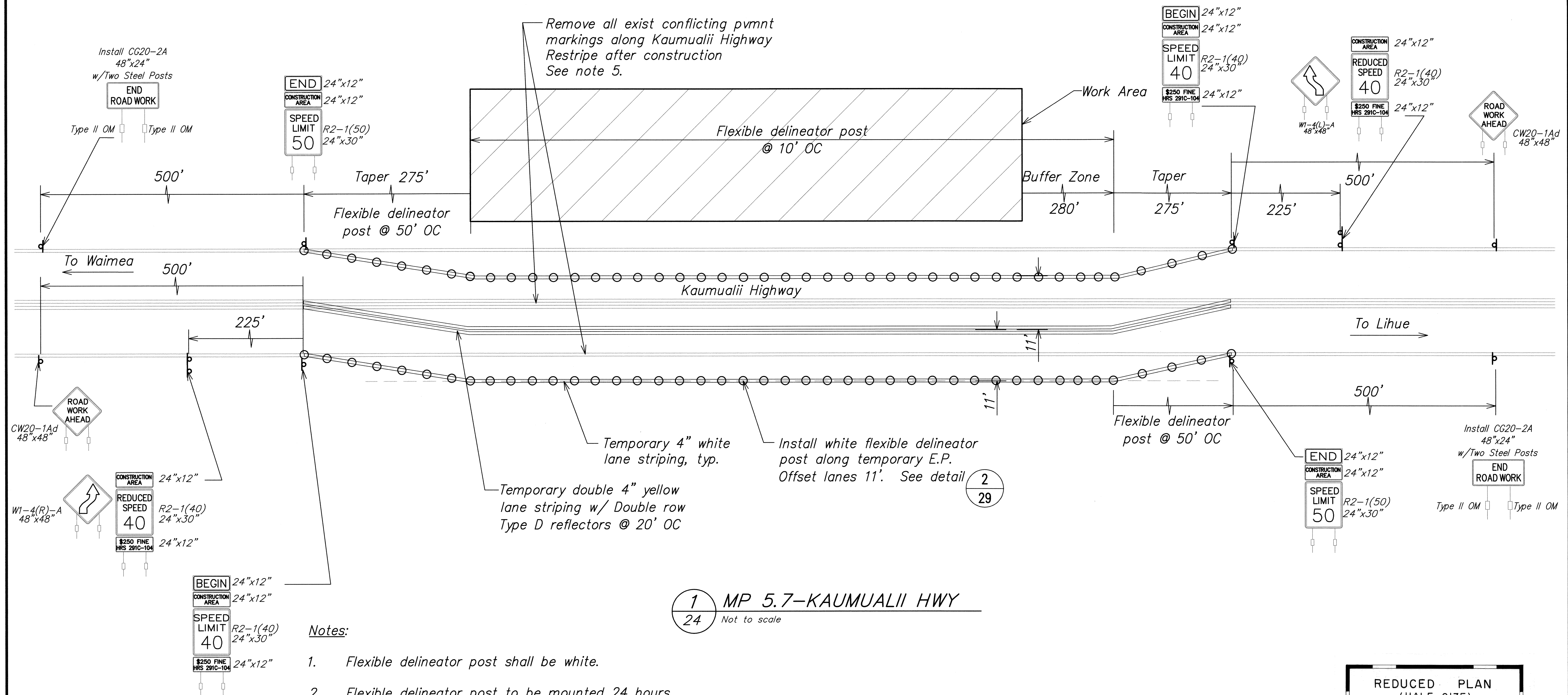


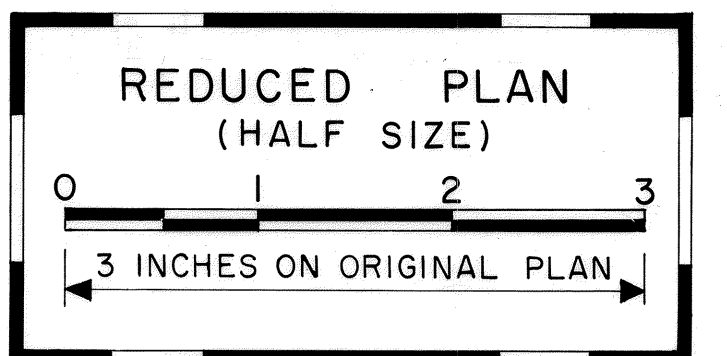
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAWAII	HWY-K-06-07	2007	24	31



Notes:

- Flexible delineator post shall be white.
- Flexible delineator post to be mounted 24 hours.
- See sheet 28 for Work Zone Signing details.
- Double Type D reflectors shall be mounted in-line with double 4" tape, cut and remove tape section prior to setting reflectors.
- Install new permanent traffic striping and raised pavement markers following completion of major slope work.

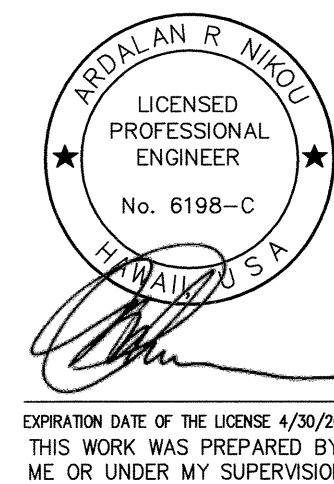
1 MP 5.7-KAUMUALII HWY
24 Not to scale



SURVEY PLOTTED BY	J.M. TOMILL	DATE	
DRAWN BY	BRANDON TEAVER		
DESIGNED BY	BANDY HAMAMOTO		
QUANTITIES BY	BRANDON TEAVER		
CHECKED BY	ARALAN NIKOU		

ORIGINAL PLAN	
NOTE BOOK	
No.	

EarthTech
A tyco International Ltd. Company



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MP 5.7-KAUMUALII HWY
TRAFFIC CONTROL PLAN
KAUMUALII HIGHWAY & RICE STREET
EMERGENCY SLOPE STABILIZATION
PROJECT NO. HWY-K-06-07
Scale: As Noted Date: Apr 2007
SHEET No. 2 OF 9 SHEETS

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.
10. The design taper length for all sites shall be one-half of T in accordance with "Guidelines for TEMPORARY TRAFFIC CONTROL". For sites with multiple posted speed limits, the higher speed limit shall be used in the design.
11. This work zone sign plan shall apply to work sites MP 0.45 (Rte 51-Rice Street), MP 9.8 (Waimea-bound), & MP 10.7 (Kaumualii Highway).

