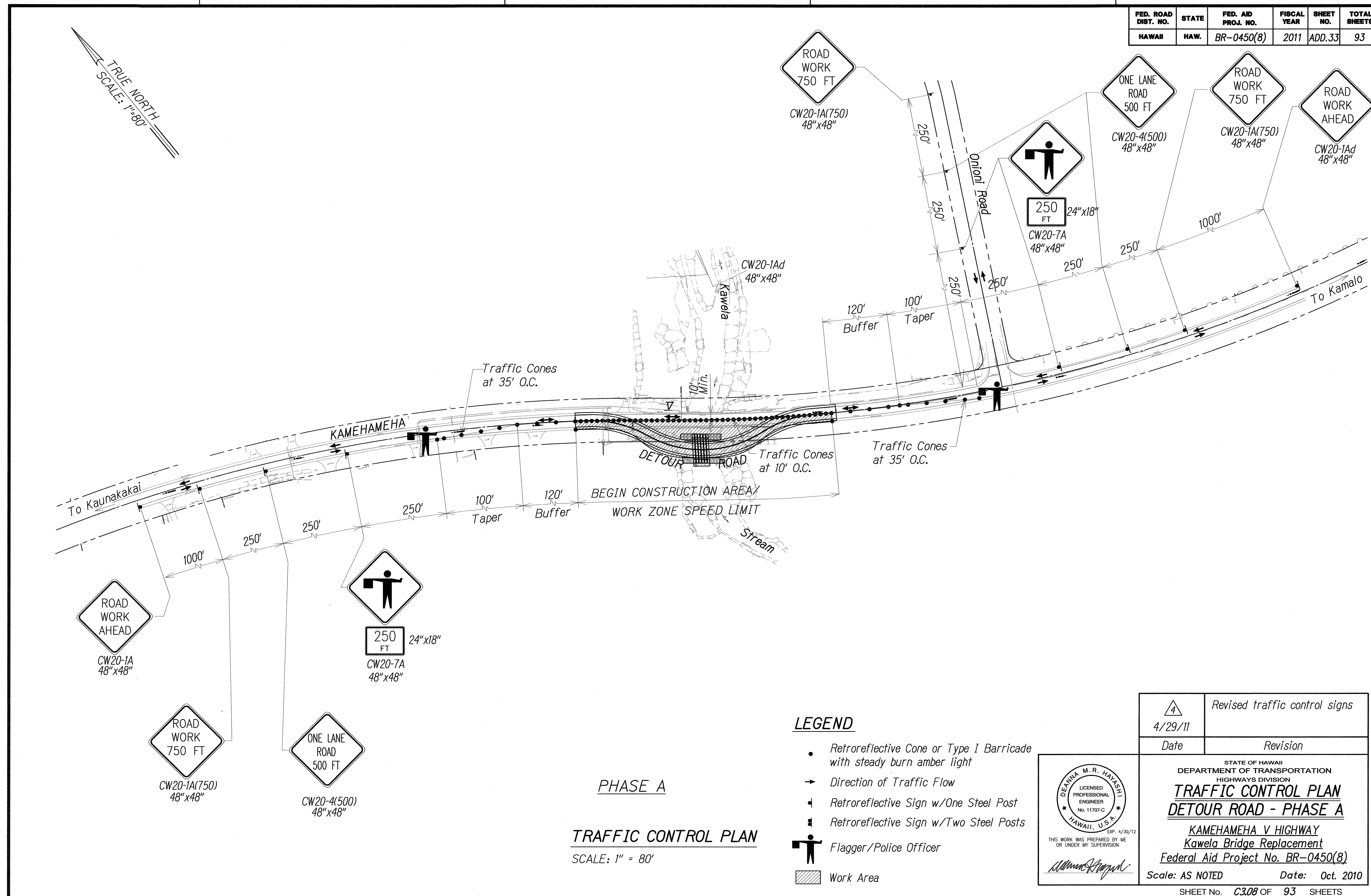
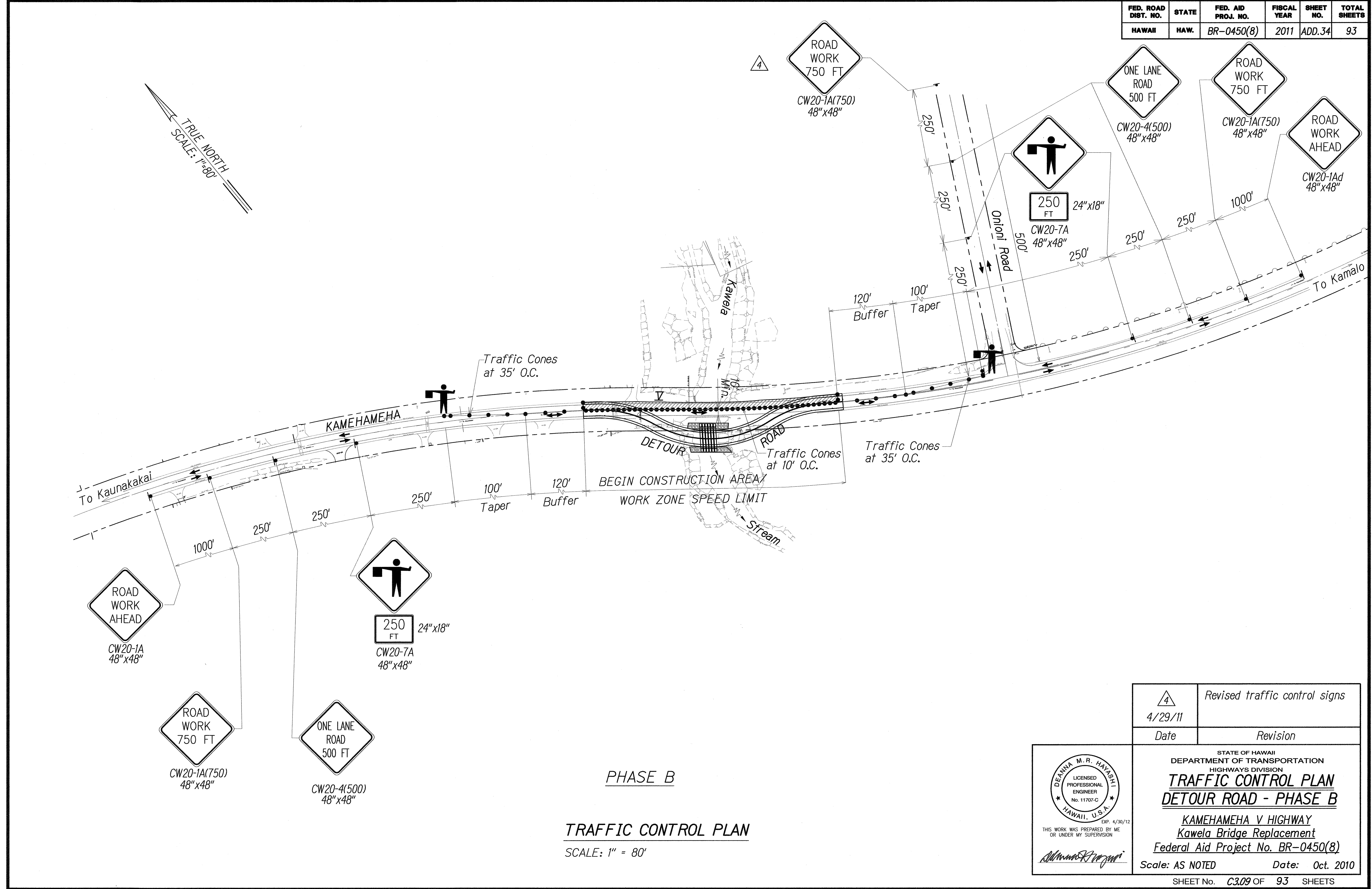


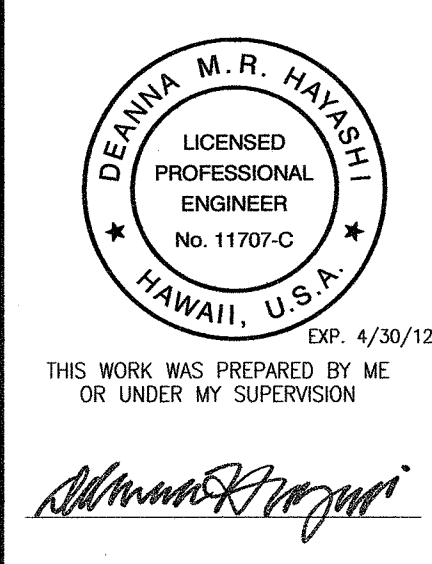
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-0450(8)	2011	ADD.33	93



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-0450(8)	2011	ADD.34	93



4	Revised traffic control signs
4/29/11	Date
	Revision



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN
DETOUR ROAD - PHASE B

KAMEHAMEHA V HIGHWAY
Kawela Bridge Replacement
Federal Aid Project No. BR-0450(8)

Scale: AS NOTED Date: Oct. 2010

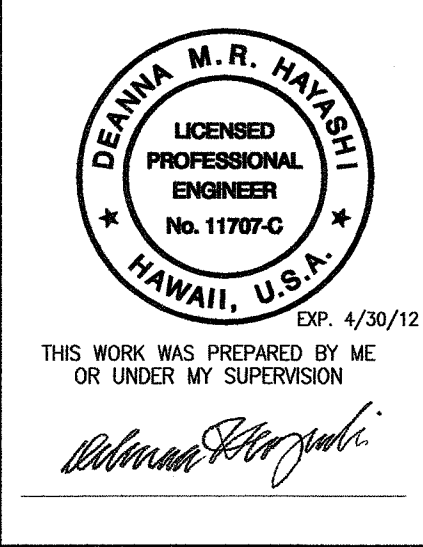
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-0450(8)	2011	ADD. 39 S-1	93

General Notes:

