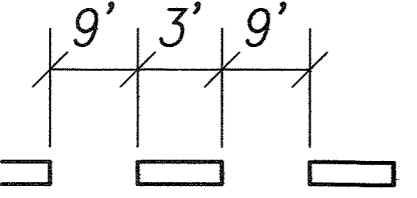
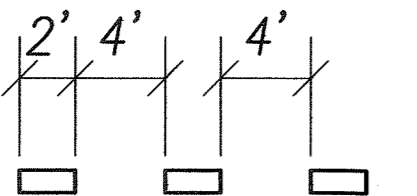
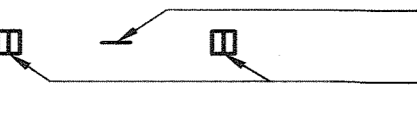
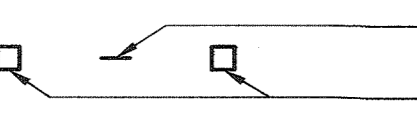
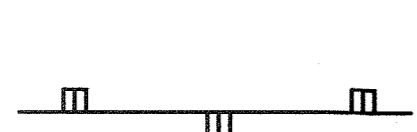

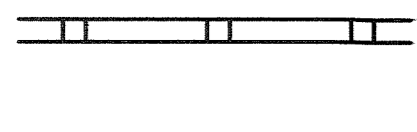


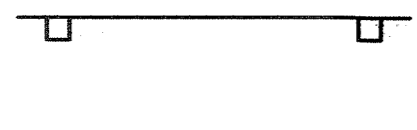
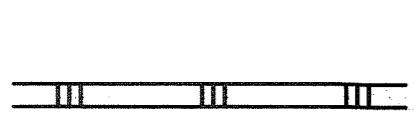

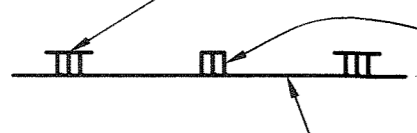


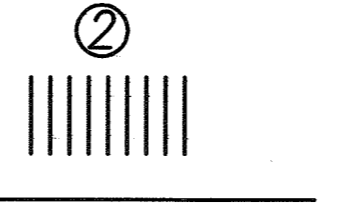


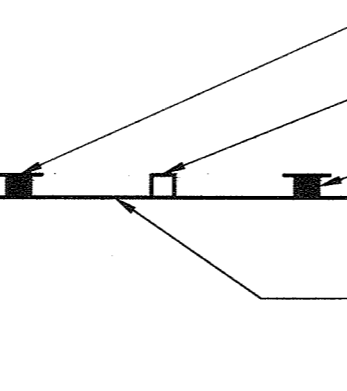
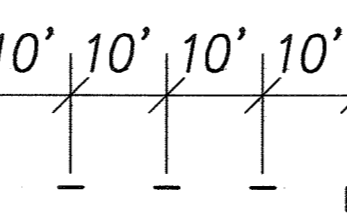

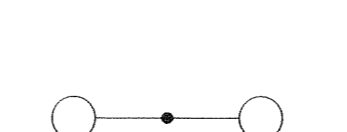

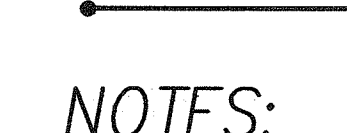
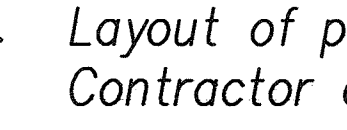


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-072-1(52)	2008	19	64

PAVEMENT MARKING LEGEND

- 
 8" White Lane Drop Marking
 (Tape, Type I or Thermoplastic Extrusion)
- 
 4" White Guide Line
 (Tape, Type I or Thermoplastic Extrusion)
- 
 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'-0" 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 with Type D Raised Pavement Markers @ 20'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
- 
 4" Double Solid Yellow with Type H Raised Pavement Markers @ 20'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
- 
 4" Yellow Edge Stripe with Type H Raised Pavement Markers @ 40'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
- 
 4" Double Solid White Stripes with 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)

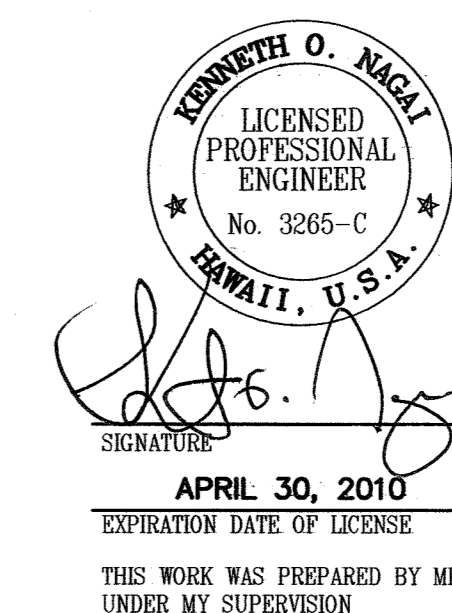
- 
 Crosswalk and Stop Line. All Stop Lines shall be 10'-0" from Crosswalk unless otherwise noted. The circled number indicates the number of lanes for payment (Tape, Type III or Thermoplastic Extrusion)
- 
 Pavement Arrow (Tape, Type III or Thermoplastic Extrusion)
- 
 Pavement Word (Tape, Type III 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)
- 
 4'-0" Flexible Delineator Post with RU-2 Marker
- 
 Existing Street Light Standard
- 
 New Street Light Standard
- 
 Existing Traffic Signal Standard
- 
 New Traffic Signal Standard

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 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.
- 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 the latest editions and amendments of the following FHWA publications:
 - "Manual on Uniform Traffic Control Devices for Street and Highways" (MUTCD)
 - "Standard Highway Signs"
 - "Standard Alphabet for Highway Signs"
- All new and relocated signs and markers installed on pipe post or light standard 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 called for in Section 645-Work Zone 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 Oahu District Baseyard or as directed by the Engineer at the end of the project.

