

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-(14)	1982	51	214

TRAFFIC CONTROL GENERAL NOTES

1. Traffic control is divided into three sections as follows:

- 1) Palani Road - Phases I & II
- 2) Hualalai Road - Phases I & II
- 3) Kuakini Highway - Phases I & II

The contractor may implement each traffic control section simultaneously or independently, so as not to delay construction progress.

2. Prior to the implementation of each phase, the Contractor shall install and cover all warning and construction signs as shown on the plans or ordered by the Engineer.

3. The Contractor shall make certain that all utility companies have been notified, well in advance, of any impending construction that will affect existing facilities.

4. Upon the completion of each phase, detour roads no longer required shall be scarified and area leveled and graded.

5. Upon the completion of the project, all traffic control signs shall become the property of the State and shall be delivered to the State Highways Division Baseyard at 50 Makaala Street, Hilo, Hawaii.

6. Palani Road Traffic Control Plan

a. Phase I - This phase shall involve the construction of lanes 1, 5 and 6, various utility adjustments, two curbed islands and a portion of the new highway. All movements, except for U-turns, will be allowed at the intersection.

b. Phase II - This phase will include the construction of lanes 2, 3, 4 and 7, various utility adjustments, two curbed islands and the reconstruction of the highway from Palani Road to the beginning of project. Only traffic movement north and south along Palani Road will be allowed. Traffic inbound to Kailua from the airport shall detour on to Kaiwi Street at the Kona Industrial Subdivision.

7. Hualalai Road Traffic Control Plan

a. Phase I - This phase will involve the closing of Nani Kailua Drive leading to the Kailua View Estates Subdivision. Subdivision traffic will be re-routed along Aloha Kona Drive. Construction of the highway connection from Nani Kailua Drive to Hualalai Road must be completed prior to implementing Phase II.

b. Phase II - Phase II will be implemented to allow for the construction of Sideroad "C". Hualalai Road will be closed and traffic will be re-routed along Nani Kailua Drive, then onto the new highway and back onto Hualalai Road. To allow for construction thru Kona Heights Subdivision, Aloha Kona Drive may also be closed and traffic re-routed via Nani Kailua Drive. Two lanes of traffic shall be maintained along the detour route.

8. Kuakini Highway Traffic Control Plan

a. Phase I - This phase will require the construction of the new highway between Sta. 240+00 to 255+00 and the construction of a connection from Kuakini Highway Sta. 139+70 to the new highway. Traffic will be maintained along Kuakini Highway. All safety precautions shall be enforced during blasting operations.

b. Phase II - This phase involves the construction of Sideroad "E". Traffic will be re-routed onto the new highway, then back onto the existing Kuakini Highway. Two lanes of traffic shall be maintained along the detour route.

9. Pavement striping shall be done by others.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL
GENERAL NOTES

HB2 FAP ROUTE II
PALANI RD. TO KILOHANA SUB'D.
PROJECT NO. F-011-1(14)
NORTH KONA, HAWAII

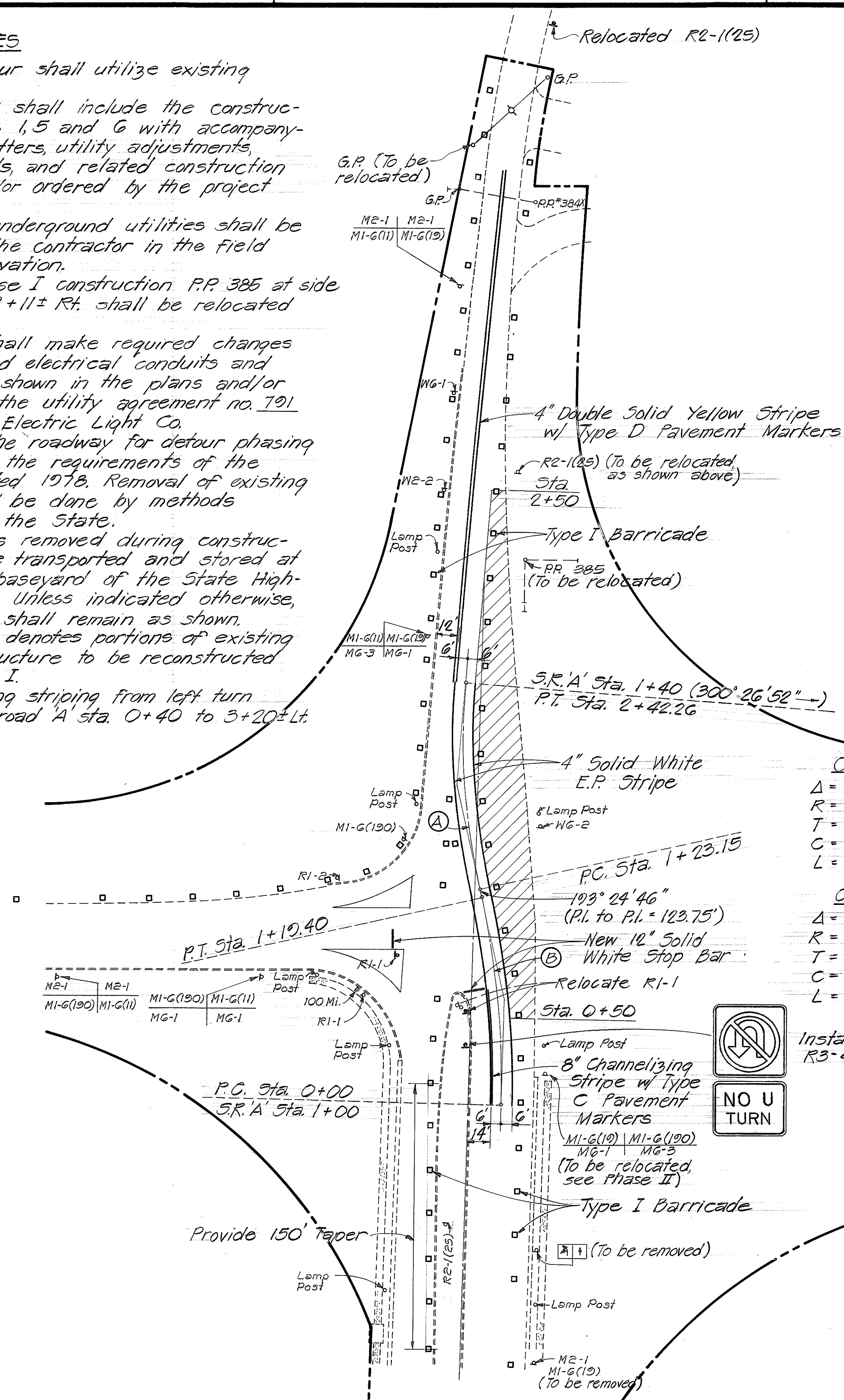
Date: Aug. 1982

SHEET NO. OF SHEETS

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

PHASE I NOTES

1. Phase I detour shall utilize existing roadway.
2. Phase I work shall include the construction of lanes 1, 5 and 6 with accompanying curbs, gutters, utility adjustments, traffic signals, and related construction approved and/or ordered by the project engineer.
3. Location of underground utilities shall be verified by the contractor in the field prior to excavation.
4. Prior to Phase I construction R.P. 385 at side road 'A' Sta. 2+11± Rt. shall be relocated by others.
5. Contractor shall make required changes to underground electrical conduits and structures as shown in the plans and/or specified in the utility agreement no. 191 with Hawaii Electric Light Co.
6. Striping of the roadway for detour phasing shall satisfy the requirements of the M.U.T.C.D., dated 1978. Removal of existing striping shall be done by methods approved by the State.
7. Existing signs removed during construction shall be transported and stored at the N. Kona baseyard of the State Highways Division. Unless indicated otherwise, existing signs shall remain as shown.
8. Hatched area denotes portions of existing pavement structure to be reconstructed during phase I.
9. Remove existing striping from left turn lane at side road 'A' Sta. 0+40 to 3+20± Lt.

