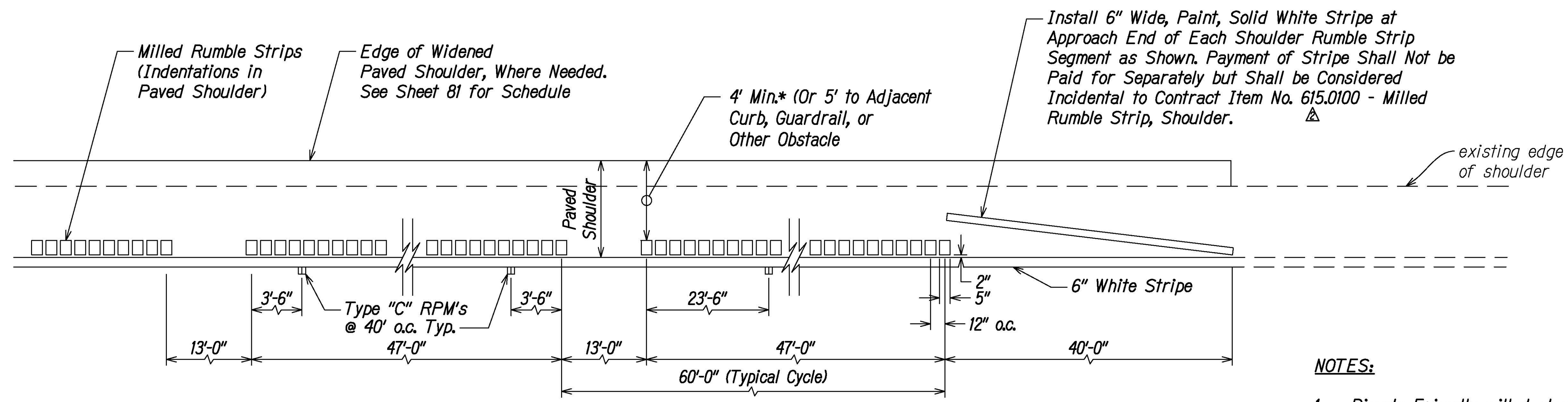
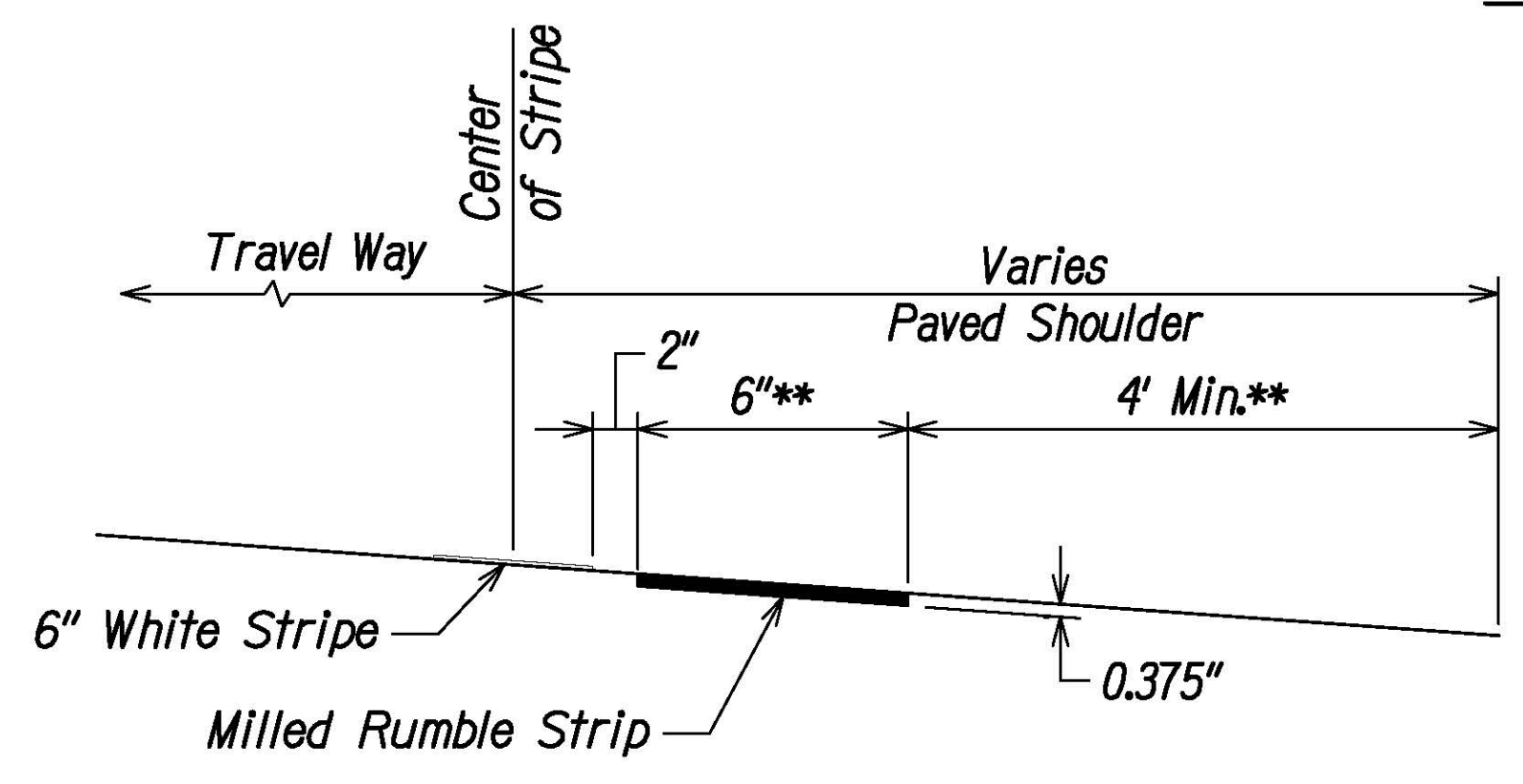