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



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

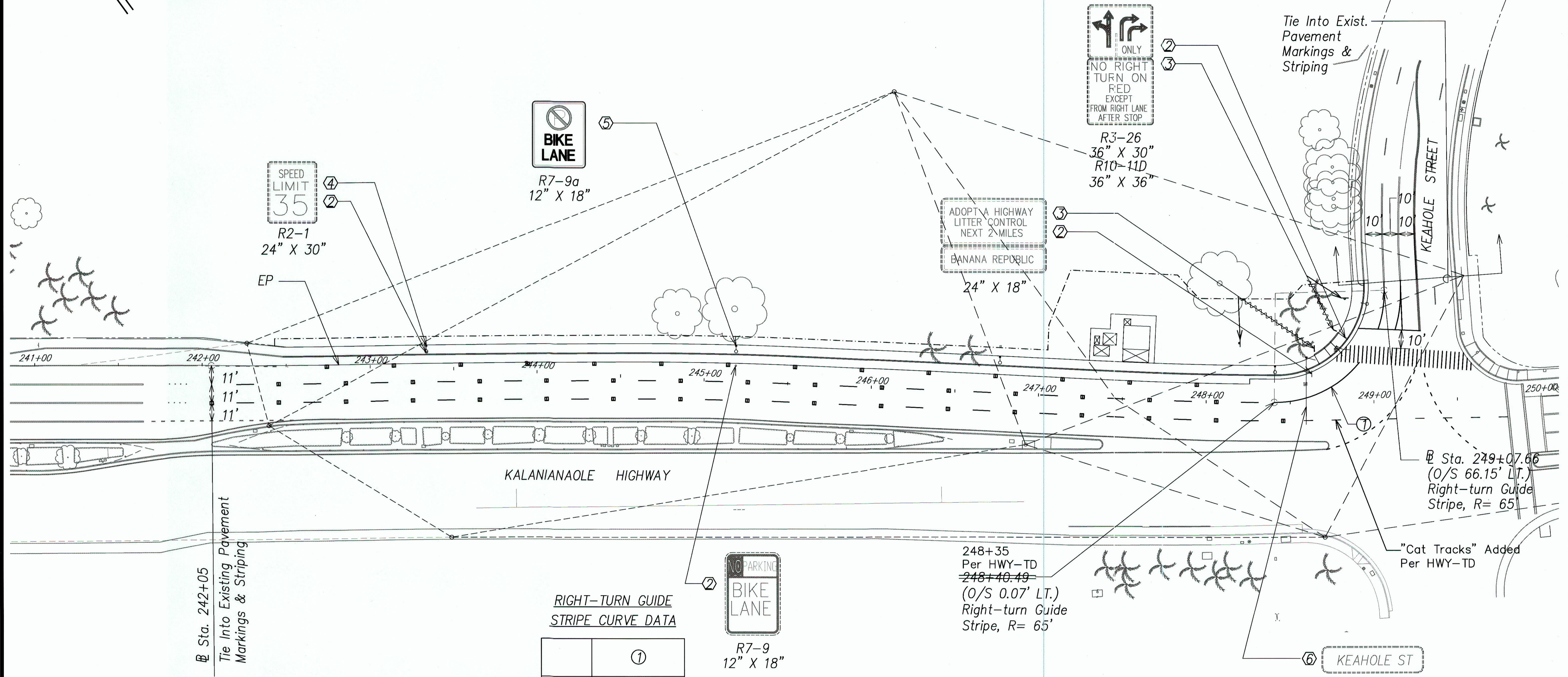
SIGNING & PAVEMENT MARKING
LEGEND, AND NOTES

KALANIANA'OLE HIGHWAY IMPROVEMENTS
VICINITY OF HAWAII KAI DRIVE
TO KEAHOLE STREET
FEDERAL-AID PROJECT NO. NH-072-1(52)
DATE: November 2008

SHEET No. C-14 OF 22 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-072-1(52)	2008	20	64

TRUE NORTH
Scale: 1" = 30'



Sta. 242+05
Tie Into Existing Pavement Markings & Striping

RIGHT-TURN GUIDE STRIPE CURVE DATA

	①
△	92° 03' 38"
△/2	46° 01' 49"
R	65'
T	67.38'
C	93.56'
L	104.44'

R7-9
12" X 18"

248+35
Per HWY-TD
~~248+40.49~~
(O/S 0.07' LT.)
Right-turn Guide Stripe, R= 65'

Sta. 249+07.66
(O/S 66.15' LT.)
Right-turn Guide Stripe, R= 65'

"Cat Tracks" Added Per HWY-TD

KEY:

- ① Install New Sign w/ New Post(s)
- ② Remove Exist. Sign & Post(s)
- ③ Install Exist. Sign On New Posts(s)
- ④ Salvage Exist. Sign & Install On New Light Or Signal Standard
- ⑤ Install New Sign On New Light Or Signal Standard
- ⑥ Salvage Exist. Sign & Install On Signal Mast Arm

LEGEND FOR AS-BUILT POSTING

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

KENNETH O. NAGI  
LICENSED PROFESSIONAL ENGINEER  
No. 3265-C  
HAWAII, U.S.A.