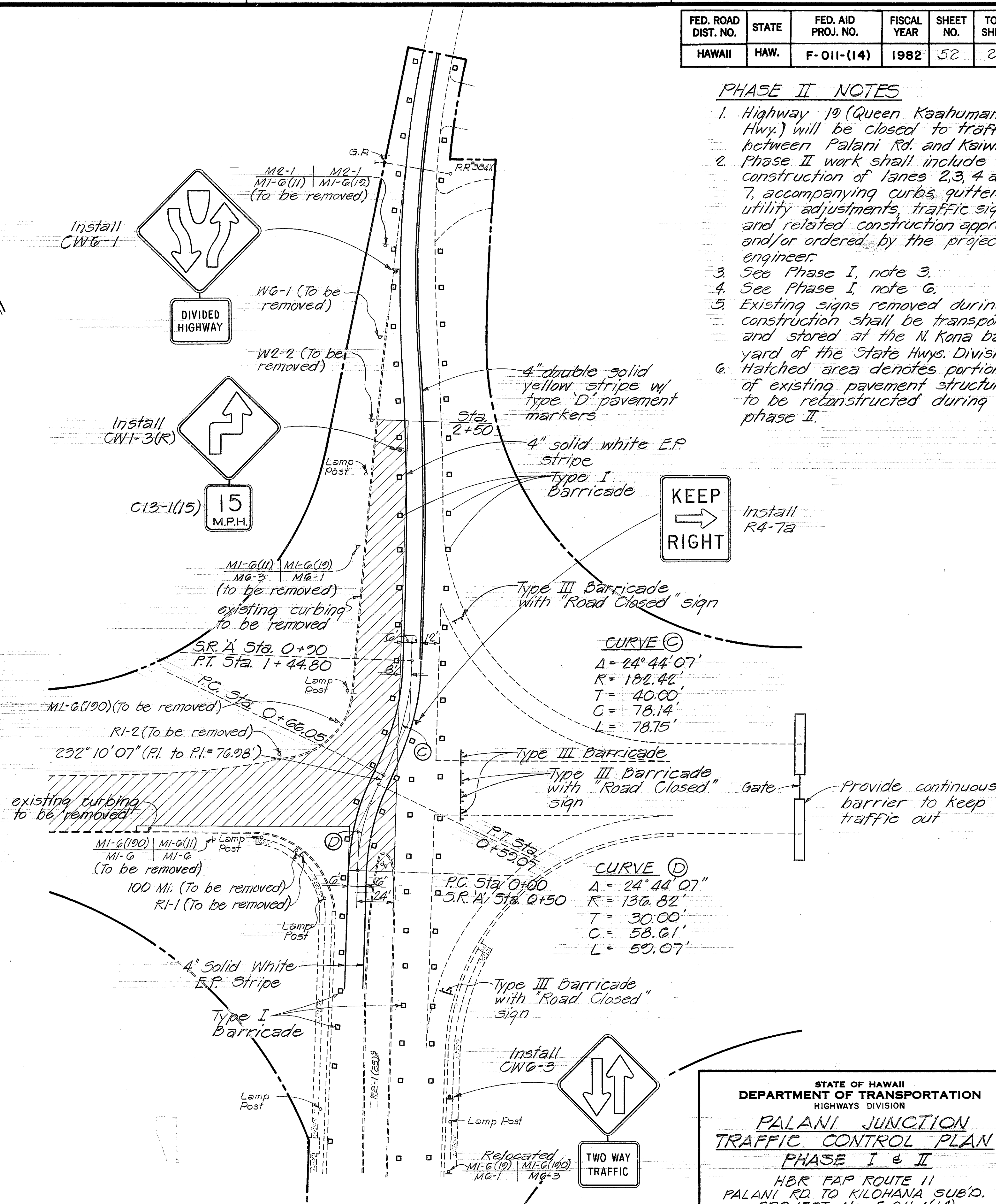


PALANI JCT. - TRAFFIC CONTROL - PHASE I

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-(14)	1982	52	214

PHASE II NOTES

1. Highway 19 (Queen Kaahumanu Hwy.) will be closed to traffic between Palani Rd. and Kaiwi St.
2. Phase II work shall include the construction of lanes 2, 3, 4 and 7, accompanying curbs, gutters, utility adjustments, traffic signals, and related construction approved and/or ordered by the project engineer.
3. See Phase I, note 3.
4. See Phase I, note 6.
5. Existing signs removed during construction shall be transported and stored at the N. Kona baseyard of the State Hwys. Division.
6. Hatched area denotes portions of existing pavement structure to be reconstructed during phase II.



PALANI JCT. - TRAFFIC CONTROL - PHASE II

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**PALANI JUNCTION
TRAFFIC CONTROL PLAN**

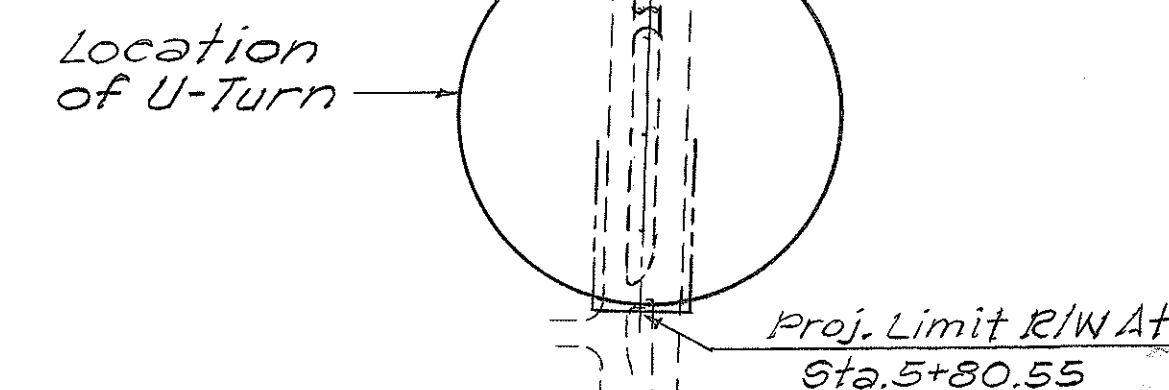
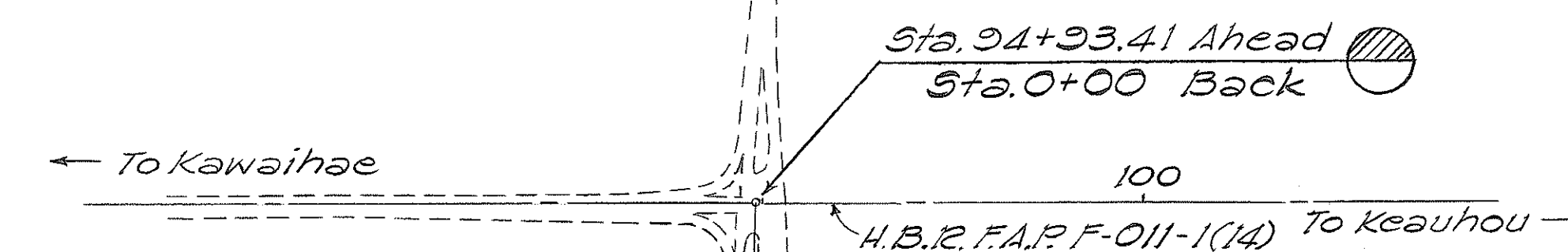
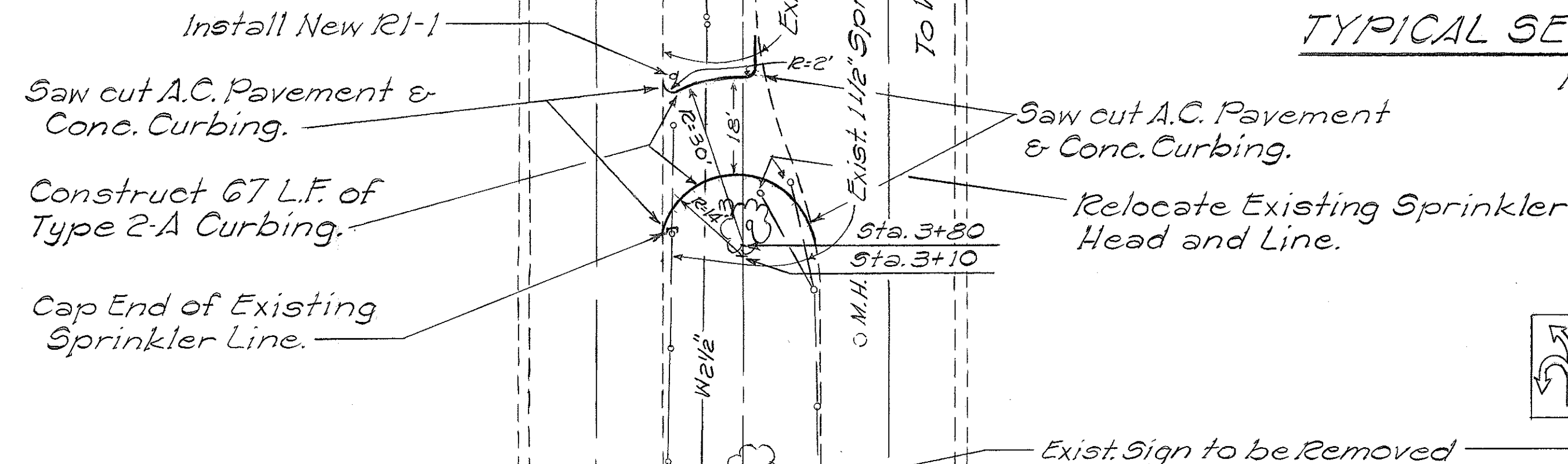
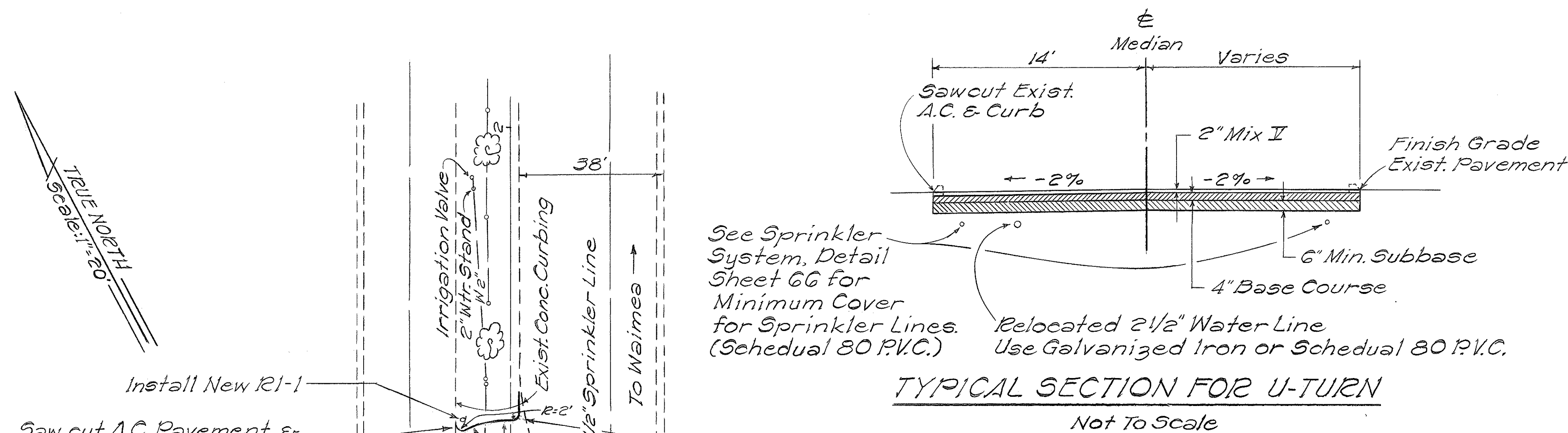
PHASE I & II

