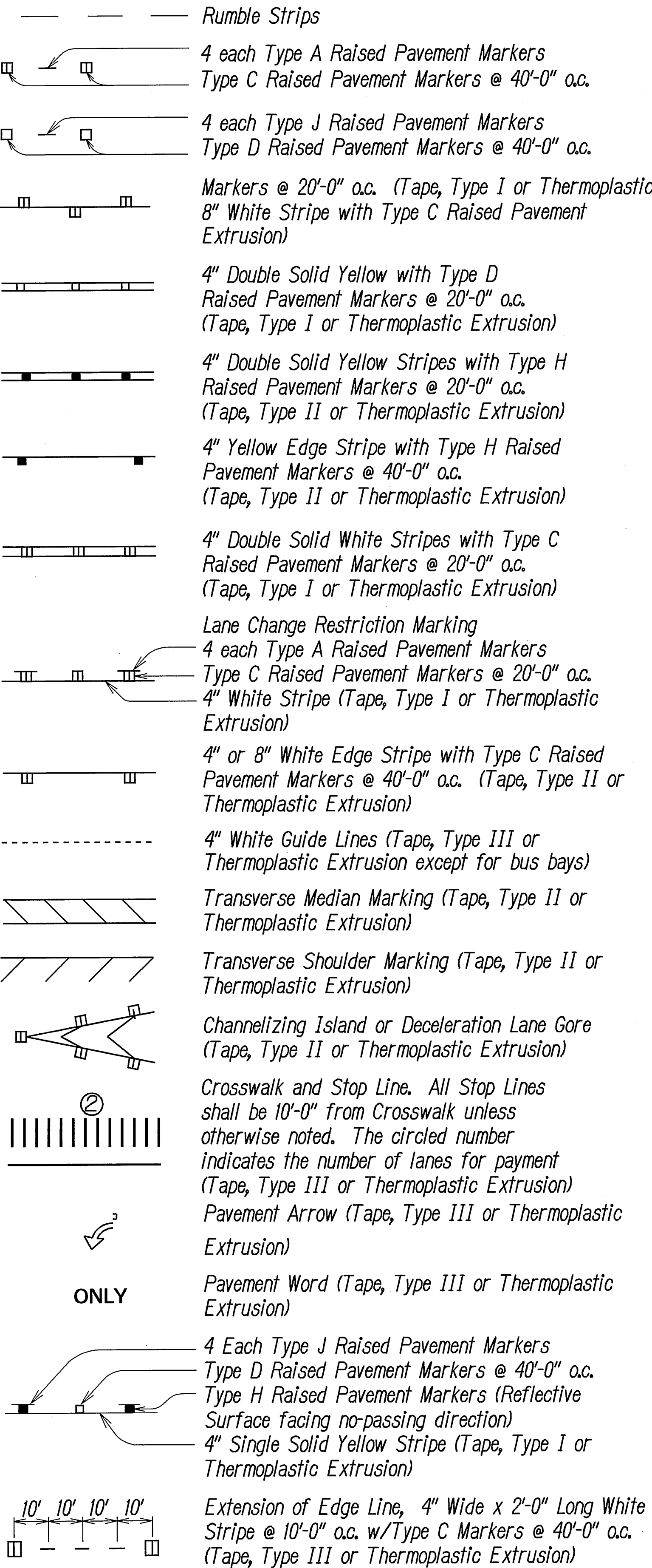


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50B-01-09	2009	15	19

LEGEND



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 not incorporated in the final traffic pattern shall be removed as directed by the Engineer. Costs shall be 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 shall be 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.
- 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. The signs shall be kept in place for the duration of the project and shall be maintained by the Contractor. These signs shall be placed in addition to the required traffic control signs called for in Section 645 - Work Zone Traffic Control. The advance construction warning signs shall be new and become the property of the Contractor.
- 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 of Special Provisions and the latest editions and amendments of the following FHWA publications:
 - "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD)
 - "Standard Highway Signs"
 - "Standard Alphabets for Highway Signs"
- State Route Marker Symbols, borders, messages, arrows, symbols and shields shall conform to details as shown on the plans and as specified in the MUTCD.
- All new and relocated signs and markers installed on pipe posts, light standard or expressway sign post are to be mounted with band brackets and steel braces.
- Removal of existing delineators and posts, as directed by the Engineer or shown on the plans, shall be considered incidental to the various signing items.
- Removal and reinstalling existing street name signs on regulatory and warning sign post shall not be paid for separately but shall be considered incidental to the various signing items.
- All Reflector Marker (RM-2) not protected by a vehicular barrier shall be mounted on a flexible delineator post unless otherwise directed by the Engineer.
- See Standard Plans, Sheet TE-28A, dated 2008 for Yield Line and Crosswalk Striping Detail.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