Signature: *[Signature]*  
 APRIL 30, 2010  
 EXPIRATION DATE OF LICENSE  
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

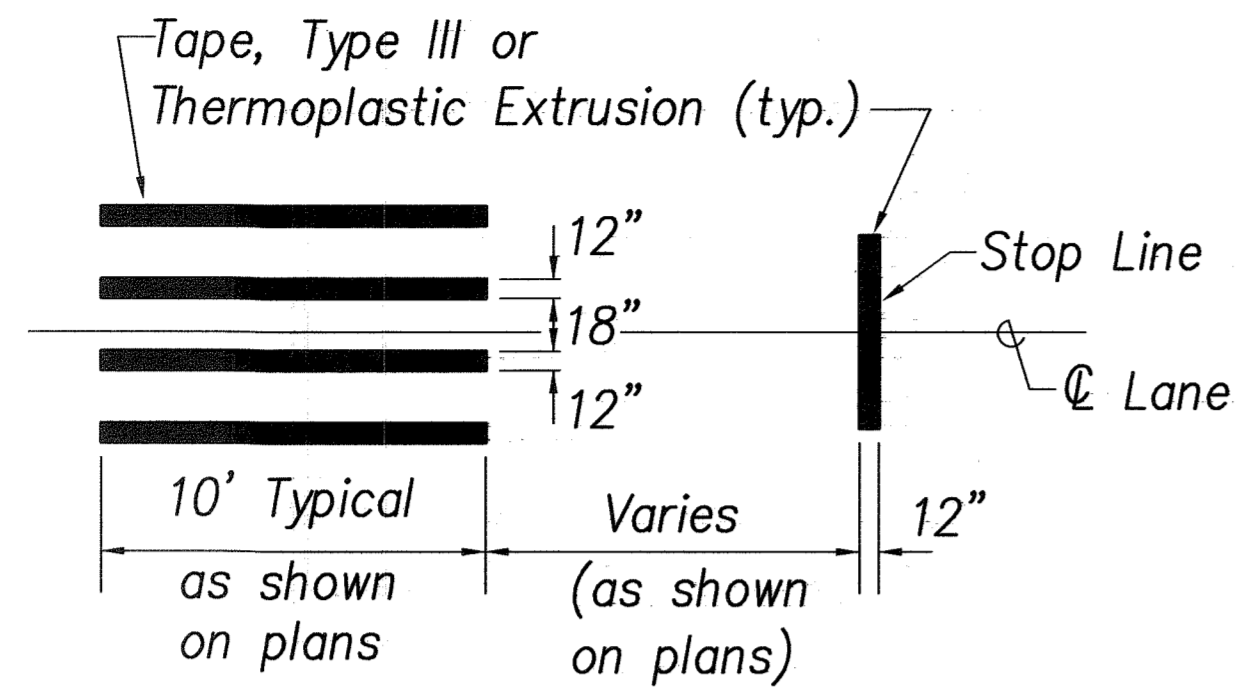
**SIGNING & PAVEMENT MARKING PLAN**

KALANIANA'OLE HIGHWAY IMPROVEMENTS  
VICINITY OF HAWAII KAI DRIVE  
TO KEAHOLE STREET

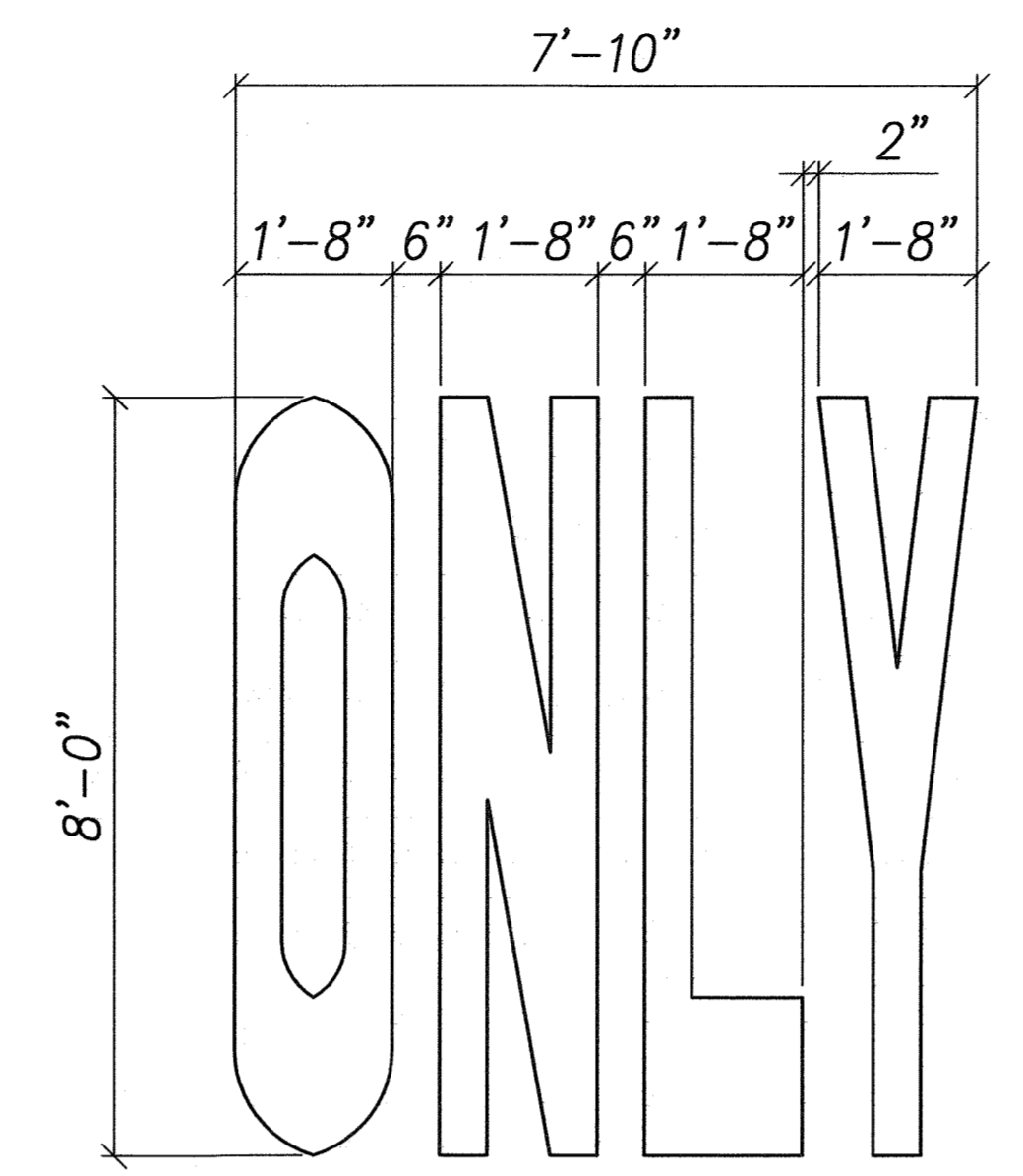
FEDERAL-AID PROJECT NO. NH-072-1(52)  
SCALE: 1" = 30' DATE: November 2008