HBR FAP ROUTE 11
PALANI RD. TO KILOHANA SUBD.
PROJECT NO. F-011-1(14)
NORTH KONA, HAWAII

Scale: 1" = 40' Date: Aug. 1982

SHEET NO. OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-1(14)	82		



ESTIMATED QUANTITIES

Roadway Exc.	16 C.Y.
A.C. Mix II	52 Tons
Aggregate Base	5.1 C.Y.
Aggregate Subbase	7.6 C.Y.
Curbing Type 2A	67 L.F.
R1-1 Sign w/Post	1 Ea.
R16-6 Sign w/Post	1 Ea.

NOTES:

- 2 1/2" Water Lines for Sprinkler System to be Relocated Below New Pavement Structure for U-Turn.
- Striping to be done by others.
- Grassed areas that are disturbed shall be replanted.

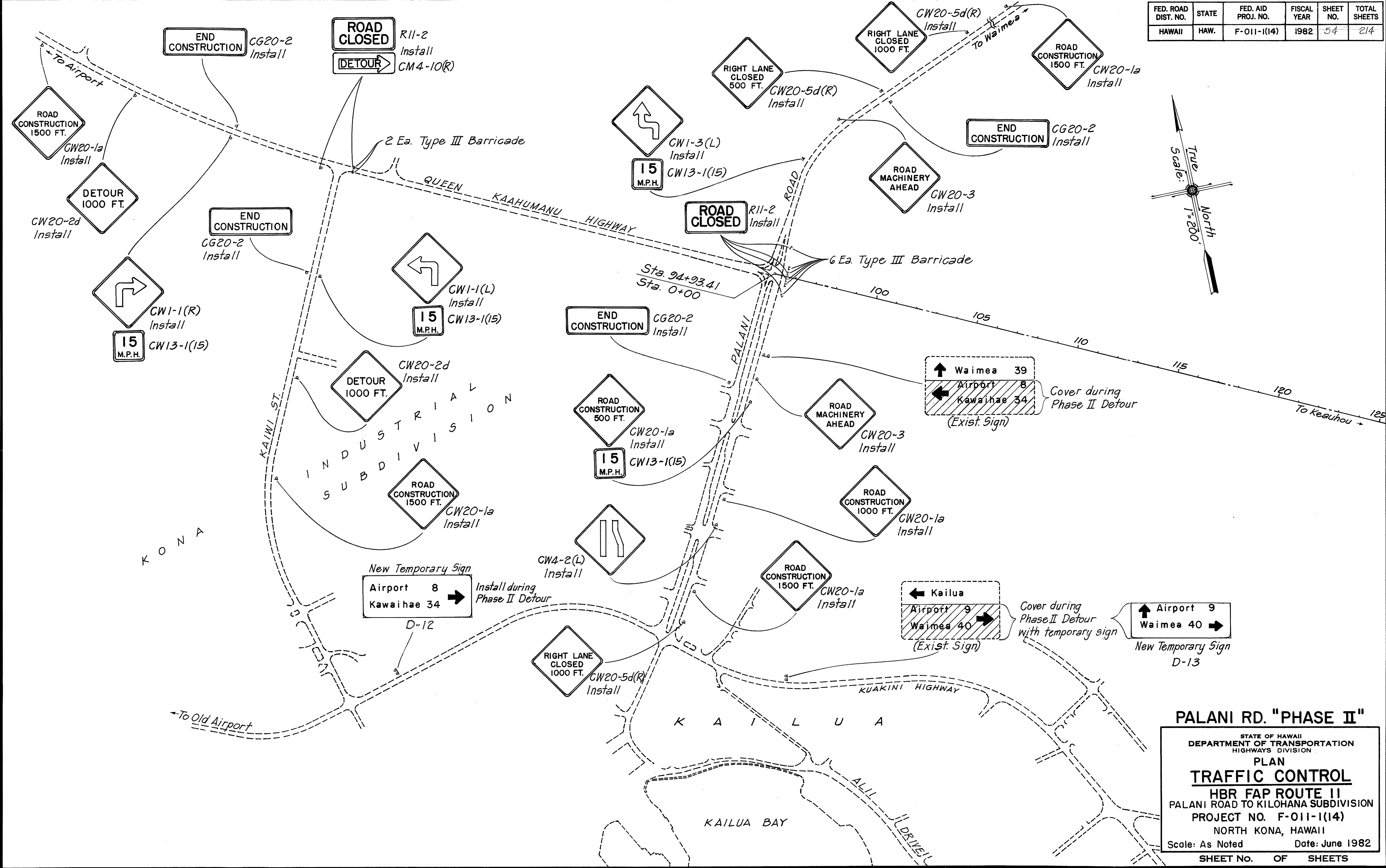
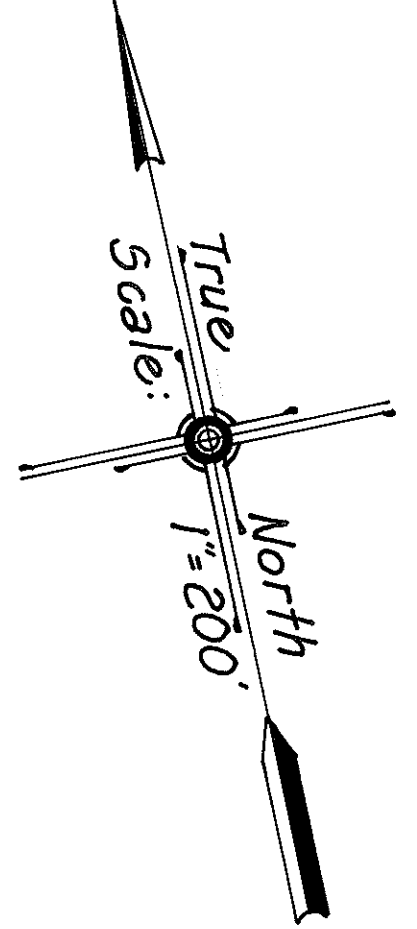
PLAN Scale: 1" = 20'

