SHALL HAVE SKID RESISTANT SURFACE.

ARNOLD H. FUKUMOTO LICENSED PROFESSIONAL ENGINEER No. 8393-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

ENGINEERS SURVEYORS HAWAII, INC.

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

83-45.5 F:\GSN-1.DWG D:\HOSPITAL ROCK TUNNEL P.lot:1=200 02/23/96 KAI

DATE	REVISION

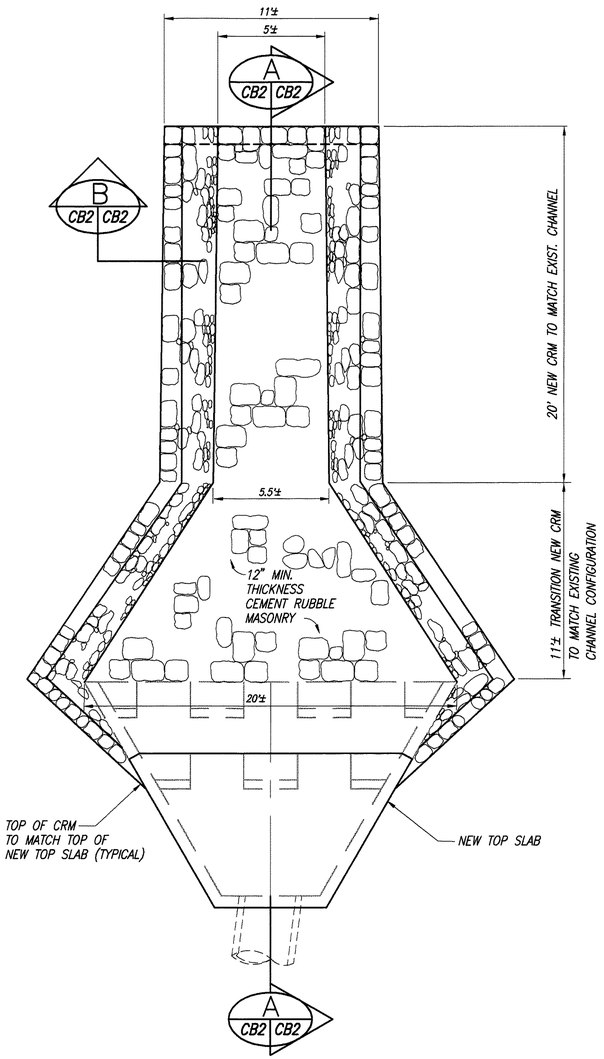
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL PLAN
DRAINAGE/GRADING
HOSPITAL ROCK TUNNEL/KANEOHE INTERCHANGE
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75), UNIT I

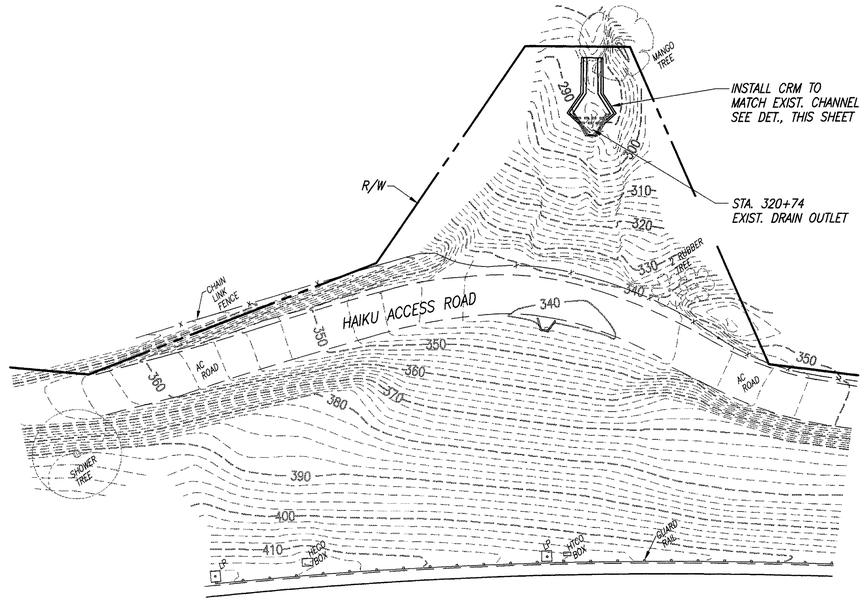
SCALE: AS NOTED DATE: JAN., 1996

SHEET No. CB1 OF 14 SHEETS

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	58	405

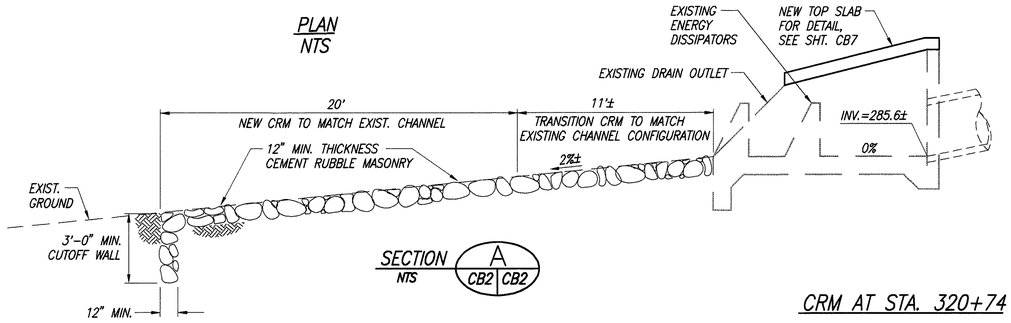


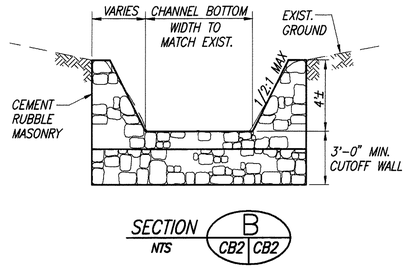
PLAN
NTS



PLAN
SCALE: 1" = 40'

True North
Scale : 1" = 40'





CRM AT STA. 320+74

ARNOLD H. FUKUMOTO
LICENSED PROFESSIONAL ENGINEER
No. 8303-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

ENGINEERS SURVEYORS HAWAII, INC.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CRM AT STA. 320+74

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75), UNIT I

SCALE: AS NOTED DATE: JAN., 1996

SHEET No. CB2 OF 14 SHEETS

DATE	REVISION

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

83-45.5 F:\OUTLET-1.DNG DH3 HOSPITAL ROCK TUNNEL 1=4 02/22/96 JW

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	59	405

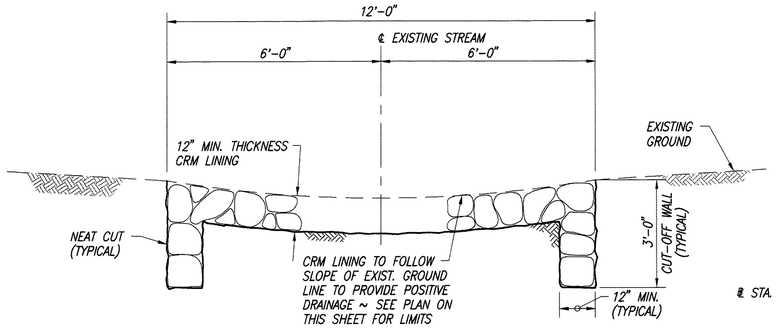
STRUCTURAL NOTES

I. REINFORCED CONCRETE
- A. MINIMUM CONCRETE STRENGTH AT 28 DAYS .....4,000 psi
- B. MINIMUM GROUT STRENGTH (IN PIPE POST) @ 28 DAYS .....2,500 psi
- C. REINFORCEMENT: UNLESS SHOWN OTHERWISE ALL REINFORCING BARS CONFORM TO ASTM A615, GRADE 60.
- D. CONCRETE PROTECTION FOR REINFORCEMENT.
  1. WALLS ..... 2 IN.
  2. STRUCTURAL SLAB ..... 2 IN.
- E. SPLICE IN REINFORCEMENT: UNLESS SHOWN OTHERWISE, MINIMUM LAP SPLICE SHALL BE 48 BAR DIAMETERS.

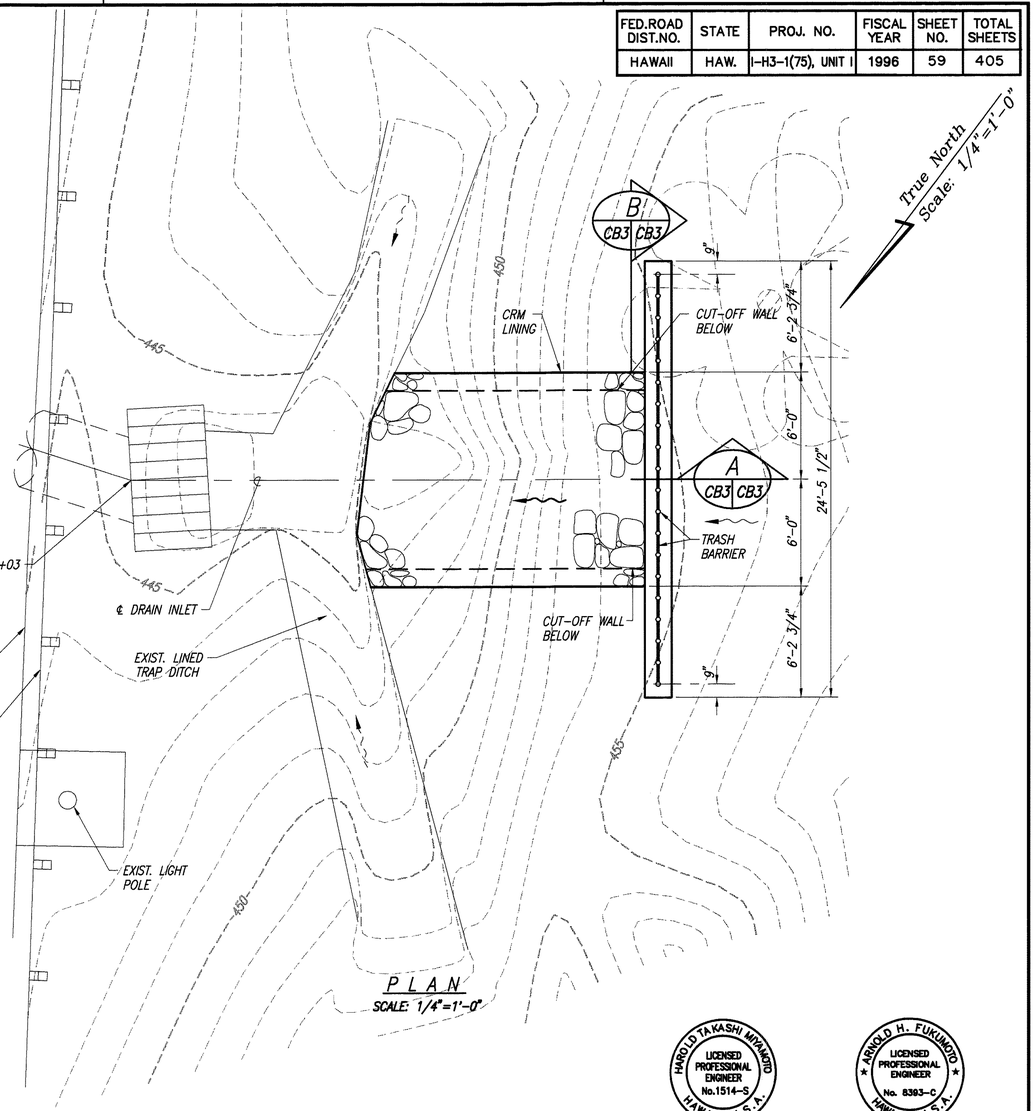
II. STRUCTURAL STEEL
- A. STRUCTURAL STEEL SHALL BE ASTM A36 AND HOT DIP GALVANIZED AFTER FABRICATION.
- B. PIPE SHALL BE ASTM A53 GRADE B AND HOT DIP GALVANIZED AFTER FABRICATION.
- C. 3/4"ø SELF-DRILLING ANCHOR SHALL BE "HILTI HSL HEAVY DUTY STAINLESS STEEL EXPANSION ANCHORS" OR APPROVED EQUAL.
- D. PLATES AND ANGLES AT OUTLET STRUCTURES SHALL BE ASTM A167, TYPE 316 STAINLESS STEEL. BOLTS SHALL BE ASTM F593, TYPE 316 STAINLESS STEEL.

III. CONSTRUCTION NOTES
- A. VERIFY ALL EXISTING CONDITIONS AND DIMENSION IN THE FIELD PRIOR TO START WORK.
- B. STRUCTURAL SLAB OVER OUTLET STRUCTURES SHALL BE CAMBERED AT MIDSPAN, WITH A 1/2" CAMBER AT ITS UNSUPPORTED END.
- C. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE STARTING TIME OF EACH CONCRETE POUR AT LEAST 48 HOURS IN ADVANCE.
- D. DRILL ALL ANCHOR HOLES IN EXISTING CONCRETE PRIOR TO STEEL FABRICATION.

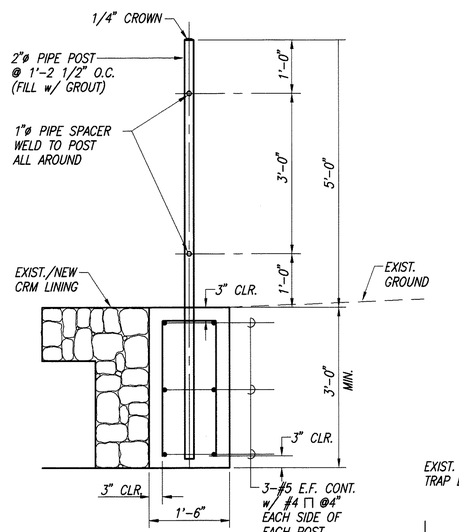
IV. DESIGN NOTES
- A. ELEVATED SLAB LIVE LOAD ..... 100 psf



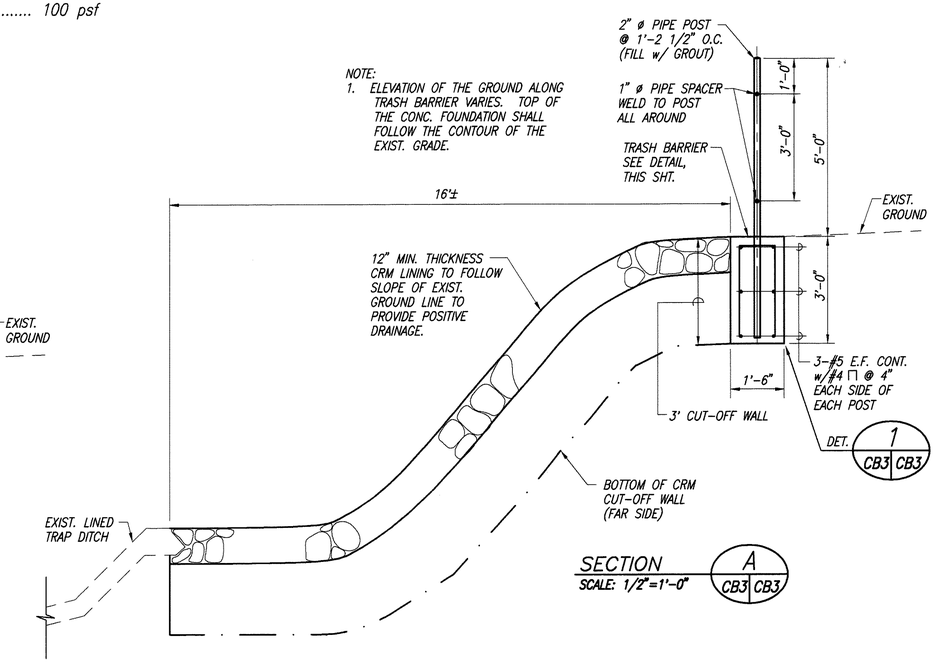
SECTION B (CB3 | CB3)
SCALE: 1/2"=1'-0"



PLAN
SCALE: 1/4"=1'-0"



TYPICAL DETAIL 1 (CB3)
SCALE: 3/4"=1'-0"
CB3, CB4, CB5



SECTION A (CB3 | CB3)
SCALE: 1/2"=1'-0"

HAROLD TAKASHI MIYAMOTO LICENSED PROFESSIONAL ENGINEER No.1514-S HAWAII, U.S.A.

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ARNOLD H. FUKUMOTO LICENSED PROFESSIONAL ENGINEER No. 8393-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

ENGINEERS SURVEYORS HAWAII, INC.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CRM AND TRASH BARRIER AT STA. 315+03

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75), UNIT I

SCALE: AS NOTED DATE: JAN., 1996

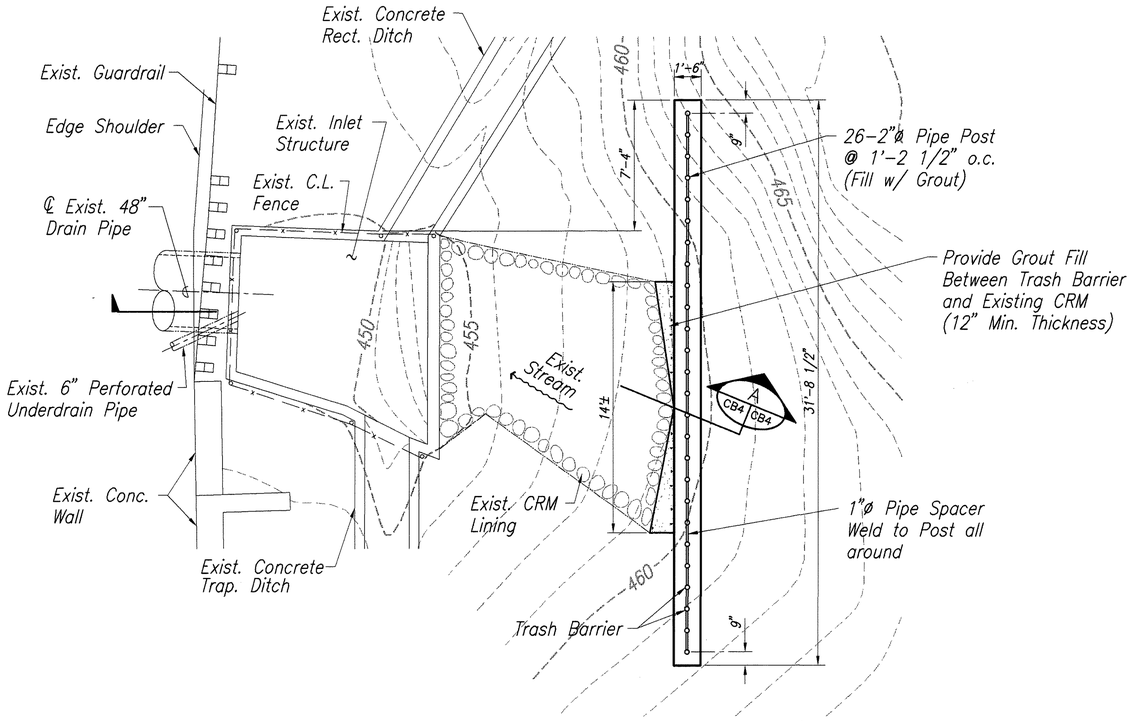
SHEET No. CB3 OF 14 SHEETS

DATE	REVISION

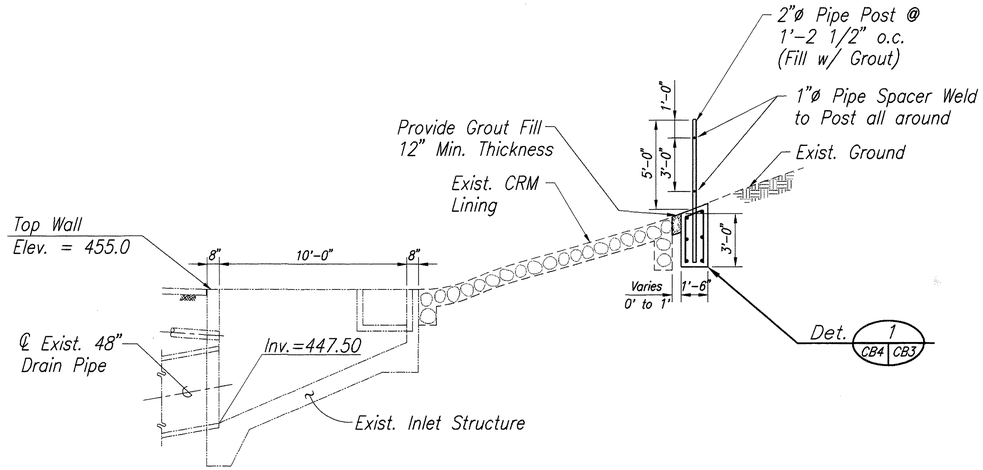
ORIGINAL PLAN
NOTE BOOK No.
SURVEY PLOTTED BY DATE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY

83-45.5 F:\OUTLET-2.DWG DH3 HOSPITAL ROCK TUNNEL 1=4 02/23/96 SPA

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	60	405



P L A N
Scale: 1/4" = 1'-0"



S E C T I O N A CB4 CB4
Scale: 1/4" = 1'-0"

NOTES:

1. See Sheet CB3 for structural notes.
2. Elevation of the ground along trash barrier varies. Top of concrete foundation shall follow the contour of the existing grade.

TRASH BARRIER – INLET STRUCTURE AT STA. 313+22

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

83-45.5 FHWY-CB4.DWG D/03 HRT DRAINAGE (1) 1=4 2/23/96 SM

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DATE:	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

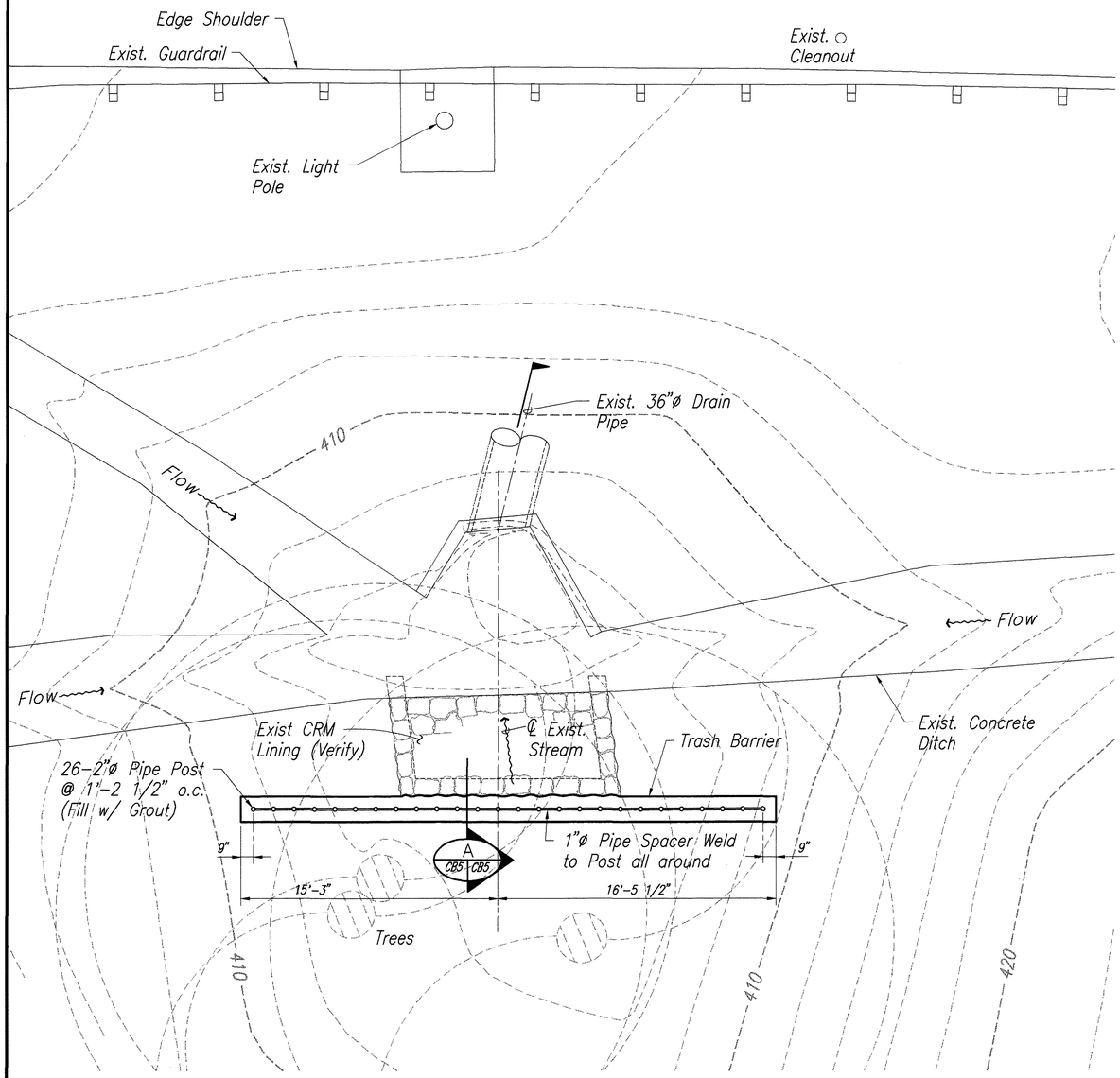
TRASH BARRIER AT INLET STRUCTURE AT STA. 313+22

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75), UNIT I

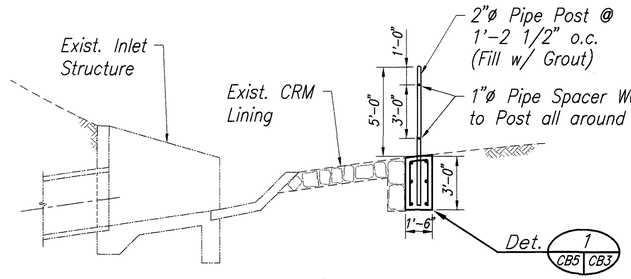
SCALE: AS NOTED DATE: JAN., 1996

SHEET No. CB4 OF 14 SHEETS

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	61	405



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



SECTION A
Scale: 1/4" = 1'-0"
CB5 CB5

NOTES:

1. See Sheet CB3 for structural notes.
2. Elevation of the ground along trash barrier varies. Top of concrete foundation shall follow the contour of the existing grade.

TRASH BARRIER – INLET STRUCTURE AT STA. 319 + 78

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

83-45.5 F:\HRT-CB5.DWG DAS HRT DRAW (1) I=4 2/21/96 SRK

HAROLD TAKASHI MIYAMOTO
LICENSED PROFESSIONAL ENGINEER
No. 1514-S
HAWAII, U.S.A.

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DATE:	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

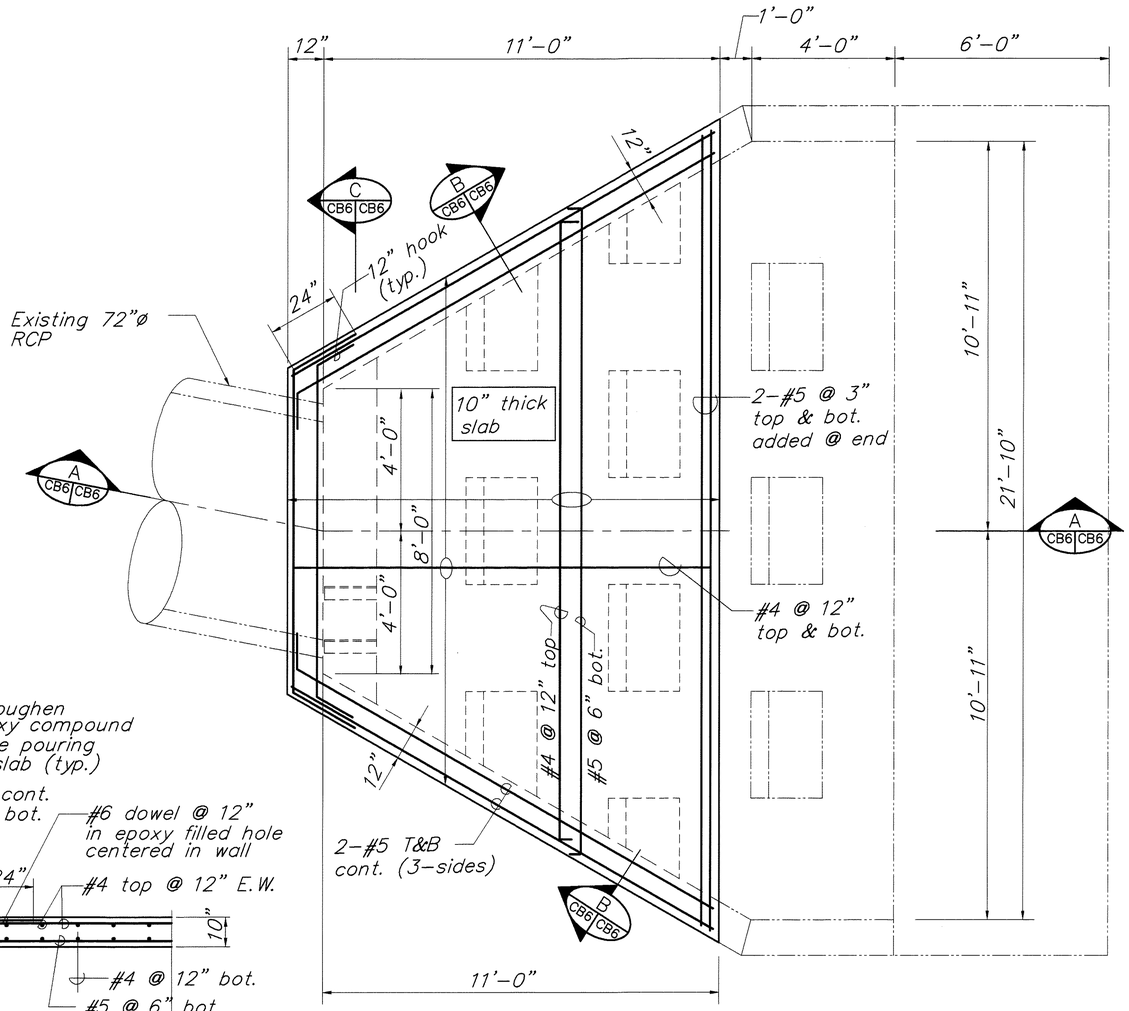
TRASH BARRIER AT INLET STRUCTURE AT STA. 319+78

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75), UNIT I

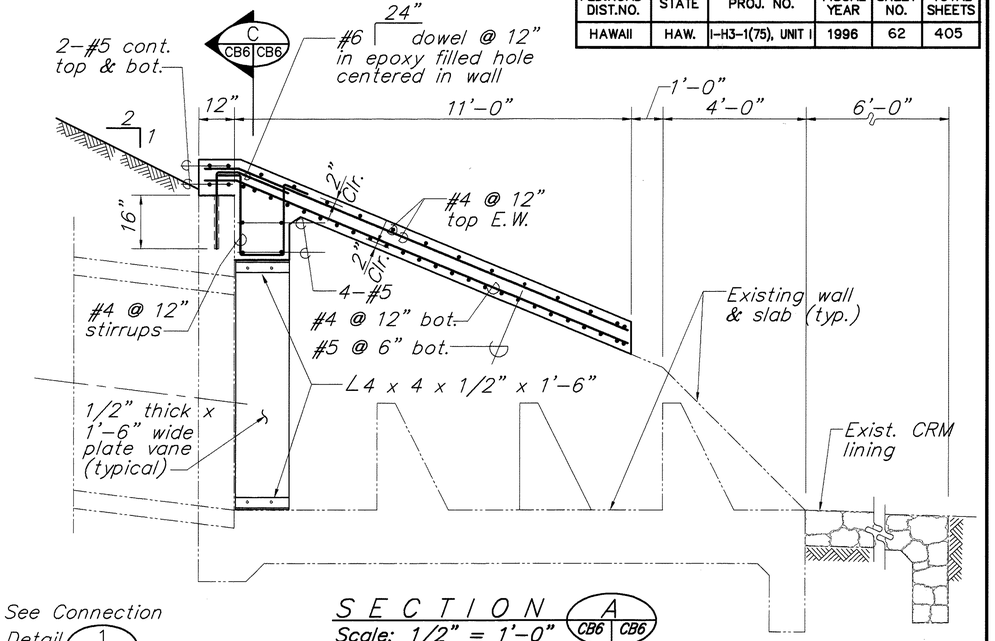
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SHEET No. CB5 OF 14 SHEETS

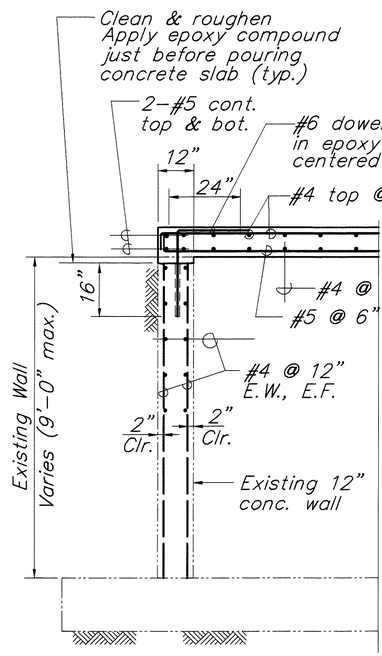
FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	62	405



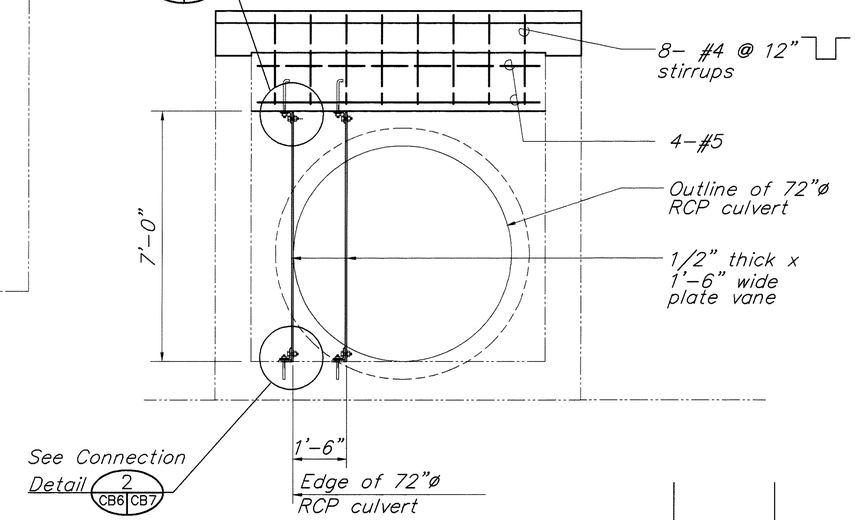
TOP SLAB FRAMING PLAN
Scale: 1/2" = 1'-0"



SECTION A (CB6|CB6)
Scale: 1/2" = 1'-0"



SECTION B (CB6|CB6)
Scale: 1/2" = 1'-0"



SECTION C (CB6|CB6)
Scale: 1/2" = 1'-0"

NOTE:

1. See Sheet CB3 for structural notes.

OUTLET STRUCTURE AT STA. 315 + 61
Scale: 1/2" = 1'-0"

DATE:	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MODIFICATION TO OUTLET STRUCTURE AT STA. 315+61

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75), UNIT I

SCALE: AS NOTED DATE: JAN., 1996

SHEET No. CB6 OF 14 SHEETS

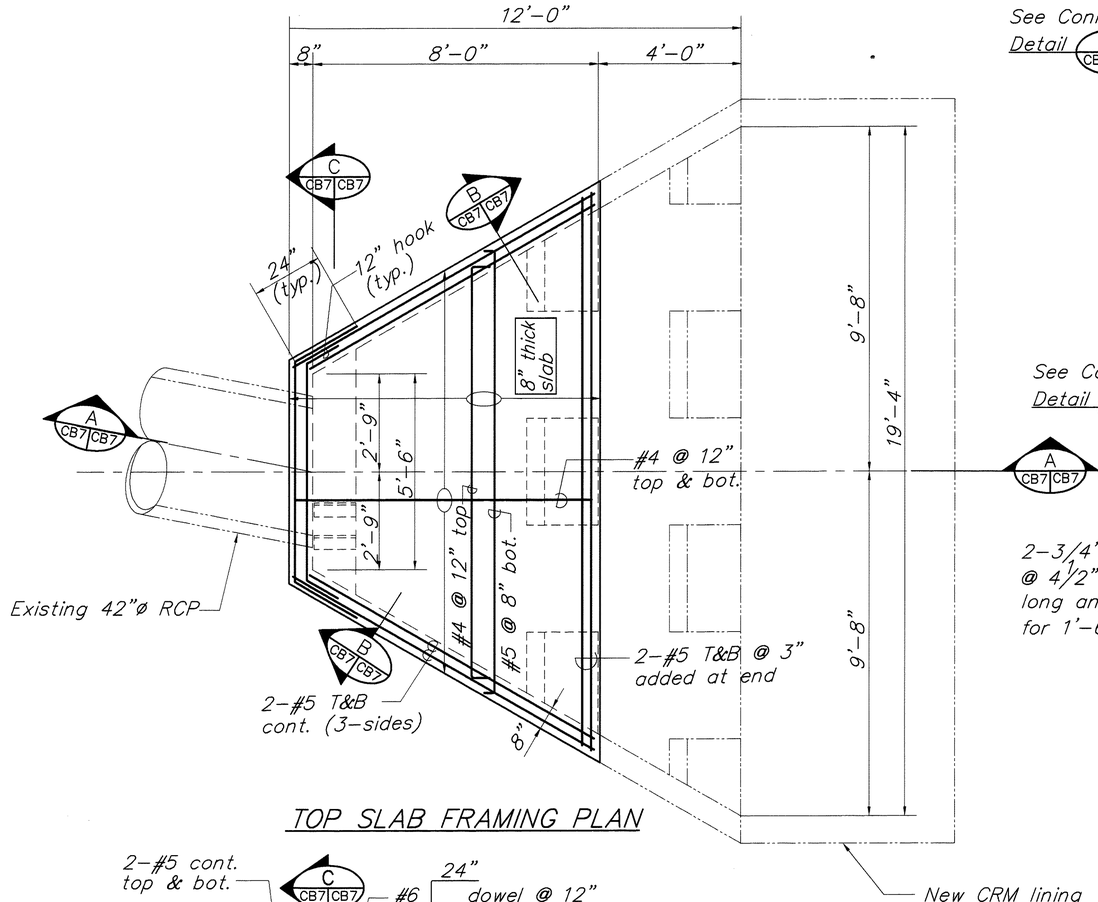
HAROLD TAKASHI MIYAMOTO LICENSED PROFESSIONAL ENGINEER No.1514-S HAWAII, U.S.A.

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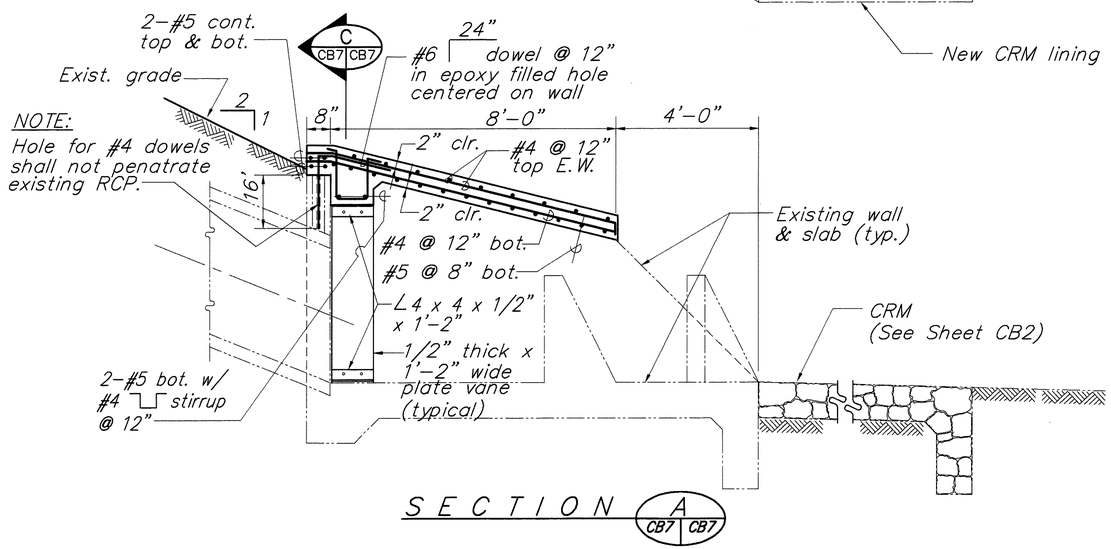
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83-45.5 F:\HRT-CB6.DWG 0H3 HRT DRAW (1) 1=2 0/21/96 SR9

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	63	405

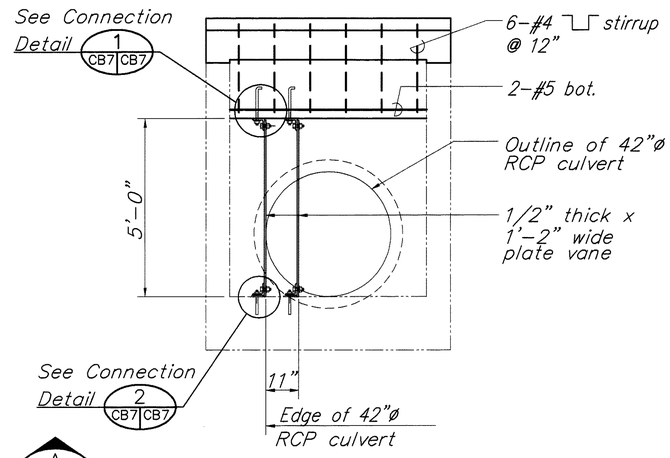


TOP SLAB FRAMING PLAN

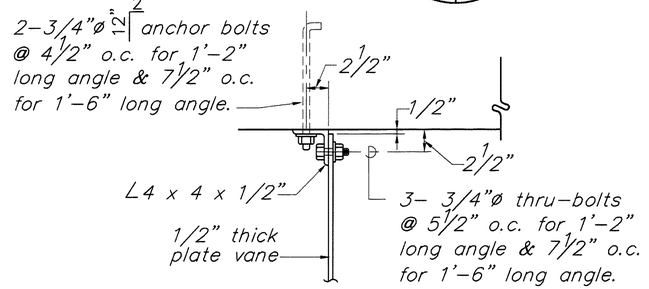


S E C T I O N A CB7 CB7

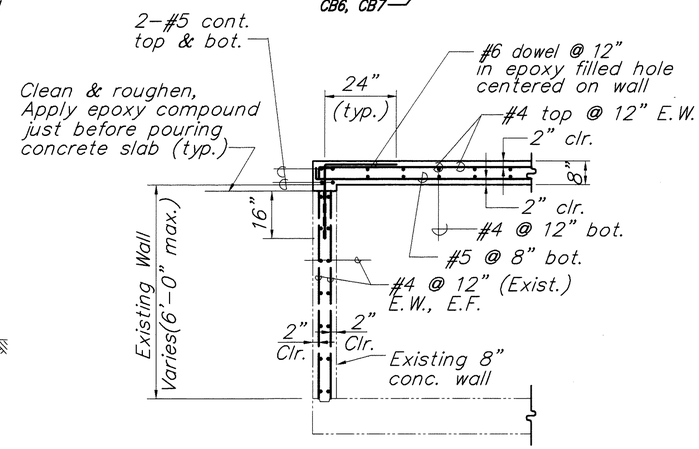
OUTLET STRUCTURE AT STA. 320 + 74
Scale: 1/2" = 1'-0"



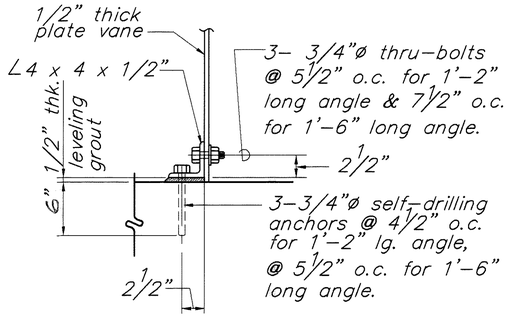
S E C T I O N C CB7 CB7



TOP CONN. DETAIL 1 CB7
Scale: 1 1/2" = 1'-0"
CB6, CB7



S E C T I O N B CB7 CB7



BOT. CONN. DETAIL 2 CB6, CB7 CB7
Scale: 1 1/2" = 1'-0"

NOTE:

1. See Sheet CB3 for structural notes.

DATE:	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MODIFICATION OF OUTLET STRUCTURE AT STA. 320+74

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75), UNIT I

SCALE: AS NOTED DATE: JAN., 1996

SHEET No. CB7 OF 14 SHEETS

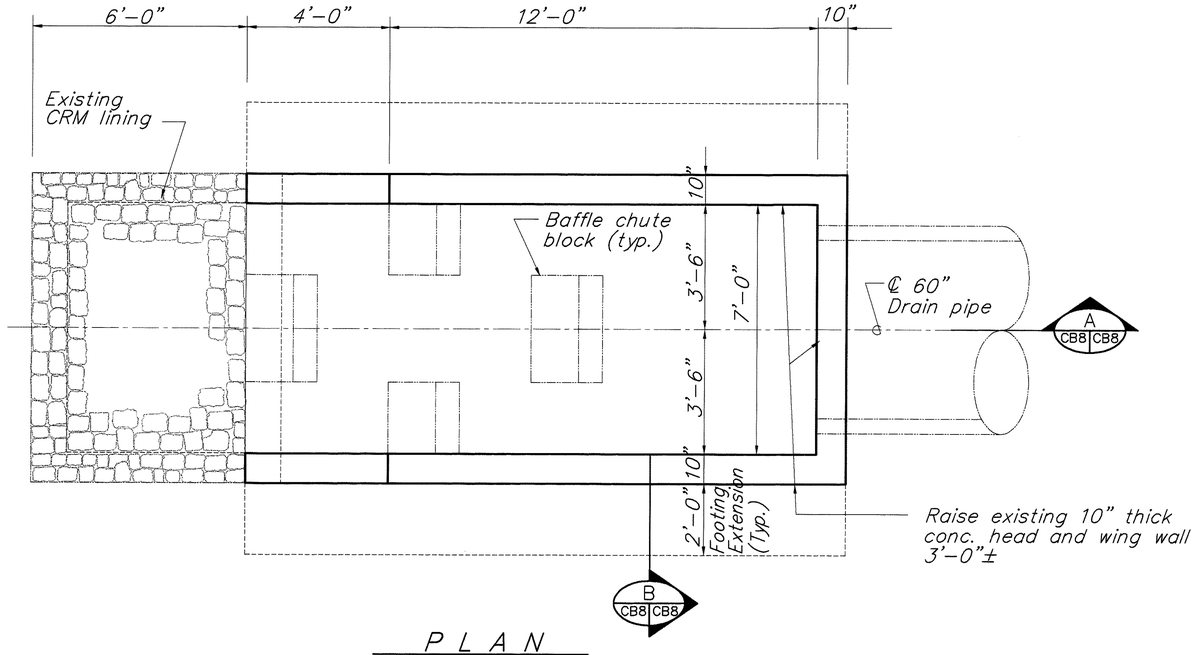
HAROLD TAKASHI MIYAMOTO LICENSED PROFESSIONAL ENGINEER No.1514-S HAWAII, U.S.A.

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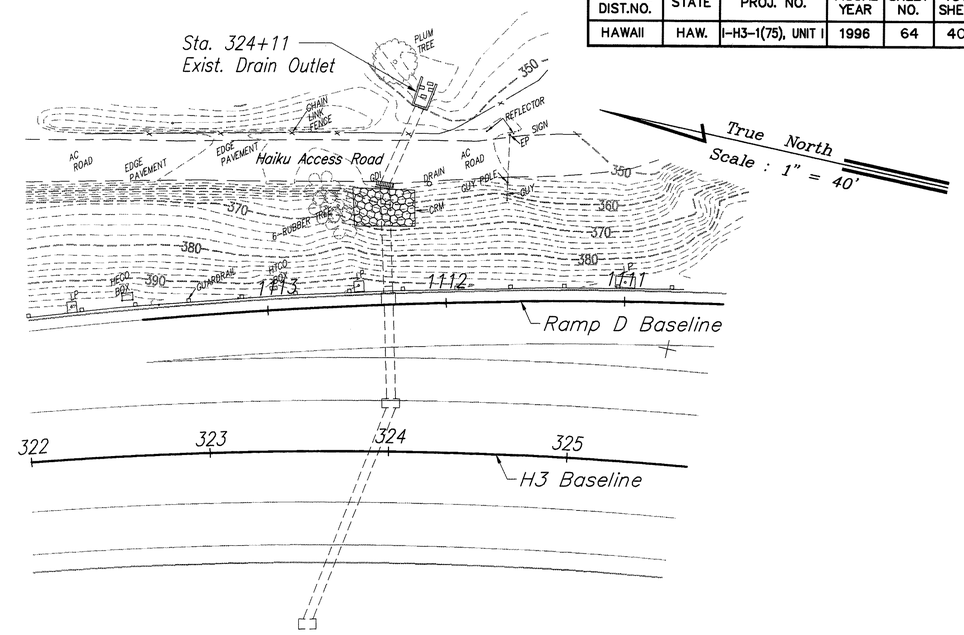
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | No.

83-45.5 F:\HWY-03\7.DWG D:\H3 HWY DRAW (2) 1=2 02/22/96 SRA

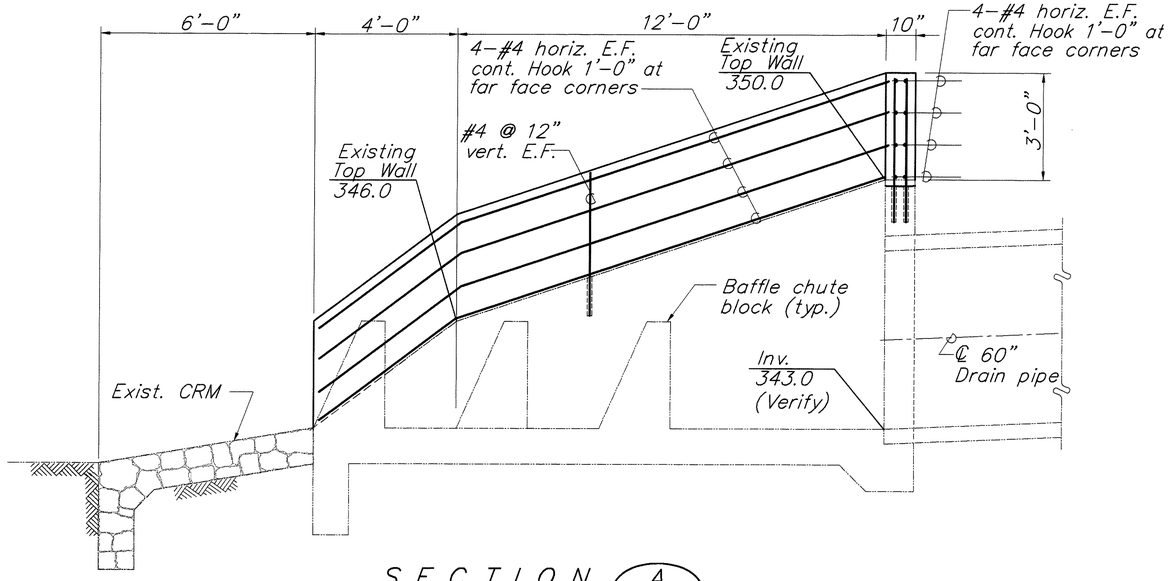
FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	64	405



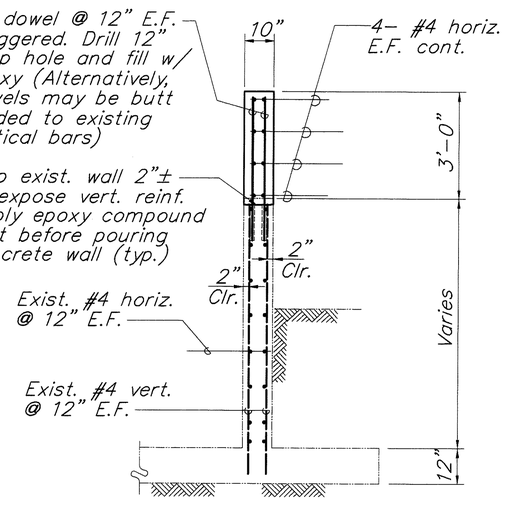
P L A N
Scale: 1/2" = 1'-0"



P L A N
Scale: 1" = 40'



S E C T I O N A
Scale: 1/2" = 1'-0"



S E C T I O N B
Scale: 1/2" = 1'-0"

NOTE:
1. See sheet CB3 for structural notes.

OUTLET STRUCTURE AT STA. 324 + 11
Scale: 1/2" = 1'-0"

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

83-62.5 F:\HRT-CB8.DWG 0x13 HRT DRAW (2) 1=2 02/20/96 SRA

DATE:	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MODIFICATION TO OUTLET STRUCTURE AT STA. 324+11

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75), UNIT I

HAROLD TAKASHI MIYAMOTO
LICENSED PROFESSIONAL ENGINEER
No.1514-S
HAWAII, U.S.A.

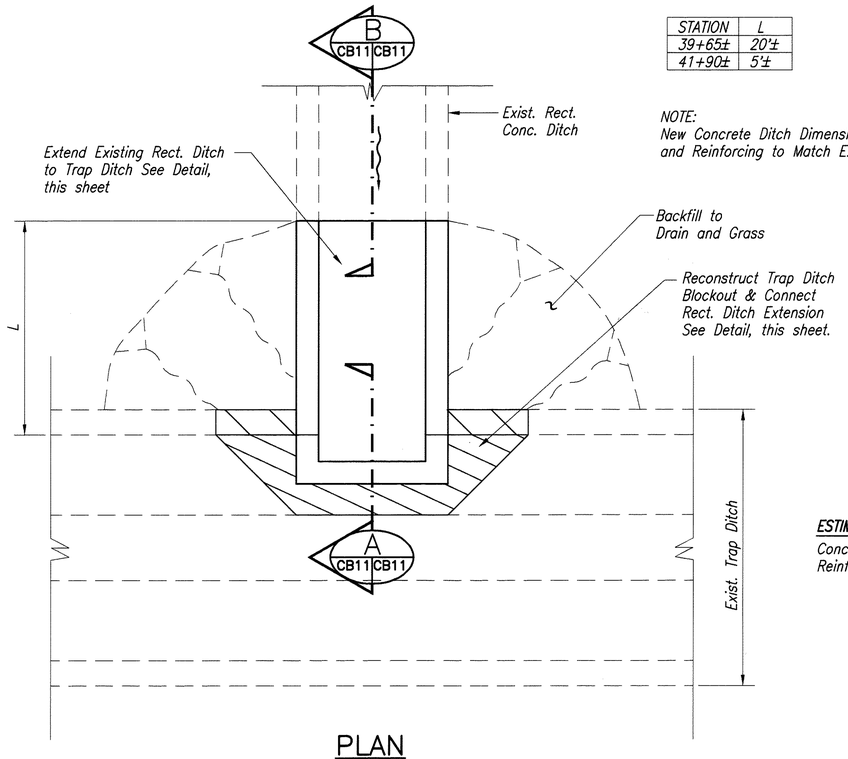
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SCALE: AS NOTED
DATE: JAN., 1996

SHEET No. CB8 OF 14 SHEETS

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	67	405

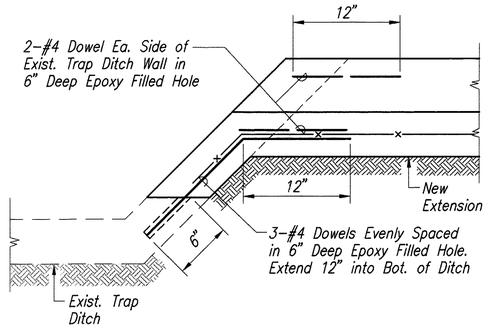
STATION	L
39+65±	20'±
41+90±	5'±



NOTE:
New Concrete Ditch Dimensions and Reinforcing to Match Existing.

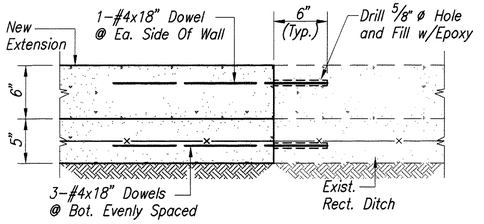
PLAN

DETAIL – DRAINAGE DITCH EXTENSION
Relocated Likelike Hwy. Baseline Sta.39+65±, o/s 80'± Lt. & 41+90± o/s 80'± Lt.
NTS

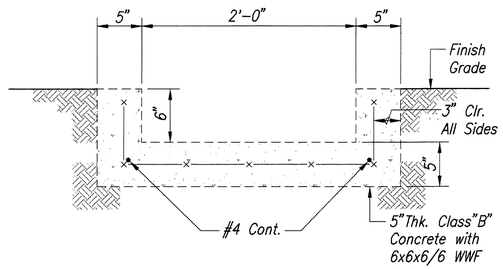


SECTION A
NTS
CB11 CB11

ESTIMATED QUANTITIES
Concrete = 4 CY
Reinforcing Steel = 100 LB



SECTION B
NTS
CB11 CB11



DETAIL – EXIST. CONC. DITCH
NTS

ARNOLD H. FUKUMOTO
LICENSED PROFESSIONAL ENGINEER
No. 8393-C
HAWAII, U.S.A.