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HSIP-011-1(045)	2023	ADD. 83	114



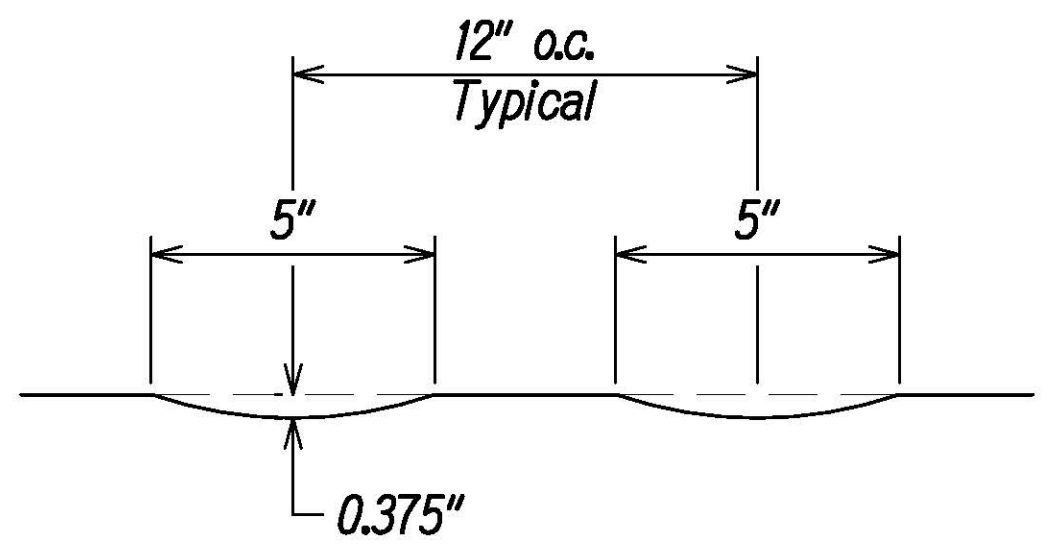
PLAN - MILLED SHOULDER RUMBLE STRIP

Not to Scale



SECTION A-A

Not to Scale



CROSS SECTION

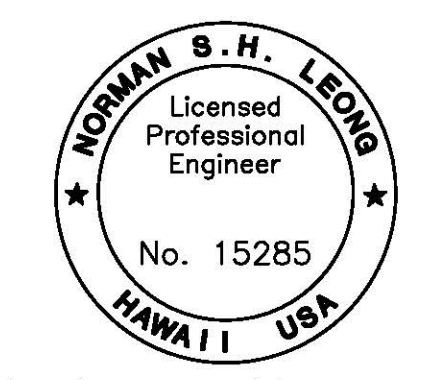
Not to Scale

NOTES:

1. Bicycle Friendly milled shoulder rumble strip shall not be installed where shoulder serves as a part time shoulder lane.
- * 2. Bicycle Friendly milled shoulder rumble strip should not be used unless 4 feet of clear shoulder width for bicycle use is available between the rumble strips and the outer edge of the paved shoulder.
- ** 3. Length of rumble strip reduced from 12" to 6" minimum to meet clearance requirements. Designer has coordinated with HWY-TD for milled shoulder rumble strip design to be less than the typical 12" dimension.