TABLE I
GUIDELINE FOR ADVANCE PLACEMENT OF SPEED REDUCTION SIGN R2-5b(XX)-A, CONSTRUCTION AREA SPEED LIMIT

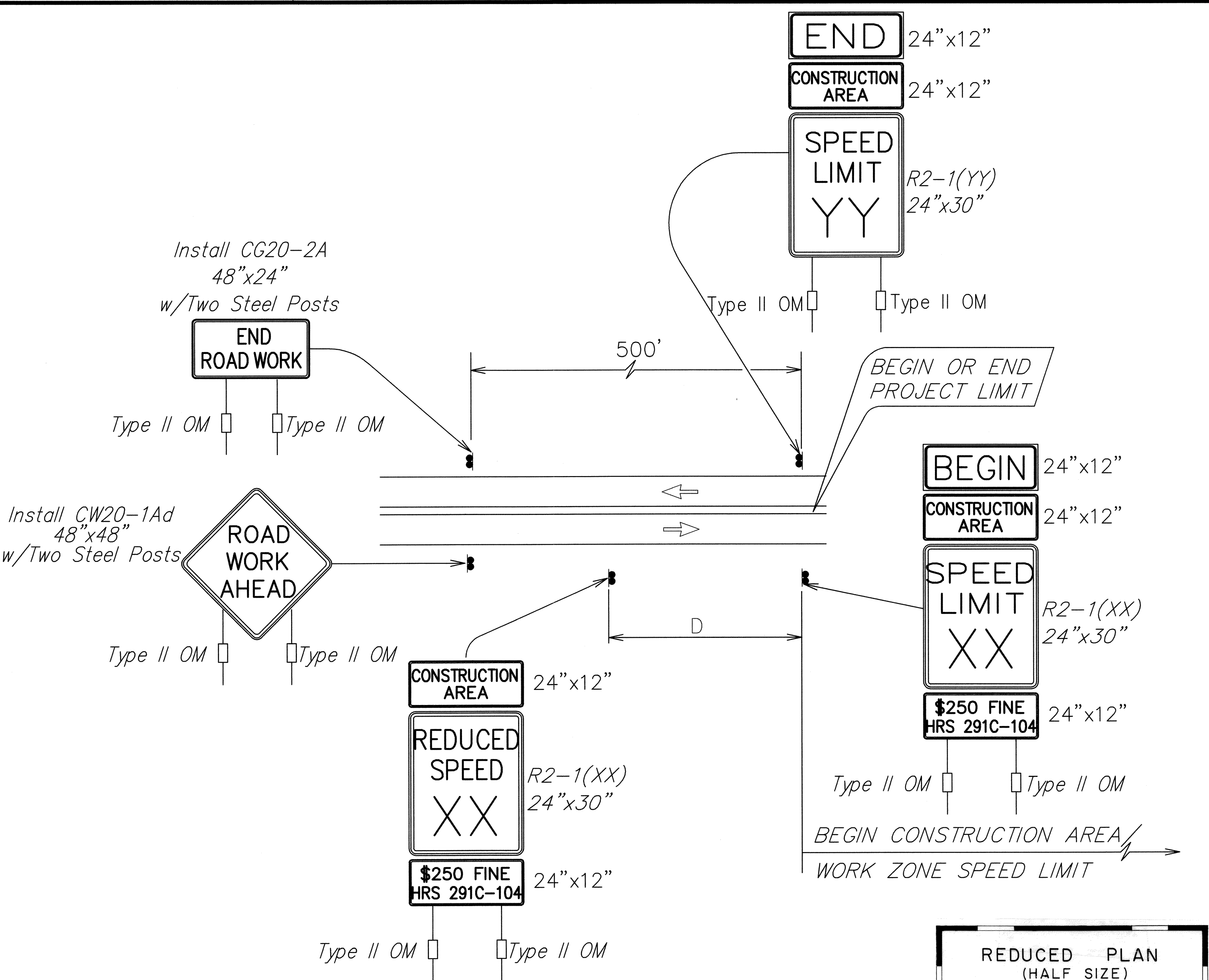
YY-EXISTING POSTED SPEED LIMIT (MPH)	XX-NEW CONSTRUCTION AREA SPEED LIMIT (MPH)	D-REDUCED SPEED LIMIT SIGN SPACING TO FIRST CONSTRUCTION AREA SPEED LIMIT SIGN (FEET)	T-TAPER LENGTH (FEET)
≤25	EXIST.	SPEED LIMIT TO REMAIN	115
30	25	100	165
35	25	175	225
40	30	175	295

EarthTech
A tyco International Ltd. Company

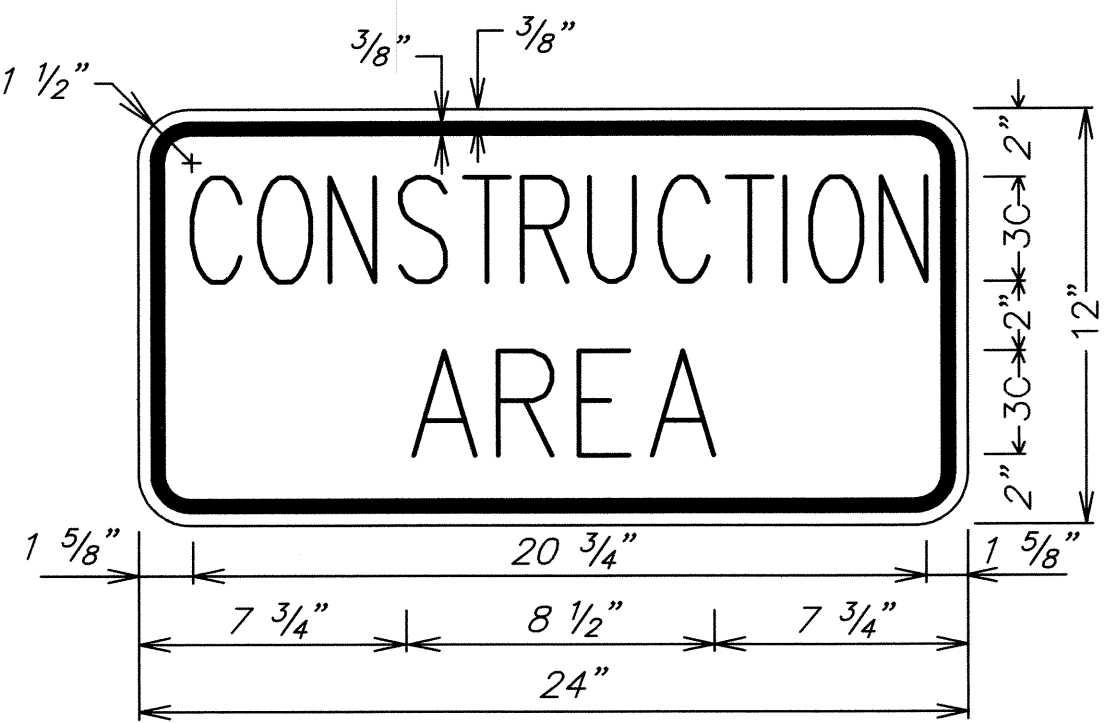


EXPIRATION DATE OF THE LICENSE 4/30/2008
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

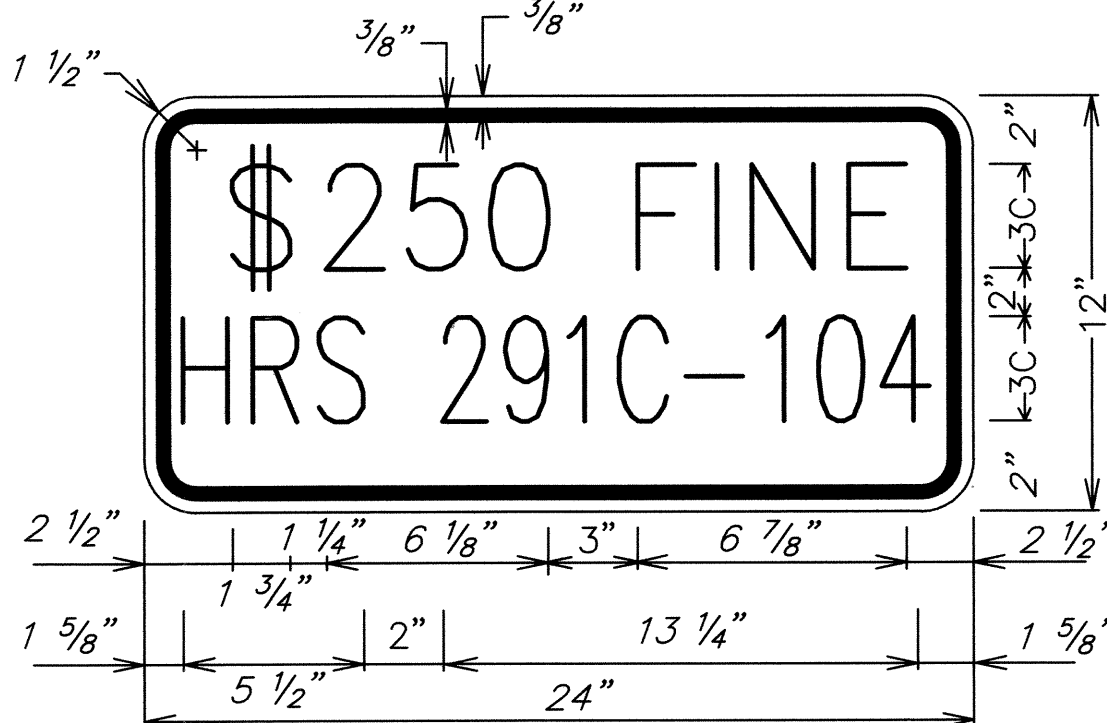
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WORK ZONE SIGNING
(LOW SPEED)
KAUMUALII HIGHWAY & RICE STREET,
EMERGENCY SLOPE STABILIZATION
PROJECT NO. HWY-K-06-07
Scale: As Noted Date: Apr 2007
SHEET No. 5 OF 9 SHEETS