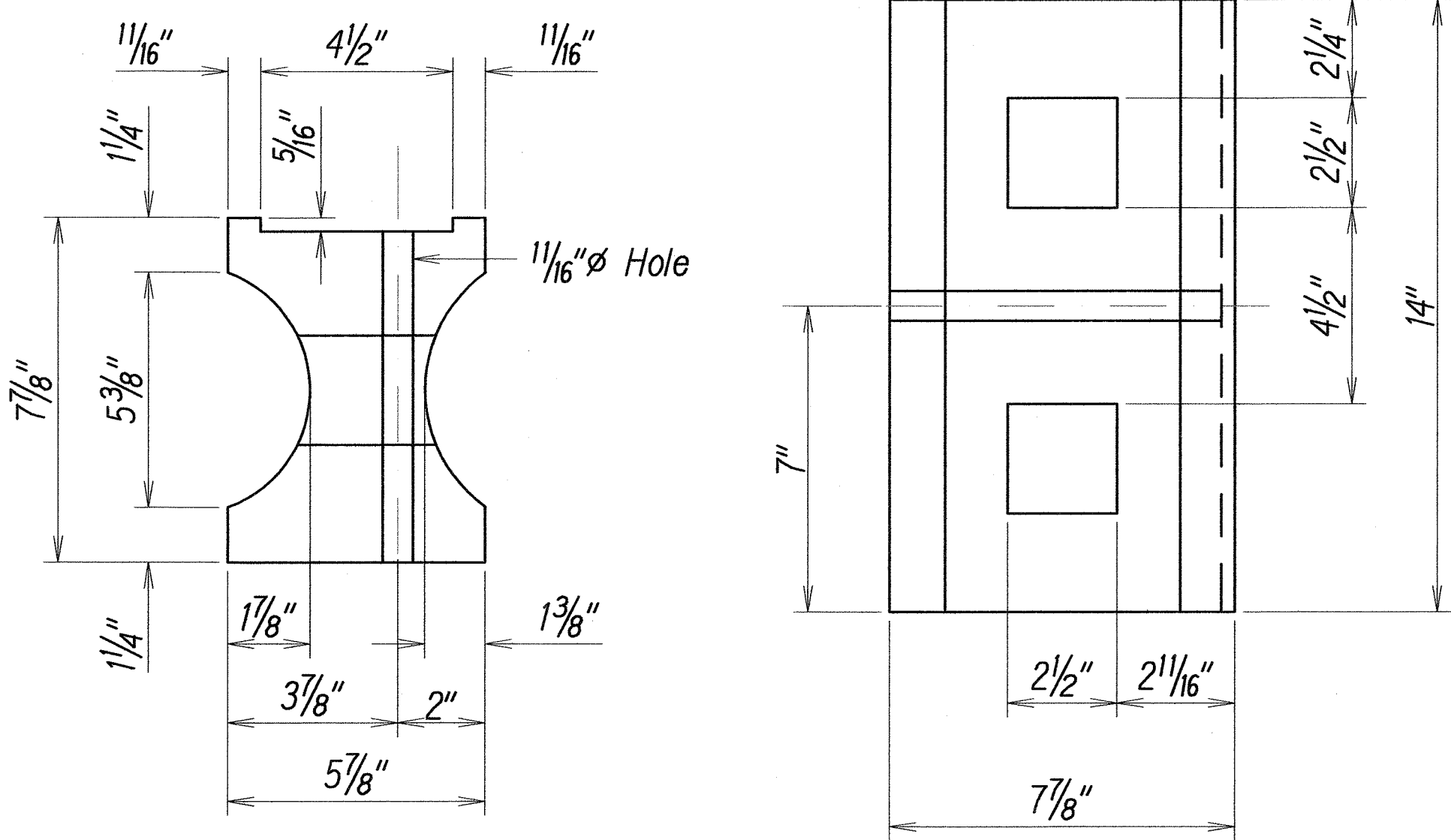
- All hardware, posts and fasteners shall be hot-dip zinc coated galvanized after fabrication. No punching, drilling or cutting will be permitted after galvanizing.
- Where conditions require, special post lengths in increments of 6 inches may be specified.
- All fasteners, posts, and rail elements (I.E. FBB03, PWE01, RWM02B, etc.) shall conform to the latest edition and amendments of "A Guide to Standardized Highway Barrier Rail Hardware", a report prepared and approved by the AASHTO-AGC-ARTBA Joint Cooperative Committee, Subcommittee On New Highway Materials, Task Force 13 Report. Dimensions of fastners, posts and rail elements have been converted from metric units into their present form.
- The Recycled Plastic Block or Offset Block shall be approved by the State.
- All new guardrail systems (system consists of total length of guardrail including both end treatments) shall include the additional paved area.
- After the guardrail posts are installed in the paved area, the Contractor shall fill/seal around each guardrail post and all cracks in the paved area caused during the guardrail post installation. If required by the Inspector/Engineer, The Contractor shall tamper the paved area around the guardrail post prior to filling/sealing. All costs associated with this work shall not be paid for separately, but shall be considered incidental to the various guardrail items.
- When standards for the fill slope area cannot be met, a site specific, engineer approved design may be used.
- New A.C. pavement at guardrails shall extend 6 feet longitudinally beyond terminal ends.
- Reflector Markers (RM-5) mounted on guardrails shall be spaced every 25 feet. RM-5's shall not be installed on terminal sections. Furnishing and installing of each RM-5 shall be considered incidental to the adjacent guardrail system.
- 2-Sack Grout and Controlled Low Strength Material (CLSM) shall be considered incidental to the guardrail.

GUARDRAIL TYPE	DIMENSION	
	H	A
Strong Post W-Beam	1'-9 ⁵ / ₈ "	1'-6"
Strong Post Rubrail (W-Beam)	2'-0"	1'-6"
Modified or Strong Post Thrie Beam	2'-0"	2'-0"

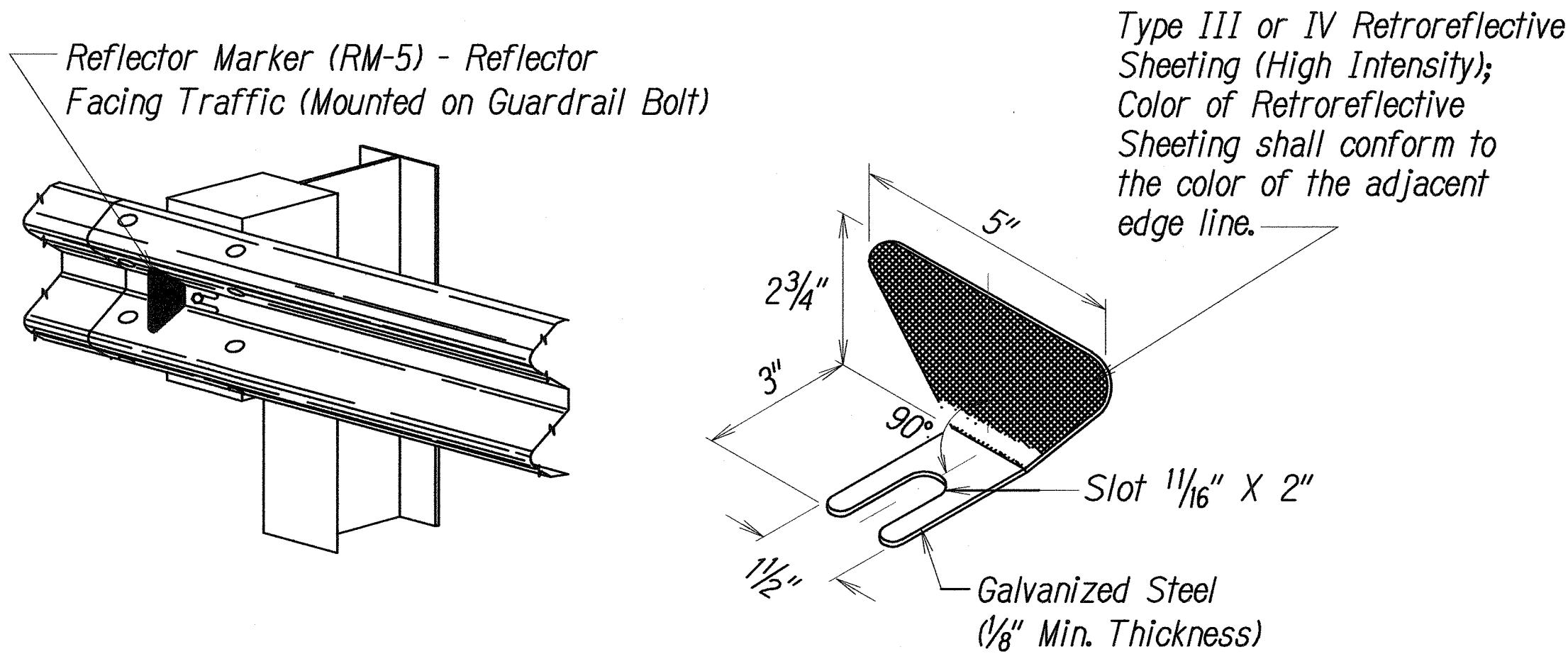
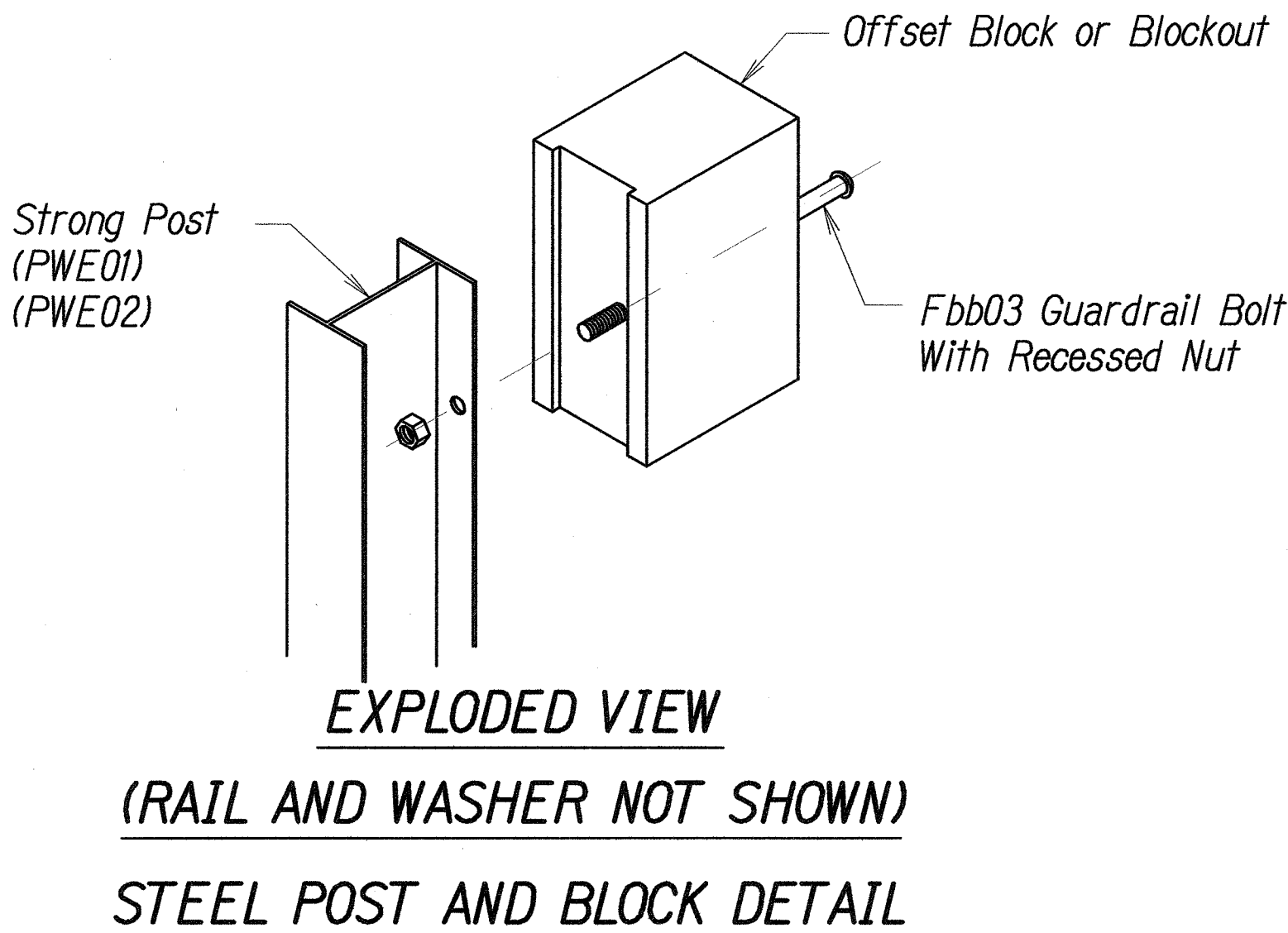
	New Sheet
5/2/11	Revision
Date	