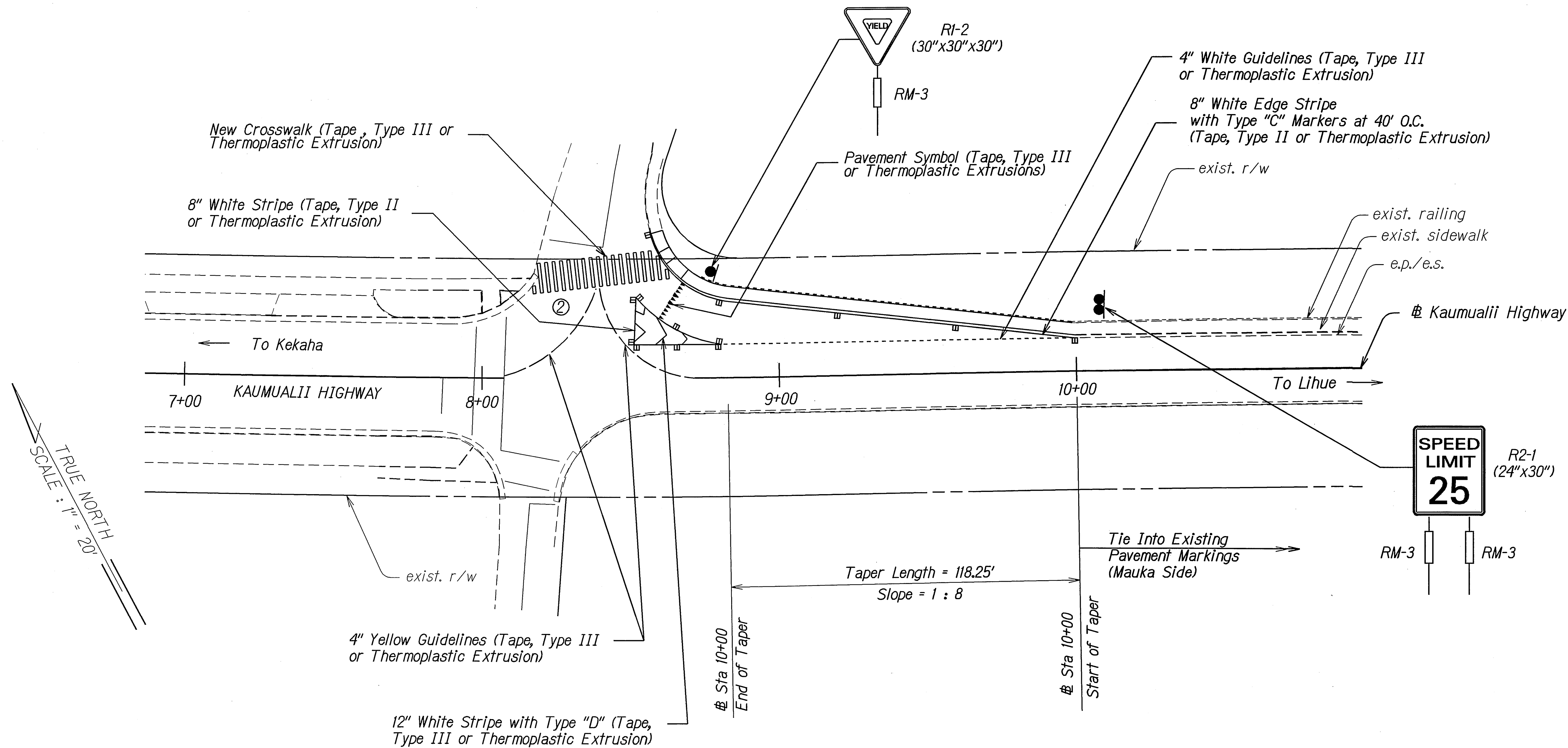
**PAVEMENT STRIPING, MARKING,
LEGEND, DETAILS & NOTES**

KAUMUALII HIGHWAY
Intersection Improvements at Ala Wai Road
Project No. 50B-01-09M

Date: April 2009

SHEET No. 71 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50B-01-09	2009	16	19