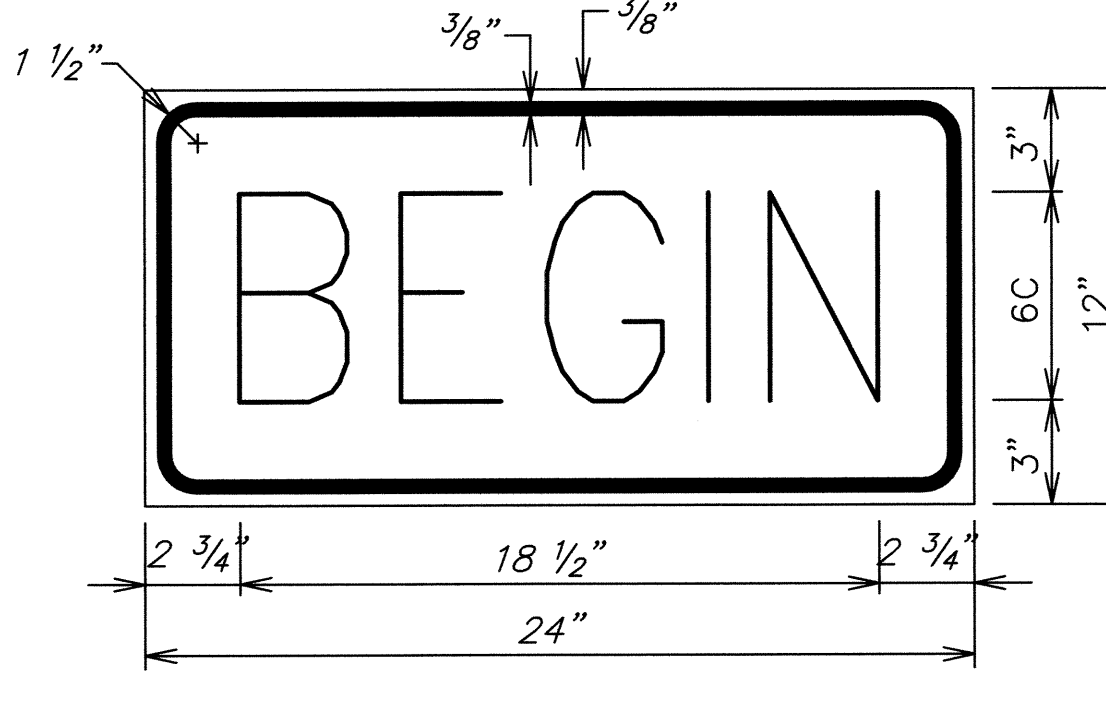
TYPICAL DETAIL FOR CONSTRUCTION SIGNS
ON TWO LANE OR MULTILANE UNDIVIDED LOW SPEED HIGHWAY