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Arnold Fukumoto

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DITCH EXTENSION
AT RELOCATED LIKELIKE HIGHWAY
STA. 39+65 AND STA.41+90
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I

SCALE: AS NOTED DATE: JAN. 1996

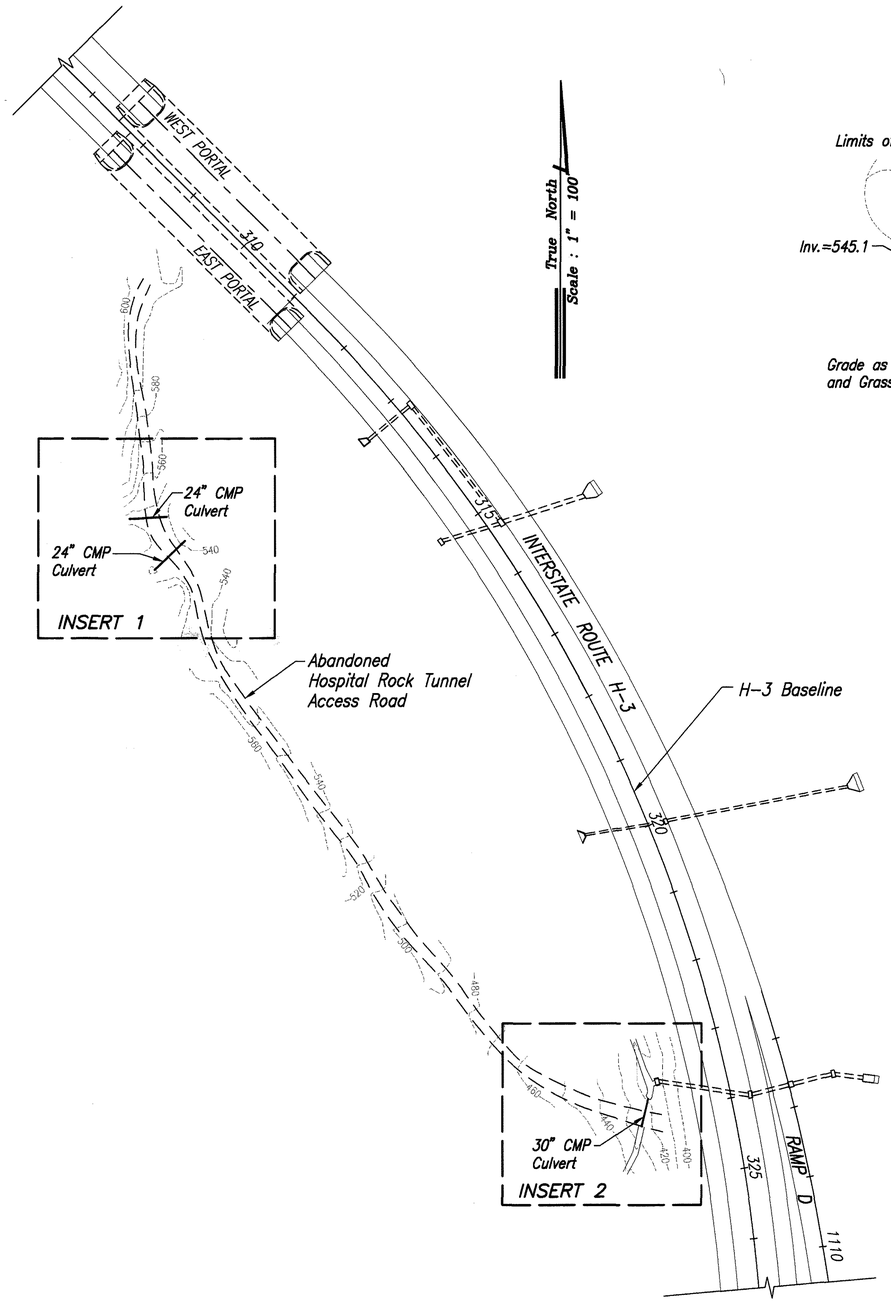
SHEET No. CB11 OF 14 SHEETS

DATE	REVISION

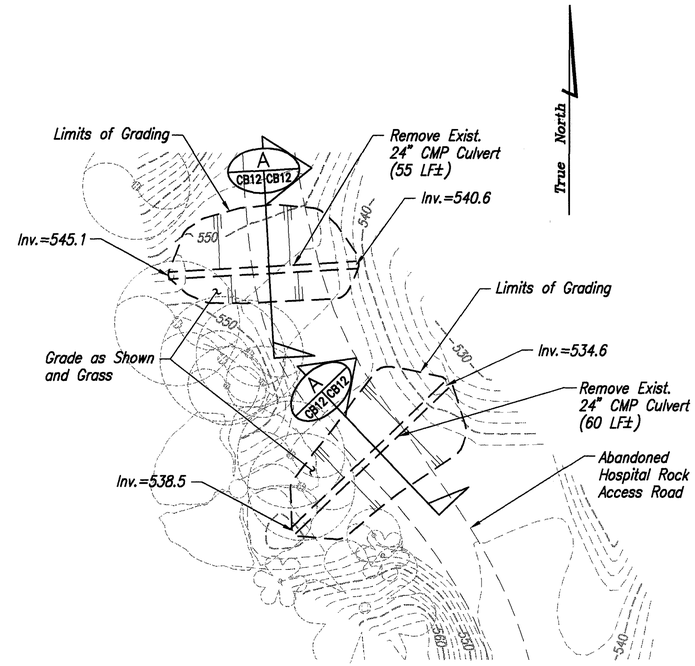
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
NOTE BOOK	TRACED BY	
	DESIGNED BY	
	QUANTITIES BY	
No.	CHECKED BY	

83-45.6 F:\D-D-DET\DWG DH3 FINISH, UNIT 1 P-1=1 02/24/96 af

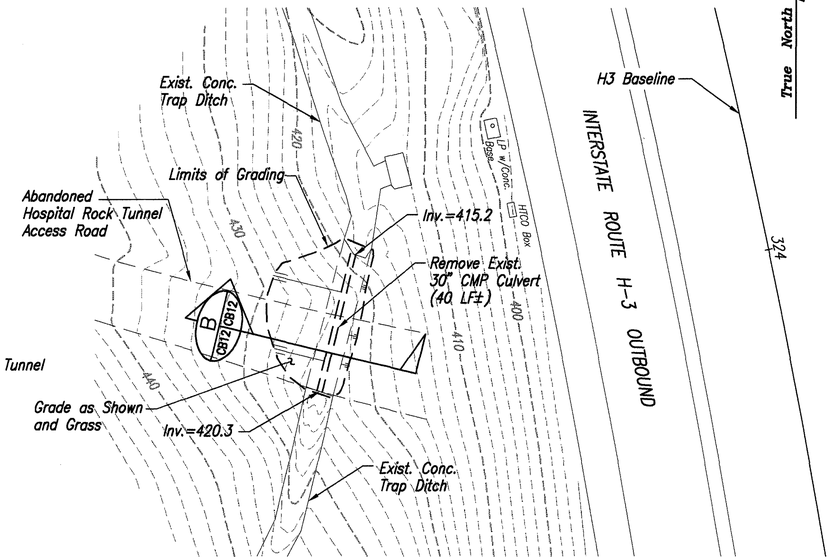
FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	68	405



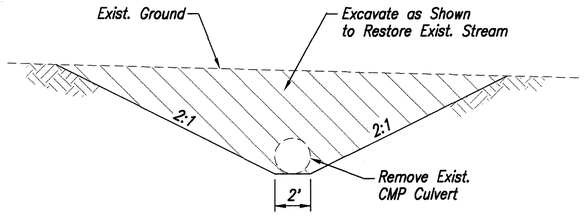
LOCATION PLAN
Scale: 1" = 100'



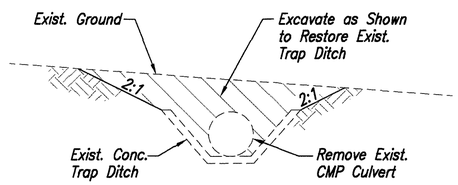
INSERT 1
Scale: 1"=20'



INSERT 2
Scale: 1"=20'



A CB12 CB12 SECTION
Not to Scale



B CB12 CB12 SECTION
Not to Scale

ARNOLD H. FUKUMOTO
LICENSED PROFESSIONAL ENGINEER
No. 8393-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Arnold Fukumoto

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

83-45.6 FHWT-ROAD,IMG D43 FIN. CONTR. P:1=20 02/23/96 BY

DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

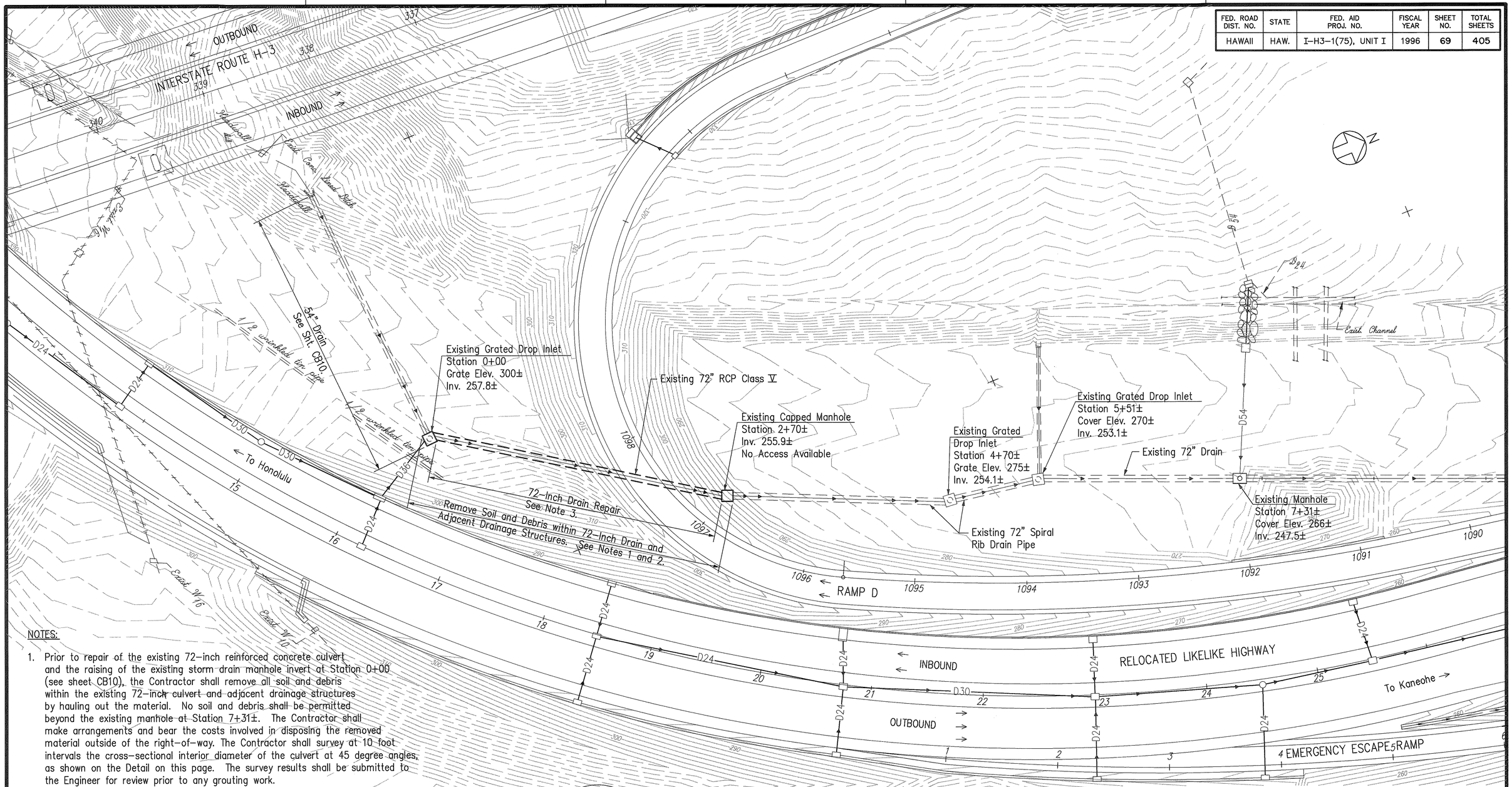
REMOVAL OF TEMPORARY CULVERTS
HOSPITAL ROCK TUNNEL ACCESS ROAD

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT 1

SCALE: AS NOTED DATE: JAN., 1996

SHEET No. CB12 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	69	405



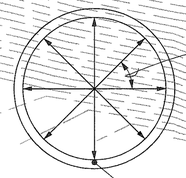
NOTES:

1. Prior to repair of the existing 72-inch reinforced concrete culvert and the raising of the existing storm drain manhole invert at Station 0+00 (see sheet CB10), the Contractor shall remove all soil and debris within the existing 72-inch culvert and adjacent drainage structures by hauling out the material. No soil and debris shall be permitted beyond the existing manhole at Station 7+31±. The Contractor shall make arrangements and bear the costs involved in disposing the removed material outside of the right-of-way. The Contractor shall survey at 10 foot intervals the cross-sectional interior diameter of the culvert at 45 degree angles, as shown on the Detail on this page. The survey results shall be submitted to the Engineer for review prior to any grouting work.

2. The Contractor shall place struts in the culvert to retain the existing cross section of the culvert while removing soil and debris from inside of the culvert, during surveying of the culvert interior and during repair of the culvert cracks. The struts are to be removed after completion of the culvert repair.

3. Pressure grouting of the cracks shall not proceed until ordered by the Engineer. The Contractor shall Epoxy Pressure Grout all cracks over 0.016-inch in width within the 72-inch RCP, Class V drain culvert per Special Provisions Section 678.

4. See Drainage Notes on Sht. CB1.



CULVERT SURVEY DETAIL
N.T.S.

ORIGINAL PLAN
SURVEY PLOTTED BY ____ DATE
AS-BUILT PLAN
TRACED BY
NOTE BOOK DESIGNED BY
No. ____ QUANTITIES BY
CHECKED BY

CAD by J. Mimura, 55-52

Last Saved: J:\H3RF\U1\RUKANIC\72DRAIN.dwg 03/15/96 at 15:00

RANDALL M. URASAKI
LICENSED PROFESSIONAL ENGINEER
No. 7269-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

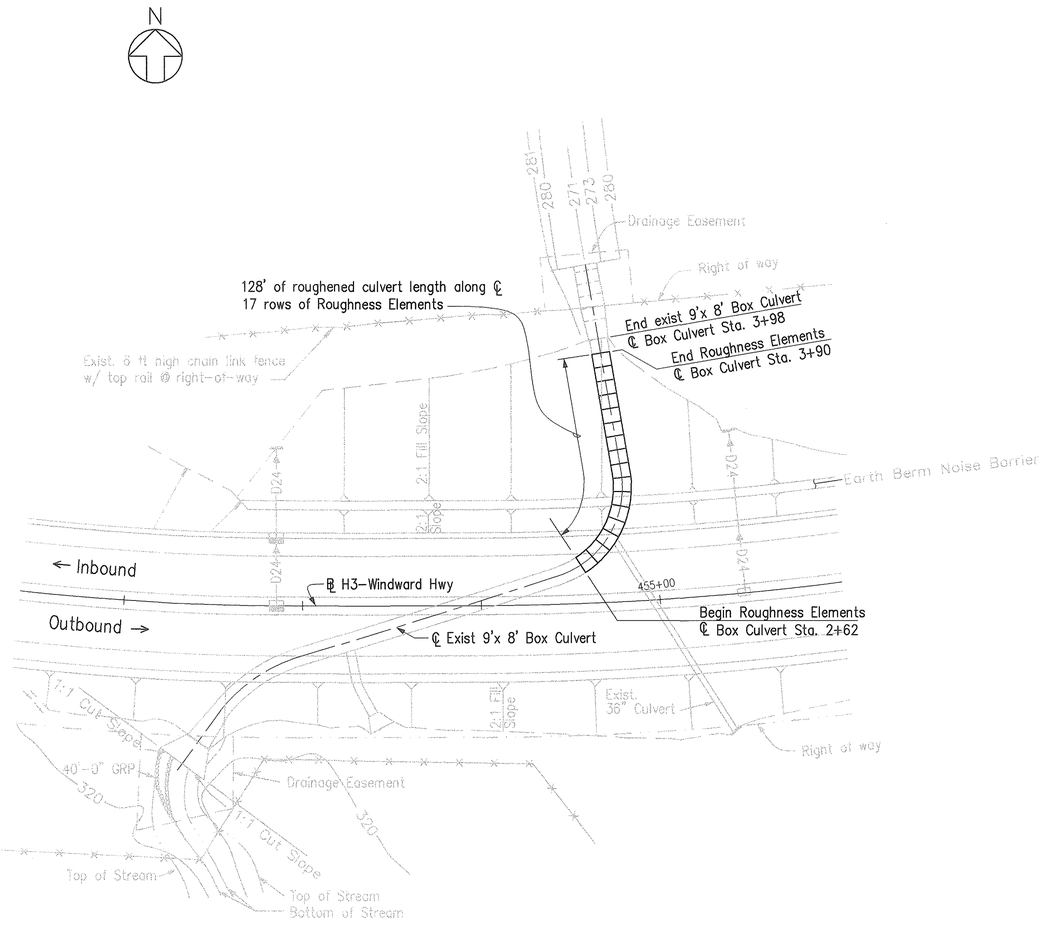
72-INCH DRAIN REPAIR

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

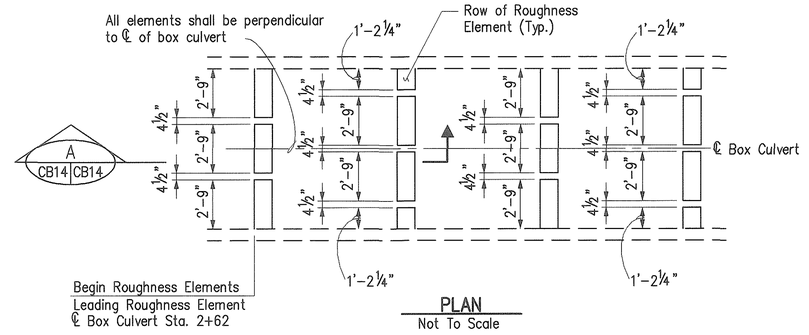
SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CB13 OF 14 SHEETS

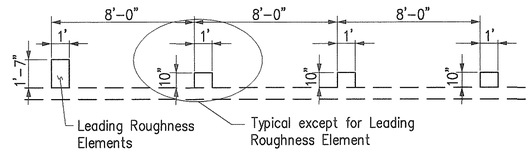
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	70	405



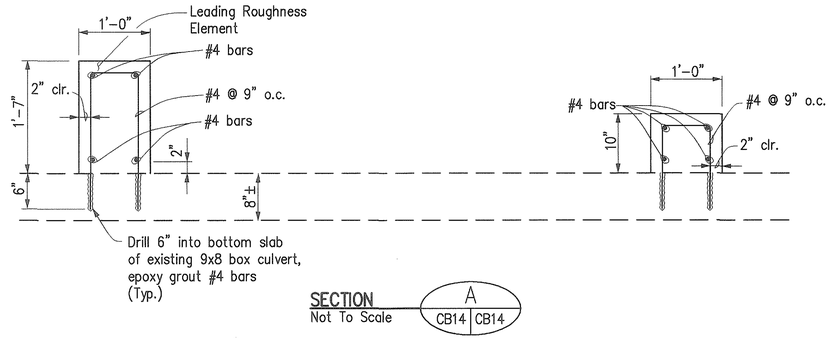
DRAINAGE PLAN
Scale: 1"=40'



PLAN
Not To Scale



PROFILE AT ℄ OF BOX CULVERT
Not To Scale



SECTION A CB14 CB14
Not To Scale

ROUGHNESS ELEMENTS

SUMMARY OF ESTIMATED QUANTITIES

ITEM NO.	CONTRACT ITEM	QUANTITY	UNIT
503.6000	Modifications to Box Culvert at Windward		
	Highway Sta. 453+87	(See Below)	L.S.
---	Concrete	(5 C.Y.)	---
---	Reinforcing Steel	(740 LB)	---

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MODIFICATIONS TO BOX CULVERT AT WINDWARD HIGHWAY STA. 453+87

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: AS SHOWN DATE: JANUARY 1996

SHEET NO. CB14 OF 14 SHEETS

ORIGINAL PLAN
NOTE BOOK No. ____
SURVEY PLOTTED BY ____ DATE ____
STREAM BY " "
TRACED BY " "
DESIGNED BY " "
QUANTITIES BY " "
CHECKED BY " "

CAD by J. Mimura, 55-52

Last Saved: J:\H3RF\U1\DET\CULV-DET.dwg 02/26/96 at 08:18

70

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	71	405

GRADING NOTES

1. All grading work shall be done in accordance with Chapter 23, Grading, Soil Erosion and Sediment Control of the Revised Ordinances of Honolulu, 1978, as amended (Ordinance Nos. 81-13 and 90-71).

2. The Contractor shall remove all silt and debris resulting from his work and deposited in drainage facilities, roadways and other areas. The costs incurred for any necessary remedial action by the Chief Engineer shall be payable by the Contractor.

3. The Contractor, at his own expense, shall keep the project area and surrounding area free from dust and other nuisance. The work shall be in conformance with the air pollution standards and regulations of the State Department of Health.

4. All slopes and exposed areas shall be hydro-mulch seeded as soon as final grades have been established in accordance with the Specification & Grading Plan. Planting shall not be delayed until all grading work has been completed. Grading to final grade shall be continuous, and any area within which work has been interrupted or delayed shall be planted.

5. Fills on slopes steeper than 4:1 shall be benched.

6. No grading work shall be done on Saturdays, Sundays and Holidays at any time without prior written notice to the Chief Engineer or District Engineer, State of Hawaii.

7. The limits of the area to be graded shall be flagged by the Contractor before the commencement of the grading work.

8. The City shall be informed of the location of the borrow/disposal site for the project when the application for a grading permit is made. The borrow/disposal site must also fulfill the requirements of the grading ordinance.

9. All grading operations shall be performed in conformance with the applicable provisions of Chapter 54, Water Quality Standards, and Chapter 55, Water Pollution Control, of Title 11, Administrative Rules of the State Department of Health.

10. Temporary Erosion Control Plan and procedures shall be submitted by the Contractor for approval prior to the start of actual grading operations.

11. Silt fence shall be installed along the edges of open channels & ditches in order to filter sediment from runoff, before water enters the channel.

12. Temporary erosion controls shall not be removed before permanent erosion controls are in-place and established.

NATIONAL POLLUTANT DISCHARCE ELIMINATION SYSTEM (NPDES) GENERAL NOTES

(A) Erosion and Sediment Control Inspection and Maintenance Practices.

(1) The Contractor shall inspect the erosion and sediment control measures at least once a week or after 0.5 inches of rainfall.

(2) The Contractor shall maintain the erosion and sediment control measures according to the contract. If a repair is necessary, the Contractor shall initiate the repairs within twenty-four (24) hours after the inspection such as:

(a) When sediment build-up reaches one-third (1/3) the height of the silt fence, the Contractor shall remove and dispose of the sediment build-up from the silt fence.

(b) When the depth of the sediment basin reaches ten percent (10%) of the design capacity, the Contractor shall remove and dispose of the sediment build-up.

(c) When tears are found on the silt fence, the Contractor shall replace the fabric.

(d) The Contractor shall check to see if the fabric is securely attached to the fence posts and to see that the fence posts are firmly in the ground.

(e) The Contractor shall inspect the diversion dike and repair the breaches.

(f) The Contractor shall inspect temporary and permanent seeding and planting for bare spots, washouts, and healthy growth.

(3) The Contractor shall have its personnel make a maintenance inspection report promptly after each inspection. The Contractor shall select a minimum of three (3) personnel who will be responsible for inspection, maintenance, repair activities, and filling out the inspection and maintenance report. Personnel selected for the inspection and maintenance responsibilities will receive training from the Contractor. The Contractor shall train these personnel in the inspection and maintenance practices necessary for keeping the erosion and sediment used onsite according to the contract.

(B) Submittal Requirements:

(1) Construction activities of five (5) acres or more.

(a) Storm water discharges into State waters due to construction activities of Five (5) acres or more, will require an NPDES permit from the Department of Health (DOH). The Contractor shall submit to the Engineer four (4) sets of Site-Specific Best Management Plans (BMP). The Plans shall be submitted no later than thirty (30) calendar days after the award of Contract.

(b) No construction activities will be authorized until the Contractor's Site-Specific BMP has been approved by the Highways Division.

(2) Construction activities dewatering and/or hydrotesting water.

(a) Discharges into State waters due to dewatering and/or hydrotesting activities will require NPDES Permit(s) from DOH. If the Contractor options to discharge dewatering and/or hydrotesting effluent into State waters, the Contractor shall submit to the Engineer four (4) sets of Site-Specific Dewatering and /or Hydrotesting BMP, and four (4) copies of the Quality of Discharge Test results. The Plans and test results shall be submitted no later than thirty (30) calendar days after the award of Contract.

(b) No dewatering and/or hydrotesting activities will be authorized until the receipt of the NPDES Permit(s) from DOH.

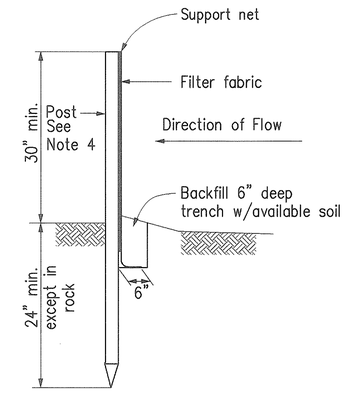
SILT FENCE NOTES

1. Filter fabric shall be of the type specified and installed in combination with a support net of polyester netting or approved equal. The filter fabric shall be a mininum of 36 inches wide and the support net a minimum of 30 inches.

2. If silt fence is obtained from manufacturer as a package (i.e. fabric attached to post) the manufacturers installation instructions shall be adhered to.

3. Posts shall be metal where possible, cross section of post will be substantial enough to support a loaded silt fence without bending. Post spacing shall be 4 feet to 8 feet, depending on post size.

4. Some manufacturers only supply silt fence with wooden post. During installation, measures should be taken to prevent damage to post.



SILT FENCE DETAIL
N.T.S.

LEGEND

270 Existing Contours

270 Proposed Contours

Silt Fence

Limit of Grading

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

CAD by J. Mamura, 55-52

Last Saved: J:\H3RF\U1\HALEKOU\GRAD-NTE.dwg 02/26/96 at 08:24

DARIN N. CHINEN
LICENSED PROFESSIONAL ENGINEER
No. 7977-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Darin N. Chinen

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING NOTES
EROSION AND SEDIMENT CONTROL MEASURES

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

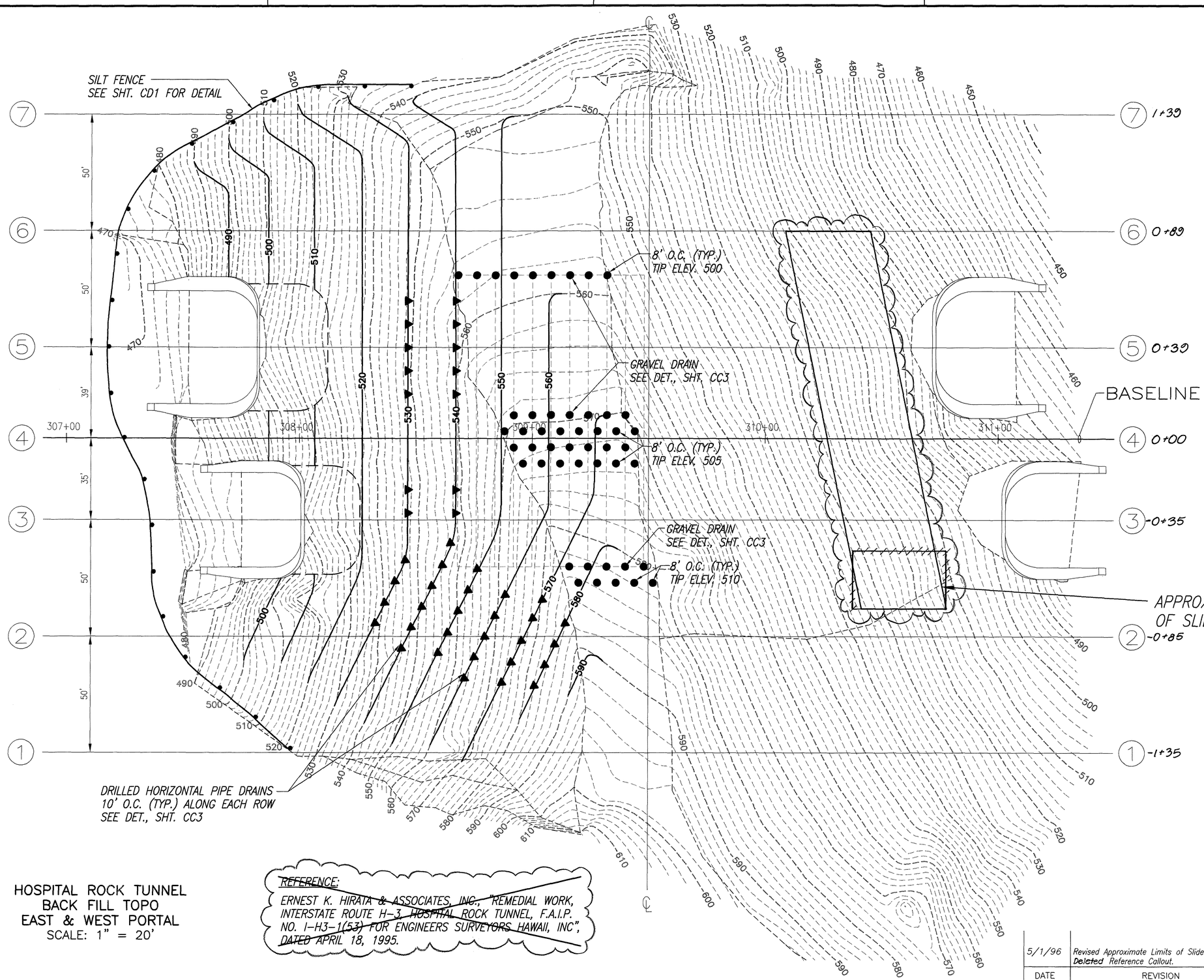
SCALE: NONE DATE: JANUARY 1996

SHEET NO. CC1 OF 6 SHEETS

71

71

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	ADD. 72	405



True North
Scale : 1" = 20'

LEGEND:

- ● VERTICAL GRAVEL DRAIN
- ▲ DRILLED HORIZONTAL PIPE DRAIN
- SILT FENCE

GERALD Y. SEKI
LICENSED PROFESSIONAL ENGINEER
No. 5635-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

ARNOLD H. FUKUMOTO
LICENSED PROFESSIONAL ENGINEER
No. 8393-C
HAWAII, U.S.A.

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

83-45.5 File:H3-PLAN.dwg Disk:H3 HOSPITAL ROCK TUNNEL Plot:1-20 Date:05/02/96 By

HOSPITAL ROCK TUNNEL
BACK FILL TOPO
EAST & WEST PORTAL
SCALE: 1" = 20'

~~REFERENCE:~~
~~ERNEST K. HIRATA & ASSOCIATES, INC., "REMEDIAL WORK, INTERSTATE ROUTE H-3, HOSPITAL ROCK TUNNEL, F.A.I.P. NO. I-H3-1(53) FOR ENGINEERS SURVEYORS HAWAII, INC", DATED APRIL 18, 1995.~~

DATE	REVISION
5/1/96	Revised Approximate Limits of Slide Repair and **Deleted** Reference Callout.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HOSPITAL ROCK TUNNEL
GRADING AND DRAIN LOCATIONS

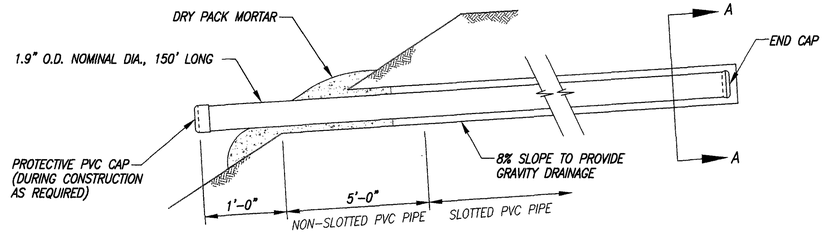
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75), UNIT I

SCALE: AS NOTED DATE: JAN., 1996

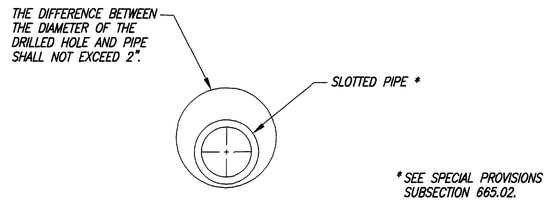
SHEET No. CC2 OF 6 SHEETS

"AS-BUILT" ADD. 72

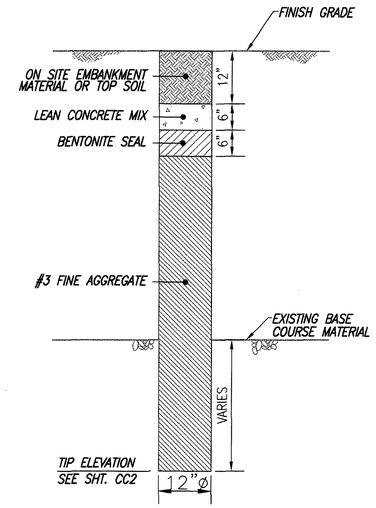
FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	ADD. 73	405



HORIZONTAL DRAIN PIPE DETAIL
NOT TO SCALE

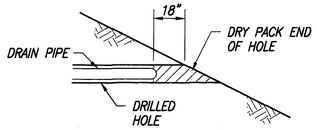


SECTION A
NOT TO SCALE

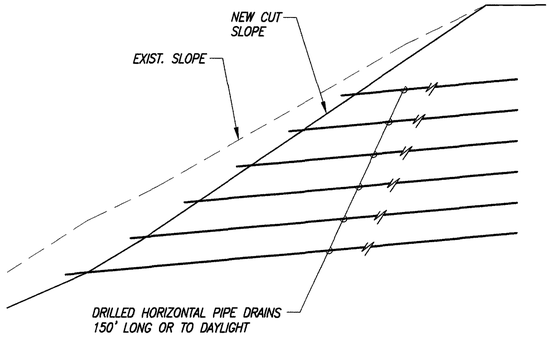


VERTICAL GRAVEL DRAIN DETAIL
NOT TO SCALE

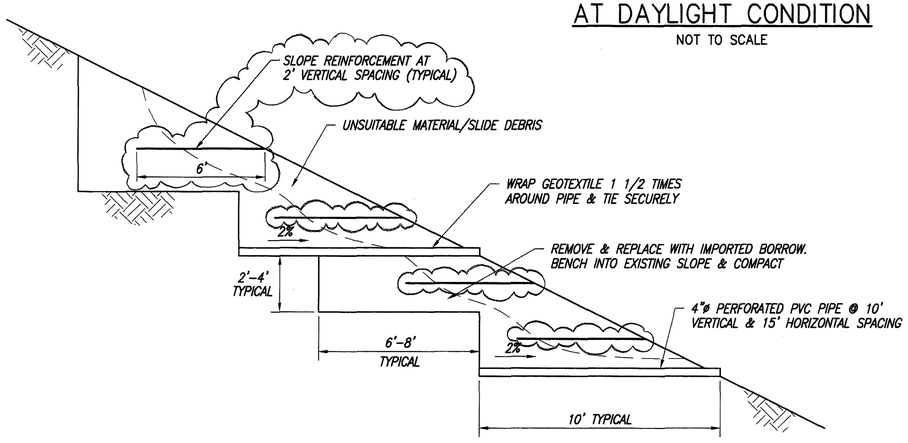
REFERENCE:
ERNEST K. HIRATA & ASSOCIATES, INC., "REMEDIAL WORK, INTERSTATE ROUTE H-3 HOSPITAL ROCK TUNNEL, F.A.I.P. NO. I-H3-1(53) FOR ENGINEERS SURVEYORS HAWAII, INC", DATED APRIL 18, 1995.



HORIZONTAL DRAIN PIPE DETAIL AT DAYLIGHT CONDITION
NOT TO SCALE



TYPICAL SECTION
NOT TO SCALE



SLIDE REPAIR & UNSUITABLE MATERIAL REMOVAL
NOT TO SCALE

GERALD Y. SEKI
LICENSED PROFESSIONAL ENGINEER
No. 5635-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

83-65 FileHRT-DET.dwg Disk:H3 HOSPITAL ROCK TUNNEL(2) Plot:1=1 Date:05/01/96 jky

DATE	REVISION
5/1/96	Deleted Reference Callout and Added Slope Reinforcement to Slide Repair Detail.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HOSPITAL ROCK TUNNEL
GRAVEL AND HORIZONTAL DRAIN DETAILS

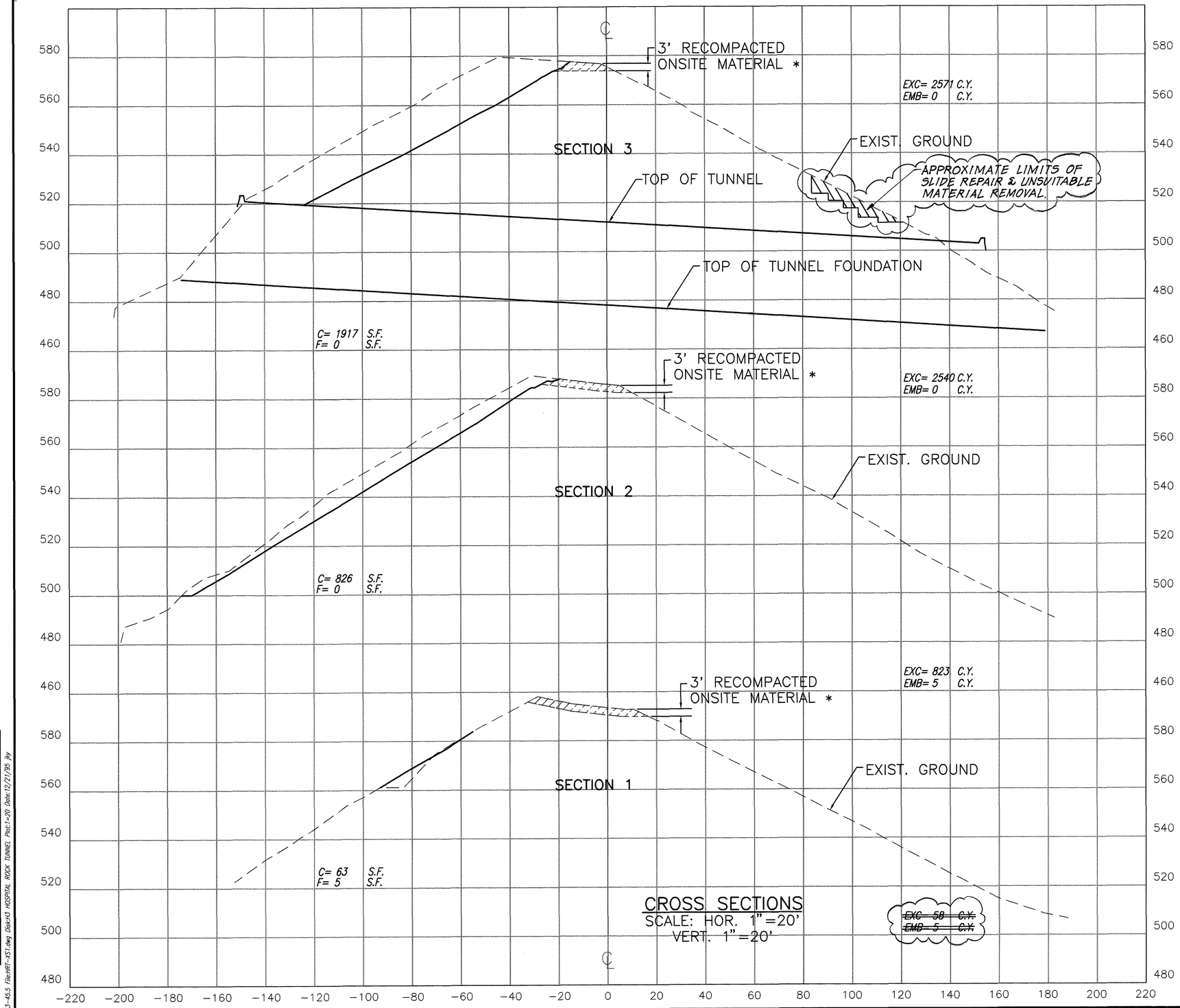
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75), UNIT I

SCALE: AS NOTED DATE: JAN., 1996

SHEET No. CC3 OF 6 SHEETS

ADD. 73

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	ADD.74	405



CROSS SECTIONS
SCALE: HOR. 1"=20'
VERT. 1"=20'

NOTE:
* TO BE PLACED PRIOR TO INSTALLATION OF VERTICAL GRAVEL DRAINS.

4/22/96	DELETED EXC & EMB QUANTITIES BEFORE SECTION 1, ADDED APPROXIMATE LIMITS OF SLIDE REPAIR & UNSUITABLE MATERIAL REMOVAL.
DATE	REVISION

ARNOLD H. FUKUMOTO
LICENSED PROFESSIONAL ENGINEER
No. 8393-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Arnold Fukumoto

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TUNNEL CROSS SECTIONS

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75), UNIT I

SCALE: AS NOTED DATE: JAN., 1996

SHEET No. CC4 OF 6 SHEETS

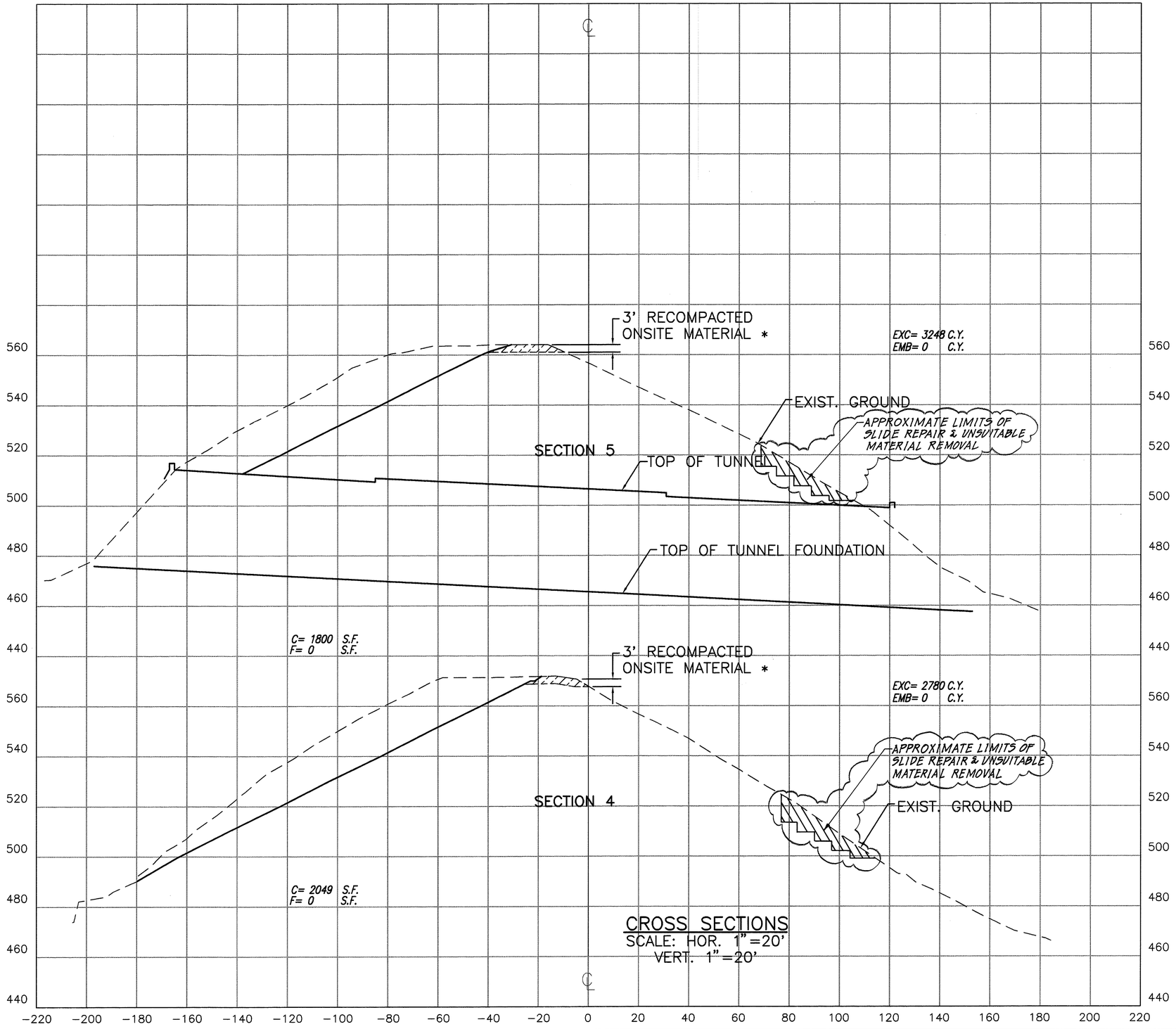
ADD. 74

ORIGINAL PLAN
NOTE BOOK
No.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

83-46.5 File:H#T-XS1.dwg Disk=H3 HOSPITAL ROCK TUNNEL Plot:1=20 Date:12/21/95 by

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	00075	405



CROSS SECTIONS
SCALE: HOR. 1"=20'
VERT. 1"=20'

NOTE:
* TO BE PLACED PRIOR TO INSTALLATION OF VERTICAL GRAVEL DRAINS.

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

83-45.5 File:HRT-XS2.dwg Disk=I3 HOSPITAL ROCK TUNNEL Plot:1=20 Date:12/21/95 By

ARNOLD H. FUKUMOTO * LICENSED PROFESSIONAL ENGINEER * No. 8393-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

DATE	REVISION
4/22/96	ADDED APPROXIMATE LIMITS OF SLIDE REPAIR & UNSUITABLE MATERIAL REMOVAL.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TUNNEL CROSS SECTIONS

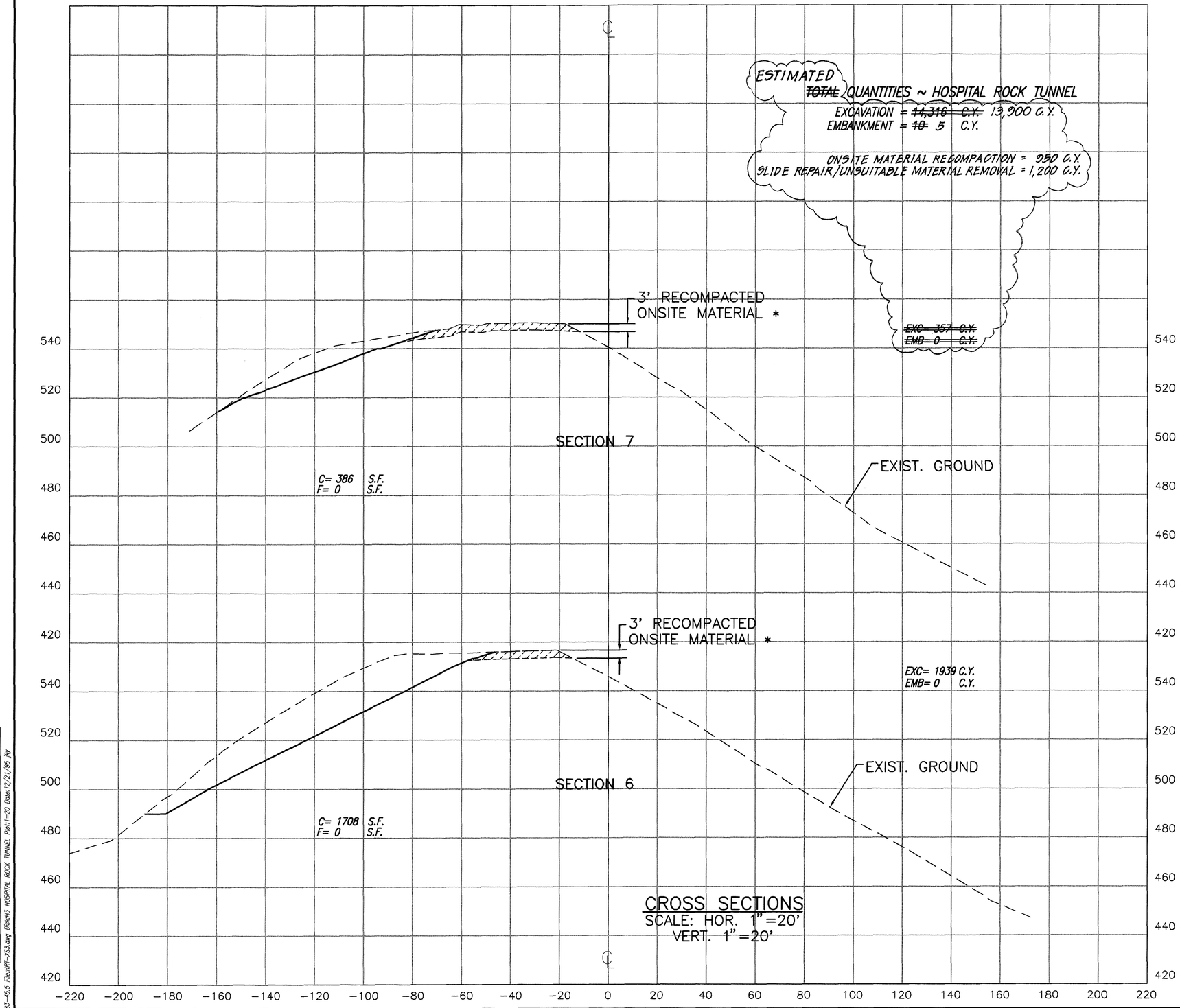
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75), UNIT I

SCALE: AS NOTED DATE: JAN., 1996

SHEET No. CC5 OF 6 SHEETS

ADD. 75

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	ADD.76	405



NOTE:
* TO BE PLACED PRIOR TO INSTALLATION OF VERTICAL GRAVEL DRAINS.

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

83-45.5 File:HRT-X53.dwg Disc:h3 HOSPITAL ROCK TUNNEL Plot:1-20 Date:12/21/95 jw

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Arnold Fukumoto

ARNOLD H. FUKUMOTO
LICENSED PROFESSIONAL ENGINEER
No. 8393-C
HAWAII, U.S.A.

DATE	REVISION
4/22/96	REVISED EXC. & EMB. QUANTITIES. ADDED ONSITE MATERIAL RECOMPACTION & UNSUITABLE MATERIAL REMOVAL QUANTITIES.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TUNNEL CROSS SECTIONS

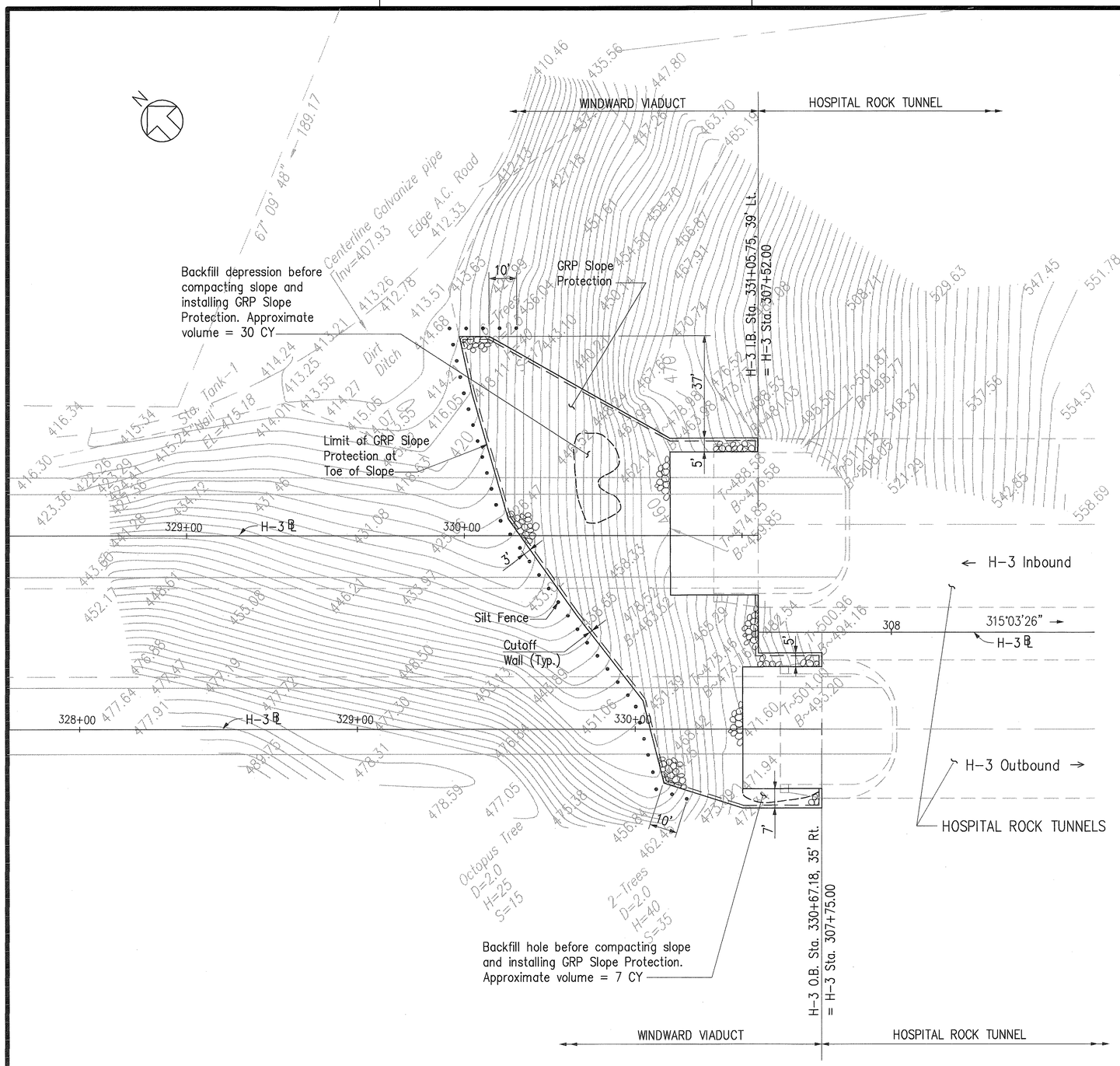
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75), UNIT I

SCALE: AS NOTED DATE: JAN., 1996

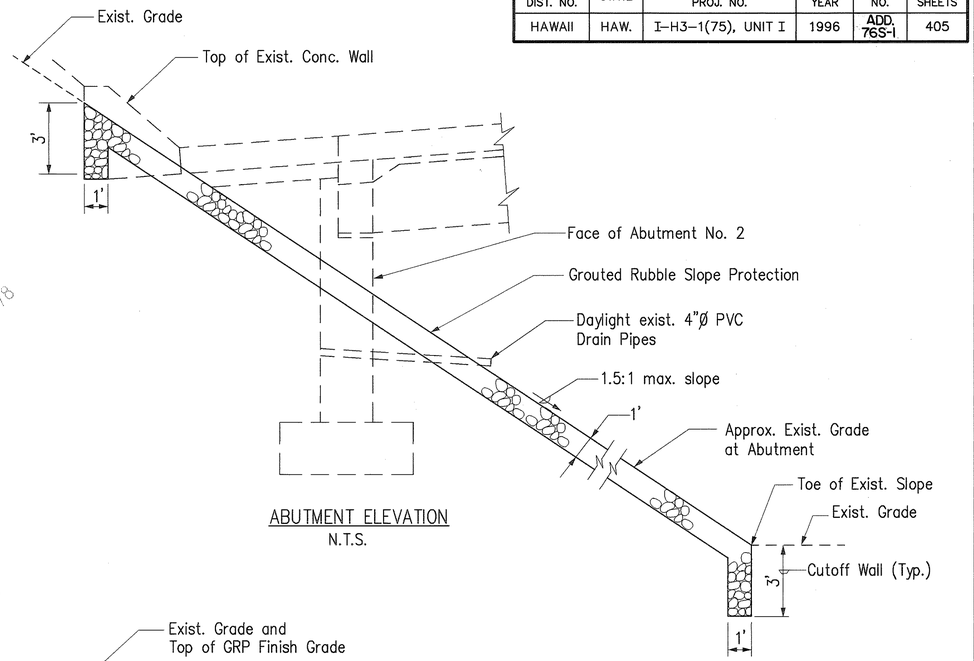
SHEET No. CC6 OF 6 SHEETS

ADD. 76

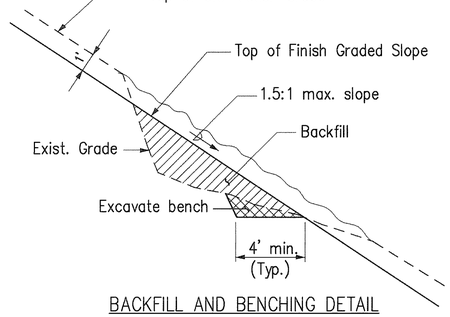
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	ADD. 76S-i	405



PLAN
Scale: 1" = 20'



ABUTMENT ELEVATION
N.T.S.



BACKFILL AND BENCHING DETAIL
N.T.S.

ROADWAY EXCAVATION QUANTITIES	
EXCAVATION	EMBANKMENT
300 CY	40 CY

NOTES:

1. Clear & grub all areas to be graded. Payment shall be considered incidental to various contract items.
2. Cut bench into existing slope prior to backfilling depression. On site material may be used to fill depression. Fill in 8" lifts and compact to 90%.
3. Roll slope face to provide firm surface prior to installing GRP slope protection. Payment for compaction shall be considered incidental to various contract items.
4. After rolling surface, install temporary slope protection on exposed slope surfaces. Remove protection prior to placing GRP. Remove only from the area that can be covered by GRP in one day. Payment for temporary slope protection shall be considered incidental to the GRP slope protection.