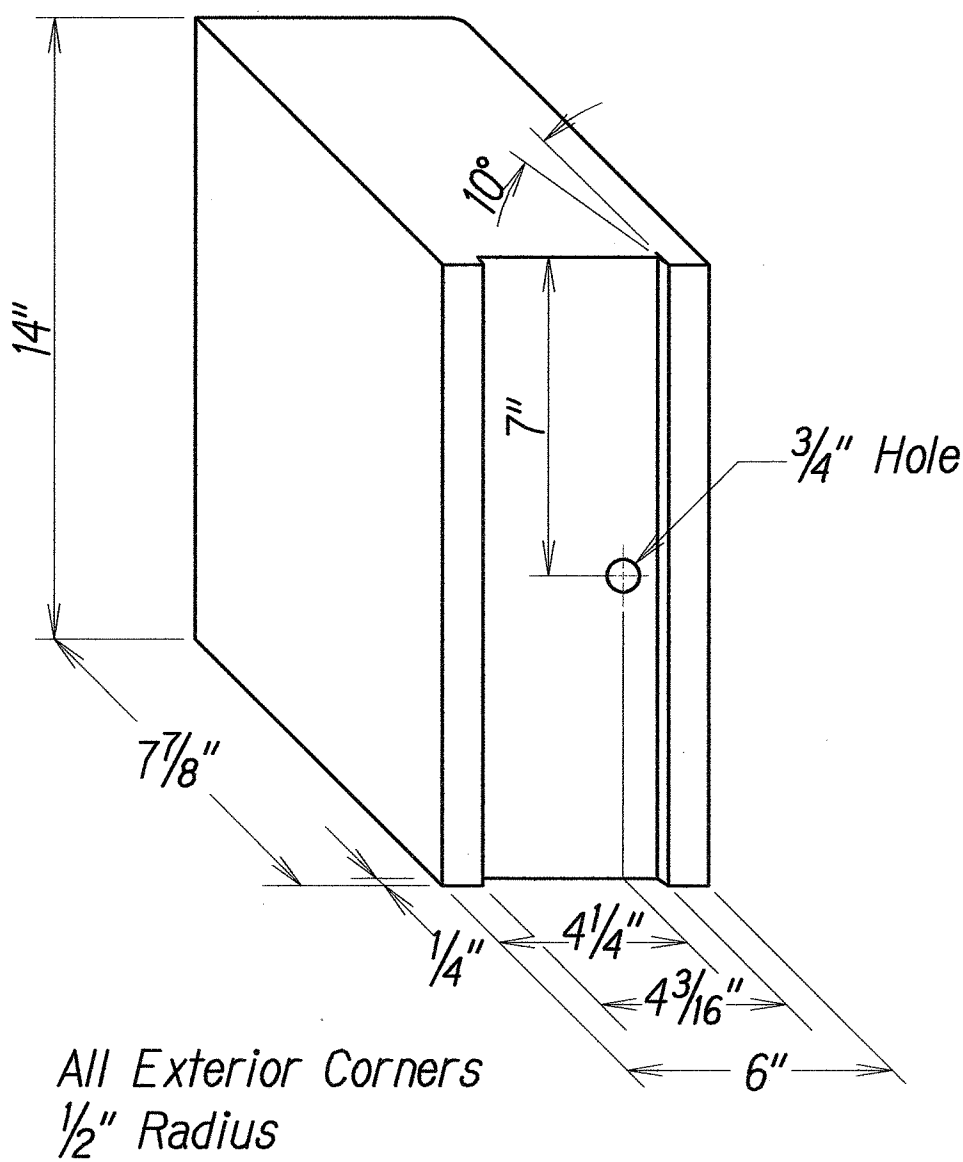
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
GUARDRAIL DETAILS & NOTES	
KAMEHAMEHA V. HIGHWAY Kawela Bridge Replacement Federal Aid Project No. BR-0450(8)	
Scale: AS NOTED	Date: Oct. 2010
SHEET No. C405a OF 93 SHEETS	



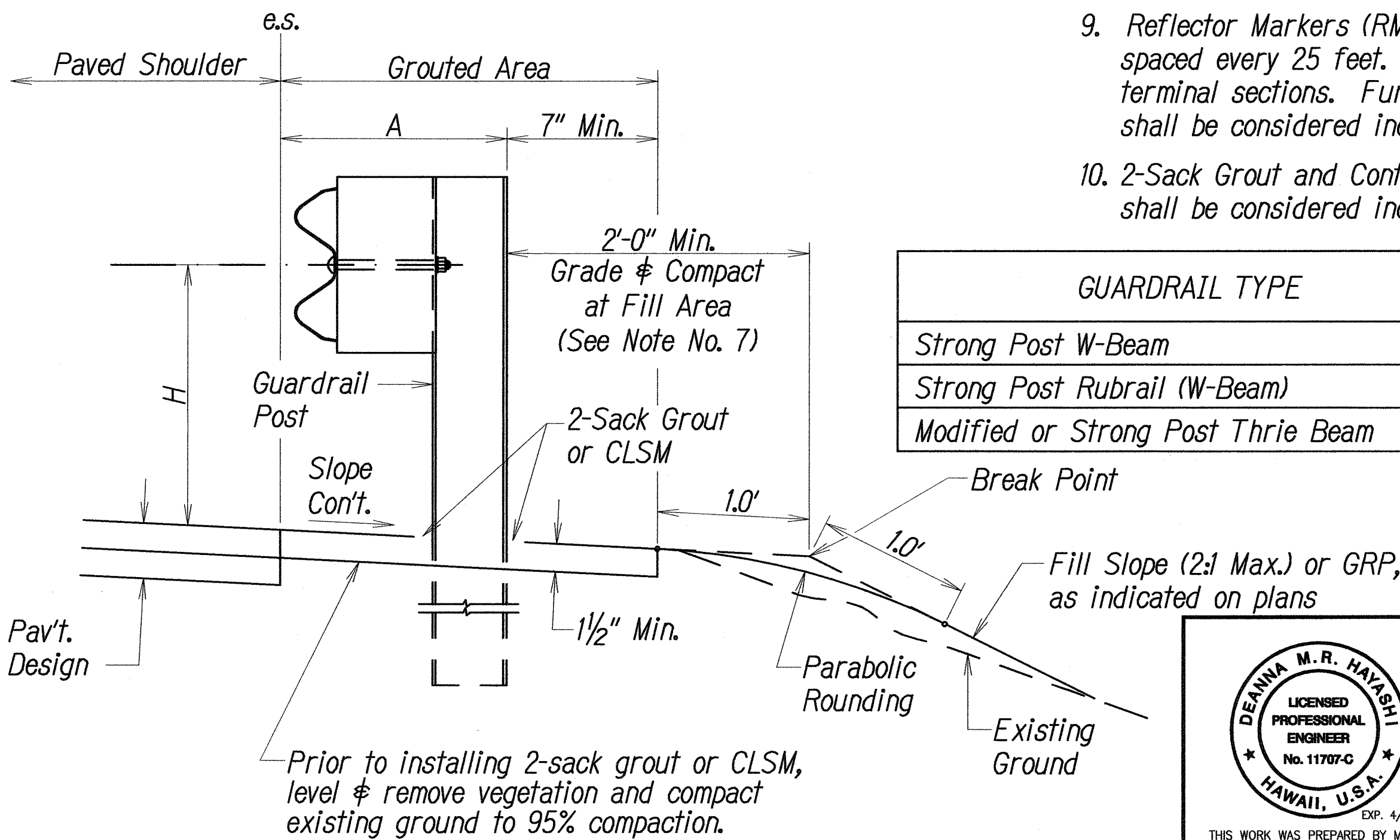
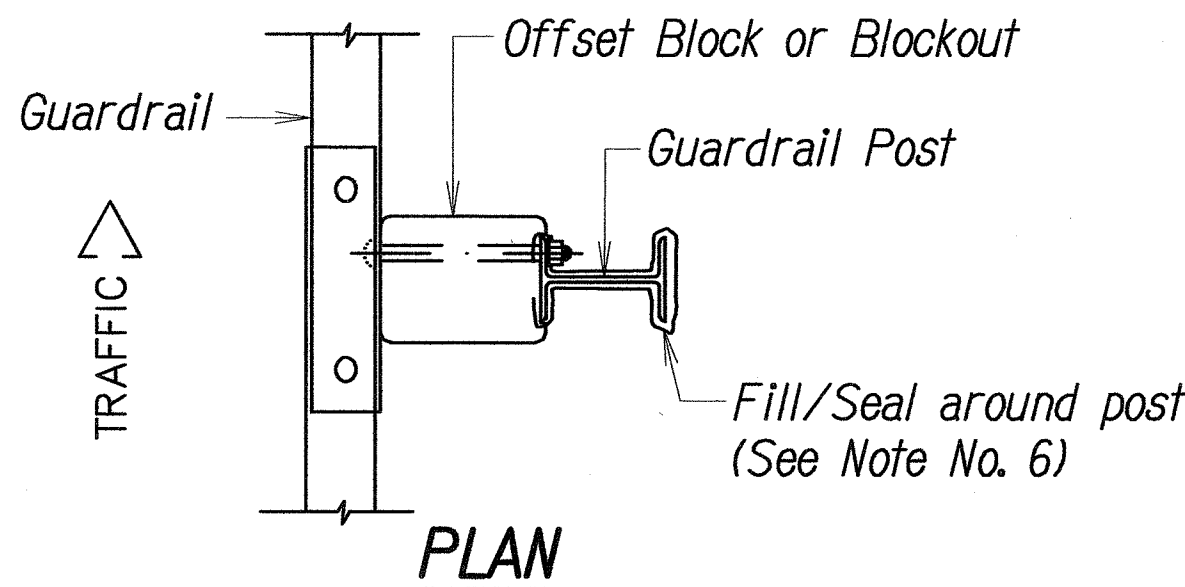
TOP
SIDE
RECYCLED PLASTIC BLOCKOUT (TYPE I)