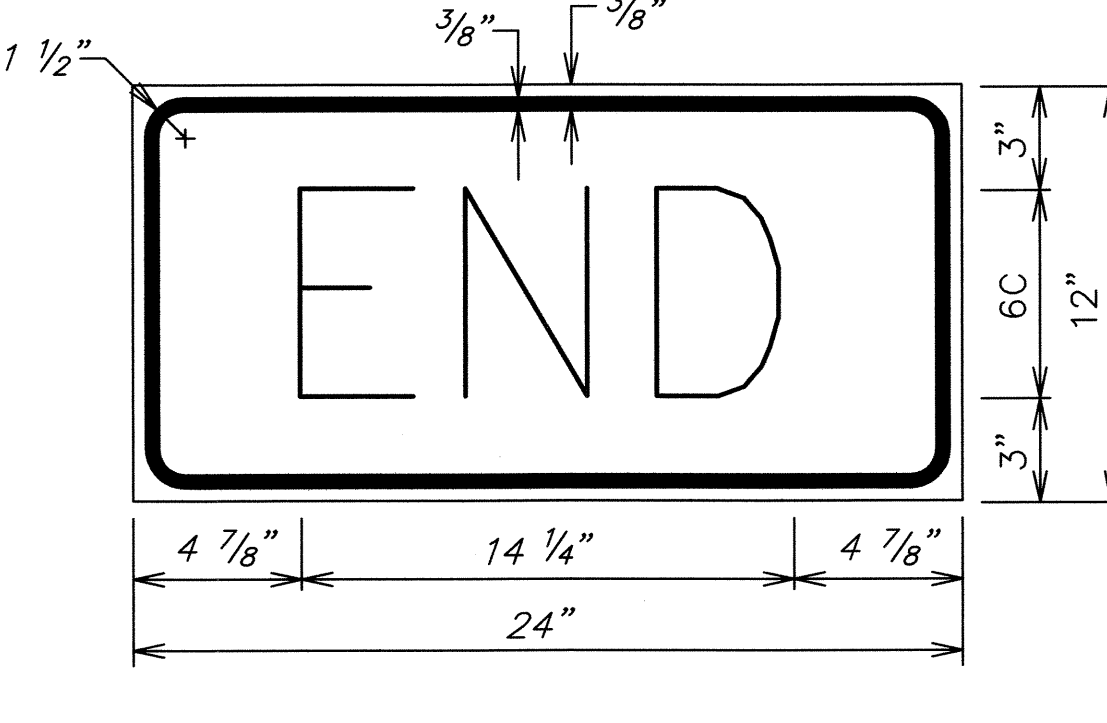
LEGEND: BLACK
BACKGROUND: ORANGE



LEGEND: BLACK
BACKGROUND: WHITE

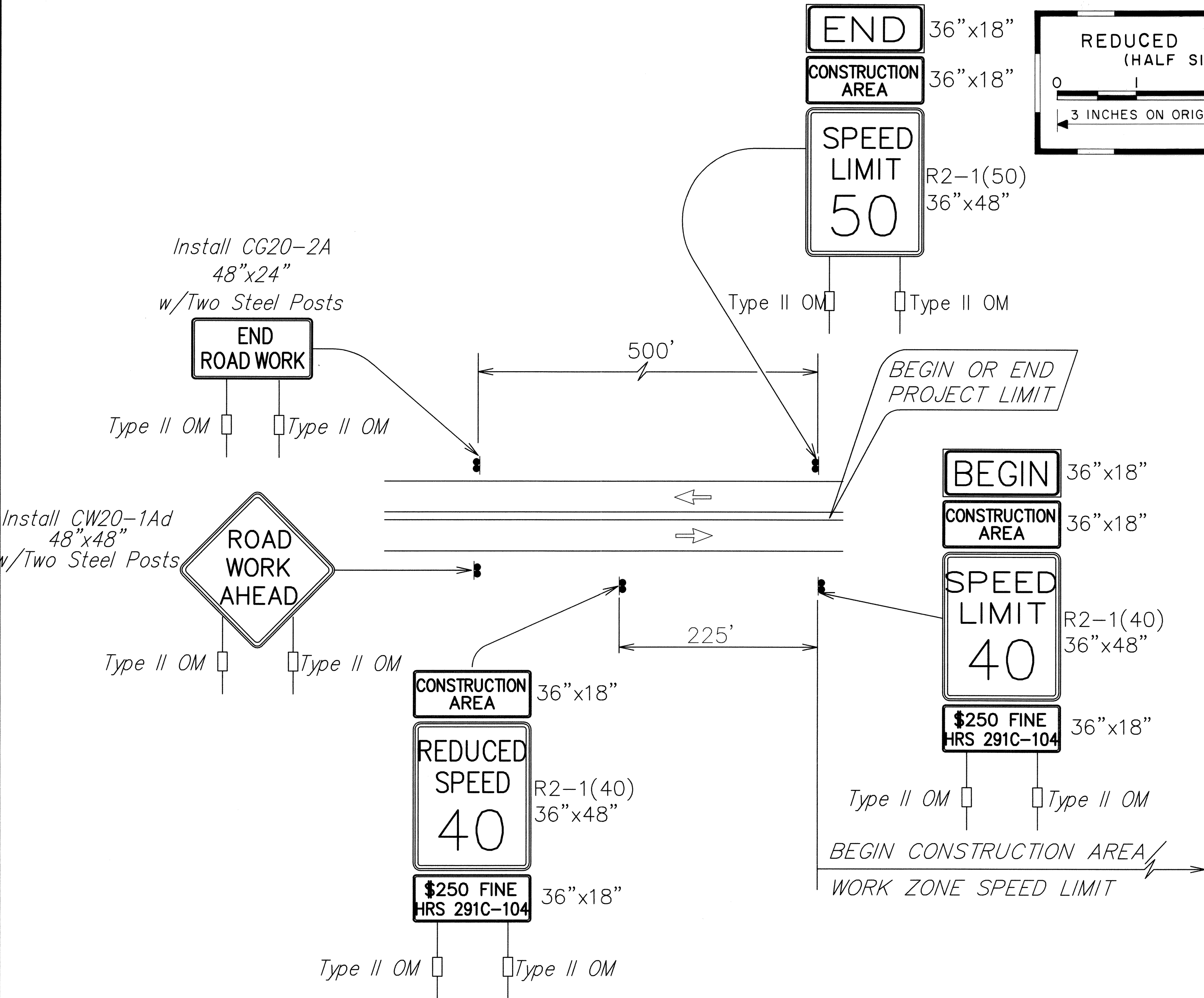


LEGEND: BLACK
BACKGROUND: ORANGE



LEGEND: BLACK
BACKGROUND: ORANGE

SURVEY PLOTTED BY	R.M. TOMILL	DATE	
DRAWN BY	BRANDON WEAVER		
DESIGNED BY	BANDY HAMAMOTO		
QUANTITIES BY	BRANDON WEAVER		
CHECKED BY	ARALAN NIKOU		
ORIGINAL PLAN			
NOTE BOOK			
Blank/Idg			
No.			



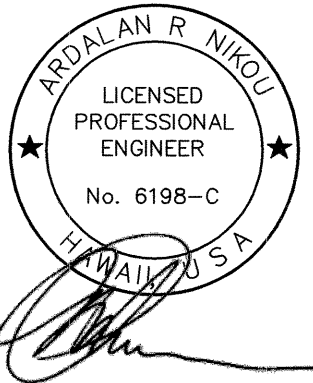
Work Zone Note:

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(40) and R2-5b(40) 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.
10. The design taper length for all sites shall be one-half of T in accordance with "Guidelines for TEMPORARY TRAFFIC CONTROL". For sites with multiple posted speed limits, the higher speed limit shall be used in the design.
11. This work zone sign plan shall apply to work sites MP 5.7 & MP 9.8 (Lihue-bound) (Kaunualii Highway).

TABLE I
GUIDELINE FOR ADVANCE PLACEMENT OF SPEED REDUCTION
SIGN R2-5b(40)-A, CONSTRUCTION AREA SPEED LIMIT

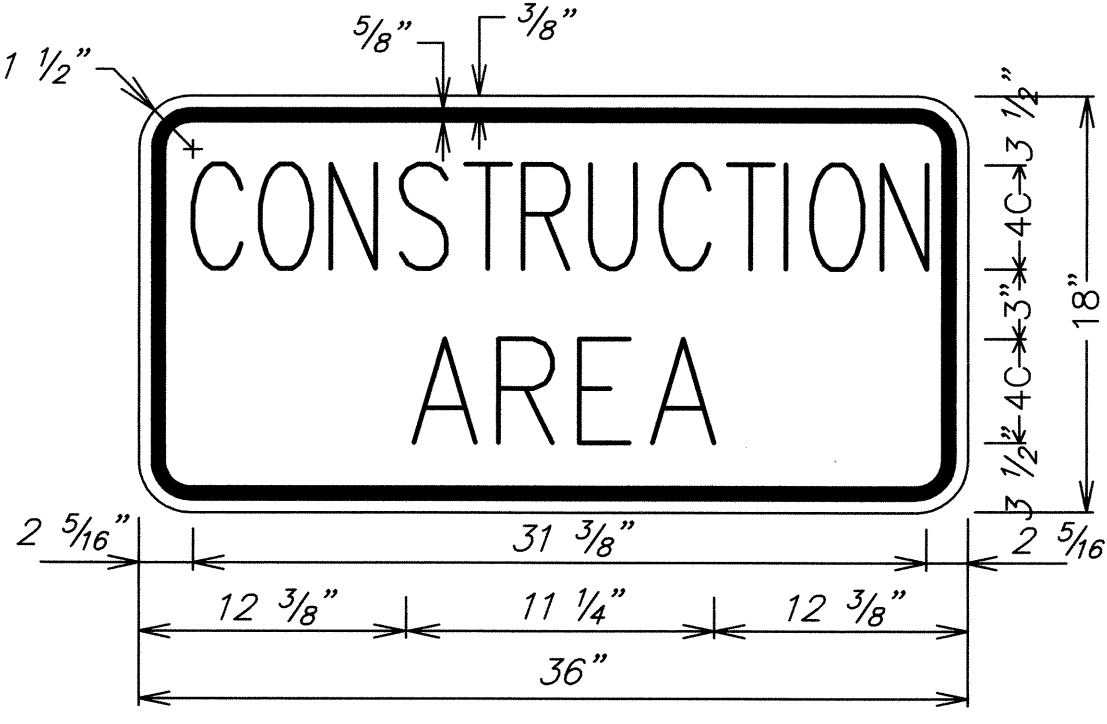
EXISTING POSTED SPEED LIMIT (MPH)	NEW CONSTRUCTION AREA SPEED LIMIT (MPH)	D-REDUCED SPEED LIMIT SIGN SPACING TO FIRST CONSTRUCTION AREA SPEED LIMIT SIGN (FEET)	T-TAPER LENGTH (FEET)
45	35	225	495
50	40	225	550
55	45	300	605

EarthTech
A tyco International Ltd. Company

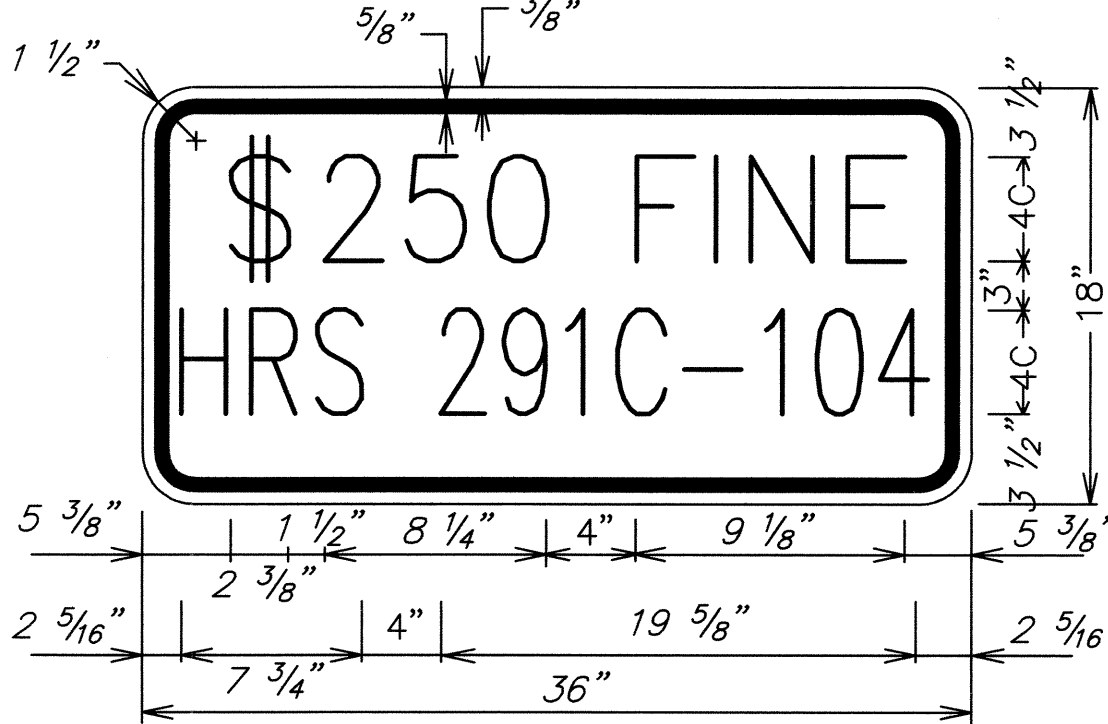


EXPIRATION DATE OF THE LICENSE 4/30/2008
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