SHOULDER RUMBLE STRIPS

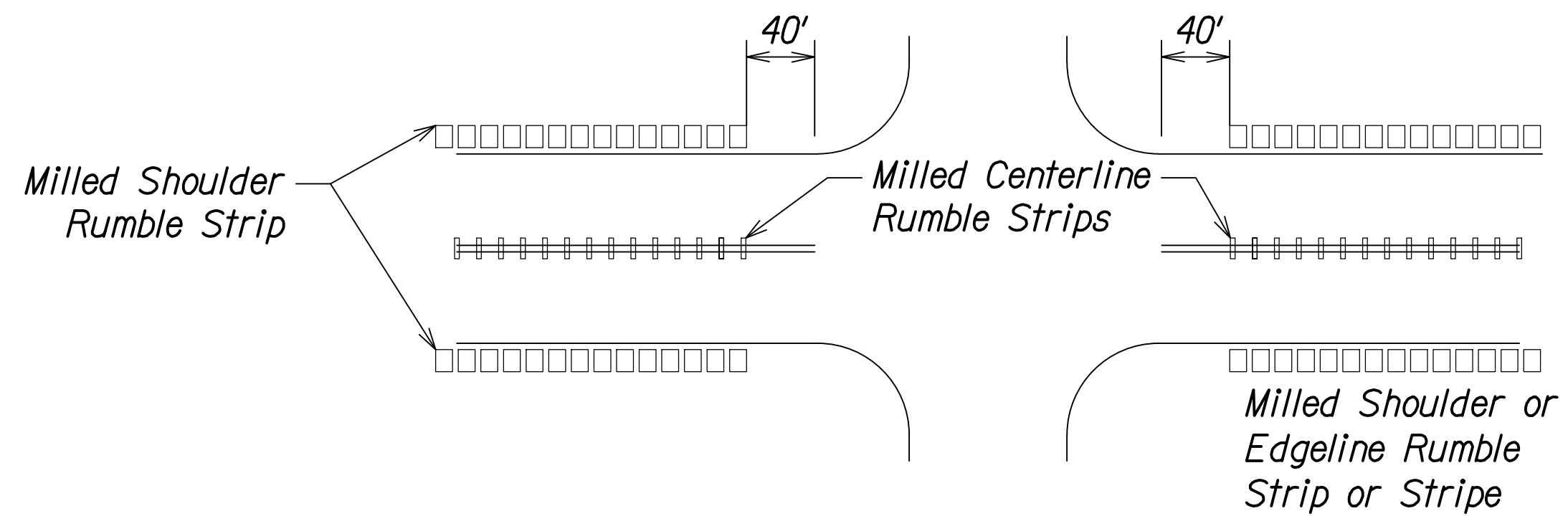
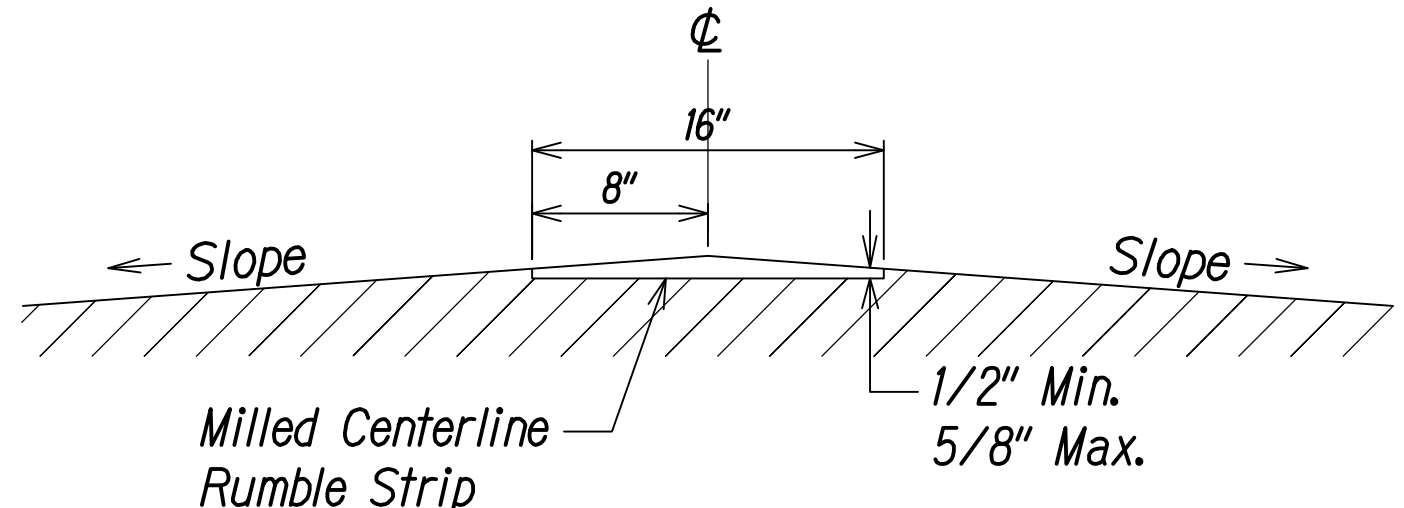
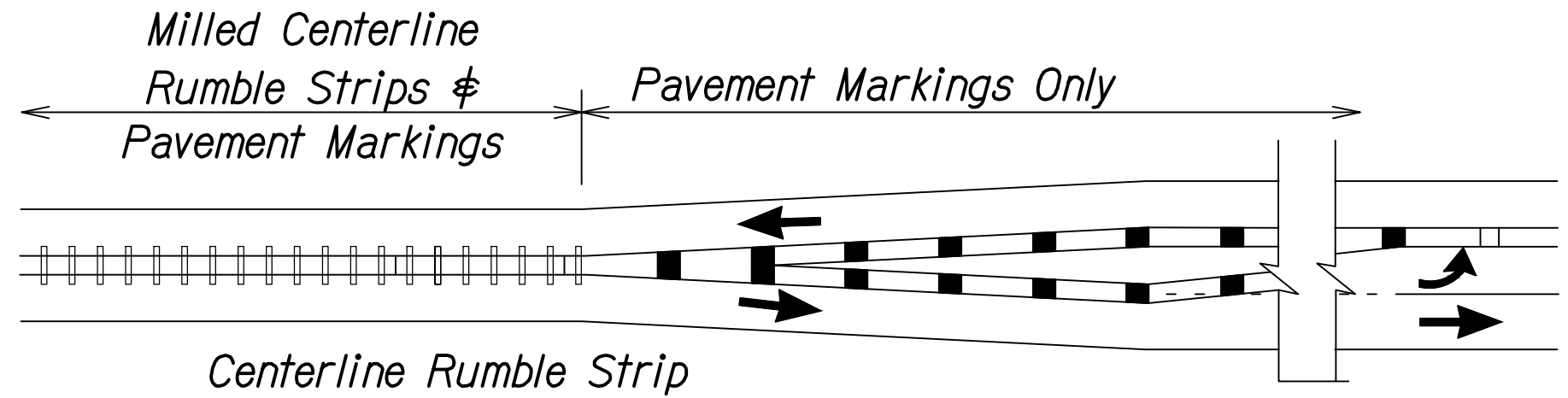
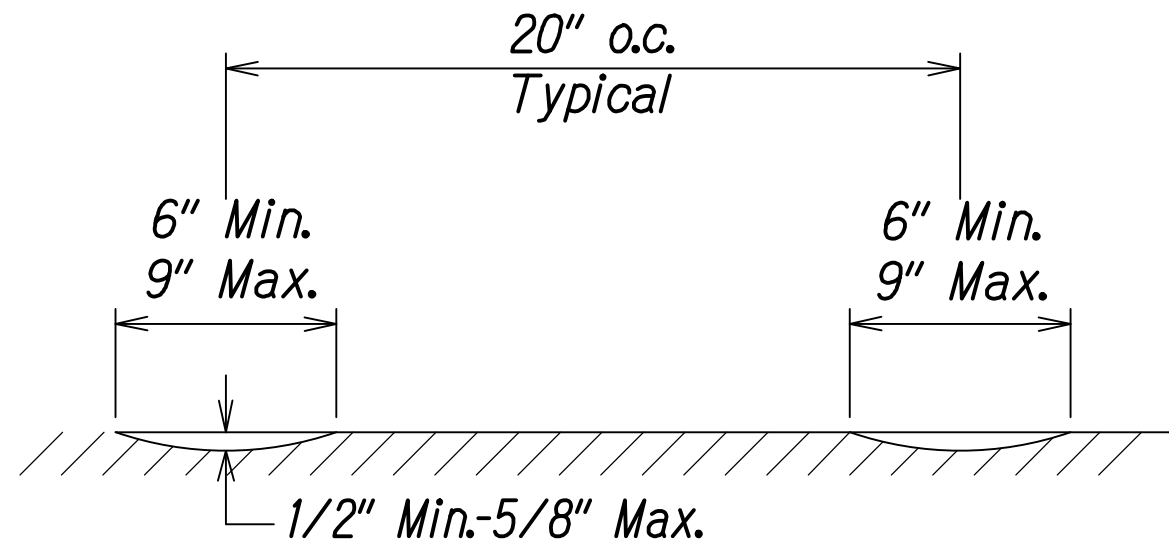