REFLECTOR MARKER (RM-5) DETAIL AND TYPICAL INSTALLATION

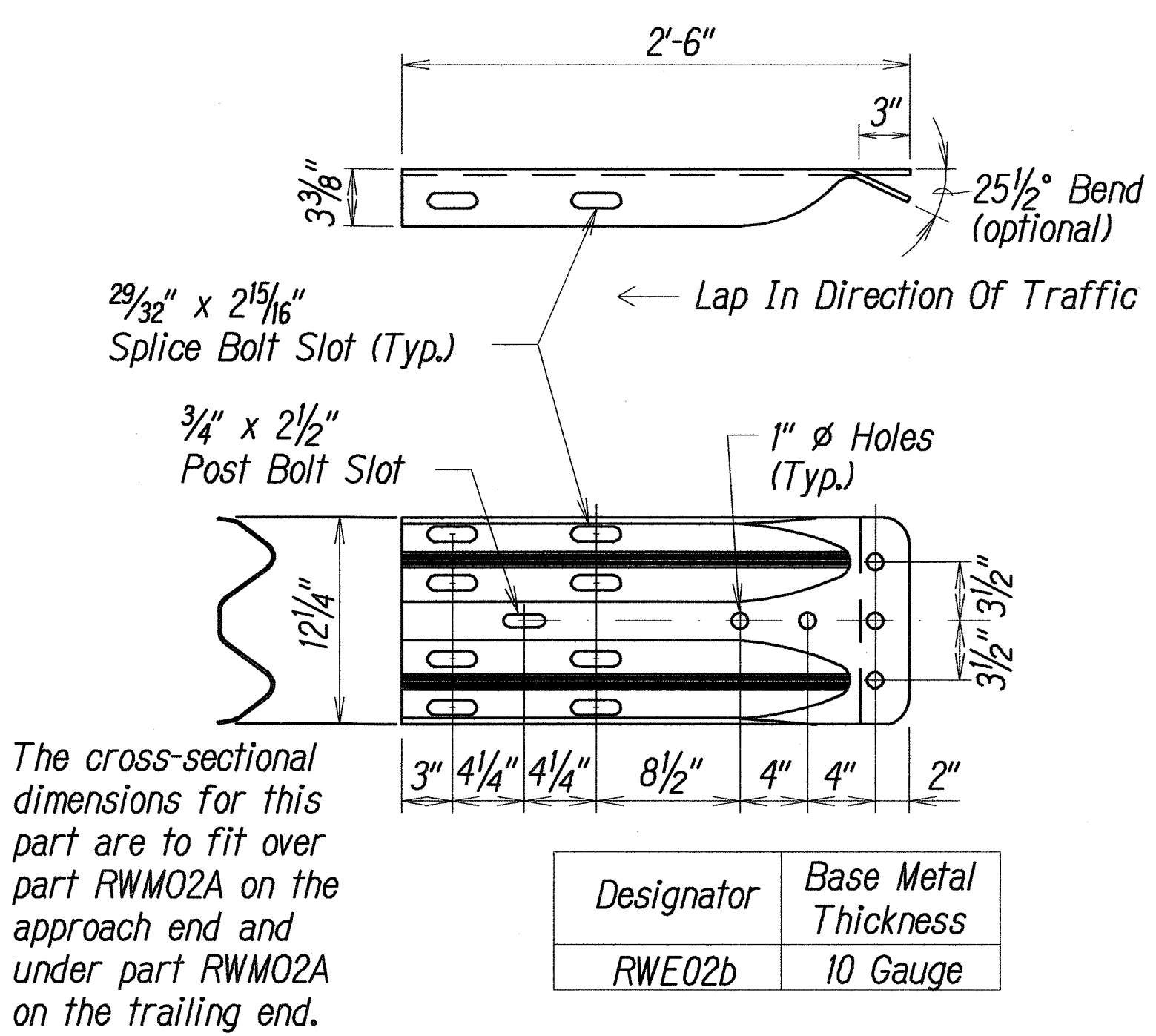


RECYCLED POLYETHYLENE
OFFSET BLOCK (TYPE II)

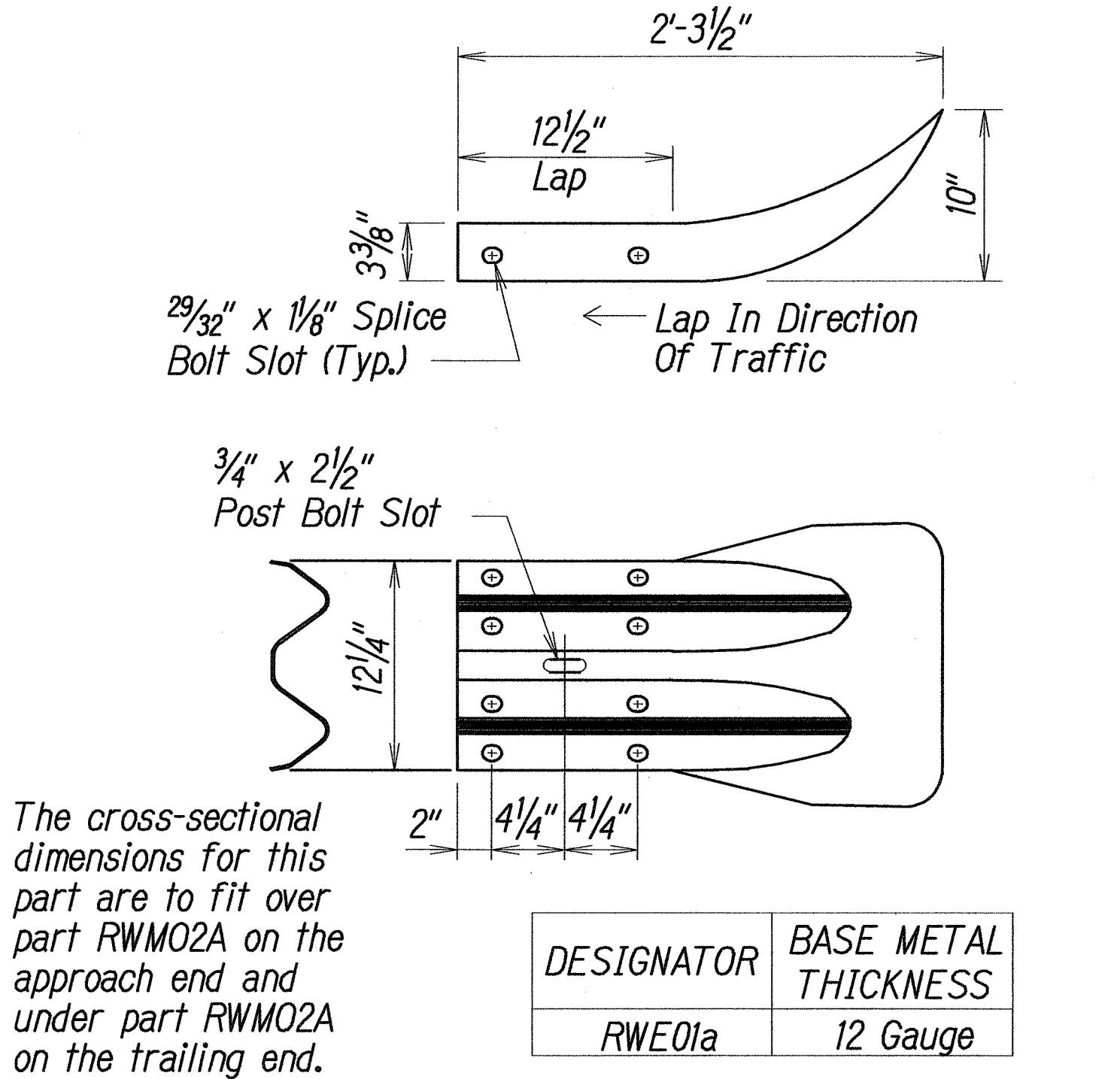


ELEVATION
TYPICAL GUARDRAIL INSTALLATION

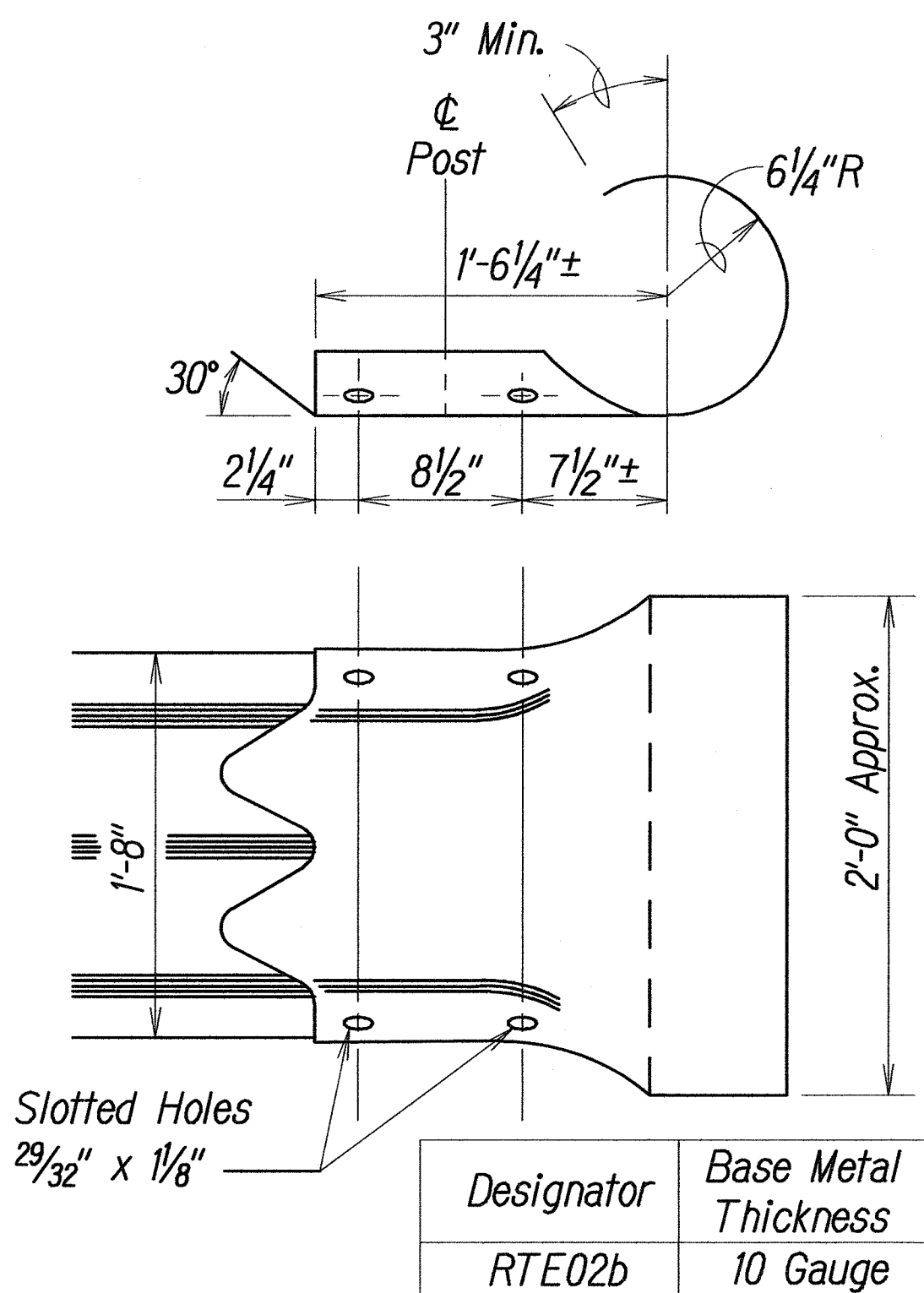
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-0450(8)	2011	ADD. 39 S-3	93



