

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-056-1(51)	2008	85	284

Signing & Pavement Marking Notes:

- Layout of pavement markings and striping shall be done by the Contractor and approved by the Engineer prior to any installation work.
- Existing pavement markings and striping not incorporated in the final traffic pattern shall be removed as directed by the Engineer. The removal of the existing pavement markings shall not be paid for separately but shall be considered incidental to the various pavement marking items.
- Raised pavement markers shall not be installed within crosswalks.
- Final locations of all signs shall be approved by the Engineer prior to any installation work.
- Existing signs not shown on these plans shall remain as posted unless otherwise directed by the Engineer. Removal and disposal of existing signs and/or posts as designated on these plans or directed by the Engineer shall not be paid for and shall be considered incidental to the various signing items.
- Final locations of all Stop Lines shall be approved by the Engineer prior to installation.
- All pavement striping shall be as noted on the Legend or plans.
- All preformed pavement marking tapes over existing pavement shall be applied with an approved primer as recommended by the tape manufacturer and as approved by the Engineer. The primer shall be allowed to dry to the tacky stage prior to tape application.
- Stop signs indicated to be removed shall be removed after the traffic signal system is operational.
- Removal of Existing Delineators and Posts as directed by the Engineer shall be considered incidental to the various signing items.
- Existing signs that are to be replaced shall not be removed until new signs are installed as replacements, or the messages are no longer necessary.
- Backing for all new regulatory and warning signs shall not be spliced.
- All sign panels shall conform to Section 630 or 631 of the Special Provisions and the latest editions and amendments of the following FHWA publications:
 - "Manual on Uniform Traffic Control Devices" (MUTCD)
 - "Standard Highway Signs"
 - "Standard Alphabets for Highway Signs"
- All new and relocated signs and markers installed on pipe post or light standards are to be mounted with band brackets and steel braces.
- The Contractor shall erect at the beginning of the project and at the end of the project advance construction warning signs as indicated on the plans or as directed by the Engineer for the duration of the highway project and shall be maintained by the Contractor. These signs shall be placed in addition to the required traffic control signs call for in Section 645 Traffic Control. The advance construction warning signs shall be new and become the property of the State. The Contractor shall remove, clean, and deliver the signs and posts to the Kauai District Baseyard or as directed by the Engineer at the end of the project. The advance construction warning signs shall be paid under Item No. 645.0100, Traffic Control.

Pavement Marking Legend:

	4 each Type A Raised Pavement Markers Type C Raised Pavement Markers @ 40'-0" o.c.
	4 each Type J Raised Pavement Markers Type D Raised Pavement Markers @ 40' o.c.
	8" White Stripe with Type C Raised Pavement Markers @ 20'-0" o.c. (Tape, Type I or Thermoplastic Extrusion)
	4" Double Solid Yellow Stripes with Pairs of Type D Raised Pavement Markers @ 20'-0" o.c. (Tape, Type I or Thermoplastic Extrusion)
	4" Double Solid Yellow Stripes with Pairs of Type H Raised Pavement Markers @ 20'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
	4" Yellow Edge Stripes with Type H Raised Pavement Markers @ 40'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
	4" Double Solid White Stripes with Pairs of Type C Raised Pavement Markers @ 20'-0" o.c. (Tape, Type I or Thermoplastic Extrusion)
	Lane Change Restriction Marking 4 each Type A Raised pavement Markers Type C Raised Pavement Markers @ 20'-0" o.c. 4" White Stripe (Tape, Type I or Thermoplastic Extrusion)
	4" or 8" White Edge Stripe with Type C Raised Pavement Markers @ 40'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
	4" White Guide Lines (Tape, Type III or Thermoplastic Extrusion except for bus bays)
	Transverse Median Marking (Tape, Type II or Thermoplastic Extrusion)
	Transverse Shoulder Marking (Tape, Type II or Thermoplastic Extrusion)
	Channelizing Island or Deceleration Lane Gore (Tape, Type II or Thermoplastic Extrusion)
	Crosswalk and Stop Line. All Stop Lines shall be 10'-0" from Crosswalk unless otherwise notes. The circled number indicates the number of lanes for payment (Tape, Type III or Thermoplastic Extrusion)
	Pavement Arrows (Tape, Type III or Thermoplastic Extrusion)
	Pavement Word (Tape, Type III or Thermoplastic Extrusion)
	4 Each Type J Raised Pavement Markers Type D Raised Pavement Markers @ 40'-0" o.c. Type H Raised Pavement Markers (Reflective Surface facing no-passing direction) 4" Single Solid Yellow Stripe (Tape, Type I or Thermoplastic Extrusion)
	Extension of Edge Line, 4" Wide x 2'-0" Long White Stripe @ 10'-0" o.c. w/ Type C Markers @ 40'-0" o.c. (Tape, Type III or Thermoplastic Extrusion)

Pavement Marking Legend:

- Existing Sign
- New or Relocated Sign
- Outbound Traffic Flow Direction
- Inbound Traffic Flow Direction
- Flexible Delineators