|                             |      |
|-----------------------------|------|
| SURVEY PLOTTED BY           | DATE |
| DRAWN BY                    |      |
| TRACED 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.  | NH-072-1(52)       | 2008        | 21        | 64           |

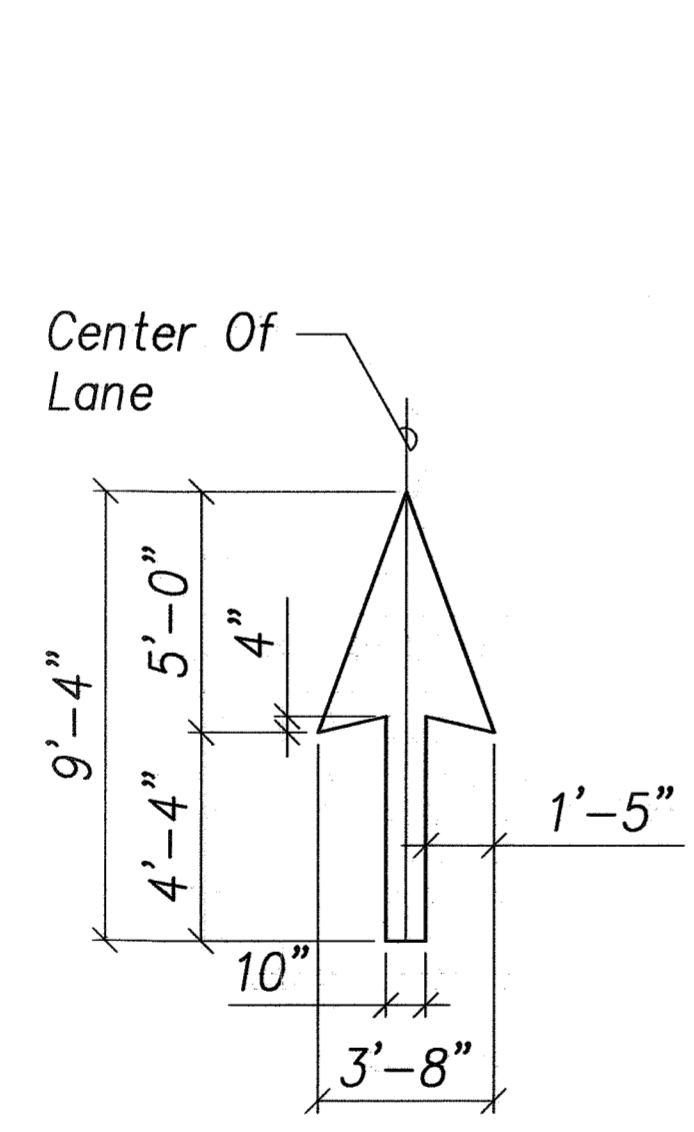


**CROSSWALK STRIPING DETAIL**  
Not to Scale

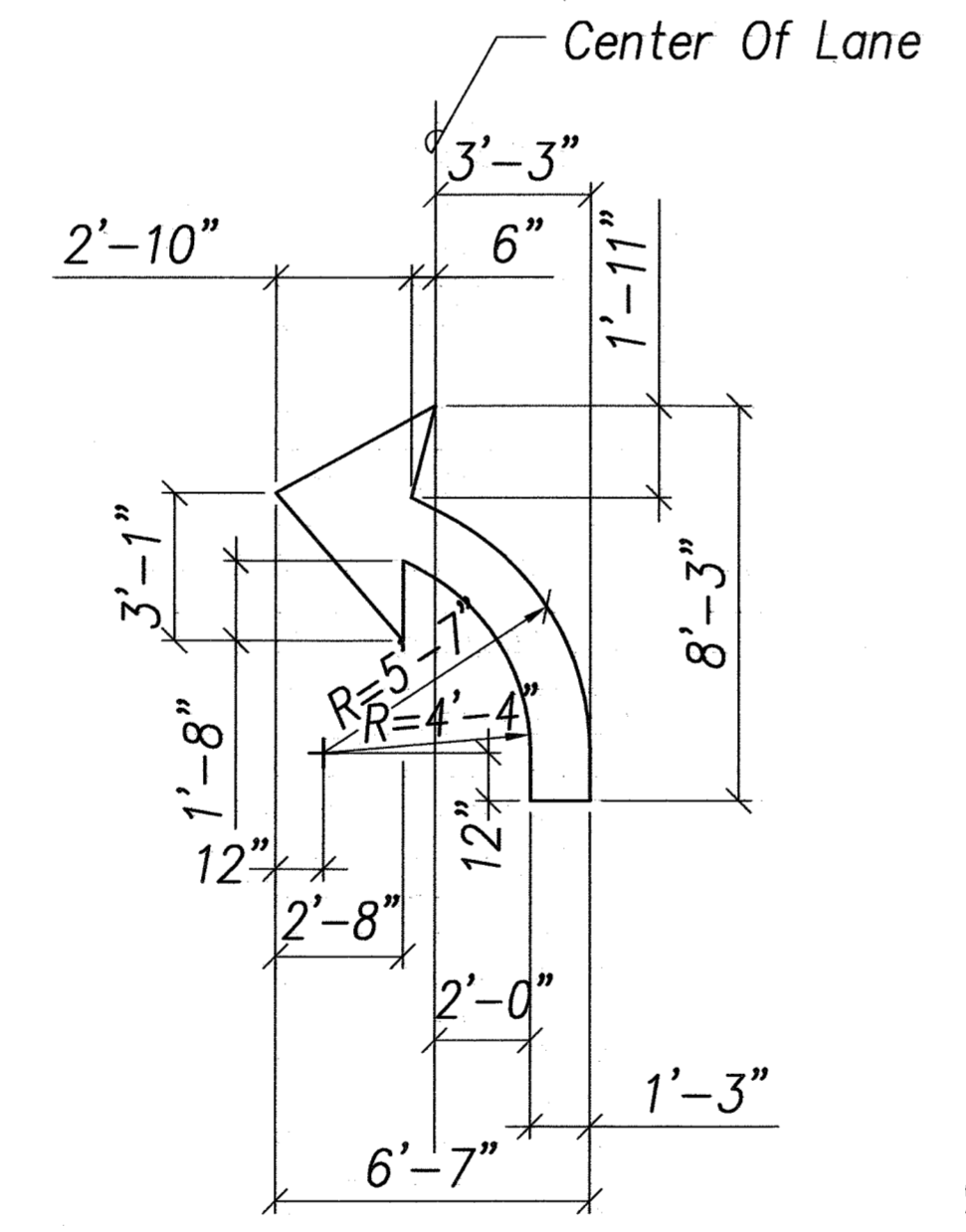


**Note:**  
When this marking is used, it shall be painted in each lane of traffic approaching the intersection.

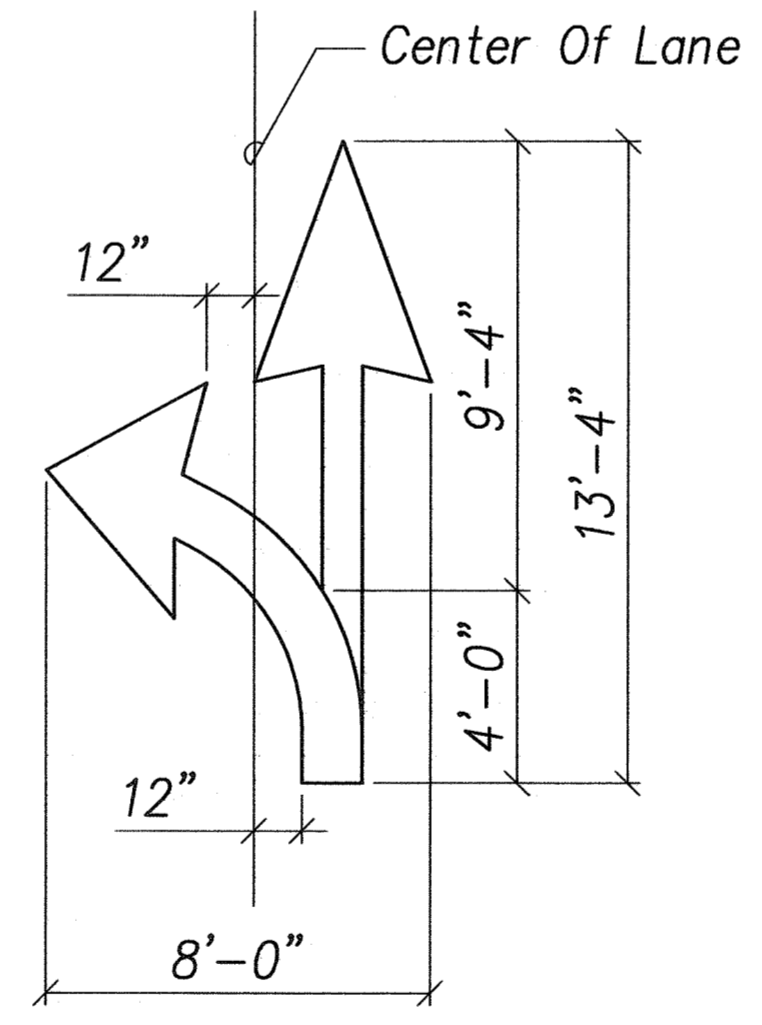
**STANDARD "ONLY" DETAIL**  
Scale: 1/2" = 1'-0"



**THROUGH ARROW**



**TURN ARROW**



**COMBINED ARROWS**

**PAVEMENT ARROWS**  
Scale: 1/4" = 1'-0"

|               |       |
|---------------|-------|
| DATE          | _____ |
| DESIGNED BY   | _____ |
| TRACED BY     | _____ |
| DESIGNED BY   | _____ |
| QUANTITIES BY | _____ |
| CHECKED BY    | _____ |
| ORIGINAL PLAN | _____ |
| NOTE BOOK     | _____ |
| No.           | _____ |

**KENNETH O. NAGLI**  
LICENSED PROFESSIONAL ENGINEER  
No. 3265-C  
HAWAII, U.S.A.

APRIL 30, 2010  
EXPIRATION DATE OF LICENSE

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**PAVEMENT MARKING  
DETAILS**

