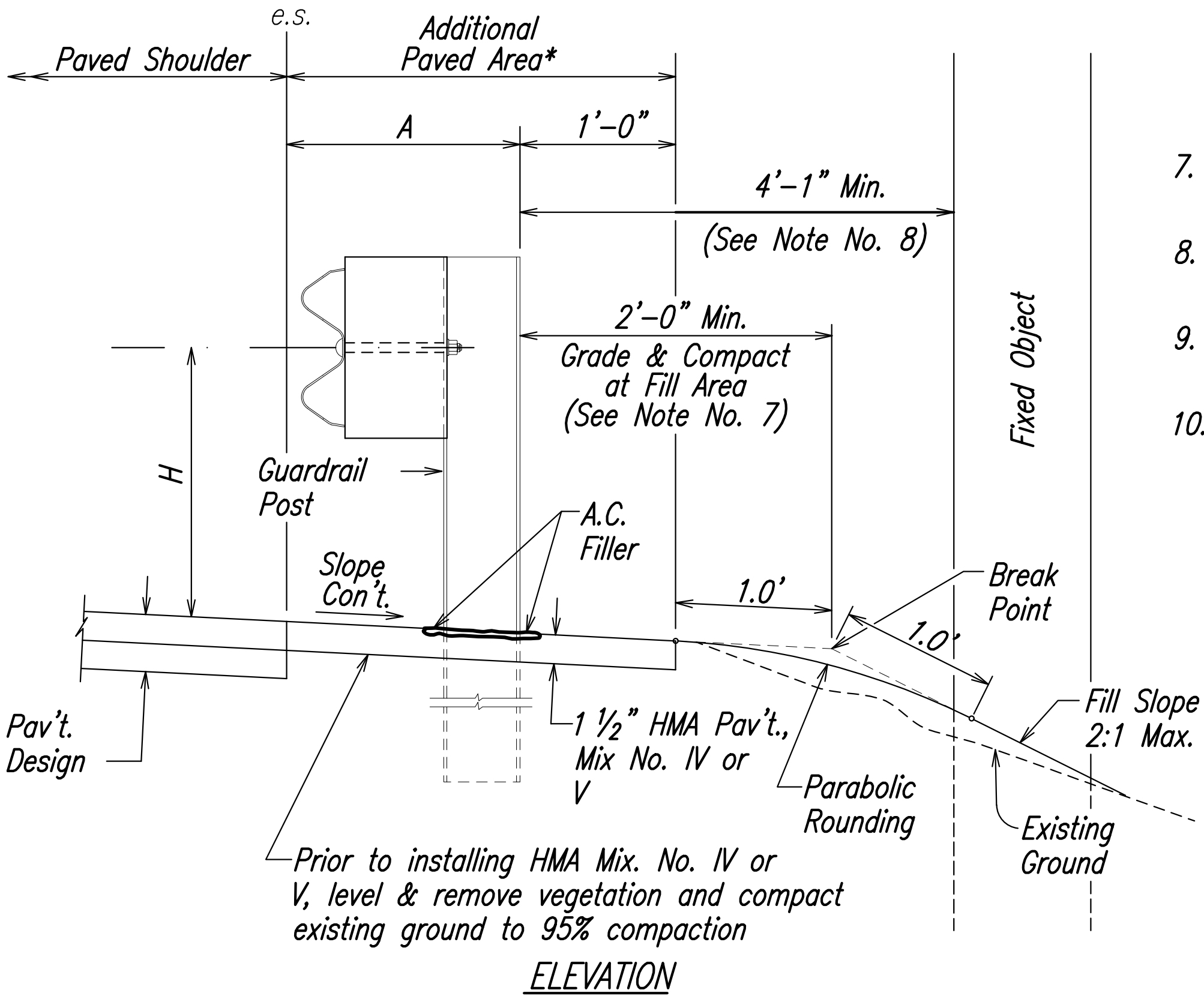