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
DESIGNED BY	3/09	
NOTED BY		
CHECKED BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

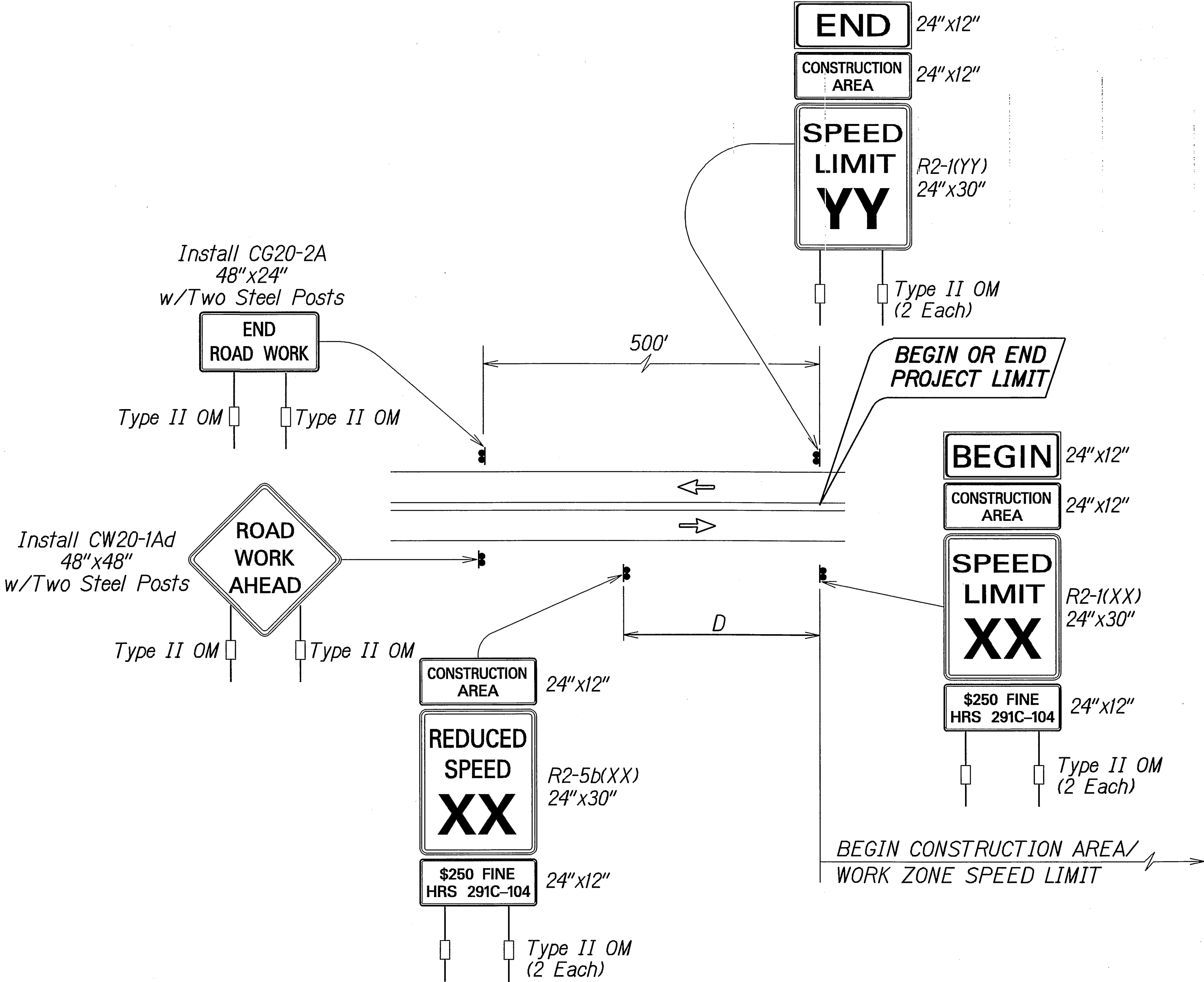
**TRAFFIC SIGNING AND
PAVEMENT MARKING PLAN**

KAUMUALII HIGHWAY
Intersection Improvements at Ala Wai Road
Project No. 50B-01-09

Scale: 1 : 20 Date: April 2009

SHEET No. T2 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50B-01-09	2009	17	19