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

CAD by J. MIMURA, 55-52

Last Saved: J:\H3RF\U1\ESH\GRP.dwg 05/01/96 at 15:25

DARIN N. CHINEN
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No. 7977-C
HAWAII, U.S.A.

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Darin N. Chinen

5/2/96	Added Sheet for GRP Slope Protection
Date	Revision

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD VIADUCT
ABUTMENT NO. 2
GRP SLOPE PROTECTION

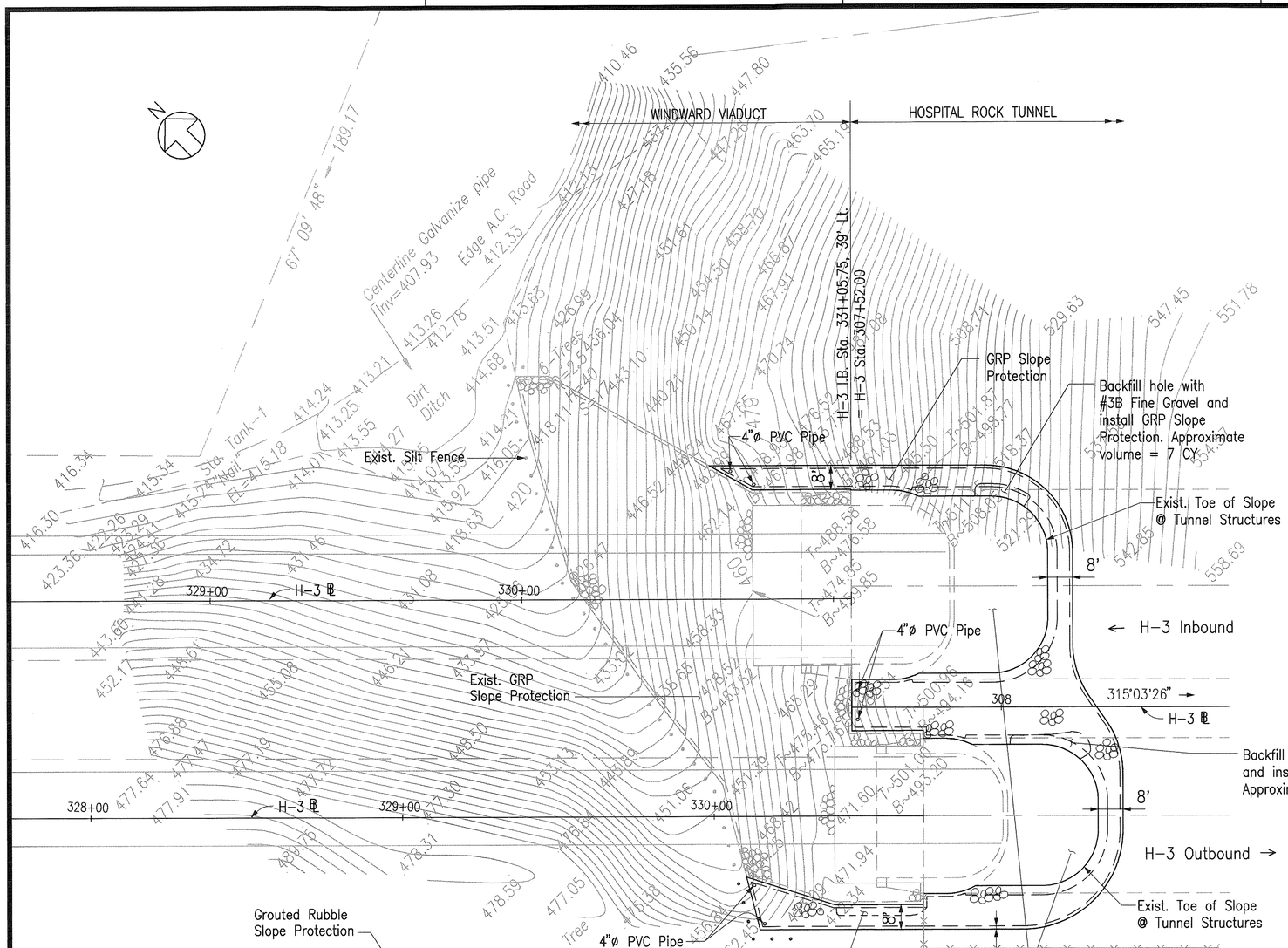
INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: AS SHOWN DATE: APRIL 1996

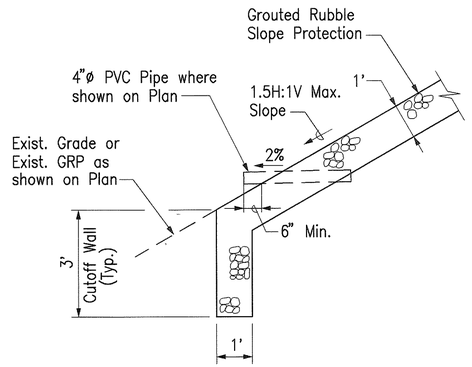
SHEET NO. WG1 OF 1 SHEETS

ADD.76S-1

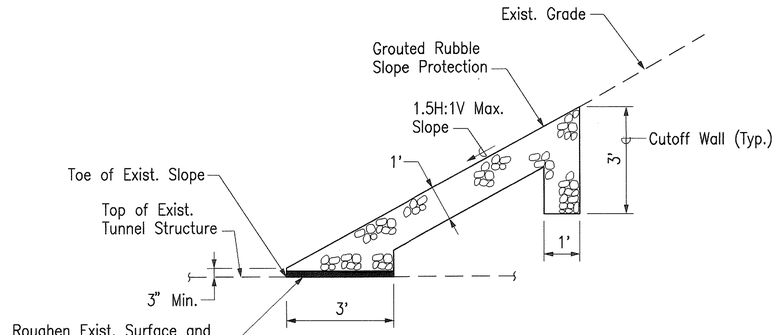
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	C.O. 76S-2	405



PLAN
Scale: 1" = 20'



GRP ELEVATION (ABUTMENT SLOPE)
Scale: ½" = 1'-0"



GRP ELEVATION @ TUNNEL STRUCTURE
Scale: ½" = 1'-0"

NOTES:

1. Roll slope face to provide firm surface prior to installing GRP slope protection.
2. After rolling surface, install temporary slope protection on exposed slope surfaces. Remove protection prior to placing GRP. Remove only from the area that can be covered by GRP in one day.
3. Remove existing exposed waterproof lining and clean existing concrete surface of tunnel structures.
4. Temporary irrigation lines shall be relocated to allow installation of GRP slope protection.
5. Existing landscaping within the limits of the new GRP slope protection shall be transplanted as directed by the Engineer.

*ESTIMATED QUANTITIES		
EXCAVATION	3B FINE GRAVEL	GRP SLOPE PROTECTION
225 CY	38 CY	300 CY

*The estimated quantities shown are only for the State's use in the evaluation of the lump sum change order cost. The Contractor shall be responsible for determining the necessary work and materials for the lump sum change order cost.

Date	Revision
9/5/97	Added Sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HOSPITAL ROCK TUNNEL WEST PORTALS GRP SLOPE PROTECTION

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: AS SHOWN DATE: SEPTEMBER 1997

SHEET NO. 1 OF 1 SHEETS

DARIN N. CHINEN
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No. 7977-C
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Darin N. Chinen

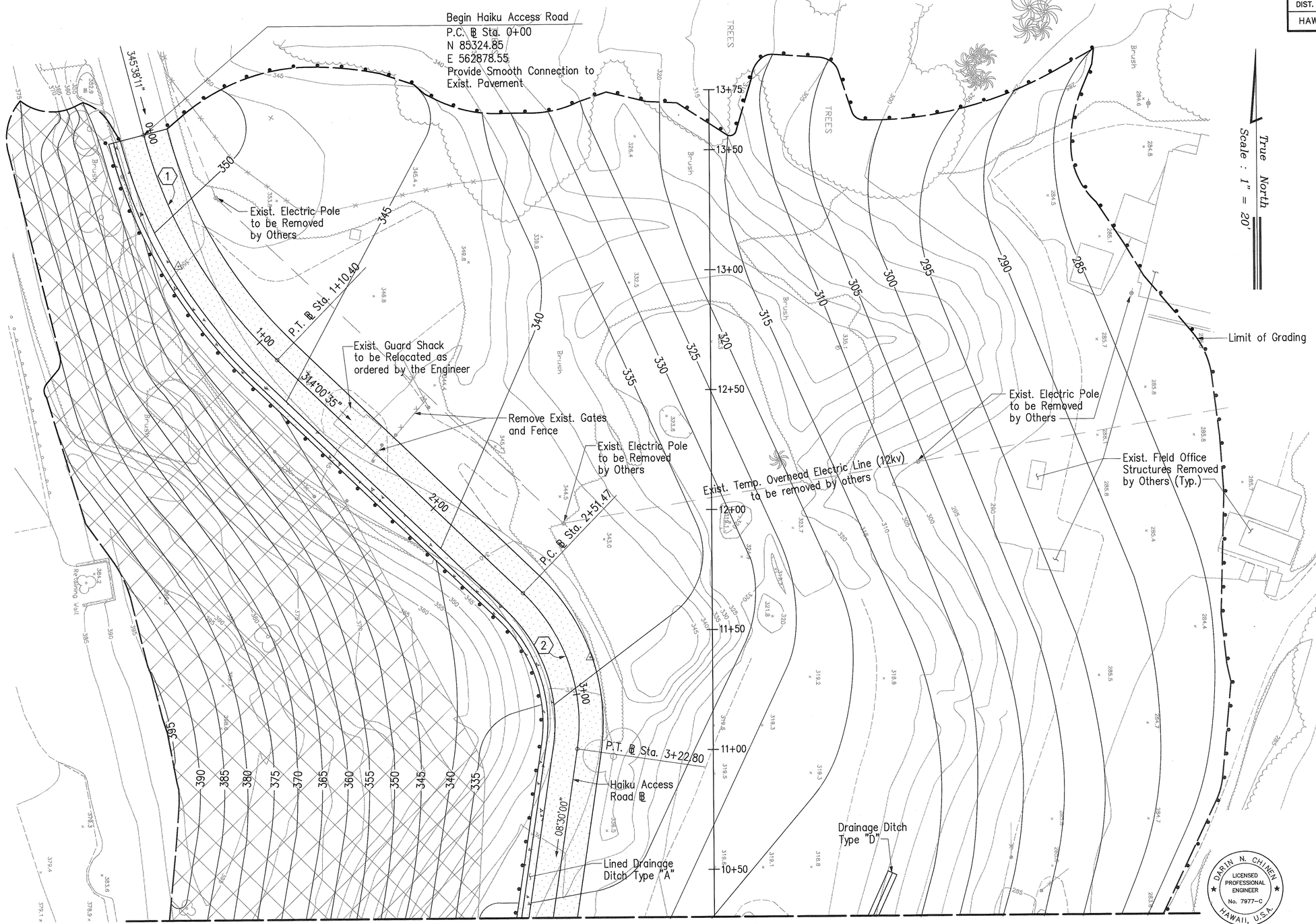
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | No.

CAD by D. Burgess, 55-52

Last Saved: J:\H3RF\RFU1\ESH\GRP-PORT.dwg 09/09/97 at 09:51

C.O. 76S-2

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	77	405



CURVE DATA

①	②
△ = 31°37'36"	△ = 54°29'25"
R = 200'	R = 75'
T = 56.64'	T = 38.62'
L = 110.40'	L = 71.33'

LEGEND:

- A.C. Pavement
- Erosion Control Matting
- Silt Fence

NOTES:

1. See Sht. No. CC1 for grading notes.
2. Existing information is from aerial topography taken on August 5, 1994.
3. Smooth connection to existing pavement shall be considered incidental to various contract items.
4. Contractor shall remove and clean all mirrors and roadway sign panels within the realigned Haiku Access Road area, and stockpile these materials as ordered by the Engineer. Payment shall be considered incidental to various contract items.
5. Contractor shall obliterate existing pavement in grading area to a minimum depth of 6". Payment shall be considered incidental to various contract items.

Place 4 inch Yellow Tape, TypeII or Thermoplastic Extrusion on Baseline from Sta. 0+00 to Sta. 5+45. Meet existing Striping at Sta. 0+00±.

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

CAD by A. Mimura, 55-52

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HAIKU ACCESS ROAD GRADING AND ROADWAY CONSTRUCTION

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

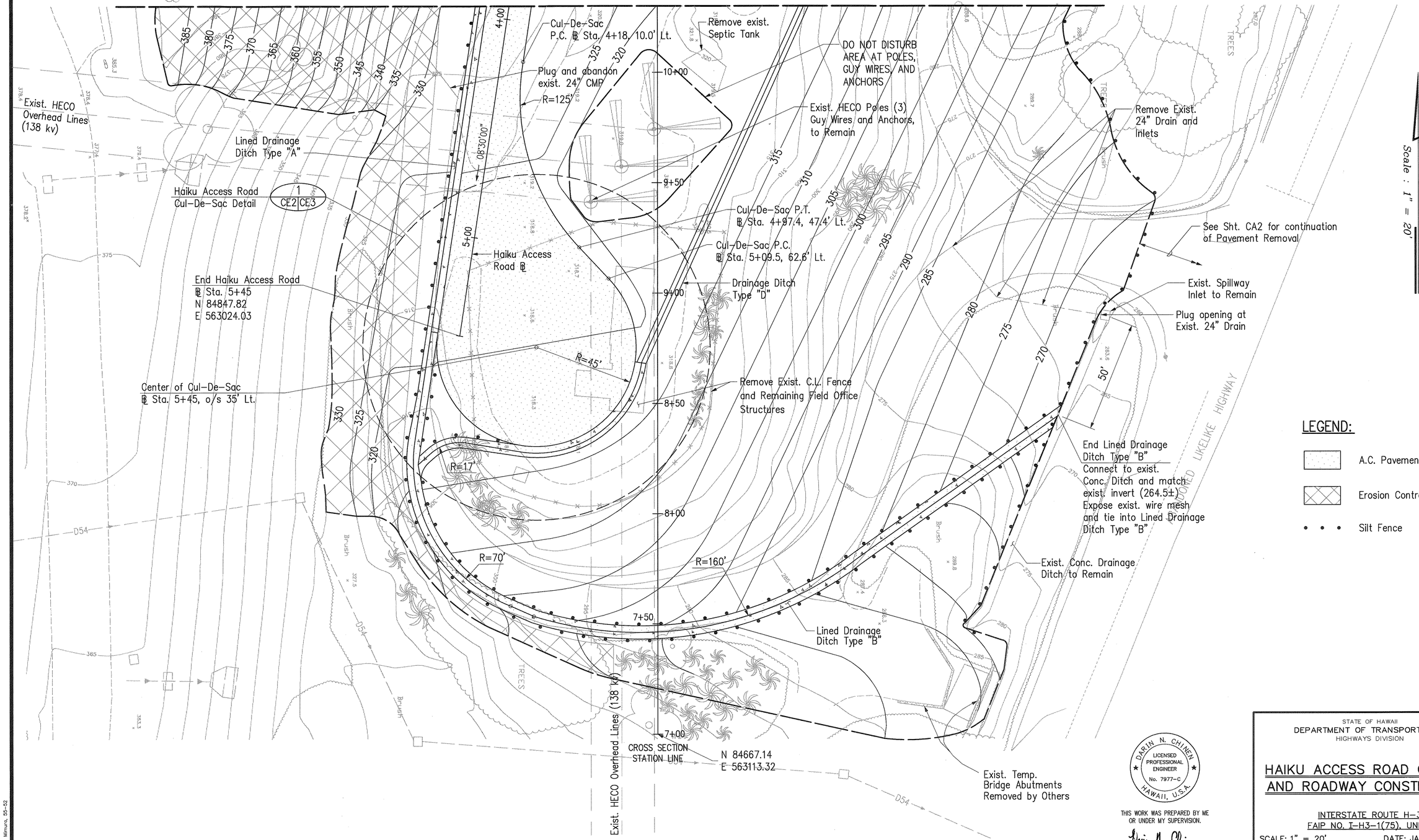
SCALE: 1" = 20' DATE: JANUARY 1996

SHEET NO. CE1 OF 14 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	78	405

Matchline Cross Section Station Line
Sta. 10+30
See Sheet No. CE1 for continuation



True North
Scale : 1" = 20'

LEGEND:

- A.C. Pavement
- Erosion Control Matting
- Silt Fence

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

CAD by J. Mimura, 55-52

Last Saved: J:\H3RF\U1\HAR-02.dwg 03/22/96 at 10:28

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HAIKU ACCESS ROAD GRADING AND ROADWAY CONSTRUCTION

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 20' DATE: JANUARY 1996

SHEET NO. CE2 OF 14 SHEETS

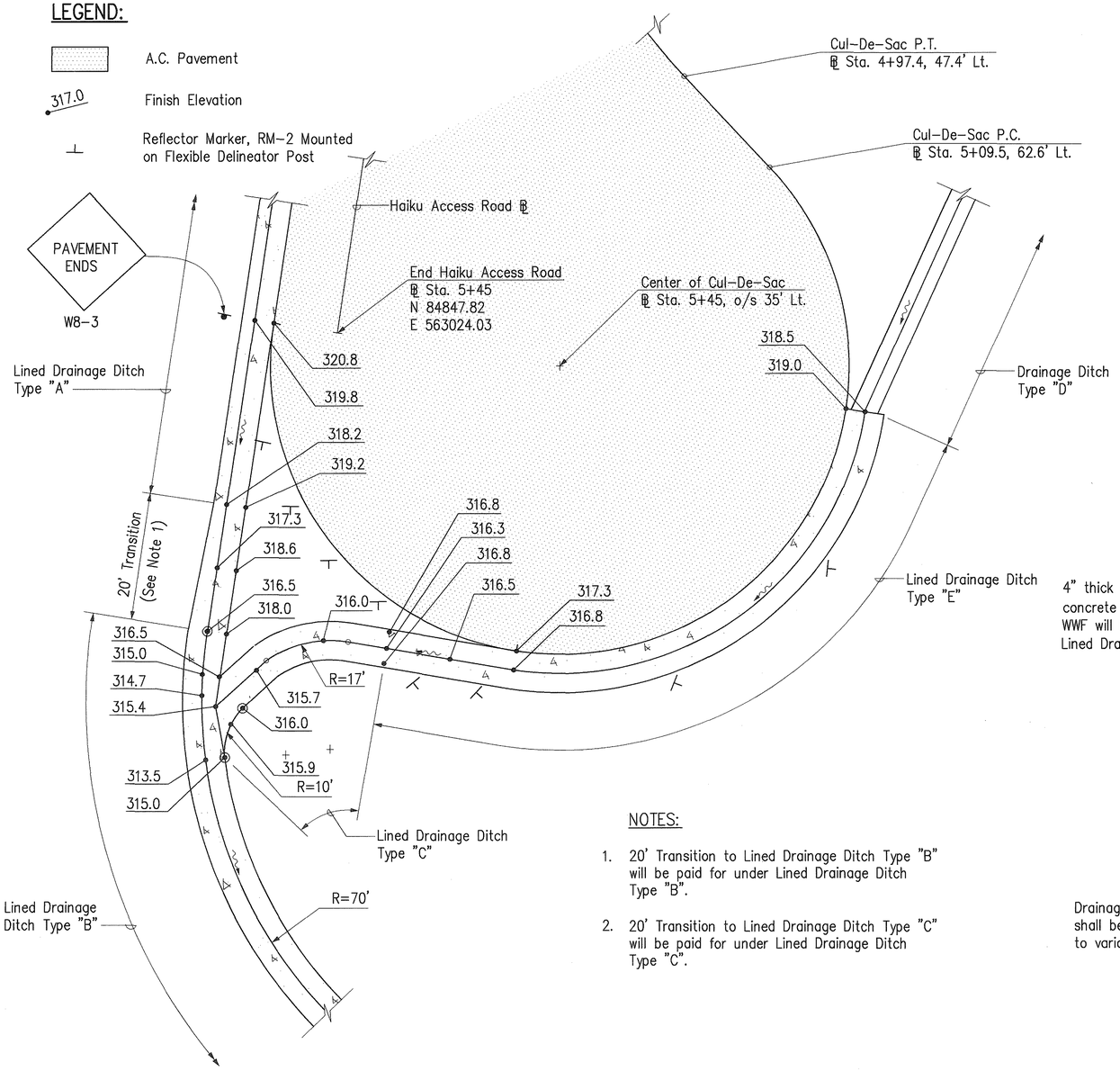
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	79	405

LEGEND:

A.C. Pavement

317.0 Finish Elevation

Reflector Marker, RM-2 Mounted on Flexible Delineator Post



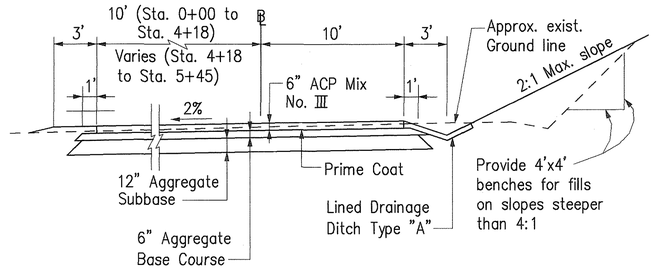
NOTES:

1. 20' Transition to Lined Drainage Ditch Type "B" will be paid for under Lined Drainage Ditch Type "B".
2. 20' Transition to Lined Drainage Ditch Type "C" will be paid for under Lined Drainage Ditch Type "C".

HAIKU ACCESS ROAD CUL-DE-SAC DETAIL

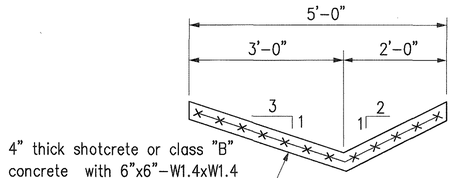
Scale: 1" = 10'

1 | CE2 | CE3



HAIKU ACCESS ROAD TYPICAL SECTION

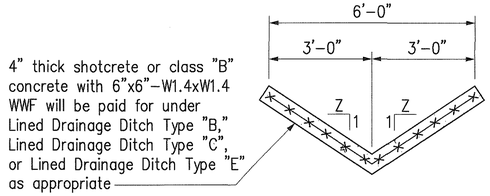
Scale: 1" = 5'



4" thick shotcrete or class "B" concrete with 6"x6"-W1.4xW1.4 WWF will be paid for under Lined Drainage Ditch Type "A"

LINED DRAINAGE DITCH TYPE "A"

Not to Scale

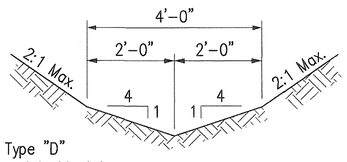


4" thick shotcrete or class "B" concrete with 6"x6"-W1.4xW1.4 WWF will be paid for under Lined Drainage Ditch Type "B," Lined Drainage Ditch Type "C", or Lined Drainage Ditch Type "E" as appropriate

Lined Drainage Ditch Type	Z
"B"	2
"C"	3
"E"	6

LINED DRAINAGE DITCH TYPE "B", TYPE "C", AND TYPE "E"

Not to Scale



Drainage Ditch Type "D" shall be considered incidental to various contract items.

DRAINAGE DITCH TYPE "D"

Not to Scale

5/2/96	Deleted Bituminous Curb. Added lined Ditch Type "E", RM-2 Reflector Markers, and W8-3 Sign
Date	Revision

DARIN N. CHINEN
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No. 7977-C
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HAIKU ACCESS ROAD
ROADWAY CONSTRUCTION DETAILS

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: AS SHOWN DATE: JANUARY 1996

SHEET NO. CE3 OF 14 SHEETS

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

CAD by G.D. TRYONG, 55-52

Last Saved: J:\H3RF\U1\HARGRAD3.dwg 05/02/96 at 15:57

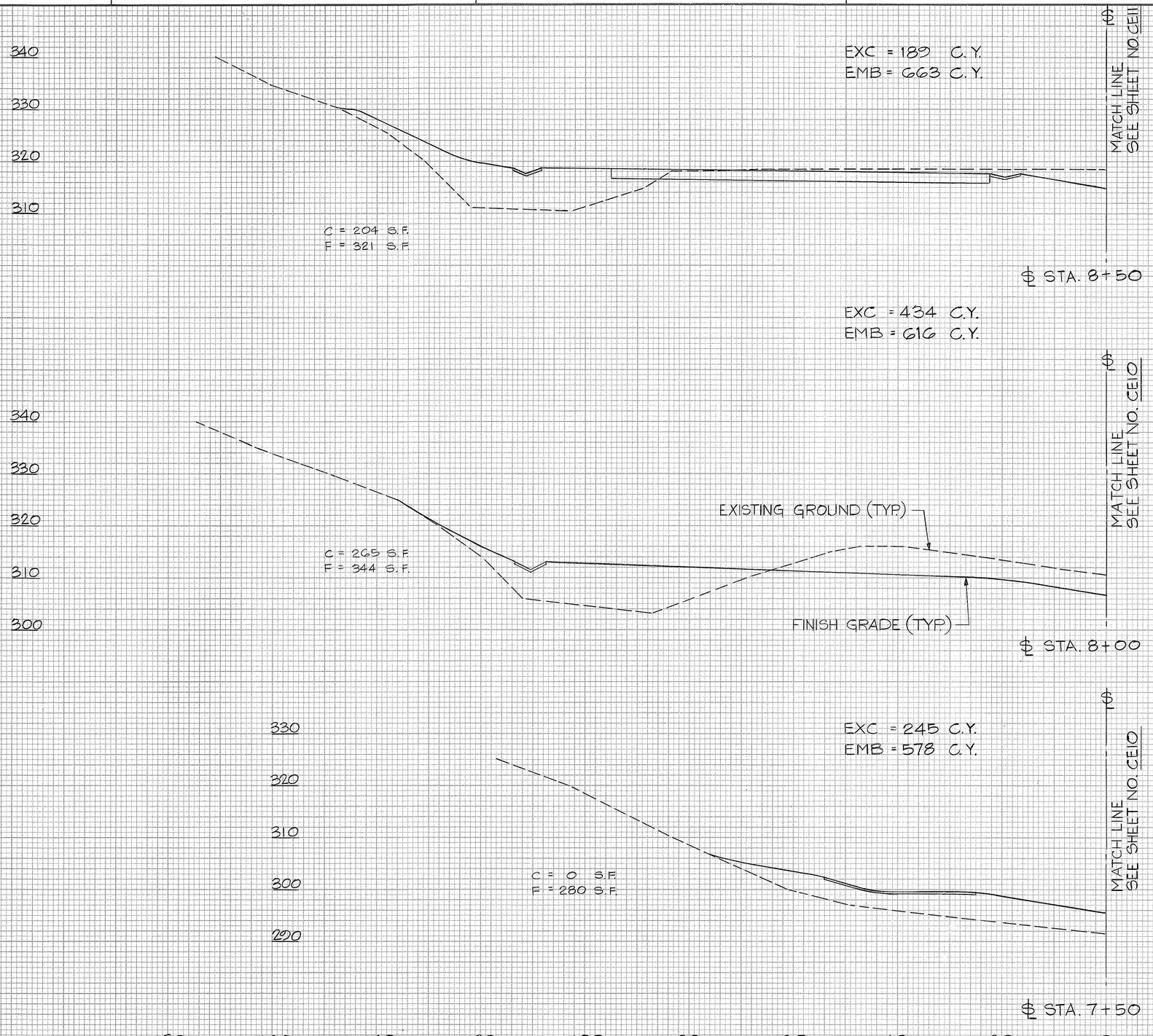
ADD.79

84732

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FH3-1(75),UNIT I	1996	80	405

FINAL SURVEY — NO | NOTE BOOK | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

ORIGINAL SURVEY — NO | NOTE BOOK | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE



HAIKU ACCESS RD.

SCALE: HORIZ. 1"=10'
VERT. 1"=10'

DARIN N. CHINEN
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No. 7977-C
HAWAII, U.S.A.

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Darin N. Chinen

SHEET NO. CE4 OF 14 SHEETS

80

H: 1"=10' Left side sheet D 80
V: 1"=10'

84732

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75),UNIT I	1996	81	405

FINAL SURVEY — NOTE BOOK — NO
SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED
BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO
SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED
BY — DATE

400
390
380
370
360
350
340
330
320
310

C = 335 S.F.
F = 414 S.F.

EXC = 1,702 C.Y.
EMB = 676 C.Y.

℄ STA. 10+00

MATCH LINE
SEE SHEET NO. CE12

℄ STA. 9+50

EXC = 310 C.Y.
EMB = 703 C.Y.

C = 0 S.F.
F = 345 S.F.

MATCH LINE
SEE SHEET NO. CE10

℄ STA. 9+00

EXC = 0 C.Y.
EMB = 685 C.Y.

C = 0 S.F.
F = 395 S.F.

MATCH LINE
SEE SHEET NO. CE11

260 240 220 200 180 160 140 120 100 80 60 40 20 0

HAIKU ACCESS RD.

SCALE: HORIZ. 1"=10'
VERT. 1"=10'

SHEET NO. CE5 OF 14 SHEETS

DARIN N. CHINEN
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No. 7977-C
HAWAII, U.S.A.

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Darin N. Chinen

81

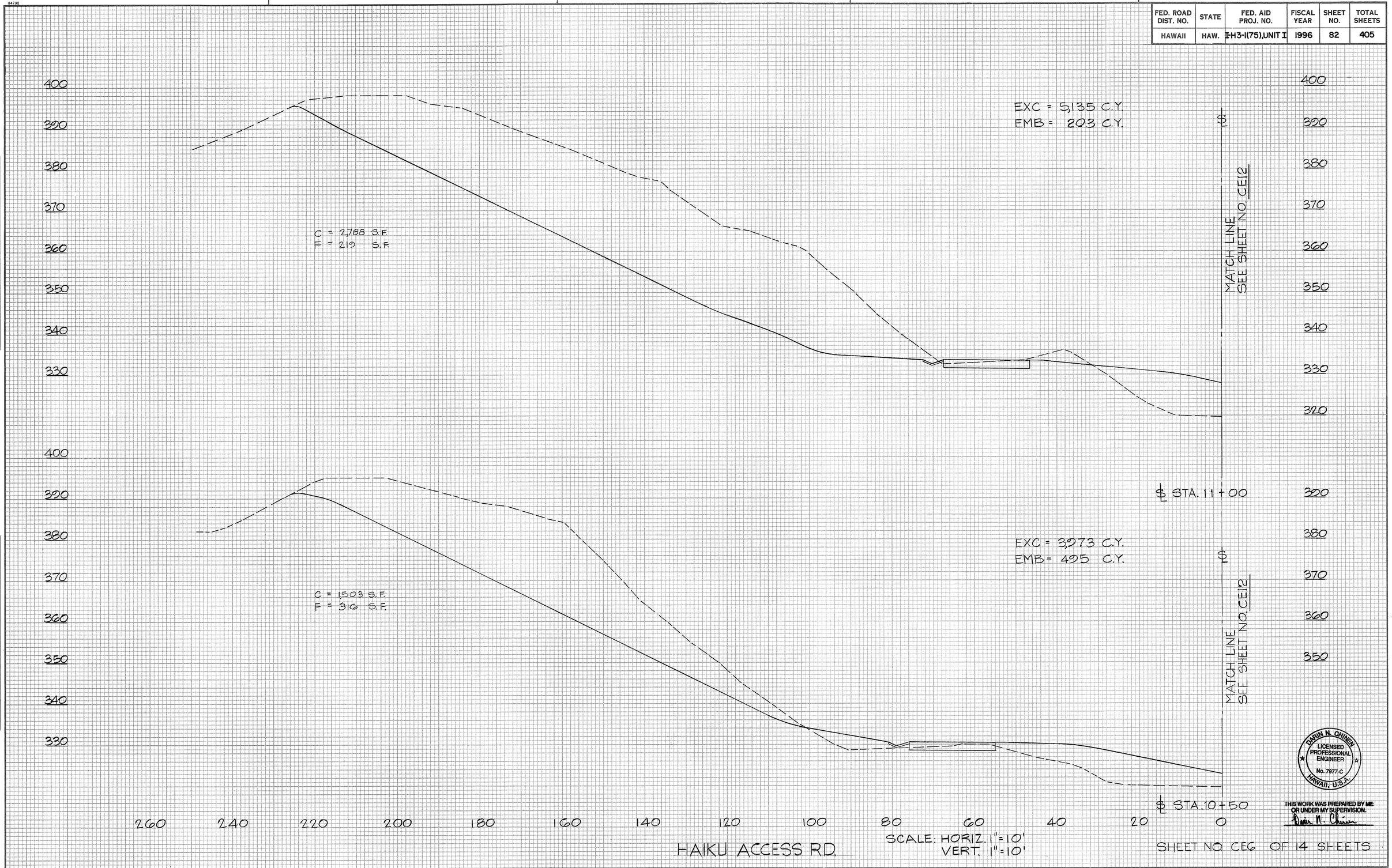
Left Side H: 1"=10' V: 1"=10' Sheet (2) 81

84732

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75),UNIT I	1996	82	405

FINAL SURVEY	DATE
SURVEYED	
PLOTTED	BY
DRAWN BY	
TRACED BY	
AREAS	
NOTE BOOK	AREAS CHECKED
NO.	

ORIGINAL SURVEY	DATE
SURVEYED	
PLOTTED	BY
DRAWN BY	
TRACED BY	
AREAS	
NOTE BOOK	AREAS CHECKED
NO.	



DARIN N. CHINEN
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No. 7977-C
HAWAII, U.S.A.

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Darin N. Chinen

HAIKU ACCESS RD.

SCALE: HORIZ. 1"=10'
VERT. 1"=10'

SHEET NO CE6 OF 14 SHEETS

H: 1"=10'
V: 1"=10'
Left Side Sheet (3)

84732

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75),UNIT I	1996	83	405

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO	HORIZ. & VERT.		
	AREAS		
	AREAS CHECKED		

400
390
380
370
360
350
340
330
320

C = 1,206 S.F.
F = 243 S.F.

EXC = 1,403 C.Y.
EMB = 776 C.Y.

MATCH LINE
SEE SHEET NO. CE13

℄ STA. 12+00

400
390
380
370
360
350
340
330

C = 2758 S.F.
F = 0 S.F.

EXC = 3,670 C.Y.
EMB = 225 C.Y.

MATCH LINE
SEE SHEET NO. CE13

℄

400
390
380
370
360
350

280 260 240 220 200 180 160 140 120 100 80 60 40 20 0

℄ STA. 11+50

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO	HORIZ. & VERT.		
	AREAS		
	AREAS CHECKED		

DARIN N. CHINEN
LICENSED PROFESSIONAL ENGINEER
No. 7977-C
HAWAII, U.S.A.

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Darin N. Chinen

HAIKU ACCESS RD.

SCALE: HORIZ. 1" = 10'
VERT. 1" = 10'

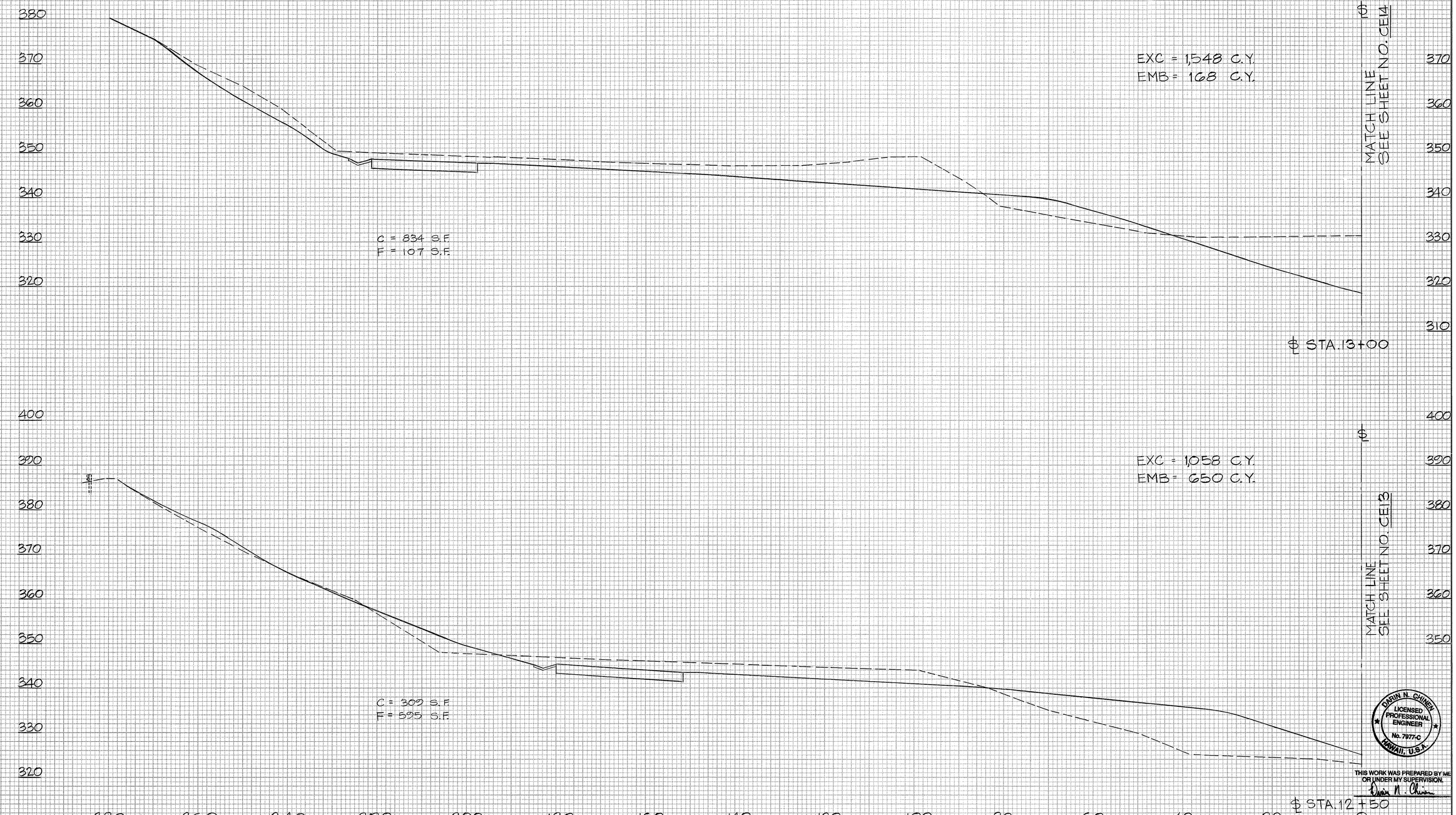
SHEET NO. CE7 OF 14 SHEETS

H - 1" = 10'
V - 1" = 10'
Left Side
Sheet # 83

84732

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FH3-1(75),UNIT I	1996	84	405

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED BY
PLOTTED DATE
TEMPLATE
AREAS
AREAS CHECKED



ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED BY
PLOTTED DATE
TEMPLATE
AREAS
AREAS CHECKED

DARIN N. CHINEN
LICENSED PROFESSIONAL ENGINEER
No. 7977-C
HAWAII, U.S.A.

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Darin N. Chinen

HAIKU ACCESS RD.

SCALE: HORIZ. 1" = 10'
VERT. 1" = 10'

SHEET NO. CE8 OF 14 SHEETS

84

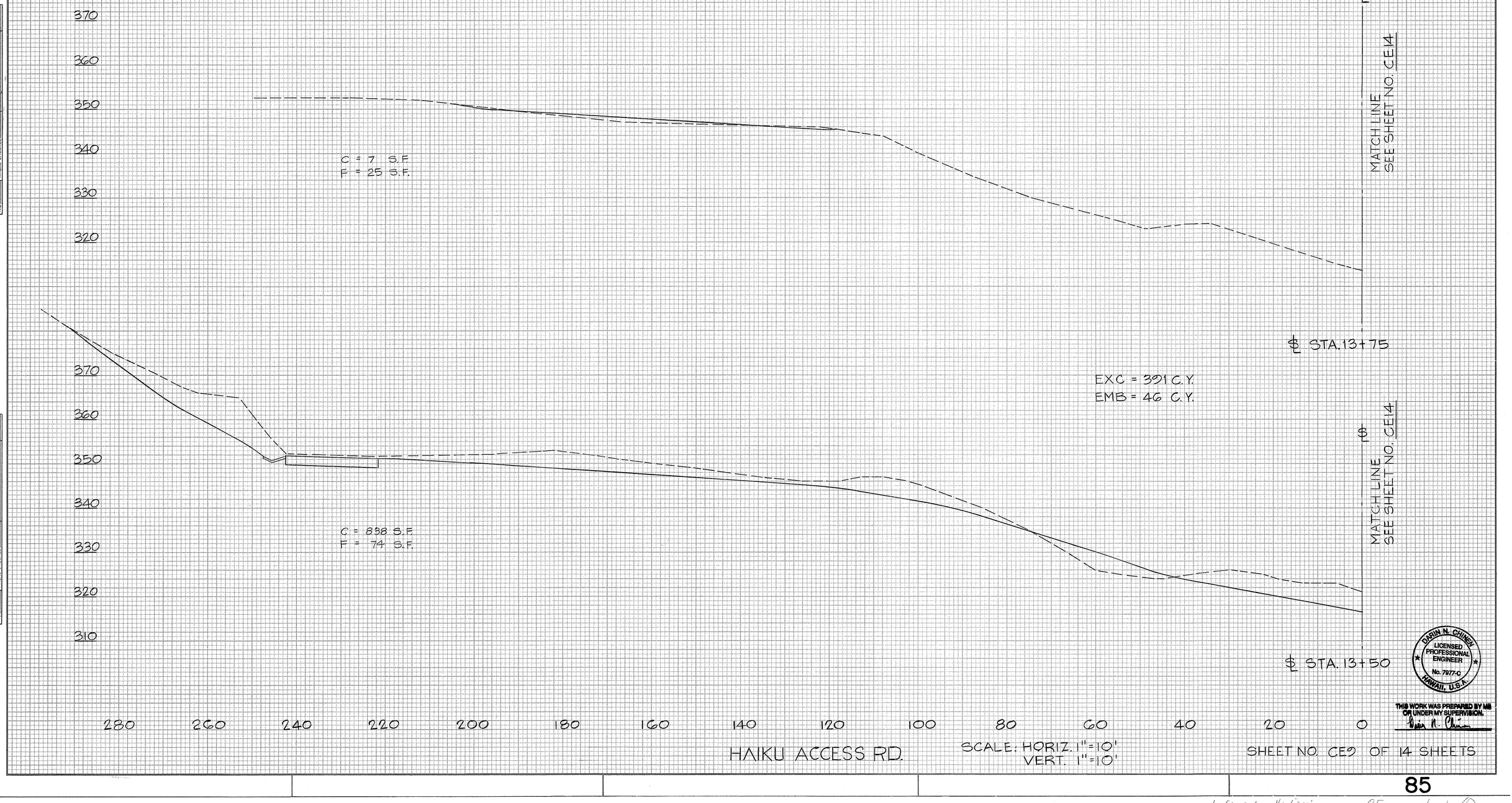
Left Side H: 1"=10' V: 1"=10' 84 sheet (5)

84732

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75),UNIT I	1996	85	405

FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	



DARIN N. CHINEN
LICENSED PROFESSIONAL ENGINEER
No. 7977-C
HAWAII, U.S.A.

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HAIKU ACCESS RD.

SCALE: HORIZ. 1"=10'
VERT. 1"=10'

SHEET NO. CE9 OF 14 SHEETS

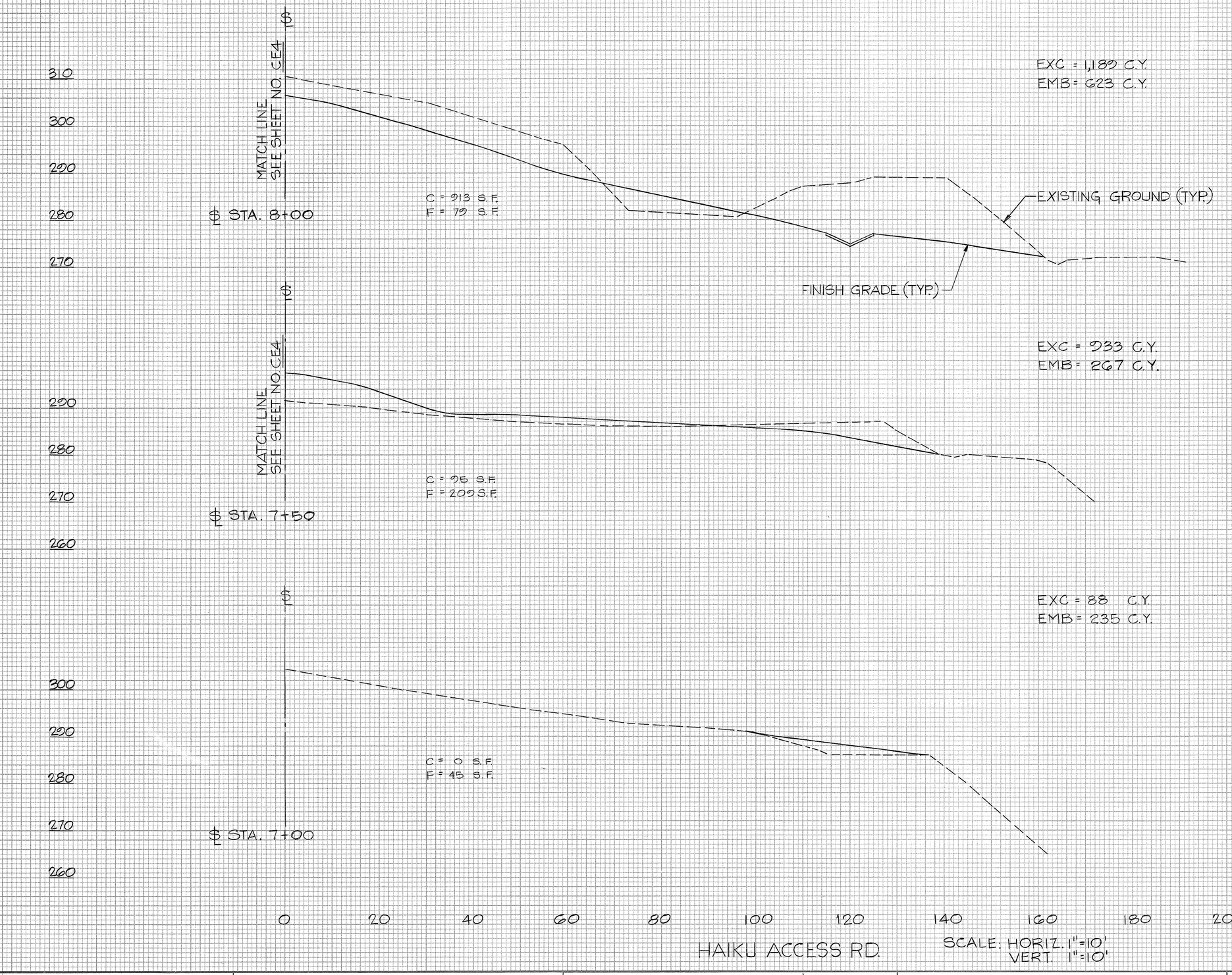
85

Left Side H: 1"=10' V: 1"=10' 85 sheet (6)

84732

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75),UNIT I	1996	86	405

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

DARWIN N. CHINEN
LICENSED PROFESSIONAL ENGINEER
No. 7977-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Darwin N. Chinen

HAIKU ACCESS RD.

SCALE: HORIZ. 1"=10'
VERT. 1"=10'

SHEET NO. CE10 OF 14 SHEETS

86

Right Side H-1"=10' V-1"=10' Sheet (1) 84

84732

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FH3-I(75),UNIT I	1996	87	405

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

310
300
290
280
270
260
320
310
300
290
280
270
260
320
310
300
290
280
270
260

MATCH LINE
SEE SHEET NO. CE5

℄ STA. 9+50

C = 45 S.F.
F = 1,496 S.F.

EXC = 77 C.Y.
EMB = 2,537 C.Y.

MATCH LINE
SEE SHEET NO. CE5

℄ STA. 9+00

C = 36 S.F.
F = 1,745 S.F.

EXC = 75 C.Y.
EMB = 3,001 C.Y.

MATCH LINE
SEE SHEET NO. CE4

℄ STA. 8+50

C = 371 S.F.
F = 594 S.F.

EXC = 377 C.Y.
EMB = 2,166 C.Y.

0 20 40 60 80 100 120 140 160 180 200 220 240

HAIKU ACCESS RD.

SCALE: HORIZ. 1" = 10'
VERT. 1" = 10'

SHEET NO. CE11 OF 14 SHEETS

DARIN N. CHINEN
LICENSED PROFESSIONAL ENGINEER
No. 7977-C
HAWAII, U.S.A.

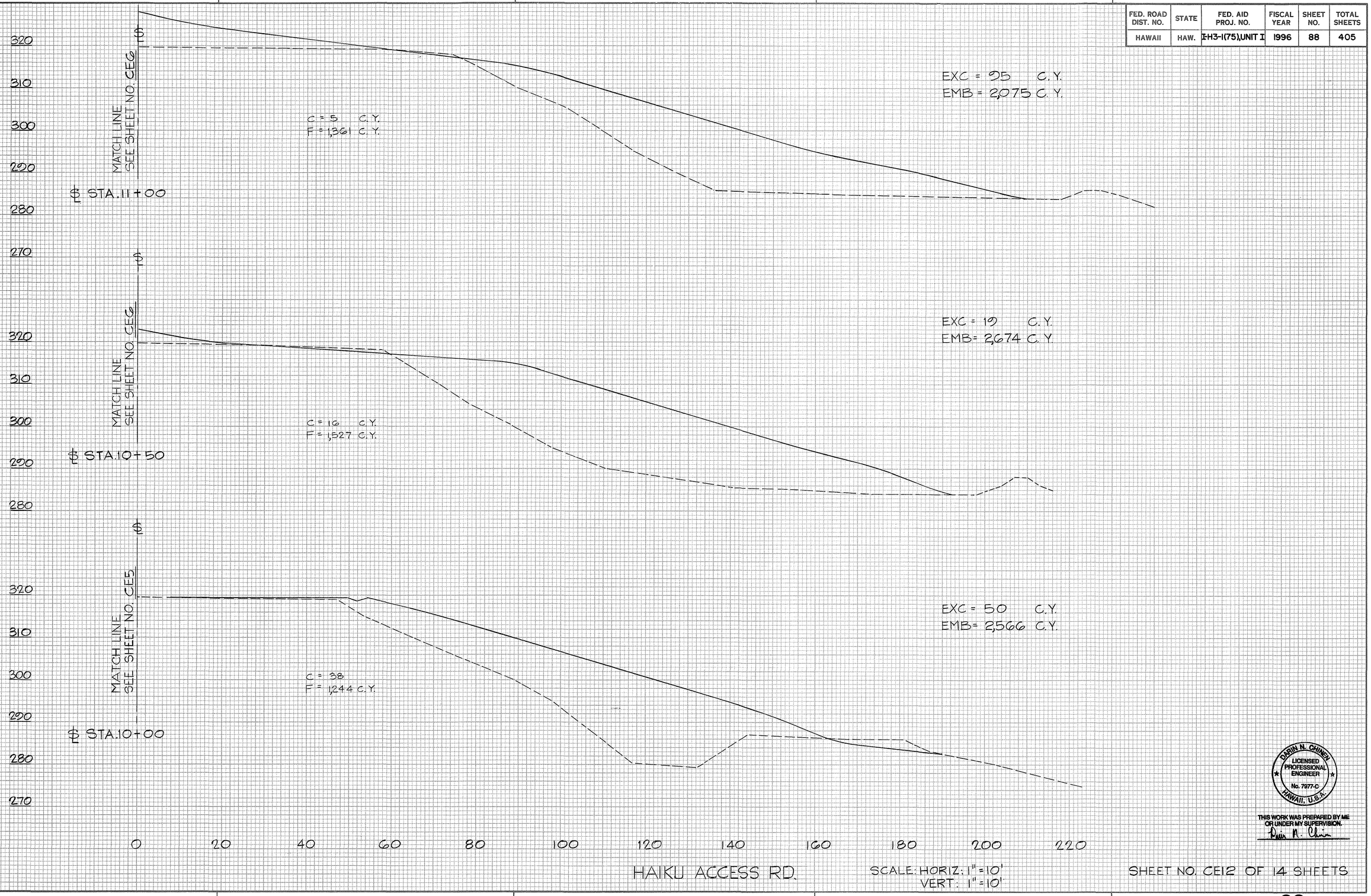
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Darin N. Chinen

87

Right Side H-1"=10', V-1"=10'

Sheet (2) 87

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75),UNIT I	1996	88	405



FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

DARIN N. CHINEN
LICENSED PROFESSIONAL ENGINEER
No. 7977-C
HAWAII, U.S.A.

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Darin N. Chinen

HAIKU ACCESS RD.

SCALE: HORIZ: 1" = 10'
VERT: 1" = 10'

SHEET NO. CE12 OF 14 SHEETS

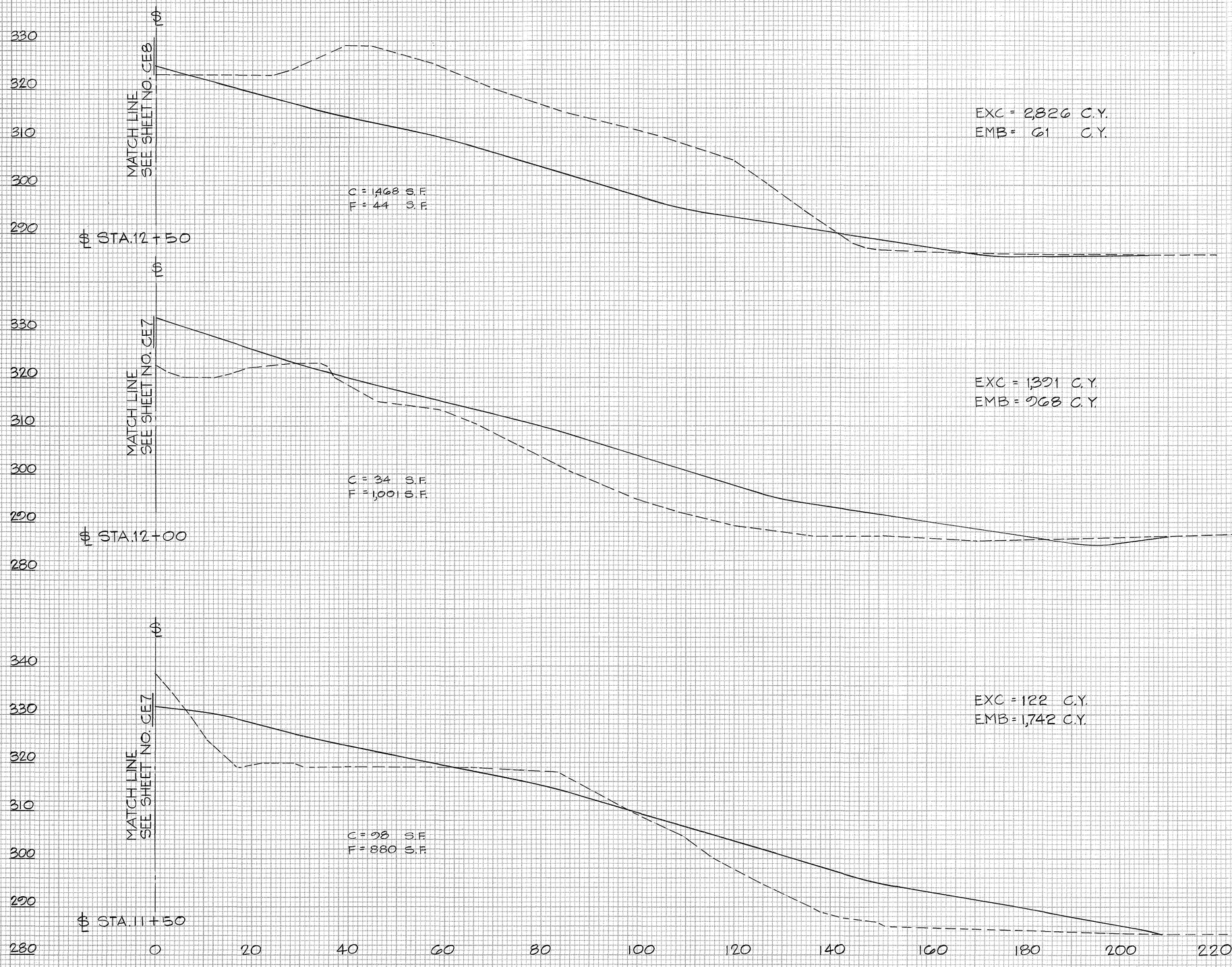
Right Side H = 1" = 10' V = 1" = 10' 88 sheet (3)

84732

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IH3-1(75),UNIT I	1996	89	405

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE



DARIN N. CHINEN
LICENSED PROFESSIONAL ENGINEER
No. 7977-C
HAWAII, U.S.A.

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Darin N. Chinen

HAIKU ACCESS RD.