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

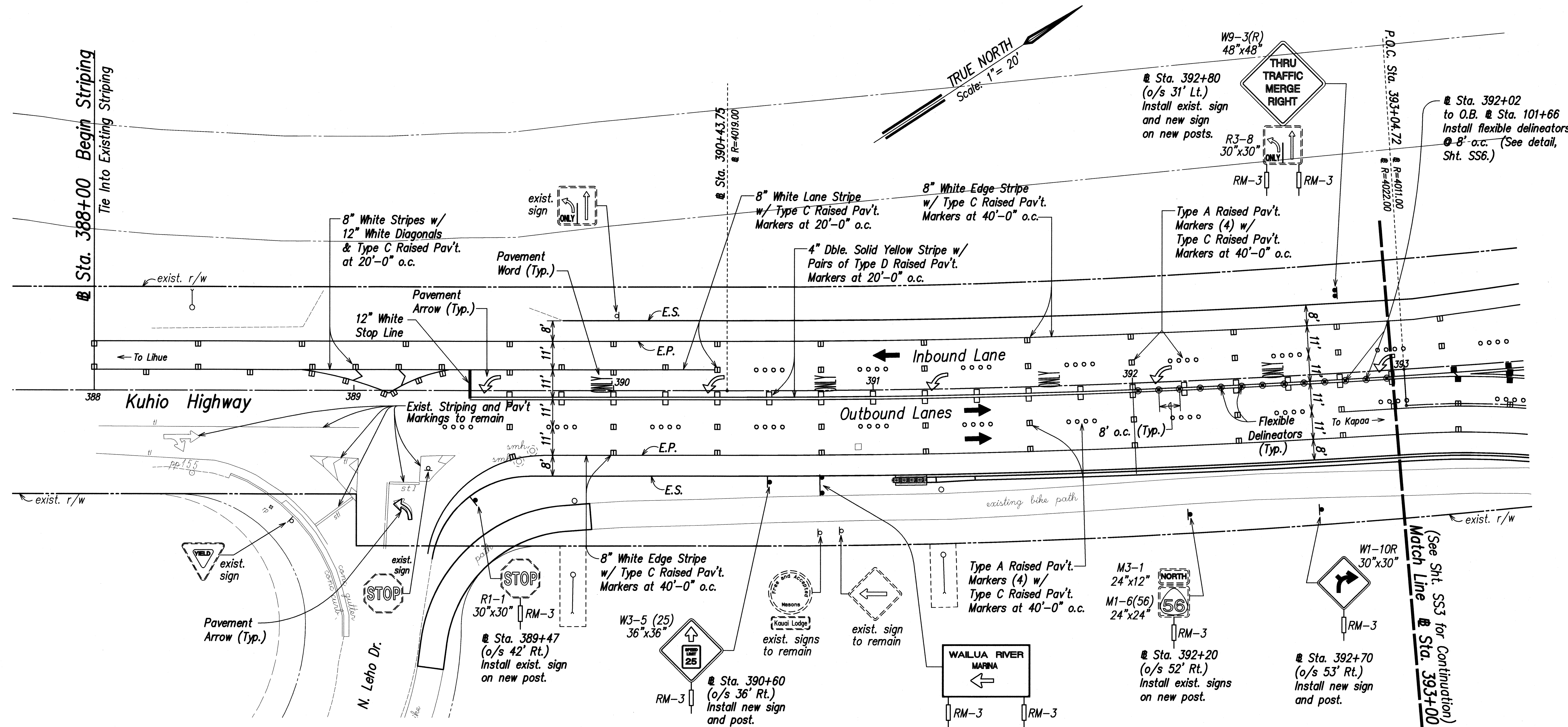


THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

RUSSELL M. ARAKI
PAPER, INC.
dba PARK ENGINEERING
LICENSE EXPIRES 4-30-10

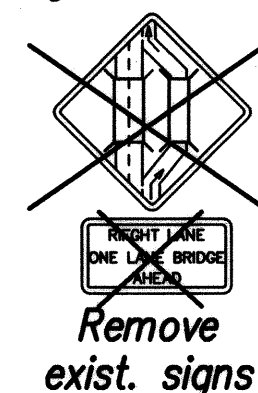
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
SIGNING & PAVEMENT MARKING NOTES
PAVEMENT MARKING LEGEND
KUHO HIGHWAY, SHORT TERM IMPROVEMENTS
Wailua Cane Haul Bridge Widening
Fed. Aid Project No. BR-056-1(51)
Scale: None Date: MAY 2008
SHEET No. SS1 OF SS8 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-056-1(51)	2008	86	284



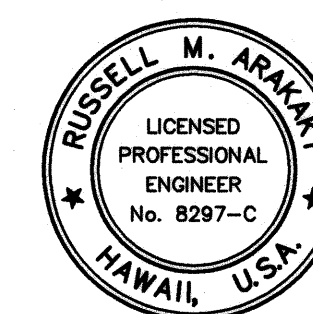
Note:

1. Reflector marker, RM-3, shall be installed on all posts for Traffic and Destination Signs.
2. Remove existing warning signs (2 ea.) "Right Lane One Lane Bridge Ahead: at approximate Sta. 380+70 (Rt.).



SIGNED & STRIPING PLAN Scale: 1" = 20'

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



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Russell M. Arakawa
P.E., Inc.
480 PARK ENGINEERING
LICENSE EXPIRES 4-30-10

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGNED & STRIPING PLAN

KUHIU HIGHWAY, SHORT TERM IMPROVEMENTS
Wailua Cane Haul Bridge Widening
Fed. Aid Project No. BR-056-1(51)