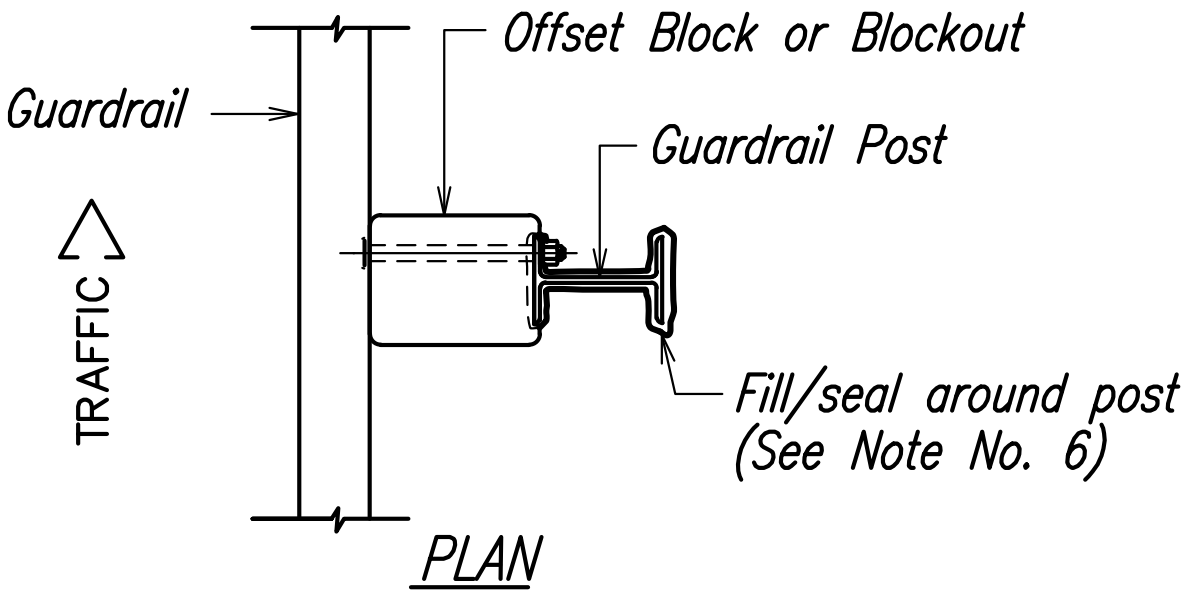




