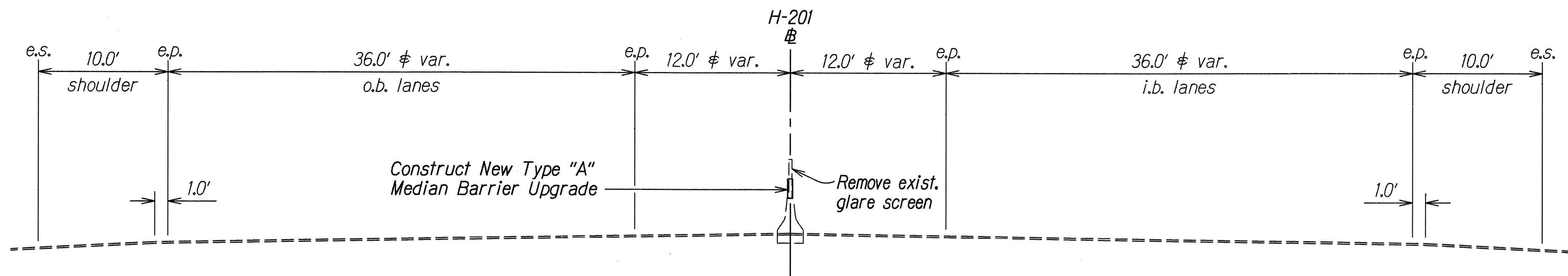
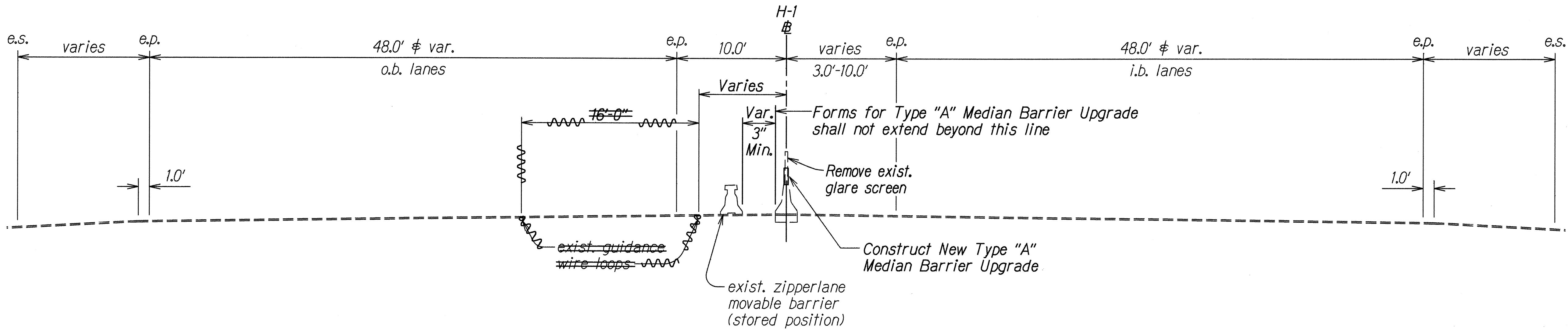


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-H201(2) IM-H1-1(231)	1998	4	23



MOANALUA FREEWAY TYPICAL SECTION
Scale: 3/16"=1'



INTERSTATE ROUTE H-1 TYPICAL SECTION
Scale: 3/16"=1'