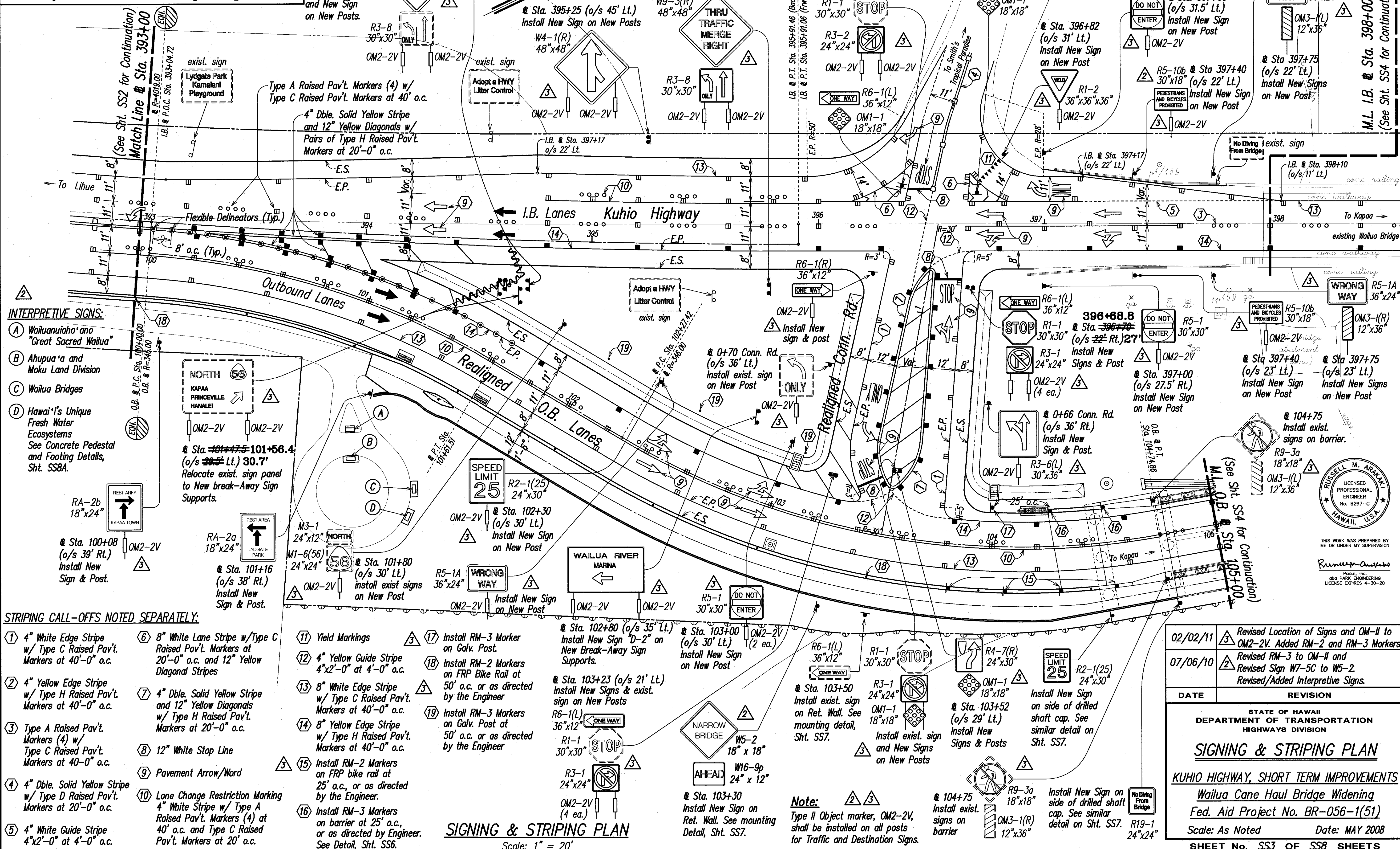
Scale: As Noted Date: MAY 2008

SHEET No. SS2 OF SS8 SHEETS

LEGEND FOR AS-BUILT POSTINGS

Squiggly line for as-built deletion
 Double line for as-built deletion
 Roadway Text for as-built posting

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-056-1(51)	2008	C.O.87	284



INTERPRETIVE SIGNS:

- (A) Wailuanuioho'ano "Great Sacred Wailua"
- (B) Ahupua'a and Moku Land Division
- (C) Wailua Bridges
- (D) Hawaii's Unique Fresh Water Ecosystems
See Concrete Pedestal and Footing Details, Sht. SS8A.

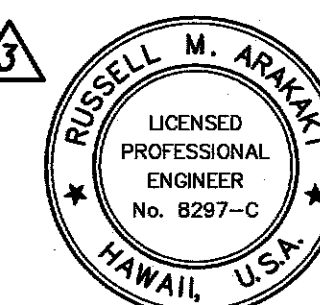
STRIPING CALL-OFFS NOTED SEPARATELY:

- | | | | |
|---|---|--|--|
| (1) 4" White Edge Stripe w/ Type C Raised Pav't. Markers at 40'-0" o.c.
(2) 4" Yellow Edge Stripe w/ Type H Raised Pav't. Markers at 40'-0" o.c.
(3) Type A Raised Pav't. Markers (4) w/ Type C Raised Pav't. Markers at 40'-0" o.c.
(4) 4" Dble. Solid Yellow Stripe w/ Type D Raised Pav't. Markers at 20'-0" o.c.
(5) 4" White Guide Stripe 4"x2'-0" at 4'-0" o.c. | (6) 8" White Lane Stripe w/ Type C Raised Pav't. Markers at 20'-0" o.c. and 12" Yellow Diagonal Stripes
(7) 4" Dble. Solid Yellow Stripe w/ Type H Raised Pav't. Markers at 20'-0" o.c.
(8) 12" White Stop Line
(9) Pavement Arrow/Word
(10) Lane Change Restriction Marking 4" White Stripe w/ Type A Raised Pav't. Markers (4) at 40' o.c. and Type C Raised Pav't. Markers at 20' o.c. | (11) Yield Markings
(12) 4" Yellow Guide Stripe 4"x2'-0" at 4'-0" o.c.
(13) 8" White Edge Stripe w/ Type C Raised Pav't. Markers at 40'-0" o.c.
(14) 8" Yellow Edge Stripe w/ Type H Raised Pav't. Markers at 40'-0" o.c.
(15) Install RM-2 Markers on FRP bike rail at 25' o.c., or as directed by the Engineer.
(16) Install RM-3 Markers on barrier at 25' o.c., or as directed by Engineer. See Detail, Sht. SS6. | (17) Install RM-3 Marker on Galv. Post.
(18) Install RM-2 Markers on FRP Bike Rail at 50' o.c. or as directed by the Engineer
(19) Install RM-3 Markers on Galv. Post at 50' o.c. or as directed by the Engineer |
|---|---|--|--|

SIGNING & STRIPING PLAN

Scale: 1" = 20'

DATE	_____
SURVEY PLOTTED BY	_____
DESIGNED BY	_____
NOTED BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
NO.	_____



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Russell M. Araki
 Professional Engineer
 License Expires 4-30-20