SCALE: HORIZ: 1" = 10'
VERT: 1" = 10'

SHEET NO. CE13 OF 14 SHEETS

89

Right Side H-1"=10', V-1"=10'

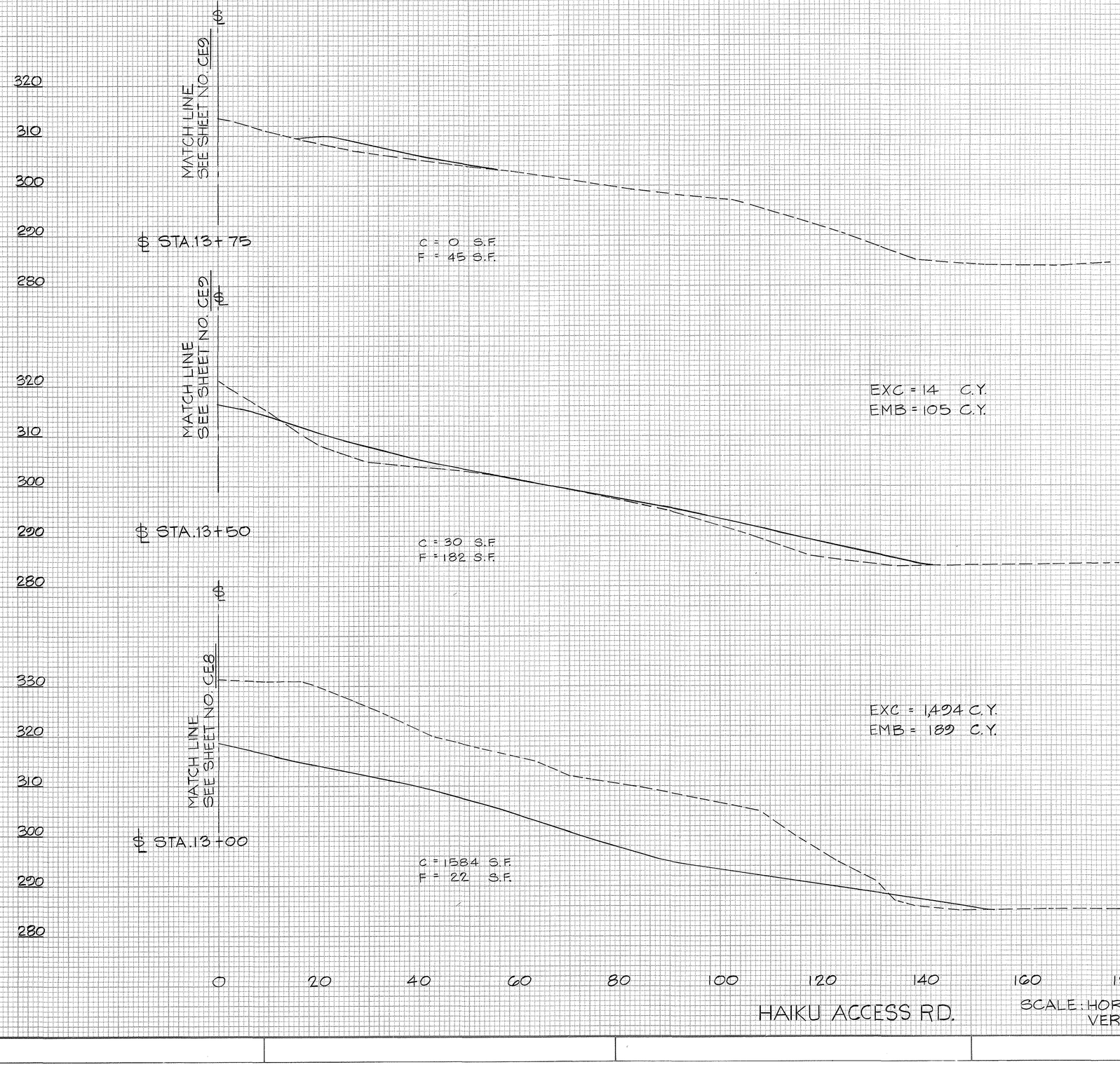
89 Sheet 8

84732

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75),UNIT I	1996	90	405

FINAL SURVEY — NOTE BOOK — NO
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY — NOTE BOOK — NO
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE



QUANTITIES (HAIKU ACCESS ROAD)

	EXC.	EMB.
TOTAL	29,258 C.Y.	25,693 C.Y.
ROUNDED TOTAL	29,300 C.Y.	25,700 C.Y.

DARIN N. CHINEN
LICENSED PROFESSIONAL ENGINEER
No. 7977-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

HAIKU ACCESS RD.

SCALE: HORIZ. 1"=10'
VERT. 1"=10'

SHEET NO. CE14 OF 14 SHEETS

90

Right Side — V. 1"=5' 20 sheet (5)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	91	405

ROADWAY CONSTRUCTION NOTES:

1. Existing metal beam guardrails, post and hardware which are to be removed shall be cleaned and delivered to the Department's Kaneohe baseyard. Payment for removing, cleaning and delivering existing metal guardrail shall be considered incidental to various contract items.
2. Limits of shown pavement work for P.C.C. Pavement, A.C. Pavement and A.C. Pavement Mix IV Overlay are approximate. Actual limits will be established by the Engineer.
3. Existing facilities and/or pavement to remain which has been damaged by the Contractor shall be restored to its original condition at no cost to the State.
4. Contractor shall exercise caution when installing metal guardrail posts to prevent damage to existing drainage facilities.
5. See Standard Plan TE-59 for Type "G" Flare details. Payment for flared end section and concrete anchor block shall be considered incidental to various contract items.
6. Saw cut and remove exist. A.C. pavement prior to paving according to Existing A.C. Pavement Interface Detail on Sht. CF15. Payment for saw cutting and removal of existing pavement shall be considered incidental to various contract items.
7. Remove the existing A.C. pavement to permit installation of 2 3/4" A.C. Mix IV according to Existing Bridge Deck Interface Detail and Existing A.C. Pavement Interface Detail on Sht CF15. Payment for removal of existing temporary A.C. ramps shall be considered incidental to various contract items.
8. In areas to be overlayed, the existing pavement surface shall be cold planed 1/2 -inch minimum below existing grade to permit installation of A.C. Mix IV overlay of 2 3/4 inches.
9. In addition to clearing and grubbing the natural ground of vegetative material and obstructions in locations with roadway work, the Contractor shall clear and grub additional areas as designated on the Plans. Payment for clearing and grubbing in areas with proposed roadway work will be considered incidental to various contract items. Payment for clearing and grubbing additional areas as designated on the Plans shall be paid under "Clearing and Grubbing - Additional Areas".
10. From the edge of pavement to the limit of clearing and grubbing, the Contractor shall mow vegetation and remove trees and bushes. Payment shall be considered incidental to various contract items.
11. All areas designated on the Plans to be Cleared and Grubbed shall be Hydro-mulched in accordance with Specification Section 641 - HYDRO-MULCH SEEDING.
12. For areas designated to be cleared and grubbed, See Grading Notes on Sheet CC1. National Pollutant Discharge Elimination System (NPDES) General Notes and Silt Fence Notes on Sht. CC1.
13. Existing fences and gates which are to be removed shall become the property of the Contractor.

DRAINAGE NOTES:

1. Contractor shall sequence construction such that existing facilities remain in service until new facilities are in service or shall provide and maintain, as is necessary, temporary drainage diversion facilities.
2. The Contractor shall verify locations and elevations of all existing utility lines and notify respective owners before commencing excavation work for drainlines.
3. Contractor shall submit shop drawings of pre-cast drainage structures to the Engineer for approval.
4. The reference point for locating drainage structures by station and offset is at the center of the main body, unless otherwise shown on Plan.

DRAINAGE NOTES CONT.:

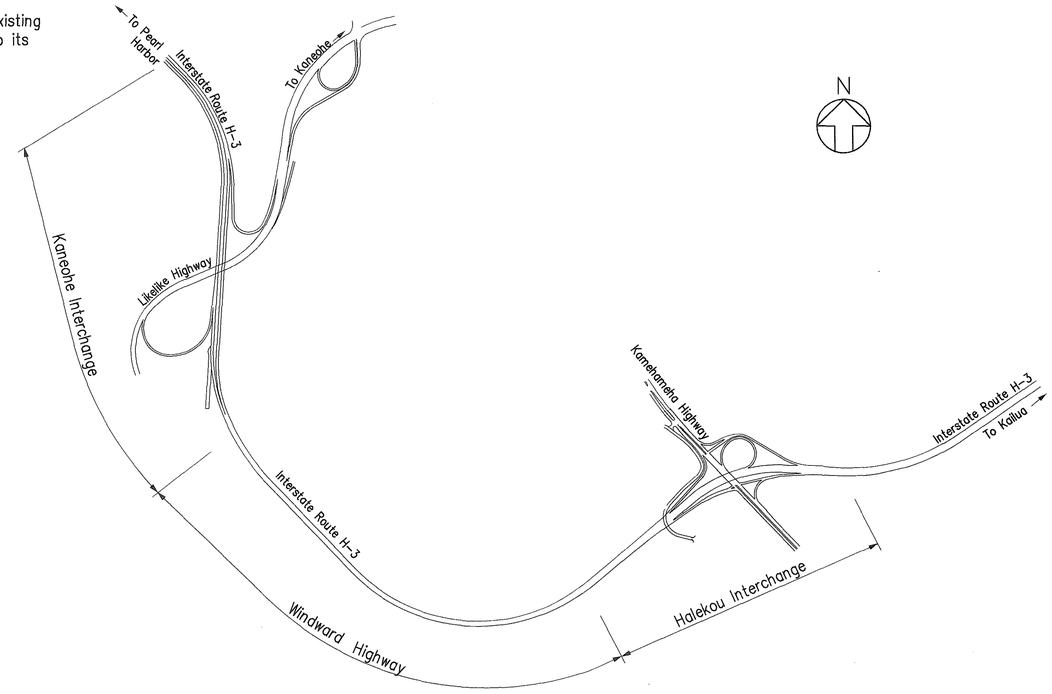
5. Existing drainage facilities to remain and located within project limits shall be cleaned of silt and debris. Payment shall be considered incidental to various contract items.
6. Except in areas where new pavement structure is being constructed, existing pavement damaged by trenching or other activities shall be restored to its original condition at no cost to the State.

ABBREVIATIONS:

A.C.	Asphalt Concrete
℄	Baseline
Clr.	Clear
Comm.	Communication
Dia.	Diameter
EF	Each Face
FF	Far Face
I.B.	Inbound
Inv.	Invert
NF	Near Face
N.T.S.	Not to Scale
o.c.	On Center
P.C.C.	Portland Cement Concrete
Pvmnt.	Pavement
Typ.	Typical

LEGEND:

EXISTING	PROPOSED	
D24	D24	Drainline (24" Dia.)
		Guardrail Type 3 (as indicated on Plan)
		A.C. Pavement Mix IV Overlay
		P.C.C. Pavement
		A.C. Pavement
		A.C. Pavement Reconstruction
		Roadway Pavement Transition Section or Transition Reconstruction
		Underdrain
		Limit of Clearing and Grubbing
		Silt Fence (See Detail on Sht. CC1)



LOCATION KEY PLAN
N. T. S.

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

CAD by J. Mimura, 05-52

Last Saved: J:\H3RF\U1\ROAD\RC-NOTES.dwg 03/15/96 at 15:26

RANDALL M. URASAKI
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No. 7269-C
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

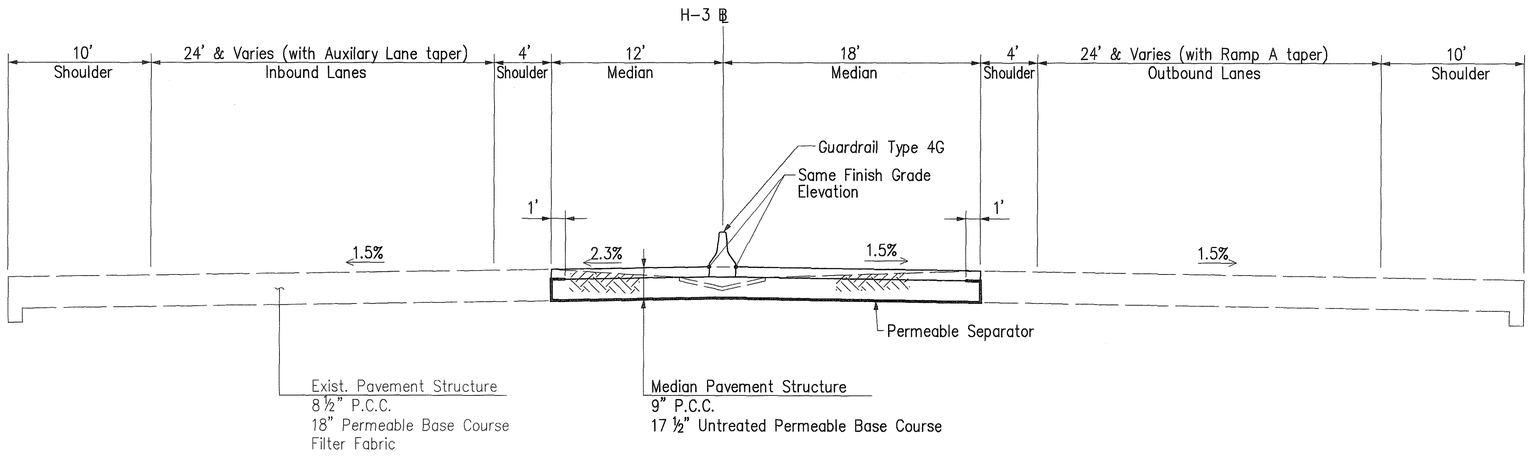
WINDWARD HIGHWAY/ HALEKOU INTERCHANGE NOTES, LEGEND & KEY PLAN

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

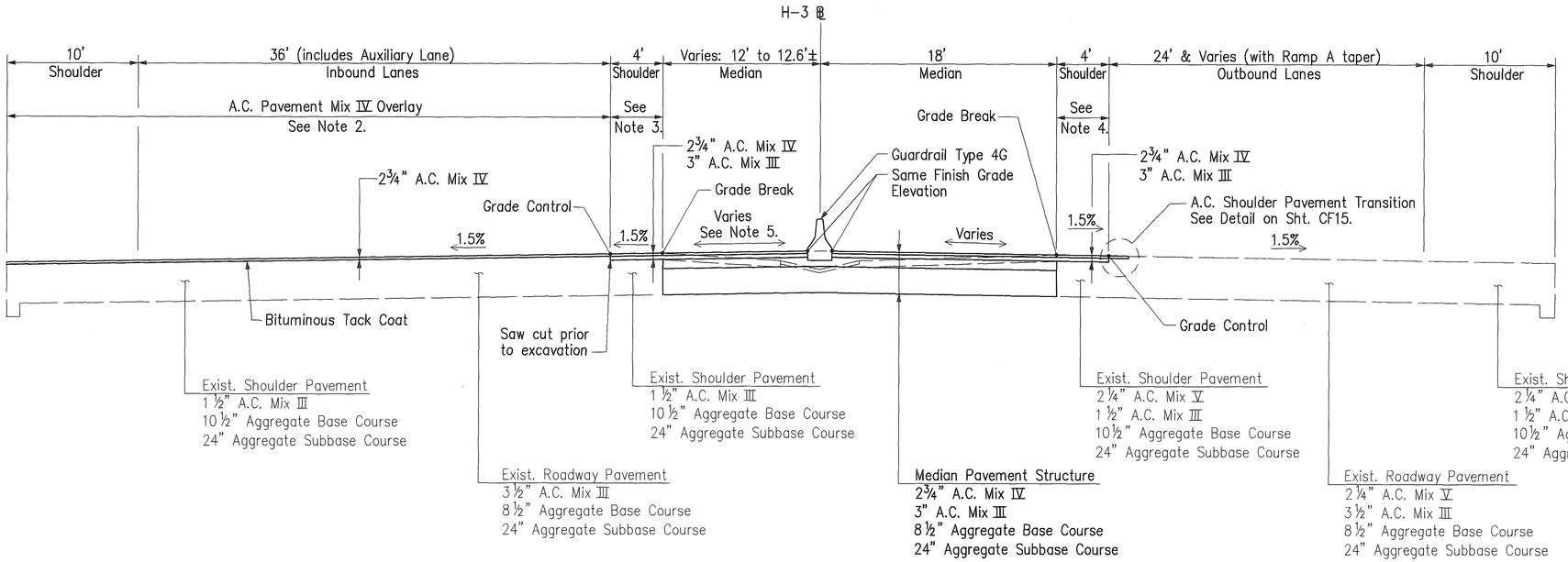
SCALE: AS SHOWN DATE: JANUARY 1996

SHEET NO. CF1 OF 30 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	92	405



H-3 ℄ STA 482+00 TO 489+90



H-3 ℄ STA. 490+20 TO 491+70±

NOTES:

1. For Guardrail Type 4G detail, see Sht. CF16.
2. Where pavement overlay is required the existing pavement surface shall be cold planed ½ inch minimum below existing grade to permit installation of 2¾ inches A.C. Mix IV.
3. Where shoulder pavement abuts roadway pavement to be overlayed, remove 1½ inches A.C. Mix III and 2 inches Aggregate Base Course of shoulder pavement prior to placement of 3 inches A.C. Mix III and 2¾ inches A.C. Mix IV.
4. Where shoulder pavement abuts roadway pavement to remain, remove 2¼ inches A.C. Mix V, 1½ inches A.C. Mix III and 2 inches Aggregate Base Course of shoulder pavement prior to placement of 3 inches A.C. Mix III and 2¾ inches A.C. Mix IV.
5. For Grade Control, see Median Superelevation Plan on Sht. CF5. Pavement Finish Grade at median barrier for inbound and outbound lanes are equal.

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

CAD by J. Mimura, 95-92

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RANDALL M. URASAKI
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HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD HIGHWAY/ HALEKOU INTERCHANGE TYPICAL SECTIONS

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

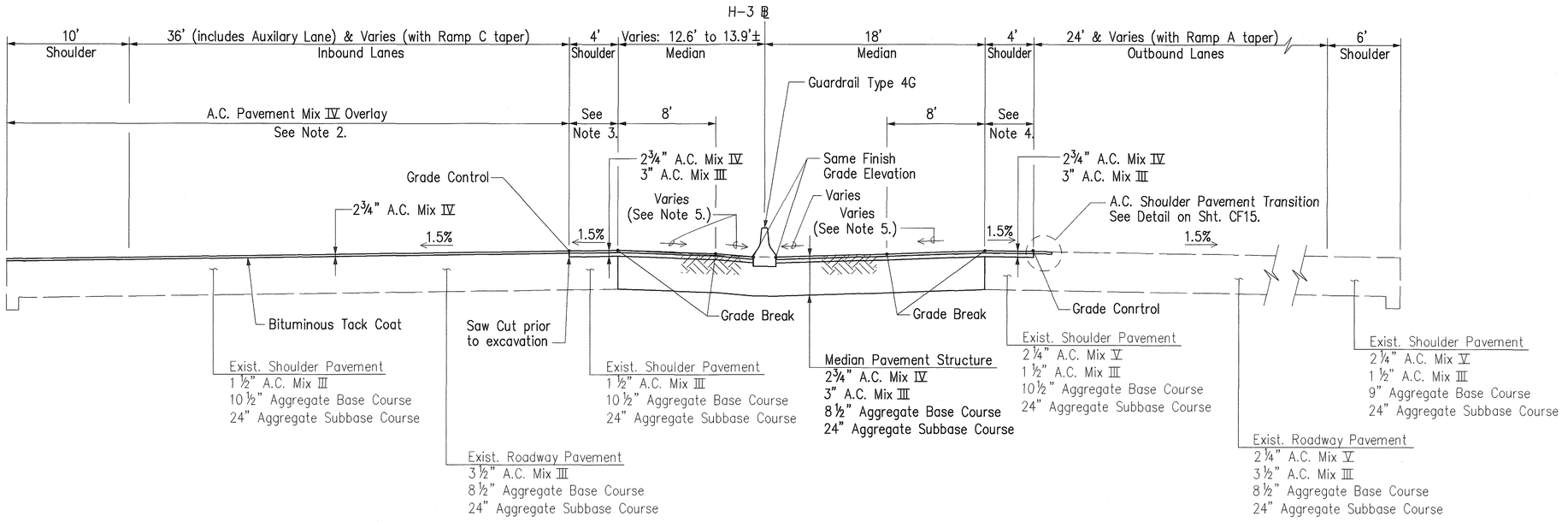
SCALE: 1" = 5' DATE: JANUARY 1996

SHEET NO. CF2 OF 30 SHEETS

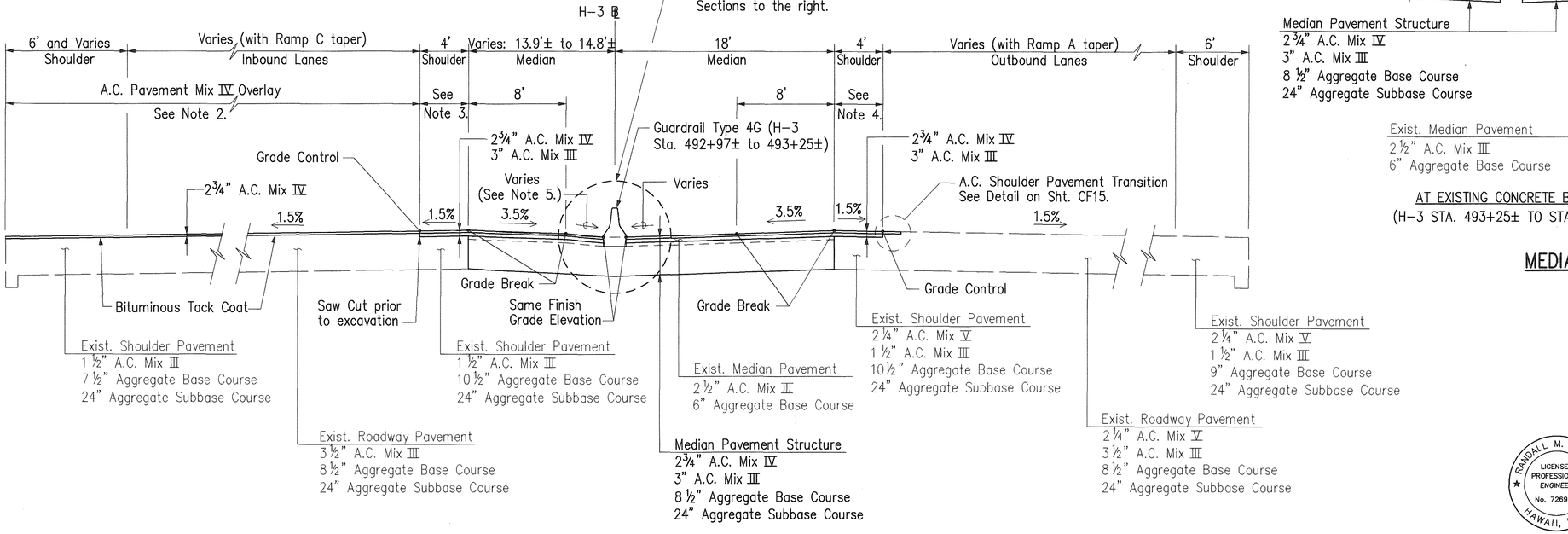
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	93	405

NOTES:

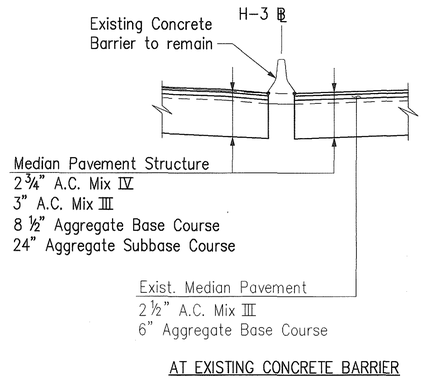
1. For Guardrail Type 4G detail, See Sht. CF16.
2. Where pavement overlay is required the existing pavement surface shall be cold planed ½ inch minimum below existing grade to permit installation of 2¾ inches A.C. Mix Ⅳ.
3. Where shoulder pavement abuts roadway pavement to be overlayed, remove 1¾ inches A.C. Mix Ⅲ and 2 inches Aggregate Base Course of Shoulder Pavement prior to placement of 3 inches A.C. Mix Ⅲ and 2¼ inches A.C. Mix Ⅳ.
4. Where shoulder pavement abuts roadway pavement to remain remove 2½ inches A.C. Mix Ⅴ, 1¾ inches A.C. Mix Ⅲ and 2 inches Aggregate Base Course of shoulder pavement prior to placement of 3 inches A.C. Mix Ⅲ and 2¾ inches A.C. Mix Ⅳ.
5. For Grade Control, see superelevation plan for median on Sht. CF5. Pavement Finish Grade at median barrier for inbound and outbound lanes are equal.



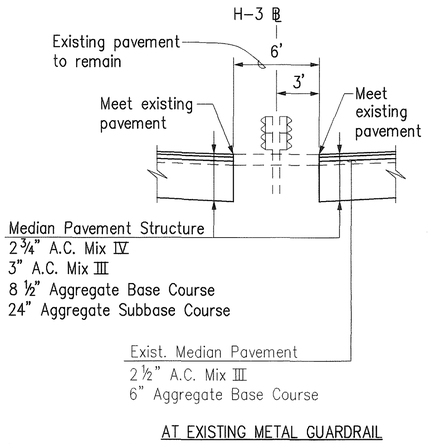
H-3 ℄ STA. 491+70± TO 492+97±



H-3 ℄ STA. 492+97± TO 494+25±



AT EXISTING CONCRETE BARRIER
(H-3 STA. 493+25± TO STA. 494+00±)



AT EXISTING METAL GUARDRAIL
(H-3 STA. 494+00± TO STA. 494+25±)

MEDIAN SECTIONS PAVEMENT LIMITS

Date	Revision
4/22/96	Revised Median Pavement Structure from H-3 ℄ Sta. 492+97± to Sta. 494+25±. Added Median Sections. Revised Existing Median Pavement Structure

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD HIGHWAY/ HALEKOU INTERCHANGE TYPICAL SECTIONS

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 5' DATE: JANUARY 1996

RANDALL M. URASAKI
LICENSED PROFESSIONAL ENGINEER
No. 7269-C
HAWAII, U.S.A.

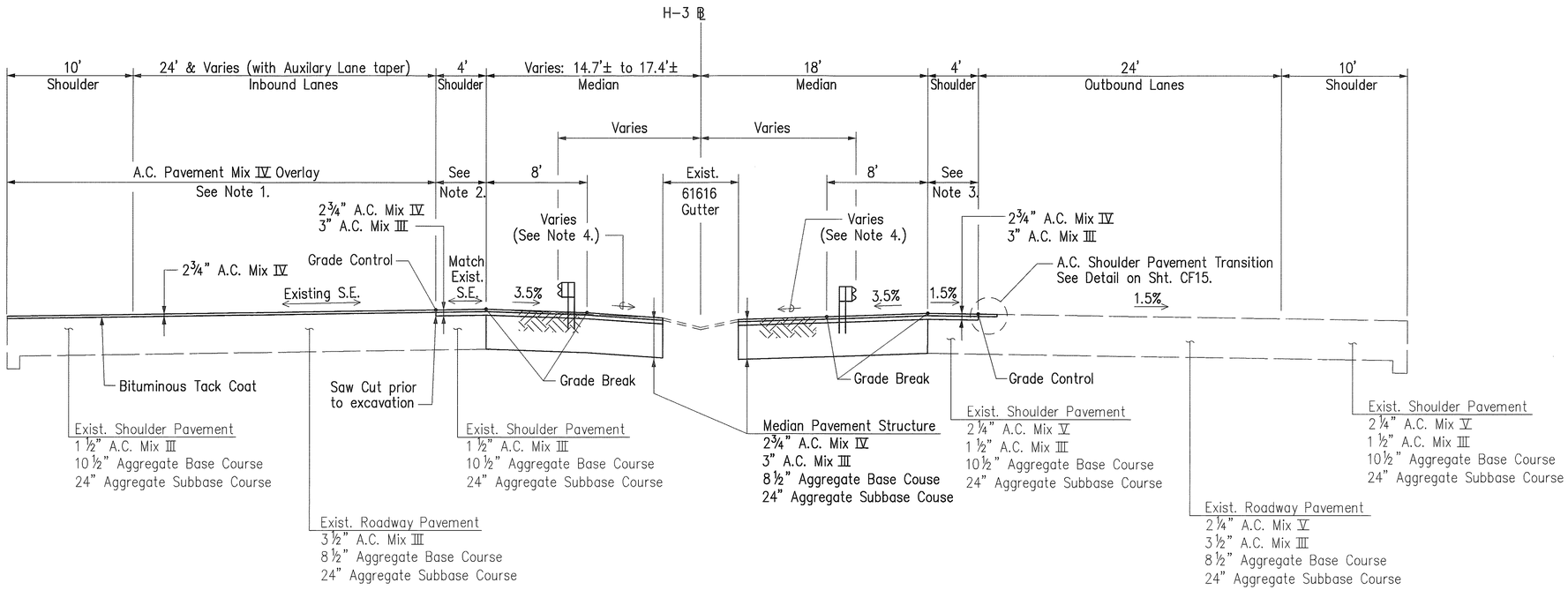
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

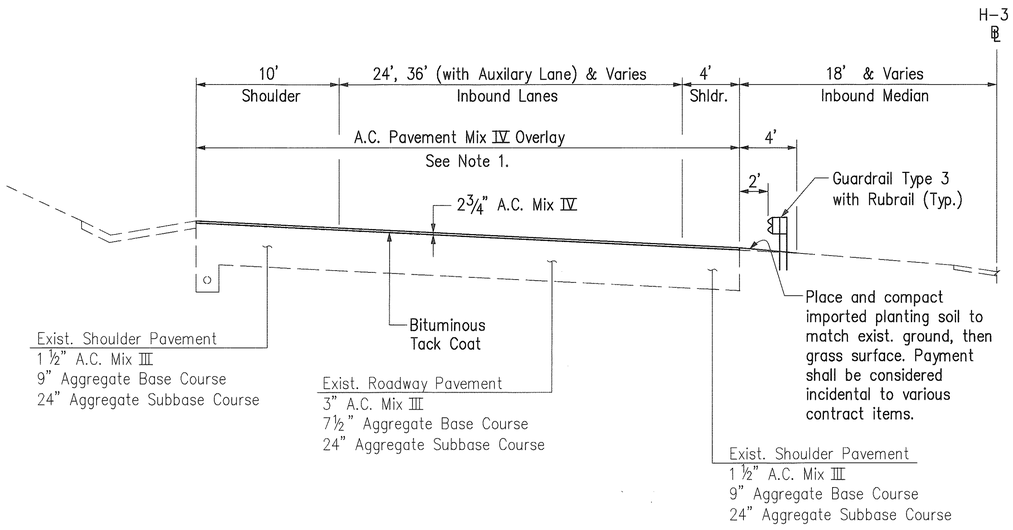
CAD by J. Mimura, 55-52

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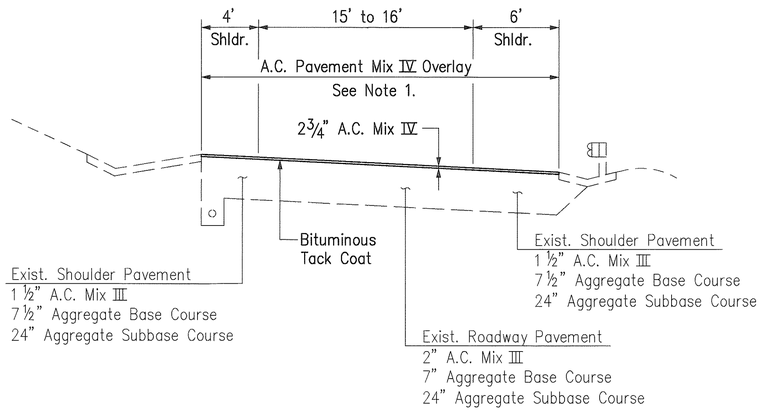
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	94	405



H-3 ℄ STA. 494+25± TO 498+00



INBOUND H-3 ℄ STA. 498+00 TO 504+18± (EXISTING BRIDGE DECK) & INBOUND H-3 ℄ STA. 506+21± (EXISTING BRIDGE DECK) TO 515+00±



RAMPS "C" & "F"

NOTES:

1. Where pavement overlay is required the existing pavement surface shall be cold planed ½ inch minimum below existing grade to permit installation of 2¾ inches A.C. Mix Ⅳ.
2. Where shoulder pavement abuts roadway pavement to be overlayed, remove 1½ inches A.C. Mix Ⅲ and 2 inches Aggregate Base Course of shoulder pavement prior to placement of 3 inches A.C. Mix Ⅲ and 2 inches A.C. Mix Ⅳ.
3. Where shoulder pavement abuts roadway pavement to remain, remove 2½ inches A.C. Mix Ⅴ, 1½ inches A.C. Mix Ⅲ and 2 inches Aggregate Base Course of shoulder pavement prior to placement of 3 inches A.C. Mix Ⅲ and 2¾ inches A.C. Mix Ⅳ.
4. For Grade Control, see Median Superelevation Plan on Shts. CF5 and CF6. Pavement Finish Grade shall meet top of existing 61616 gutter.

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

CAD by J. Mimura, 55-52

Last Saved: J:\H3RF\U1\ROAD\RC-TYP2.dwg 03/15/96 at 15:31

RANDALL M. URASAKI ★ LICENSED PROFESSIONAL ENGINEER No. 7269-C ★ HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

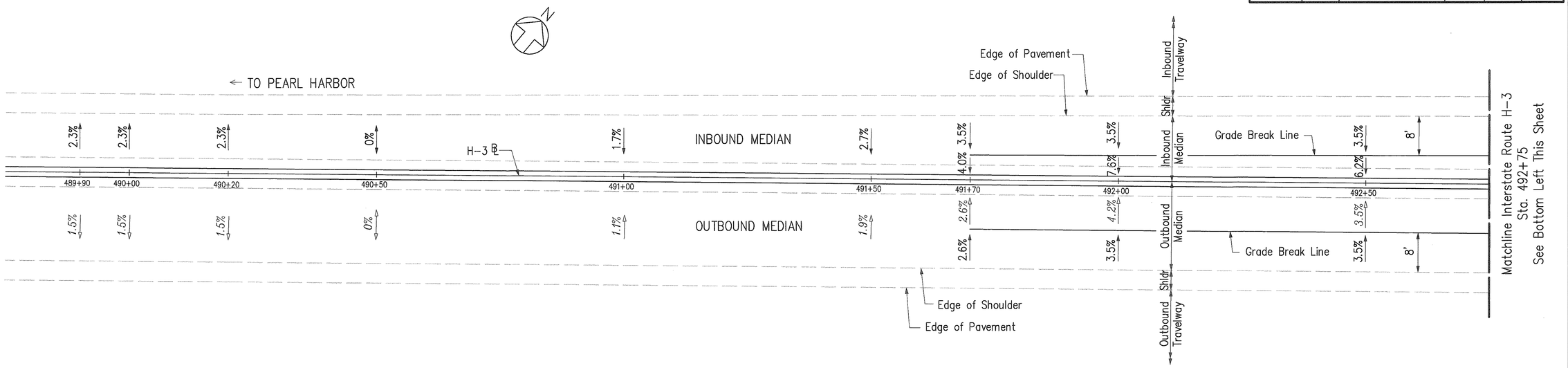
WINDWARD HIGHWAY/ HALEKOU INTERCHANGE TYPICAL SECTIONS

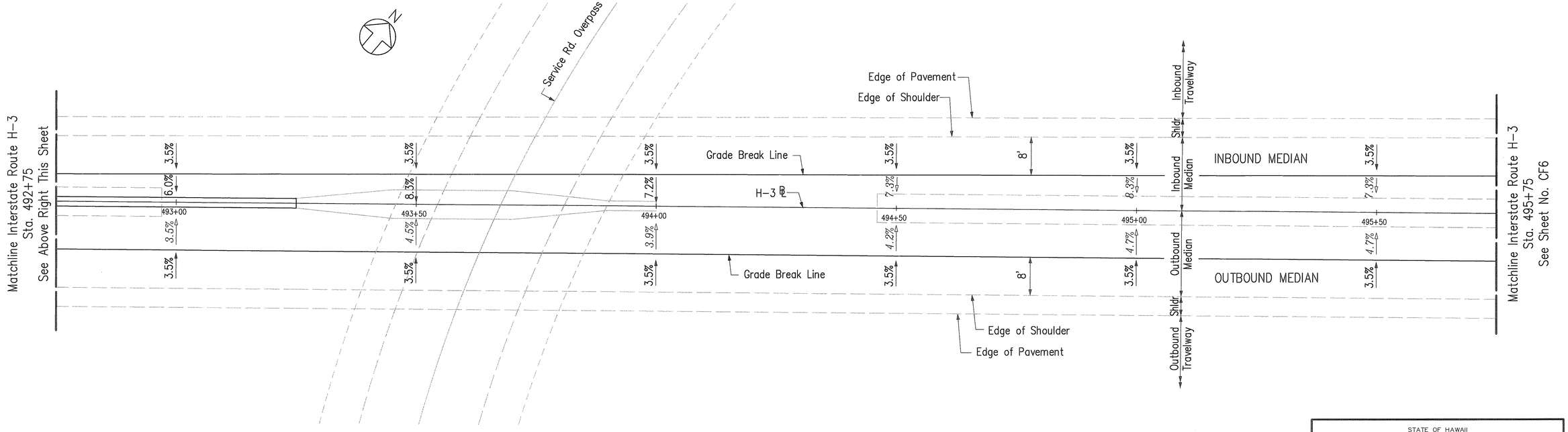
INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 5' DATE: JANUARY 1996

SHEET NO. CF4 OF 30 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	95	405





LEGEND:

3.5% ↑ Superelevation for grade control.

3.5% ⇧ Superelevation for reference only. Not to be used for grade control.

ORIGINAL PLANS	SURVEY PLOTTED BY	DATE
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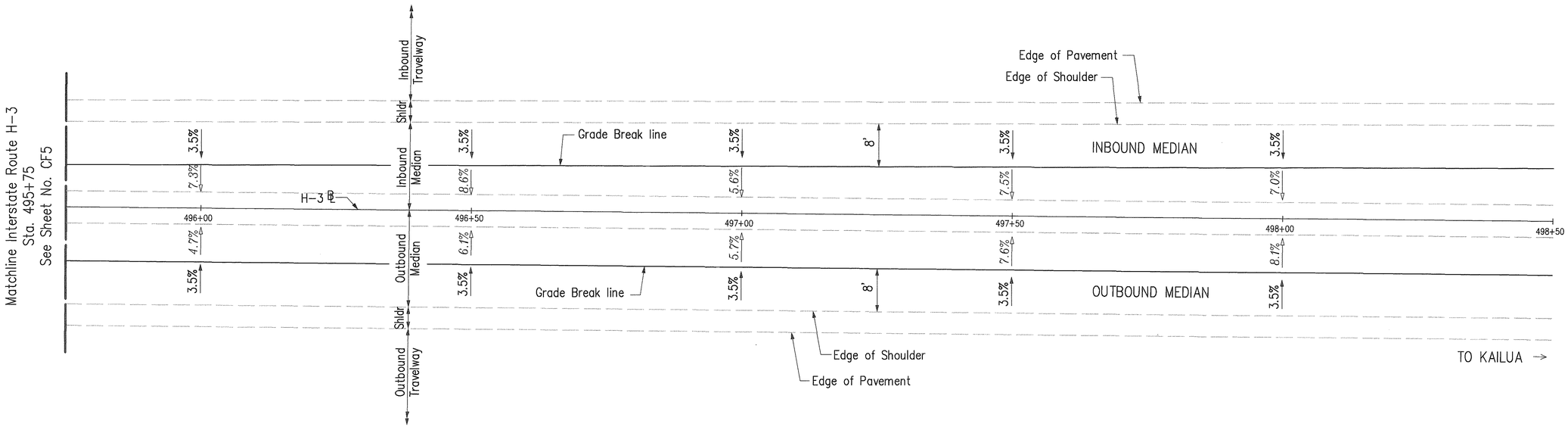
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD HIGHWAY/ HALEKOU INTERCHANGE MEDIAN SUPERELEVATION PLAN

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 10' DATE: JANUARY 1996

SHEET NO. CF5 OF 30 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	96	405



LEGEND:

3.5% — Superelevation for grade control.

4.7% — Superelevation for reference only. Not to be used for grade control.

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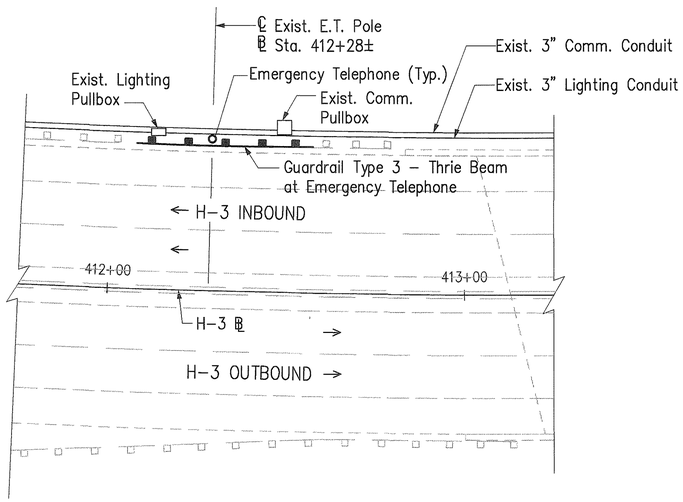
WINDWARD HIGHWAY
HALEKOU INTERCHANGE
MEDIAN SUPERELEVATION PLAN

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

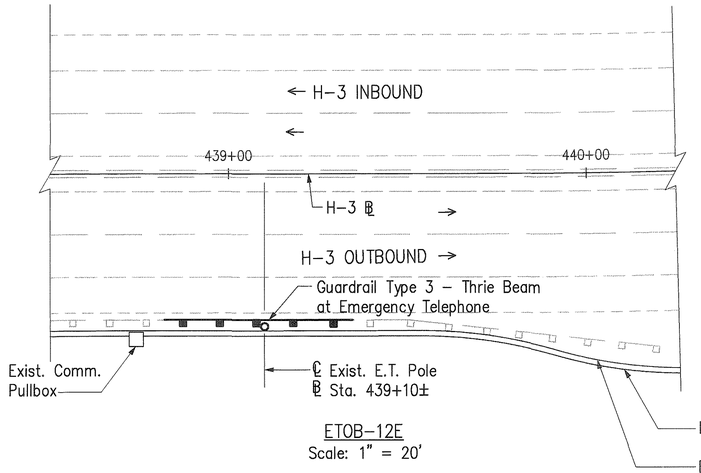
SCALE: 1" = 10' DATE: JANUARY 1996

SHEET NO. CF6 OF 30 SHEETS

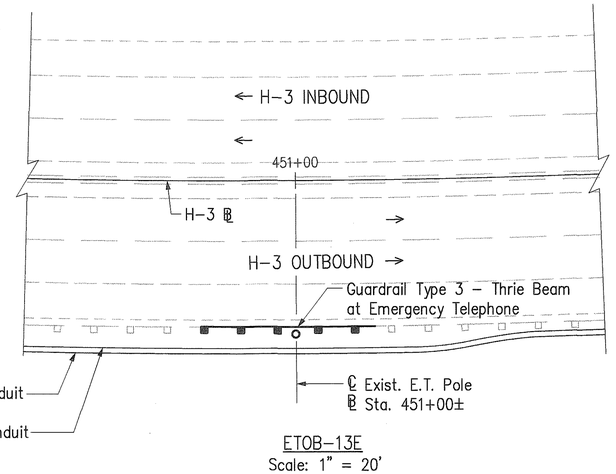
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	97	405



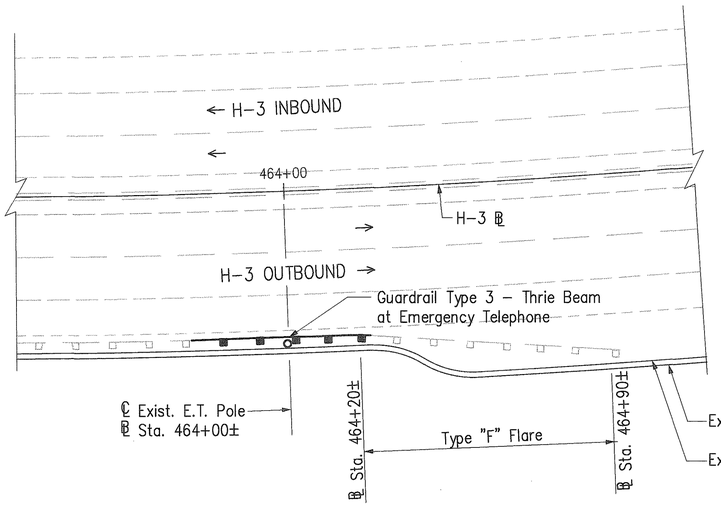
ETIB-10E
Scale: 1" = 20'



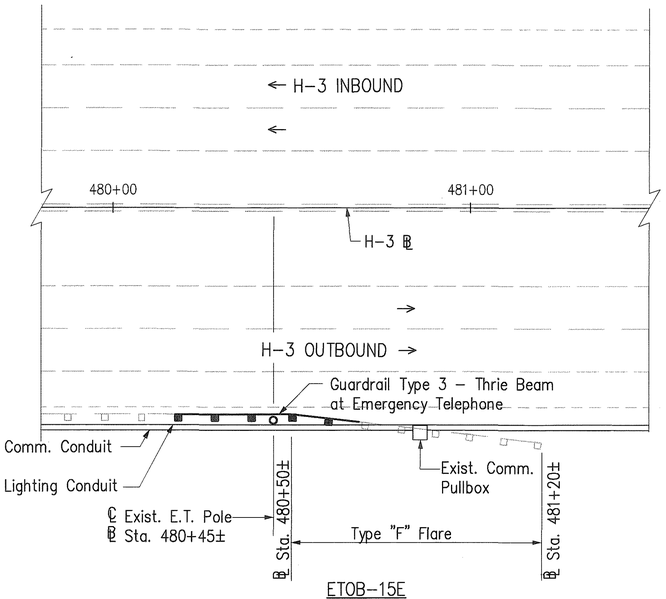
ETOB-12E
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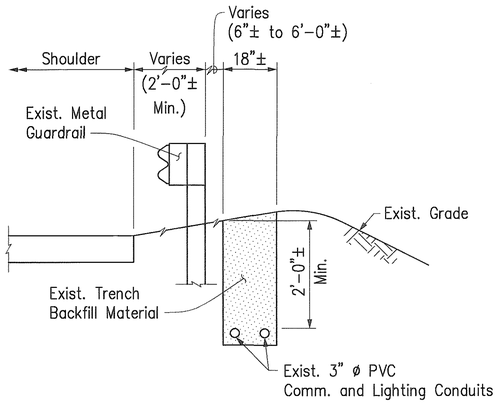
ETOB-13E
Scale: 1" = 20'



ETOB-14E
Scale: 1" = 20'



ETOB-15E
Scale: 1" = 20'



TYPICAL SECTION – EXISTING GUARDRAIL/CONDUITS
Scale: ½" = 1'-0"

NOTES:

1. Prior to installation of guardrail posts, Contractor shall verify location of existing communication and lighting conduits.
2. Contractor shall exercise caution when installing metal guardrail post to prevent damage to existing communication and lighting facilities.
3. Contractor shall be responsible for repair of existing communication and lighting facilities damaged as a result of installation work of guardrail and at no cost to the State.
4. See Guardrail Type 3 – Thrie Beam at Emergency Telephone Detail on Sht. CF13.

ABBREVIATIONS

E.T.	Emergency Telephone
ETIB	Emergency Telephone – Inbound
ETOB	Emergency Telephone – Outbound

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD HIGHWAY
ROADWAY CONSTRUCTION

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: AS SHOWN DATE: JANUARY 1996

SHEET NO. CF7 OF 30 SHEETS

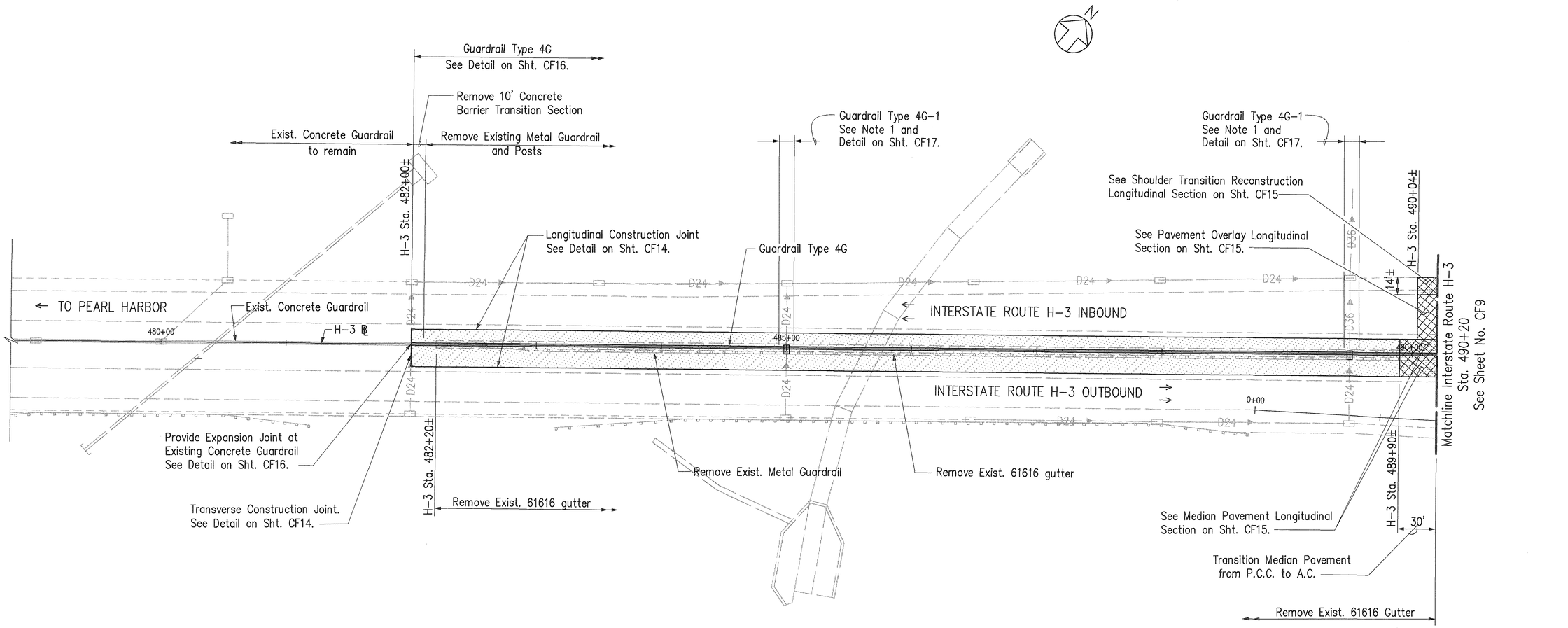
97

ORIGINAL PLAN
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	98	405



NOTE:

1. Guardrail Type 4G-1 will be paid under Guardrail Type 4G.

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NOTE BOOK DESIGNED BY "
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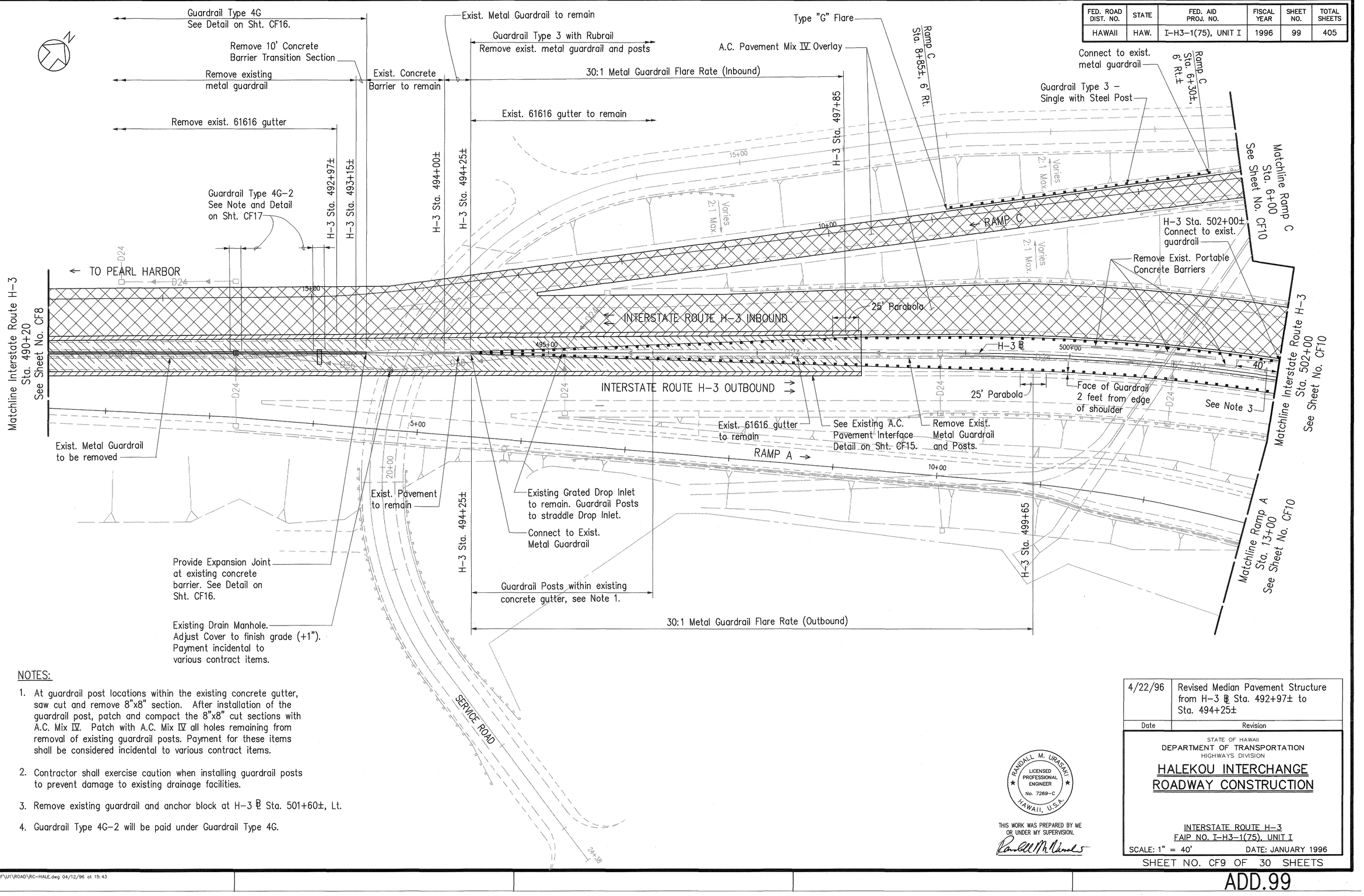
WINDWARD HIGHWAY
ROADWAY CONSTRUCTION

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CF8 OF 30 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	99	405



NOTES:

1. At guardrail post locations within the existing concrete gutter, saw cut and remove 8"x8" section. After installation of the guardrail post, patch and compact the 8"x8" cut sections with A.C. Mix IV. Patch with A.C. Mix IV all holes remaining from removal of existing guardrail posts. Payment for these items shall be considered incidental to various contract items.
2. Contractor shall exercise caution when installing guardrail posts to prevent damage to existing drainage facilities.
3. Remove existing guardrail and anchor block at H-3 ℄ Sta. 501+60±, Lt.
4. Guardrail Type 4G-2 will be paid under Guardrail Type 4G.