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

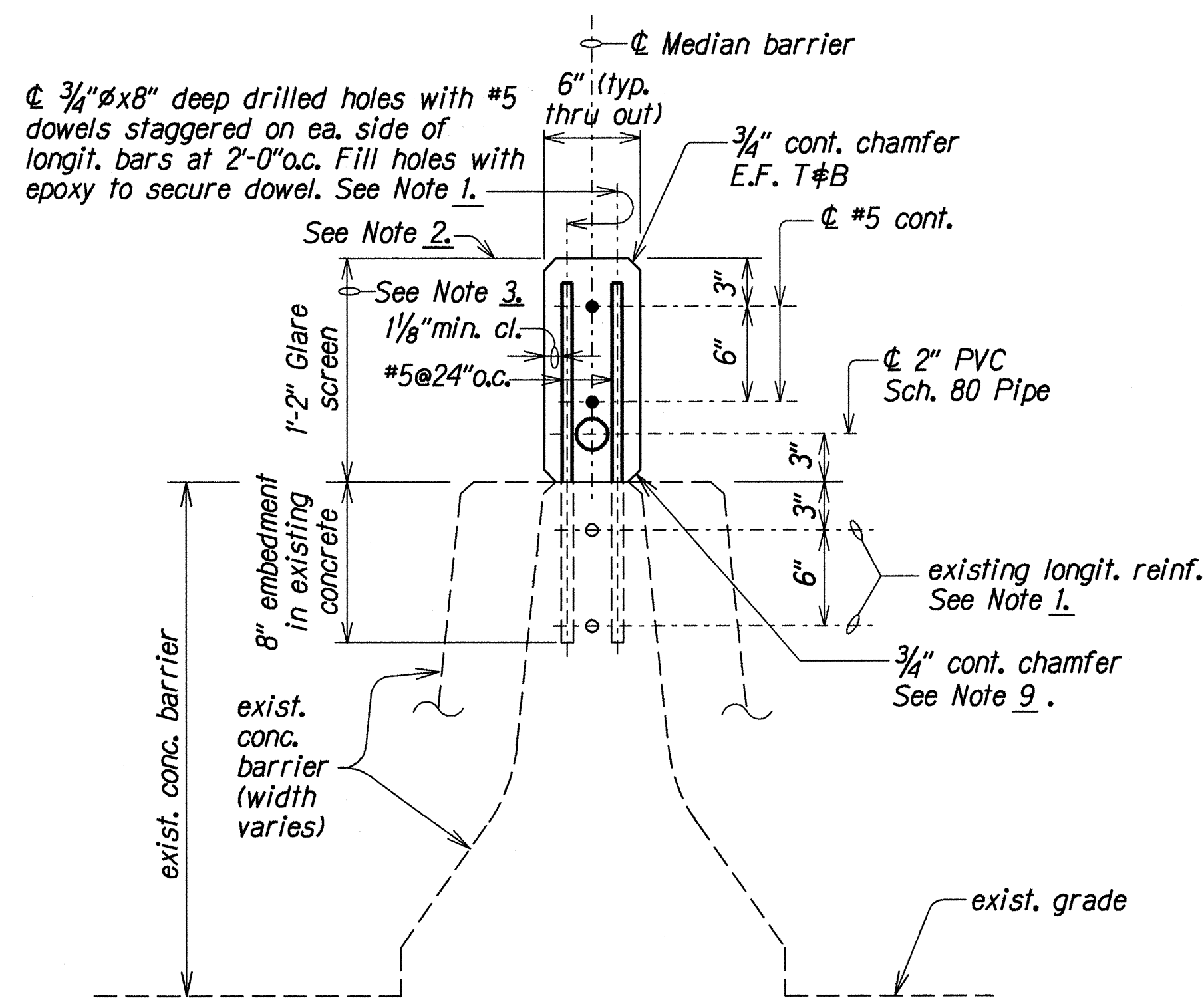
TYPICAL SECTIONS
MOANALUA FREEWAY
REPLACE GLARESCREENS AND GUARDRAILS
FEDERAL AID PROJECT NO. STP-H201(2)
INTERSTATE ROUTE H-1
REPLACE GLARESCREENS
FEDERAL AID PROJECT NO. IM-H1-1(231)
Scale: As Shown Date: Nov. 1997
SHEET No. 1 OF 3 SHEETS

DESIGNED BY	DATE
DRAWN BY	12-28-98
CHECKED BY	
NOTES	
QUANTITIES BY	
REVISIONS	

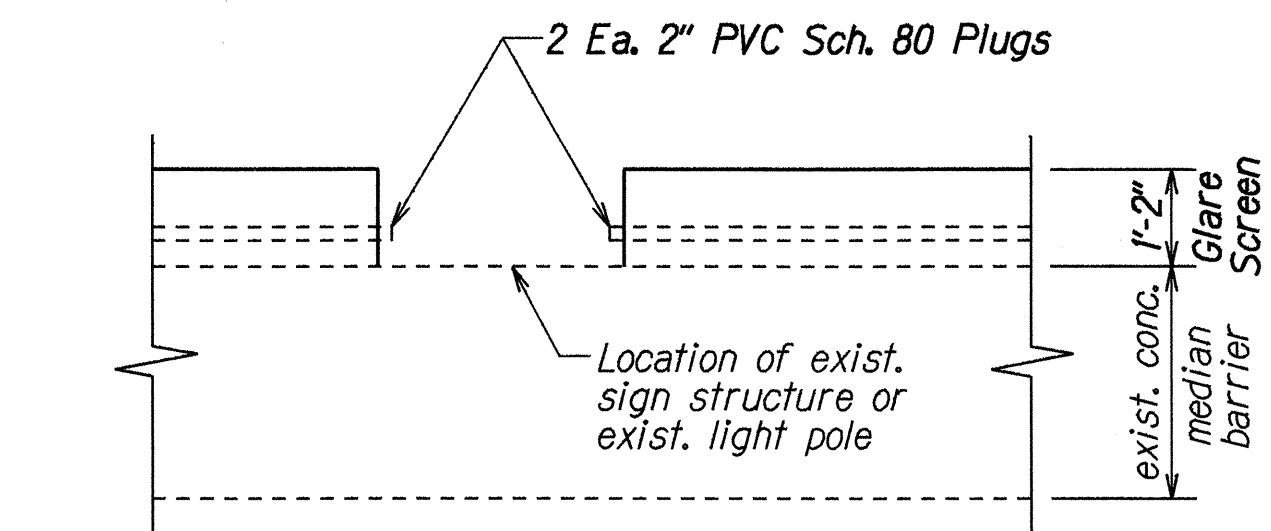
"AS-BUILT"