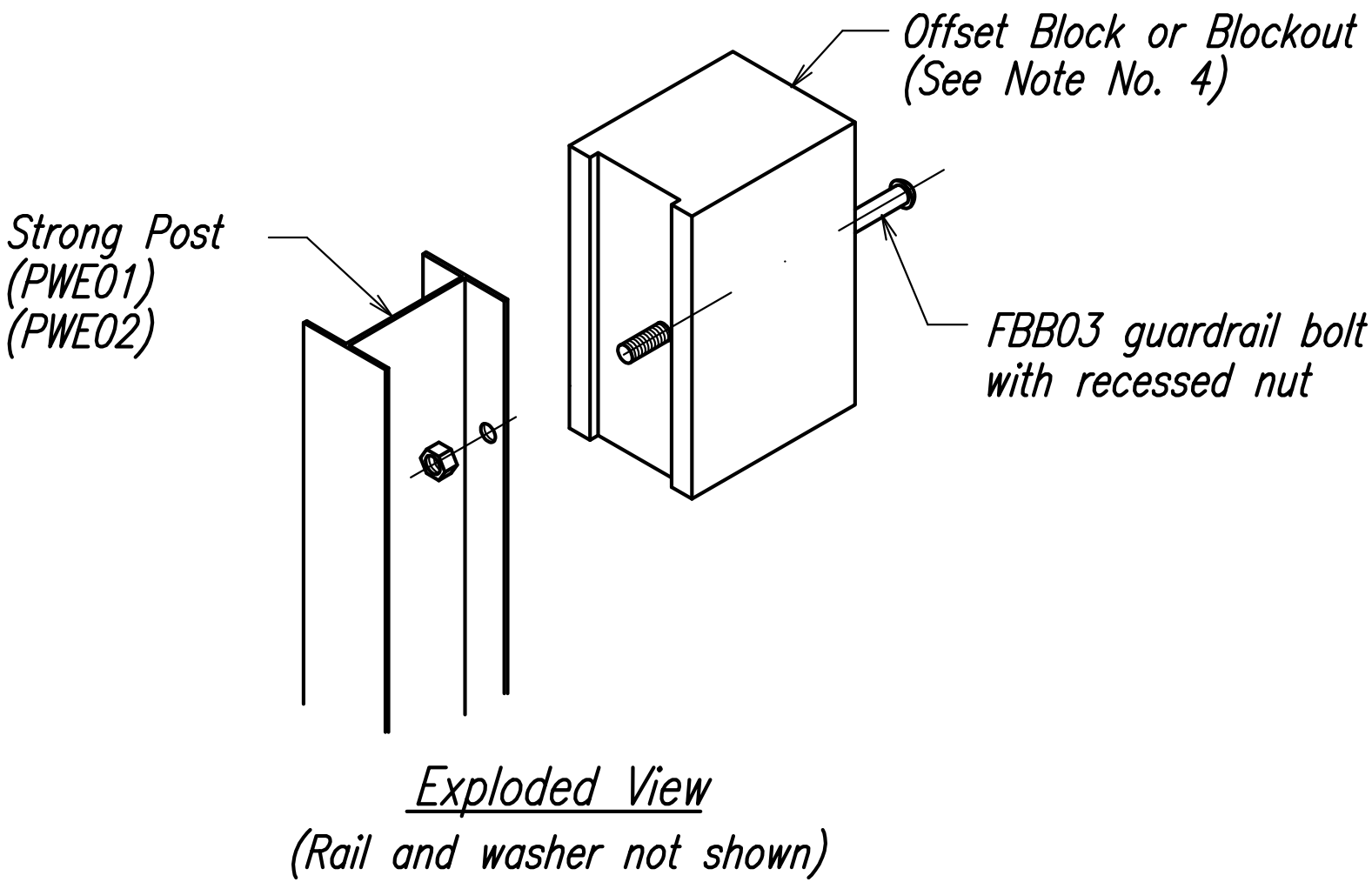
1 GENERAL NOTES

- 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 by the Engineer.
- All fasteners, posts, and rail elements (i.e. FBB03, PWE01, RWM04b, 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 Blockout 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.
- Minimum working width (clear distance) between back of MGS post to any fixed object is 4'-1" (49").
- New Hot Mix Asphalt (HMA) 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 guardrail system.