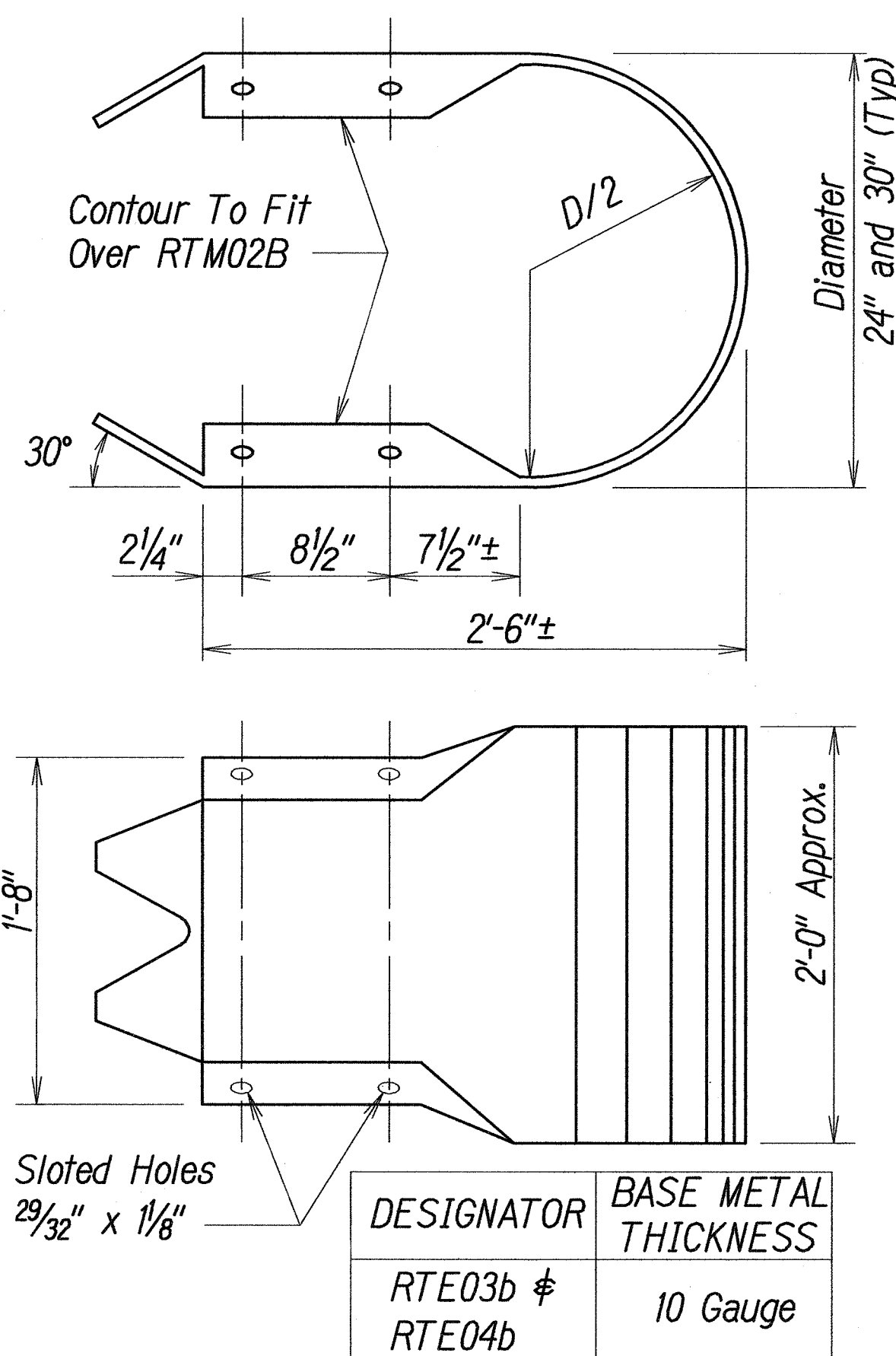
W-BEAM TERMINAL CONNECTOR (RWE02B)



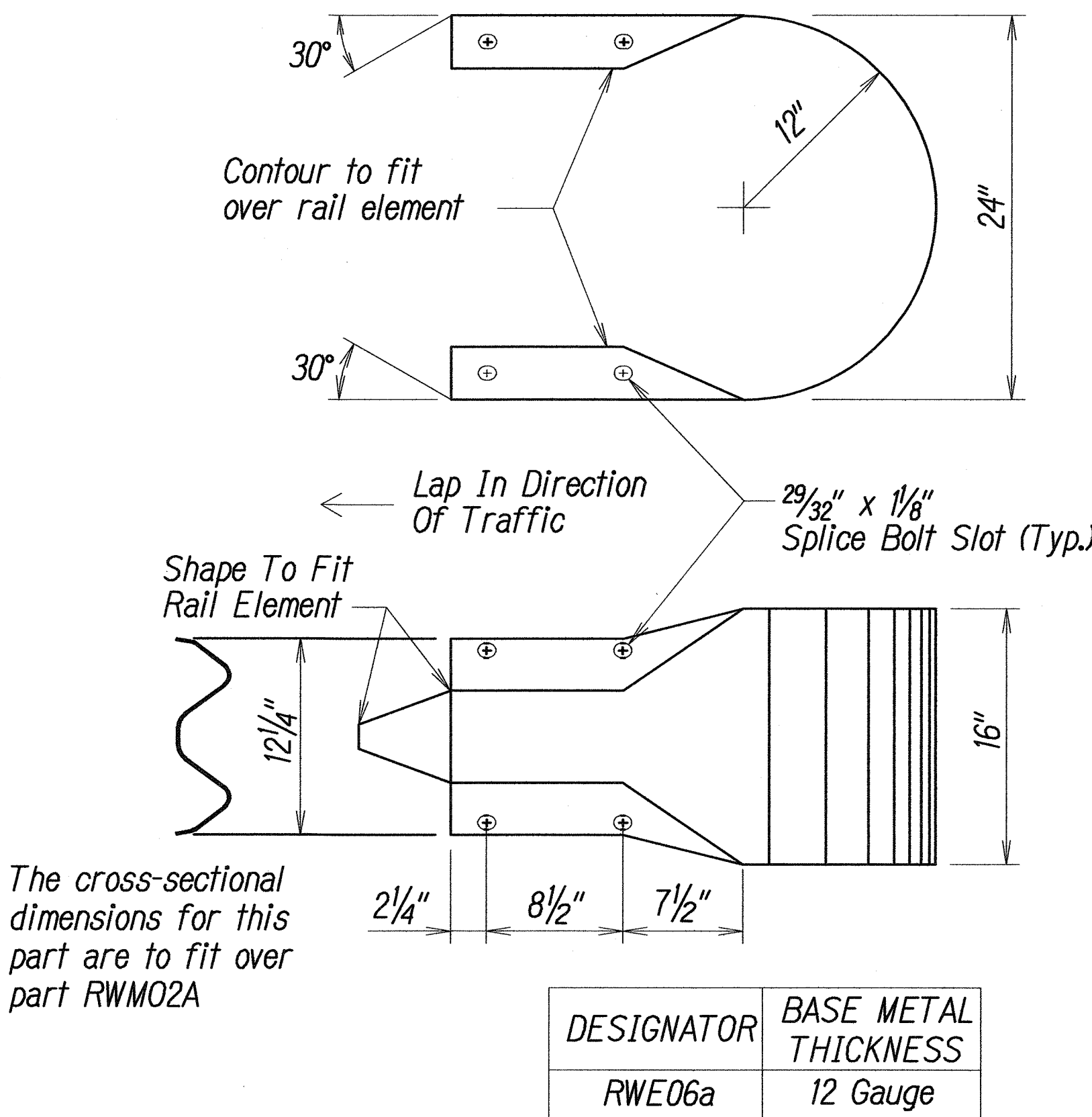
W-BEAM END SECTION (FLARED RWE01A)



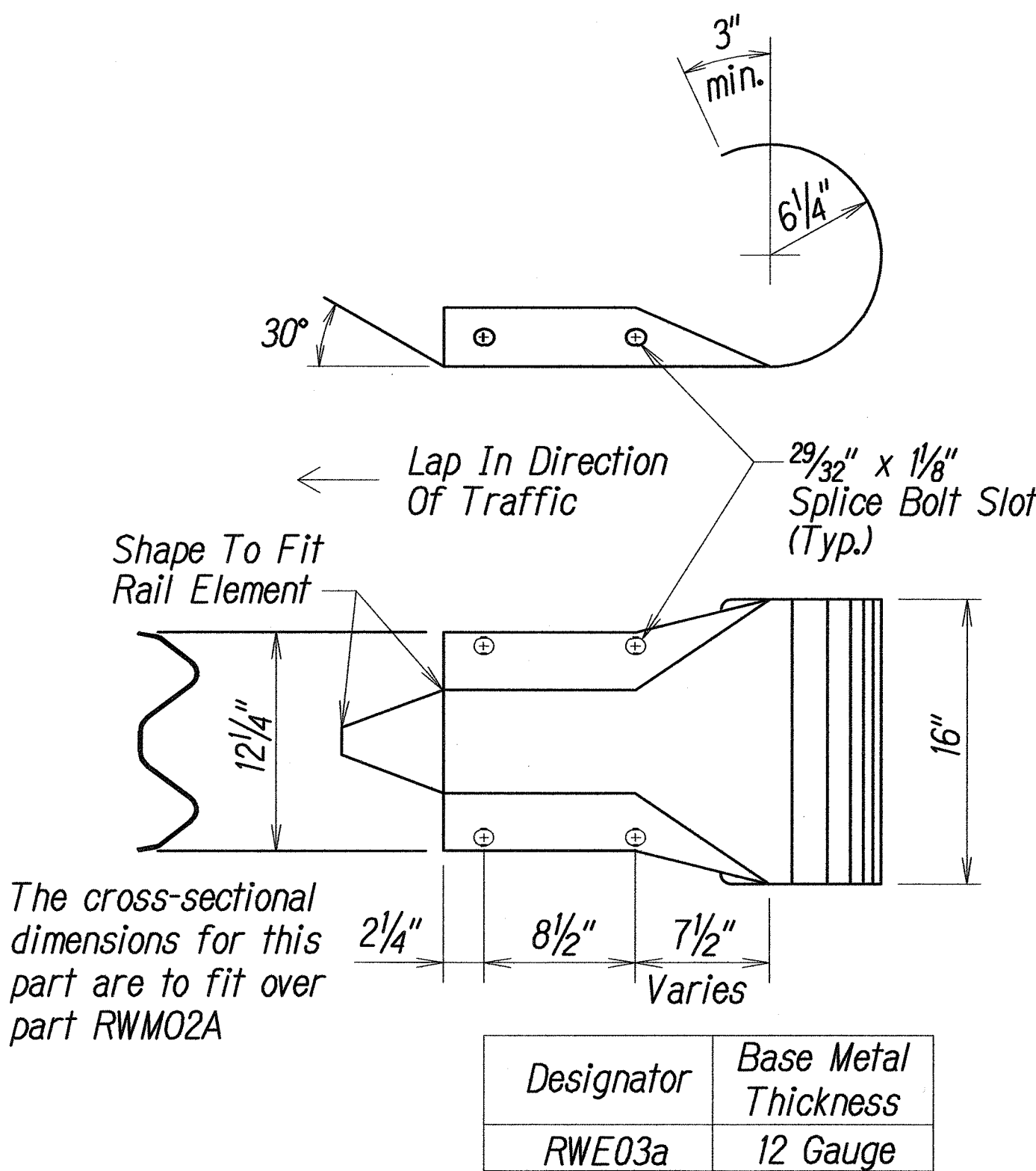
THRIE-BEAM SECTION (ROUNDED) (RTE02B)