ADD. 4

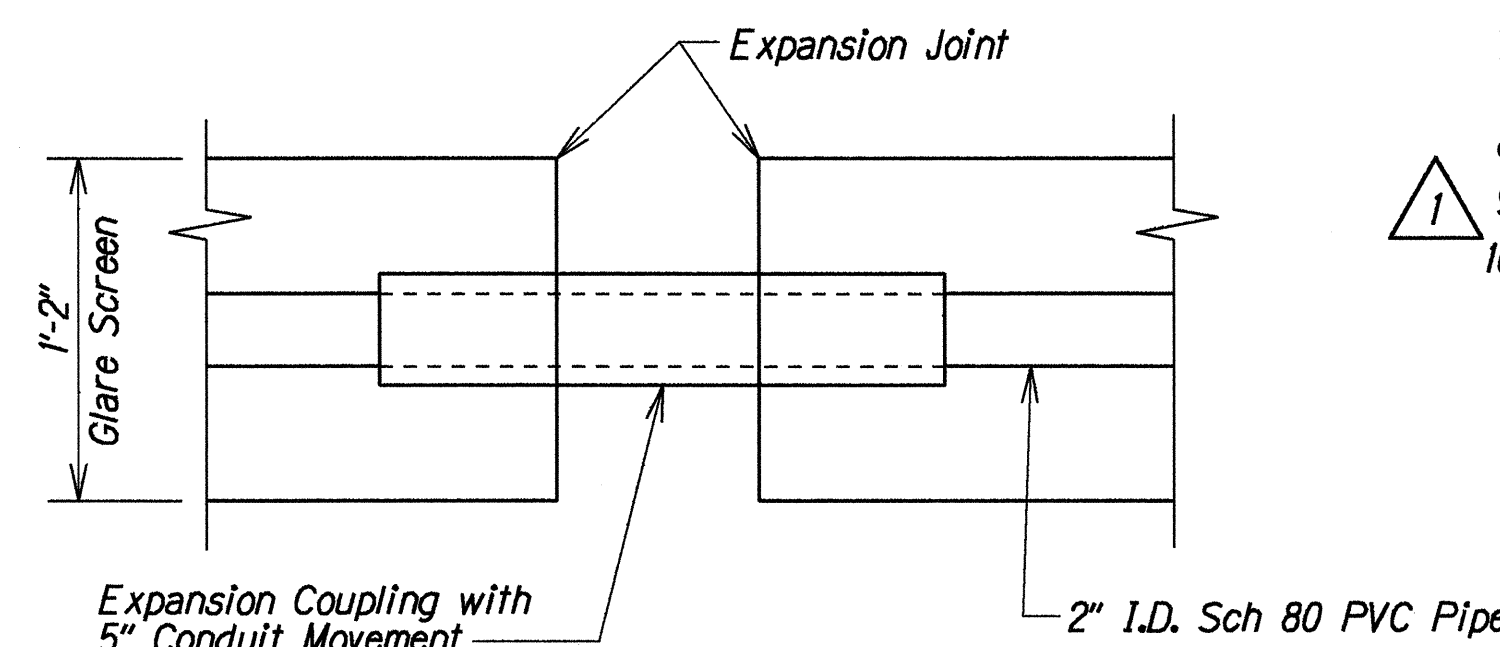
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-H20(2) 1M-HI-1(231)	1997	C.O. 5	23



TYPE "A" MEDIAN BARRIER UPGRADE
Scale: 1 1/2" = 1'-0"