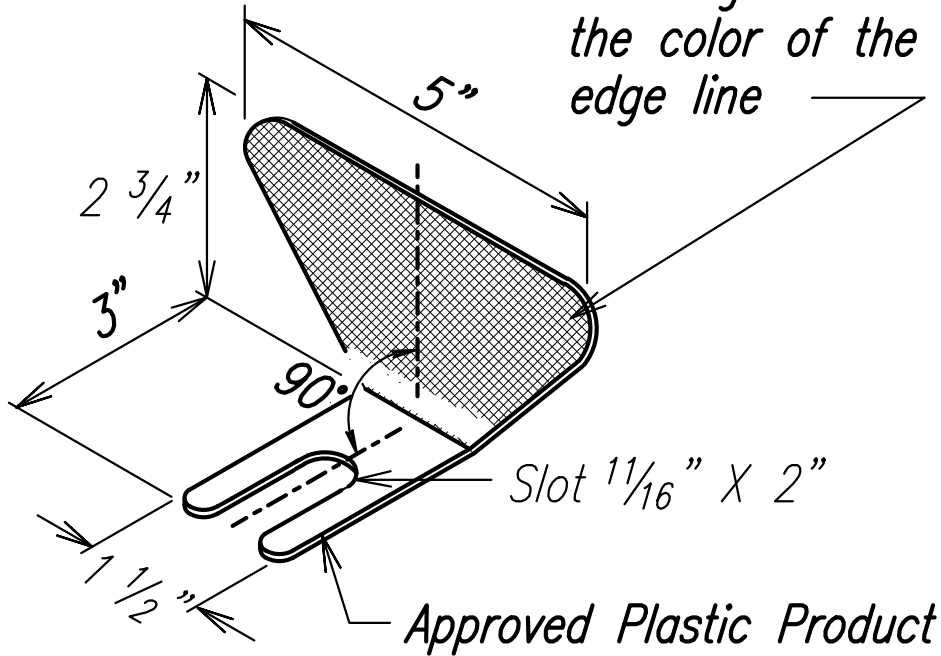
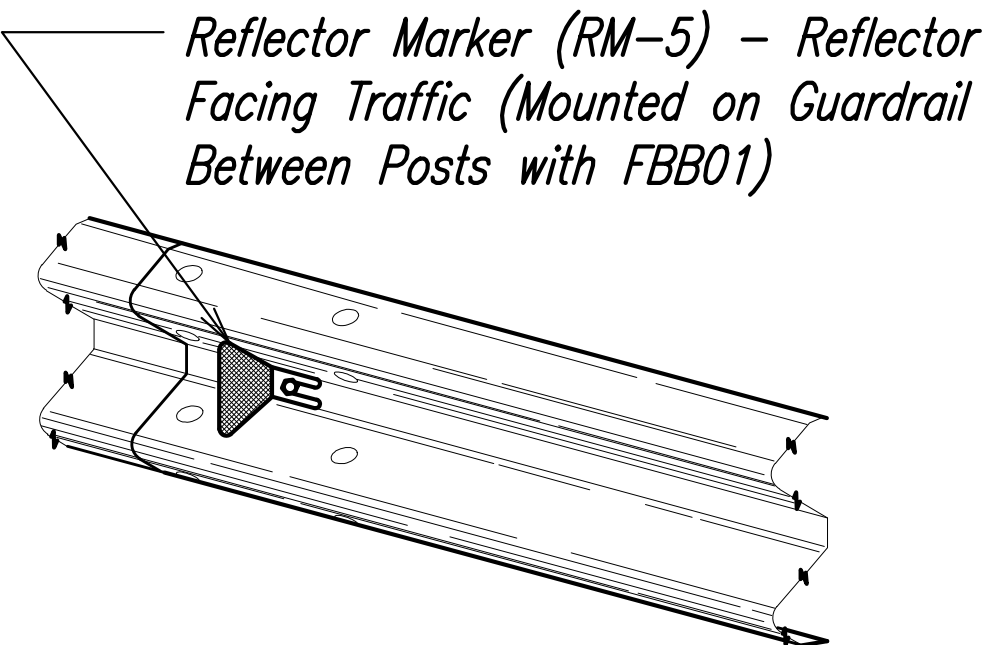
GUARDRAIL TYPE	DIMENSION	
	H	A
MGS w/ Standard 8" Offset Block	2'-1"	1'-6"
MGS w/ No Blockout	2- 7/8"	9 1/4"



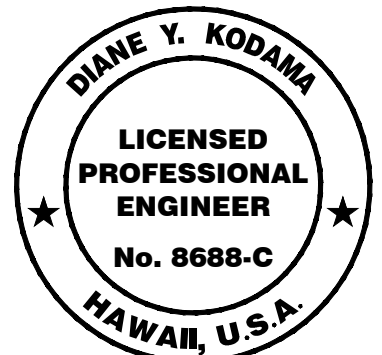
TYPICAL GUARDRAIL INSTALLATION



STEEL POST AND BLOCK DETAIL



REFLECTOR MARKER (RM-5) DETAIL AND TYPICAL INSTALLATION



LICENSE EXPIRES 4/30/24  
THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

GUARDRAIL DETAILS & NOTES

KEKAULIKE AVENUE, EMERGENCY REPAIRS

M.P. 8.2

Federal-Aid Project No. ER-25(001)