KALANIANA'OLE HIGHWAY IMPROVEMENTS  
VICINITY OF HAWAII KAI DRIVE  
TO KEAHOLE STREET

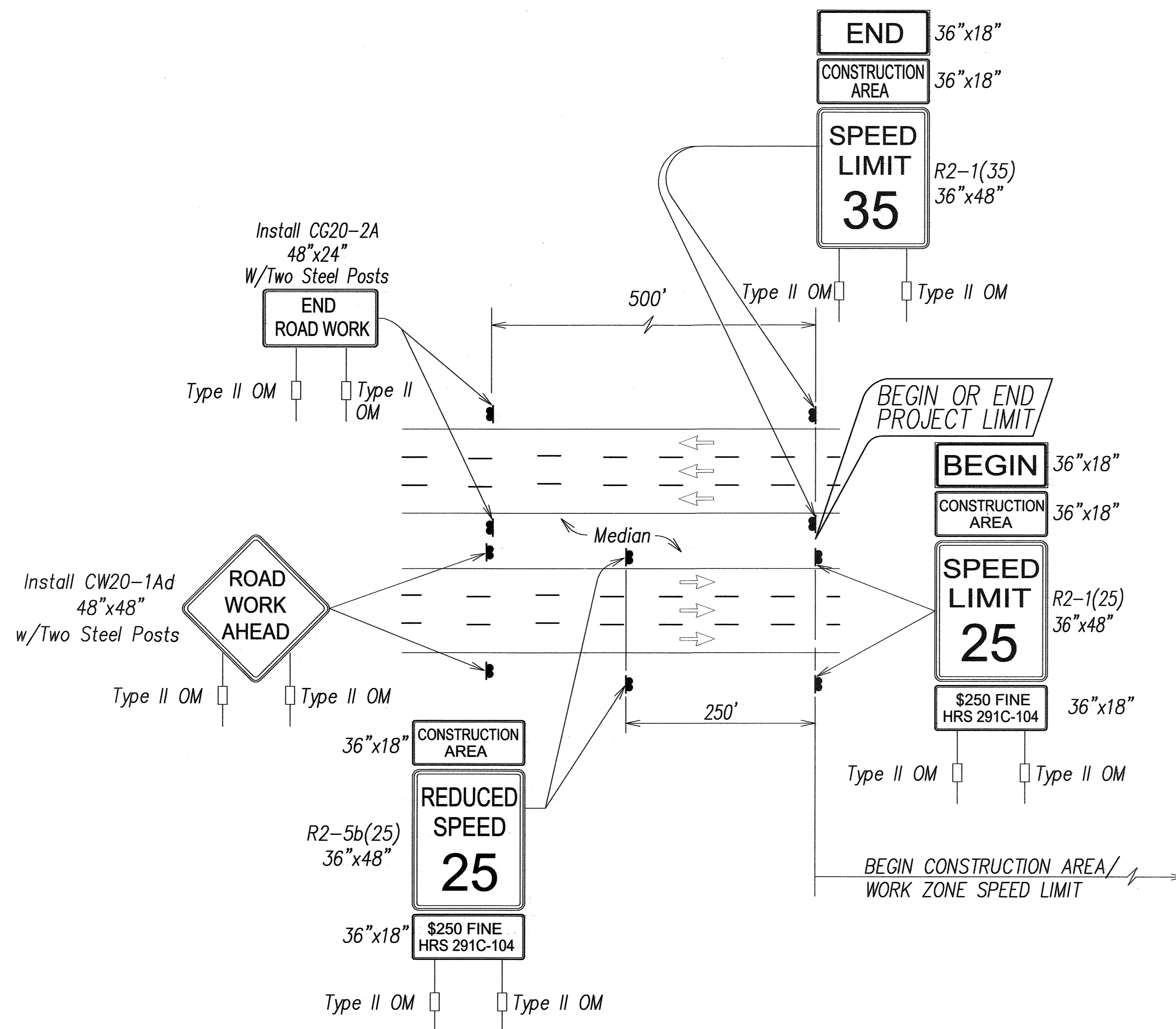
FEDERAL-AID PROJECT NO. NH-072-1(52)  
SCALE: 1" = 20' DATE: November 2008

**SHEET No. C-16 OF 22 SHEETS**

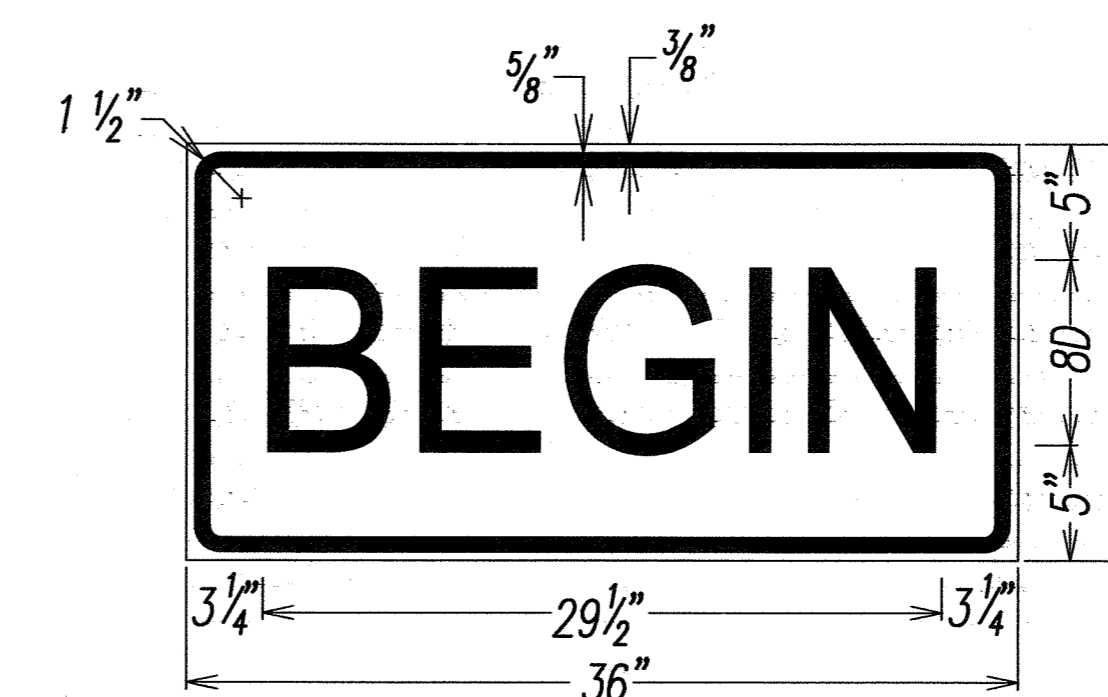
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | NH-072-1(52)       | 2008        | 22        | 64           |