Proj. Limit R/W At
Sta. 5+80.55

LOCATION MAP Not To Scale

21 Nov. '84	Sheet Added to Contract Plan to Show Details of U-Turn Lane at Sta. 2+87 on Palani Road.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION U-TURN LANE AT STA. 2+87 PALANI-SIDEROAD "A" H.B.R. F.A.R. ROUTE 11 PALANI RD. TO KILOHANA SUB'D. PROJECT No. F-011-1(14) NORTH KONA, HAWAII Scale: As Noted Date: Sept. 1982 SHEET NO. 1 OF 1 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-1(14)	1982	54	214



PALANI RD. "PHASE II"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLAN
TRAFFIC CONTROL

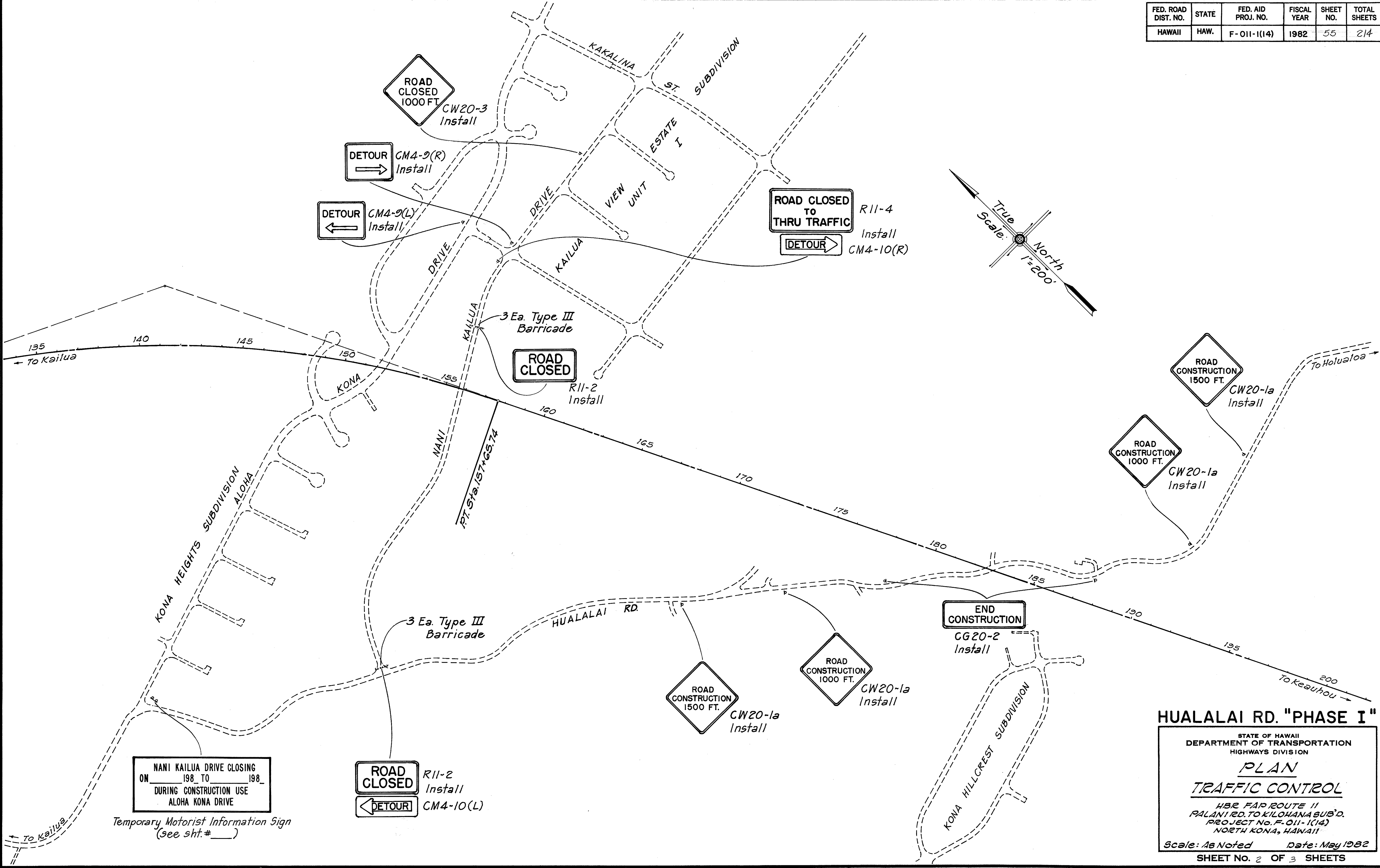
HBR FAP ROUTE II
PALANI ROAD TO KILOHANA SUBDIVISION
PROJECT NO. F-011-1(14)
NORTH KONA, HAWAII

Scale: As Noted Date: June 1982

SHEET No. OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-1(14)	1982	55	214



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLAN
TRAFFIC CONTROL

HBR FAP ROUTE 11
PALANI RD. TO KILOHANA SUB'D.
PROJECT No. F-011-1(14)
NORTH KONA, HAWAII

Scale: As Noted Date: May 1982
SHEET NO. 2 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-1(14)	1982	57	214

DETOUR CONNECTION CURVE DATA

$\Delta = 37^{\circ}30'00''$
 $R = 176.75'$
 $T = 60.00'$
 $C = 113.63'$
 $L = 115.68'$

TRUE NORTH
Scale: 1"=20'

Crossed hatched area denotes limits of detour connection. Provide smooth easy riding connection to existing Hualalai Road.

STA. 180+70
 BEG. DETOUR CONNECTION
 STA. 0+00

Provide Temporary waterline hookup for 3" & 3/4" lines. For 3" Line, refer to water system general notes, sht. no. 138

DETOUR CONNECTION
 PC STA. 1+00

END DETOUR CONNECTION
 PT. STA. 2+21.66

exist. private waterline
 exist. waterline (abandoned)
 exist. 3" waterline

Delineator Posts 20' c.c.

← To Kailua 180

4" Yellow double solid centerline with type "D" pavement markers.

Delineator Posts 20' c.c.

HUALALAI ROAD

M1-8
 (install)

ROAD CLOSED

R11-2
 (mounted on barricade)

2 ea. Type III Barricade

DETOUR
 CM4-10 (R)
 (mounted on barricade)

M1-8
 (install)