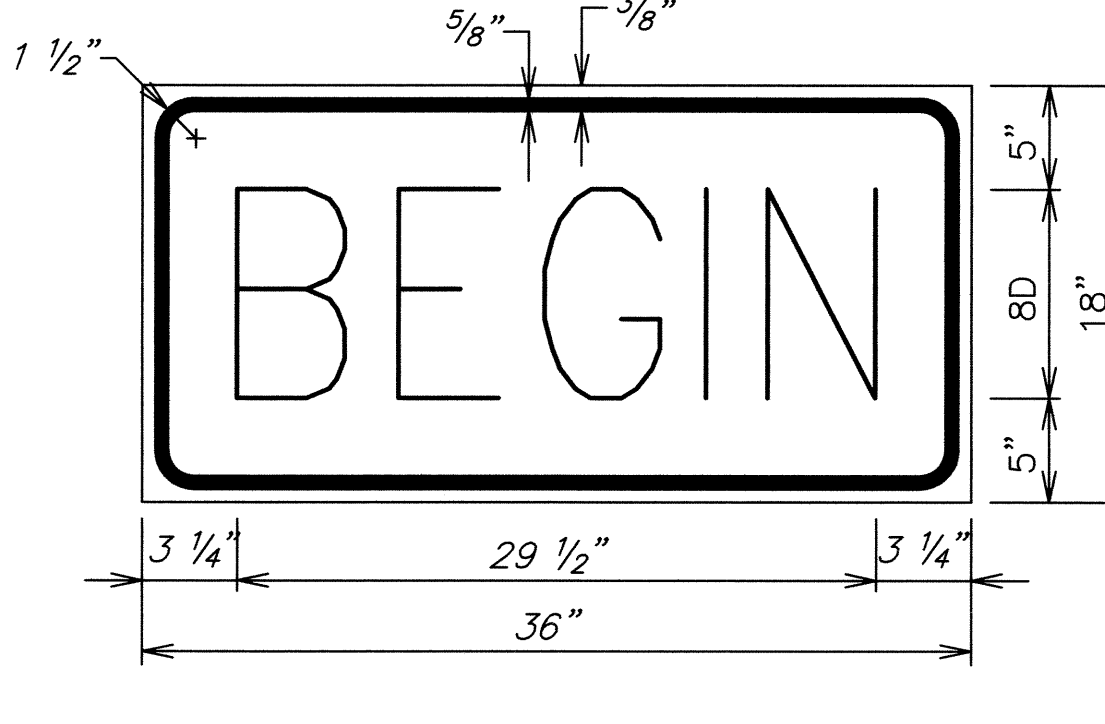
TYPICAL DETAIL FOR CONSTRUCTION SIGNS
ON TWO LANE OR MULTILANE UNDIVIDED HIGH SPEED HIGHWAY