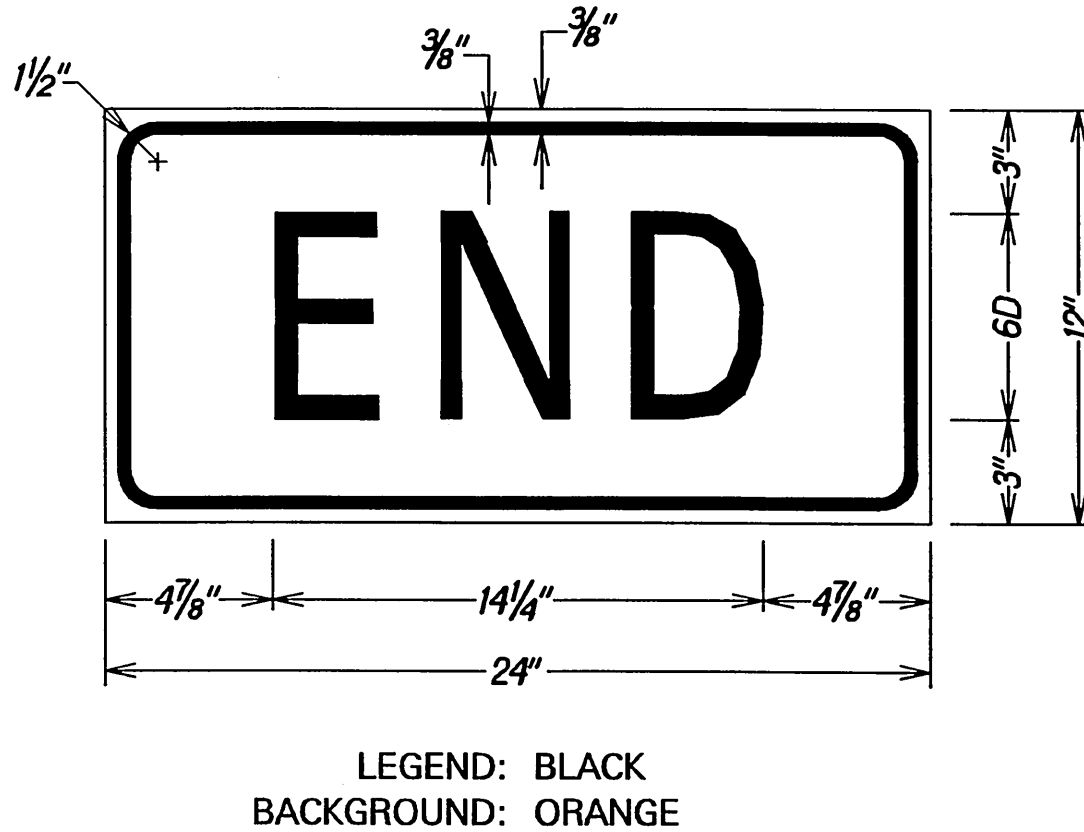