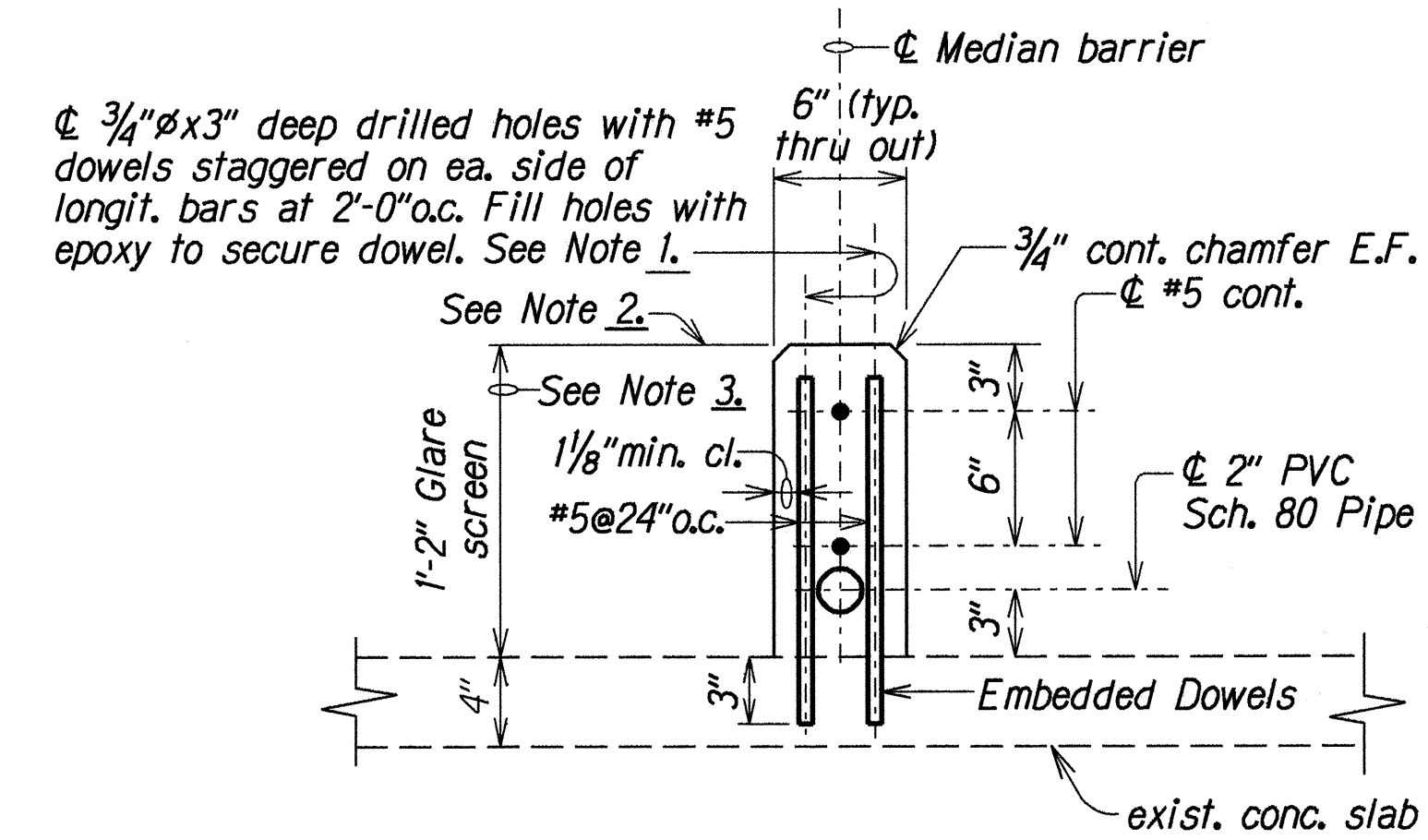
TYPICAL PVC PLUG SECTION
Not to Scale



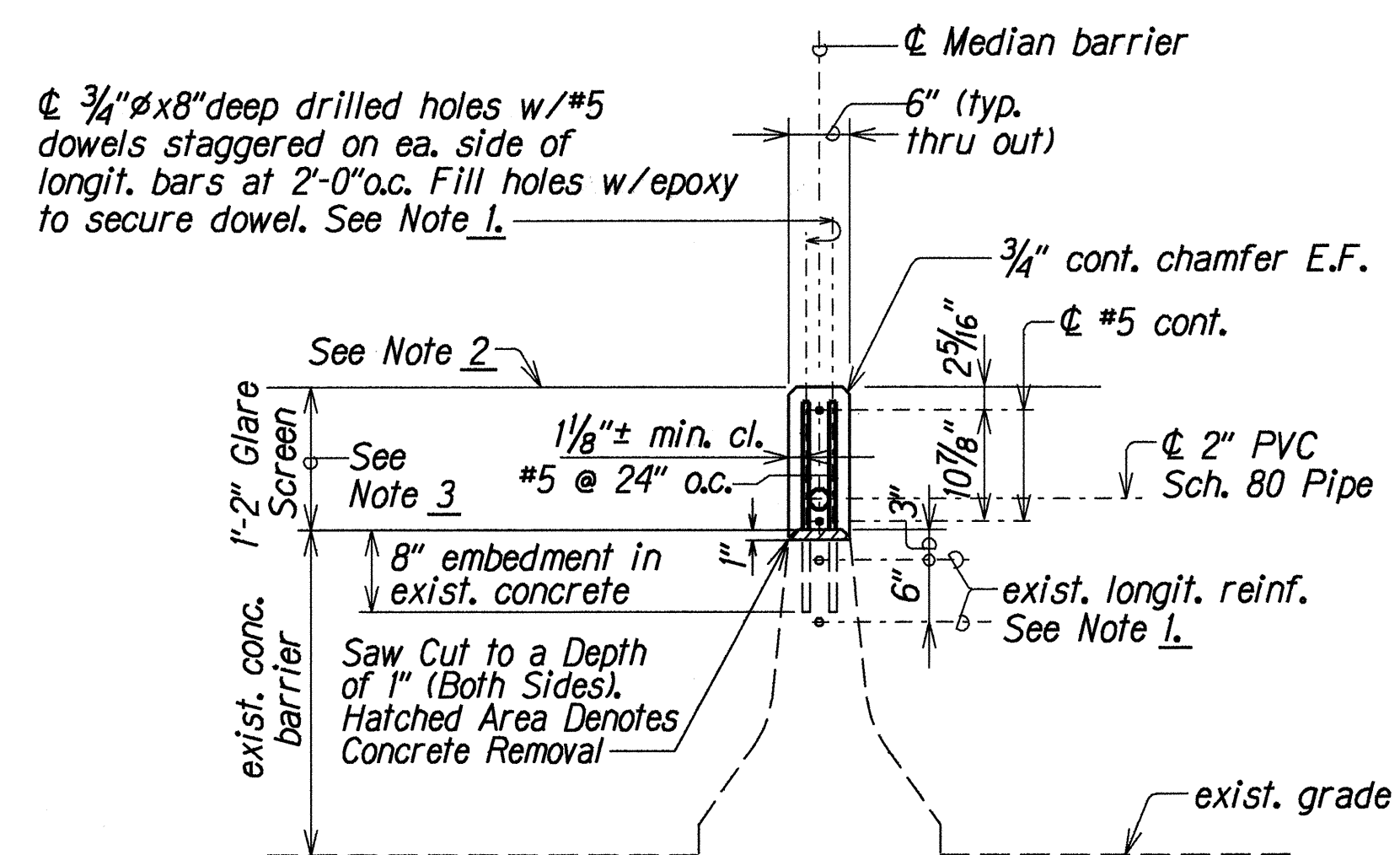
TYPICAL EXPANSION COUPLING SECTION
Not to Scale