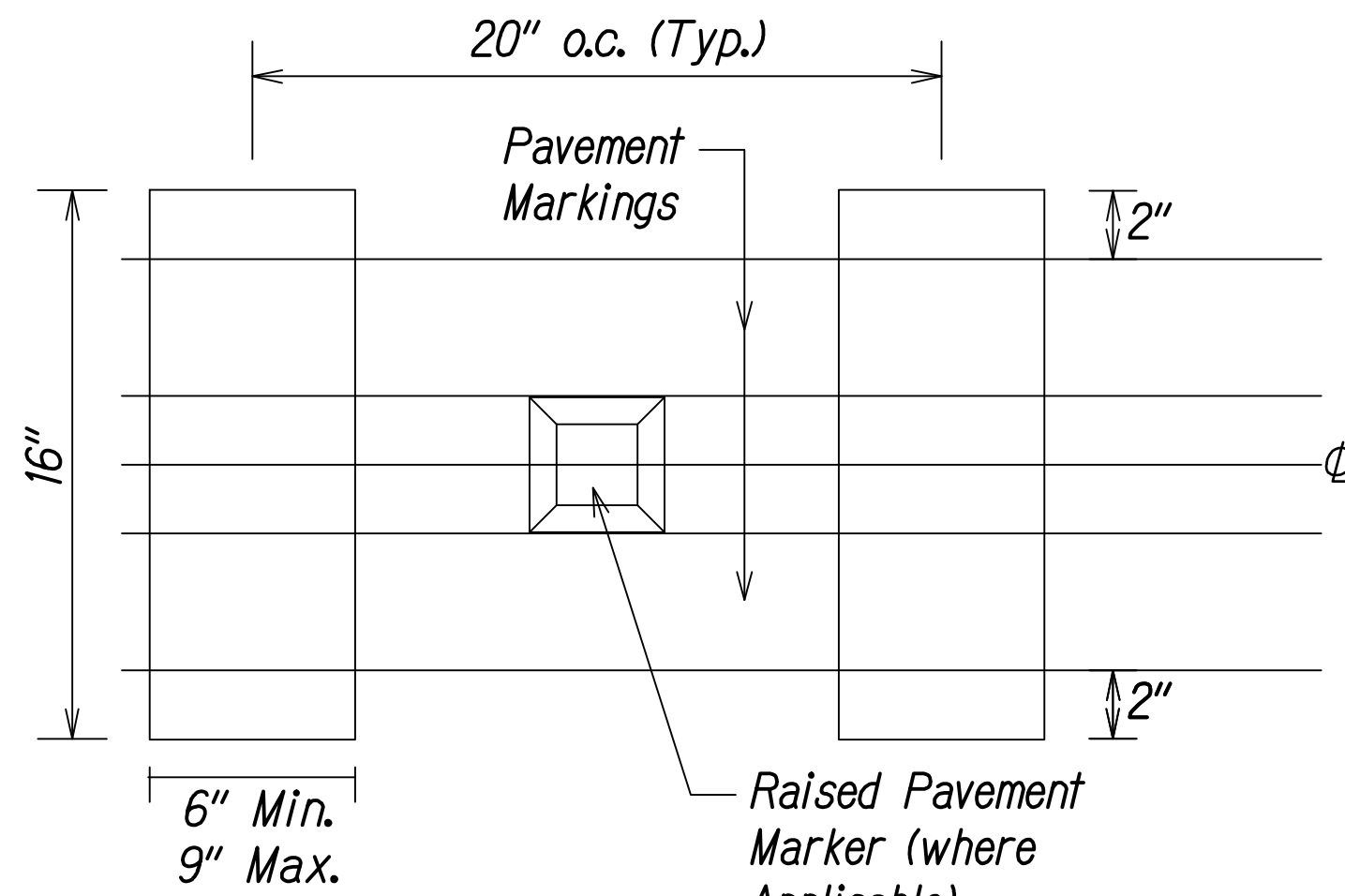
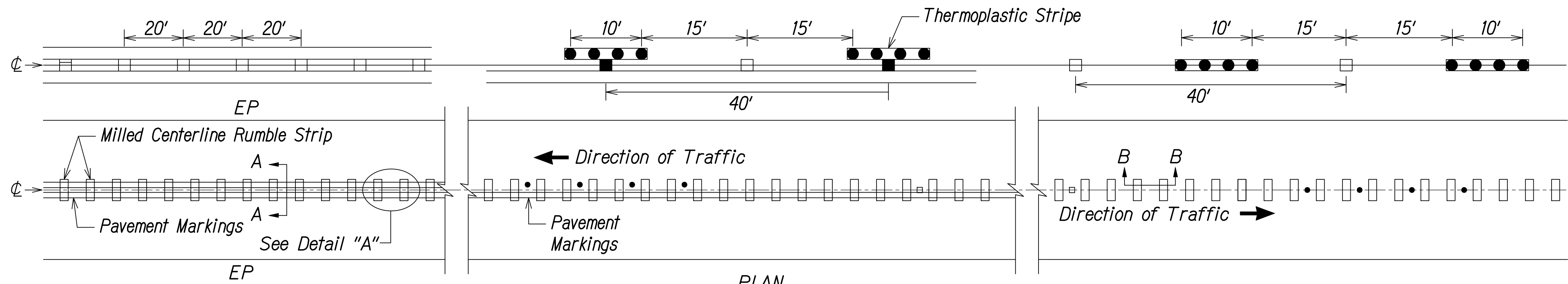
ORIGINAL PLAN	DATE
NO.	
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	