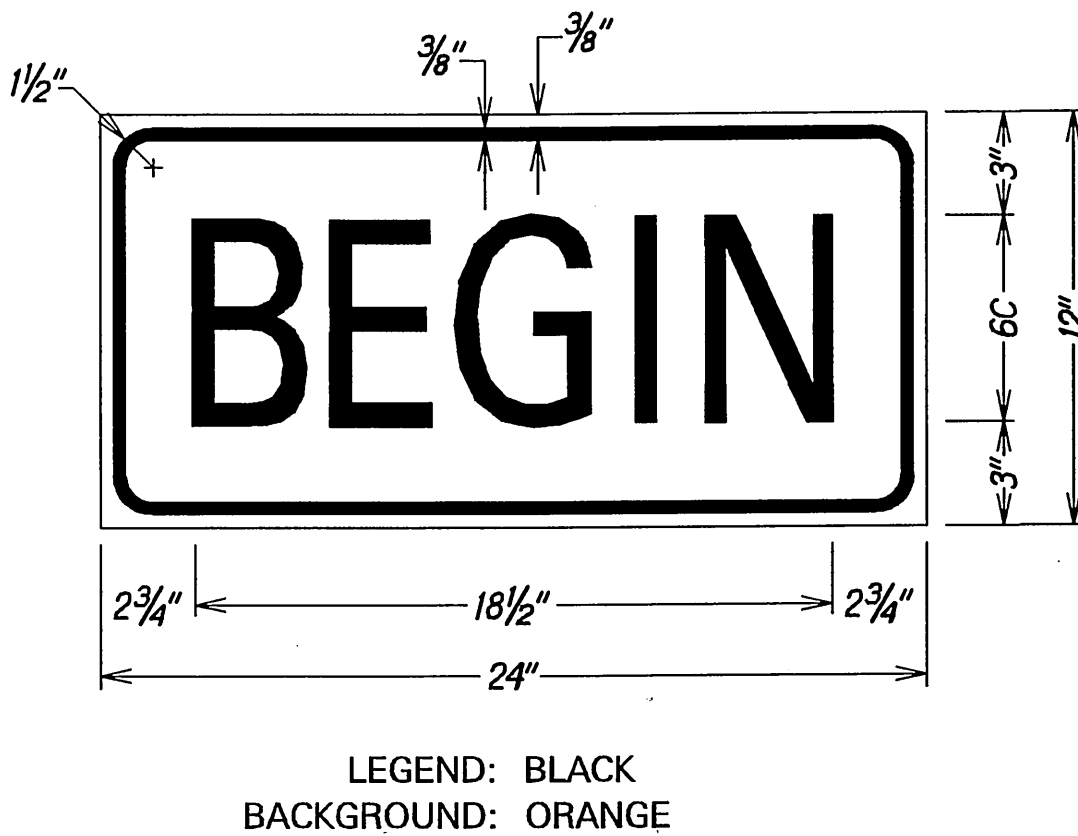
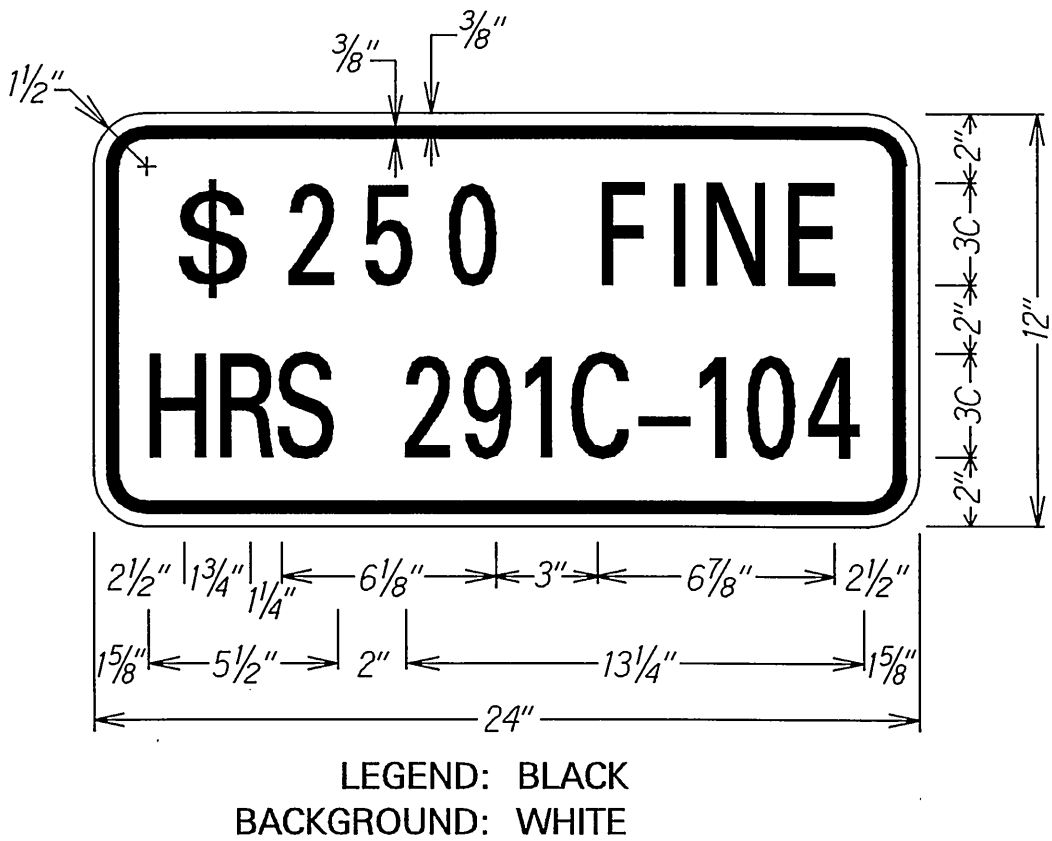