ORIGINAL PLAN
NOTE BOOK
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Date	Revision
4/22/96	Revised Median Pavement Structure from H-3 ℄ Sta. 492+97± to Sta. 494+25±

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HALEKOU INTERCHANGE ROADWAY CONSTRUCTION

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 40' DATE: JANUARY 1996

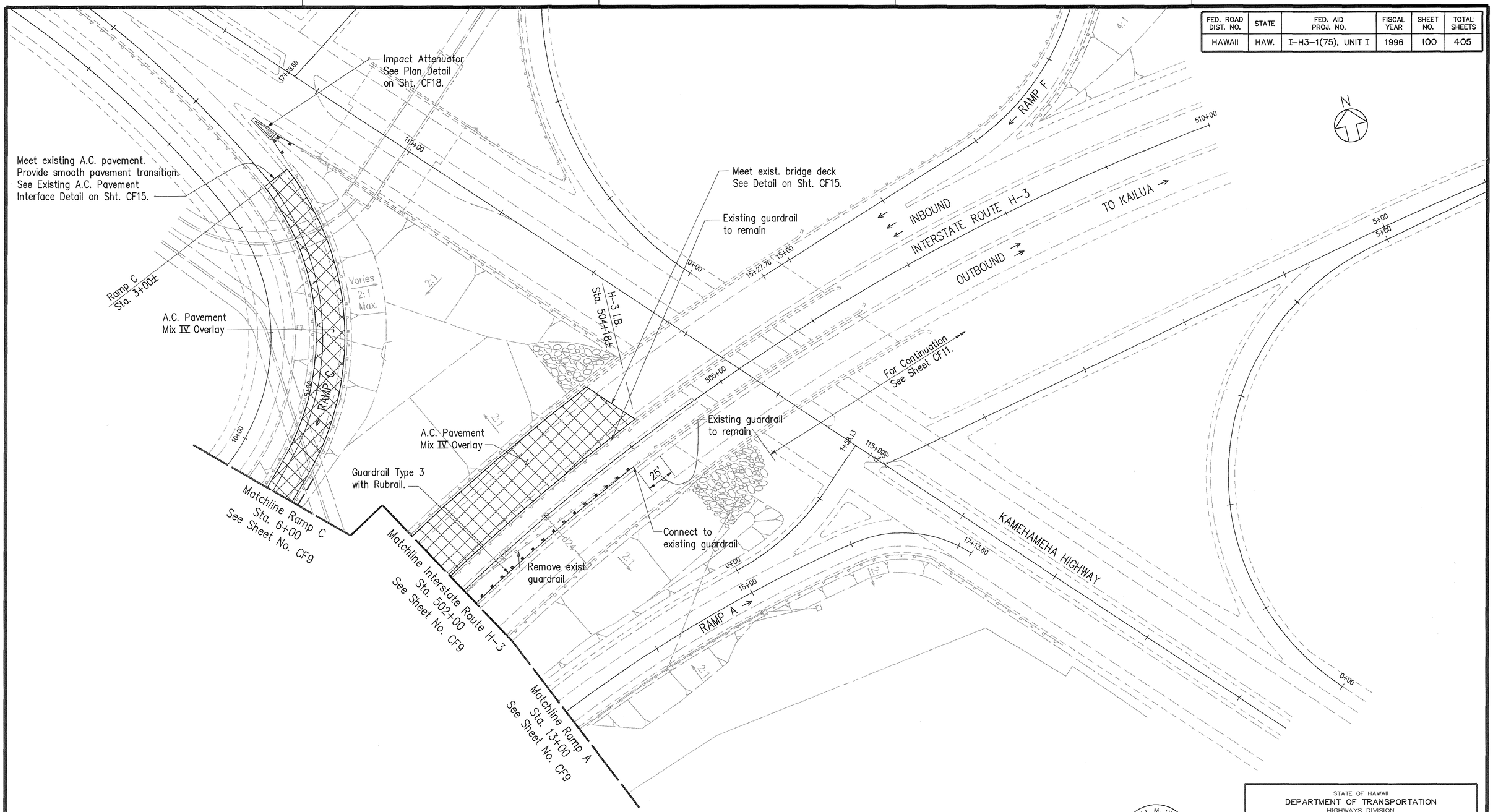
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SHEET NO. CF9 OF 30 SHEETS

ADD.99

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	100	405



ORIGINAL PLANS
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HIGHWAYS DIVISION

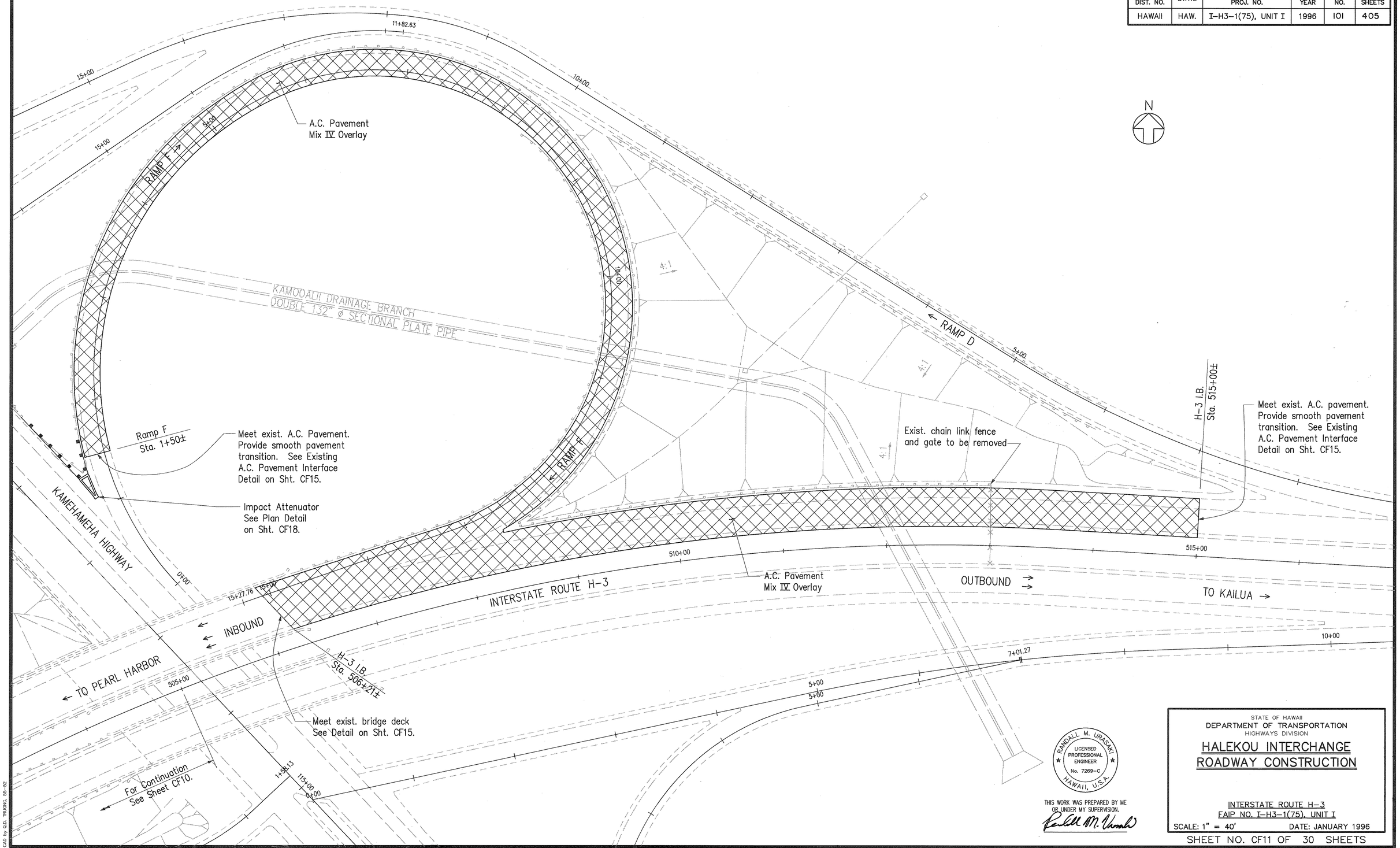
HALEKOU INTERCHANGE
ROADWAY CONSTRUCTION

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CF10 OF 30 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	101	405



ORIGINAL PLAN
SURVEY PLOTTED BY _____ DATE _____
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HIGHWAYS DIVISION

HALEKOU INTERCHANGE ROADWAY CONSTRUCTION

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CF11 OF 30 SHEETS

101

101

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	102	405

Numbers indicate weight of sand in 100lb. units.

℄ (4) (7) (14) (14) (14) (21) (14) (14) (21)

INITIAL BARRIER SYSTEM DETAIL
N.T.S.

RAMP D

RAMP E

RAMP F

RAMP C

SERVICE ROAD

← TO KANEOHE

KAMEHAMEHA HIGHWAY

Kamehameha Highway
℄ Sta. 108+60, 50.9' Rt.
to Ref. Pt.

Kamehameha Highway
℄ Sta. 108+84, 52.6' Rt.
to Ref. Pt.

Kamehameha Highway ℄

TO KAILUA →

TO H-3 INBOUND →

110+00

0+00

Remove exist. guardrail

W-Beam

Guardrail Type 3 – Thrie Beam Transition to Attenuator Backup. See detail on sht. CF18.

Connect to exist. guardrail

R=50'

W-Beam

R=50'

Guardrail Type 3 – Thrie Beam Transition to Attenuator Backup. See detail on sht. CF18.

Remove exist. Guardrail

Remove exist. inertial barrier system. See Note 1.

Install New Inertial Barrier System (See Detail this sht.)

~~Foam Cartridge Impact Attenuator, 8 Bay, Wide Width. See detail on sht. CF18.~~

Kamehameha Highway
℄ Sta. 111+32, 49.8' Lt.
to Ref. Pt.

Kamehameha Highway
℄ Sta. 11+56, 46.4' Lt.
to Ref. Pt.

Install New Inertial Barrier System (See Detail this sht.)

~~Foam Cartridge Impact Attenuator, 8 Bay, Medium Width. See detail on sht. CF18.~~

Remove exist. guardrail

R=50'

W-Beam

Guardrail Type 3 – Thrie Beam Transition to Attenuator Backup. See detail on sht. CF18.

Exist. guardrail

Connect to exist. guardrail

R=50'

Remove exist. inertial barrier system. See Note 1.

Guardrail Type 3 – Thrie Beam Transition to Attenuator Backup. See detail on sht. CF18.

W-Beam

Exist. guardrail

Remove exist. guardrail

Edge of traveled way

Edge of shoulder

Edge of shoulder

Edge of traveled way

NOTES

1. Existing inertial barrier system shall be delivered to DOT Highways Division Oahu District Maintenance Yard, 727 Kakoi St., Honolulu, Hawaii. Payment for removal and delivery shall be considered incidental to various contract items.
2. *See Detail (this Sheet) of New Inertial Barrier System.*

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HIGHWAYS DIVISION

ROADWAY CONSTRUCTION PLAN DETAIL

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 20' DATE: JANUARY 1996

SHEET NO. CF12 OF 30 SHEETS

"AS-BUILT"

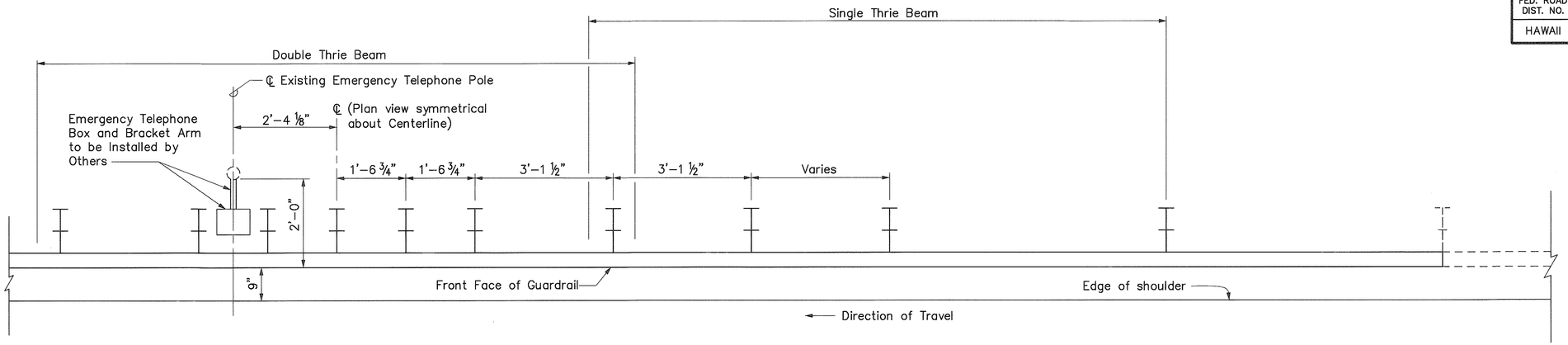
102

ORIGINAL PLAN
SURVEY PLOTTED BY ____ DATE ____
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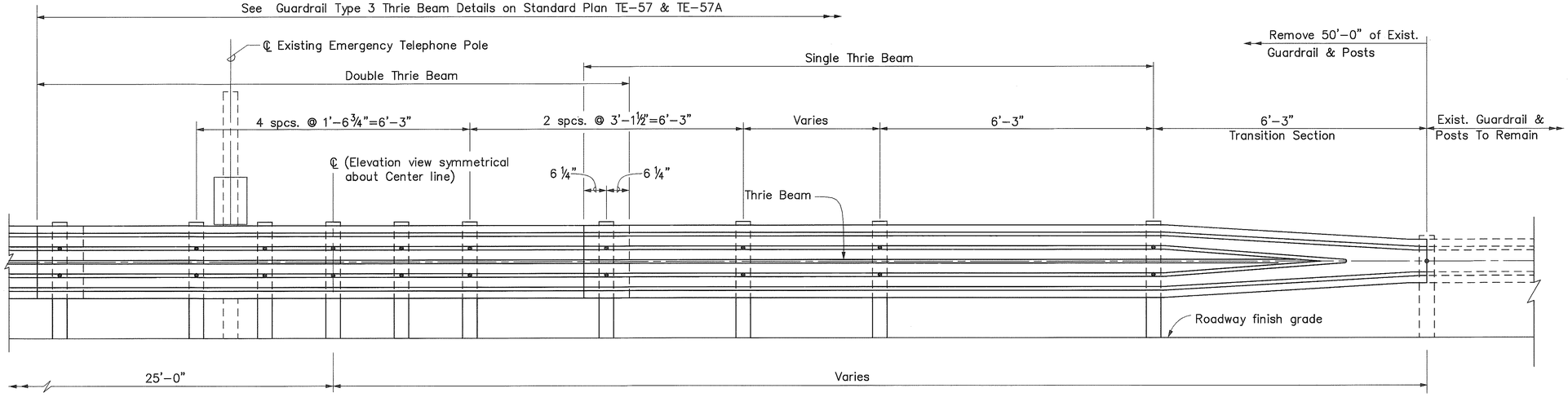
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HAWAII	HAW.	I-H3-1(75), UNIT I	1996	103	405



PLAN
Scale: 3/4" = 1'-0"

NOTES:

1. Contractor shall remove and replace 50'-0" of existing guardrail and posts as shown to the left.
2. See Sheet CF7 for plans of guardrail removal and replacement locations.
3. Connection between single thrie beam to double thrie beam shall be overlapped in direction of traffic.



ELEVATION
Scale: 3/4" = 1'-0"

GUARDRAIL TYPE 3 – THRIE BEAM AT EMERGENCY TELEPHONE DETAIL

ORIGINAL PLAN
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD HIGHWAY
ROADWAY CONSTRUCTION
DETAILS

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

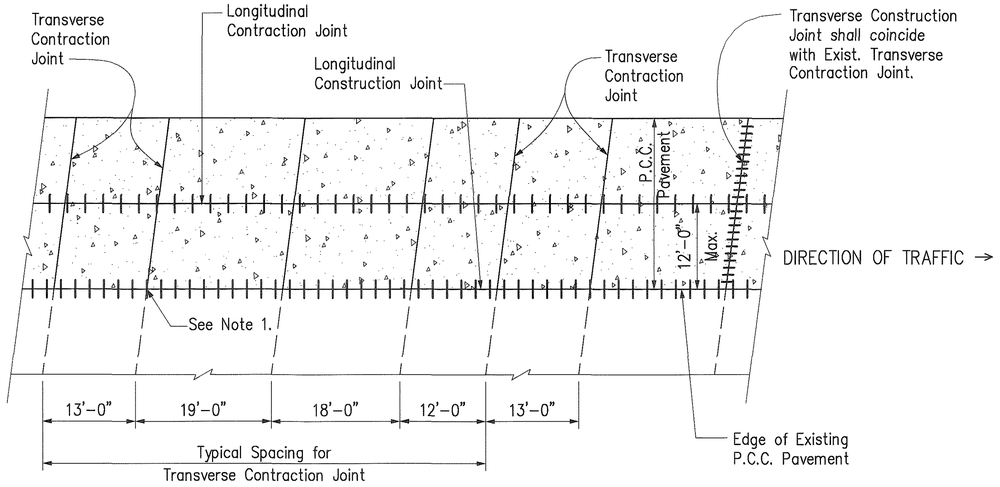
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SHEET NO. CF13 OF 30 SHEETS

103

103

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	104	405

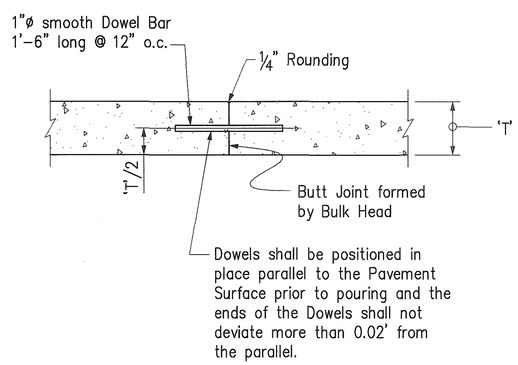


TYPICAL JOINT LOCATION AND LAYOUT PLAN FOR P.C.C. PAVEMENT WIDENING

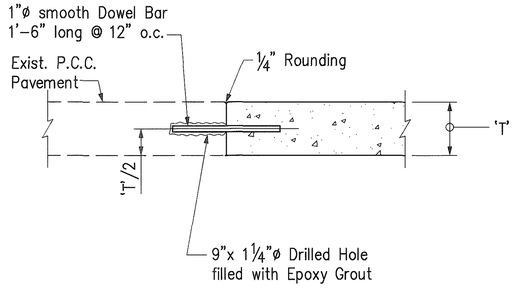
Scale: 1" = 10'

NOTES:

1. The drilled holes for longitudinal construction joints shall be made a minimum of 12" and a maximum of 18" from existing transverse contraction joints.
2. Transverse construction joints shall be located at a minimum distance of 10 feet from the nearest transverse contraction joint.
3. Payment for transverse and longitudinal joints shall be considered incidental to proposal item no. 411.2118 – 9-Inch, Concrete Pavement.



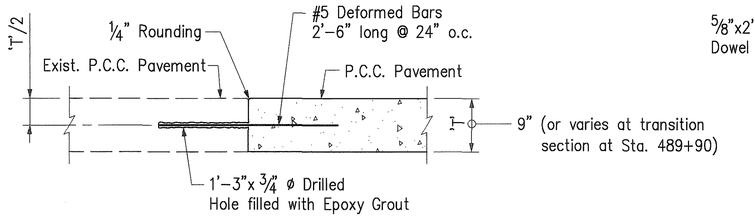
NEW PAVEMENT



EXISTING PAVEMENT

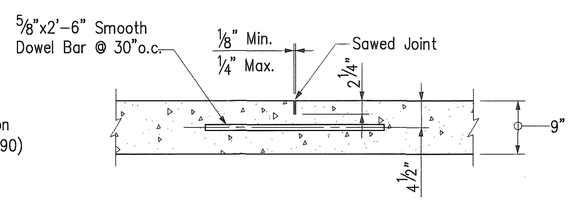
TRANSVERSE CONSTRUCTION JOINT

Scale: 1" = 1'



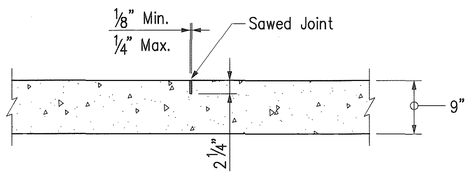
LONGITUDINAL CONSTRUCTION JOINT

Scale: 1" = 1'



LONGITUDINAL CONTRACTION JOINT

Scale: 1" = 1'



TRANSVERSE CONTRACTION JOINT

Scale: 1" = 1'

ORIGINAL PLAN — SURVEY PLOTTED BY ____ DATE ____
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD HIGHWAY/ HALEKOU INTERCHANGE
ROADWAY CONSTRUCTION DETAILS

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

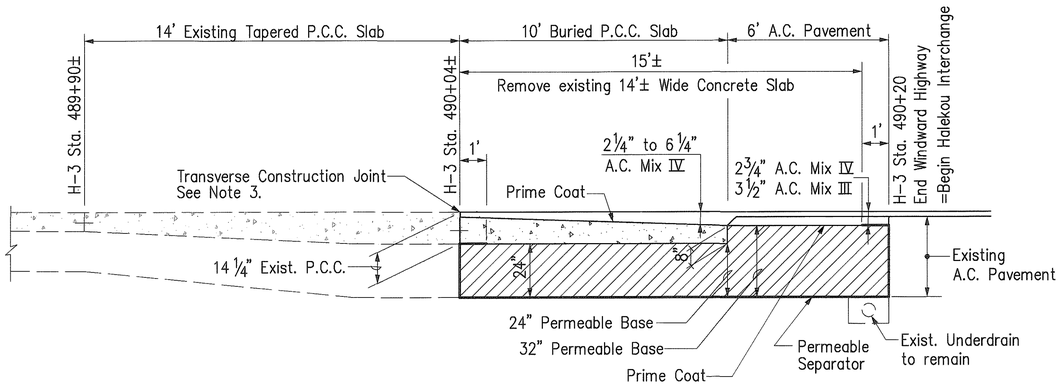
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SHEET NO. CF14 OF 30 SHEETS

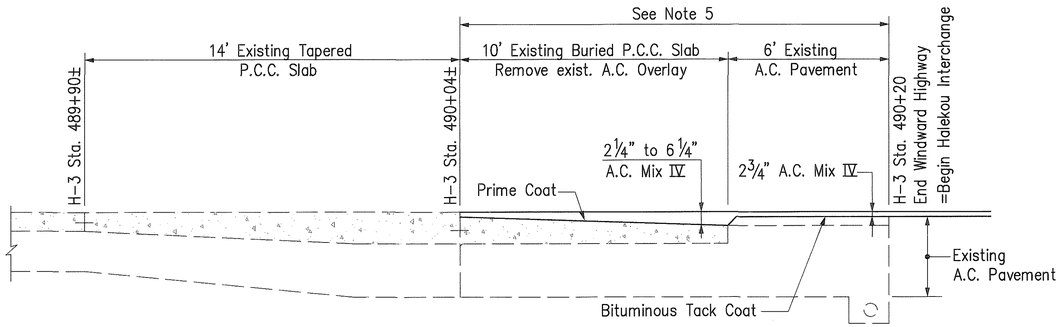
104

104

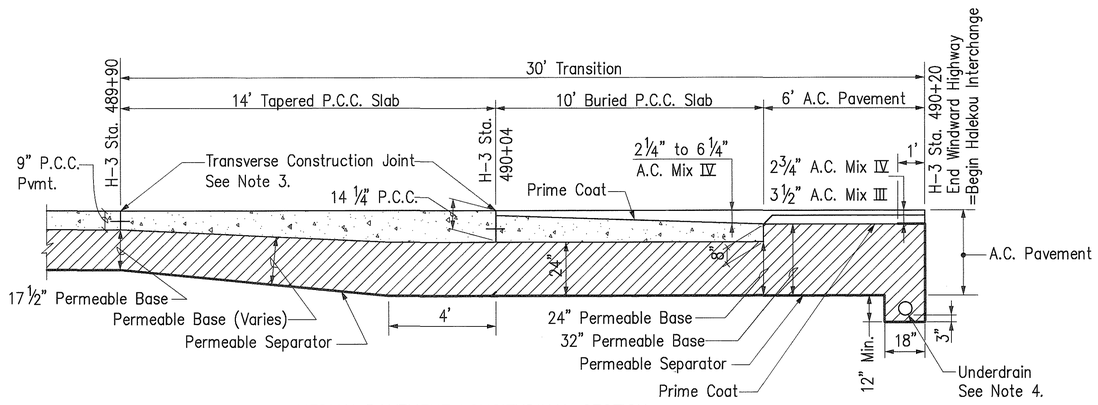
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	105	405



SHOULDER TRANSITION RECONSTRUCTION LONGITUDINAL SECTION



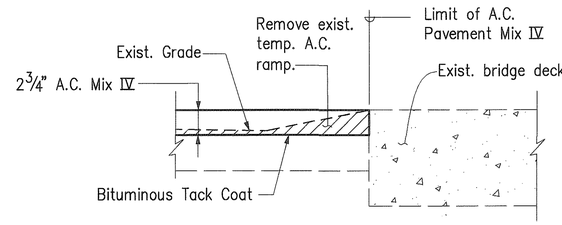
PAVEMENT OVERLAY LONGITUDINAL SECTION



MEDIAN PAVEMENT LONGITUDINAL SECTION

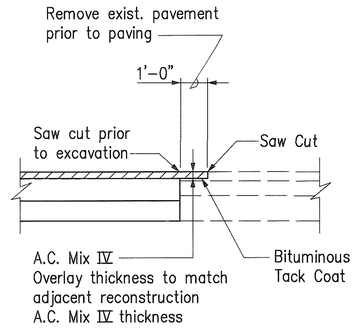
DETAIL OF TRANSITION FROM P.C.C. PAVEMENT TO A.C. PAVEMENT

Scale: ⅜" = 1'-0"



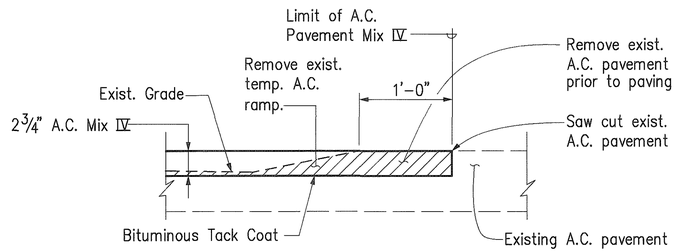
EXISTING BRIDGE DECK INTERFACE DETAIL

N.T.S.



A.C. SHOULDER PAVEMENT TRANSITION DETAIL

(Longitudinal or Transverse Interface)
Scale: ⅜" = 1'-0"



EXISTING A.C. PAVEMENT INTERFACE DETAIL

N.T.S.

TRANSITION PAVEMENT NOTES:

1. Payment for P.C.C. within Transition Sections shall be paid under proposal Item No. 411.2118 – 9-Inch, Concrete Pavement.
2. Provide Longitudinal Construction Joint between existing P.C.C. and new P.C.C. Slabs within Transition Sections, See Detail on Sht. CF14. Payment shall be considered incidental to proposal item no. 411.2118 – 9-Inch, Concrete Pavement.
3. Transverse Construction Joint location to match existing adjacent pavement section. See Transverse Construction Joint Detail on Sht. CF14.
4. For Underdrain detail See Sht. CF25.
5. The existing pavement surface shall be cold planed ½ inch minimum or to the top of the exist. P.C.C. slab, prior to installation of the A.C. Mix IV Overlay.

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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD HIGHWAY/ HALEKOU INTERCHANGE ROADWAY CONSTRUCTION DETAILS

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: AS SHOWN DATE: JANUARY 1996

SHEET NO. CF15 OF 30 SHEETS

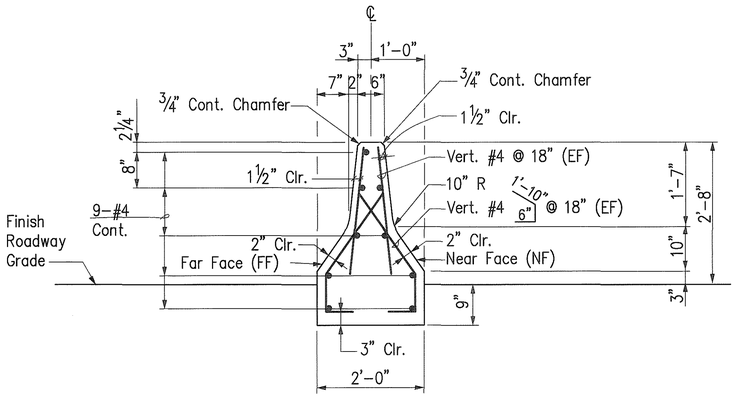
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CAD by Q.D. TRUONG, 95-82

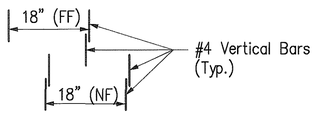
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105

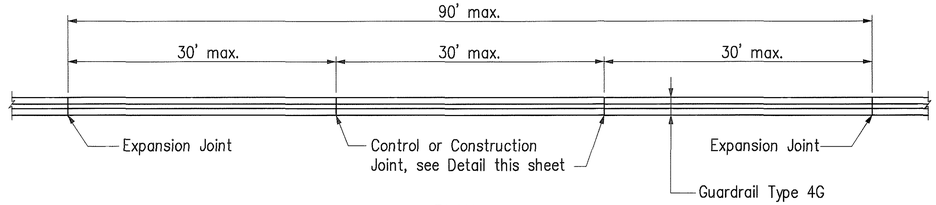
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	106	405



GUARDRAIL TYPE 4G
Scale: ¾" = 1'-0"

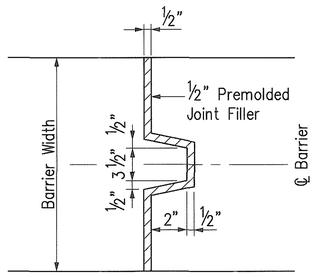


VERTICAL BAR ARRANGEMENT
N.T.S.



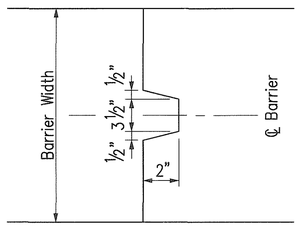
PLAN

GUARDRAIL TYPE 4G JOINT LOCATION DETAIL
Scale: ⅛" = 1'-0"



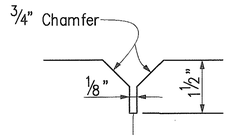
PLAN

EXPANSION JOINT KEY SECTION
N.T.S.



PLAN

CONSTRUCTION JOINT KEY SECTION
N.T.S.

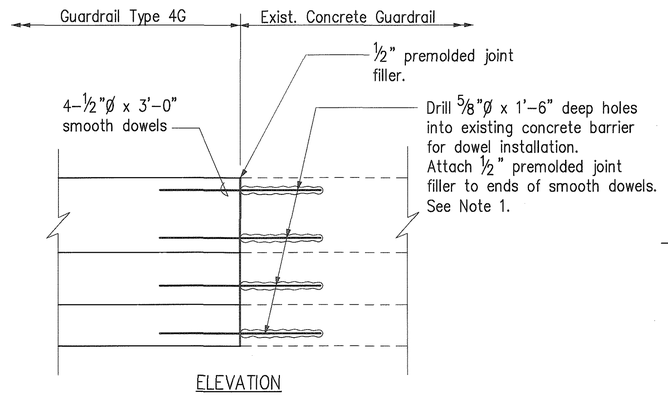


DETAIL 1 CF16|CF16
N.T.S.

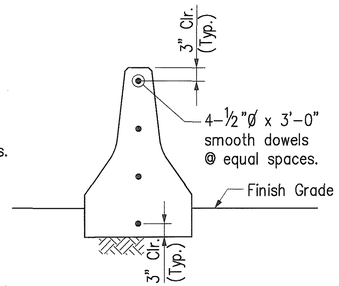
NOTES

1. The holes for dowels shall be drilled perpendicular to the existing concrete surfaces. When the drill contacts any existing rebar, the hole shall be filled with epoxy grout and a replacement shall be drilled so that the spacing of dowels will be maintained. Contractor shall avoid cutting existing rebar.
2. Expansion Joints shall be constructed at ninety-feet (90 ft.) maximum intervals. Shear keys shall be provided at all construction joints. Control Joints shall be placed between expansion joints at thirty feet (30 ft.) maximum. Shear keys
3. The exterior surface and vertical alignment of the concrete guardrail shall be constructed to give a uniform and presentable appearance. Variation of more than ¼" in 20' max. and ½" in 40' or more will be considered objectionable. The Engineer will determine the acceptability of the work.

   During the course of the work, samples may be tested and measurements made to establish whether or not the specified values or dimensions are being met. If the specified values or dimensions are not being met, the Engineer will determine the degree of the non-conformance, the effect on the serviceability of the project, whether the work be accepted and remain in place and, if so, the amount to be paid for such work, or whether the work shall be removed and replaced or otherwise corrected at the Contractor's expense.
4. The concrete pour shall be terminated at either expansion joint or control joint at the end of the work day. Terminate longitudinal reinforcement at expansion and control joints.
5. Payment for joints shall be considered incidental to Guardrail Type 4G.

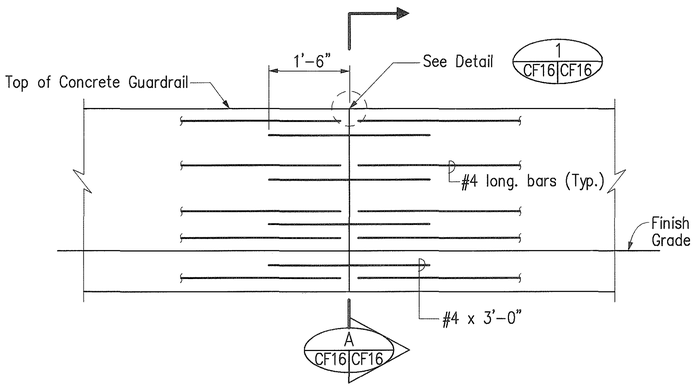


ELEVATION

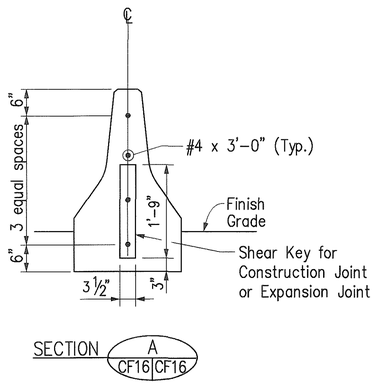


TYPICAL SECTION

EXPANSION JOINT DETAIL @ EXISTING CONCRETE GUARDRAIL
Scale: ¾" = 1'-0"



ELEVATION



SECTION A CF16|CF16

CONTROL OR CONSTRUCTION JOINT DETAIL
Scale: ¾" = 1'-0"

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

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD HIGHWAY/
HALEKOU INTERCHANGE
ROADWAY CONSTRUCTION DETAILS

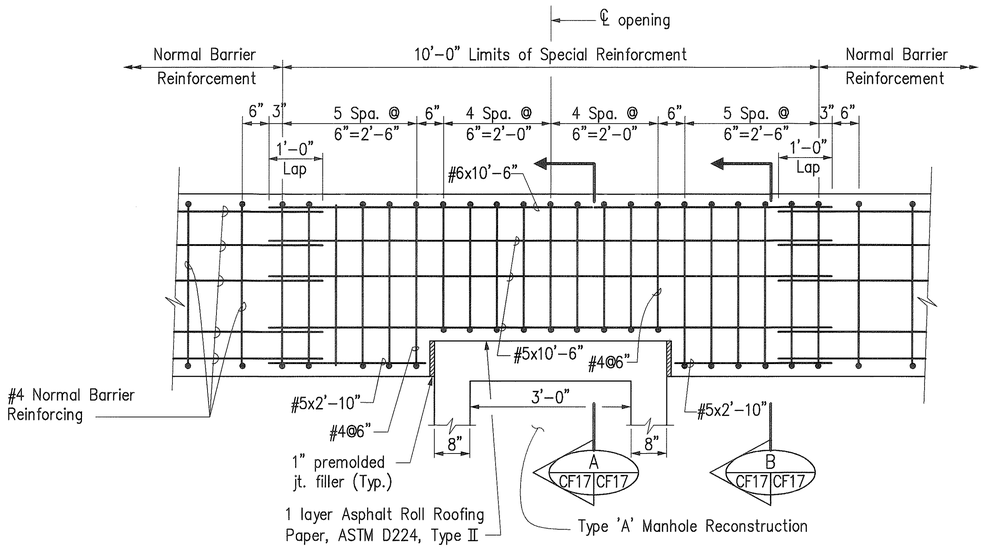
INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: AS SHOWN DATE: JANUARY 1996

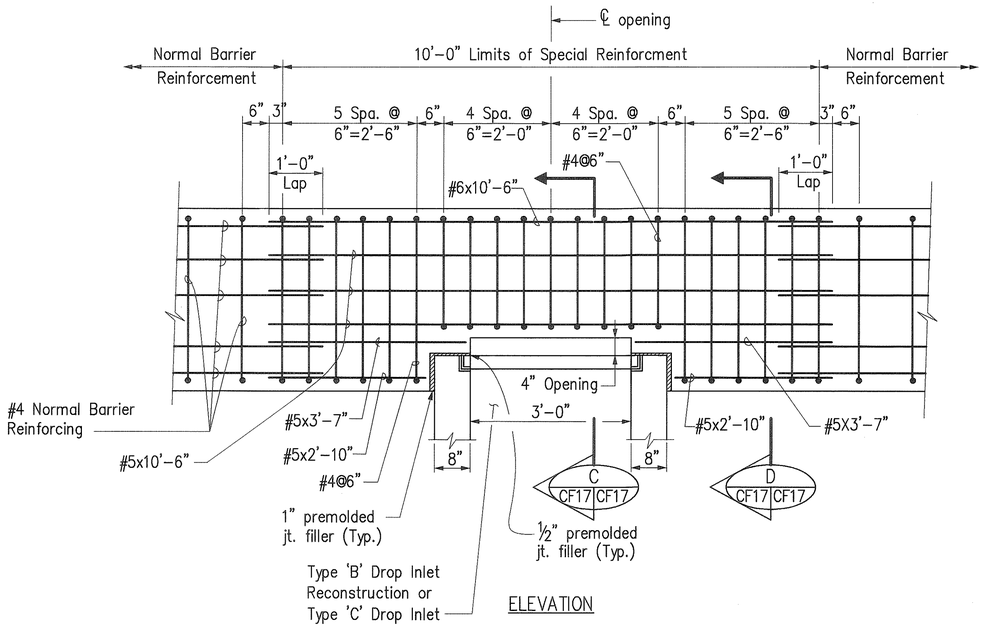
SHEET NO. CF16 OF 30 SHEETS

106

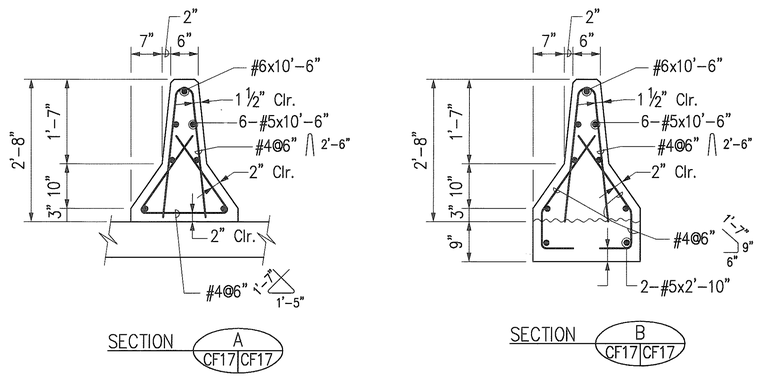
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	107	405



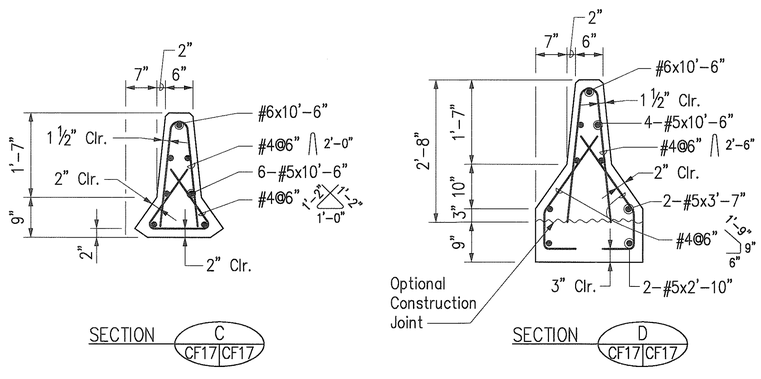
ELEVATION



ELEVATION



GUARDRAIL TYPE 4G-1



GUARDRAIL TYPE 4G-2

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

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HUI PANG CHEN
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Huipang Chen

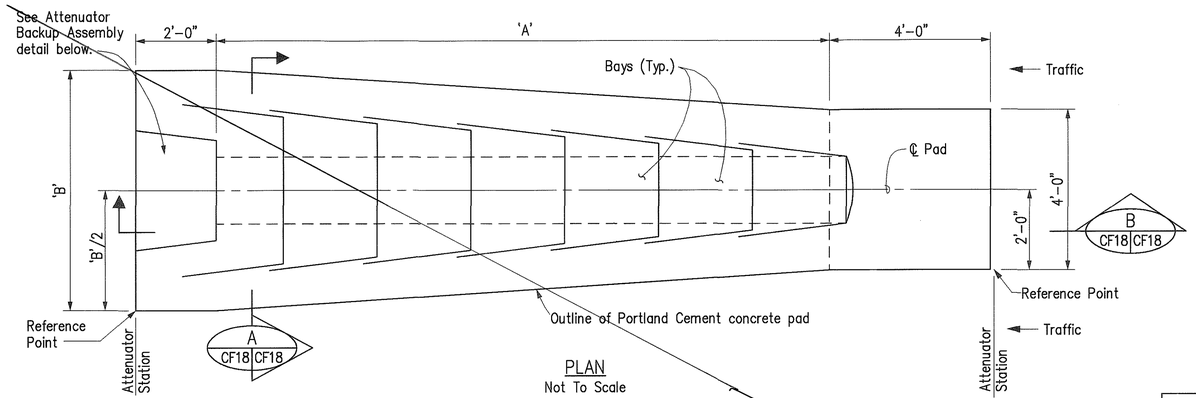
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HALEKOU INTERCHANGE ROADWAY CONSTRUCTION DETAILS

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 3/4" = 1'-0" DATE: JANUARY 1996
SHEET NO. CF17 OF 30 SHEETS

107

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	108	405

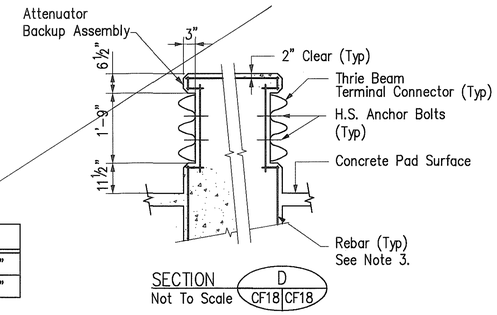


PLAN
Not To Scale

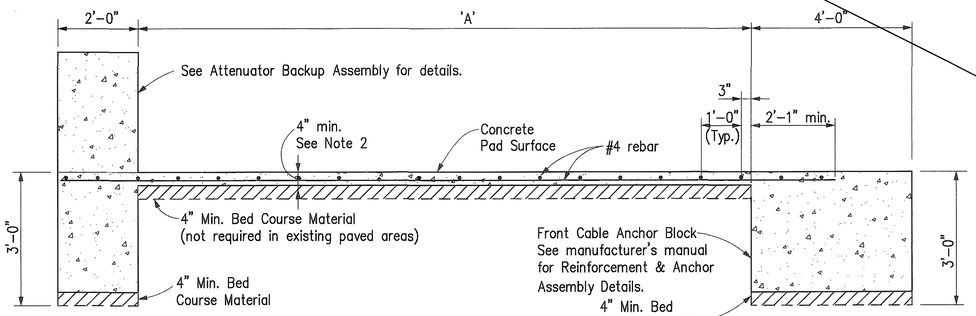
NOTES:

1. Cross slope of pad shall not exceed 5% and not vary more than 2% from front to back.
2. 4" min. reinforced 4000 PSI concrete pad or 8" min. non-reinforced 4000 PSI concrete pavement.
3. Vertical reinforcement in front face shall be 7-#6 rebars, equally spaced. All other reinforcement shall be #5 rebars at 12" on centers.
4. Use items (6) (7) & (8) to attach vinyl tubes to both sides of backup.
5. Mechanical type anchors may be substituted in horizontal applications. The substituted anchors shall be the same diameter and shall have the following minimum pullout strength: 3/8"ø-2760 LBS.
6. The work necessary to connect Guardrail Type 3-Thrie Beam Transition to Attenuator Backup Assembly shall include all labor, materials, tools, equipment and incidentals necessary to complete the work and shall be incidental to Guardrail Type 3-Thrie Beam Transition to Attenuator Backup not be paid for separately.

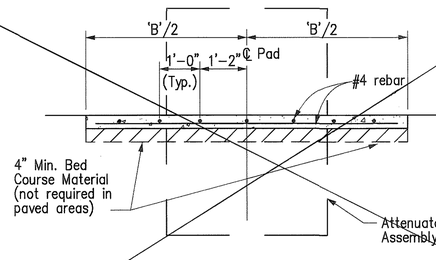
Unit Location	# of Bays	Unit Width	'A'	'B'	'C'	'D'	'E'
Halekou I/C, Ramp 'C'	8	Medium	18'-8"	8'-0"	5'-2"±½"	2'-3"	2'-7"
Halekou I/C, Ramp 'F'	8	Wide	18'-8"	10'-0"	7'-6"±½"	2'-8¾"	3'-9"



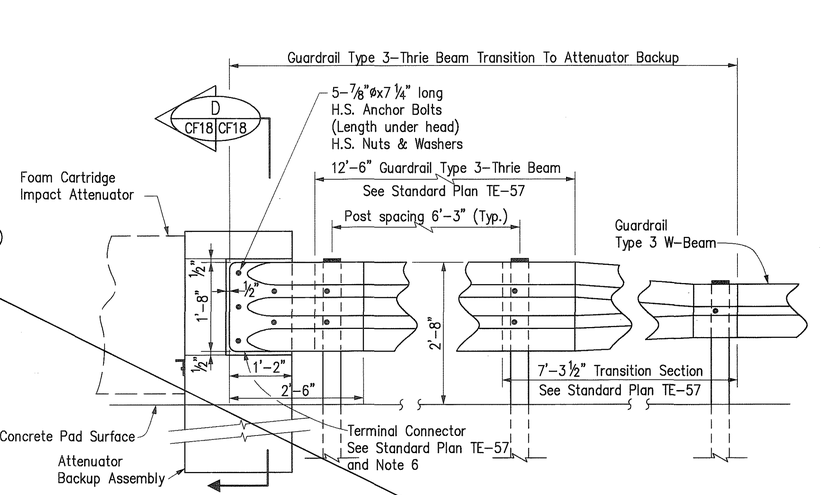
SECTION
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SECTION
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SECTION
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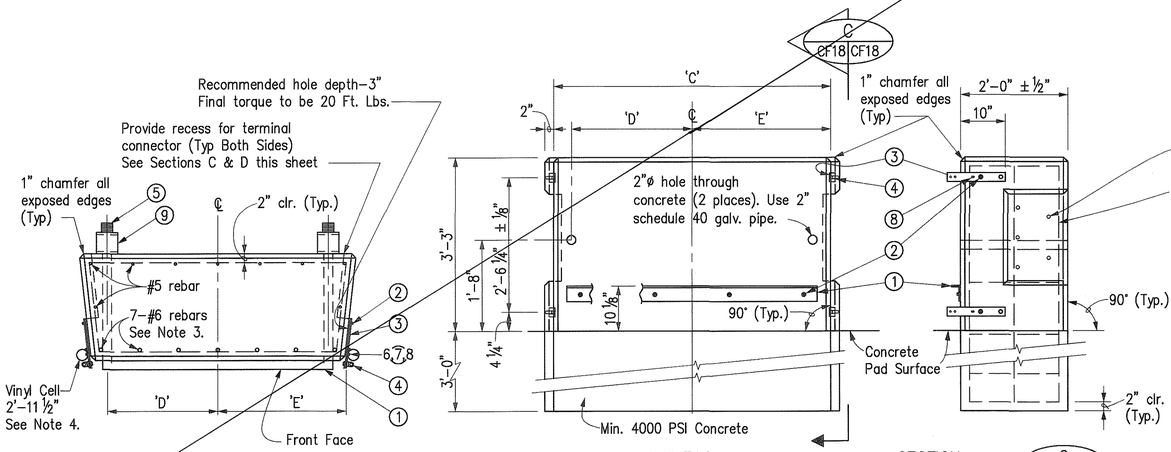


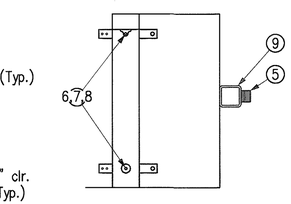
ELEVATION
Scale: 3/4" = 1'-0"

GUARDRAIL TYPE 3-THRIE BEAM TRANSITION TO ATTENUATOR BACKUP DETAIL

FOAM CARTRIDGE IMPACT ATTENUATOR AT GORE DETAIL

See Sheet 102 for Detail of New Inertial Barrier System.





SIDE VIEW
Showing Side Cell Attachment
Not To Scale

Item	Description
(1)	Bracket, Cartridge, Support
(2)	Anchor, 3/8x4
(3)	Strap, Mounting, 12 3/4
(4)	Clamp, Wire Rope, 3/8, Galv.
(5)	Washer, Bar, 3x3x1/4, Galv.
(6)	Bolt, Cr, 5/16x3/4, Galv.
(7)	Washer, Flat, 5/16x7/8, Galv.
(8)	Nut, Hx, 5/16, Galv.
(9)	Shim, Restraining Cable, Conc. B/U

NOTE: The above is a partial hardware list. Refer to manufacturer's manual for full hardware listing and installation requirements.

ATTENUATOR BACKUP ASSEMBLY DETAIL

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HALEKOU INTERCHANGE ROADWAY CONSTRUCTION DETAILS

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: AS SHOWN DATE: JANUARY 1996

SHEET NO. CF18 OF 30 SHEETS

ORIGINAL PLAN
NOTE BOOK
SURVEY PLOTTED BY ____ DATE
DRAWN BY ____
TRACED BY ____
DESIGNED BY ____
QUANTITIES BY ____
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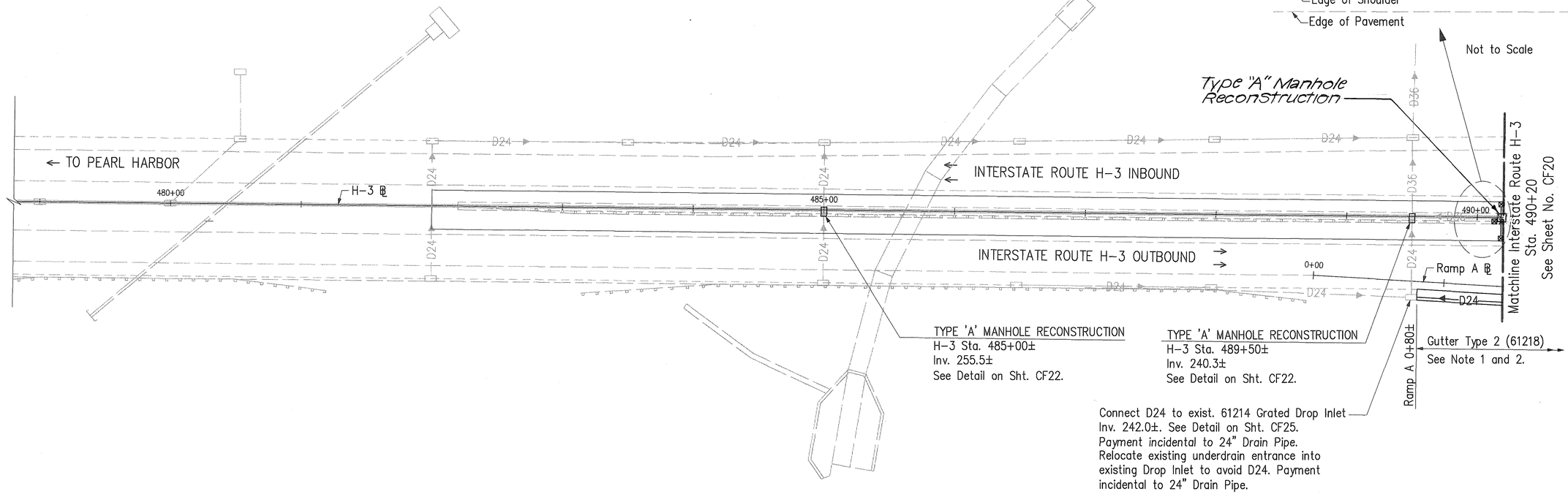
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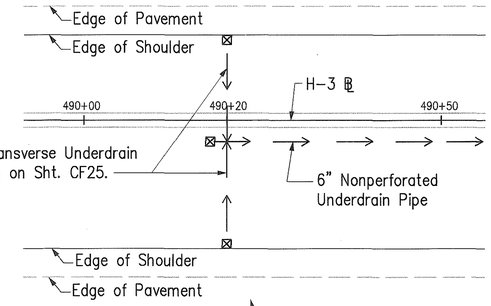
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"AS-BUILT"

108

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	109	405





DRAINAGE QUANTITY FOR WINDWARD HIGHWAY & HALEKOU INTERCHANGE

ITEM NO.	CONTRACT ITEM	ESTIMATED QUANTITY	UNIT
206.2020	Structure Excavation for Drainage System	260	CU YD
503.5400	Type 'A' Manhole Reconstruction	2	EACH
503.5500	Type 'B' Drop Inlet Reconstruction	1	EACH
603.1020	24-Inch Reinforced Concrete Pipe, Class III or High Density Polyethylene Pipe	225	LIN FT
604.5110	Type 61214 Grated Drop Inlet, 4.00 Ft. to 4.99 Ft.	2	EACH
604.5600	Type 'C' Drop Inlet	1	EACH
605.0006	6-Inch Perforated Underdrain Pipe	20	LIN FT
605.0106	6-Inch Nonperforated Underdrain Pipe	180	LIN FT
609.2218	Gutter Type 2 (61218)	225	LIN FT

NOTE:

1. The existing 61218 gutter shall be removed to allow construction of the drainlines and drop intakes. Payment for removal of existing 61218 gutter shall be paid for under Section 206-Excavation and Backfill for Conduits and Structures.
2. The existing longitudinal underdrain located along the edge of shoulder shall remain.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD HIGHWAY
DRAINAGE & GRADING

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CF19 OF 30 SHEETS

"AS-BUILT"

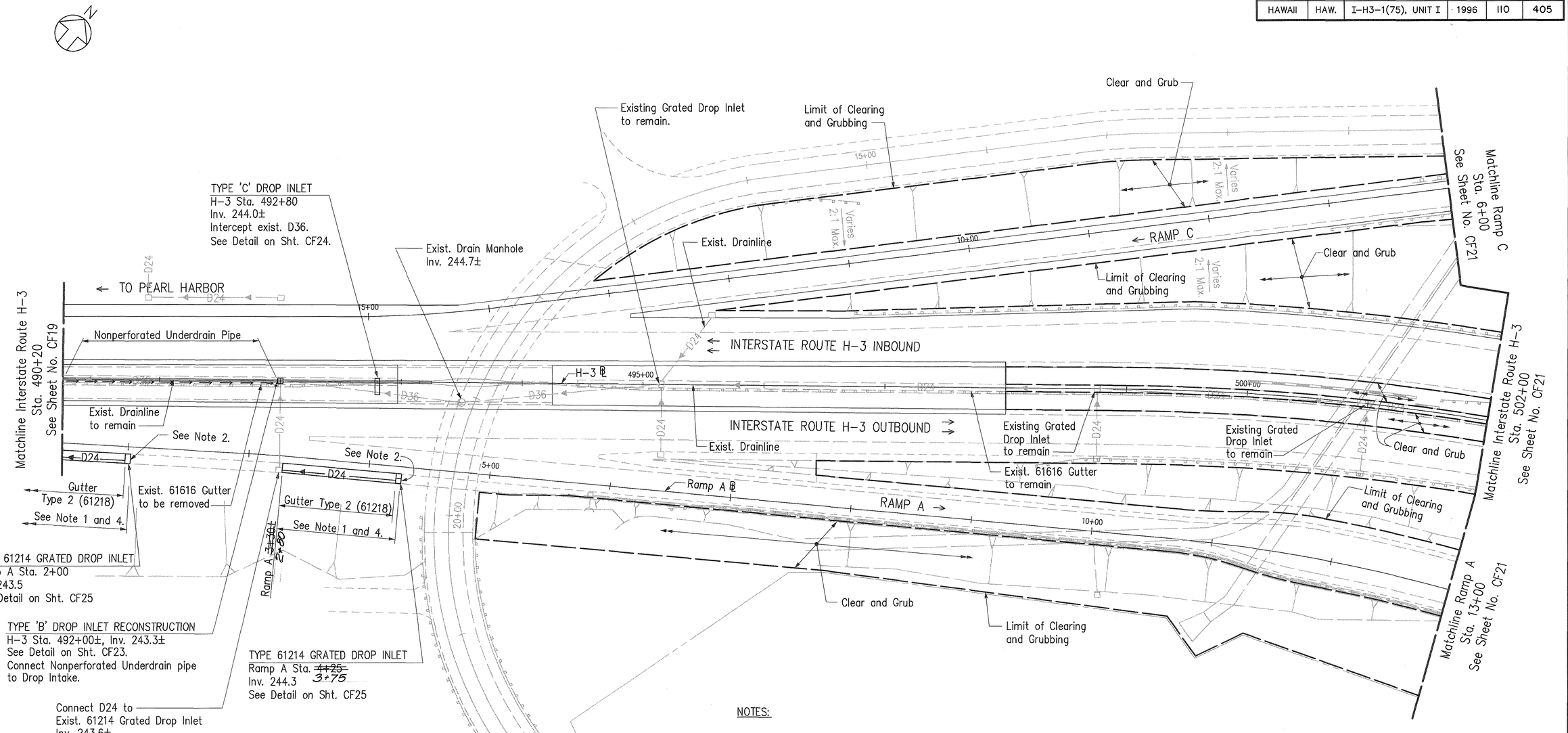
109

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

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	110	405



NOTES:

1. The existing 61218 gutter shall be removed to allow construction of the drainlines and drop inlets. Payment for removal of existing 61218 gutter shall be paid for under Secion 206-Excavation and Backfill for Conduits and Structures.
2. Saw cut existing gutter prior to excavation. Payment incidental to various contract items.
3. Limit of Clearing and Grubbing are approximate. Actual limits shall be established by the Engineer.
4. The existing longitudinal Underdrain located along the edge of shoulder shall remain.