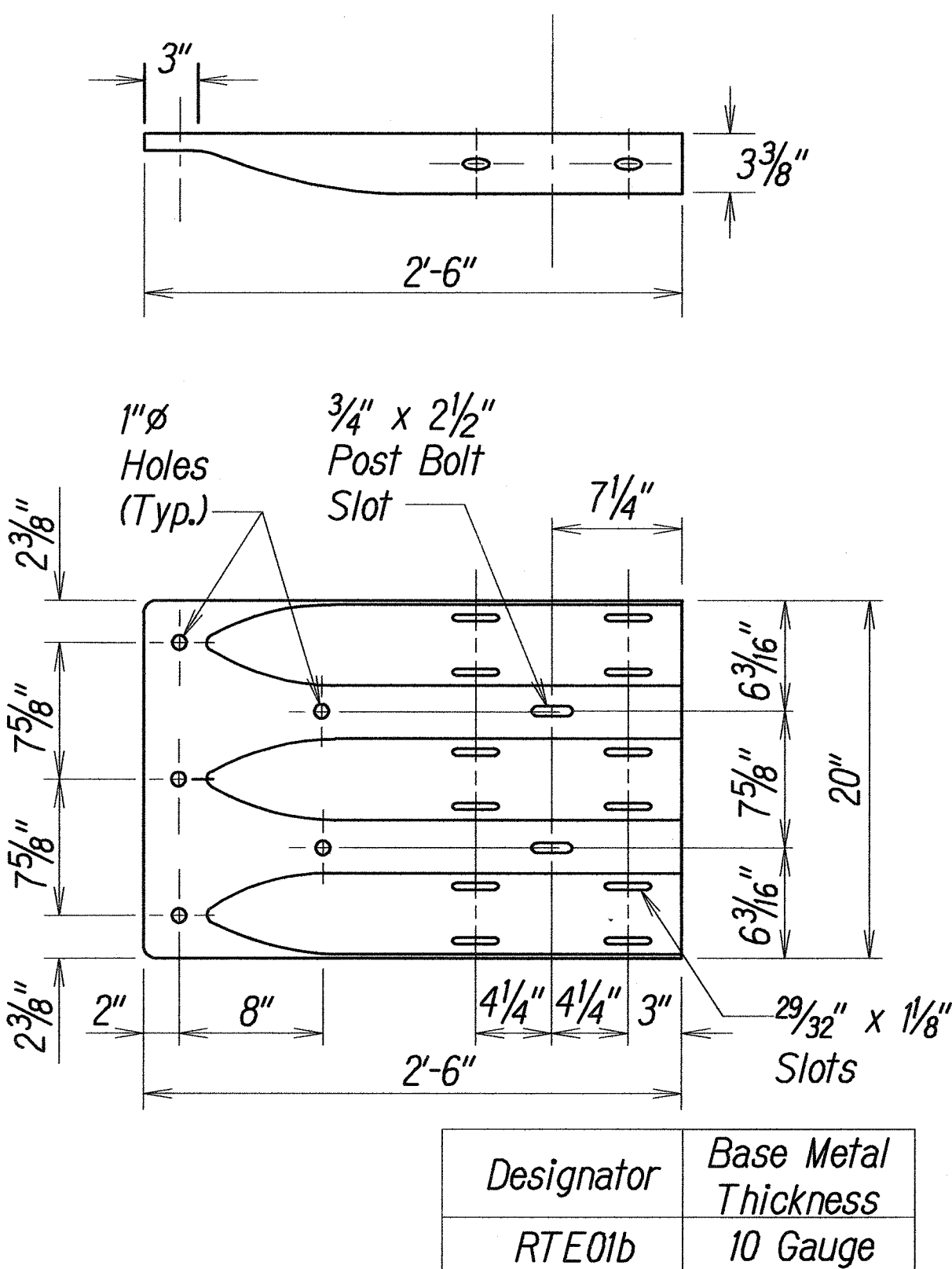
THRIE-BEAM END SECTION (BUFFER RTE03B or RTE04B)



W-BEAM END SECTION (BUFFER RWE06A)



W-BEAM END SECTION (ROUNDED RWE03A)



THRIE-BEAM TERMINAL CONNECTOR (RTE01B)

4

5/2/11

Date

New Sheet

Revision

DEANNA M.R. HAYASHI

LICENSED PROFESSIONAL ENGINEER

No. 11707-C

HAWAII, U.S.A.

EXP. 4/30/12

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Deanna Hayashi

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

GUARDRAIL TERMINAL CONNECTORS & END SECTIONS

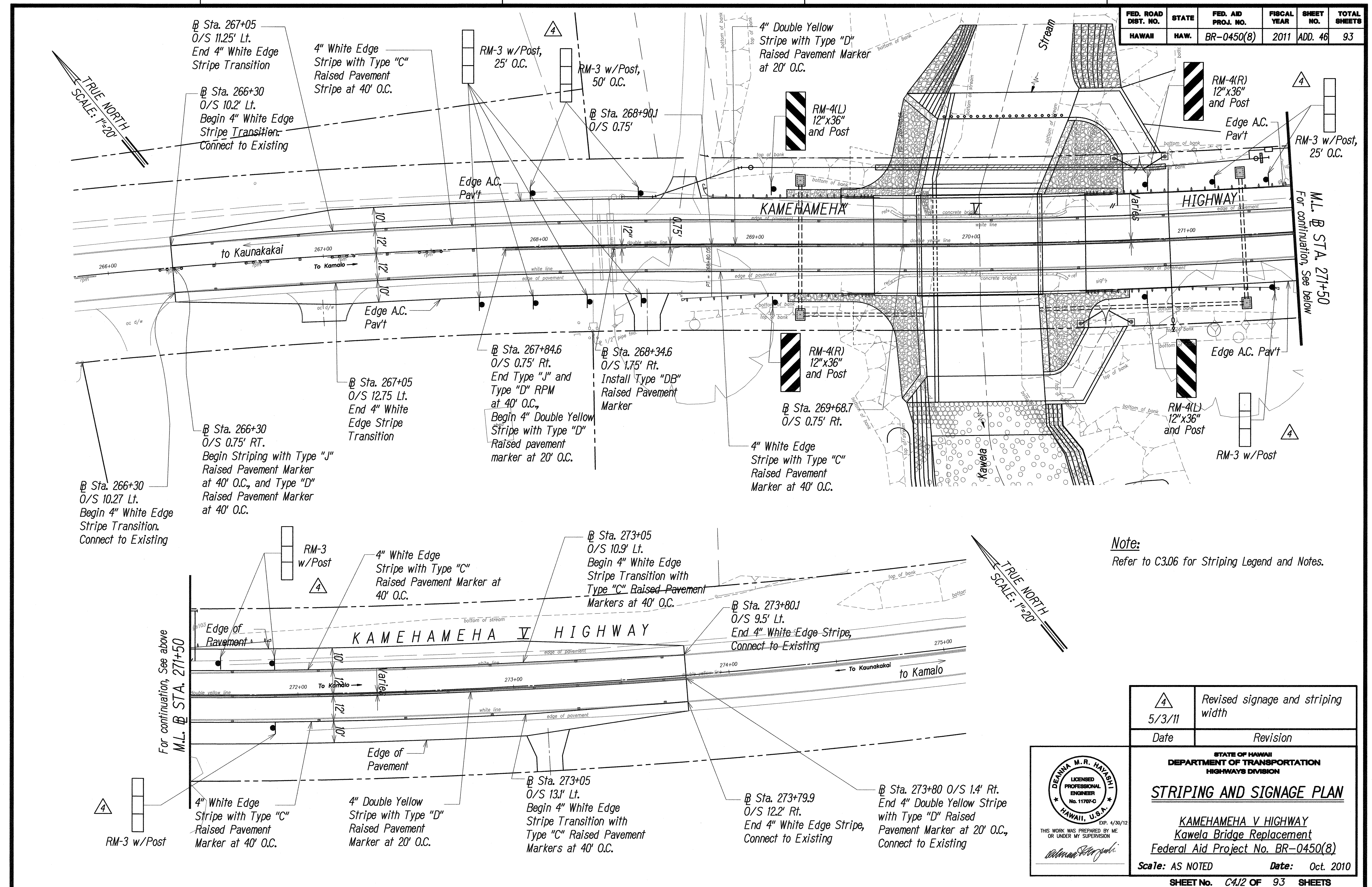
KAMEHAMEHA V HIGHWAY

Kawela Bridge Replacement

Federal Aid Project No. BR-0450(8)

Scale: AS NOTED Date: Oct. 2010

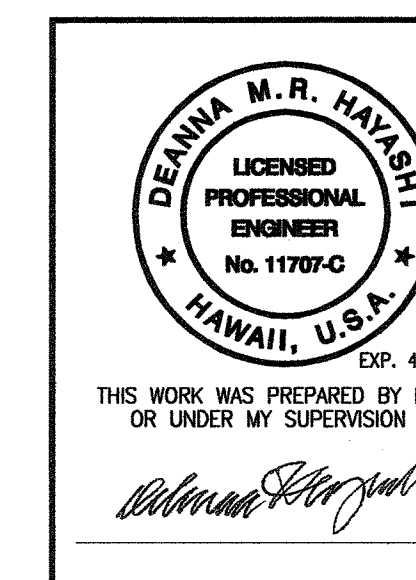
SHEET No. C4.05e OF 93 SHEETS



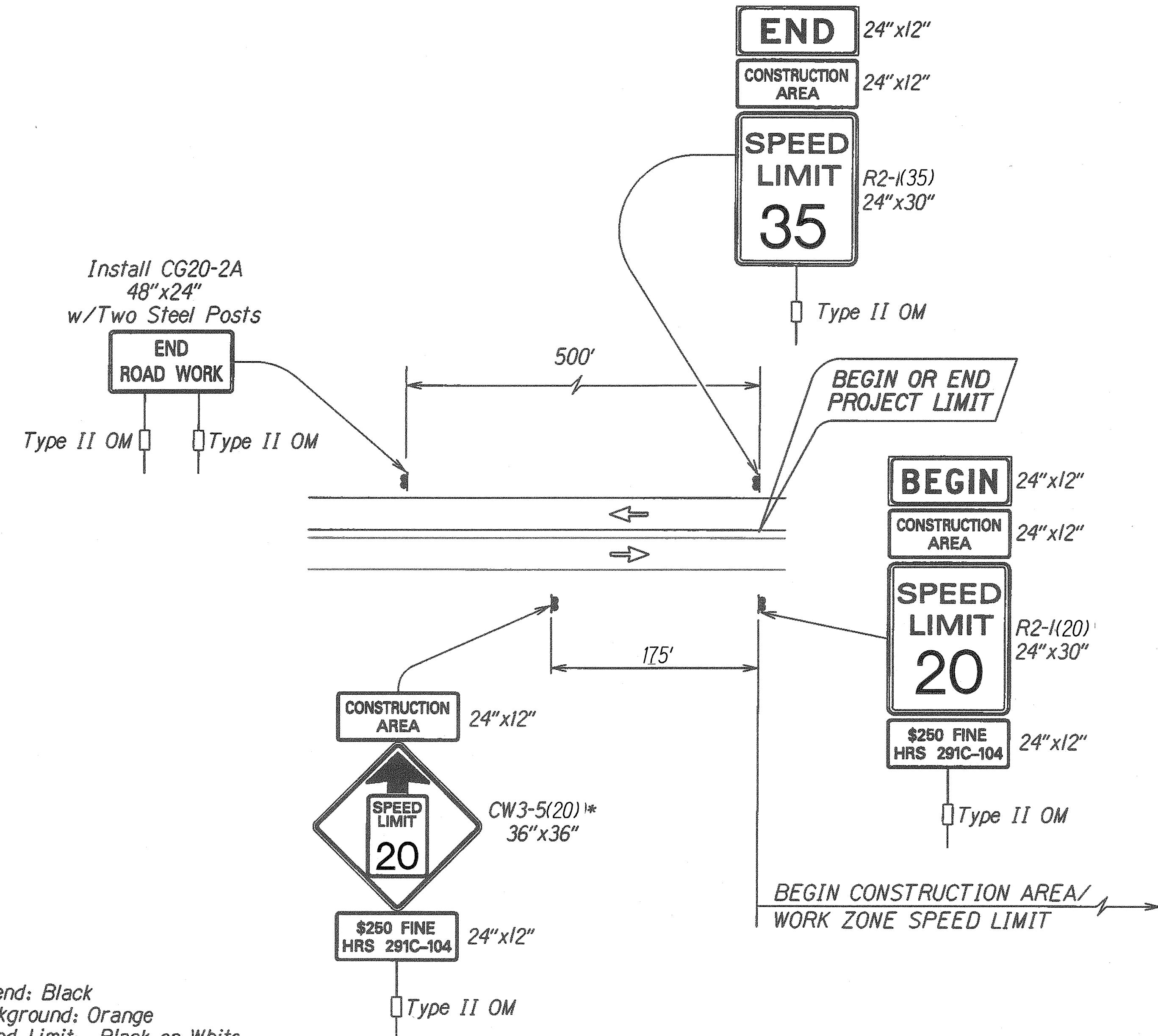
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-0450(8)	2011	ADD. 46	93