HUALALAI RD.-PHASE II
 DETOUR CONNECTION AT STA. 180+70

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

PLAN
 TRAFFIC CONTROL

HBR FAP ROUTE II
 PALANI ROAD TO KILOHANA SUB'D.
 PROJECT NO. F-011-1(14)
 NORTH KONA, HAWAII

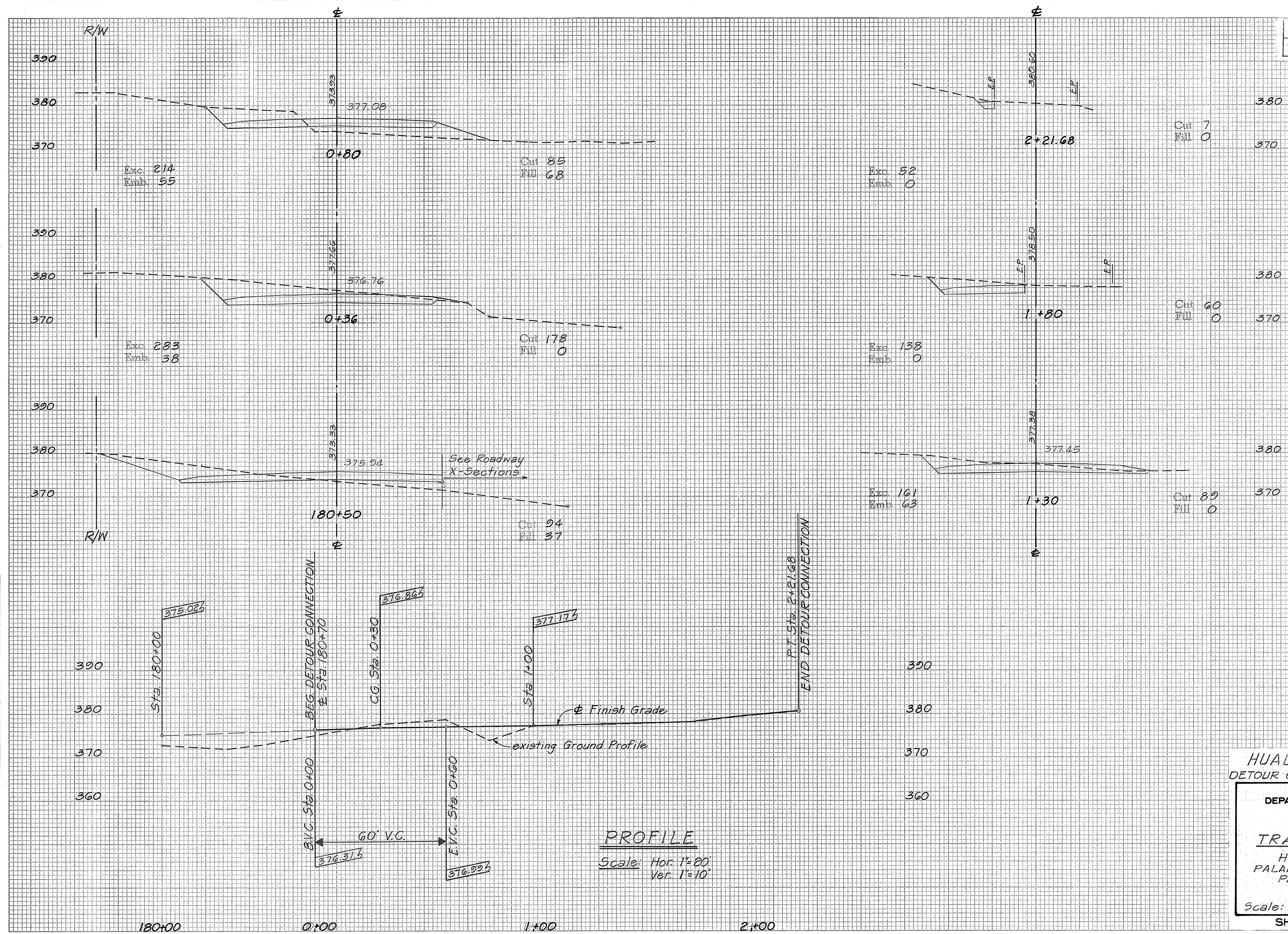
Scale: As Shown Date: Aug. 1982

SHEET NO. OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-1(14)	1982	58	214

DATE	BY	REVIEWED	DATE

DATE	BY	REVIEWED	DATE
5/82	JA		



HUALALAI RD. - PHASE II
DETOUR CONNECTION AT STA. 180+70

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

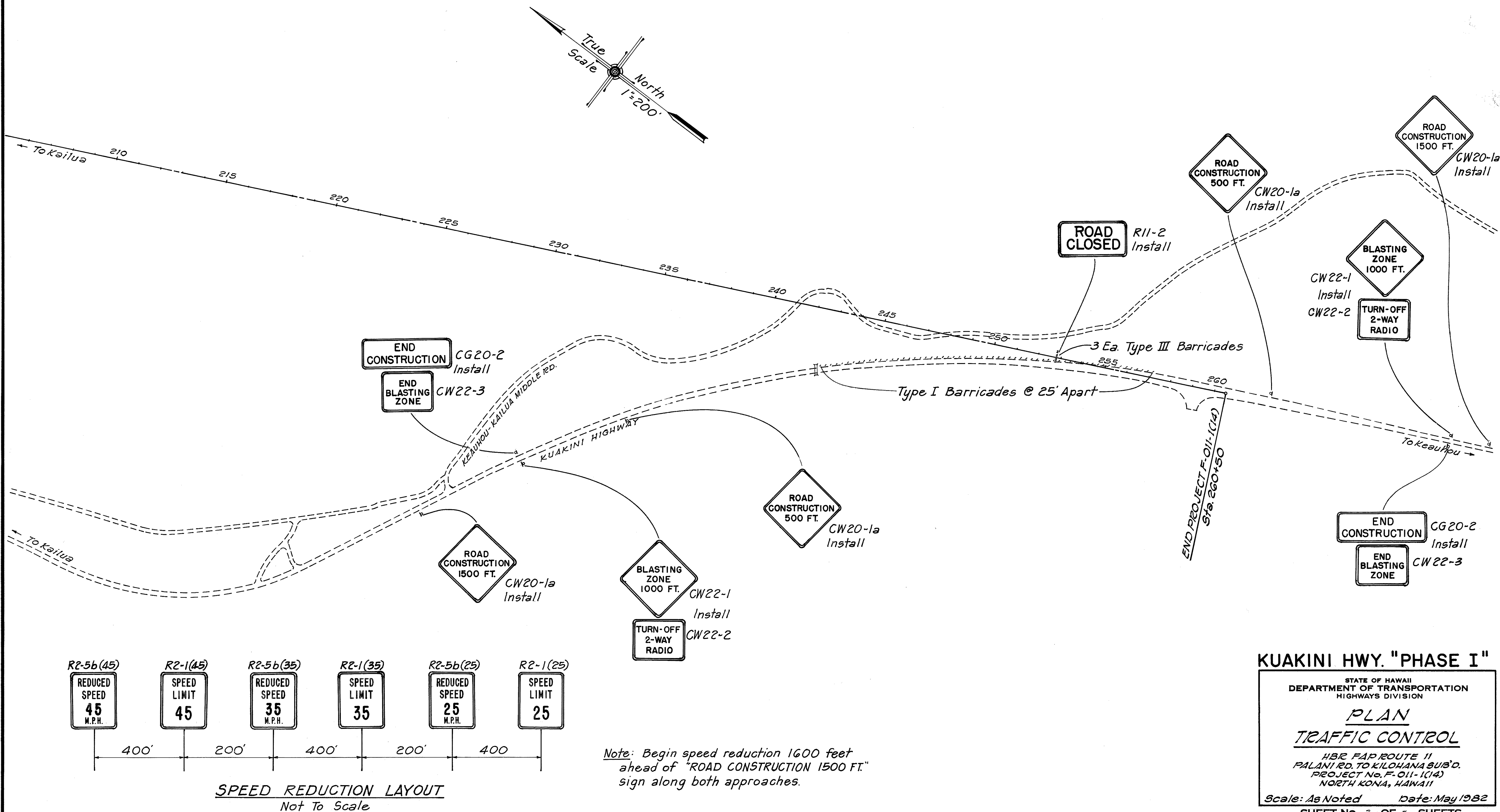
PLAN
TRAFFIC CONTROL

HBR FAP ROUTE 11
 PALANI ROAD TO KILOHANA SUBD.
 PROJECT No. F-011-1(14)
 NORTH KONA, HAWAII

Scale: As Shown Date: Aug. 1982

SHEET No. 58 OF 214 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-1(14)	1982	59	214



SURVEY PLOTTED BY: _____ DATE: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 CHECKED BY: _____
 NOTE BOOK: _____
 NO. _____

KUAKINI HWY. "PHASE I"

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

PLAN

TRAFFIC CONTROL

HBR FAP ROUTE 11

PALANI RD. TO KILOHANA SUB'D.

PROJECT No. F-011-1(14)