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

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HALEKOU INTERCHANGE
DRAINAGE & GRADING

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

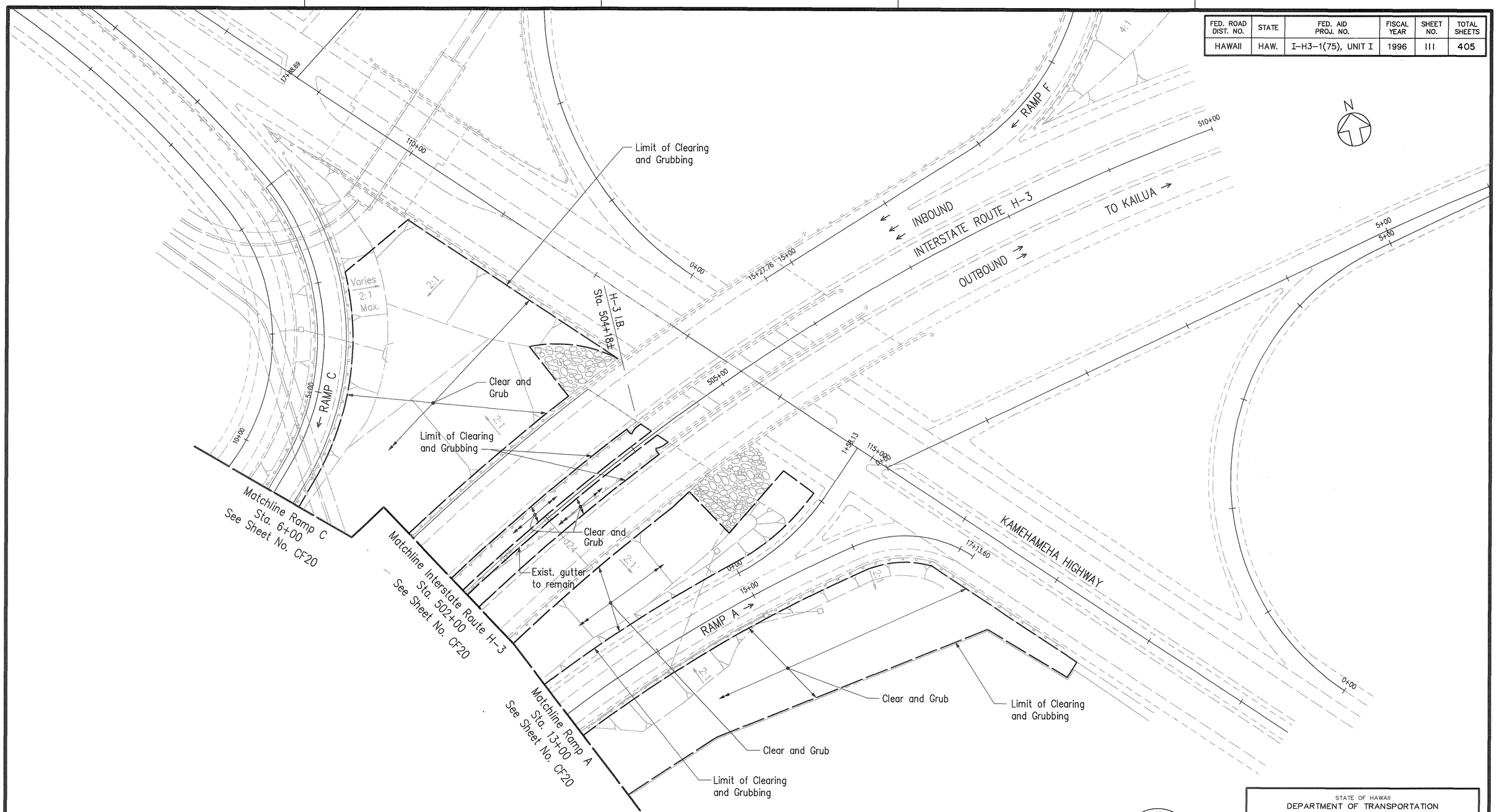
SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CF20 OF 30 SHEETS

"AS-BUILT"

110

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	111	405



NOTE:

Limit of Clearing and Grubbing are approximate.
Actual limits shall be established by the Engineer.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HALEKOU INTERCHANGE DRAINAGE AND GRADING

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 40' DATE: JANUARY 1996

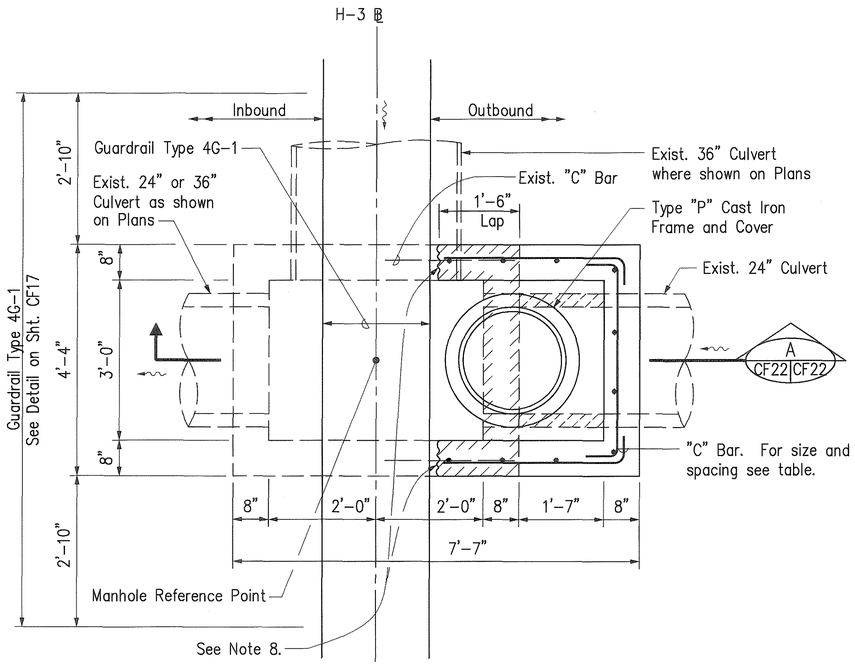
SHEET NO. CF21 OF 30 SHEETS

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

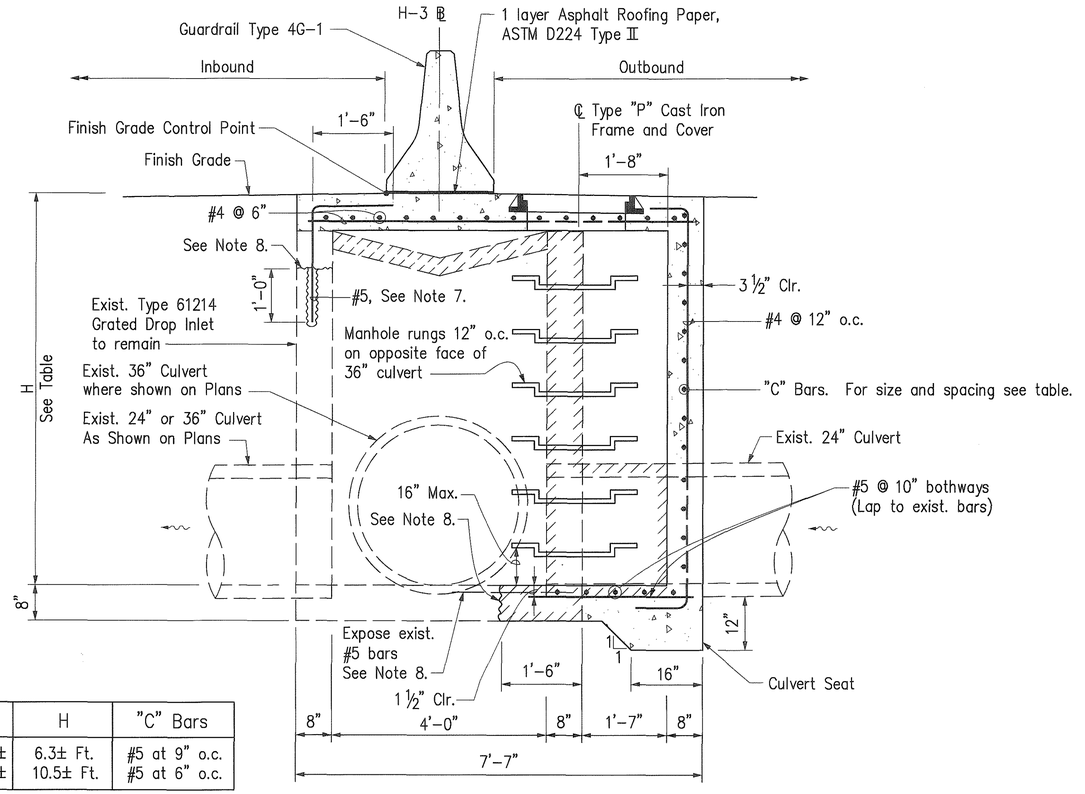
CAD by Q.D. TRUONG, 55-52

Last Saved: J:\H3RF\U1\ROAD\DR-HALE2.dwg 03/19/96 at 08:00

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	112	405



PLAN



SECTION A (CF22 CF22)

Location	H	"C" Bars
H-3 ℄ Sta. 485+00±	6.3± Ft.	#5 at 9" o.c.
H-3 ℄ Sta. 489+50±	10.5± Ft.	#5 at 6" o.c.

TYPE 'A' MANHOLE RECONSTRUCTION

H-3 STA. 485+00± ~~& STA. 489+50±~~

H-3 Sta. 489+50± Reconstructed from 4'-4"×7'-7" to 5'-6"×8'-0"

H-3 Sta. 490+20± Reconstructed from 4'-4"×7'-7" to 7'-6×8'-0"

LEGEND:

Existing structure or culvert to be removed

NOTES:

1. For drop inlet dimensions and reinforcing details not shown, see Type 61614 Grated Drop Inlet on Standard Plan H-11.
2. For Type "P" Manhole Frame and Cover, see Standard Plan H-08.
3. For Manhole Rungs, see Standard Plan H-08.
4. For culvert seat dimension and reinforcing details not shown, see Detail of Culvert Seat on Standard Plan H-04.
5. For Top Slab Reinforcing, see Standard Plan H-05.
6. For reinforcing around culvert, see Detail "A" in Standard Plan H-05.
7. Drill ¾"Ø x 1'-0" deep hole, clean the hole and fill 2/3 full with epoxy grout and insert #5 reinforcing bar.
8. Demolish exist. concrete and extend exist. reinforcement into new concrete. The interface between new and old concrete shall be clean, free of laitance and roughened to a full amplitude of approximately ¼". Epoxy bonding material shall be coated on the roughened surface immediately prior to paving new concrete.
9. See Sht. CF17 for Guardrail Type 4G-1.

ORIGINAL DRAWN BY _____ DATE _____
PLANK _____
NOTE BOOK TRACED BY _____
DESIGNED BY _____
QUANTITIES BY _____
CHECKED BY _____
No. _____

CAD by G.D. TRUONG, 05-02

Last Saved: J:\H3RF\U1\DET\WV-DRN01.dwg 03/19/96 at 10:08

HUI PANG CHEN
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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Huipang Chen

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD HIGHWAY
DRAINAGE DETAILS

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

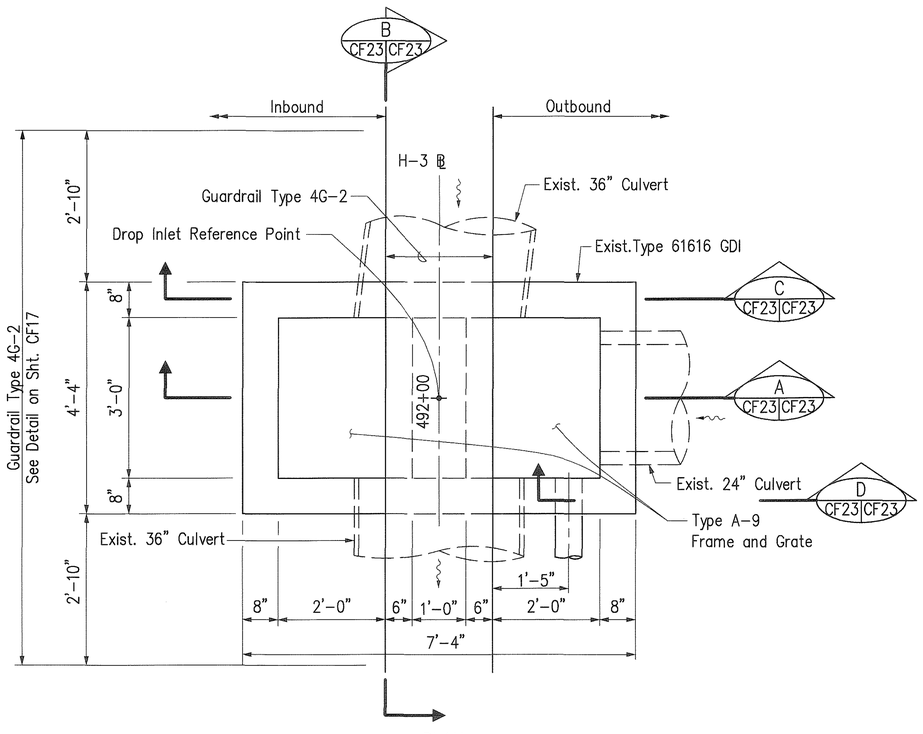
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SHEET NO. CF22 OF 30 SHEETS

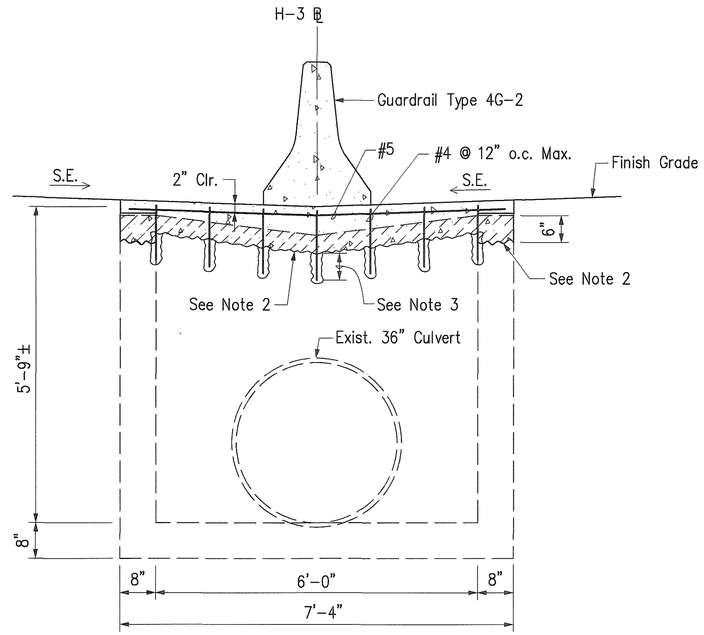
"AS-BUILT"

112

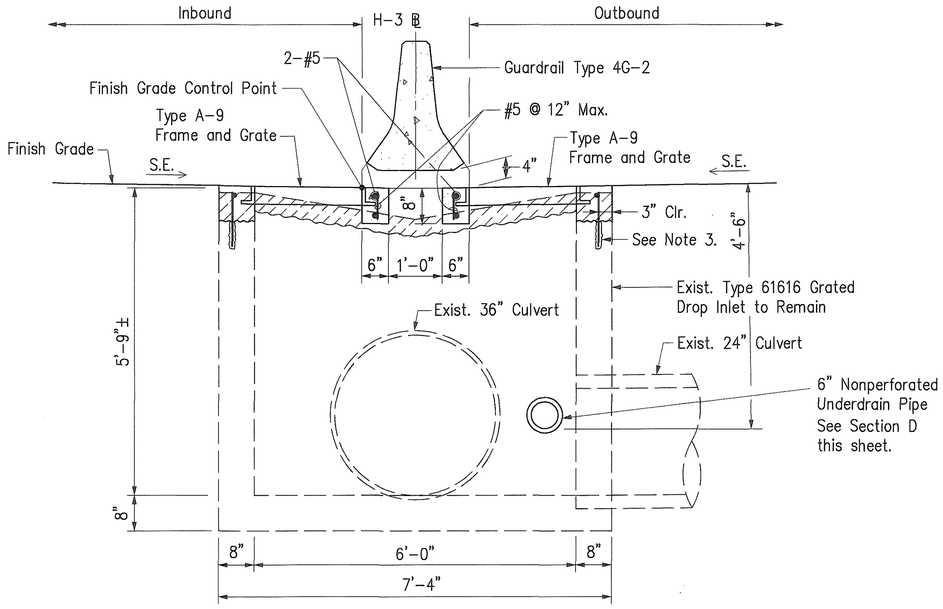
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	113	405



PLAN
Scale: 3/4" = 1'-0"

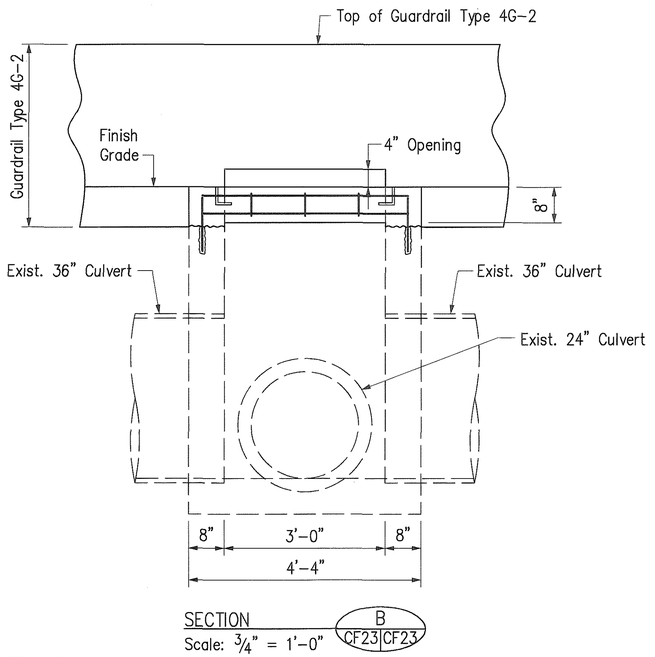


SECTION
Scale: 3/4" = 1'-0"
C CF23 CF23



SECTION
Scale: 3/4" = 1'-0"
A CF23 CF23

TYPE 'B' DROP INLET RECONSTRUCTION
H-3 STA. 492+00±



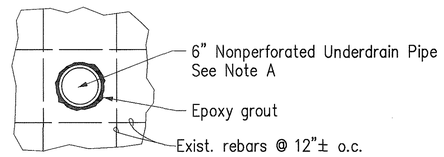
SECTION
Scale: 3/4" = 1'-0"
B CF23 CF23

LEGEND

Existing structure to be removed

NOTES:

1. For drop intake dimensions and reinforcing details not shown, see Type 61616 Grated Drop Inlet on Standard Plan H-12.
2. Remove top 6" of existing concrete. The Interface between new and existing concrete shall be clean free of laitance and roughened to full amplitude of 1/4". Epoxy bonding material shall be applied to the roughened surface immediately prior to pouring concrete.
3. Drill 3/4" ø x 6" deep hole, clean the hole and fill 2/3 full with epoxy grout and insert #4 reinforcing bar.



Note A:

The Contractor shall avoid cutting the existing rebars. In case the pipe opening interferes with the existing rebars, the opening shall be enlarged and the location of the pipe shall be adjusted to pass between the existing rebars as shown. The enlarged hole shall be patched with epoxy grout.

SECTION
Scale: 1" = 1'-0"
D CF23 CF23

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

CAD by J. Mimura, 55-52

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Huipang Chen

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

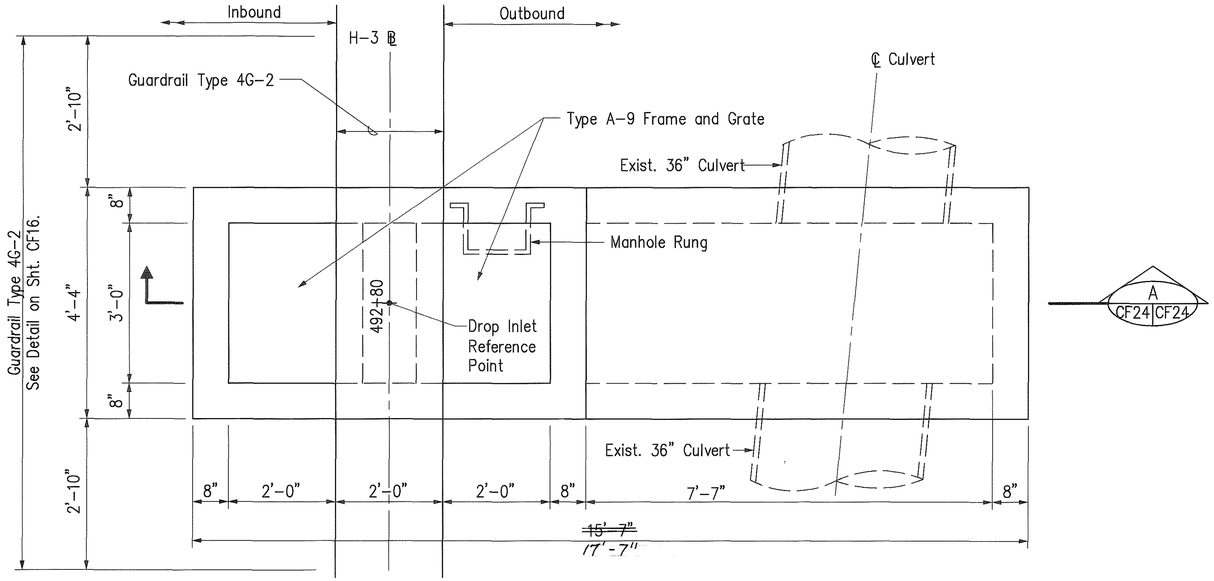
HALEKOU INTERCHANGE
DRAINAGE DETAILS

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

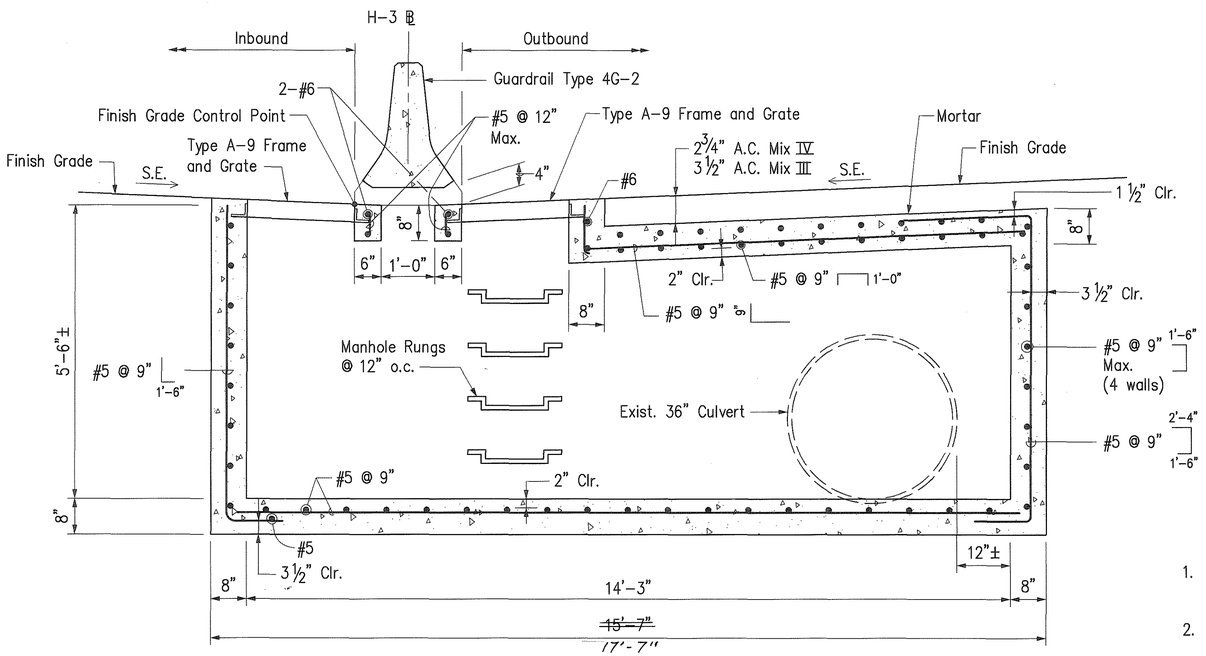
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SHEET NO. CF23 OF 30 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	114	405



PLAN



SECTION A CF24 | CF24

TYPE 'C' DROP INLET
H-3 STA. 492+80

NOTES:

1. Contractor shall verify the location of the exist. 36" Culvert before commencing work.
2. For Type "P" Manhole Frame and Cover, see Standard Plan H-08.
3. For Manhole Rungs, see Standard Plan H-08.
4. For reinforcing around culvert, see Detail "A" on Standard Plan H-05.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HALEKOU INTERCHANGE DRAINAGE DETAILS

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 3/4" = 1'-0" DATE: JANUARY 1996

SHEET NO. CF24 OF 30 SHEETS

"AS-BUILT"

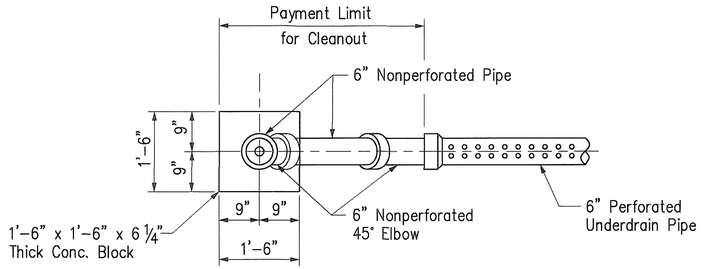
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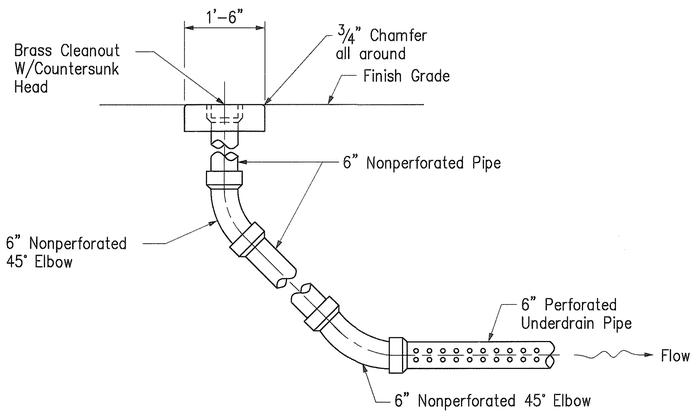
CAD by J. Kimura, 55-52

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HAWAII	HAW.	I-H3-1(75), UNIT I	1996	115	405



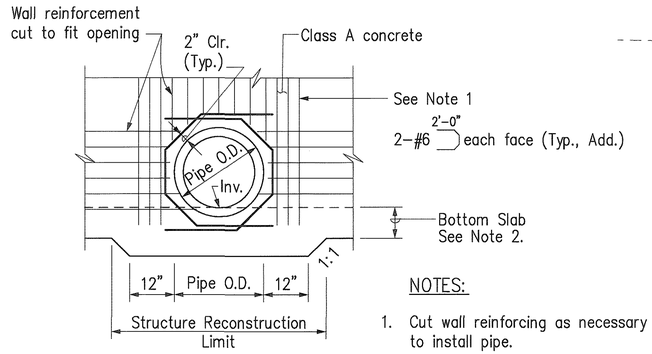
PLAN



ELEVATION

TYPICAL CLEANOUT DETAIL

Scale: 3/4" = 1'-0"



NOTES:

1. Cut wall reinforcing as necessary to install pipe.
2. Provide culvert seat. For detail of culvert seat, see Standard Plan H-05.

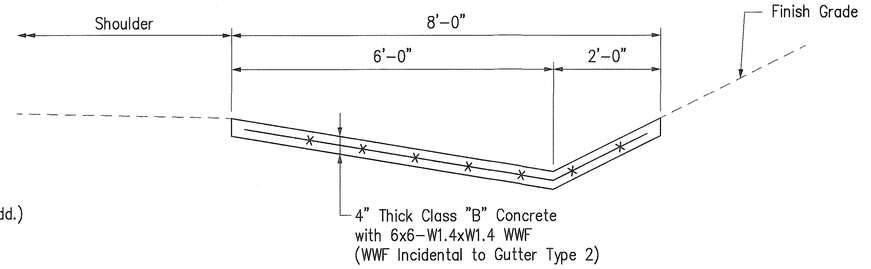
ADDED REINFORCING FOR PIPE OPENING

Not to Scale

TRANSVERSE UNDERDRAIN PIPE @ H-3 STA. 490+20±

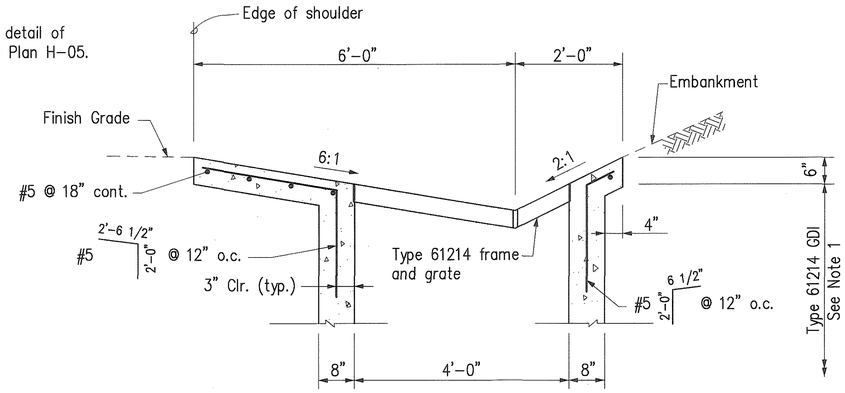
Scale: 3/8" = 1'-0"

Note:
See P.C.C. Pavement to A.C. Pavement Transition Detail, Median Pavement Longitudinal Section on Sht. CF15 for additional information.



GUTTER TYPE 2 (61218)

Scale: 3/4" = 1'-0"



TYPE 61214 GDI

Scale: 3/4" = 1'-0"

NOTE:

1. See Type 61214 Grated Drop Inlet on Standard Plan H-11 for concrete and reinforcing details not shown.

RANDALL M. URASAKI
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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD HIGHWAY/ HALEKOU INTERCHANGE DRAINAGE DETAILS

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: AS SHOWN DATE: JANUARY 1996

SHEET NO. CF25 OF 30 SHEETS

115

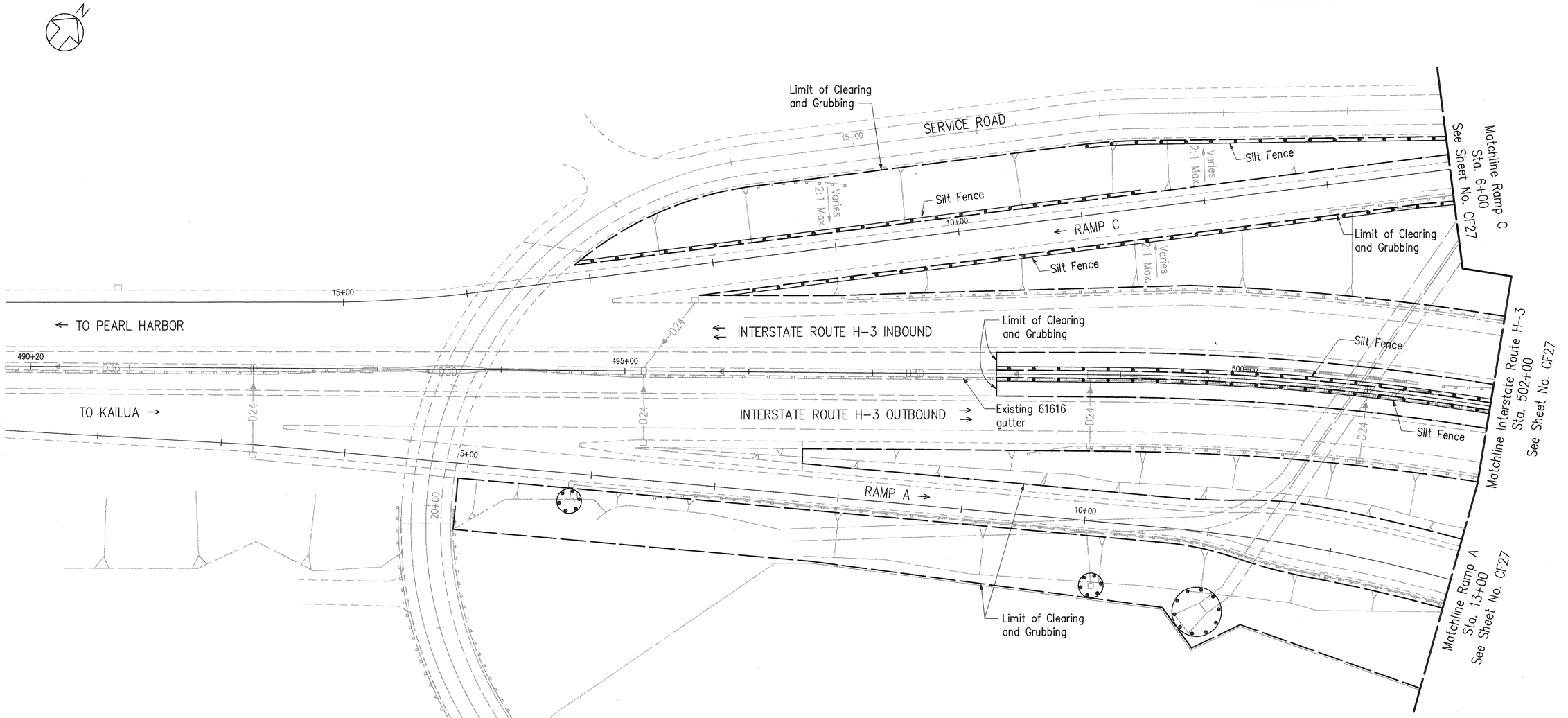
ORIGINAL PLAN
NOTE BOOK
No.
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

CAD by G.D. TRUONG, 55-52

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115

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	116	405



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

CAD by J. Mimura, 55-52

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HALEKOU INTERCHANGE EROSION CONTROL PLAN

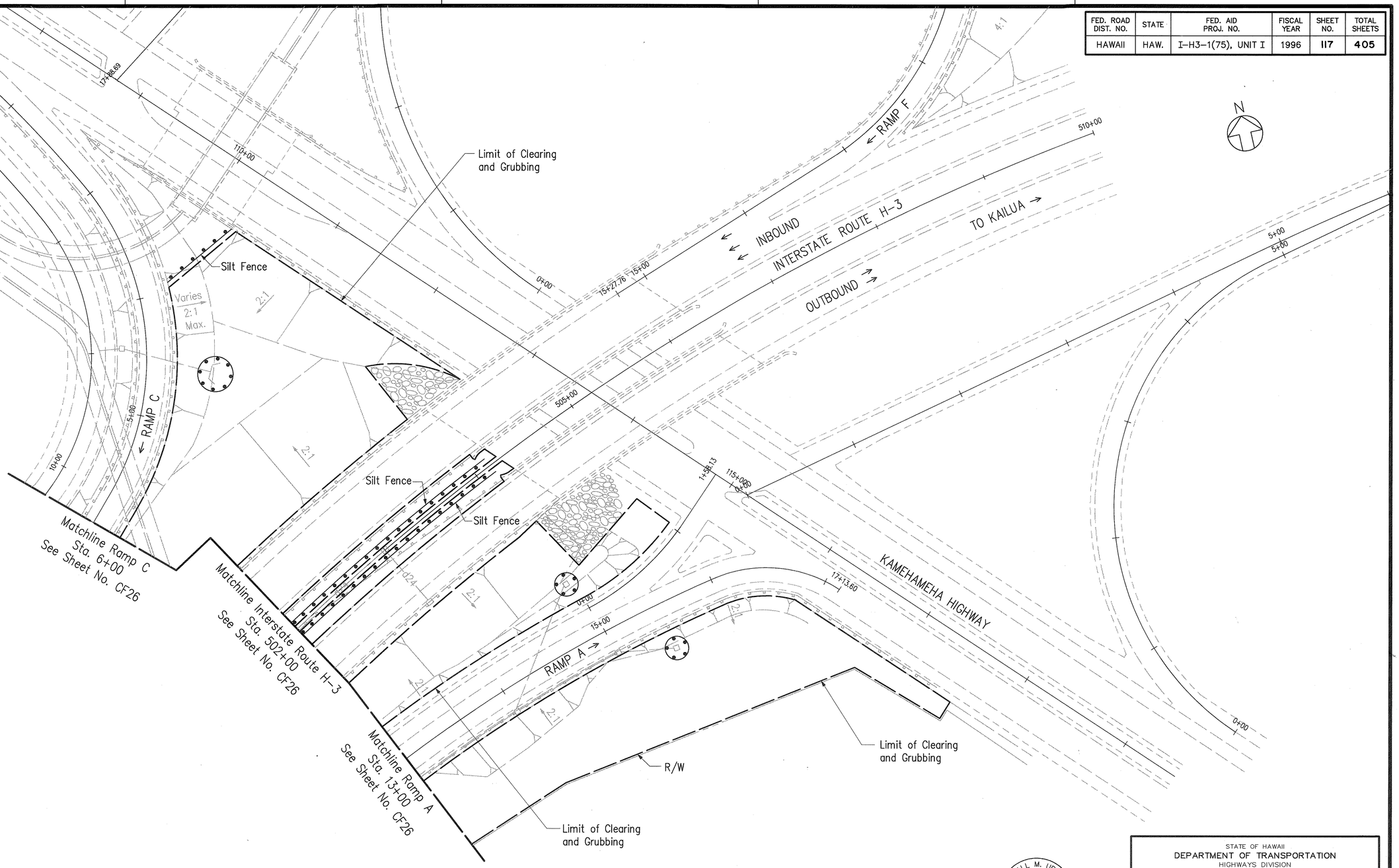
INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CF26 OF 30 SHEETS

116

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HAWAII	HAW.	I-H3-1(75), UNIT I	1996	117	405



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

CAD by J. Mimura, 55-52

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HALEKOU INTERCHANGE EROSION CONTROL PLAN

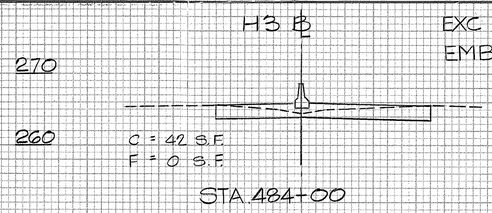
INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CF27 OF 30 SHEETS

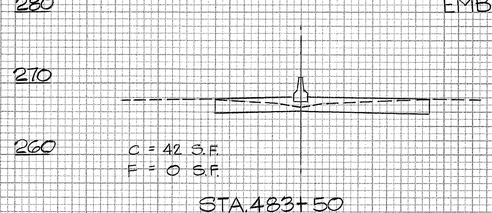
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HAWAII	HAW.	IH3-1(75),UNIT I	1996	118	405

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EMB = 0 C.Y.



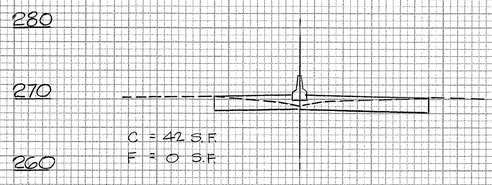
STA. 484+00

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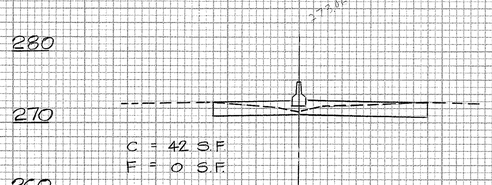
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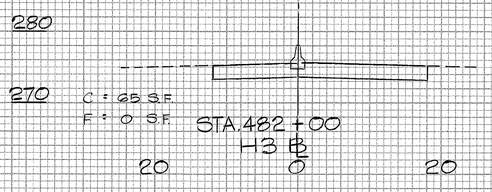
STA. 482+00

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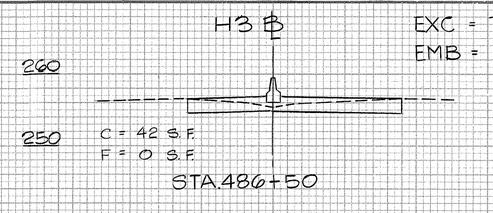


STA. 482+50

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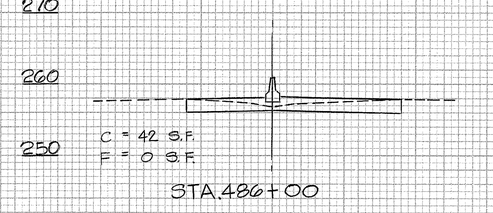


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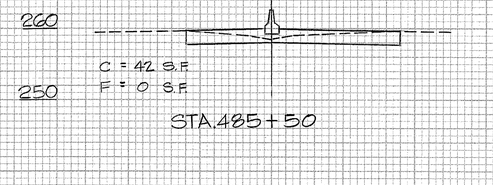
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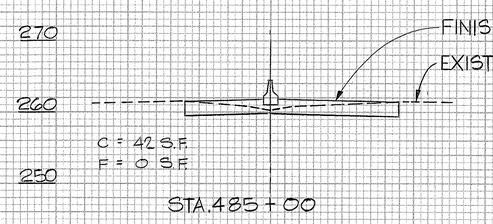
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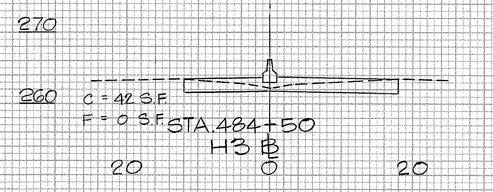
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STA. 485+00

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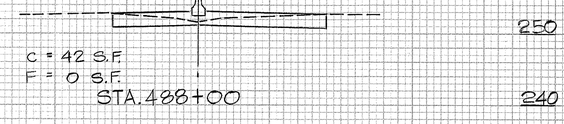


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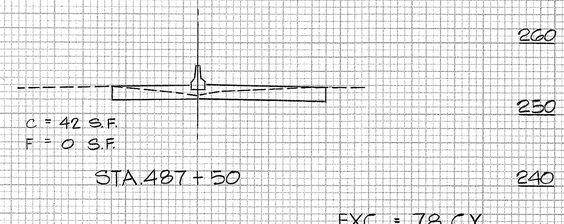
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EMB = 0 C.Y.



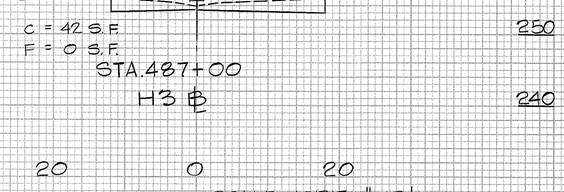
STA. 488+00

EXC = 78 C.Y.
EMB = 0 C.Y.



STA. 487+50

EXC = 78 C.Y.
EMB = 0 C.Y.



RANDALL M. URASAKI
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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WINDWARD HWY./HALEKOU INTERCHANGE

SCALE: HORIZ. 1"=10'
VERT. 1"=10'

SHEET NO. CF28 OF 30 SHEETS

118

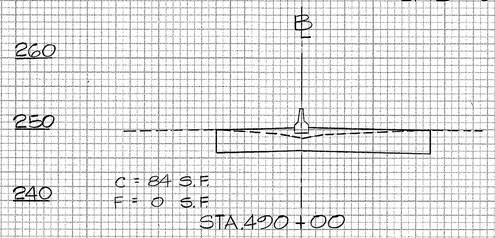
115 (1) B.T.

84732

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IH3-1(75),UNIT I	1996	119	405

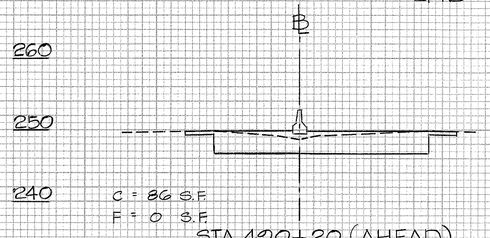
FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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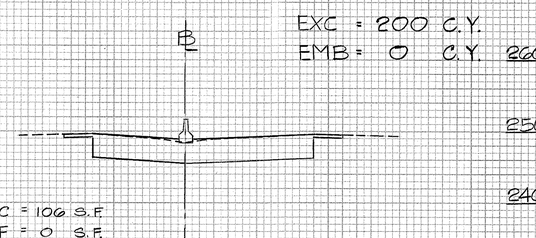
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F = 0 S.F.
STA. 490+00

EXC = 100 C.Y.
EMB = 0 C.Y.



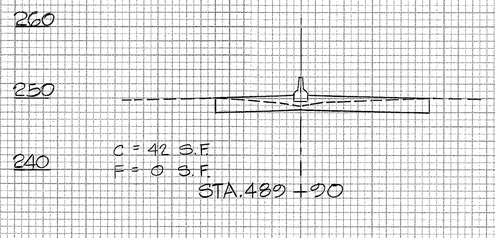
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STA. 490+20 (AHEAD)

EXC = 200 C.Y.
EMB = 0 C.Y.

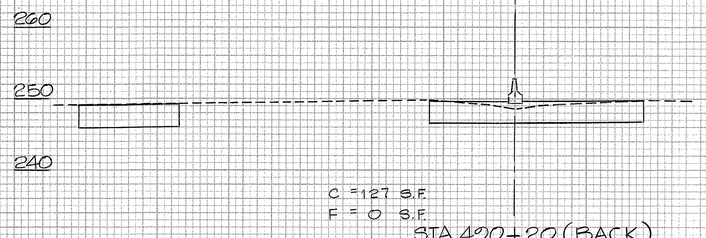


C = 106 S.F.
F = 0 S.F.
STA. 492+00

EXC = 23 C.Y.
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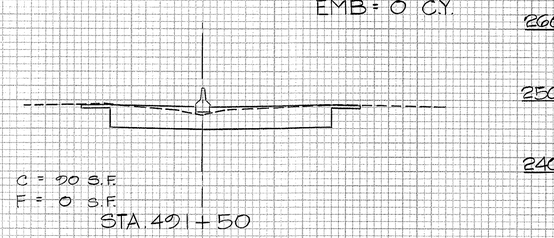


C = 42 S.F.
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STA. 489+90



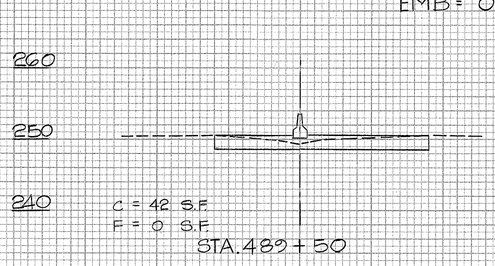
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STA. 490+20 (BACK)

EXC = 181 C.Y.
EMB = 0 C.Y.



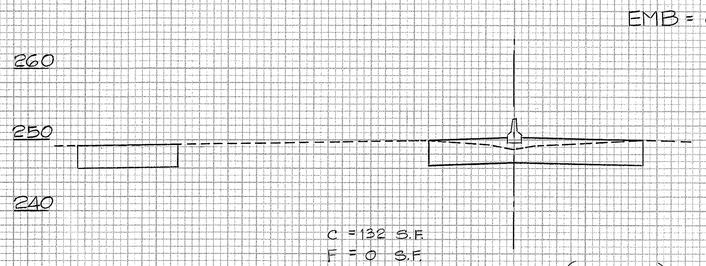
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F = 0 S.F.
STA. 491+50

EXC = 62 C.Y.
EMB = 0 C.Y.



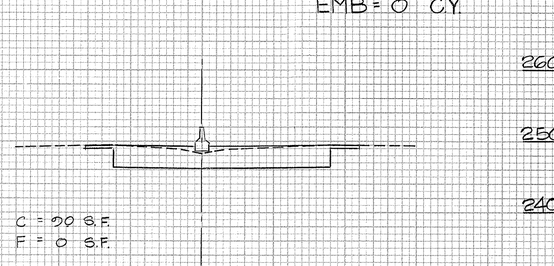
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F = 0 S.F.
STA. 489+50

EXC = 77 C.Y.
EMB = 0 C.Y.



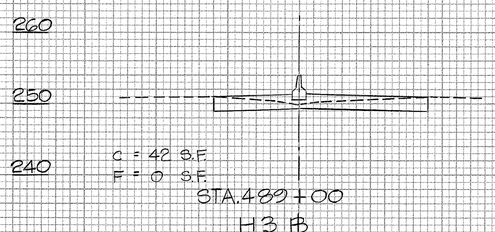
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F = 0 S.F.
STA. 490+04 (AHEAD)

EXC = 167 C.Y.
EMB = 0 C.Y.

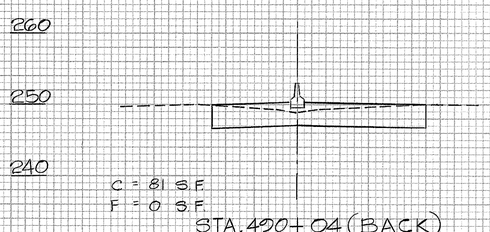


C = 90 S.F.
F = 0 S.F.
STA. 491+00

EXC = 78 C.Y.
EMB = 0 C.Y.

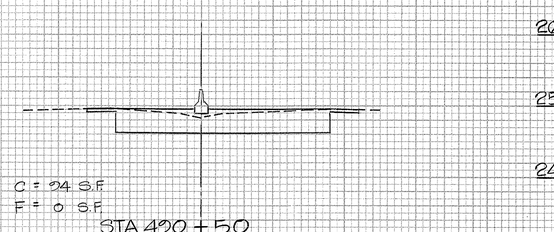


C = 42 S.F.
F = 0 S.F.
STA. 489+00
H3 ℄



C = 81 S.F.
F = 0 S.F.
STA. 490+04 (BACK)
H3 ℄

EXC = 170 C.Y.
EMB = 0 C.Y.



C = 94 S.F.
F = 0 S.F.
STA. 490+50
H3 ℄

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

20 0 20 60 40 20 0 20 20 0 20 40

RANDALL M. URASAKI
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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Randall M. Urasaki

WINDWARD HWY./HALEKOU INTERCHANGE

SCALE: HORIZ. 1"=10'
VERT. 1"=10'

SHEET NO. CF29 OF 30 SHEETS

119

11th shutter count from 8/23 to 9

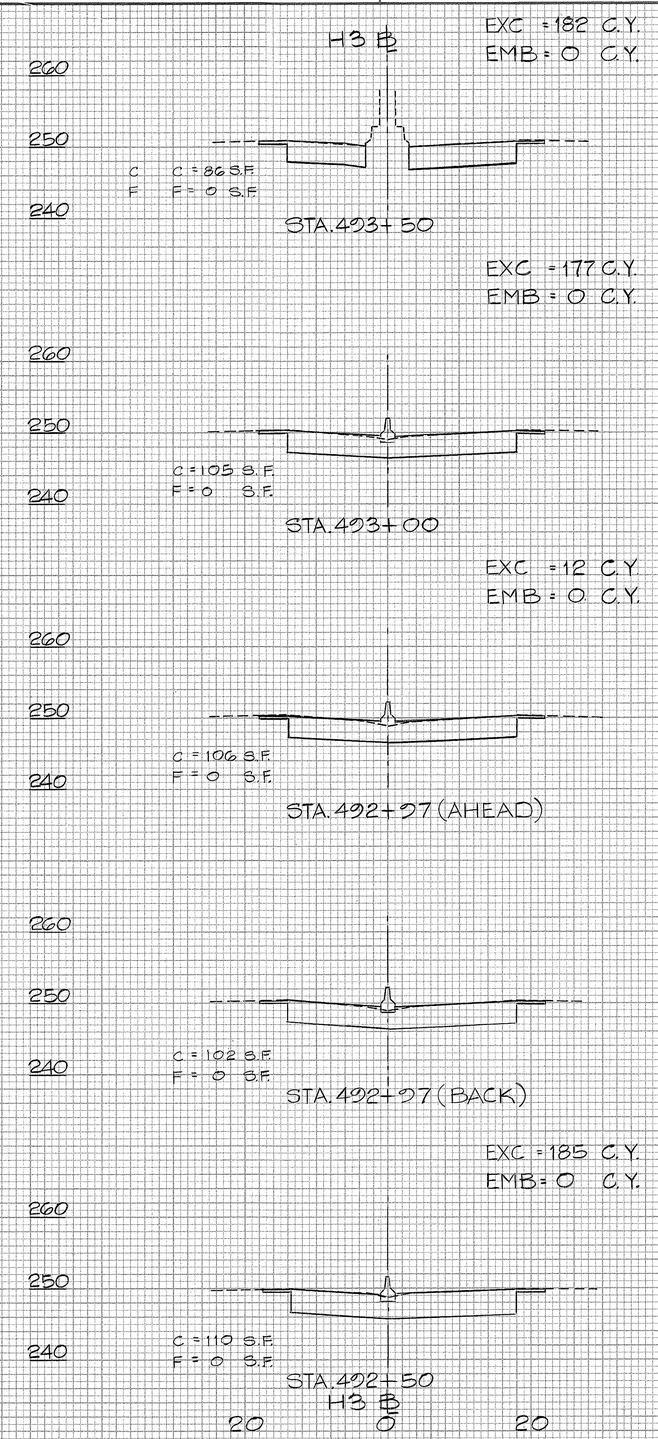
119 (2) S.T.

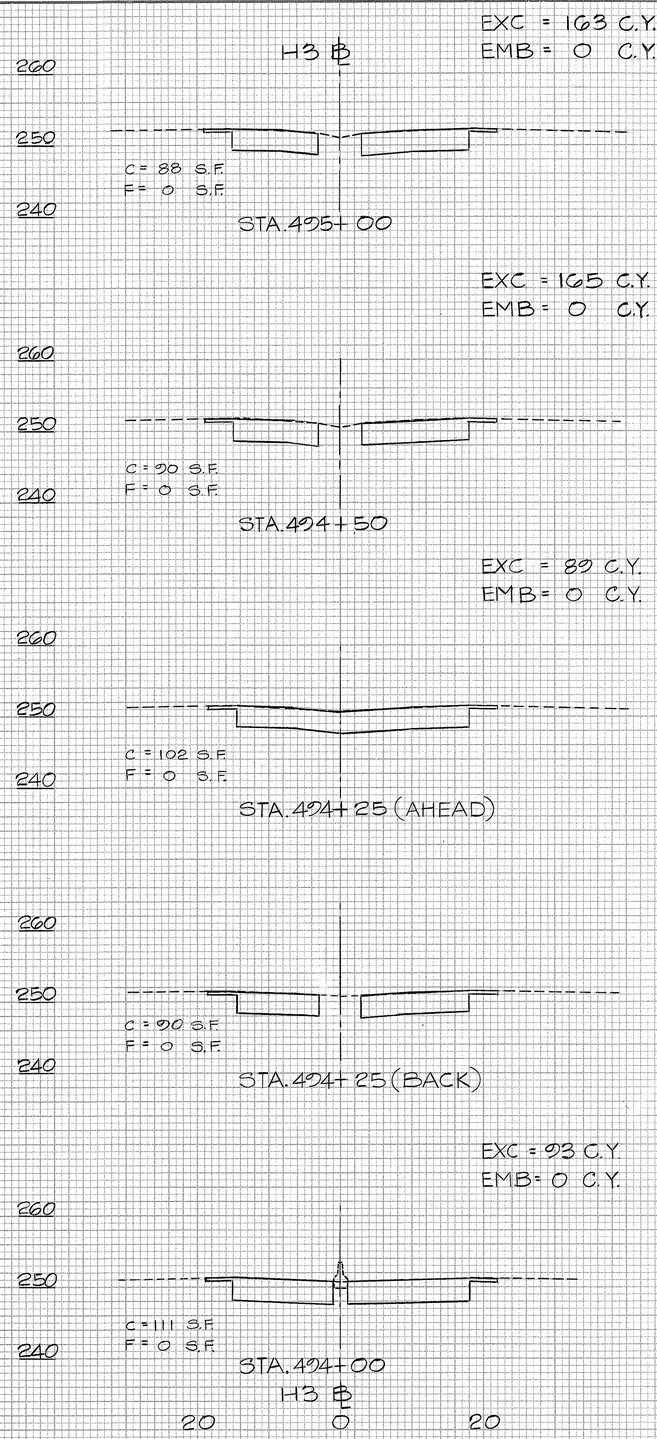
84732

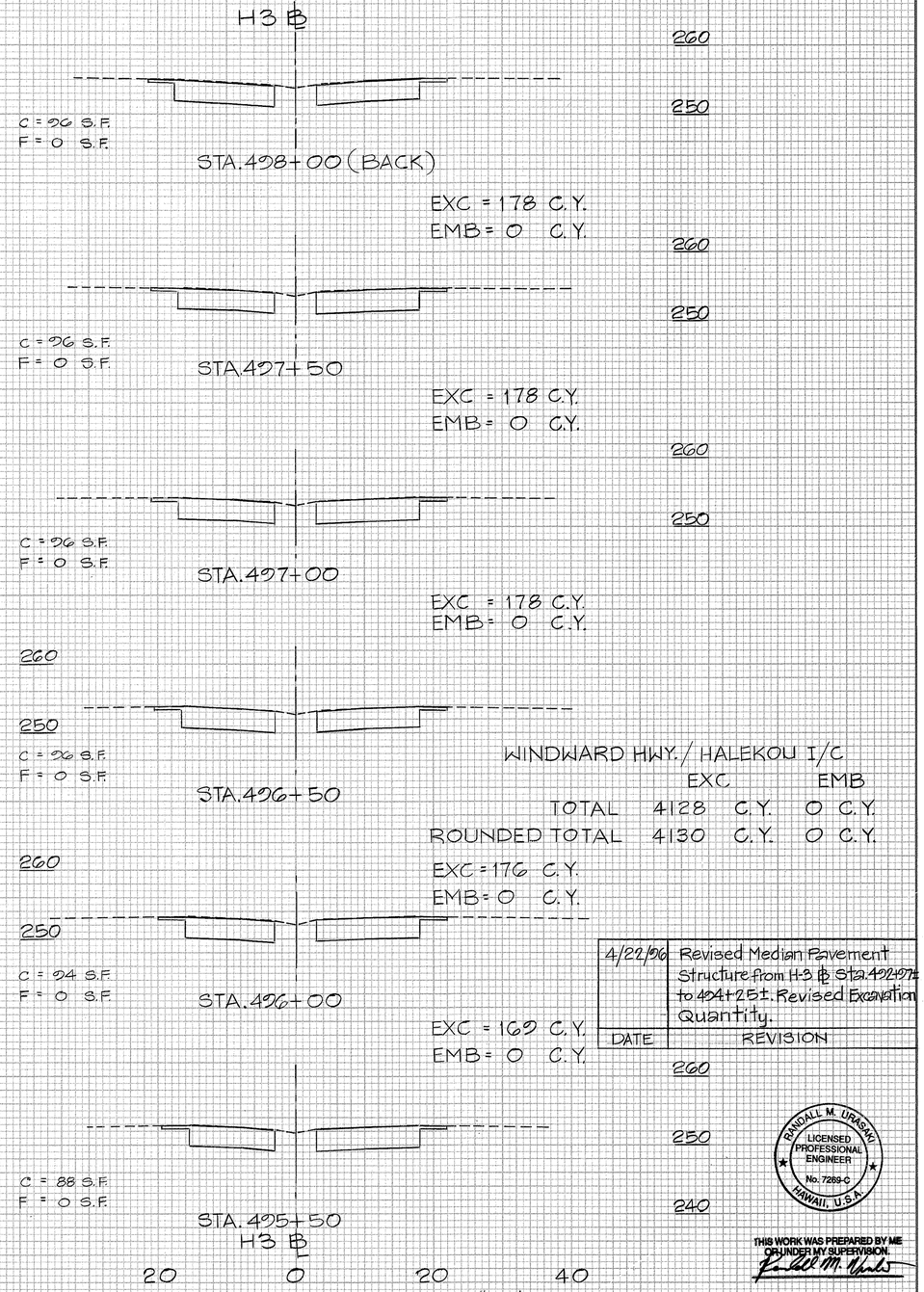
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I H3-1(75),UNIT I	1996	120	405

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		







WINDWARD HWY./ HALEKOU I/C

	EXC.	EMB
TOTAL	4128 C.Y.	0 C.Y.
ROUNDED TOTAL	4130 C.Y.	0 C.Y.