Note:
Refer to C3.06 for Striping Legend and Notes.

<div> <div> <div>4</div> <div>5/3/11</div> </div> <div> <div>Date</div> <div>5/3/11</div> </div> </div>	<div> <div>Revised signage and striping width</div> <div>Revision</div> </div>
<div> <div>STATE OF HAWAII</div> <div>DEPARTMENT OF TRANSPORTATION</div> <div>HIGHWAYS DIVISION</div> <div>STRIPING AND SIGNAGE PLAN</div> <div>KAMEHAMEHA V HIGHWAY</div> <div>Kawela Bridge Replacement</div> <div>Federal Aid Project No. BR-0450(8)</div> <div>Scale: AS NOTED</div> <div>Date: Oct. 2010</div> </div>	
<div> <div>SHEET No. C4/2 OF 93 SHEETS</div> <div>ADD. 46</div> </div>	

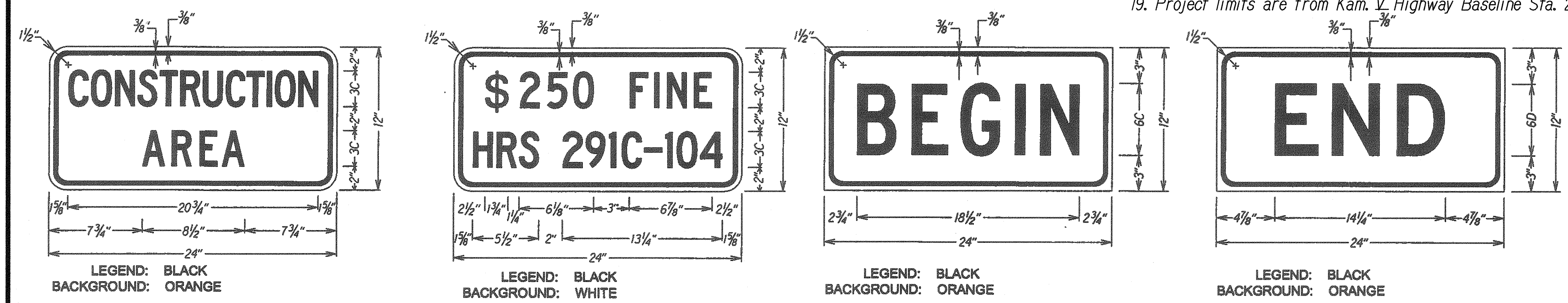


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-0450(8)	2011	ADD. 48 S-1	93



*Note:
 Legend: Black
 Background: Orange
 Speed Limit: Black on White

TYPICAL DETAIL FOR CONSTRUCTION SIGNS ON TWO LANE OR MULTILANE UNDIVIDED LOW SPEED HIGHWAY

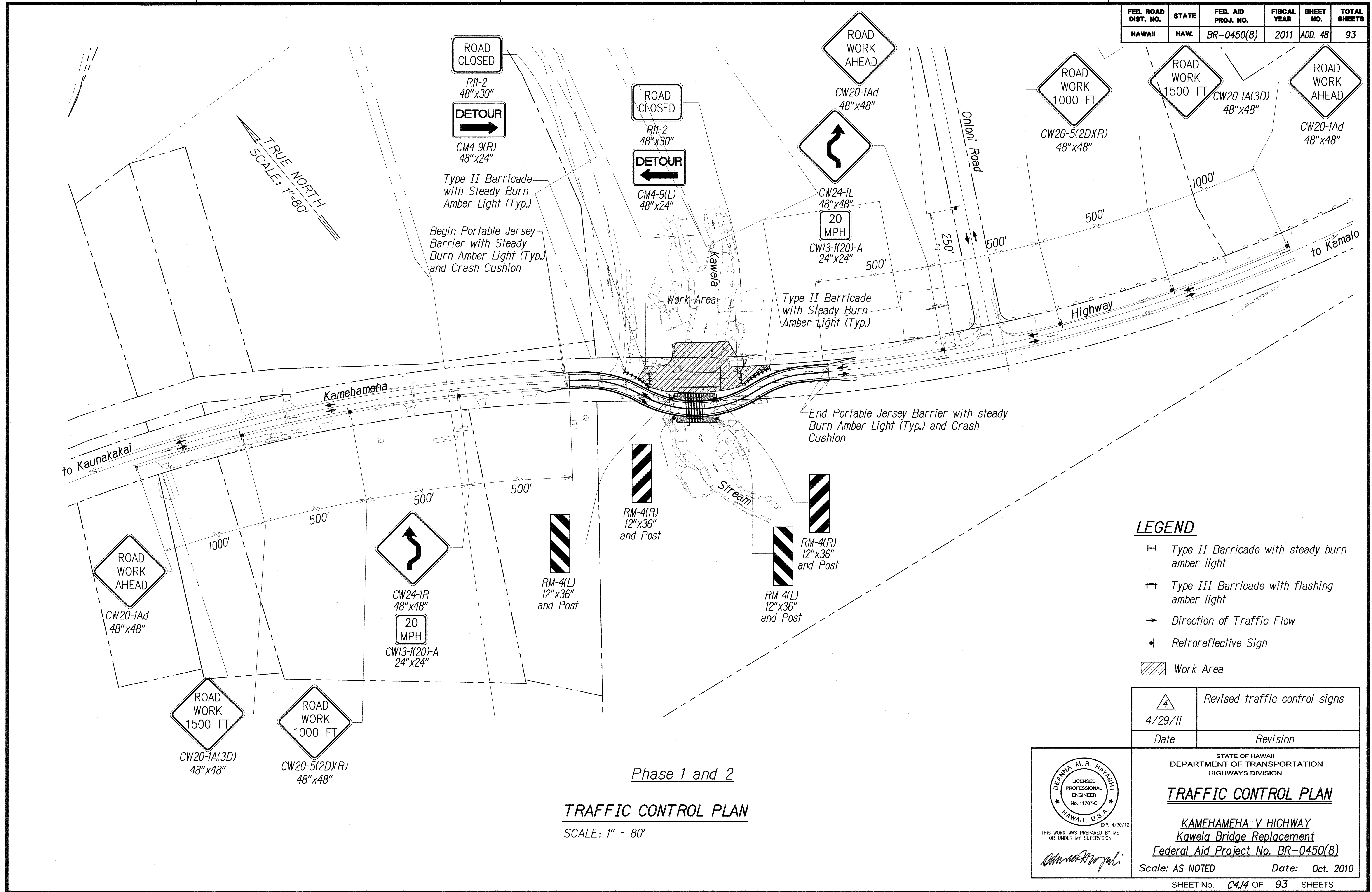


Traffic Control Plan Notes:

- Any requests for adjustments to the Traffic Control Plans shall be submitted in writing and approved by the Engineer. The Contractor's attention is directed to Subsection 108.08 - Liquidated Damages for Failure to Complete the Work or Portions of the Work on Time of the Special Provisions.
- Relocation and/or removal of temporary signs, posts and portable concrete barriers used for Traffic Control shall be considered incidental to their respective contract items.
- All temporary signs and delineators for the purposes of Traffic Control shall become the property of the Contractor at the completion of the project.
- The Contractor shall use ground anchorage steel pins for Portable Concrete Barriers.
- Portable concrete barrier panels not in use during construction work shall not be stockpiled or otherwise stored within the highway rights-of-way except at locations approved by the Engineer.
- The location of pavement markings and signs, delineators and portable concrete guardrail panels used in Traffic Control Plans shall be as shown on the plans and/or as determined in the field by the Engineer.
- The Contractor shall periodically wash down signs, delineators and portable concrete barriers called for in the Traffic Control Plans deemed necessary by the Engineer. This work shall be considered incidental to the various contract items and no payment will be made therefore.
- Damage to signs, temporary pavement markers, delineators, barricades, sand barrels, lamps and portable concrete barriers caused by the public shall be repaired or replaced by the Contractor as soon as possible or as directed by the Engineer. This work shall be paid for under Item No. 645.0200 Police Officers and/or Additional Traffic Control Devices. Damage caused due to the Contractor's action shall be repaired or replaced at the Contractor's expense.
- Work required in the Traffic Control Plans will be paid under applicable contract items or as otherwise specified herein.
- All other traffic control work shall be in accordance with Section 645 - Traffic Control Work required for lane closures during the working day will not be paid for but shall be considered incidental to various contract items. Advance Construction Warning Signs as required under Section 645 of the Special Provisions shall be installed on all approaches to construction areas including on-ramps. This work shall be considered incidental to the various contract items.
- The Type II Barricades with steady burn amber lamp used during Traffic Control shall be considered incidental to the various contract items.
- This Work Zone Sign Plan is intended for use on long-term stationary work zones/construction phases (3 days or more). All work zones or construction phases less than 3 days duration will use Traffic Control Plans shown in Section 645 of the Special Provisions.
- All existing regulatory speed limit signs with posts within the work zone/project limits shall be removed and replaced with work zone speed limit sign assemblies (R2-1(20) and CW3-5(20) with "CONSTRUCTION AREA" and "\$250 FINE HRS 291C-104" Supplemental Signs).
- Construction sign assemblies shall be installed on both the approaching and trailing ends of each work zone as shown on this plan.
- Each construction warning sign shall have a minimum of two (2) Type II OM. Each work zone speed limit assembly shall have a minimum of one (1) Type II OM. Installation of each Type II OM shall be considered incidental to Item No. 621.7100, Construction Signs and Posts.
- Upon the completion of all physical work or as directed by the Engineer, all construction signs and work zone speed limit assemblies shall be removed. All speed limit signs and posts that were existing at the start of the project within the work zone/project limits shall be restored back to their original locations and configurations.
- Placement of construction signs shall not obstruct the path of pedestrians and bicyclists.
- The removal and restoration of existing regulatory speed limit signs with new posts along with the installation, maintenance and removal of work zone speed limit sign assemblies shall be considered incidental to Item No. 621.7100, Construction Sign with Posts.
- Project limits are from Kam. V Highway Baseline Sta. 266+30 to 273+80.