This work was prepared by me or under my supervision and construction of this project will be under my observation.
Norman S.H. Leong
Expiration Date of License 4/24

10/23/23	Revised Note
Date	Description
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
MILLED RUMBLE STRIP DETAILS	
MAMALAHOA HIGHWAY SAFETY IMPROVEMENTS Vicinity of Haleili Street and Bruner Road Federal-Aid Project No. HSIP-011-1(045)	
Scale: NTS	Date: September 2023
SHEET No. 1 OF 3 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HSIP-011-1(045)	2023	84	114



- NOTES:
1. Dimensions shown are approximate. Adjust rumble strip spacing to coordinate with pavement markings prior to installation.
 2. Raised pavement markers shall be installed on flat surface between the rumble strips. Do not install raised pavement markers inside the milled area.
 3. Do not install centerline rumble strips on bridge decks.
 4. Where at-grade bridges are present, rumble strips shall end/begin 20 L.F. beyond the existing bridge deck joints/concrete approach slab.
 5. Hot spray thermoplastic shall be used for solid line markings within the milled centerline rumble strip area.

MILLED RUMBLE STRIPS - CENTERLINE DETAILS

SURVEY PLOTTED BY	DATE
DRAWN BY	" "
DESIGNED BY	" "
NOTED BY	" "
CHECKED BY	" "

NORMAN S. H. LEONG
Licensed Professional Engineer
No. 15285
HAWAII USA

This work was prepared by me or under my supervision and construction of this project will be under my observation.