**Work Zone Note:**

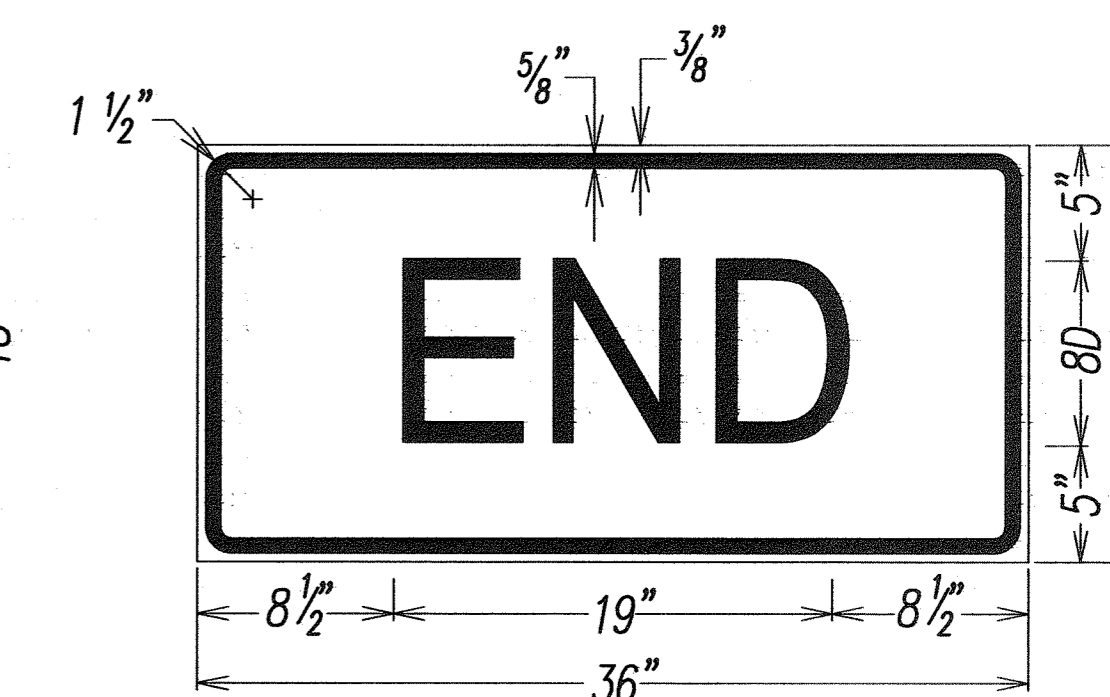
1. This Work Zone Sign Plan is intended for use on long-term stationary work zones/construction phases (3 days or more). All work zones or construction phases less than 3 days duration will use Traffic Control Plans shown in Section 645 of the Special Provisions.
2. All existing regulatory speed limit signs with posts within the work zone/project limits shall be removed and replaced with work zone speed limit sign assemblies (R2-1(25) and R2-5b(25) 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. 621.7100, Construction Sign with Posts.
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 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.



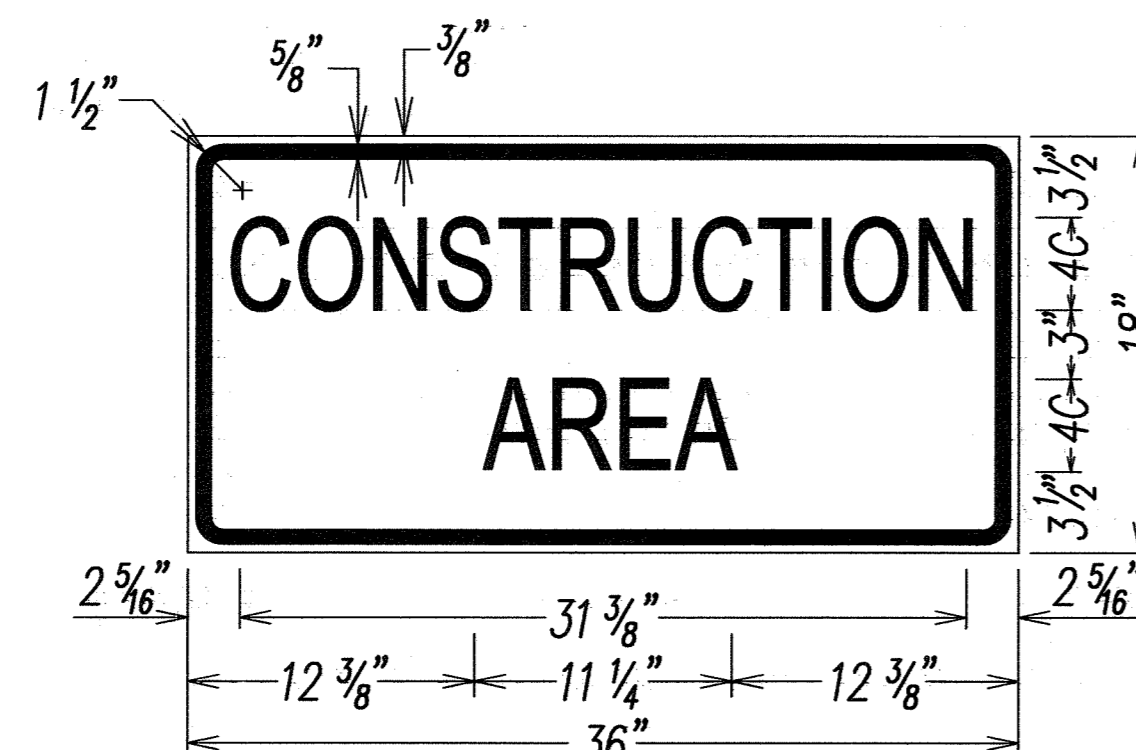
**TYPICAL DETAIL FOR CONSTRUCTION SIGNS ON MULTILANE DIVIDED HIGH SPEED HIGHWAY**