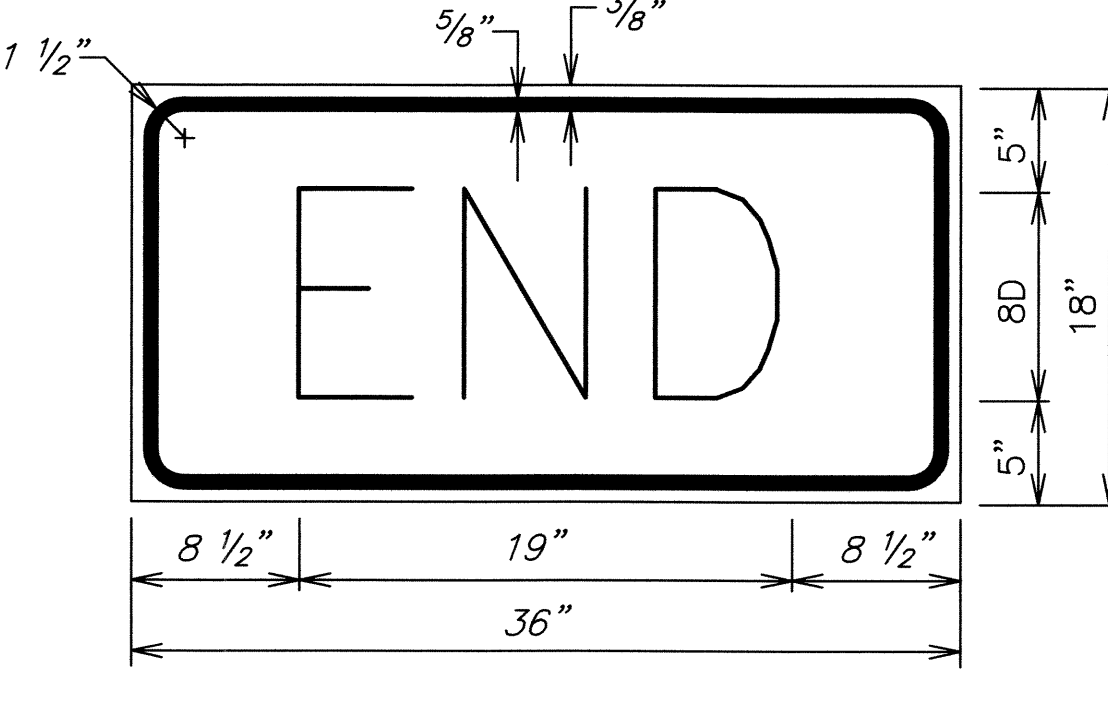
LEGEND: BLACK
BACKGROUND: ORANGE



LEGEND: BLACK
BACKGROUND: WHITE



LEGEND: BLACK
BACKGROUND: ORANGE

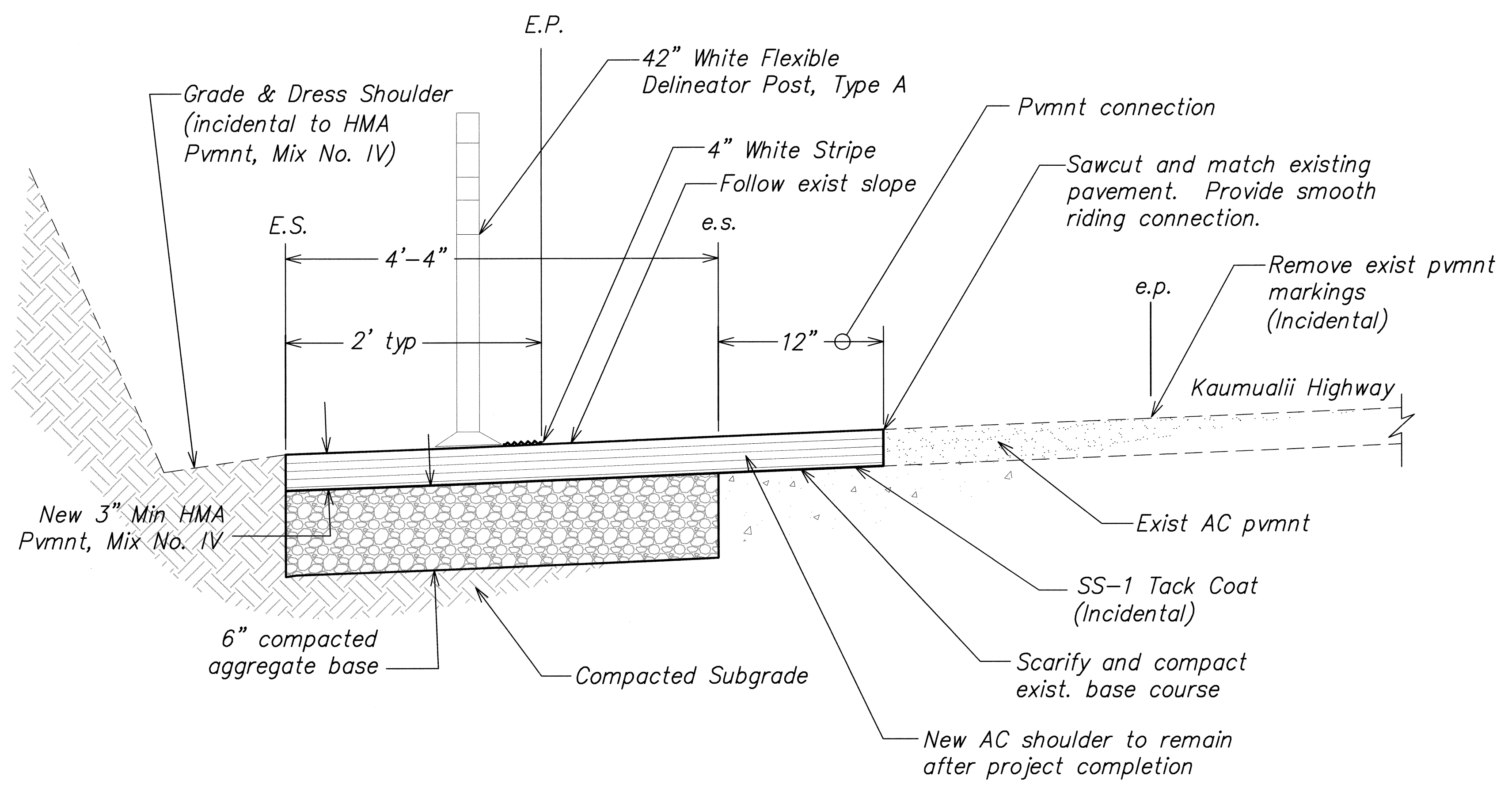


LEGEND: BLACK
BACKGROUND: ORANGE

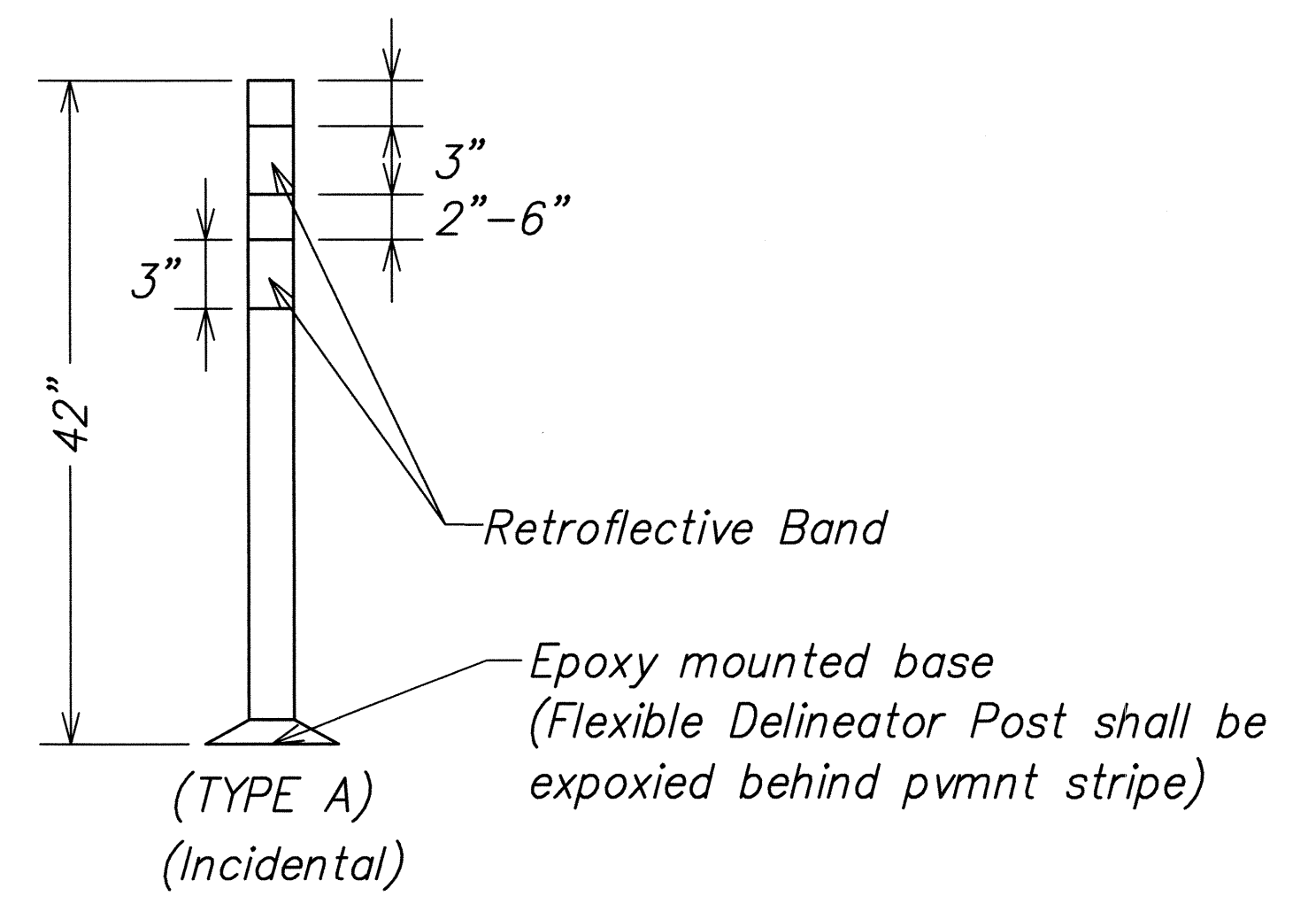
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WORK ZONE SIGNING
(HIGH SPEED)
KAUNUALII HIGHWAY & RICE STREET
EMERGENCY SLOPE STABILIZATION
PROJECT NO. HWY-K-06-07

Scale: As Noted Date: Apr. 2007
SHEET No. 6 OF 9 SHEETS

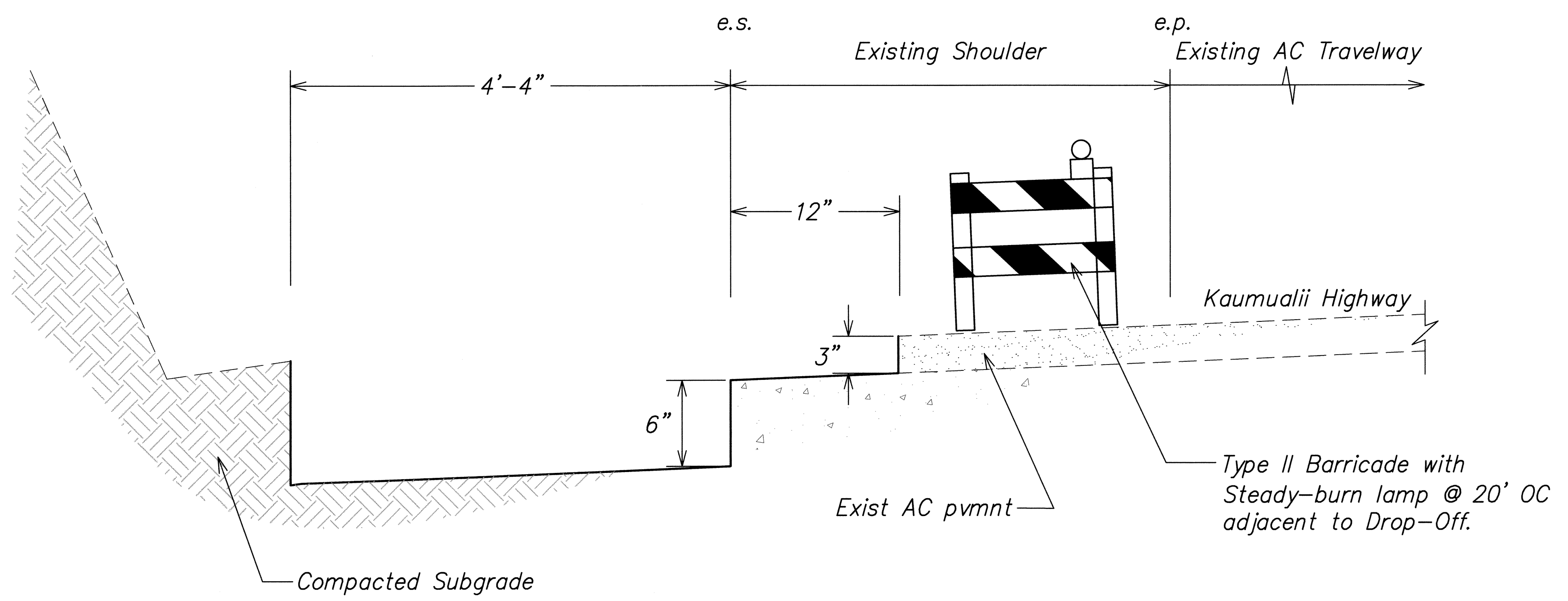
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAWAII	HWY-K-06-07	2007	29	31