Norman S. H. Leong
Expiration Date of License 4/24

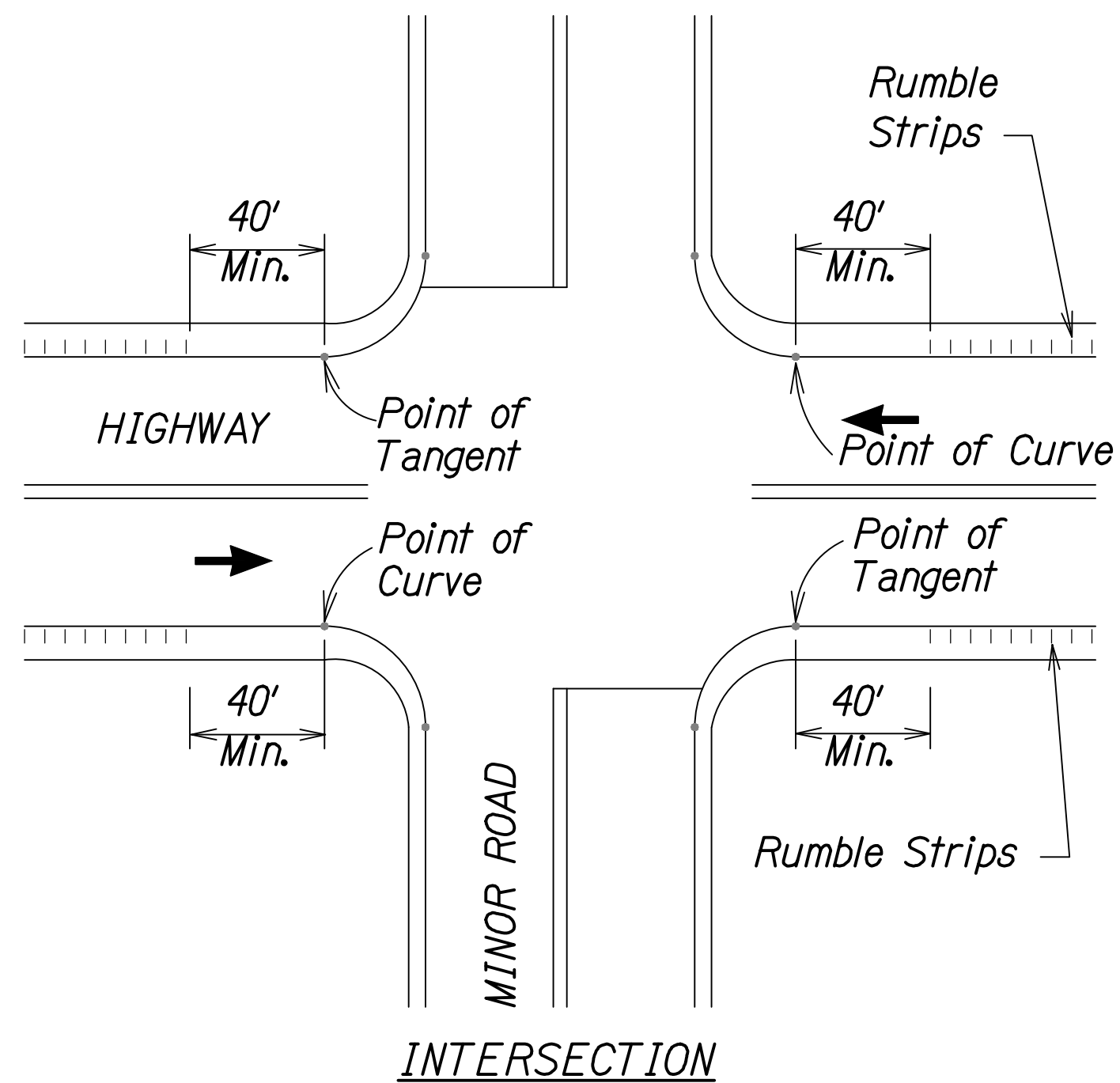
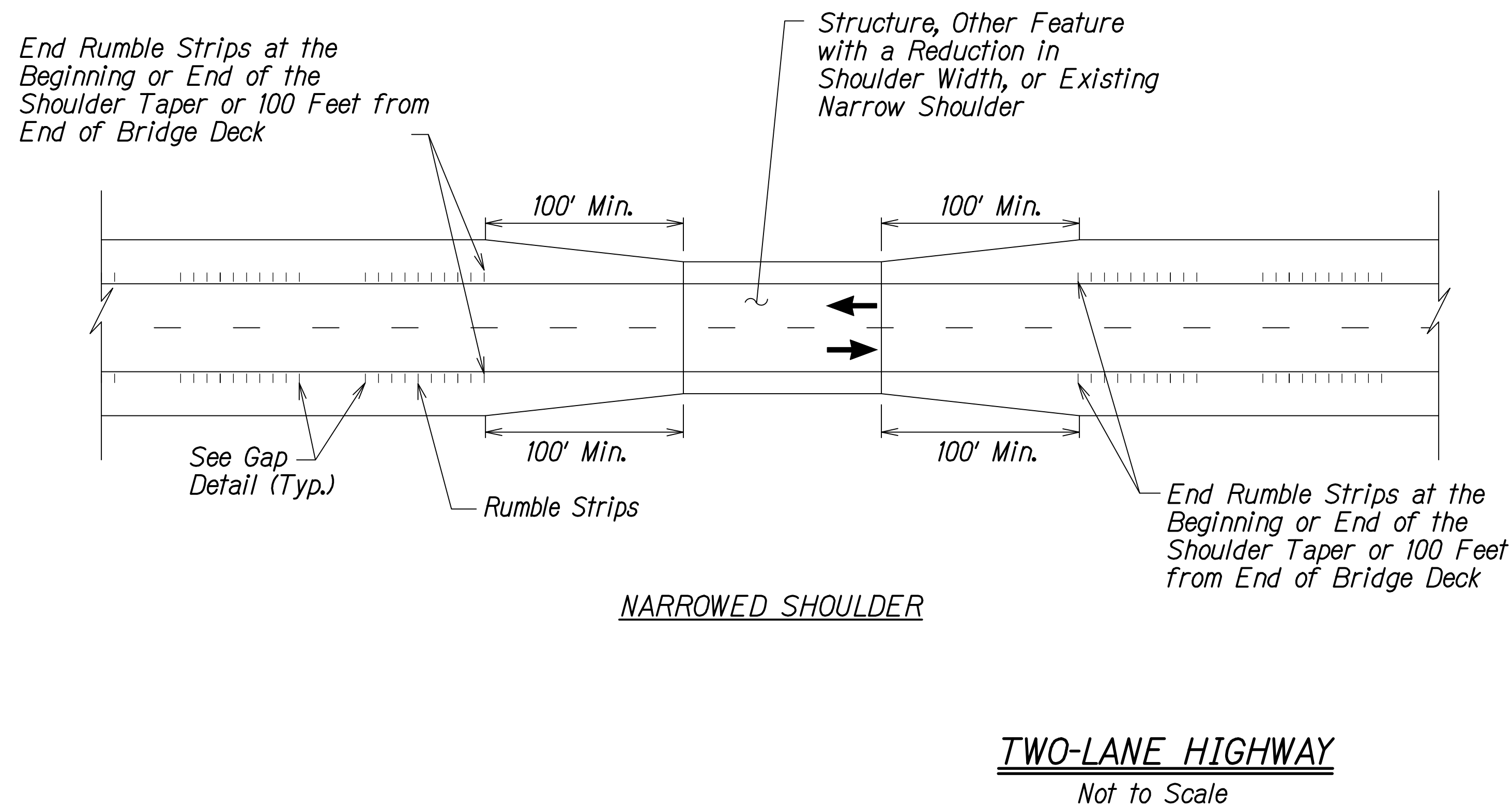