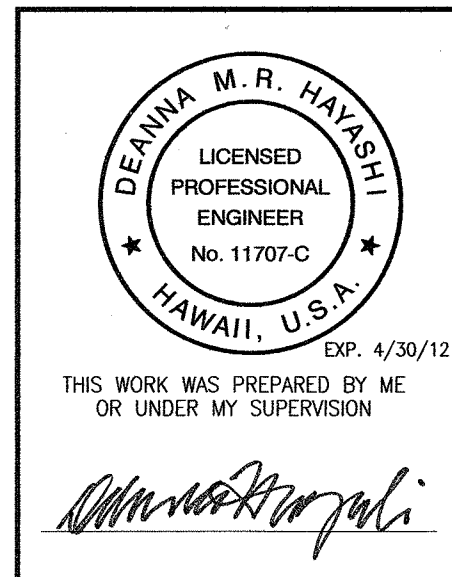
		New sheet
	4/29/11	Revision
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION TRAFFIC CONTROL PLAN KAMEHAMEHA V HIGHWAY Kawela Bridge Replacement Federal Aid Project No. BR-0450(8) Scale: AS NOTED Date: Oct. 2010		SHEET No. C4.14 OF 93 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-0450(8)	2011	ADD. 48	93



- LEGEND**
- ⊥ Type II Barricade with steady burn amber light
 - ⚡ Type III Barricade with flashing amber light
 - ➔ Direction of Traffic Flow
 - ◀ Retroreflective Sign
 - ▨ Work Area

4	Revised traffic control signs
4/29/11	Date
	Revision



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN

KAMEHAMEHA V HIGHWAY
Kawela Bridge Replacement
Federal Aid Project No. BR-0450(8)

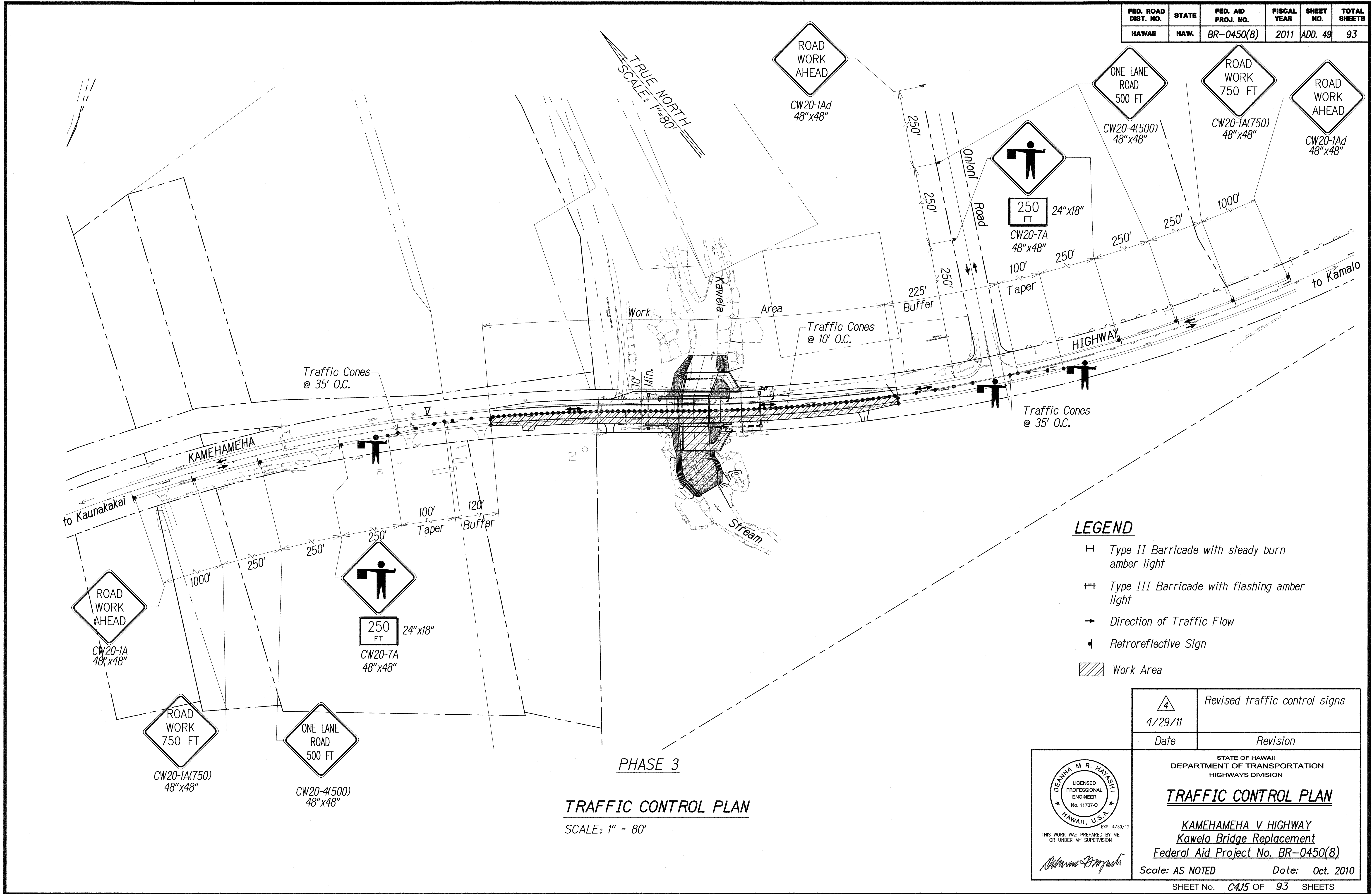
Scale: AS NOTED Date: Oct. 2010

Phase 1 and 2

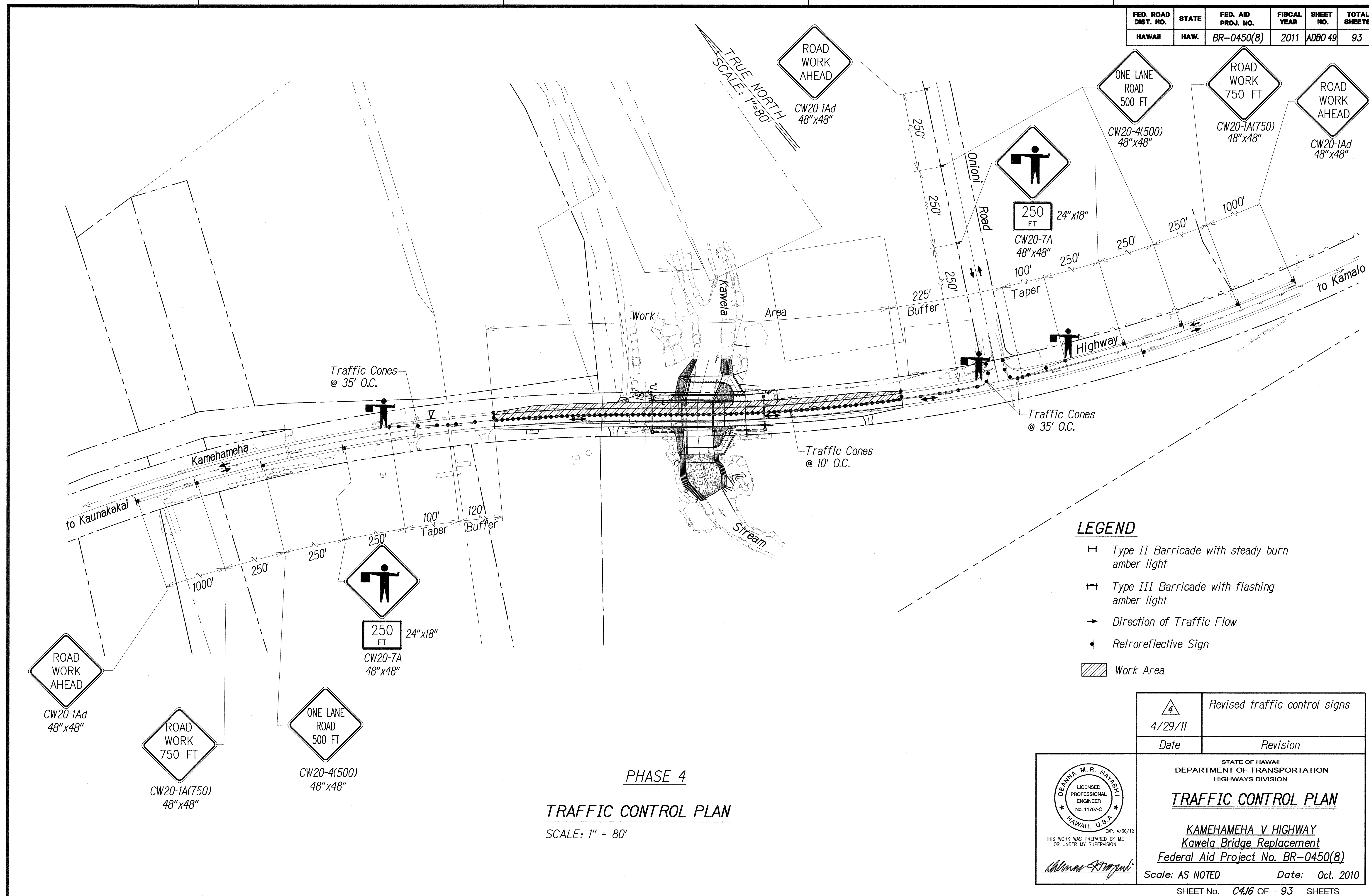
TRAFFIC CONTROL PLAN

SCALE: 1" = 80'

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-0450(8)	2011	ADD. 49	93



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-0450(8)	2011	ADD 49	93



LEGEND

- Type II Barricade with steady burn amber light
- Type III Barricade with flashing amber light
- Direction of Traffic Flow
- Retroreflective Sign
- Work Area

<div> <div>4</div> <div>4/29/11</div> </div>	Revised traffic control signs
Date	Revision
<div> <div> <div>DEANNA M.R. HAYASHI</div> <div>LICENSED PROFESSIONAL ENGINEER</div> <div>No. 11707-C</div> <div>HAWAII, U.S.A.</div> </div> <div> <div>EXP. 4/30/12</div> <div>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION</div> </div> </div>	
<div> <div>STATE OF HAWAII</div> <div>DEPARTMENT OF TRANSPORTATION</div> <div>HIGHWAYS DIVISION</div> </div>	
<div> <div>TRAFFIC CONTROL PLAN</div> <div>KAMEHAMEHA V HIGHWAY</div> <div>Kawela Bridge Replacement</div> <div>Federal Aid Project No. BR-0450(8)</div> </div>	
Scale: AS NOTED	Date: Oct. 2010
SHEET No. C4/6 OF 93 SHEETS	

PHASE 4

TRAFFIC CONTROL PLAN

SCALE: 1" = 80'