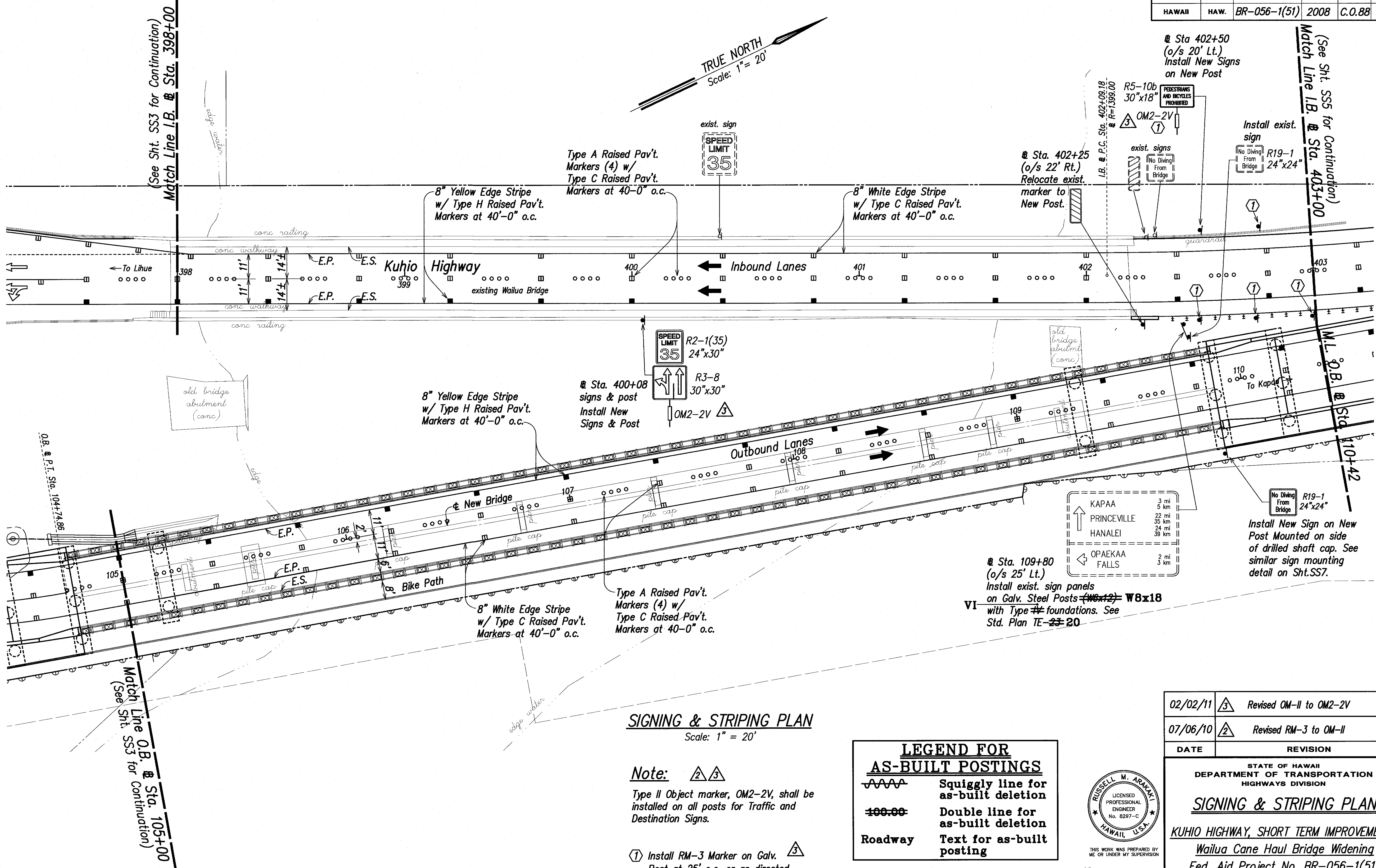
DATE	REVISION
02/02/11	Revised Location of Signs and RM-11 to OM-2V. Added RM-2 and RM-3 Markers.
07/06/10	Revised RM-3 to OM-11 and Revised/Added Interpretive Signs.

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
SIGNING & STRIPING PLAN
 KUHIO HIGHWAY, SHORT TERM IMPROVEMENTS
 Wailua Cane Haul Bridge Widening
 Fed. Aid Project No. BR-056-1(51)
 Scale: As Noted Date: MAY 2008
 SHEET No. SS3 OF SS8 SHEETS

"AS-BUILT"

C.O. 87

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-056-1(51)	2008	C.O.88	284



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

SIGNING & STRIPING PLAN

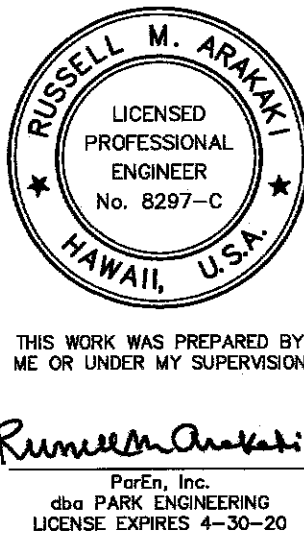
Scale: 1" = 20'

Note: ② ③

Type II Object marker, OM2-2V, shall be installed on all posts for Traffic and Destination Signs.

① Install RM-3 Marker on Galv. Post at 25' o.c. or as directed by the Engineer. ③

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
	Text for as-built posting



02/02/11	③	Revised OM-II to OM2-2V
07/06/10	②	Revised RM-3 to OM-II
DATE	REVISION	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGNING & STRIPING PLAN
KUHIO HIGHWAY, SHORT TERM IMPROVEMENTS
Wailua Cane Haul Bridge Widening
Fed. Aid Project No. BR-056-1(51)
Scale: As Noted Date: MAY 2008
SHEET No. SS4 OF SS8 SHEETS





Scale : 1" = 1'-0"



Scale : 1" = 1'-0"

Diagram illustrating the components and dimensions of a Bi-Directional Traffic Post:

- RM-3 Marker (Yellow or White):** Install on both sides of post (Bi-Directional). The diagram shows a cross-hatched rectangular marker at the top of the post.
- Flexible Post (Yellow or White) with Surface Mounting Base:** The main vertical component of the post.
- Dimensions:** The total height of the post assembly is indicated as **4'-0"**.
- Finish Grade:** Indicated by a curved arrow pointing to the base of the post.