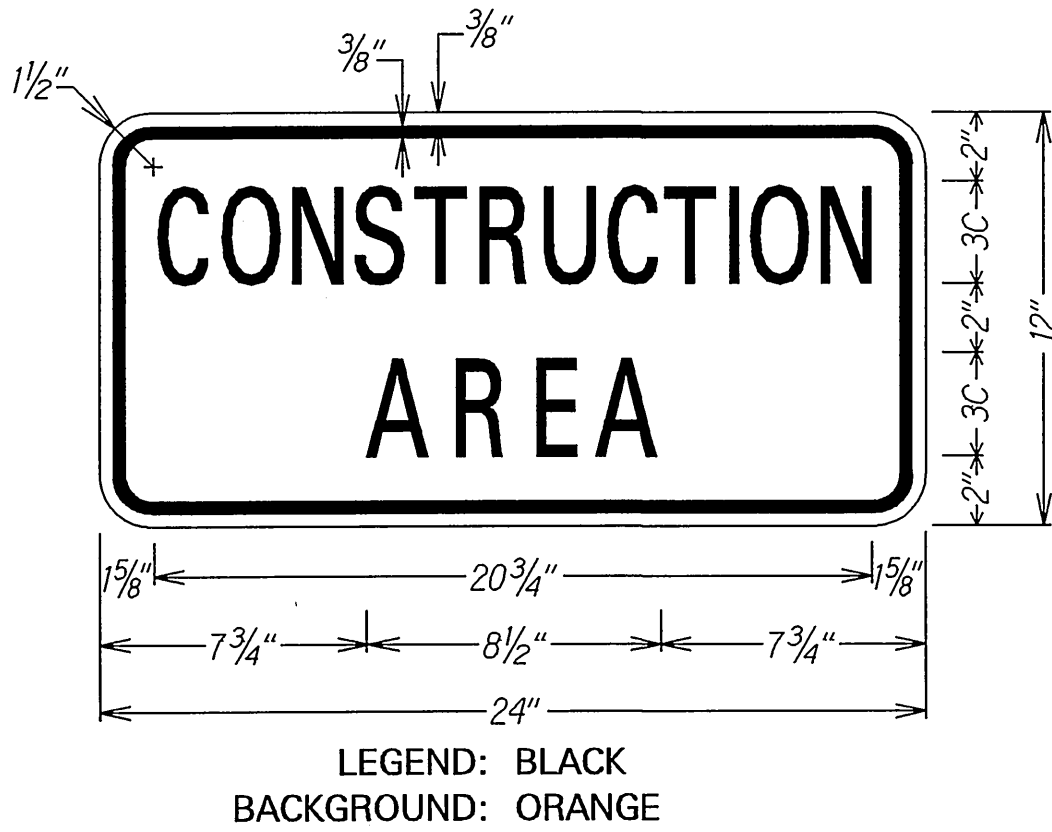