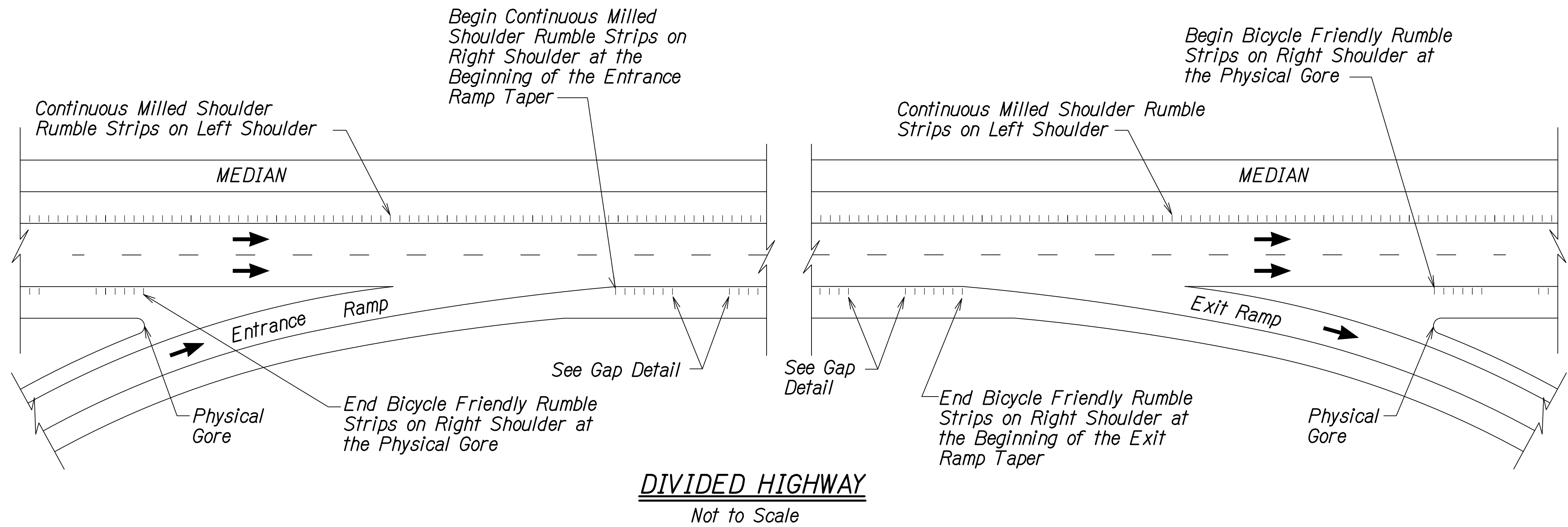
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MILLED RUMBLE STRIP DETAILS