NOTES

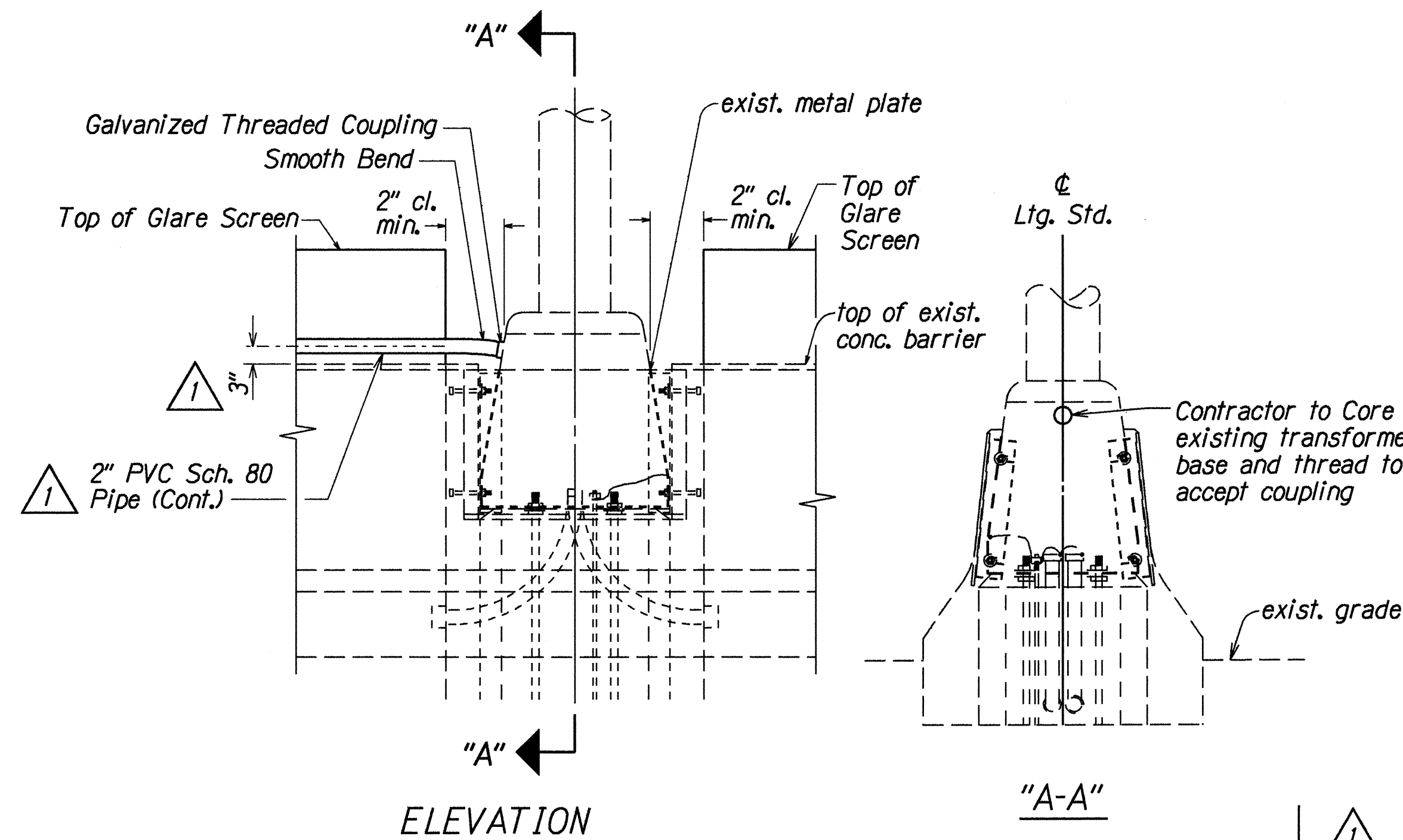
1. The Contractor shall be responsible for determining the location of existing reinforcement by whatever means including the use of scanning devices in his drilling operations.
2. The top surface of the concrete glare screen shall not vary by more than 1/4" from the lower edge of a 10 foot long straight edge. Where the ground beneath the barrier has settled, the glare screen shall be increased as necessary (more than 1'-2") to meet the above requirement. The increasing of glare screen height (more than 1'-2") shall be considered incidental to Type "A" Median Barrier Upgrade, and will not be paid for separately.
3. Vertical joints on glare screen to match existing barrier joints in location and type.
4. Following the removal of the existing headlight glare screen, the Contractor shall contact the State Highways Construction and Maintenance Office and haul the existing headlight glare screen (including all supporting members) to the Highways Division, Pearl City Baseyard. Removal and hauling of existing headlight glare screen shall be considered incidental to Type "A" Median Barrier Upgrade, and will not be paid for separately.
5. The Contractor shall maintain a 2" minimum clearance from the edge of the new concrete glare screen to existing light standard bases, sign support bases, or pier columns.
6. The Contractor shall install new 2" PVC Sch. 80 pipe(s) with all appurtenances as shown. The Contractor shall also replace all existing conductors with new conductors and energize the new power interconnect prior to removal of the existing temporary power system.
7. The Contractor shall paint each joint with two (2) coats of approved galvanized paint prior to completing the new highway lighting power interconnecting system.
8. All work for the new highway lighting power interconnecting system, shall be considered incidental to various contract items.
9. When top of existing barrier width extends beyond 6", omit the 3/4" chamfer at the bottom of the new 1'-2" concrete glare screen.
10. Maintain 2" minimum reinforcement cover unless otherwise shown.