NORTH KONA, HAWAII

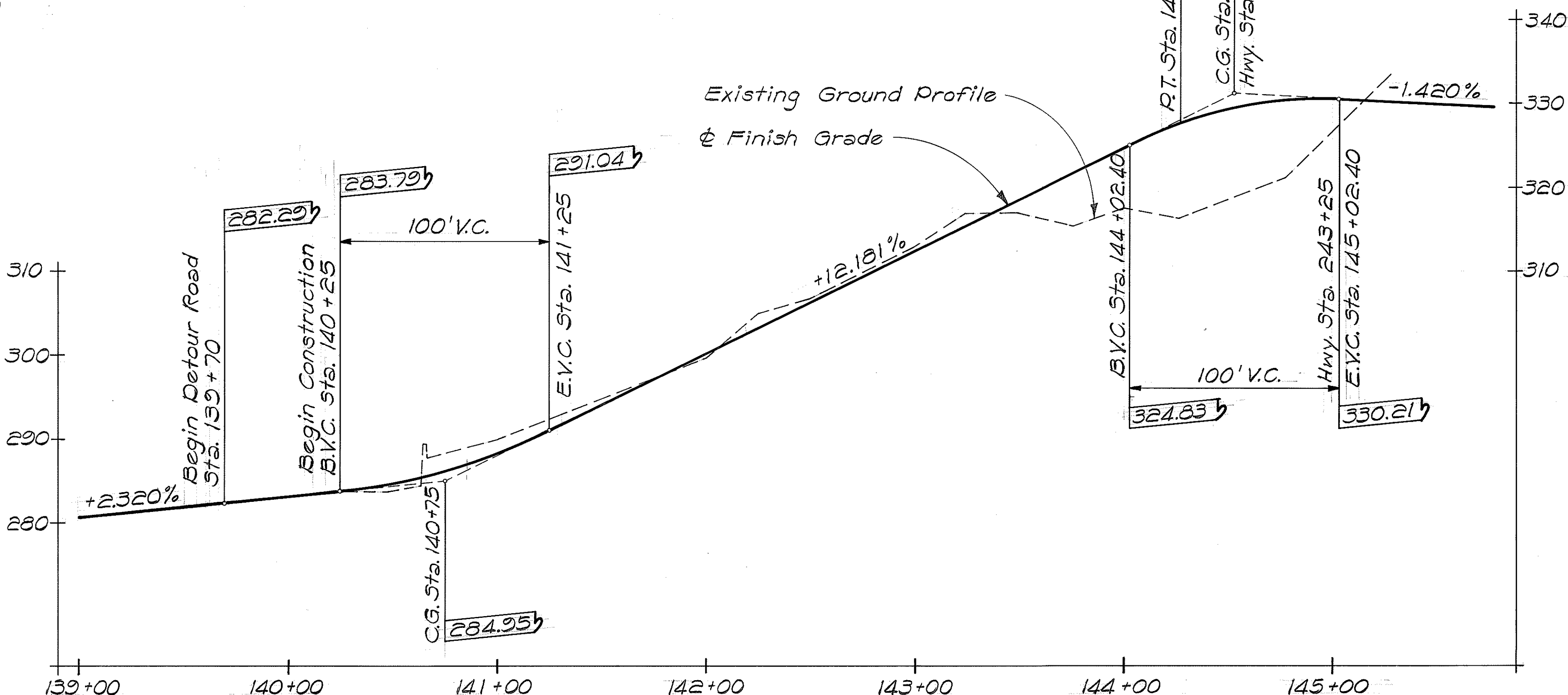
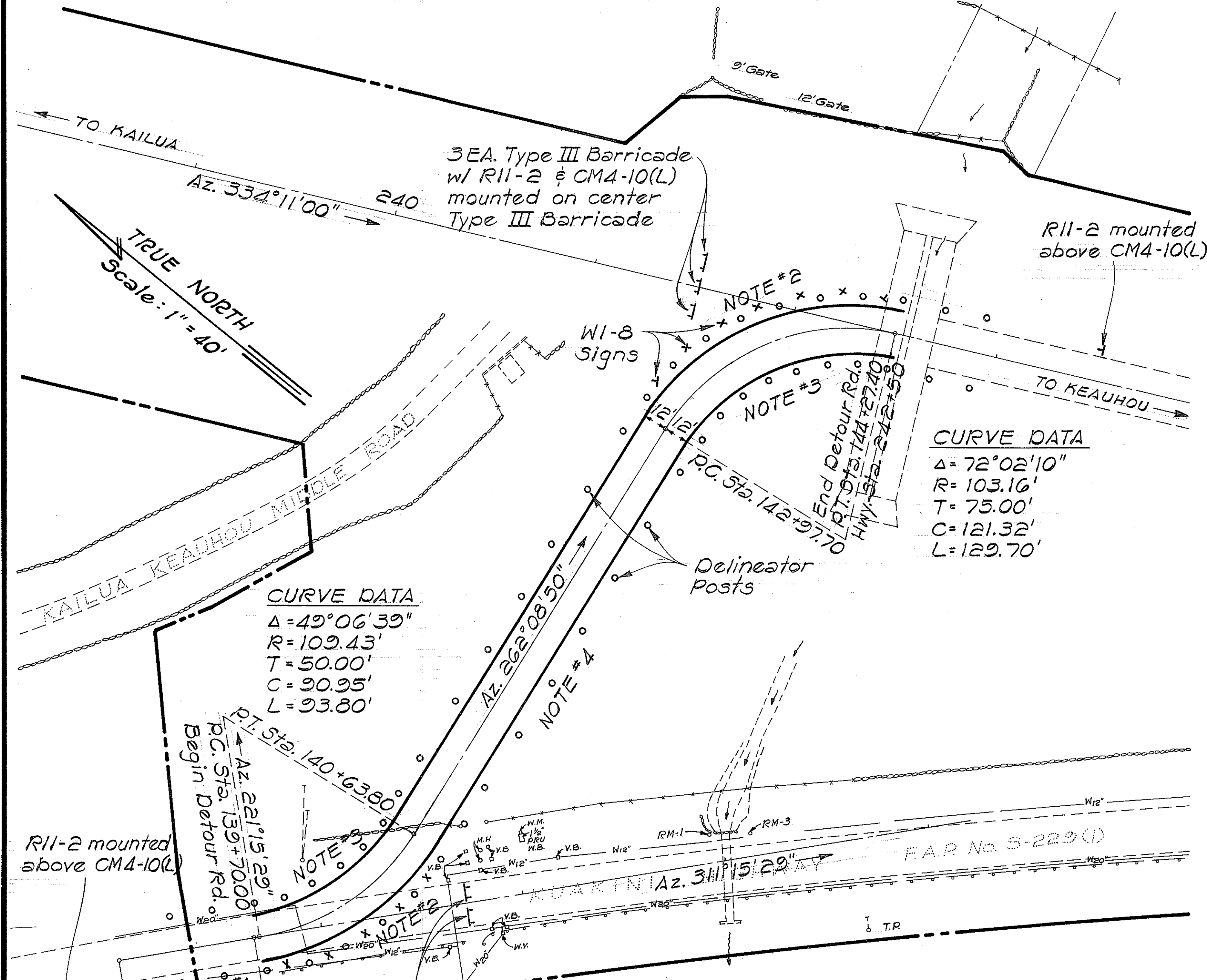
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Date: May 1982

SHEET NO. 3 OF 3 SHEETS

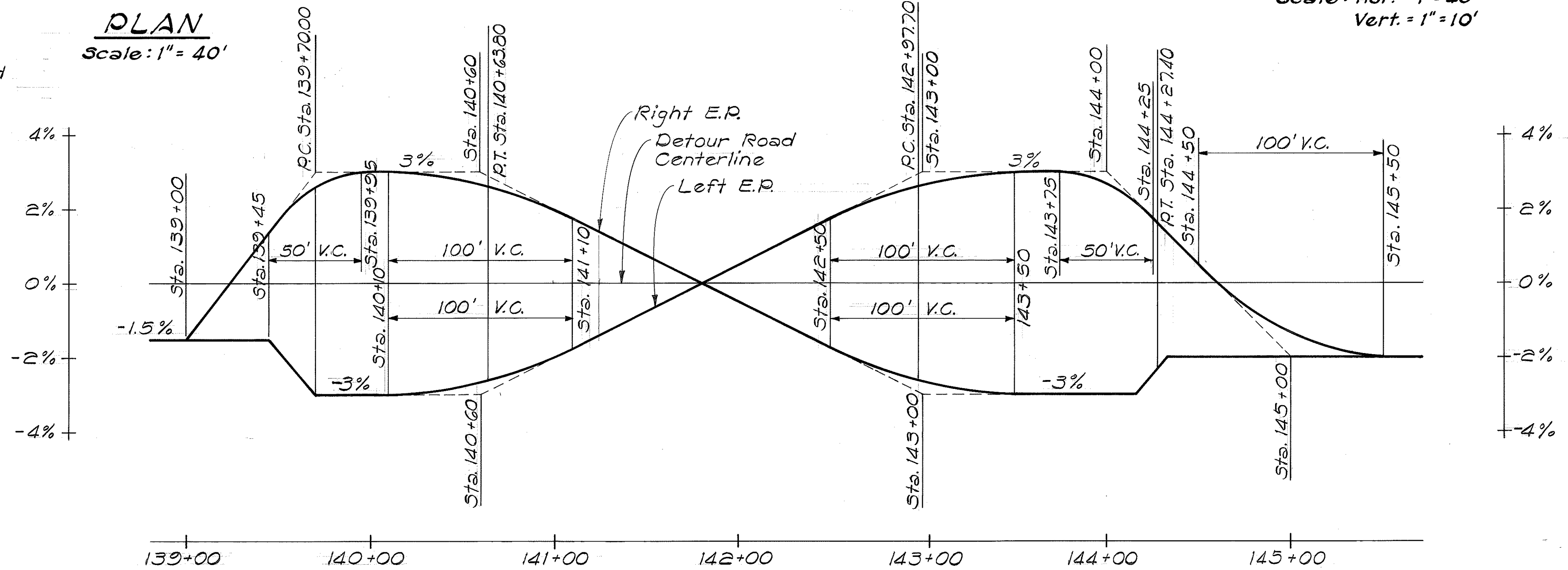
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-1(14)	1982	60	214

- NOTES**
1. Delineator posts are 20' o.c. on both approaches to Detour Road.
 2. W1-8 signs are 20' o.c. and delineator posts are 20' o.c. on outside curve.
 3. Delineator posts are 15' o.c. on inside curve.
 4. Delineator posts are 30' o.c. on tangent.