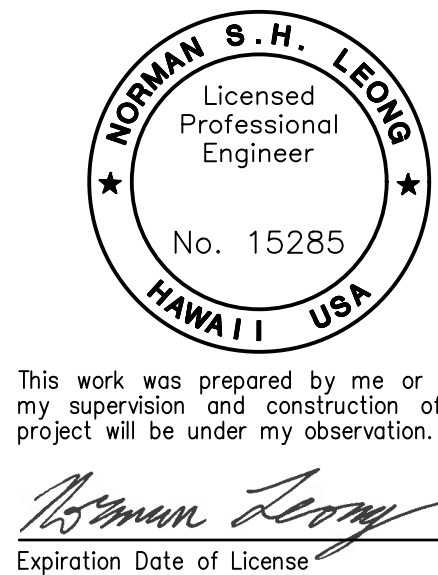
MAMALAHOA HIGHWAY
SAFETY IMPROVEMENTS
Vicinity of Haleili Street and Bruner Road
Federal-Aid Project No. HSIP-011-1(045)
Scale: NTS Date: September 2023

SHEET No. 2 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HSIP-011-1(045)	2023	85	114



SURVEY PLOTTED BY	DATE
DRAWN BY	"
DESIGNED BY	"
QUANTITIES BY	"
CHECKED BY	"
ORIGINAL PLAN	No.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MILLED RUMBLE STRIP DETAILS

MAMALAHOA HIGHWAY
SAFETY IMPROVEMENTS
Vicinity of Haleili Street and Bruner Road
Federal-Aid Project No. HSIP-011-1(045)

Scale: NTS Date: September 2023

SHEET No. 3 OF 3 SHEETS