The image contains two technical drawings of the RM-3 guardrail system, labeled "SIDE" and "FRONT".

SIDE View: This drawing shows the profile of the guardrail. A vertical "No. 10 ga. galv. steel sheet" is shown. A "1/4" ϕ x 1/2" S.S. bolt, nut and washer" is used to secure the sheet to a "3/8" ϕ x 8" stainless steel anchor bolt, nut and washer" which is embedded in the concrete barrier. The anchor bolt has a "2" bend" at its base. Dimensions include a 2 1/2" height for the sheet, a 3" distance between bolts, and a 1 1/2" distance from the "Top of Conc. Barrier" to the bottom of the sheet. The label "RM-3" is placed near the bolt.

FRONT View: This drawing shows the end view of the guardrail. It features a "4 1/8" wide top rail. The main body is a "No. 10 ga. galv. steel sheet" with a height of "1'-5"". The bottom rail is "2" high. The entire assembly is mounted on a concrete barrier. The label "RM-3" is placed near the top rail. The "Top of Conc. Barrier" is indicated at the base of the assembly.

FRAME LAYOUT DETAIL
Scale : 1/2" = 1'-0"

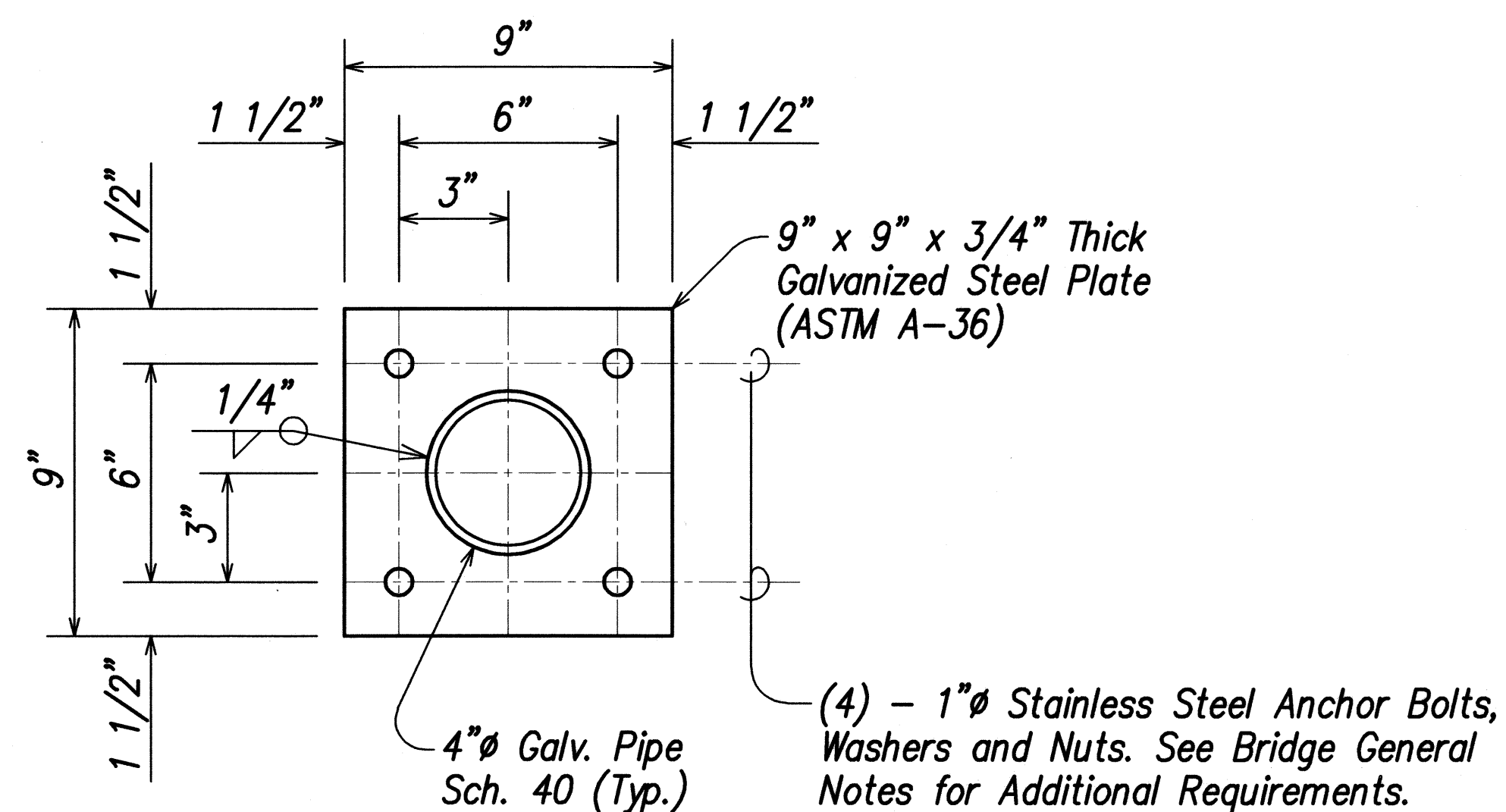
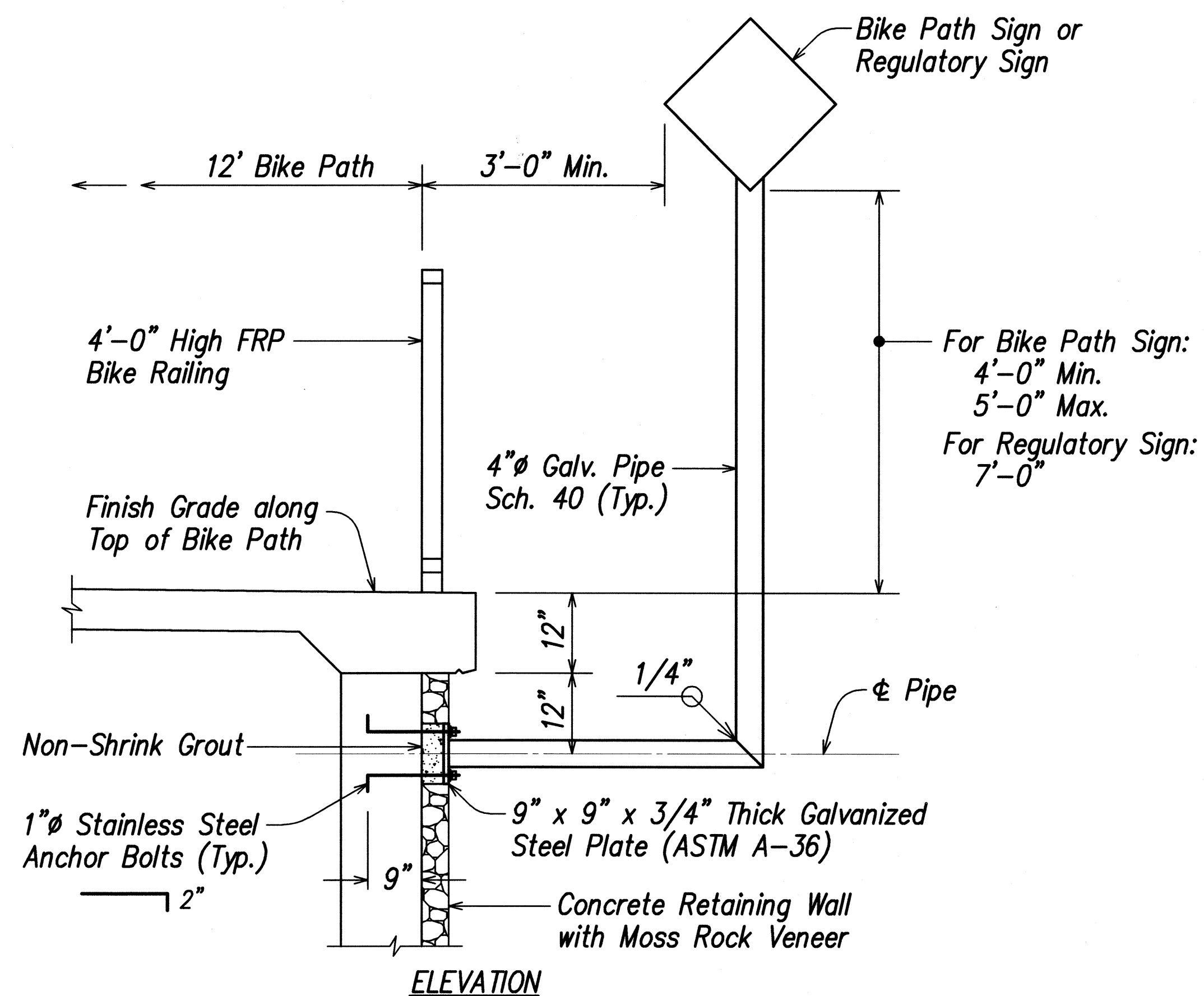
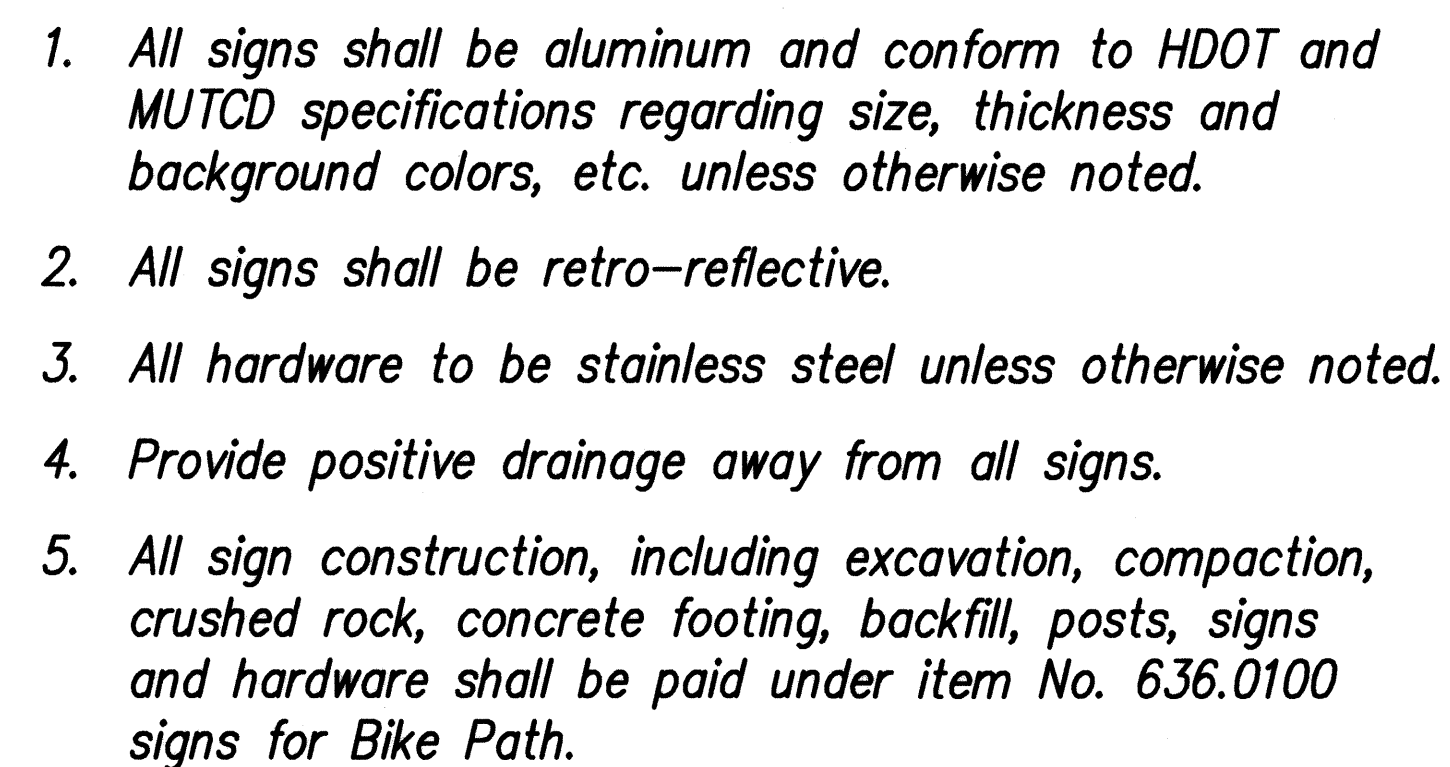
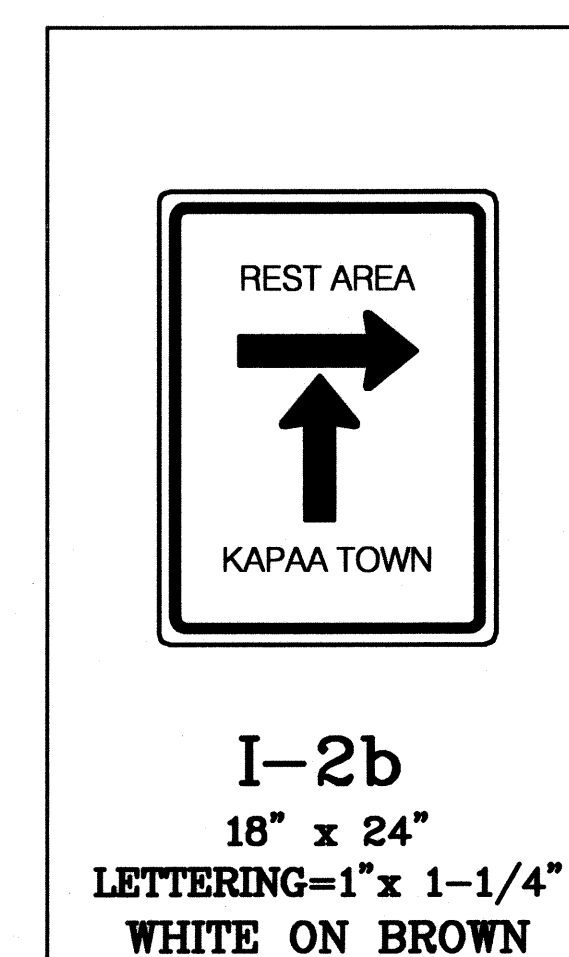
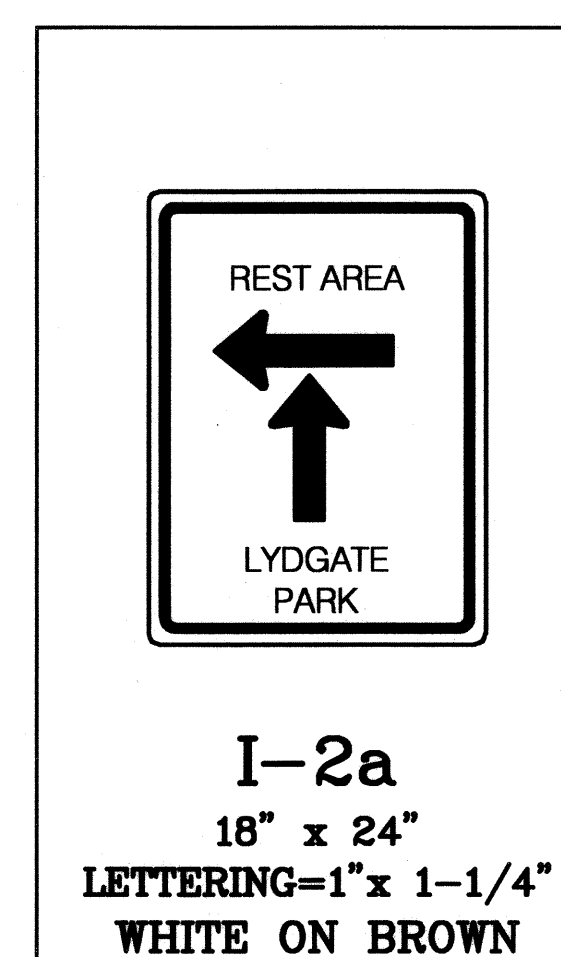
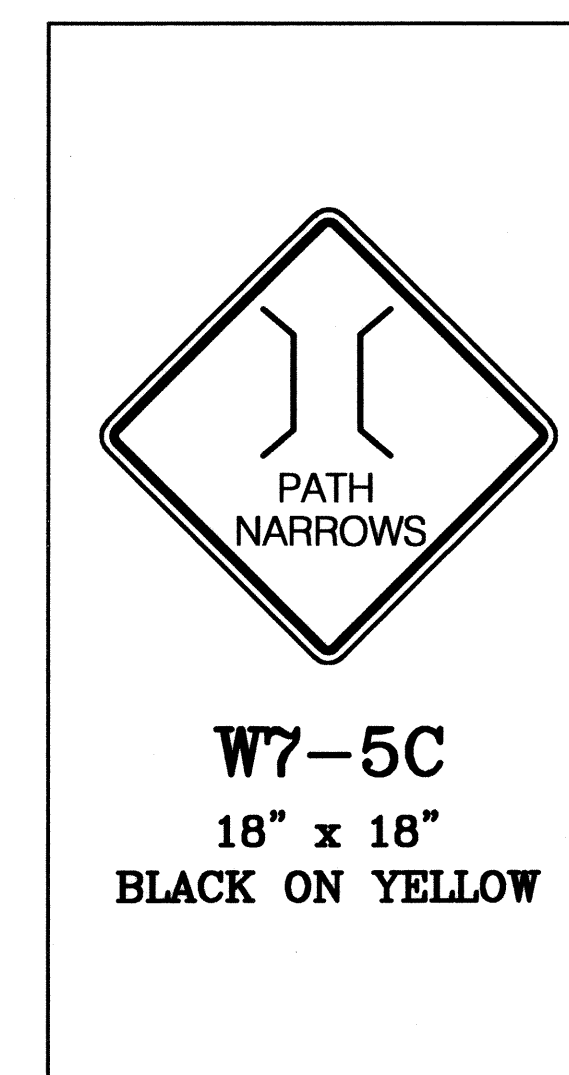
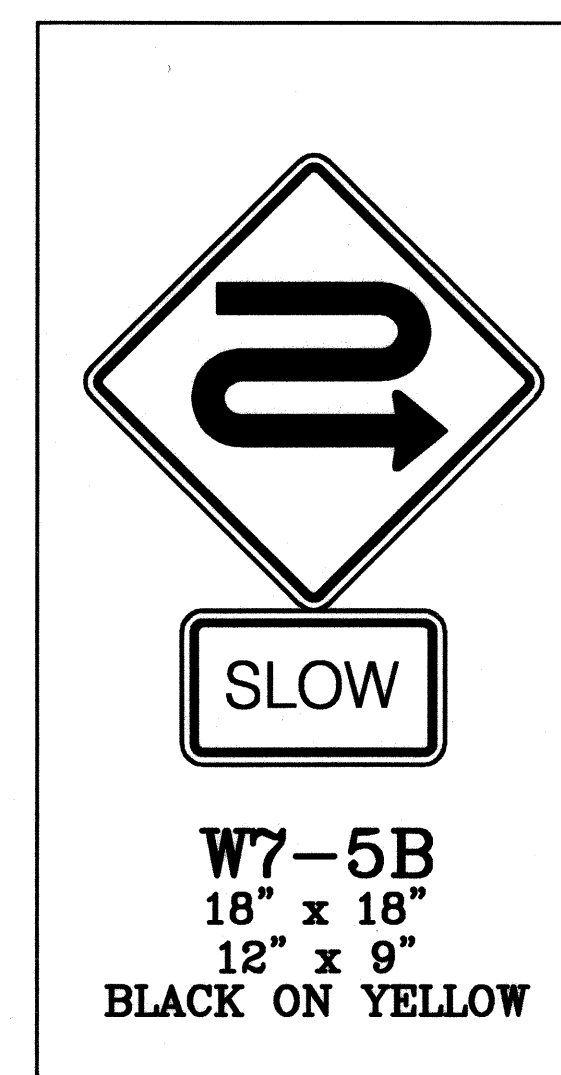
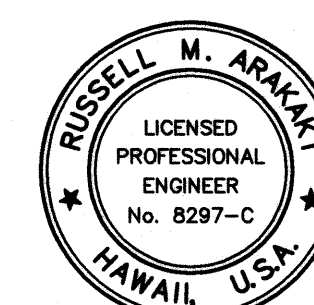