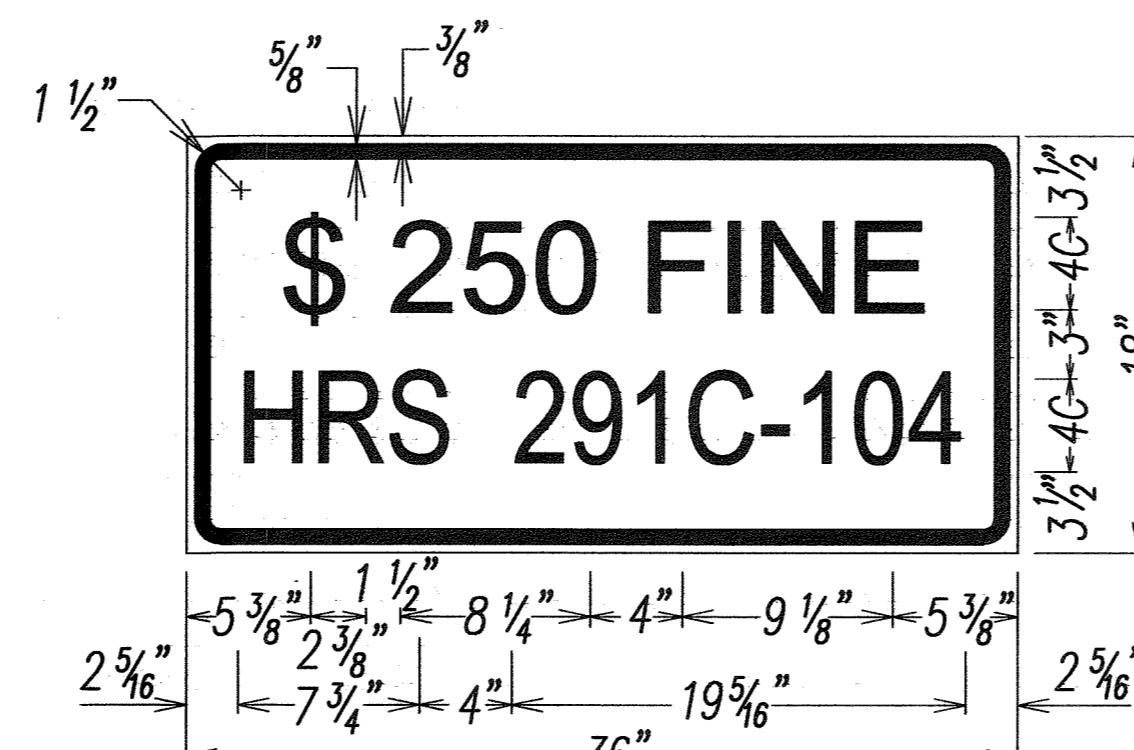
LEGEND: BLACK BACKGROUND: ORANGE



LEGEND: BLACK BACKGROUND: ORANGE

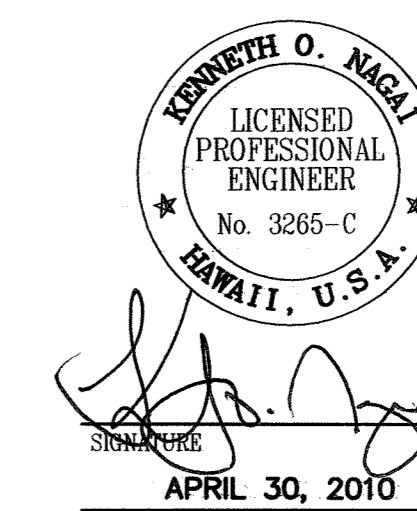


LEGEND: BLACK BACKGROUND: ORANGE



LEGEND: BLACK BACKGROUND: WHITE

|                   |       |
|-------------------|-------|
| DATE              | _____ |
| SURVEY PLOTTED BY | _____ |
| DESIGNED BY       | _____ |
| TRACED BY         | _____ |
| DESIGNED BY       | _____ |
| QUANTITIES BY     | _____ |
| CHECKED BY        | _____ |
| NO.               | _____ |



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION  
APRIL 30, 2010  
EXPIRATION DATE OF LICENSE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**WORK ZONE**  
**KALANIANA'OLE HIGHWAY**  
KALANIANA'OLE HIGHWAY IMPROVEMENTS  
VICINITY OF HAWAII KAI DRIVE  
TO KEAHOLE STREET  
FEDERAL-AID PROJECT NO. NH-072-1(52)  
SCALE: Not to Scale DATE: November 2008