Scale: As Noted

Date: May 2023

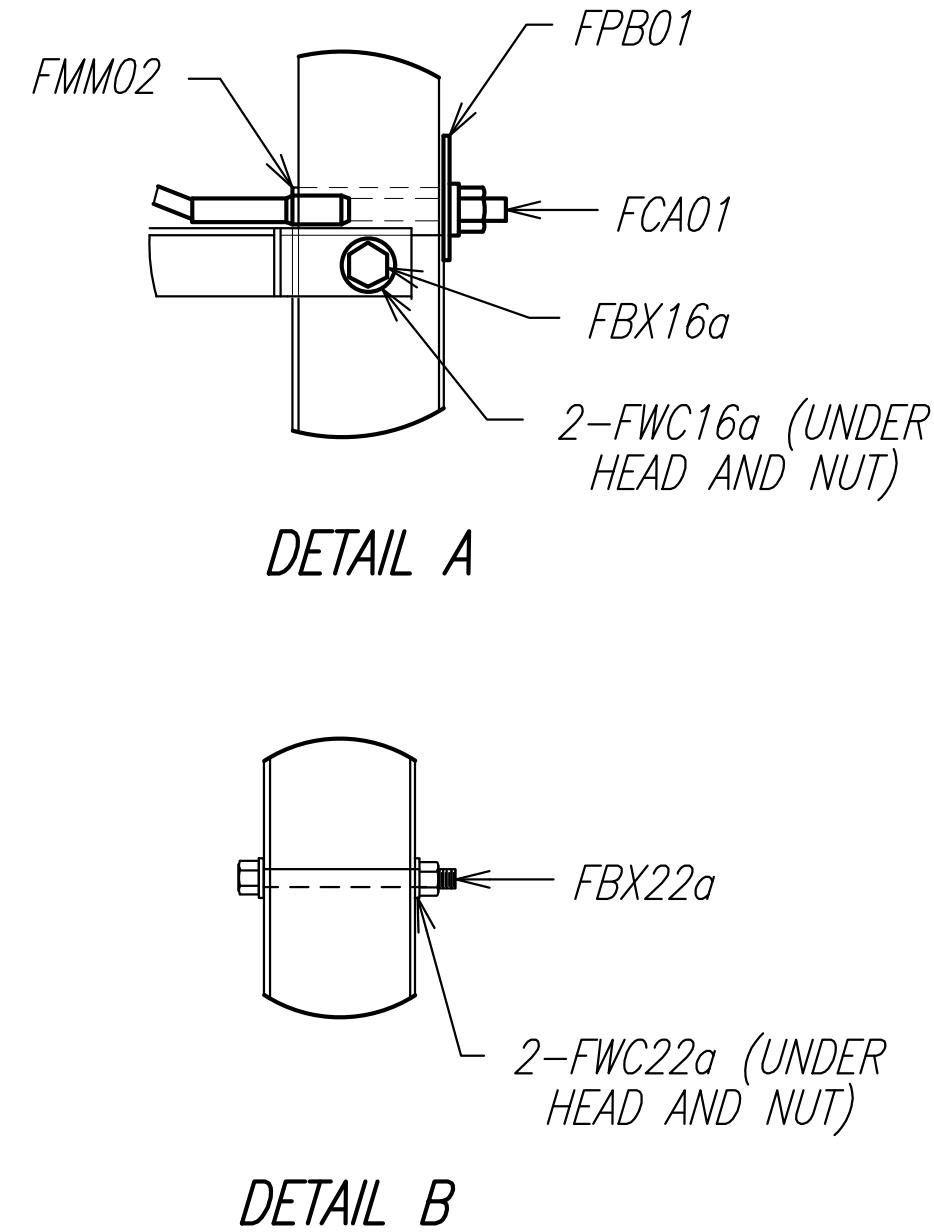