PLATE DETAIL
SIGN MOUNTING ON RETAINING WALL DETAIL
NOT TO SCALE



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



THIS WORK WAS PREPARED
ME OR UNDER MY SUPERVIS

Russell M. Chakal
ParEn, Inc.
dba PARK ENGINEERING
LICENSE EXPIRES 4-30-10

**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION**

SIGNAGE DETAILS

KUHIO HIGHWAY, SHORT TERM IMPROVEMENTS

Wailua Cane Haul Bridge Widening

Fed. Aid Project No. BR-056-1(51)

Scale: As Noted

Date: MAY 2008

SHEET No. SS7 OF SS8 SHEETS

-
- Diagram illustrating the dimensions and components of a rectangular sign panel:
- The overall width of the panel is 4'.
 - The overall height of the panel is 3'-3".
 - The panel features a textured background with a repeating pattern of stylized leaves or flowers.
 - A central rectangular area is labeled "GRAPHIC SIGN PANEL".
 - The distance from the bottom edge of the panel to the bottom edge of the graphic sign panel is 36".
 - The distance from the right edge of the panel to the right edge of the graphic sign panel is 24".
 - The bottom edge of the panel is labeled "EDGE OF PATH".

Diagram illustrating the dimensions and components of a rectangular sign panel:

- The overall width of the panel is 5'.
- The overall height of the panel is 3'-3".
- The panel features a textured, stone-like pattern.
- A central rectangular area is labeled "GRAPHIC SIGN PANEL".
- The height of the central panel is 24".
- The width of the central panel is 48".
- The bottom edge of the panel is labeled "EDGE OF PATH".

Technical drawing of a wall section showing a graphic sign panel, moss rock wall, and concrete pad with rebar details.

Labels and dimensions include:

- MOSS ROCK WALL
- GRAPHIC SIGN PANEL
- GRAPHIC PANEL CENTER LINE
- EDGE OF PATH
- EXISTING GRADE
- 12" MIN.
- 30"
- 10"
- 6"
- 24"
- 6"
- 36"
- 24"
- 5'-3"
- TWO #2 REBAR ALONG WIDTH OF CONCRETE PAD (6" SPACING BETWEEN TOP REBAR AND BOTTOM REBAR, 13" O.C. ALONG LENGTH OF SLAB, 3" CLEARANCE FROM ALL EDGES)

GRAPHIC SIGN PANEL

GRAPHIC PANEL CENTER LINE

4'-3 1/2"

1'-8 1/4"

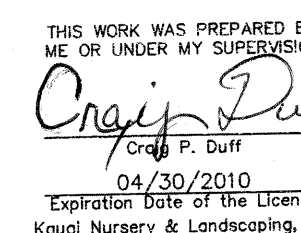
36"

EXISTING GRADE

5'

FIVE #2 REBAR ALONG LENGTH OF CONCRETE PAD (6" SPACING BETWEEN TOP REBAR AND BOTTOM REBAR, 13" O.C. ALONG LENGTH OF SLAB, 3" CLEARANCE FROM ALL EDGES)

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



92