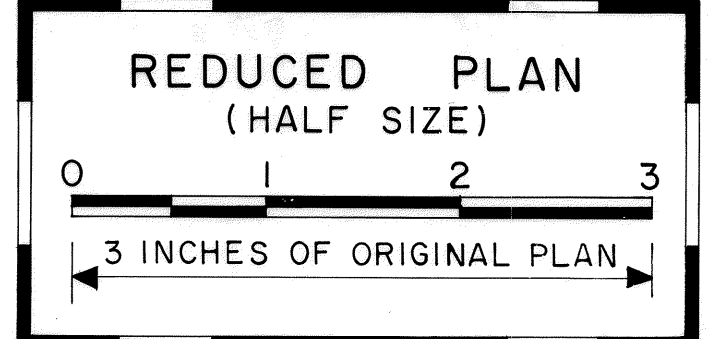
1 TYPICAL PAVING DETAIL
29 NOT TO SCALE



2 FLEXIBLE DELINEATOR POST DETAIL
29 NOT TO SCALE



3 PAVEMENT DROP-OFF DETAIL
29 NOT TO SCALE



SURVEY PLOTTED BY	R.M. TOMIL	DATE	
DRAWN BY	BRANDON WEAVER		
DESIGNED BY	RANDY HAMAMOTO		
QUANTITIES BY	BRANDON WEAVER		
CHECKED BY	ARALAN NIKOU		
ORIGINAL PLAN			
NOTE BOOK			
No.	1000000/000		

EarthTech
A **tyco** International Ltd. Company

ARALAN R. NIKOU
LICENSED PROFESSIONAL ENGINEER
No. 6198-C
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE: 4/30/2008
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

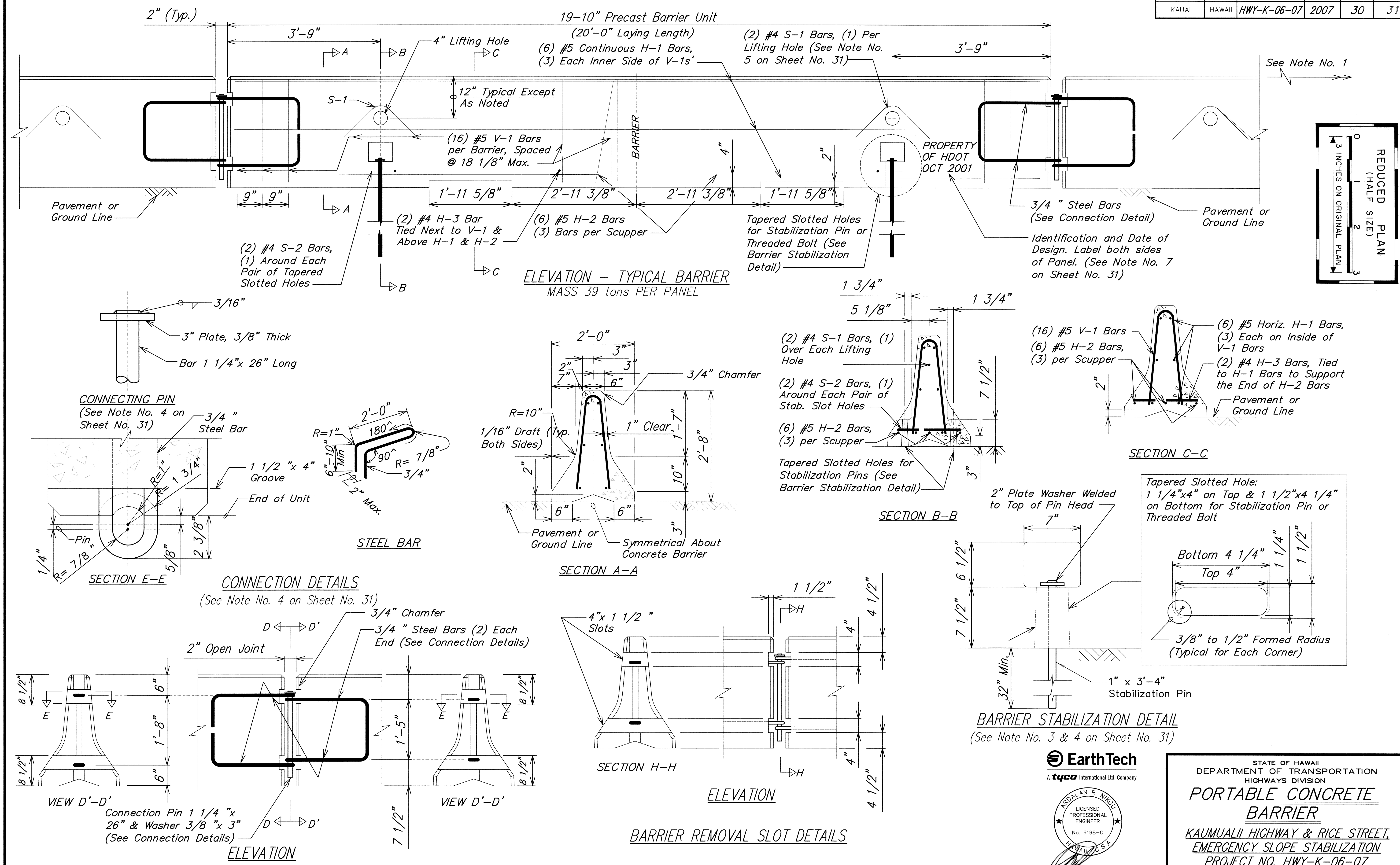
TYPICAL PAVING DETAIL

**KAUMUALII HIGHWAY & RICE STREET,
EMERGENCY SLOPE STABILIZATION
PROJECT NO. HWY-K-06-07**

Scale: As Noted Date: Apr 2007

SHEET No. 7 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAWAII	HWY-K-06-07	2007	30	31



ORIGINAL PLAN	SURVEY PLATTED BY	B.M. SWILL	DATE	
	DESIGNED BY	BRANDON WEAVER		
	NOTED BY	RANDY HAMANO		
	QUANTITIES BY	BRANDON WEAVER		
	CHECKED BY	ARJAN NIKOU		
	DATE	11/20/06		

EarthTech
A tyco International Ltd. Company

ARJAN R. NIKOU
LICENSED PROFESSIONAL ENGINEER
No. 6198-C
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2008
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

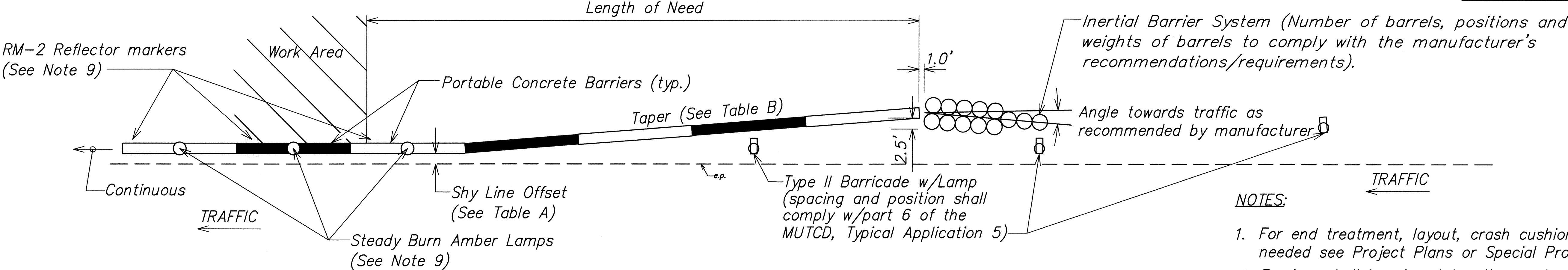
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PORTABLE CONCRETE BARRIER

KAUMUALII HIGHWAY & RICE STREET
EMERGENCY SLOPE STABILIZATION
PROJECT NO. HWY-K-06-07

Scale: As Noted Date: Apr 2007

SHEET No. 8 OF 9 SHEETS



TYPICAL DETAIL - PORTABLE CONCRETE BARRIER END TREATMENT
Scale: 1" = 10'-0"