**TYPICAL DETAIL FOR CONSTRUCTION SIGNS
ON TWO LANE OR MULTILANE UNDIVIDED LOW SPEED HIGHWAY**

Work Zone Note:

1. 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.
2. 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(XX) and R2-5b(XX) with "CONSTRUCTION AREA" and "\$250 FINE HRS 291C-104" Supplemental Signs).
3. Construction sign assemblies shall be installed on both the approaching and trailing ends of each work zone as shown on this plan.
4. Each construction warning sign and work zone speed limit assembly shall have a minimum of two (2) Type II OM. Installation of each Type II OM shall be considered incidental to Item No. 645.0100 - Traffic Control.
5. 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.
6. Placement of construction signs shall not obstruct the path of pedestrians and bicyclists.
7. The removal and restoration of existing regulatory speed limit signs shall be considered incidental to Item No. 645.0100 - Traffic Control.
8. The installation, maintenance and removal of work zone speed limit sign assemblies shall be paid for under Item No. 645.0100 - Traffic Control.
9. The work zone speed limit signs shall be new and become the property of the Contractor.

TABLE I GUIDELINE FOR ADVANCE PLACEMENT OF SPEED REDUCTION SIGN R2-5b(XX)-A, CONSTRUCTION AREA SPEED LIMIT		
YY – EXISTING POSTED SPEED LIMIT (MPH)	XX – NEW CONSTRUCTION AREA SPEED LIMIT (MPH)	D-REDUCED SPEED LIMIT SIGN SPACING TO FIRST CONSTRUCTION AREA SPEED LIMIT SIGN (FEET)
≤ 25	EXIST. SPEED LIMIT TO REMAIN	
30	25	100
35	25	175
40	30	175



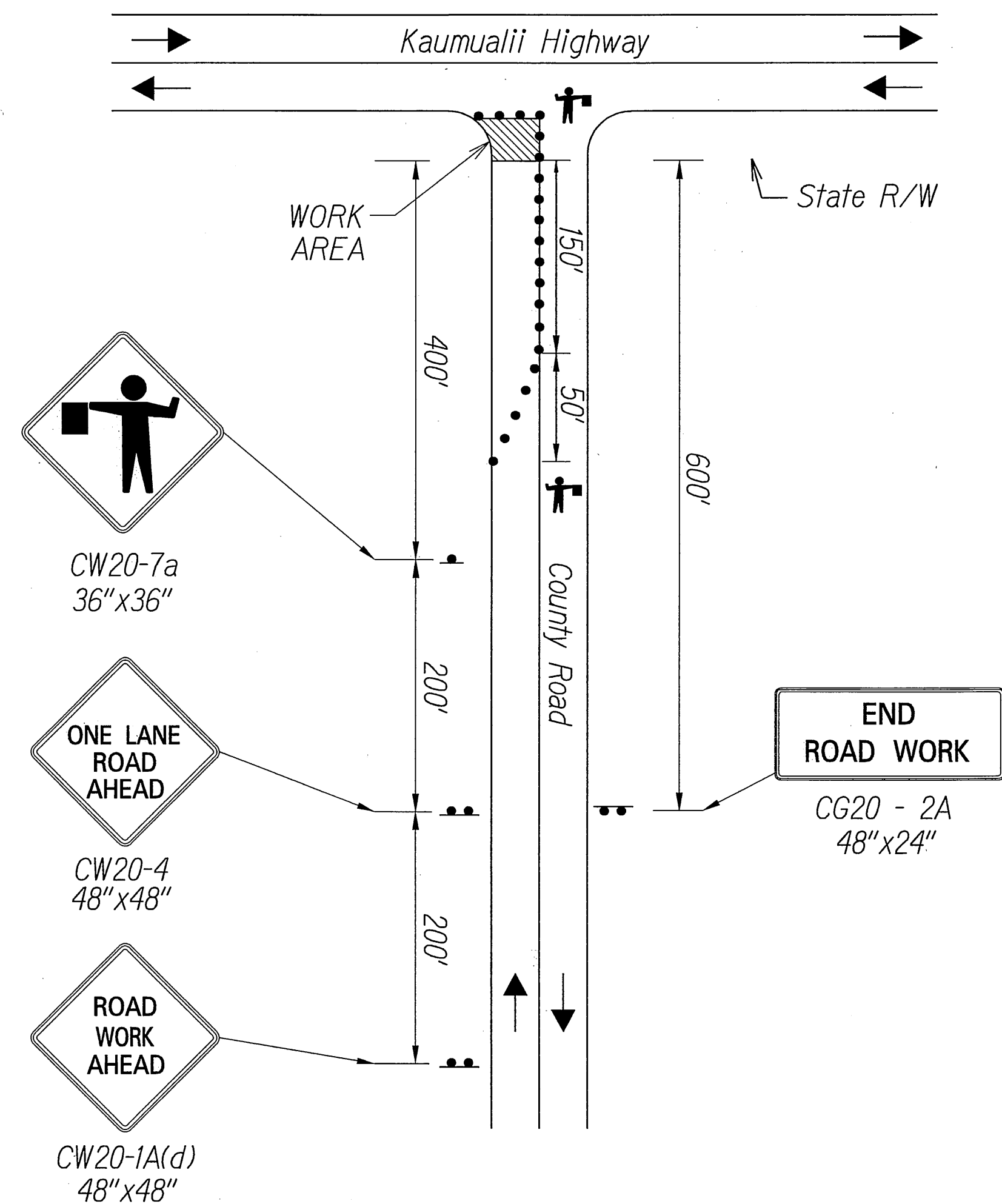
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LOW SPEED UNDIVIDED HIGHWAY
WORK ZONE SIGNING PLAN, NOTES & DETAILS
KAUMUALII HIGHWAY
Intersection Improvements at Ala Wai Road
Project No. 50B-01-09

Scale: Not to Scale
Date: April 2009

SHEET No. T3 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50B-01-09	2009	18	19



- LEGEND**
- Flagman / Policeman
 - Delineators
 - Work Area
 - Sign
 - Direction of Traffic