DATE	REVISION
4/22/96	Revised Median Pavement Structure from H-3 ℄ Sta. 492+97± to 494+25±. Revised Excavation Quantity.

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WINDWARD HWY./HALEKOU INTERCHANGE

SCALE: HORIZ. 1"=10'
VERT. 1"=10' SHEET NO. CF30 OF 30 SHEETS

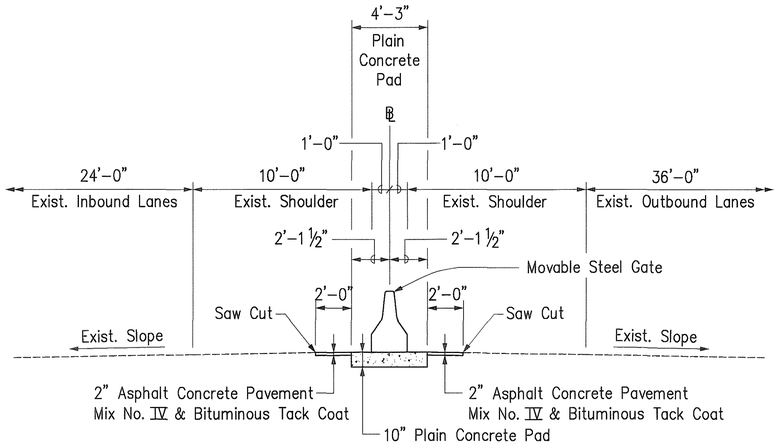
ADD. 120

Ent'd checked by [illegible] 1/24/96

T & F checked by [illegible] 2/1/96

120

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	121	405



TYPICAL SECTION – INBOUND AND OUTBOUND LANES

Scale: ¼"=1'-0"

ABBREVIATIONS

AC	Asphalt Concrete
℄	Baseline
℄	Centerline
cl.	Clear
SDMH	Storm Drain Manhole

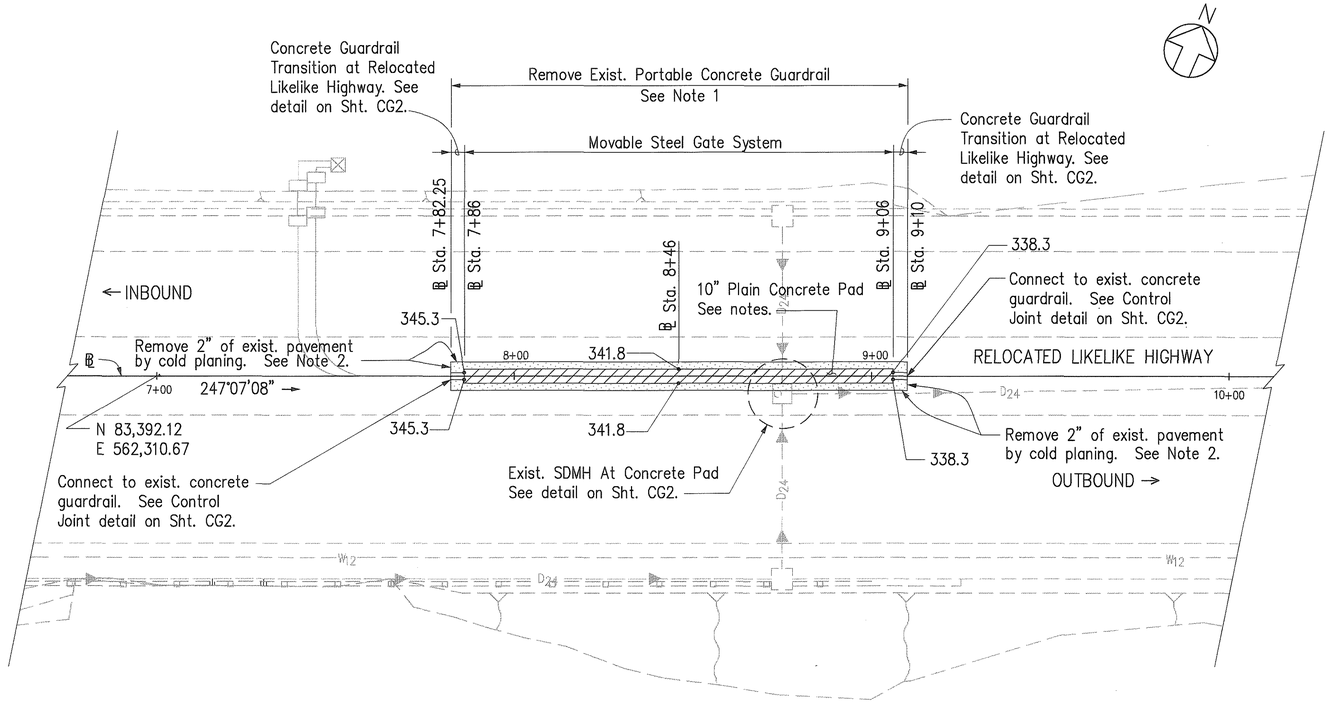
LEGEND

- 10" Plain Concrete Pad
- 2" Asphalt Concrete Pavement Mix No. Ⅳ & Bituminous Tack Coat
- 338.3 — Top of concrete pad elevation

NOTES

1. Move portable concrete guardrail to location specified by the Engineer. Payment for removal of exist. portable concrete guardrail shall be considered incidental to various contract items.
2. Saw cut pavement before removal. Payment for saw cutting and cold planing shall be considered incidental to various contract items.
3. Concrete for the 10" Plain Concrete Pad shall be 4000 psi minimum strength Portland Cement Concrete with graded aggregate and 3" maximum slump.
4. Sawed contraction joints for the 10" Plain Concrete Pad shall be spaced 15' apart and extend into the slab to a depth of 1½".
5. The Engineer will not pay for the 10" Plain Concrete Pad nor sawed contraction joints separately and will consider payment incidental to the Movable Steel Gate System at Relocated Likelike Highway.

ROADWAY EXCAVATION QUANTITIES		
	EXC. (CU. YD.)	EMB. (CU. YD.)
Relocated Likelike Highway	1	0



PLAN

Scale: 1"=20'

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

CAD by J. Mimura, 55-52

Last Saved: J:\H3RF\U1\CROSSOVR\X-RDWY.dwg 03/19/96 at 09:00

KEITH T. NAKANO
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HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

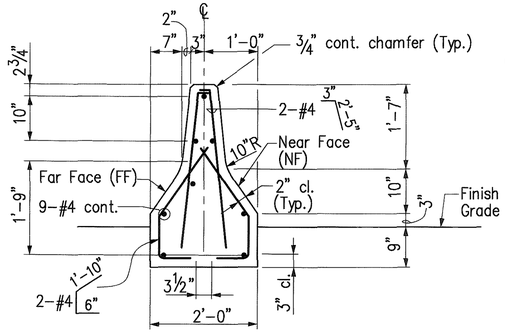
EMERGENCY CROSSOVER RELOCATED LIKELIKE HIGHWAY ROADWAY CONSTRUCTION

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

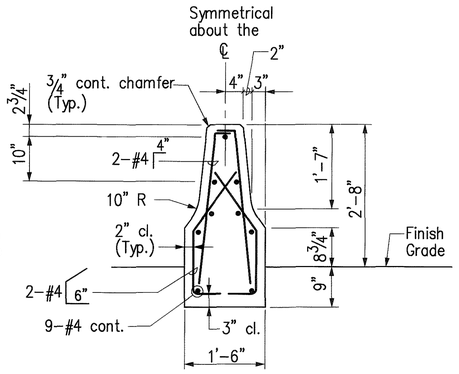
SCALE: AS SHOWN DATE: JANUARY 1996

SHEET NO. CG1 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	122	405



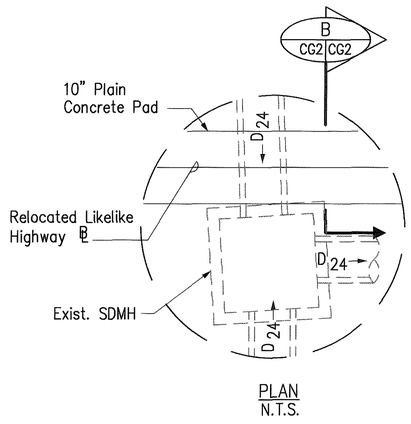
SECTION @ STA. 7+82.25 & STA. 9+10



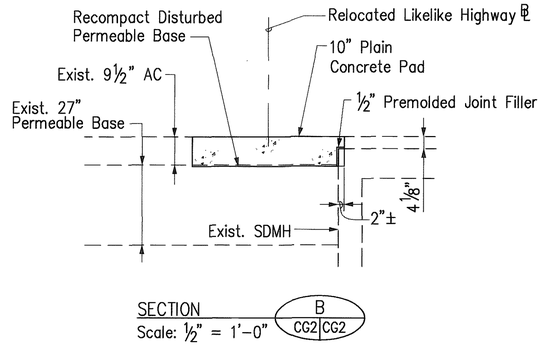
SECTION @ STA. 7+86 & STA. 9+06

CONCRETE GUARDRAIL TRANSITION AT RELOCATED LIKELIKE HIGHWAY

Scale: ¾" = 1'-0"

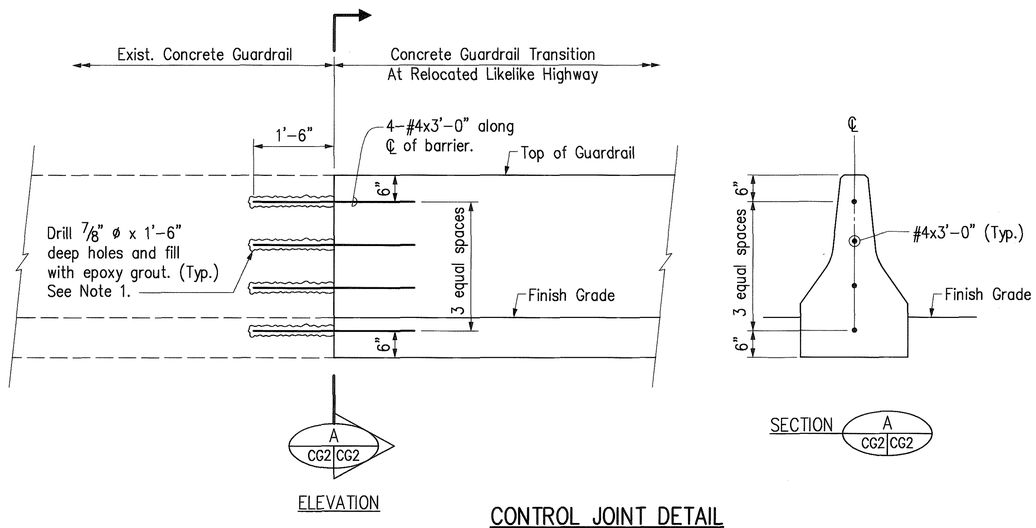


PLAN
N.T.S.



SECTION B (CG2 CG2)
Scale: ½" = 1'-0"

EXISTING SDMH AT CONCRETE PAD



ELEVATION

SECTION A (CG2 CG2)

CONTROL JOINT DETAIL

Scale: ¾" = 1'-0"

NOTES:

1. The holes for dowels shall be drilled perpendicular to the existing concrete surfaces. When the drill contacts any existing rebar, the hole shall be filled with epoxy grout and a replacement hole shall be drilled so that the spacing of dowels will be maintained. Contractor shall avoid cutting existing rebar. Payment for dowels, drilling holes and filling of epoxy grout shall be considered incidental to Concrete Guardrail Transition At Relocated Likelike Highway.

2. The exterior surface and vertical alignment of the concrete guardrail shall be constructed to give a uniform and presentable appearance. The Engineer will determine the acceptability of the work.

   During the course of the work, samples may be tested and measurements made to establish whether or not the specified values or dimensions are being met. If the specified values or dimensions are not being met, the Engineer will determine the degree of the non-conformance, the effect on the serviceability of the project, whether the work be accepted and remain in place and, if so, the amount to be paid for such work, or whether the work shall be removed and replaced or otherwise corrected at the Contractor's expense.

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

CAD by Q.D. TRUONG, 55-52

Last Saved: J:\H3RF\U1\CROSSOVR\XOVR-DET.dwg 03/08/96 at 14:34

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

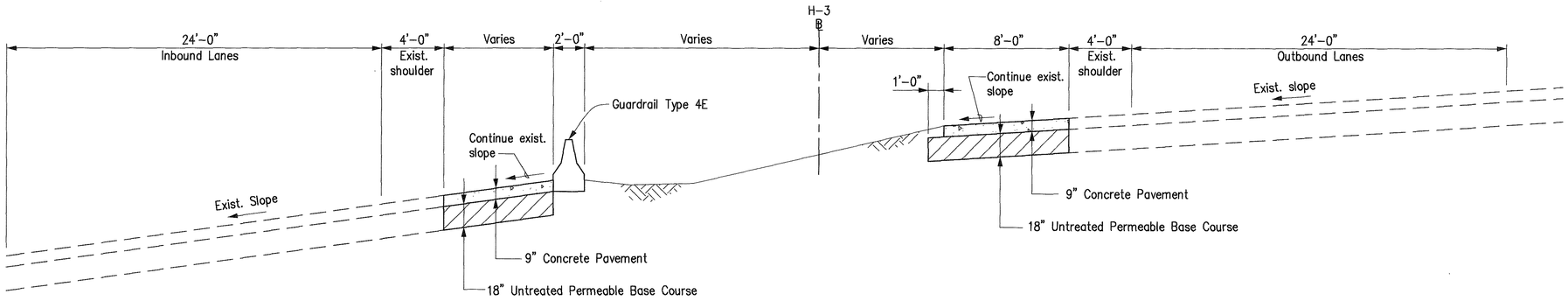
EMERGENCY CROSSOVER RELOCATED LIKELIKE HIGHWAY DETAILS

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

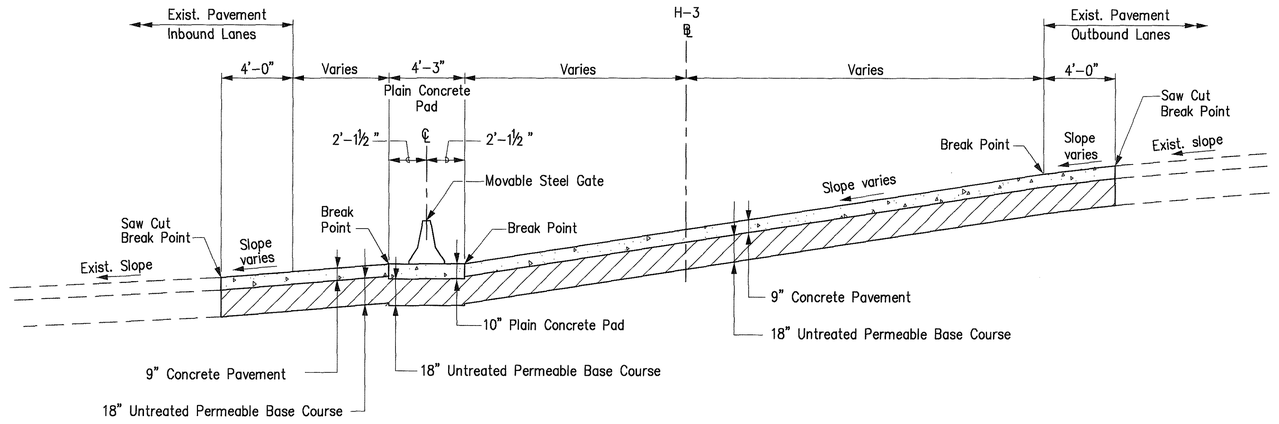
SCALE: AS SHOWN DATE: JANUARY 1996

SHEET NO. CG2 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	123	405



TYPICAL SECTION – INBOUND AND OUTBOUND LANES



TYPICAL SECTION – INBOUND AND OUTBOUND LANES
STA. 399+65 TO STA. 400+35

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

CAD by Q.D. TRUONG, 55-52

Last Saved: J:\H3RF\U1\CROSSOVR\DETAIL.dwg 02/27/96 at 08:06

KEITH T. NAKANO
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HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

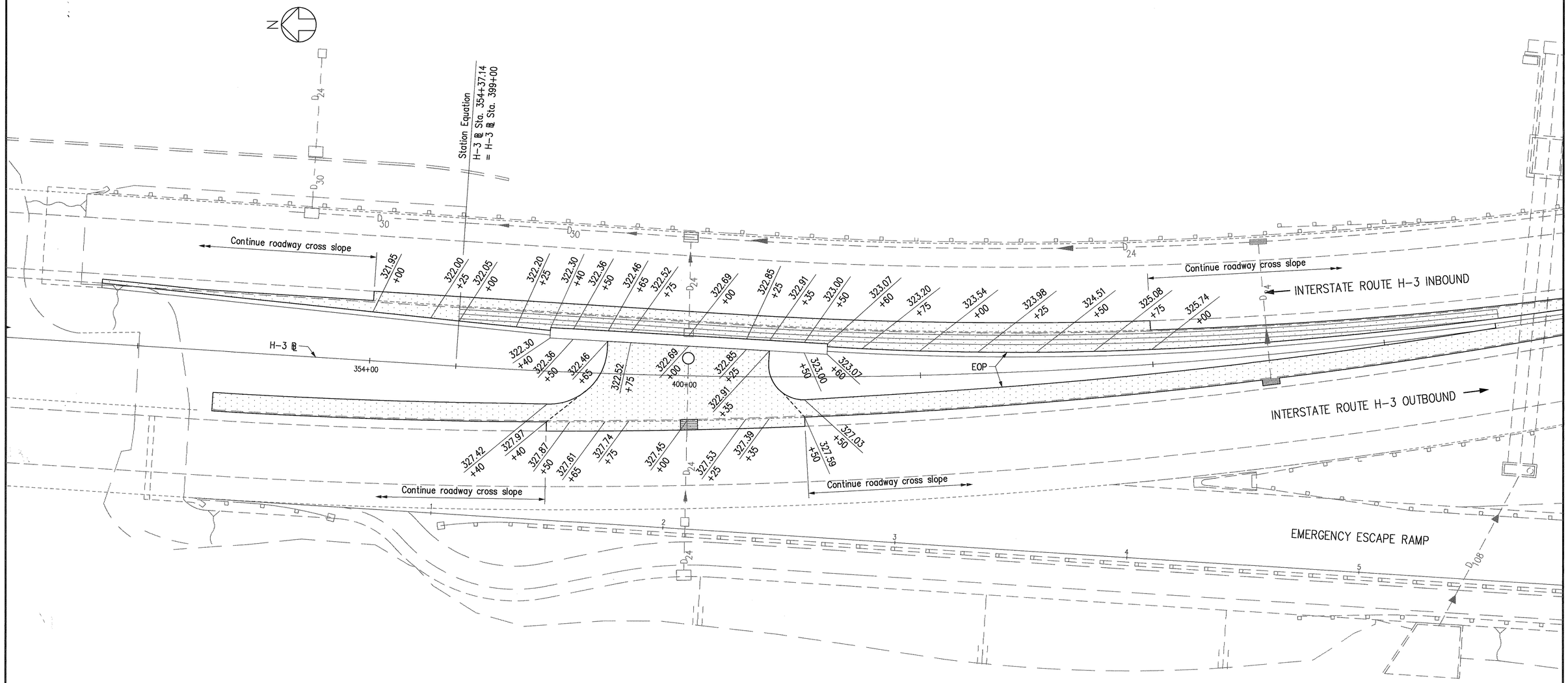
EMERGENCY CROSSOVER
WINDWARD HIGHWAY
TYPICAL SECTION

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1/4"=1'-0" DATE: JANUARY 1996

SHEET NO. CG3 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	124	405



LEGEND

327.97 / +40 — Elevation / Station

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

CAD by O.D. TRUONG, 55-52

Last Saved: J:\H3RF\U1\CROSSOVR\WW_ELEV.dwg 02/27/96 at 08:58

KEITH T. NAKANO
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HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

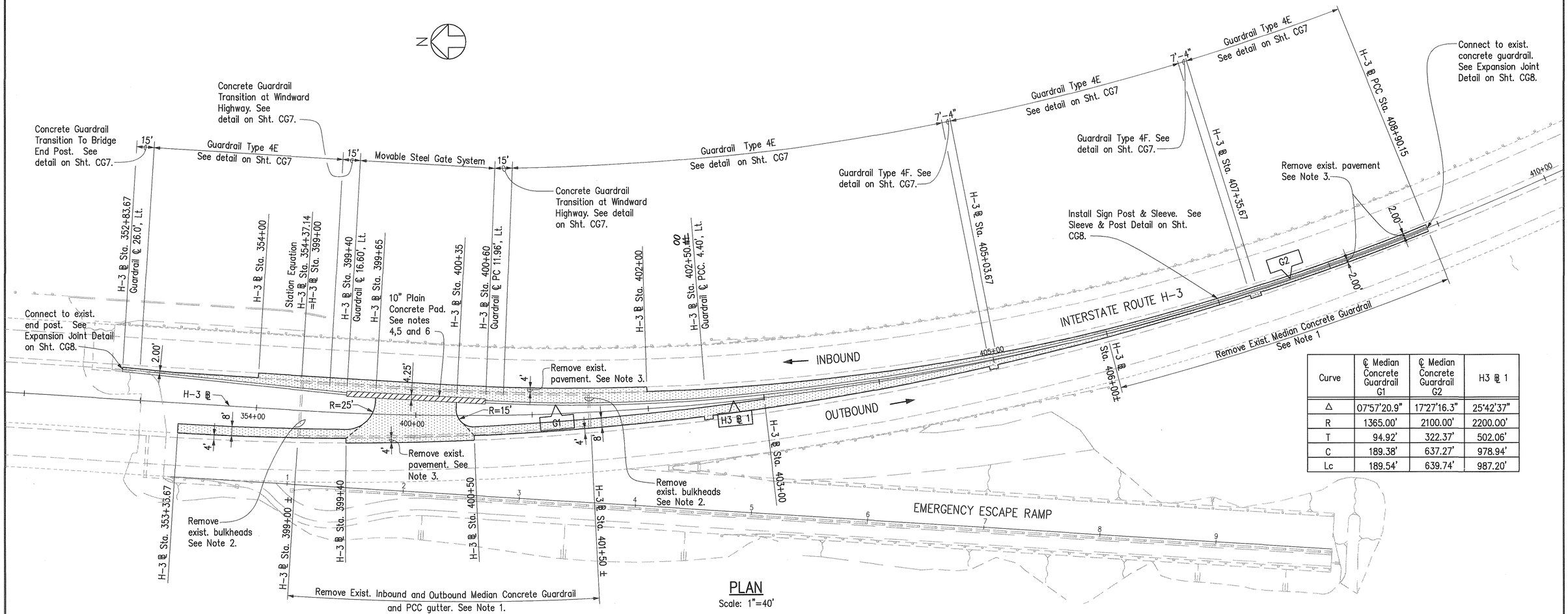
EMERGENCY CROSSOVER WINDWARD HIGHWAY SPOT ELEVATIONS

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 20' DATE: JANUARY 1996

SHEET NO. CG4 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	125	405



PLAN
Scale: 1"=40'

Curve	℄ Median Concrete Guardrail G1	℄ Median Concrete Guardrail G2	H3 ℄ 1
Δ	07°57'20.9"	17°27'16.3"	25°42'37"
R	1365.00'	2100.00'	2200.00'
T	94.92'	322.37'	502.06'
C	189.38'	637.27'	978.94'
Lc	189.54'	639.74'	987.20'

LEGEND

- 10" Plain Concrete Pad
- 9" Concrete Pavement 18" Untreated Permeable Base Course

ABBREVIATIONS

℄	Baseline
℄	Centerline
PCC	Point of Compound Curvature
R	Radius
Sta.	Station

NOTES

1. Saw cut concrete guardrail before removal. Payment for saw cutting of concrete guardrail shall be considered incidental to Removal of Median Concrete Guardrail – Windward Highway. Payment for removal of PCC gutter shall be considered incidental to various contract items.
2. Payment for removal of exist. bulkheads shall be considered incidental to Removal of Median Concrete Guardrail – Windward Highway.
3. Saw cut pavement before removal. Payment for saw cutting and removing pavement shall be considered incidental to various contract items.
4. Concrete for 10" Plain Concrete Pad shall be 4000 psi minimum strength Portland Cement Concrete with graded aggregate and 3" maximum slump.
5. Sawed contraction joints for 10" Plain Concrete Pad should be spaced 15' apart and extend into the slab to a depth of 1½".
6. The Engineer will not pay for the 10" Plain Concrete Pad and sawed contraction joints separately and will consider payment incidental to the Movable Steel Gate System At Windward Highway.

ROADWAY EXCAVATION QUANTITIES		
	EXC. (CU. YD.)	EMB. (CU. YD.)
Windward Highway Emergency Crossover	2,219	50

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

CAD by J. Mimura, 95-52

Last Saved: J:\H3RF\U1\CROSSOVR\WW_XOVR1.dwg 03/19/96 at 08:56

KEITH T. NAKANO
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No. 6670-C
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

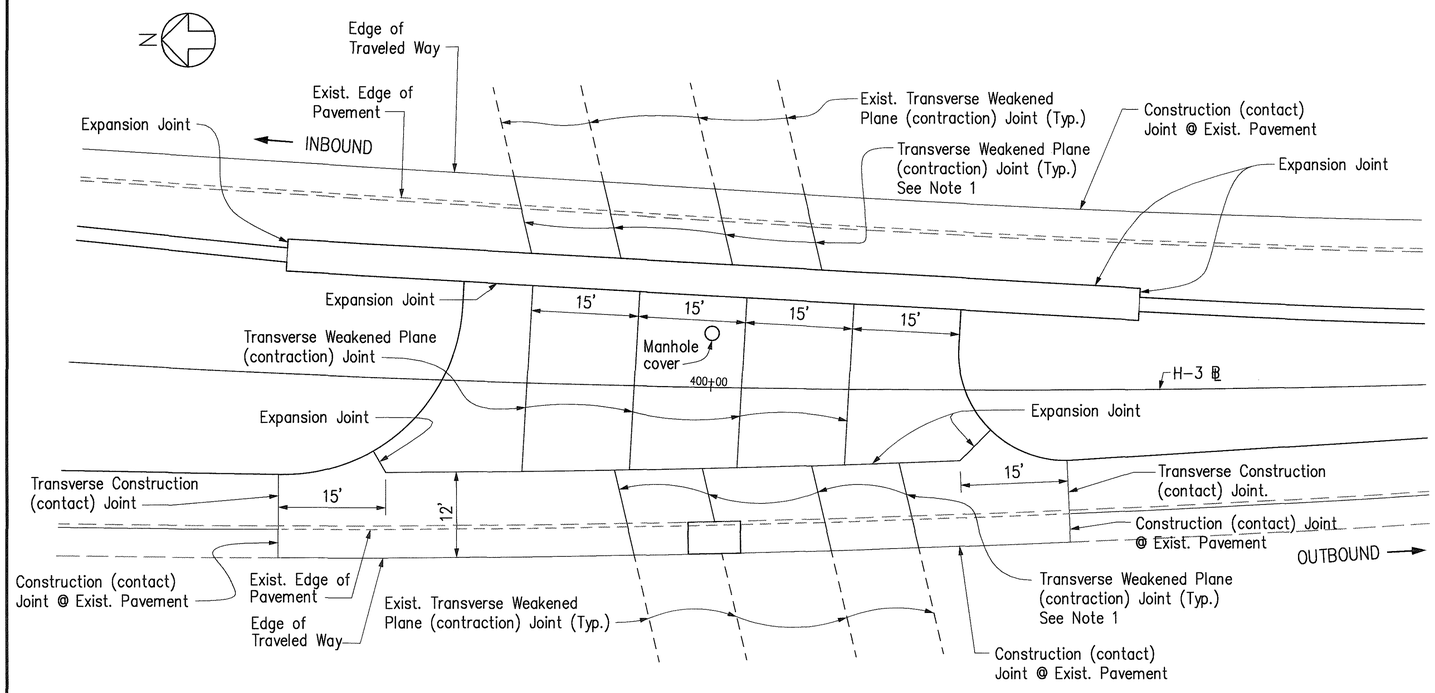
EMERGENCY CROSSOVER WINDWARD HIGHWAY ROADWAY CONSTRUCTION

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CG5 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	126	405

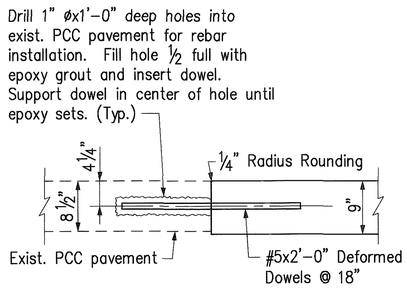


TYPICAL JOINT LAYOUT PLAN

Scale: 1" = 10'

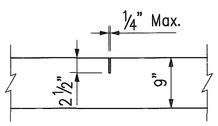
GENERAL NOTES

1. Extend exist. transverse weakened plane joints through new pavement to closest adjoining expansion joint. Transverse weakened plane joints shall be sawed as shown, unless otherwise directed by the Engineer. Extension of exist. transverse weakened plane joints shall be skewed counter-clockwise with an offset of 2' for every 12' of lane width from the perpendicular to the median. Payment for transverse weakened plane joints shall be considered incidental to 9" Concrete Pavement.
2. At the outer edge of the PCC pavement, 1" radius rounding shall be utilized longitudinally or as directed by the Engineer.
3. Dowels shall be positioned in place parallel to the pavement surface prior to pouring concrete and the ends of the dowels shall not deviate more than 0.02' from the parallel.
4. Payment for Transverse Construction Joint, Construction Joint at Exist. Pavement, and Expansion Joint will be considered incidental to 9" Concrete Pavement.



CONSTRUCTION (CONTACT) JOINT @ EXIST. PAVEMENT

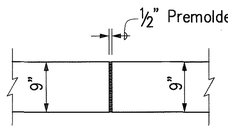
Scale: 1" = 1'-0"



SAWED JOINT

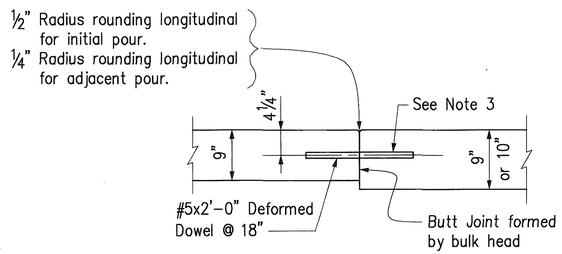
TRANSVERSE WEAKENED PLANE (CONTRACTION) JOINT

Scale: 1" = 1'-0"



EXPANSION JOINT

Scale: 1" = 1'-0"



TRANSVERSE CONSTRUCTION (CONTACT) JOINT

Scale: 1" = 1'-0"

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

CAD by Q.D. TRUONG, 55-52

Last Saved: J:\H3RF\U1\CROSSOVR\WW_JOINT.dwg 02/27/96 at 09:18

KEITH T. NAKANO
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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

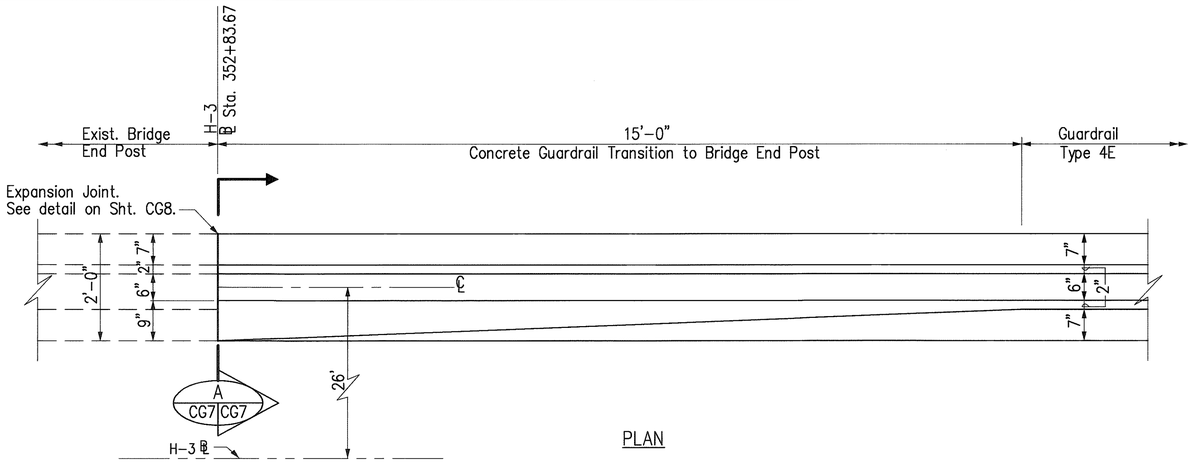
EMERGENCY CROSSOVER WINDWARD HIGHWAY PAVEMENT JOINT DETAIL

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

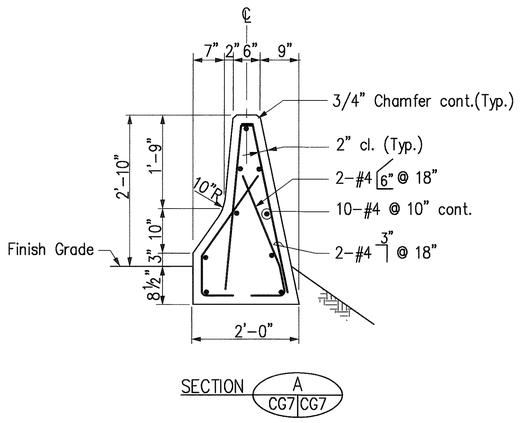
SCALE: AS SHOWN DATE: JANUARY 1996

SHEET NO. CG6 OF 17 SHEETS

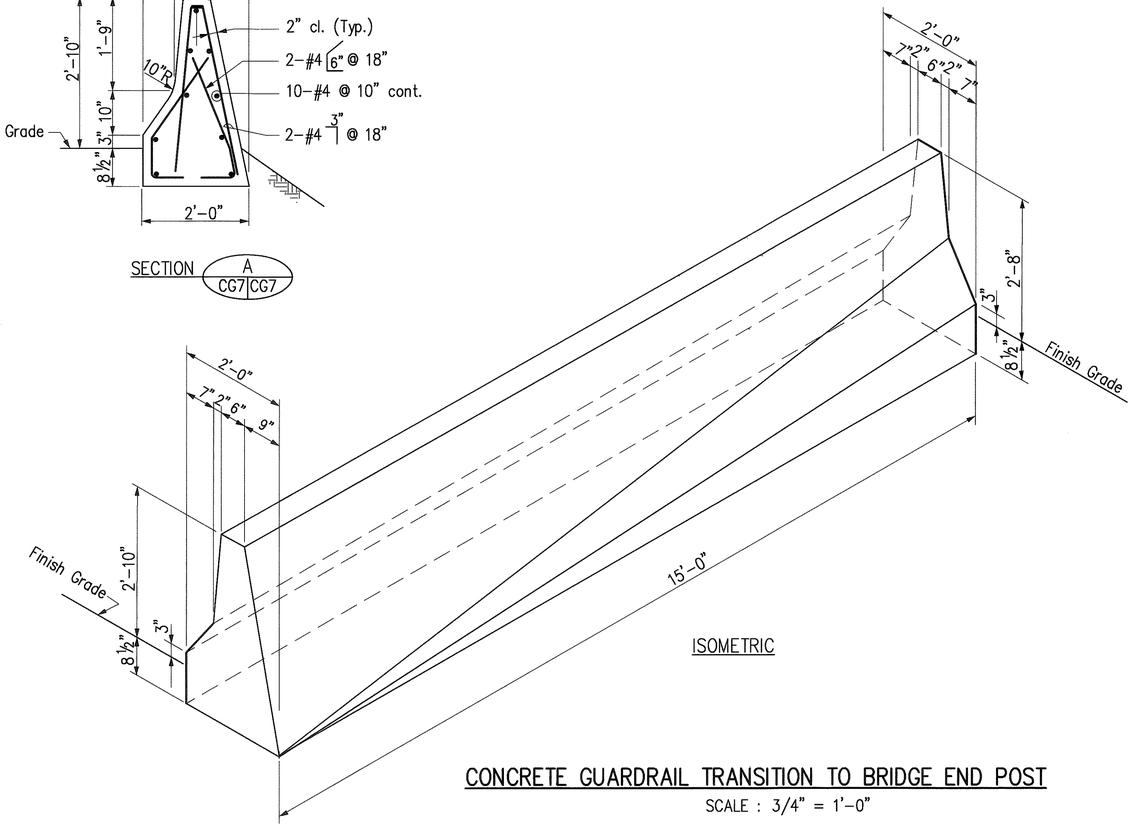
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	127	405



PLAN



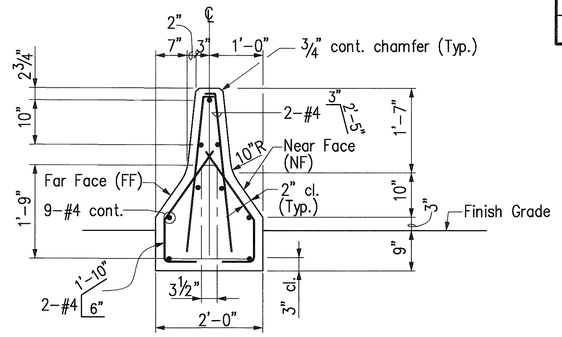
SECTION A CG7 CG7



ISOMETRIC

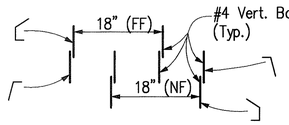
CONCRETE GUARDRAIL TRANSITION TO BRIDGE END POST

SCALE : 3/4" = 1'-0"

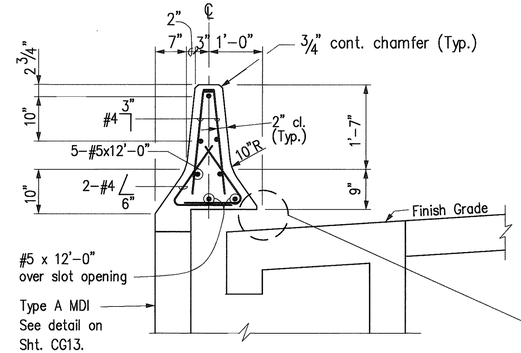


GUARDRAIL TYPE 4E

SCALE : 3/4" = 1'-0"

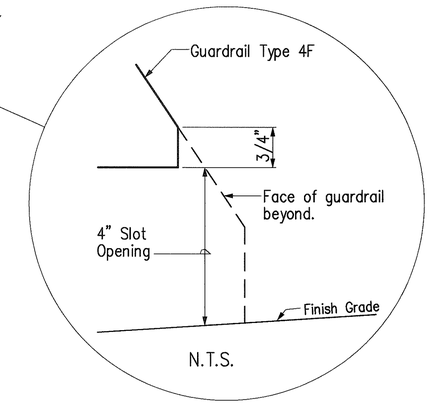


VERTICAL BAR ARRANGEMENT
N.T.S.

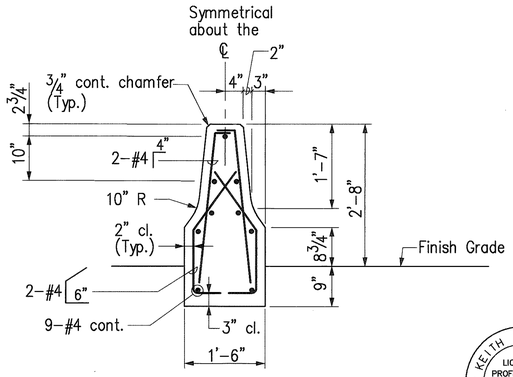


GUARDRAIL TYPE 4F

SCALE : 3/4" = 1'-0"



N.T.S.



SECTION @ STA. 399+40 & STA. 400+60

CONCRETE GUARDRAIL TRANSITION AT WINDWARD HIGHWAY

SCALE : 3/4" = 1'-0"

KEITH T. NAKANO
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No. 6670-C
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EMERGENCY CROSSOVER WINDWARD HIGHWAY BARRIER DETAIL

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: AS SHOWN DATE: JANUARY 1996

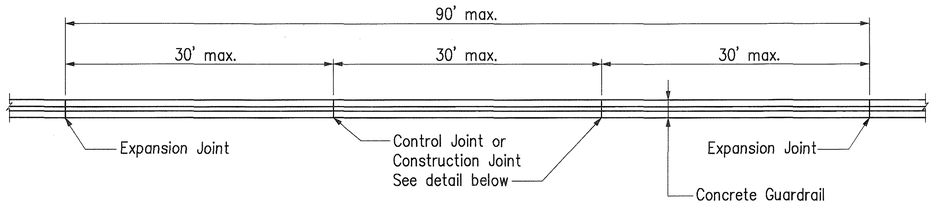
SHEET NO. CG7 OF 17 SHEETS

ORIGINAL PLAN
SURVEY PLOTTED BY ____ DATE
DRAWN BY
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QUANTITIES BY
CHECKED BY
NOTE BOOK
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CAD by Q.D. TRUONG, 58-52

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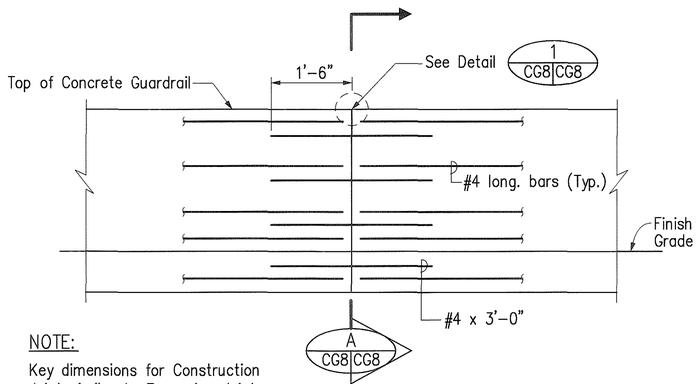
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	128	405



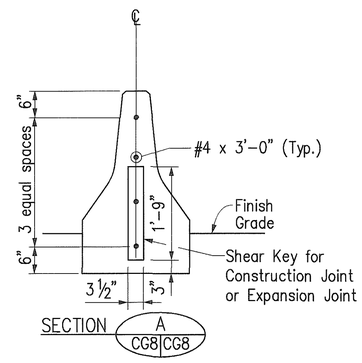
PLAN

GUARDRAIL TYPE 4E JOINT LOCATION PLAN

SCALE: 1/8" = 1'-0"



ELEVATION

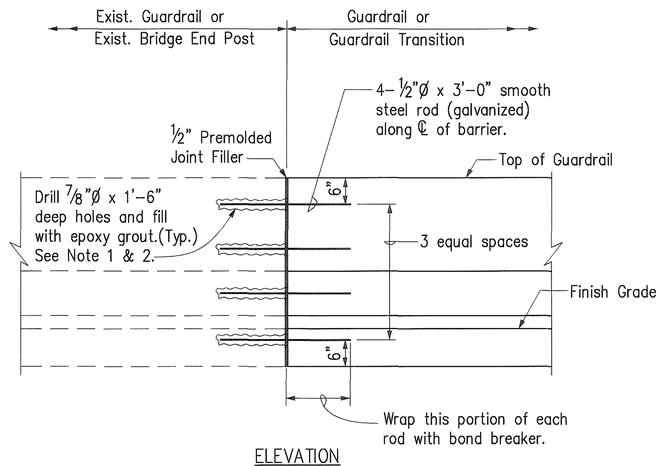


NOTE:

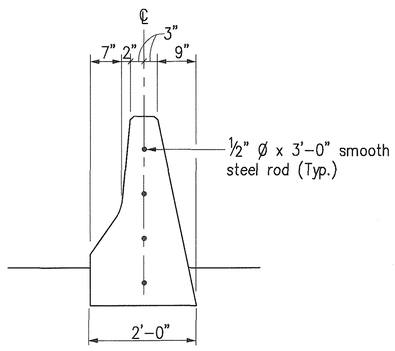
Key dimensions for Construction Joint similar to Expansion Joint, except without 1/2" premolded joint filler.

CONTROL OR CONSTRUCTION JOINT DETAIL

SCALE: 3/4" = 1'-0"



ELEVATION



SECTION AT BRIDGE END POST

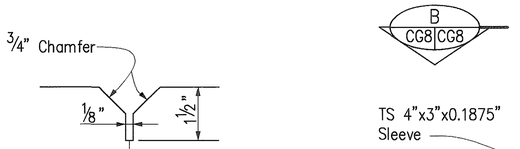
EXPANSION JOINT DETAIL AT EXISTING BRIDGE END POST OR GUARDRAIL

SCALE: 3/4" = 1'-0"

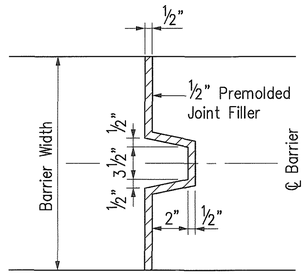
NOTES

1. The holes for dowels shall be drilled perpendicular to the existing concrete surfaces. When the drill contacts any existing rebar, the hole shall be filled with epoxy grout and a replacement shall be drilled so that the spacing of dowels will be maintained. Contractor shall avoid cutting existing rebar.
2. Expansion Joints shall be constructed at ninety-feet (90ft.) maximum intervals and at existing expansion joints of structures. Use 1/2" premolded joint filler. Control Joints shall be placed between expansion joints at 30' maximum. Shear keys shall be provided at all construction joints.
3. The exterior surface and vertical alignment of the concrete guardrail shall be constructed to give a uniform and presentable appearance. Variation of more than 1/4" in 20' max. and 1/2" in 40' or more will be considered objectionable. The Engineer will determine the acceptability of the work.

   During the course of the work, samples may be tested and measurements made to establish whether or not the specified values or dimensions are being met. If the specified values or dimensions are not being met, the Engineer will determine the degree of the non-conformance, the effect on the serviceability of the project, whether the work be accepted and remain in place and, if so, the amount to be paid for such work, or whether the work shall be removed and replaced or otherwise corrected at the Contractor's expense.
4. The concrete pour shall be terminated at either expansion joint or control joint at the end of the work day. Terminate longitudinal reinforcement at expansion and control joints.
5. Payment for Expansion joint connection to exist. bridge end post shall be considered incidental to Concrete Guardrail Transition To Bridge End Post.
6. Payment for Expansion Joints and expansion joint connection to existing guardrail for Guardrail Type 4E shall be considered incidental to Guardrail Type 4E.



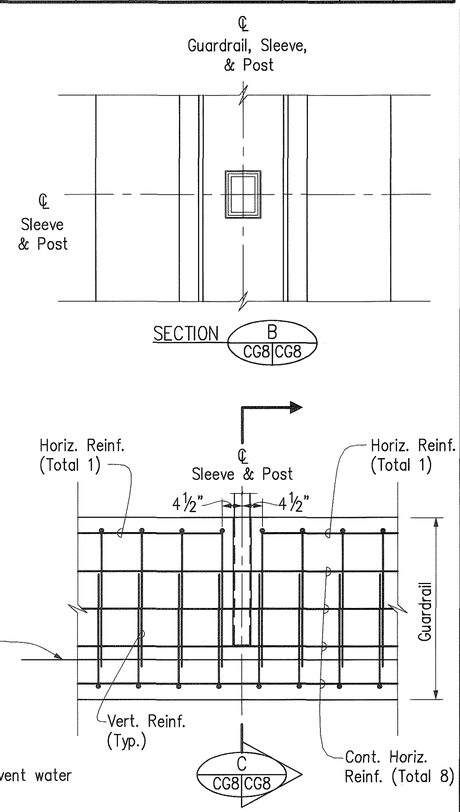
DETAIL 1 CG8|CG8
N.T.S.



PLAN

SECTION THRU KEY AT EXPANSION JOINT

N.T.S.



ELEVATION

NOTES

1. For reinforcement, see Guardrail Type 4E, on Sht. CG7.
2. Materials: Tube - ASTM 501, galvanized
   Bolts - ASTM A307, galvanized
3. Cap top end of post to prevent water entering post.
4. Payment for installation of sleeve and post shall be considered incidental to Guardrail Type 4E.

SLEEVE & POST DETAIL FOR SPEED LIMIT SIGN @ STA. 408+00

N.T.S.

KEITH T. NAKANO LICENSED PROFESSIONAL ENGINEER No. 6670-C HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EMERGENCY CROSSOVER WINDWARD HIGHWAY BARRIER DETAIL

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: AS SHOWN DATE: JANUARY 1996

SHEET NO. CG8 OF 17 SHEETS

ORIGINAL PLANS: SURVEY PLOTTED BY / DRAWN BY / TRACED BY / DESIGNED BY / QUANTITIES BY / CHECKED BY / DATE
NOTE BOOK / No. 55-52

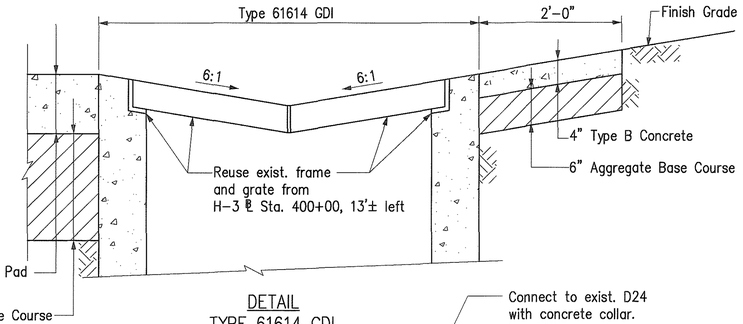
CAD by J. Mimura

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	129	405

NOTES:

1. Type 61614 GDI similar to State Standard Plan H-11 except as noted.
2. Match 4" Type B Concrete to Finish Grade. Payment for 4" Type B Concrete and 6" Aggregate Base Course shall be considered incidental to Type 61614 Grated Drop Inlet.



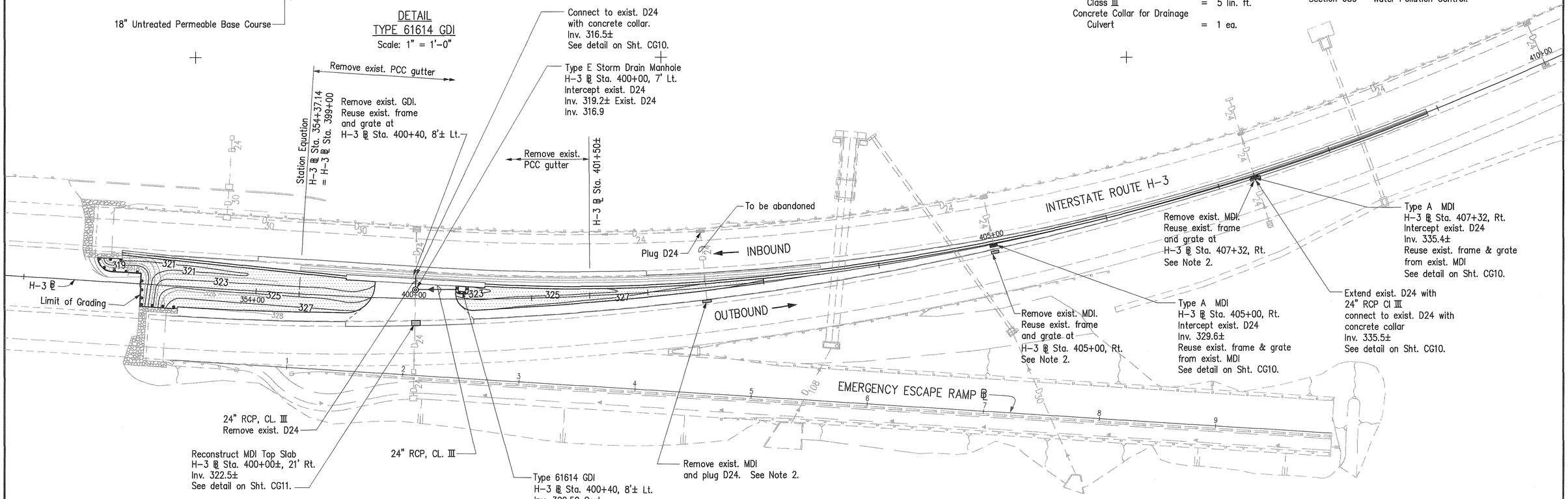
DETAIL
TYPE 61614 GDI
Scale: 1" = 1'-0"

℄ Sta. 405+00, Rt.
ESTIMATED QUANTITIES
Type A Median Drop Inlet = 1 ea.

℄ Sta. 407+32, Rt.
ESTIMATED QUANTITIES
Structure Excavation for Drainage System = 5 cu. yd.
Type A Median Drop Inlet = 1 ea.
24" Reinforced Concrete Pipe Class III = 5 lin. ft.
Concrete Collar for Drainage Culvert = 1 ea.

NOTES:

1. Payment for plugging exist. 24" drainlines shall be considered incidental to 24" RCP, Cl. III.
2. Payment for removing exist. MDI and GDI shall be considered incidental to various contract items.
3. The Contractor shall grass all graded areas in accordance with the time requirements of Specification Section 639 – Water Pollution Control.



LEGEND

EXISTING	PROPOSED	
D24		Drainline with flow direction and culvert size
326	325	Contour
		Guardrail Type 3
		Median Drop Inlet
		Grated Drop Inlet
		Slope
		Storm Drain Manhole
		Silt Fence
		Grass Area

ABBREVIATIONS

℄	Baseline
CL.	Class
D	Drain
GDI	Grated Drop Inlet
Lt.	Left
MDI	Median Drop Inlet
RCP	Reinforced Concrete Pipe
Rt.	Right

℄ Sta. 400+00, Rt.
ESTIMATED QUANTITIES
Reconstruct Median Drop Inlet Top Slab = 1 ea

℄ Sta. 400+00, Lt.
ESTIMATED QUANTITIES
Structure Excavation for Drainage System = 11 cu. yd.
Type E Storm Drain Manhole = 1 ea.
24" Reinforced Concrete Pipe Class III = 10 lin. ft.
Concrete Collar for Drainage Culvert = 1 ea.

℄ Sta. 400+00 – 400+40, Lt.
ESTIMATED QUANTITIES
Structure Excavation for Drainage System = 39 cu. yd.
Type 61614 Grated Drop Inlet = 1 ea.
24" Reinforced Concrete Pipe Class III = 40 lin. ft.