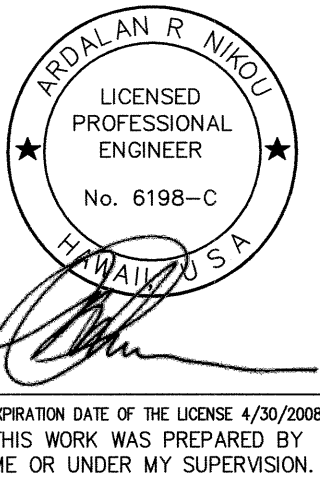
- NOTES:
- For end treatment, layout, crash cushions and where needed see Project Plans or Special Provisions.
 - Barriers shall be pinned together and cannot exceed the Table of Maximum Tapers.
 - Install stabilization pins. Repair any damage caused by pins.
 - ASTM A-36 steel shall be used for the connection pin, connection loops and stabilization pins. A one piece pin with a 3" rounded top may be used in place of the detailed connection pin if the one piece pin meets ASTM A-36 requirements.
 - A 4" white PVC sleeve may be used to form the lifting hole and if used the sleeve is to be left in place.
 - Concrete shall be 6000 psi and reinforcing shall be Grade 60.
 - Identification and date of design will be as follows:

PROPERTY
OF HDOT
OCT 2001

Text letters and numbers shall be shown as on Standard Plan Sht. No. B-01. "PROPERTY OF HDOT" may be changed depending upon ownership. All Portable Concrete Barriers made for HDOT will be subject to rejection, if "PROPERTY OF HDOT" is not imprinted. The Contractor shall bear the cost of the rejected Portable Concrete Barriers.

- Minimum tangent length for Portable Concrete Barrier System shall be 100' (5 units). This minimum does not include the required system length of the Inertial Barrier System.
- Install steady burn amber lamps and RM-2 Reflector markers on Portable Concrete Barriers @ 20.0' o.c., staggered. Installing, maintaining and removing each reflector marker and steady burn amber lamp including changing of batteries and bulbs shall be considered incidental to applicable Portable Concrete Barrier items.
- Install a 4-inch by 20 feet permanent preformed pavement marking tape, Type I on the lower sloped side of the barrier facing traffic.

EarthTech
A tyco International Ltd. Company



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

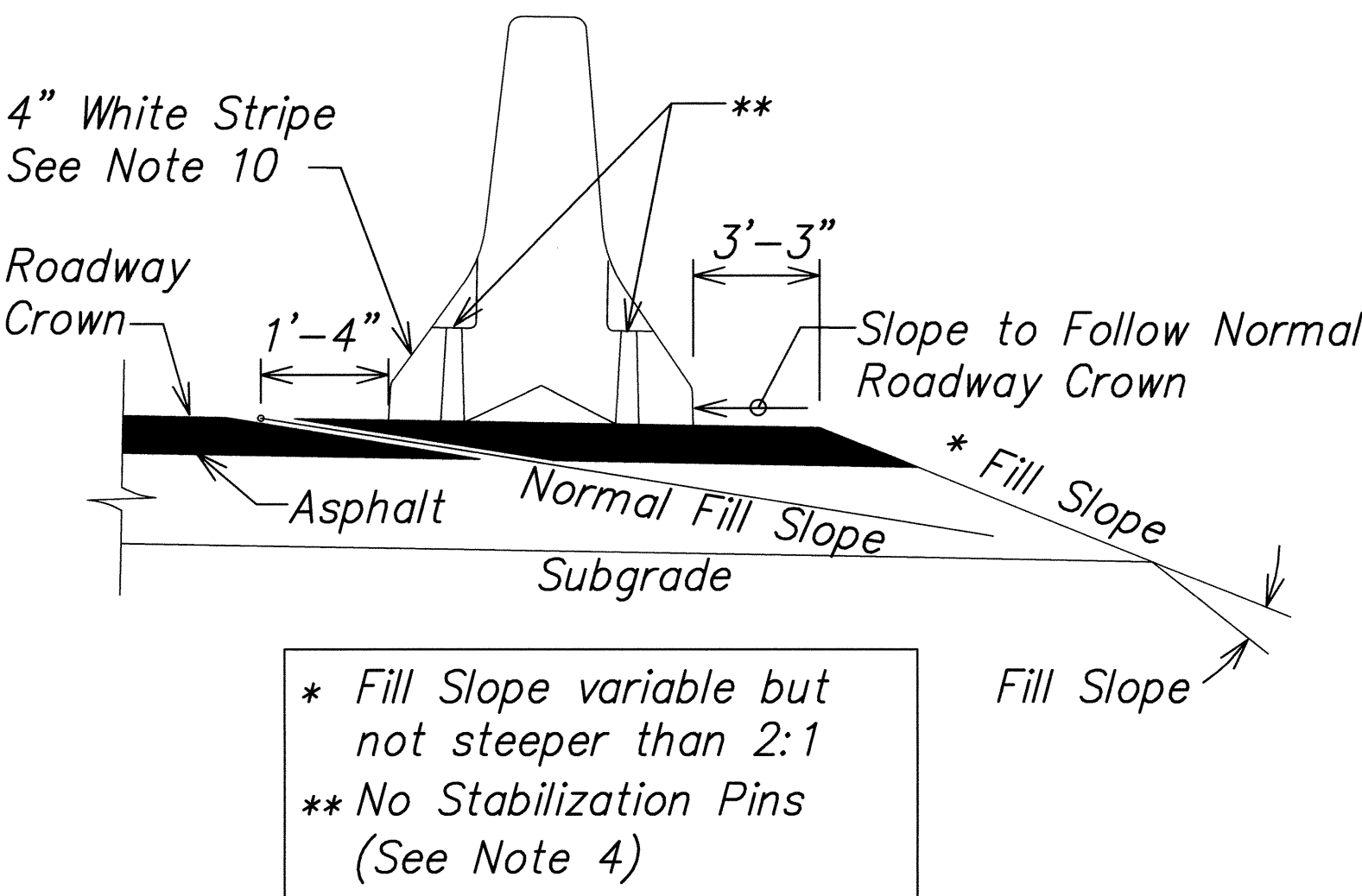
PORTABLE CONCRETE
BARRIER

KAUMUALII HIGHWAY & RICE STREET
EMERGENCY SLOPE STABILIZATION
PROJECT NO. HWY-K-06-07

Scale: As Noted Date: Apr 2007

SHEET No. 9 OF 9 SHEETS

METAL REINFORCEMENT TABLE				
MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	Horizontal in Barrier Tied Inside V-1 Bars	#5	(6)	19'-3"
H-2	Centered Above Scuppers Long. & Transversely	#5	(6)	6'-6"
H-3	Tied Above H-1 Bars to Support H-2, Tied to V-1	#4	(2)	1'-6"
S-1	Horizontal in Top of Wing Wall & in Floor Back Wall	#4	(2)	
S-2	Horizontal Around Slots Between V-1's @ Scuppers	#4	(2)	
V-1	Vertical in Barrier (3) Each End & (2) at Each Scupper	#5	(16)	



STANDARD INSTALLATION
(See Note No. 1)

TABLE A SHY LINE OFFSETS *	
DESIGN SPEED (mph)	SHY LINE OFFSETS
70	10.0'
65	9.0'
60	8.5'
55	7.0'
50	6.5'
45	6.0'
40	5.0'
35	4.5'
30	3.5'
≤25	2.0'

TABLE B MAXIMUM TAPERS FOR CONCRETE BARRIER		
DESIGN SPEED (mph)	TAPER	
	INSIDE SHY LINE	BEYOND SHY LINE
70	30:1	20:1
65	28:1	19:1
60	26:1	18:1
55	24:1	16:1
50	21:1	14:1
45	18:1	12:1
40	17:1	11:1
35	15:1	9:1
≤30	13:1	8:1

* Note: Minimum shy line offset for tangent sections shall be 2'-0".



ORIGINAL PLAN	SURVEY PLOTTED BY	E.M. TOWILL	DATE	
NOTE BOOK	DRAWN BY	BRANDON WEAVER		
	DESIGNED BY	RANDY HAMAMOTO		
	QUANTITIES BY	BRANDON WEAVER		
	CHECKED BY	BRANDON WEAVER		