TYPE "A" MEDIAN BARRIER UPGRADE SECTION
AT EXISTING 4" CONCRETE SLAB
Moanalua Freeway @ Sta. 206+32± to @ Sta. 208+18± ±
@ Sta. 212+97± to @ Sta. 214+83±
Scale: 1 1/2" = 1'-0"



MEDIAN BARRIER UPGRADE
AT 2" TRAFFIC LIGHT CONDUIT LOCATION
H-1 @ STA. 225+70± TO @ STA. 228+20±
Scale: 3/4" = 1'-0"



INTERCONNECTING CONDUIT DETAIL
FOR HIGHWAY LIGHTING STANDARD
H-1 @ STA. 225+70± TO @ STA. 228+20±
Scale: 3/4" = 1'-0"

Added 2" PVC Sch. 80 Pipe and changed 2" I.D. galvanized pipe to 2" PVC Sch. 80 pipe in median barrier. Removed "T#B" from Type "A" Median Barrier Upgrade det. for 3/4" cont. chamfer E.F. Labels, dimensions, & dim. lines changed &/or moved for clarity. Added "width" to Note #9. Added PVC Plug and Expansion Coupling Sections.

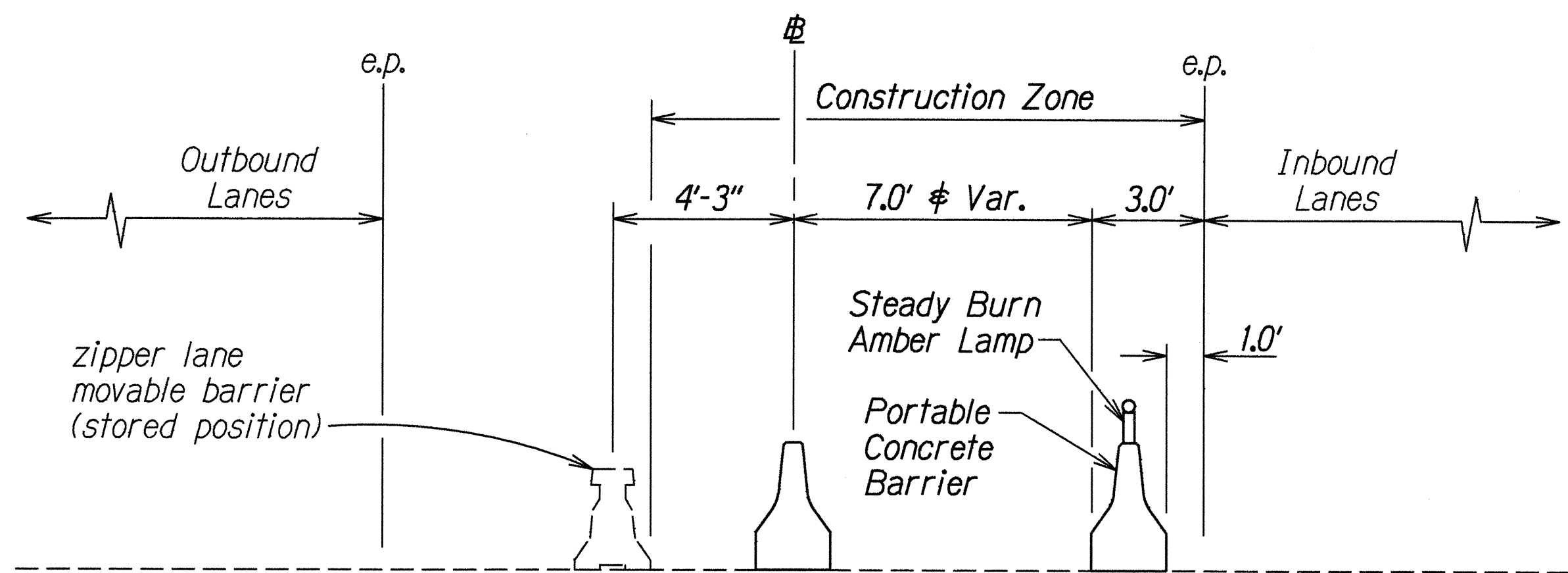
7/24/98

DATE	REVISION
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL SECTIONS & DETAIL
CONCRETE GLARE SCREEN UPGRADE DETAILS
MOANALUA FRWY. REPLACE GLARE SCREENS & GUARDRAILS
Alaia Interchange To Moanalua Stream Bridge
F.A. Proj. No. STP-H20(2) AND
INTERSTATE ROUTE H-1 REPLACE GLARE SCREENS
Alaia Heights Drive To Salt Lake Boulevard
F.A. Proj. No. 1M-HI-1(231)
Scale: As Noted Date: Nov. 1997