PLAN
Scale: 1" = 40'

DETOUR CONN. PROFILE AT SIDEROAD "E" STA. 139+70
Scale: Hor. = 1" = 40'
Vert. = 1" = 10'



SUPERELEVATION DIAGRAM
Scale: 1" = 40'

KUAKINI HWY. "PHASE II"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

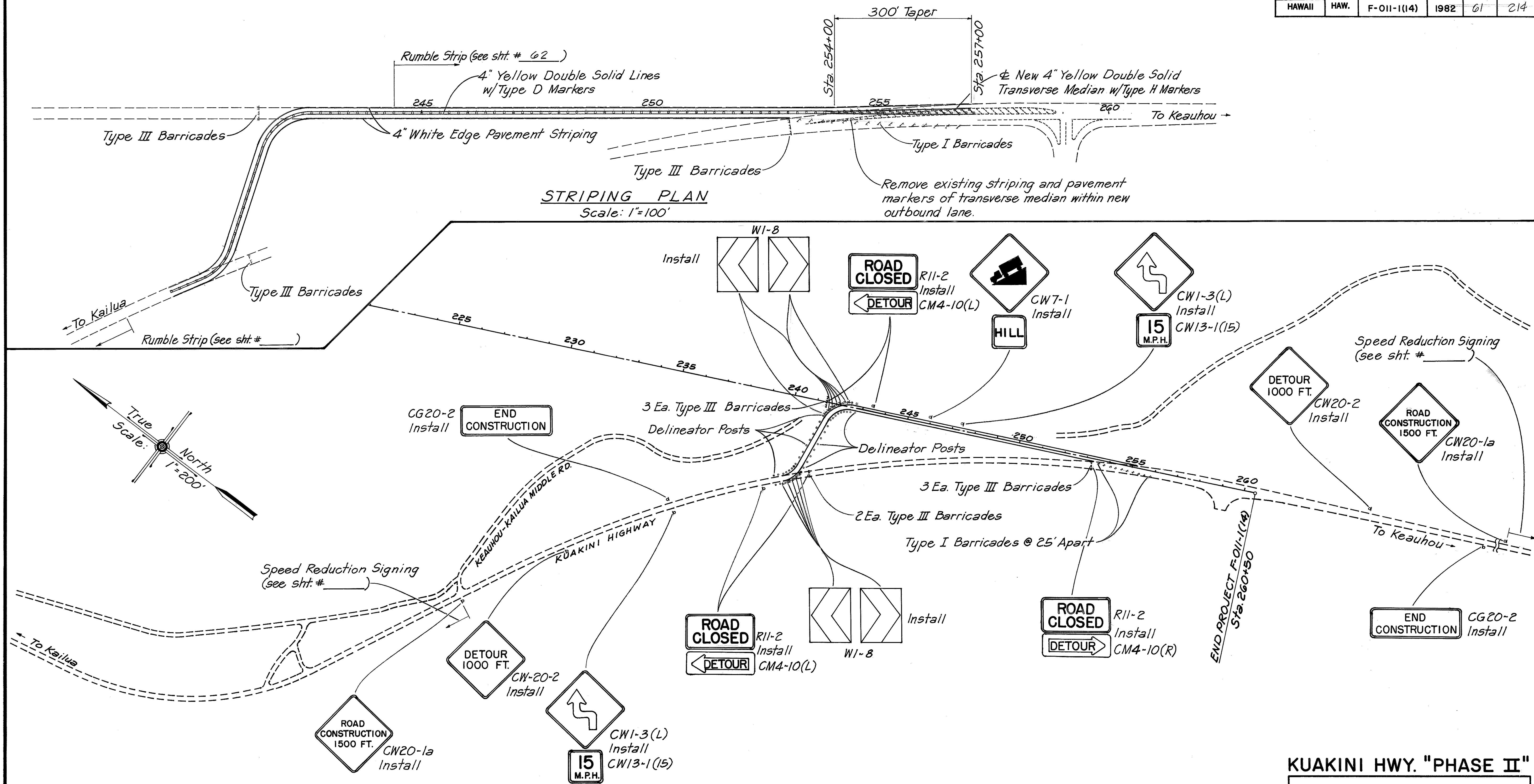
TRAFFIC CONTROL
SIDEROAD "E" - STA. 139+70
DETOUR CONNECTION

H.B.R. F.A.P. ROUTE 11
PALANI RD. TO KILOHANA SUB'D.
PROJECT NO. F-011-1(14)
NORTH KONA, HAWAII

Scale: As Noted Date: July 1982

SHEET NO. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-1(14)	1982	61	214



ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	4/82
DRAWN BY	4/82
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

KUAKINI HWY. "PHASE II"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLAN
TRAFFIC CONTROL
HBR FAP ROUTE II
PALANI ROAD TO KILOHANA SUBDIVISION
PROJECT NO. F-011-1(14)
NORTH KONA, HAWAII

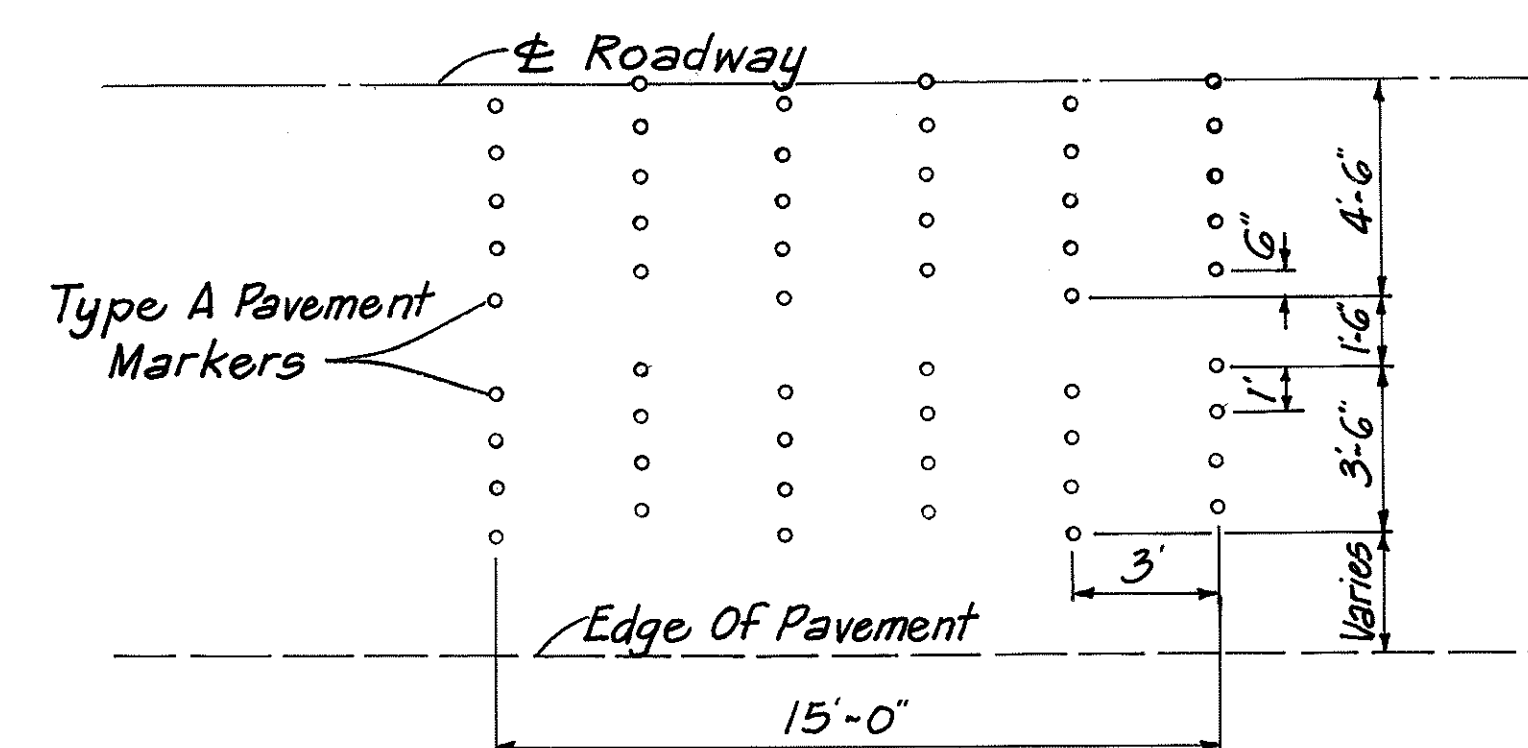
Scale: As Noted Date: June 1982
SHEET NO. 61 OF 214