**TRAFFIC CONTROL PLAN
TYPICAL AT INTERSECTIONS
WITHIN THE COUNTY RIGHT-OF-WAY**
N.T.S.

TABLE 1 FOR TRAFFIC CONTROL PLAN

POSTED SPEED LIMIT ① (M.P.H.)	SIGN SPACING (L) (FEET)	TAPER LENGTH (T) (FEET)		SPACING OF CONES OR DELINEATORS (FEET) ③		
		W = 12' OR LESS ②	W = GREATER THAN 12' ②	TAPER	TANGENT	WORK AREA
20	250	200	W X 17	20	20	10
25	250	200	W X 17	25	25	10
30	250	250	W X 20	30	30	10
35	250	250	W X 20	35	35	10
40	500	350	W X 30	40	40	10
45	500	550	W X 45	45	45	10
50	1000	600	W X 50	50	50	10
55	1000	700	W X 55	55	55	10

Note: W = width of shoulder, lane, or offset

**CONSTRUCTION NOTES FOR TRAFFIC CONTROL PLAN
WITHIN THE COUNTY RIGHT-OF-WAY:**

- The permittee shall make adjustments at intersections, driveways, bridges, structures, etc. to fit field conditions.
- Cones or delineators shall be extended to a point where they are visible to approaching traffic.
- Traffic control devices shall be installed such that the sign or device farthest from the work area shall be placed first. The others shall then be placed progressively toward the work area.
- Regulatory and warning signs within the construction zone that are in conflict with the traffic control plans shall be removed or covered. All signs shall be restored upon the completion of the work.
- Flaggers and/or police officers shall be in sight of each other or in direct communication at all times.
- When required by the issuing office, the permittee shall install a flashing arrow signal as shown on the traffic control plans.
- Sign spacings (L), taper lengths (T) and spacings of cones or delineators shall be as shown in Table 1 below, unless otherwise noted on the Traffic Control Plans.
- All traffic lanes shall be a minimum of 10 feet wide.
- All construction warning signs shall be promptly removed or covered whenever the message is not applicable or not in use.
- The backs of all signs used for traffic control shall be appropriately covered to preclude the display of inapplicable sign messages (i.e., when the signs have messages on both sides).
- At the end of each days work or as soon as the work is completed, the permittee shall remove all traffic control devices no longer needed to permit free and safe passage of public traffic. Removal shall be in the reverse order of installation.
- Replace permanent pavement marking and traffic signs upon completion of each phase of work.
- Police officers/flagmen shall be present at all times.
- Contractor shall provide safe passage to all motorists using Kaumualii Highway and affected County roads at all times. Further, the Contractor shall provide flagmen/policemen to direct traffic at all intersections.
- The Contractor shall also prepare a flyer showing the changes in traffic patterns and estimated times of use. Sufficient copies of the flyers shall be provided to each business and for distribution to its employees and guests.
- The Contractor shall contact businesses located along Kaumualii Highway and affected County roads at least 10 days prior to the start of construction to inform them of changes in traffic patterns on Kaumualii Highway due to the construction.
- Contractor shall provide access and/or directional signs to re-route pedestrian traffic.
- When required by the County of Kauai, the Contractor shall place an advertisement in the newspaper for any lane closures. The advertisement shall be made one (1) day before the lane closure and shall contain the following information:
 - Map of the traffic change limits;
 - Notice of starting and ending dates, times and duration;
 - Map to show lane closure;
 - Explanation of the lane Closure, "NOTICE TO MOTORIST"
- The Contractor shall be required to have any lane closures announced daily over the radio two (2) days before starting date until the work is completed. Both advertisements in the newspaper and over the radio shall be paid for by the Contractor. The Contractor shall also notify the hospital, ambulatory services, Police Department and the Fire Department of the lane closures.
- All construction signs shall require two (2) sign posts and Type II Object Marker on each post. The installation, maintenance and removal of construction signs shall be paid for under Item No. 645.0100 - Traffic Control. Type II Object Marker installed on construction sign posts shall be considered incidental to contract Item No. 645.0100 - Traffic Control.

APPROVED: (For Work Within County Right-of-Way Only)

4.20.09
 County Engineer
 Department of Public Works
 County of Kauai

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION TRAFFIC CONTROL PLAN WITHIN COUNTY RIGHT-OF-WAY KAUMUALII HIGHWAY Intersection Improvements at Ala Wai Road Project No. 50B-01-09 Not to Scale Date: April 2009 SHEET No. 14 OF 4 SHEETS	
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