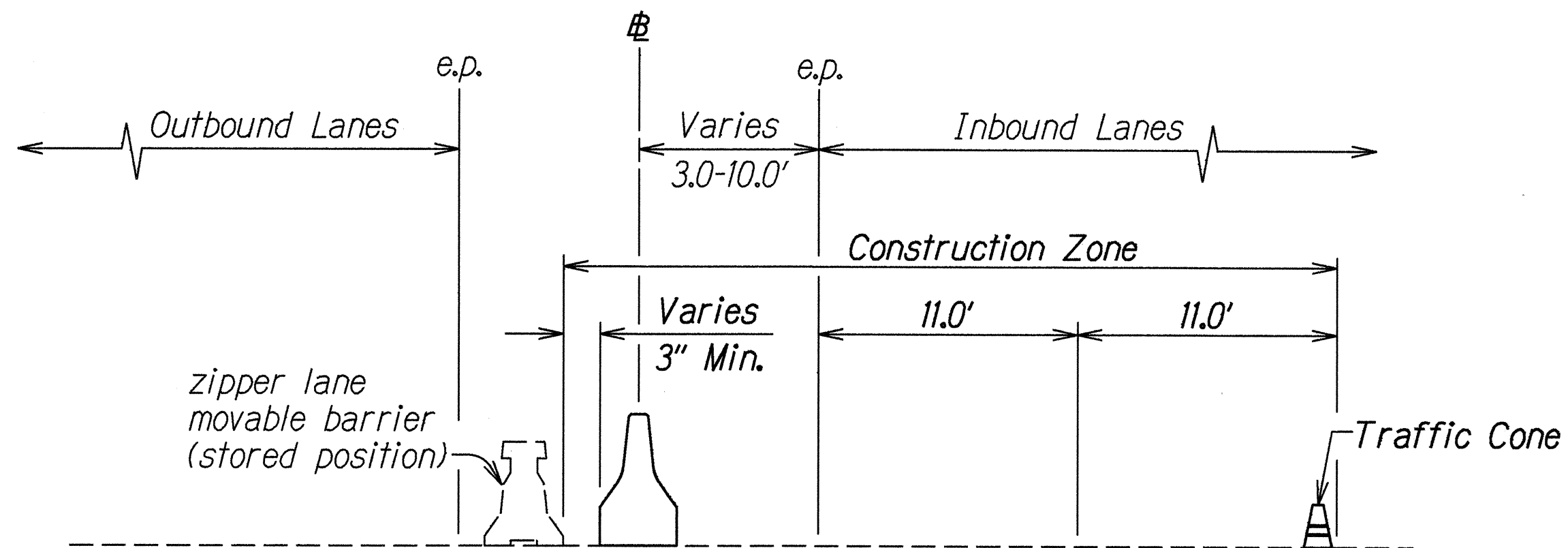
SHEET NO.	2	OF 2	SHEETS
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-H20(2) 1M-HI-1(231)	1997	6	23



INTERSTATE ROUTE H-1 TYPICAL SECTION
MEDIAN BARRIER UPGRADE CONSTRUCTION AREA

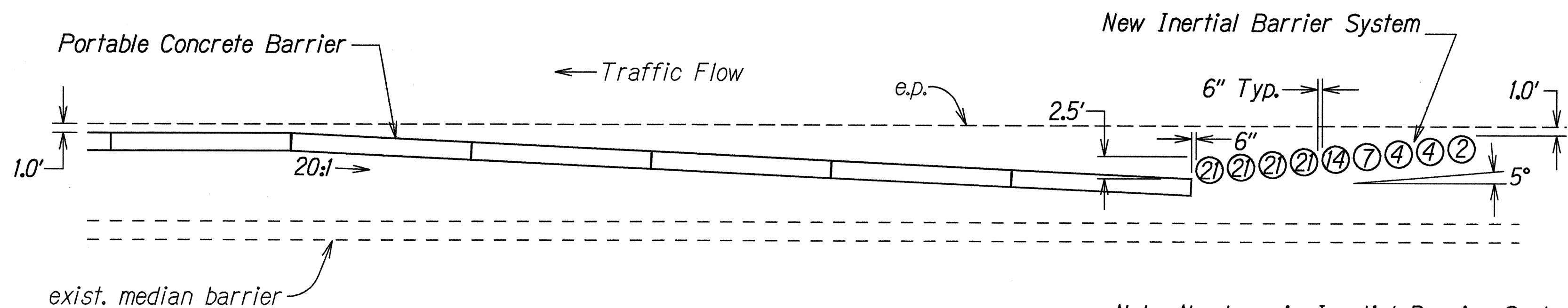
Not to Scale



Note: Where the median shoulder width is less than 10', Contractor will be permitted to close two lanes of traffic on the inbound side.