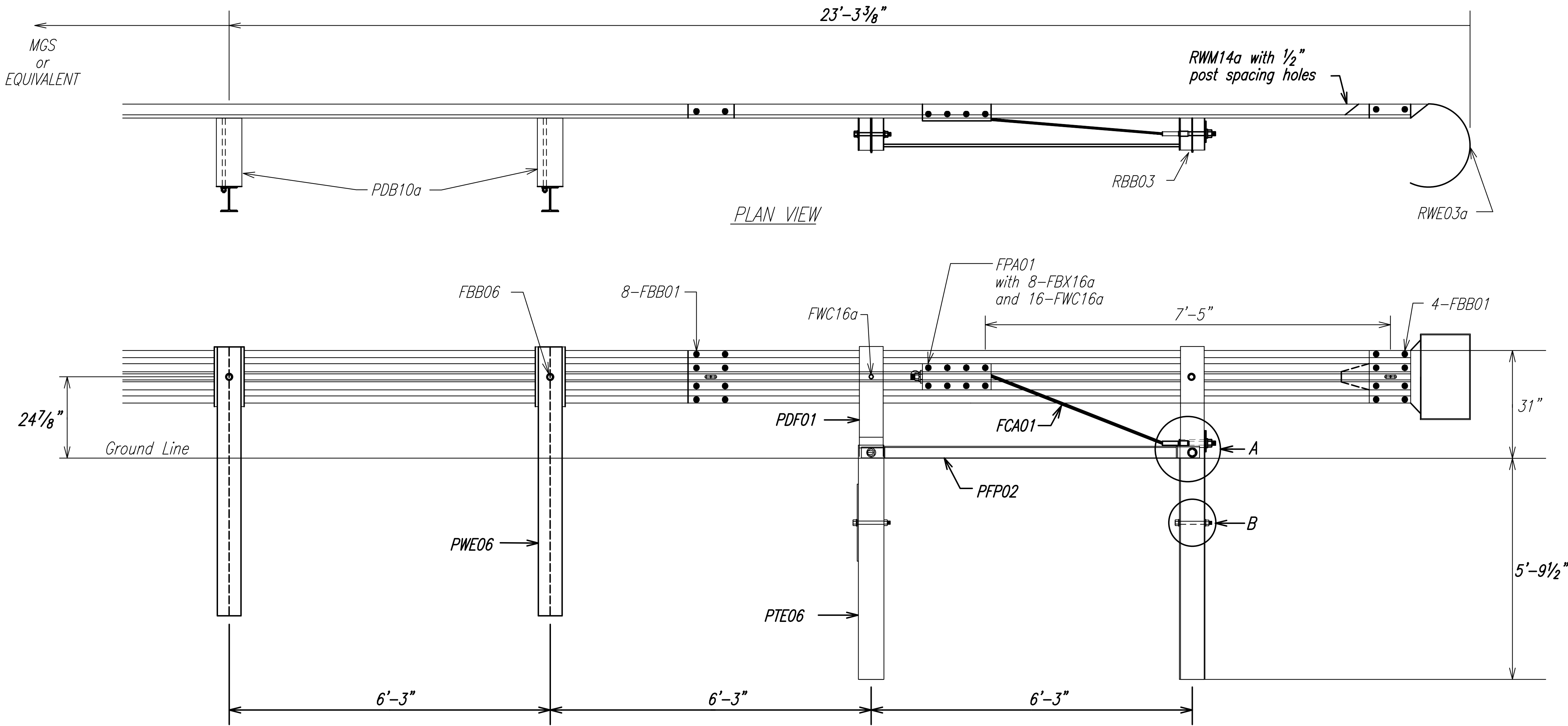
SHEET No. 1 OF 3 SHEETS