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-1(14)	1982	62	214

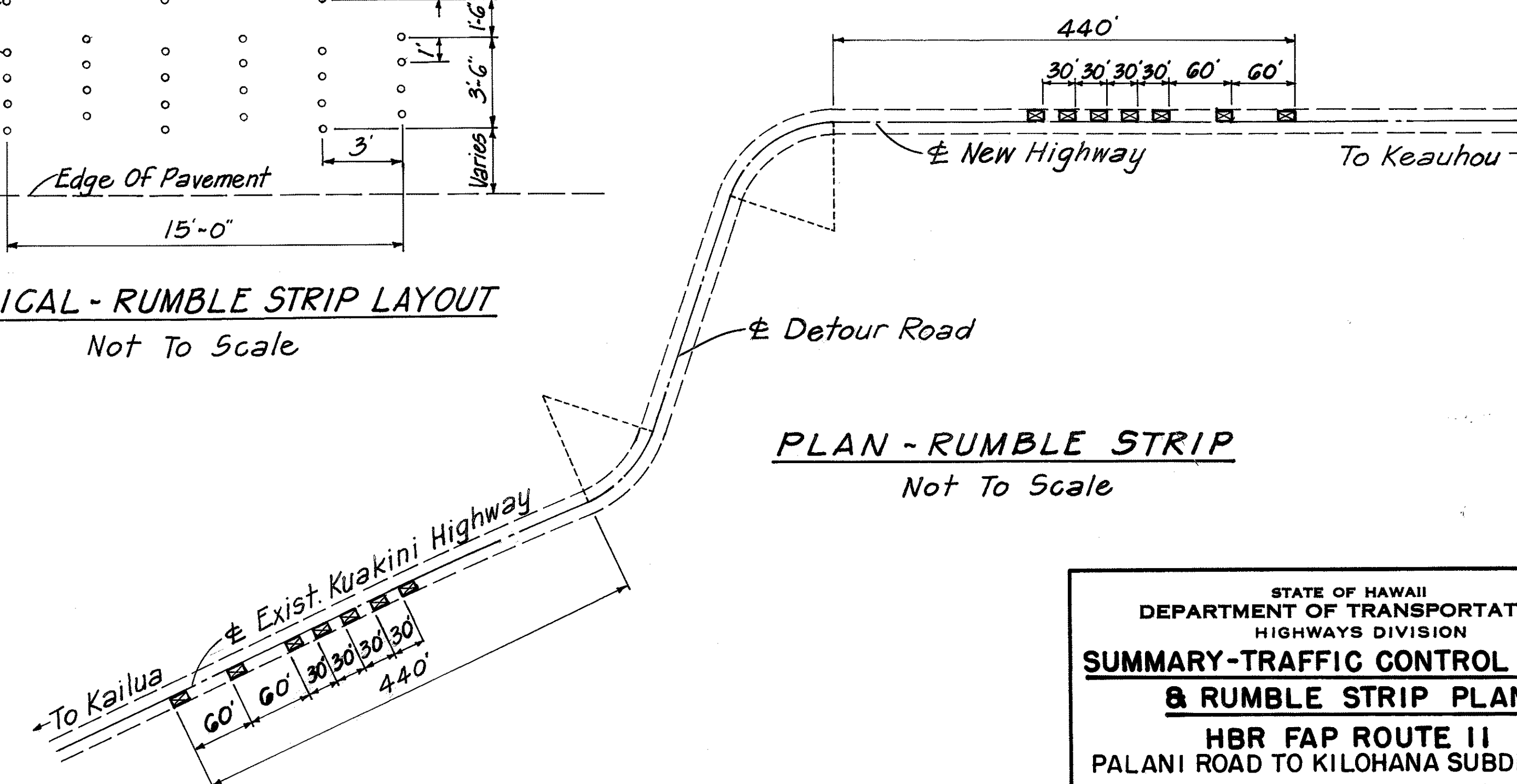
SUMMARY ~ TRAFFIC CONTROL SIGNS

ITEM NO.	TYPE	DESCRIPTION	PALANI		HUALALAI		KUAKINI	
			PHASE I	PHASE II	PHASE I	PHASE II	PHASE I	PHASE II
621.5100	R1-1	Stop Sign				1		
	R2-1(25)	Speed Limit 25	1	1			2	2
	R2-1(35)	Speed Limit 35	1	1			2	2
	R2-1(45)	Speed Limit 45	1	1			2	2
	R2-5b(25)	Reduced Speed 25 M.P.H.	1	1			2	2
	R2-5b(35)	Reduced Speed 35 M.P.H.	1	1			2	2
	R2-5b(45)	Reduced Speed 45 M.P.H.	1	1			2	2
	R4-7a	Keep Right		1				
621.5000	R11-2	Road Closed		5	2	5	1	3
621.5100	R11-2	Road Closed		1		1		2
621.5300	R11-3(0.3)	Road Closed 0.3 Mile Ahead Local Traffic Only				1		
	R11-3(0.4)	Road Closed 0.4 Mile Ahead Local Traffic Only				1		
	R11-4	Road Closed To Thru Traffic			1			
621.5500	CW1-1(L)	Curve Sign		1				
	CW1-1(R)	Curve Sign		1				
	CW1-3(L)	Reverse Turn Sign	1	1		2		2
	CW1-3(R)	Reverse Curve		1				
	CW2-2	Sideroad Sign				2		
	CW2-4	T-Intersection Sign				2		
	CW4-2(R)	Pavement Width Transition	1	1				
621.7100	CW6-1	Divided Highway		1				
621.5500	CW6-3	Two Way Traffic		1				
	CW7-1	Hill Sign						1
621.5400	CW13-1(15)	Advisory Speed Plate 15 M.P.H.	3	5		2		2
	CW13-1(25)	Advisory Speed Plate 25 M.P.H.				2		
621.7100	CW20-1a(500)	Road Construction 500 FT.	2	1		1	2	
	CW20-1a(1000)	Road Construction 1000 FT.	3	1	2			
	CW20-1a(1500)	Road Construction 1500 FT.	3	4	2	2	2	2
	CW20-2d	Detour 1000 FT.		2		3		2
	CW20-3	Road Closed Ahead				1		
	CW20-3	Road Closed 1000 FT.			1			
	CW20-5d(R)	Right Lane Closed 500 FT.		1				
	CW20-5d(R)	Right Lane Closed 1000 FT.	1	2				
	CW21-3	Road Machinery Ahead	3	2				
	CW22-1G	Blasting Zone 1000 FT.					2	
621.7000	CW22-2	Turn Off 2-Way Radio					2	
	CW22-3	End Blasting Zone					2	
621.7100	CM4-9(L)	Detour Arrow			1			
	CM4-9(R)	Detour Arrow			1			
621.7000	CM4-10(L)	Detour Arrow			1	4		4
	CM4-10(R)	Detour Arrow		1	1	2		1
621.7100	CG20-1(1/2)	Road Construction Next 1/2 Mile				2		
	CG20-2	End Construction	3	4	2	2	2	2
621.5000	W1-8	Chevrons						10

SUMMARY ~ TRAFFIC CONTROL SIGNS

[illegible]

TYPICAL - RUMBLE STRIP LAYOUT
Not To Scale



PLAN - RUMBLE STRIP
Not To Scale

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SUMMARY-TRAFFIC CONTROL SIGNS
& RUMBLE STRIP PLAN

HBR FAP ROUTE 11
PALANI ROAD TO KILOHANA SUBDIVISION
PROJECT NO. F-011-1(14)
NORTH KONA, HAWAII

Scale: As Noted Date: July 1982

SHEET NO. OF SHEETS