TYPICAL SECTION
NARROW MEDIAN SHOULDER CONSTRUCTION AREA

Not to Scale



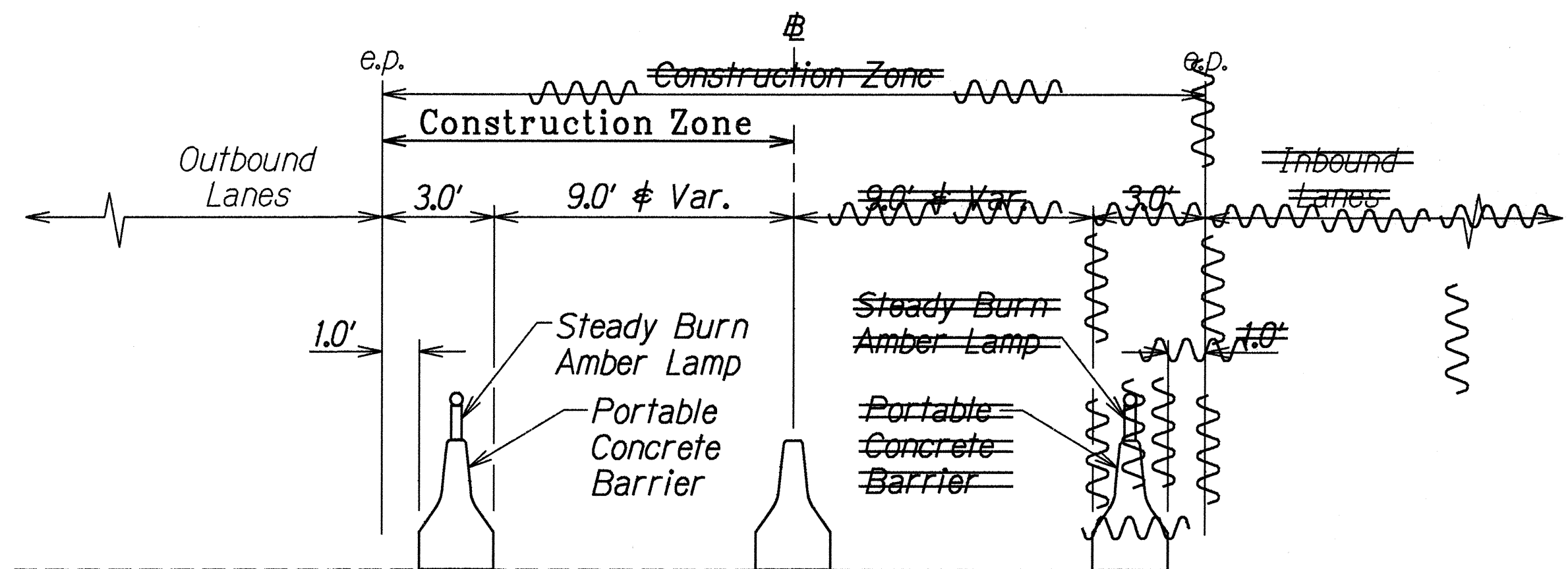
INERTIAL BARRIER SYSTEM DETAIL
MEDIAN BARRIER UPGRADE INSTALLATION

Scale: 1" = 10'

Note: Numbers in Inertial Barrier System indicate weight x 100 lbs.

CONSTRUCTION NOTES:

1. Bolts remaining after the removal of the existing glare screen may be left in and covered by the New Type "A" Median Barrier Upgrade.
2. The Type "A" Median Barrier Upgrade will be installed on Interstate Route H-1 before Moanalua Freeway. Interstate Route H-1 will need 245 units of State-Furnished Portable Concrete Guardrail, and Moanalua Freeway will need 310 units for the longest phase of construction (Sta. 281+42± to Sta. 311+72±).
3. Upon completion of the Type "A" Median Barrier Upgrade installation on Interstate Route H-1, the Contractor shall remove, haul and place the State-Furnished Portable Concrete Guardrail and Inertial Barrier System (including all supporting members) to Moanalua Freeway. Removing, hauling and placing of the portable concrete barrier and Inertial Barrier System shall be considered incidental to various contract items and will not be paid for separately.
4. Before installation of Type "A" Median Barrier Upgrade on Moanalua Freeway, the Contractor shall haul and place 65 additional units of State-Furnished Portable Concrete Guardrail from Waipio Interchange or other locations. Hauling and placing of portable concrete barrier shall be paid for under Item No. 606.4231.
5. Upon completion of the Type "A" Median Barrier Upgrade and QuadGuard System installation on Moanalua Freeway, the Contractor shall contact the State Highways Construction and Maintenance Office and haul all of the State-Furnished Portable Concrete Guardrail (including all supporting members) to the Highways Division, Pearl City Baseyard or other locations. The Inertial Barrier System shall be taken to the Highways Division, Oahu District Baseyard without the sand. The loose sand shall become the property of the Contractor. Removal and hauling of portable concrete barrier and Inertial Barrier System shall be considered incidental to various contract items and will not be paid for separately.
6. Install Steady Burn Amber Lamps on portable concrete barrier @ 20.0' o.c. Installing, maintaining and changing batteries of the Portable Mounted Steady Burn Amber Lamps shall be considered incidental to State-Furnished Portable Concrete Guardrail (Intermediate Panel).



MOANALUA FREEWAY TYPICAL SECTION
MEDIAN BARRIER UPGRADE CONSTRUCTION AREA

Not to Scale

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

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
TYPICAL SECTIONS & DETAIL	
WORK ZONE CONSTRUCTION PLAN	
MOANALUA FRWY. REPLACE GLARE SCREENS & GUARDRAILS Aiea Interchange To Moanalua Stream Bridge F.A. Proj. No. STP-H20(2) AND	
INTERSTATE ROUTE H-1, REPLACE GLARE SCREENS Aiea Heights Drive To Salt Lake Boulevard F.A. Proj. No. 1M-HI-1(231)	
Scale: As Noted	Date: Nov. 1997
SHEET No. 3 OF 3 SHEETS	

"AS-BUILT"

ADD. 6