ADD.17A

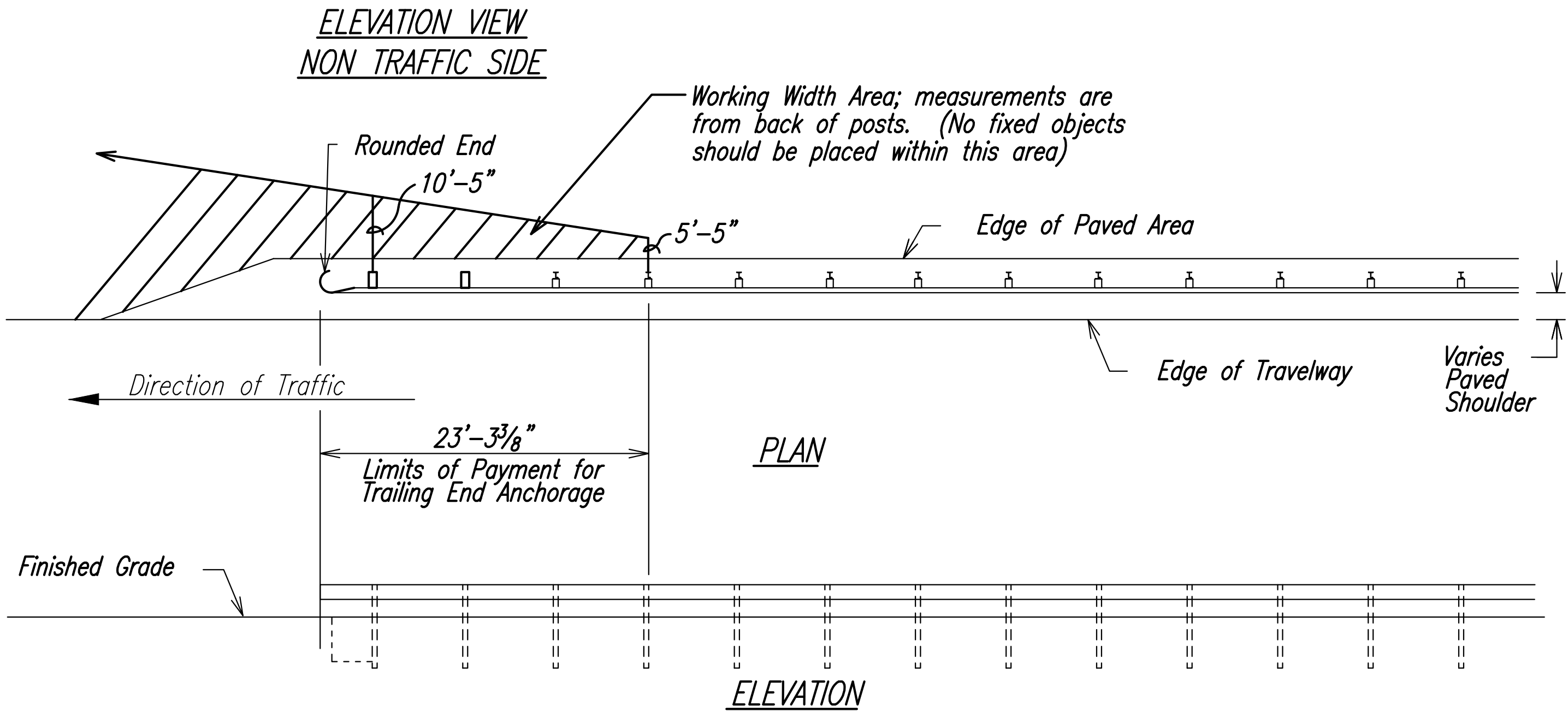




FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MAUI	HAW.	ER-25(001)	2023	ADD.17C	34



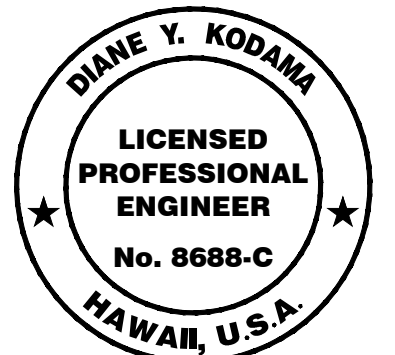
ITEM NO.	QTY	COMPONENTS
FBB01	12	Guardrail Bolt and Nut
FBB03	2	Guardrail Bolt and Nut
FBB06	1	Guardrail Bolt and Nut
FBX16a	2	Hex Head Bolt (10") and Nut
FBX16a	8	Hex Head Bolt (1 1/2") and Nut
FBX22a	2	Hex Head Bolt (7 1/2") and Nut
FCA01	1	BCT Anchor Cable Assembly
PDB10a	2	MGS Timber Blockout
PFP02	1	Strut and Yoke Assembly
PWE06	1	Wide-Flange Guardrail Post
FMM02	1	BCT Post Sleeve
FPA01	1	Anchor Bracket Assembly
FPB01	1	BCT Bearing Plate
FWC16a	22	Circular Washer
FWC22a	4	Circular Washer
PDF01	2	BCT Timber Post
PTE06	2	Foundation Tube
RWE03a	1	W-Beam Rounded End Section
RWM14a	1	W-Beam MGS End Section



## Trailing End Anchorage System



DATE	REVISION
1/25/24	Sheet Added to Show Guardrail Details



LICENSE EXPIRES 4/30/24

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

## TRAILING-END ANCHORAGE SYSTEM

KEKAULIKE AVENUE, EMERGENCY REPAIRS

M.P. 8.2

Federal-Aid Project No. ER-25(001)

Scale: As Noted

Date: May 2023

SHEET No. 3 OF 3 SHEETS

ADD.17C