KEITH T. NAKANO
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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EMERGENCY CROSSOVER WINDWARD HIGHWAY DRAINAGE AND GRADING

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1"=40' DATE: JANUARY 1996

SHEET NO. CG9 OF 17 SHEETS

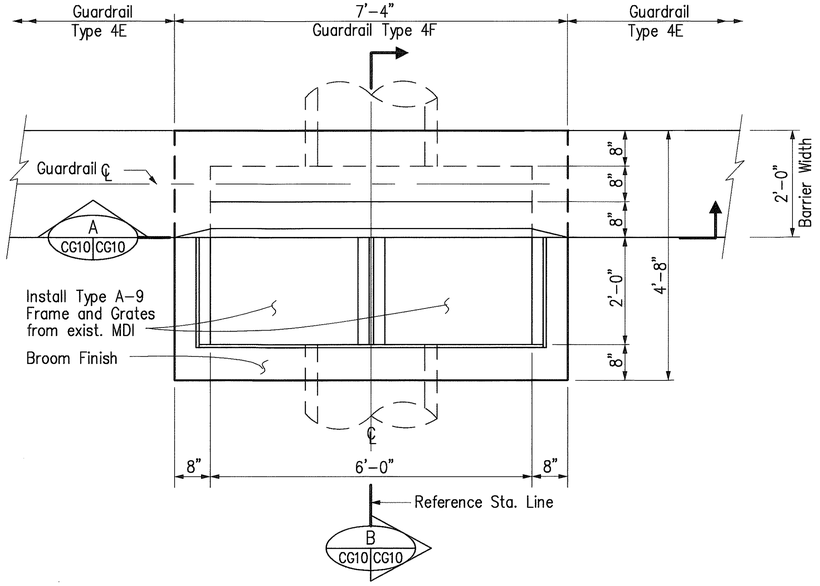
129

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

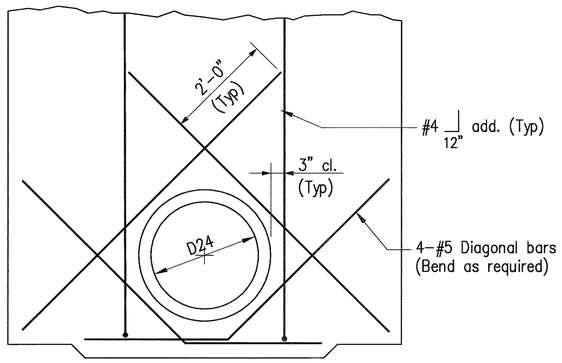
CAD by J. Mimura, 55-52

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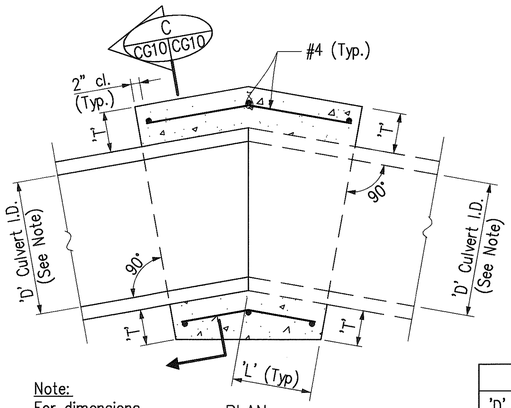
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	130	405



PLAN



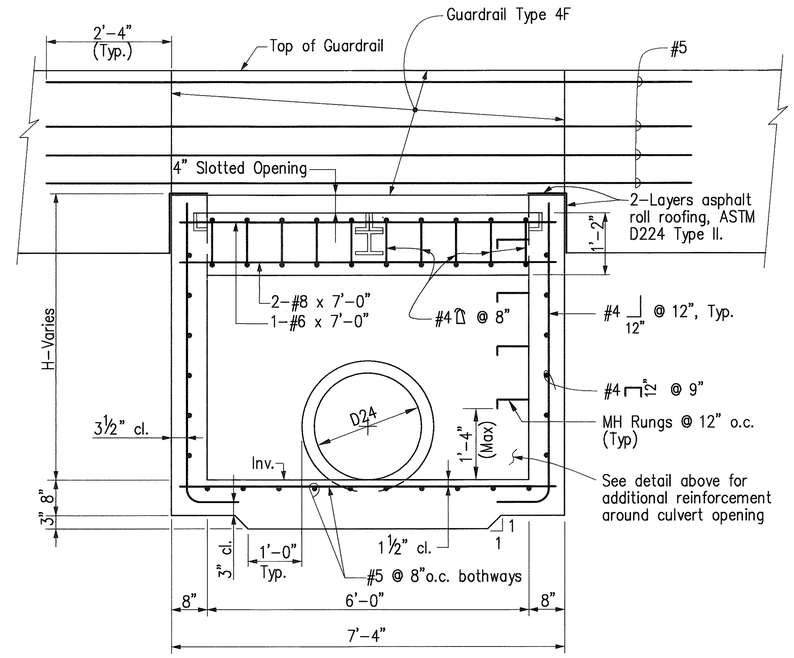
ADDED REINFORCING FOR CULVERT OPENING



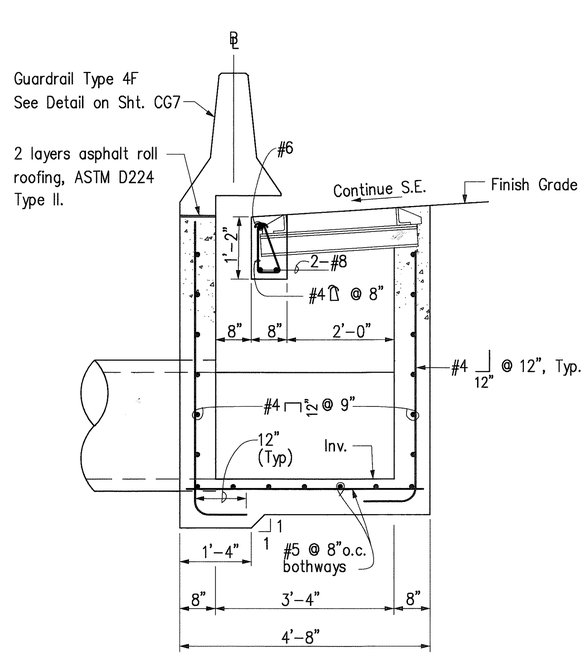
Note:
For dimensions 'D', 'L' & 'T' see Table A.

PLAN

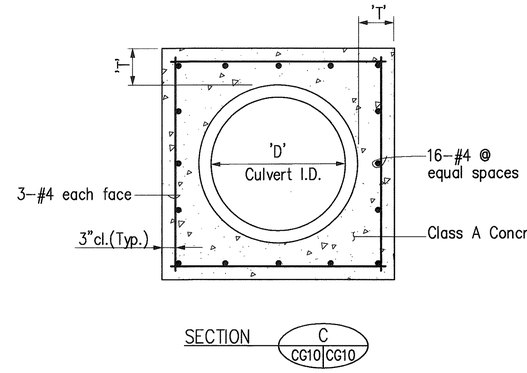
Table A		
'D'	'L'	'T'
24"	12"	6"
30"	18"	8"
36"	18"	8"



SECTION A CG10|CG10



SECTION B CG10|CG10



SECTION C CG10|CG10

CONCRETE COLLAR FOR DRAINAGE CULVERT

N.T.S.

TYPE A MEDIAN DROP INLET

Scale: 3/4" = 1'-0"

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

CAD by G.D. TRUONG, 55-52

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No. 6670-C
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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EMERGENCY CROSSOVER WINDWARD HIGHWAY DRAINAGE DETAIL

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: AS SHOWN DATE: JANUARY 1996

SHEET NO. CG10 OF 17 SHEETS

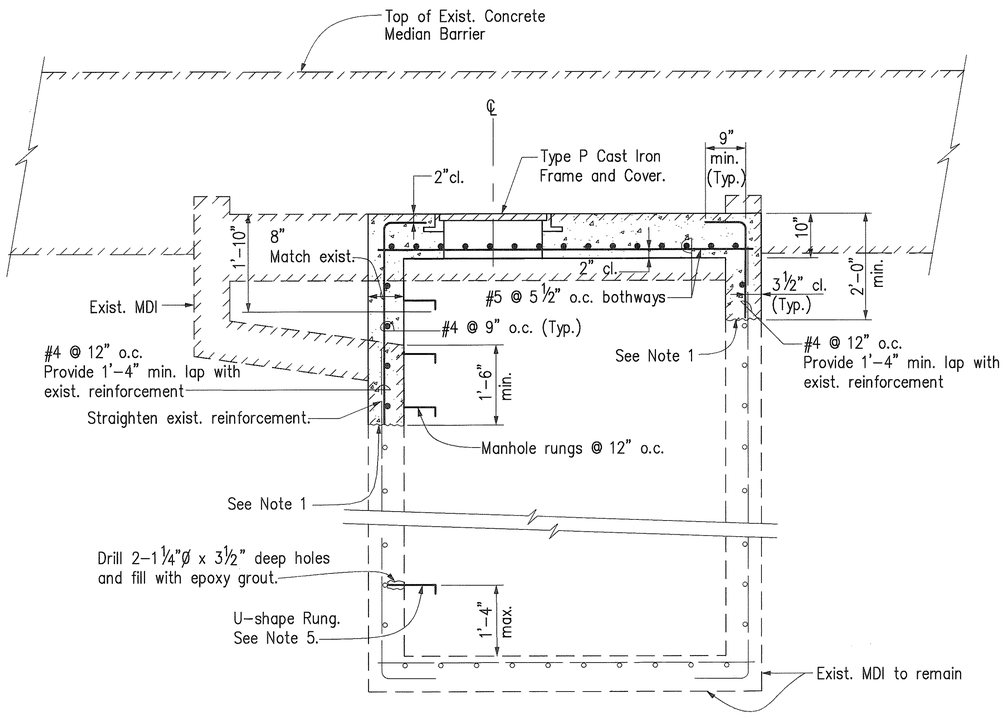
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	131	405

NOTES

1. The interface between new and old concrete shall be clean, free of laitance and roughened to a full amplitude of approximately 1/4". Epoxy bonding material shall be coated on the roughened surface immediately prior to pouring new concrete.
2. Existing rebars to remain shall be cleaned and cut to fit new construction.
3. For Top Slab Reinforcing Plan, Plan and Sectional Plan for Wall, see Standard Plan H-05.
4. For Type P Cast Iron Frame and Cover, see Standard Plan H-08. Payment for manhole frame and cover shall be considered incidental to Reconstruct Median Drop Inlet Top Slab.
5. Modify manhole rung on Standard Plan H-08 by removing 3" hooks. Thread 6" of embedded rung.

LEGEND

Existing structure to be removed.



RECONSTRUCT MEDIAN DROP INLET TOP SLAB

SCALE : 3/4" = 1'-0"

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

CAD by J. Mimura, 55-52

Last Saved: J:\H3RF\U1\CROSSOVR\DRAIN2.dwg 03/18/96 at 10:03

HUI PANG CHEN
LICENSED PROFESSIONAL ENGINEER
No. 3865-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Hui pang Chen

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EMERGENCY CROSSOVER
WINDWARD HIGHWAY
DRAINAGE DETAIL

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: AS SHOWN DATE: JANUARY 1996

SHEET NO. CG11 OF 17 SHEETS

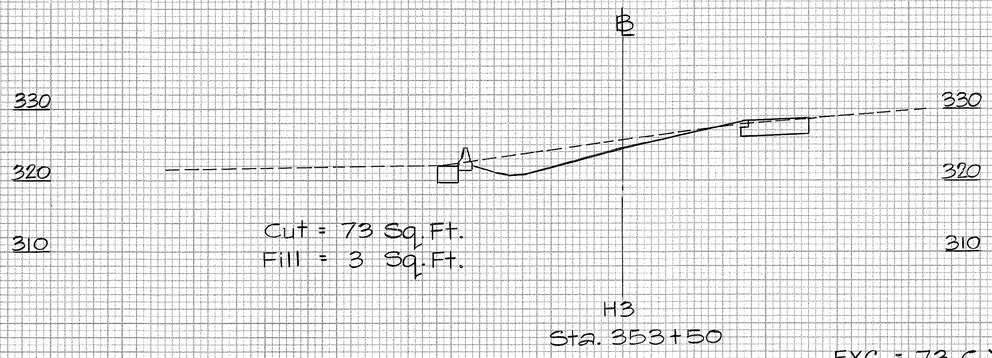
131

84732

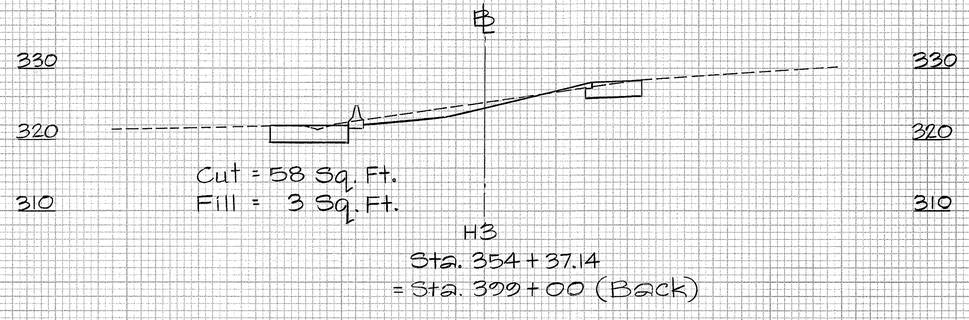
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75),UNIT I	1996	132	405

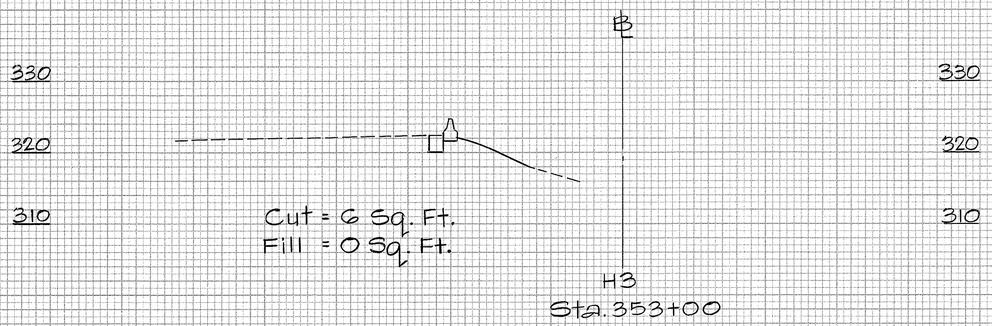
FINAL SURVEY — DATE / BY / SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED / NOTE BOOK / NO

EXC = 145 C.Y.
EMB = 5 C.Y.



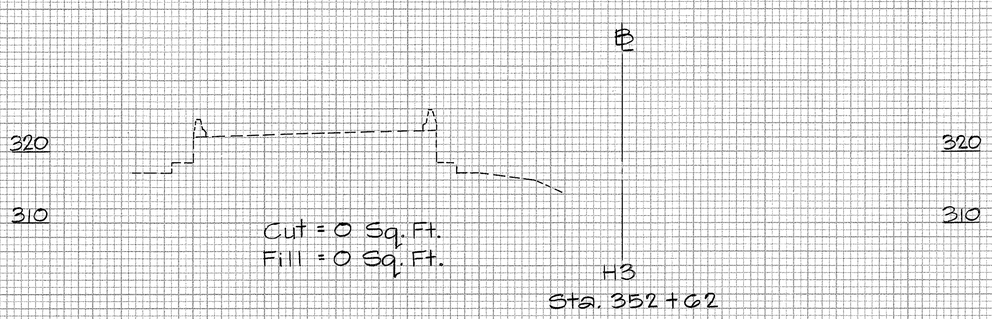
EXC = 73 C.Y.
EMB = 3 C.Y.

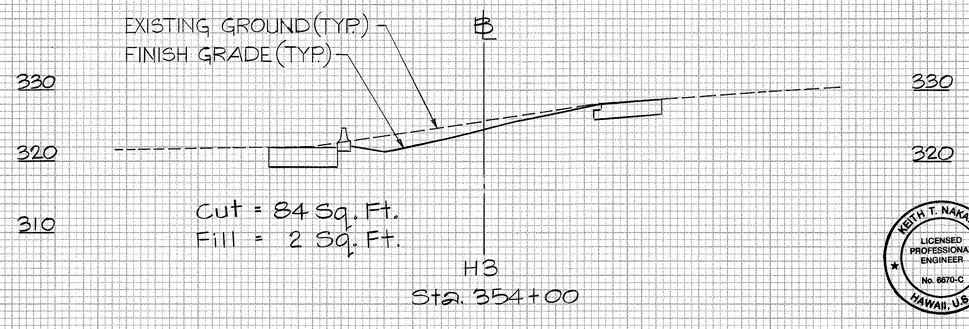




EXC = 4 C.Y.
EMB = 0 C.Y.

EXC = 98 C.Y.
EMB = 3 C.Y.





ORIGINAL SURVEY — DATE / BY / SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED / NOTE BOOK / NO

60 40 20 0 20 40 Scale: Horiz. 1" = 10' Vert. 1" = 10' 40 20 0 20 40

KEITH T. NAKANO
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SHEET NO. CG12 OF 17 SHEETS

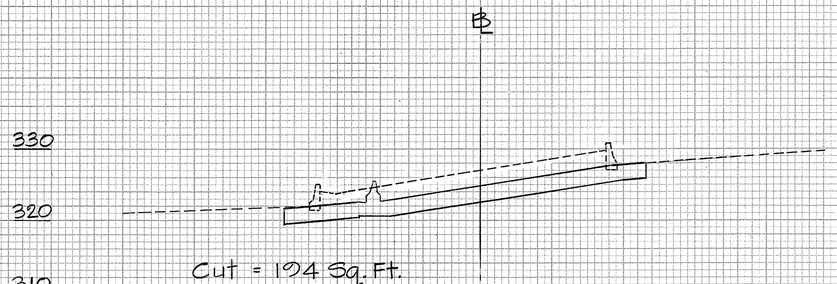
84732

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75),UNIT I	1996	133	405

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

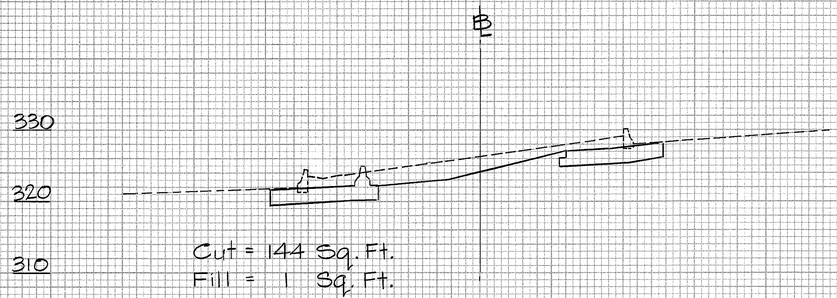
ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

EXC = 284 C.Y.
EMB = 1 C.Y.



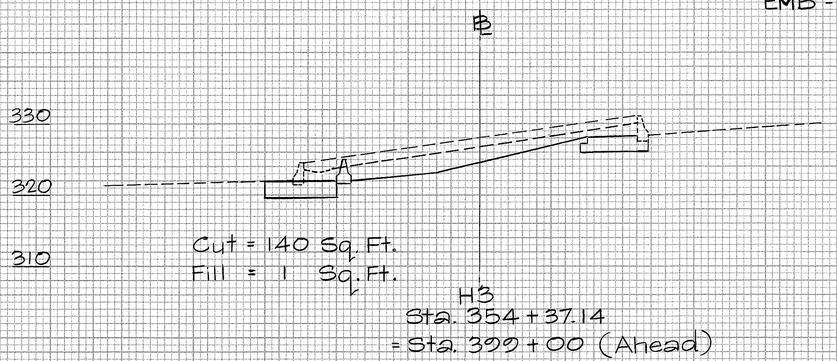
Cut = 194 Sq. Ft.
Fill = 0 Sq. Ft.
H3
Sta. 400+00

EXC = 313 C.Y.
EMB = 1 C.Y.



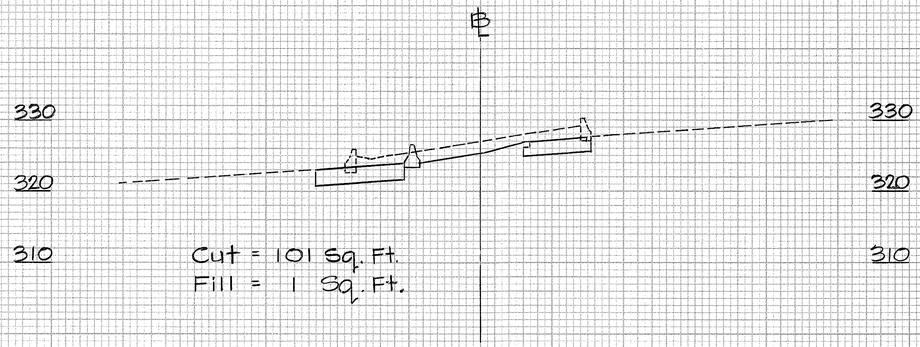
Cut = 144 Sq. Ft.
Fill = 1 Sq. Ft.
H3
Sta. 399+50

EXC = 263 C.Y.
EMB = 2 C.Y.



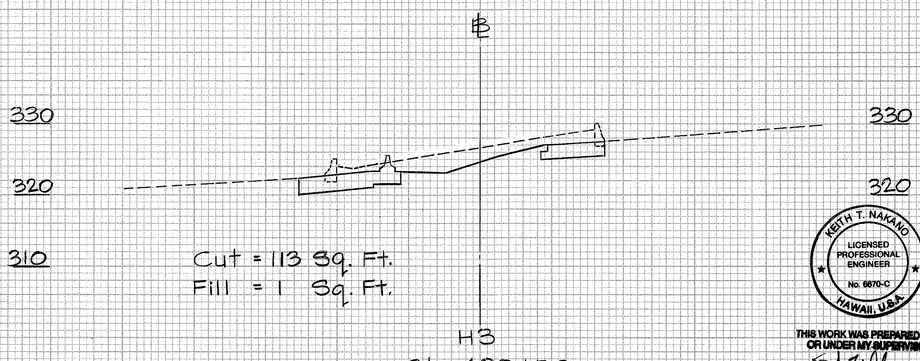
Cut = 140 Sq. Ft.
Fill = 1 Sq. Ft.
H3
Sta. 354+37.14
= Sta. 399+00 (Ahead)

EXC = 184 C.Y.
EMB = 3 C.Y.



Cut = 101 Sq. Ft.
Fill = 1 Sq. Ft.
H3
Sta. 401+00

EXC = 198 C.Y.
EMB = 2 C.Y.



Cut = 113 Sq. Ft.
Fill = 1 Sq. Ft.
H3
Sta. 400+50

60 40 20 0 20 40 60 Scale: Horiz. 1" = 10' Vert. 1" = 10' 60 40 20 0 20 40 60

KEITH T. NAKANO
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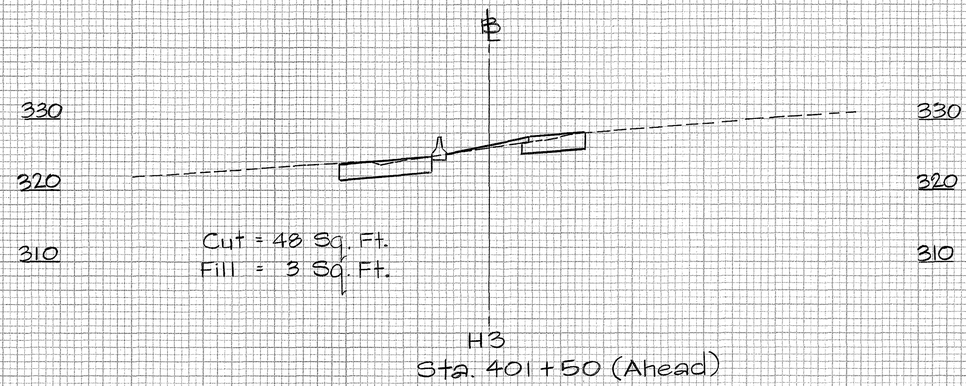
SHEET NO. CG13 OF 17 SHEETS

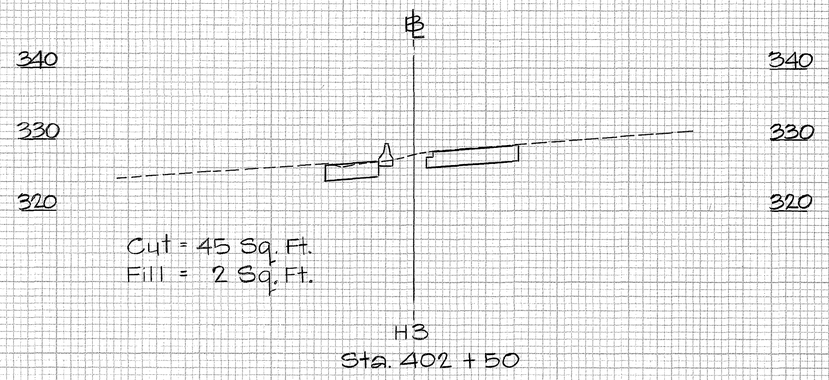
84732

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75),UNIT I	1996	134	405

FINAL SURVEY — NOTE BOOK NO. — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE

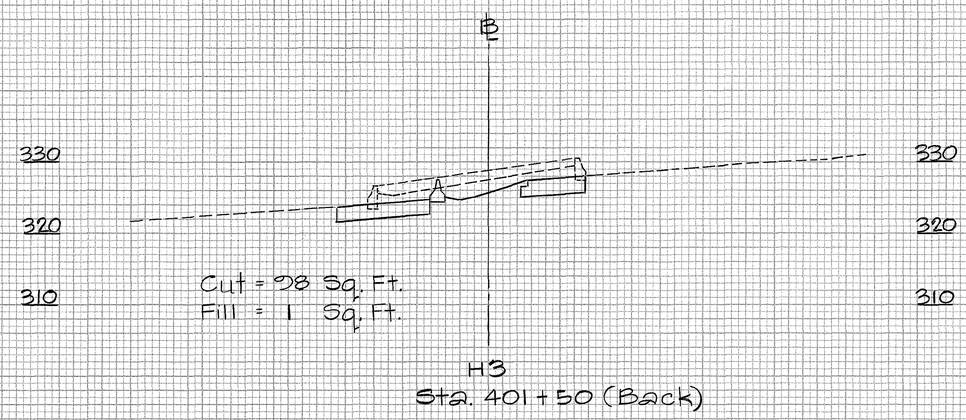
EXC = 73 C.Y.
EMB = 7 C.Y.

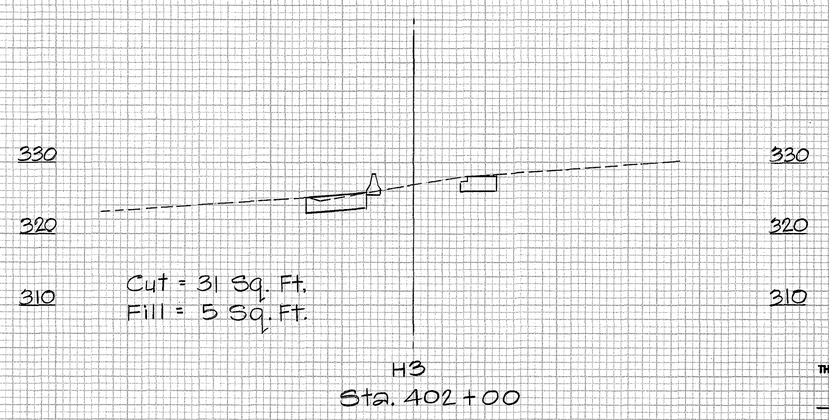




ORIGINAL SURVEY — NOTE BOOK NO. — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE

EXC = 70 C.Y.
EMB = 7 C.Y.





60 40 20 0 20 40 60 — Scale: Horiz. 1"=10' Vert. 1"=10' — 40 20 0 20 40 60

KEITH T. NAKANO
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No. 6670-C
HAWAII, U.S.A.

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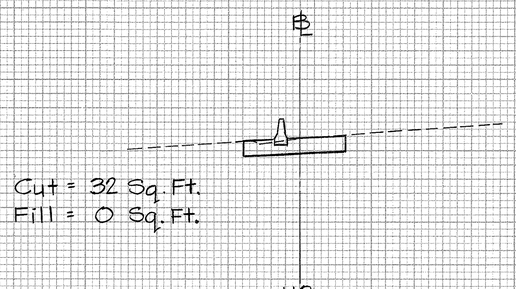
SHEET NO. CG14 OF 17 SHEETS

84732

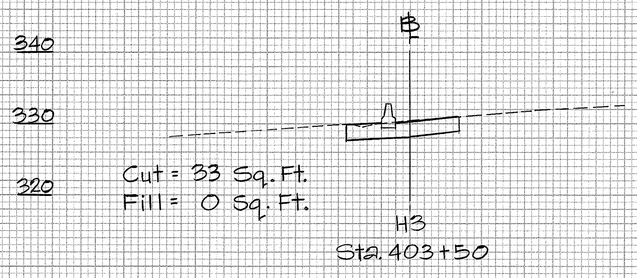
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75),UNIT I	1996	135	405

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

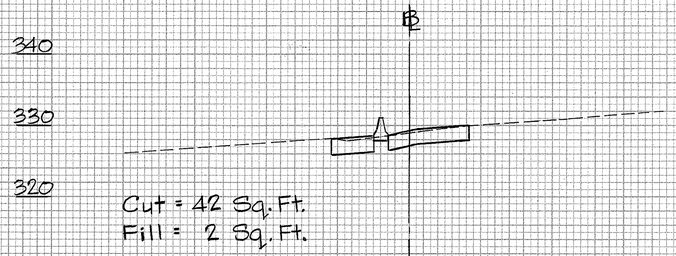
ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE



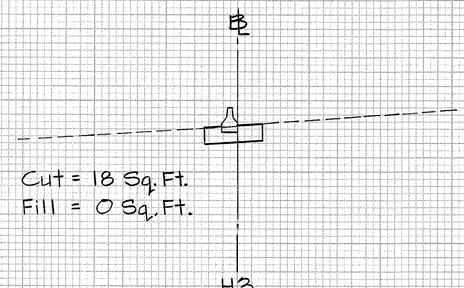
EXC = 60 C.Y.
EMB = 0 C.Y.



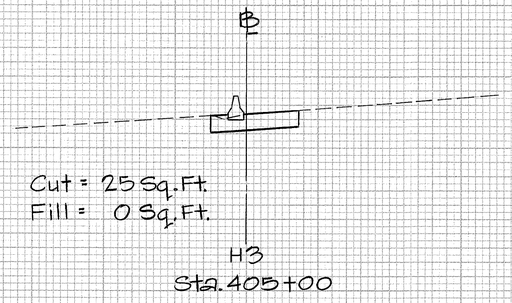
EXC = 69 C.Y.
EMB = 2 C.Y.



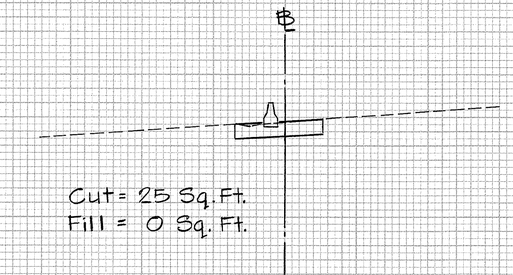
EXC = 81 C.Y.
EMB = 4 C.Y.



EXC = 40 C.Y.
EMB = 0 C.Y.



EXC = 46 C.Y.
EMB = 0 C.Y.



EXC = 53 C.Y.
EMB = 0 C.Y.

40 20 0 20 40

Scale: Horiz. 1"=10'
Vert. 1"=10'

KEITH T. NAKANO
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No. 6870-C
HAWAII, U.S.A.

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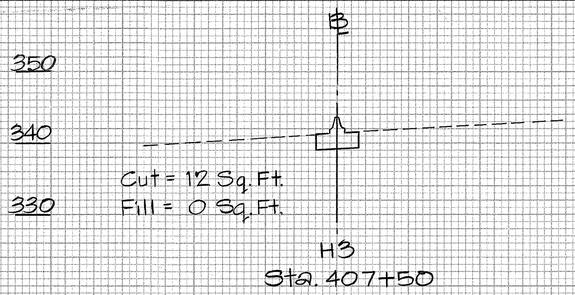
SHEET NO. CG15 OF 17 SHEETS

84732

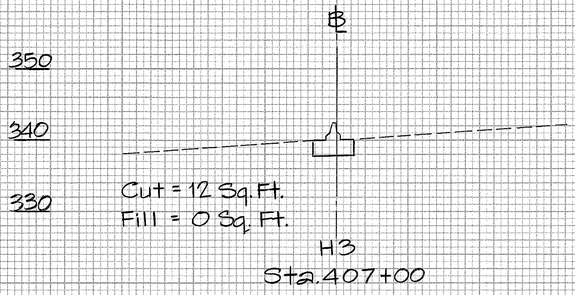
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75),UNIT I	1996	136	405

FINAL SURVEY — NOTE BOOK ____ NO. ____ — SURVEYED ____ PLOTTED ____ TEMPLATE ____ AREAS ____ AREAS CHECKED ____ — BY ____ DATE ____

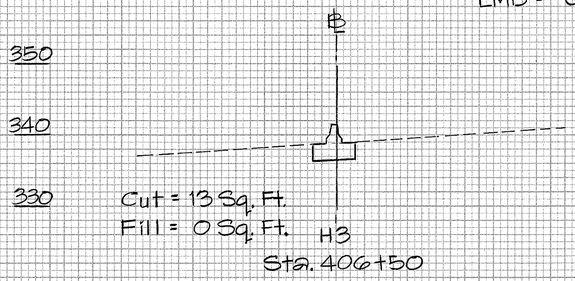
ORIGINAL SURVEY — NOTE BOOK ____ NO. ____ — SURVEYED ____ PLOTTED ____ TEMPLATE ____ AREAS ____ AREAS CHECKED ____ — BY ____ DATE ____



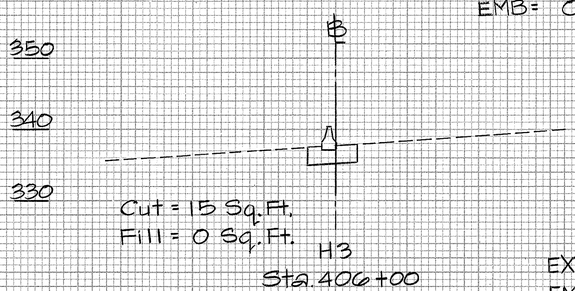
EXC. 22 C.Y.
EMB. 0 C.Y.



EXC = 23 C.Y.
EMB = 0 C.Y.



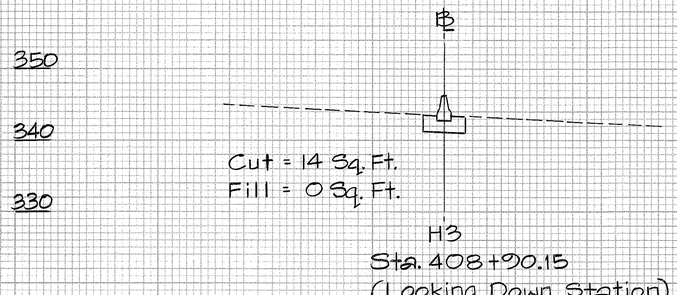
EXC = 26 C.Y.
EMB = 0 C.Y.



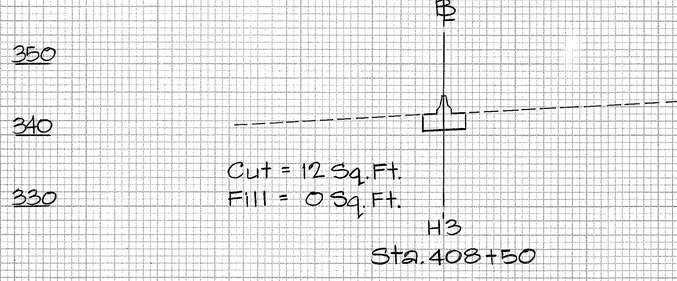
EXC. = 31 C.Y.
EMB. = 0 C.Y.

QUANTITIES (EMERGENCY CROSSOVER - WINDWARD HWY.)

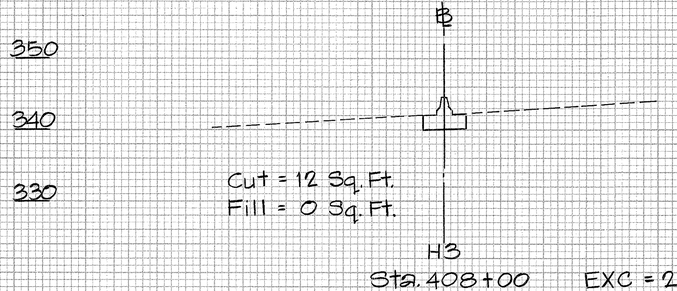
	EXC.	EMB.
TOTAL	2219 C.Y.	49 C.Y.
ROUNDED TOTAL	2220 C.Y.	50 C.Y.



EXC = 19 C.Y.
EMB = 0 C.Y.



EXC = 22 C.Y.
EMB = 0 C.Y.



EXC = 22 C.Y.
EMB = 0 C.Y.

KEITH T. NAKANO
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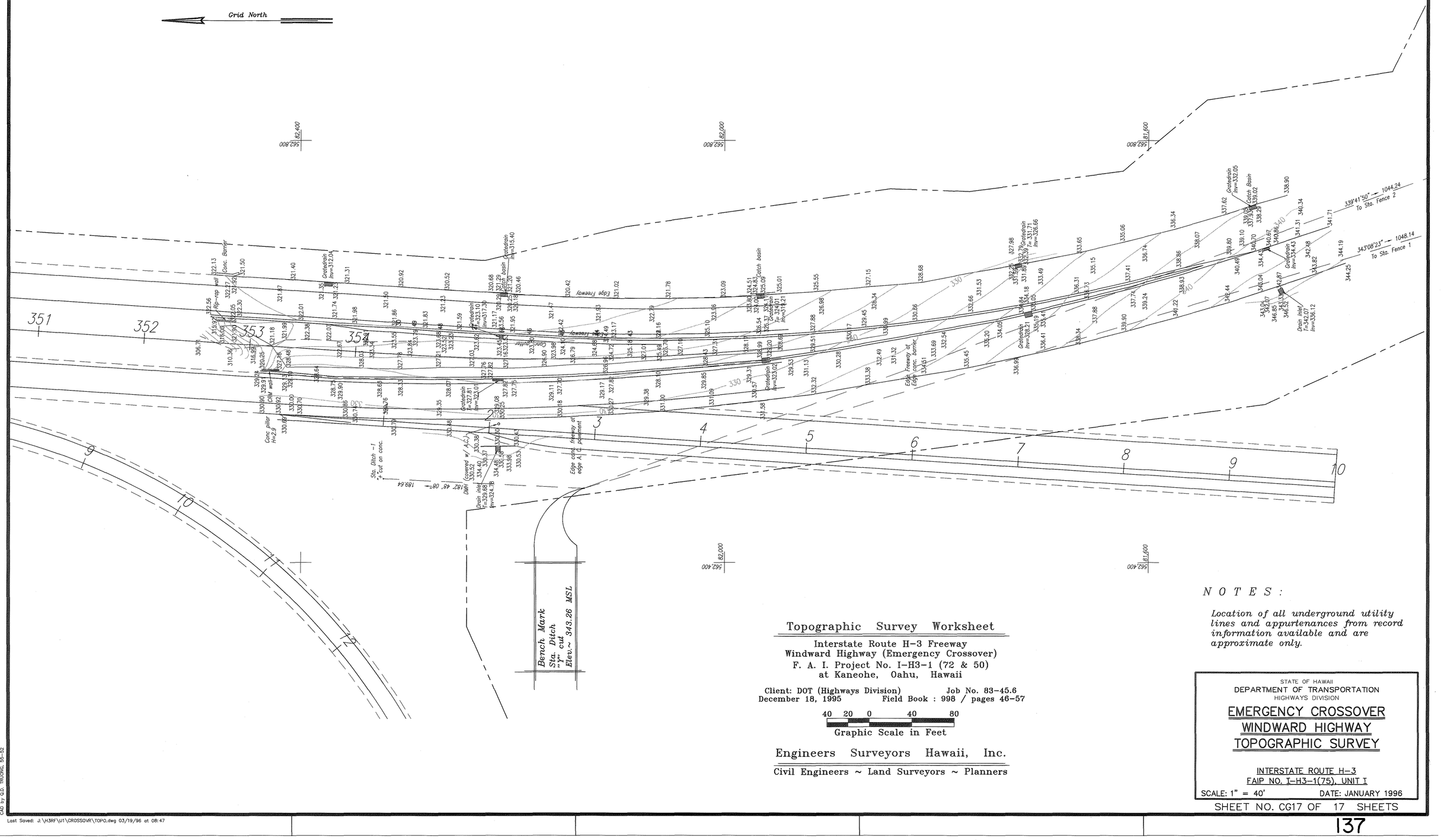
40 20 0 20 40

Scale: Horiz. 1"=10'
Vert. 1"=10'

40 20 0 20 40

SHEET NO. CG16 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	137	405



Topographic Survey Worksheet

Interstate Route H-3 Freeway
Windward Highway (Emergency Crossover)
F. A. I. Project No. I-H3-1 (72 & 50)
at Kaneohe, Oahu, Hawaii

Client: DOT (Highways Division) Job No. 83-45.6
December 18, 1995 Field Book : 998 / pages 46-57

40 20 0 40 80
Graphic Scale in Feet

Engineers Surveyors Hawaii, Inc.
Civil Engineers ~ Land Surveyors ~ Planners

NOTES:

Location of all underground utility lines and appurtenances from record information available and are approximate only.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EMERGENCY CROSSOVER WINDWARD HIGHWAY TOPOGRAPHIC SURVEY

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CG17 OF 17 SHEETS

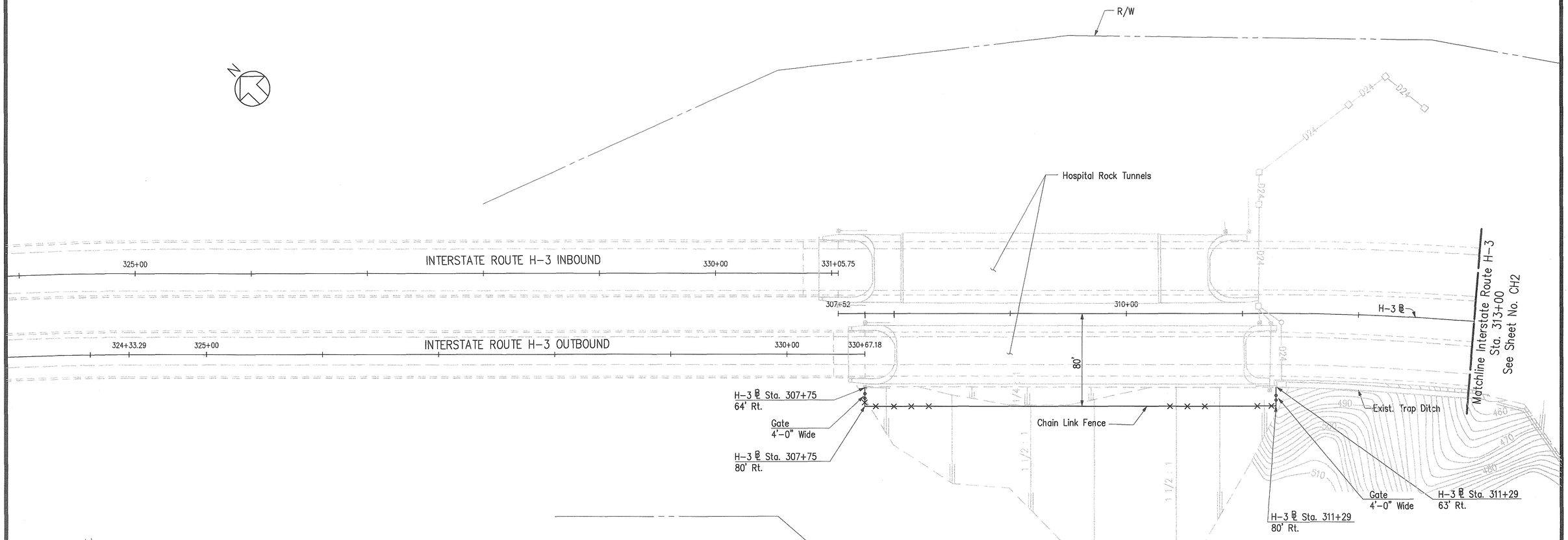
ORIGINAL PLAN | SURVEY PLOTTED BY ____ DATE ____
DRAWN BY ____
TRACED BY ____
NOTE BOOK | DESIGNED BY ____
QUANTITIES BY ____
No. ____ | CHECKED BY ____

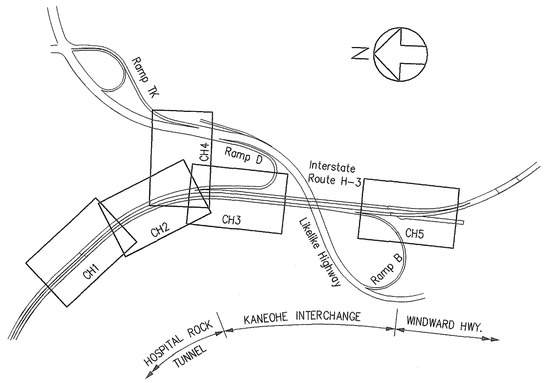
CAD by Q.D. TRUONG, 55-52

Last Saved: J:\H3RF\U1\CROSSOVR\TOPO.dwg 03/19/96 at 08:47

137

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	138	405





KEY PLAN
N.T.S.

GENERAL NOTES – FENCING

1. All fencing shall be 6 Ft. Chain Link Fence with Toprail and Concrete Footings.
2. Gate locations shown hereon are approximate, and may be adjusted by the Engineer at time of construction to accommodate field conditions and/or maintenance requirements.

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

CAD by K. Nakano, 55-52

Last Saved: J:\H3RF\U1\FENCING\FENCE-01.dwg 01/23/96 at 17:37

KEITH T. NAKANO
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HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

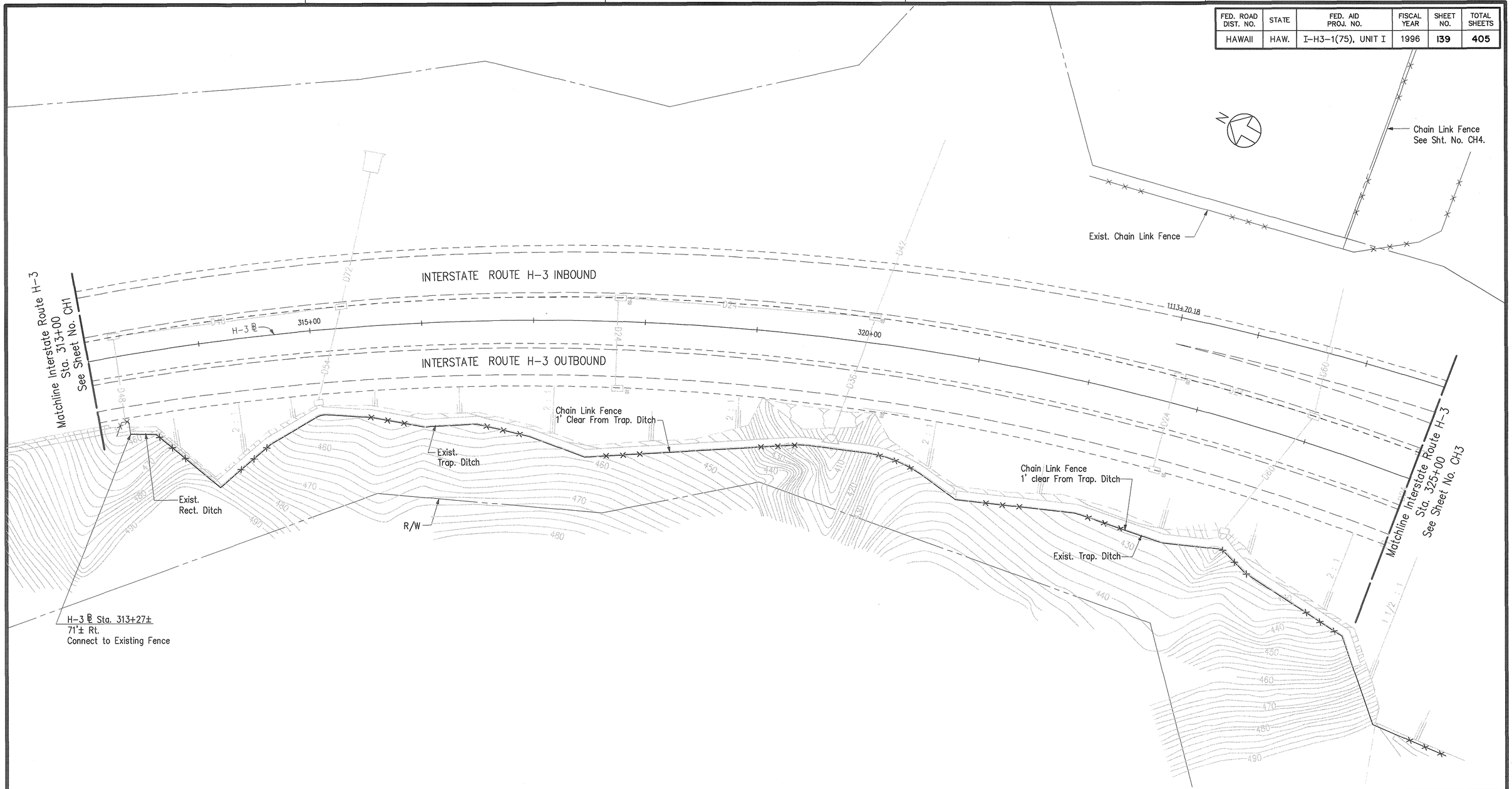
FENCING PLAN
HOSPITAL ROCK TUNNEL

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CH1 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	139	405



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

CAD by J. Mimura, 55-52

Last Saved: J:\H3RF\U1\FENCING\FENCE-02.dwg 01/19/96 at 15:52

KEITH T. NAKANO
LICENSED PROFESSIONAL ENGINEER
No. 6670-C
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

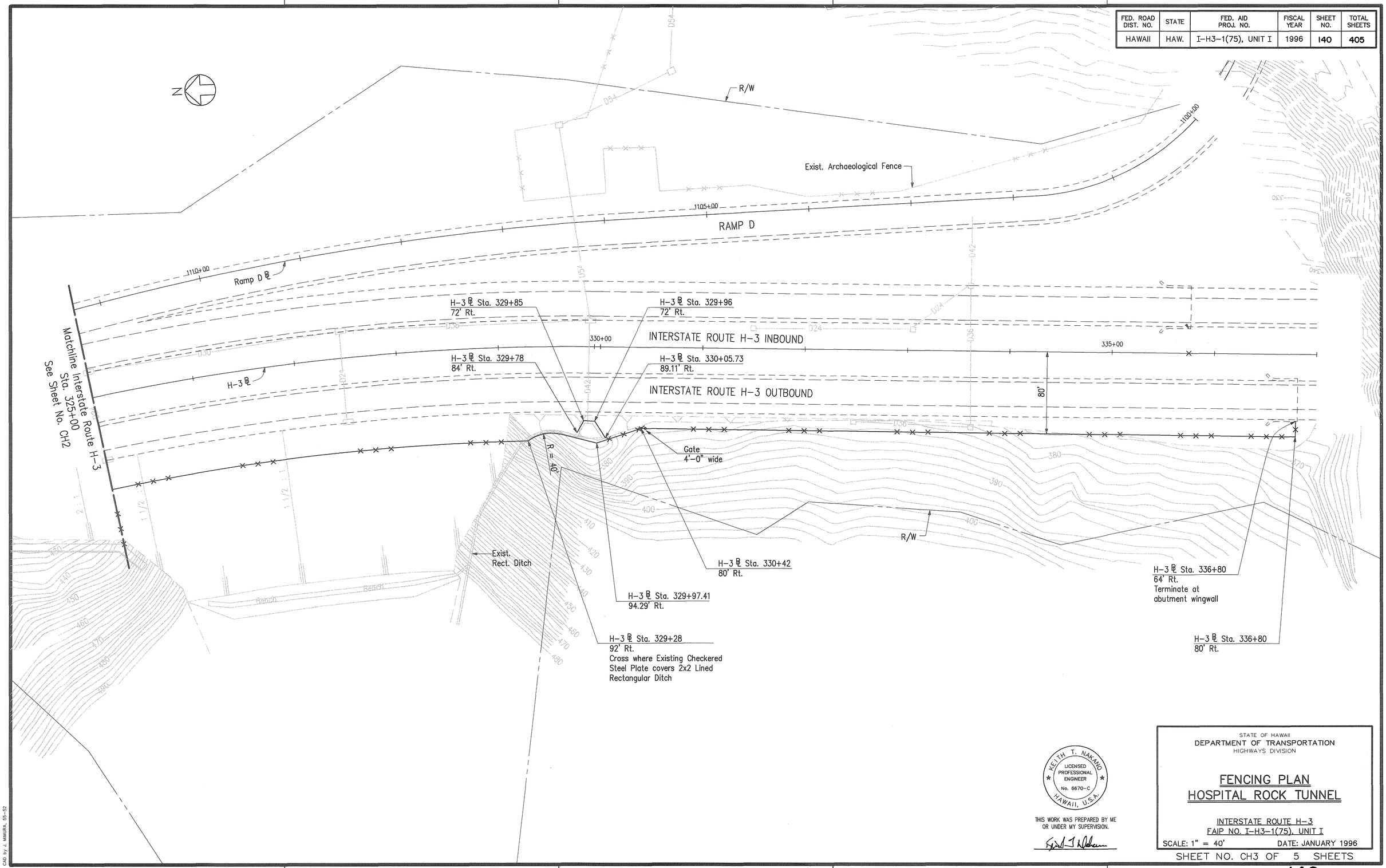
FENCING PLAN
HOSPITAL ROCK TUNNEL

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CH2 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	140	405



ORIGINAL PLANS
NOTE BOOK No. ____
SURVEY PLOTTED BY ____ DATE
DRAWN BY ____
TRACED BY ____
DESIGNED BY ____
QUANTITIES BY ____
CHECKED BY ____

CAD by J. NAKAMURA, 55-52

Last Saved: J:\H3RF\U1\FENCING\FENCE-03.dwg 01/19/96 at 15:27

KEITH T. NAKANO
LICENSED PROFESSIONAL ENGINEER
No. 6670-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FENCING PLAN
HOSPITAL ROCK TUNNEL

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CH3 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	141	405

N

R/W

320+00

Exist. C.L. Fence
to remain

HAIKU ACCESS ROAD

INTERSTATE ROUTE H-3 OUTBOUND

INTERSTATE ROUTE H-3 INBOUND

H-3 ℄

325+00

Ramp D ℄

RAMP D

330+00

Ramp D ℄ Sta. 112+47±, 91'± Rt.
Connect to Exist. Fence

Remove exist. fence

Chain Link Fence

Likelike Hwy. ℄ Sta. 36+00±, 115± Lt.
Connect to Exist. Fence

Exist. C.L. Fence

R/W

LIKELIKE HIGHWAY SOUTHBOUND

LIKELIKE HIGHWAY NORTHBOUND

Likelike Hwy. ℄ Sta. 34+46, 110' Lt.

Likelike Highway ℄

Ramp TK ℄

RAMP TK

Ramp D ℄

R/W

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

CAD by J. Mimura, 55-52

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

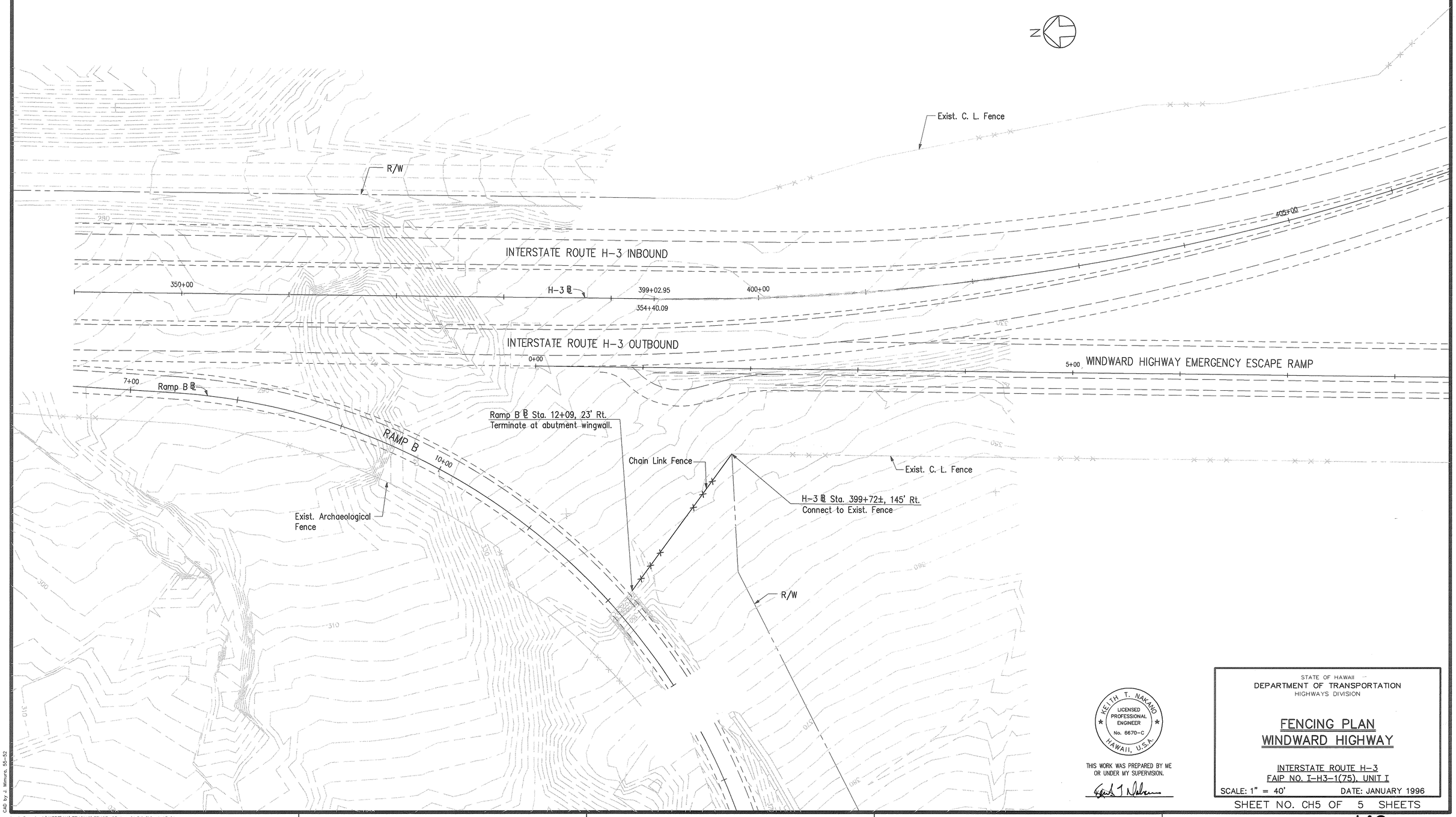
FENCING PLAN
KANEOHE INTERCHANGE

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CH4 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	142	405



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

CAD by J. Mimura, 55-52

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FENCING PLAN
WINDWARD HIGHWAY

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: 1" = 40' DATE: JANUARY 1996

SHEET NO. CH5 OF 5 SHEETS

142