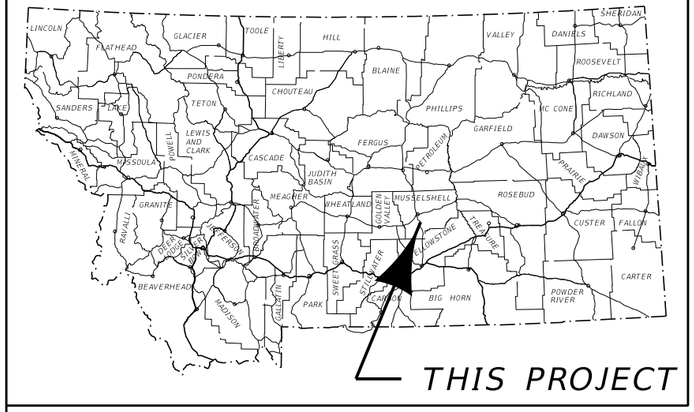
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MONTANA DEPARTMENT OF TRANSPORTATION

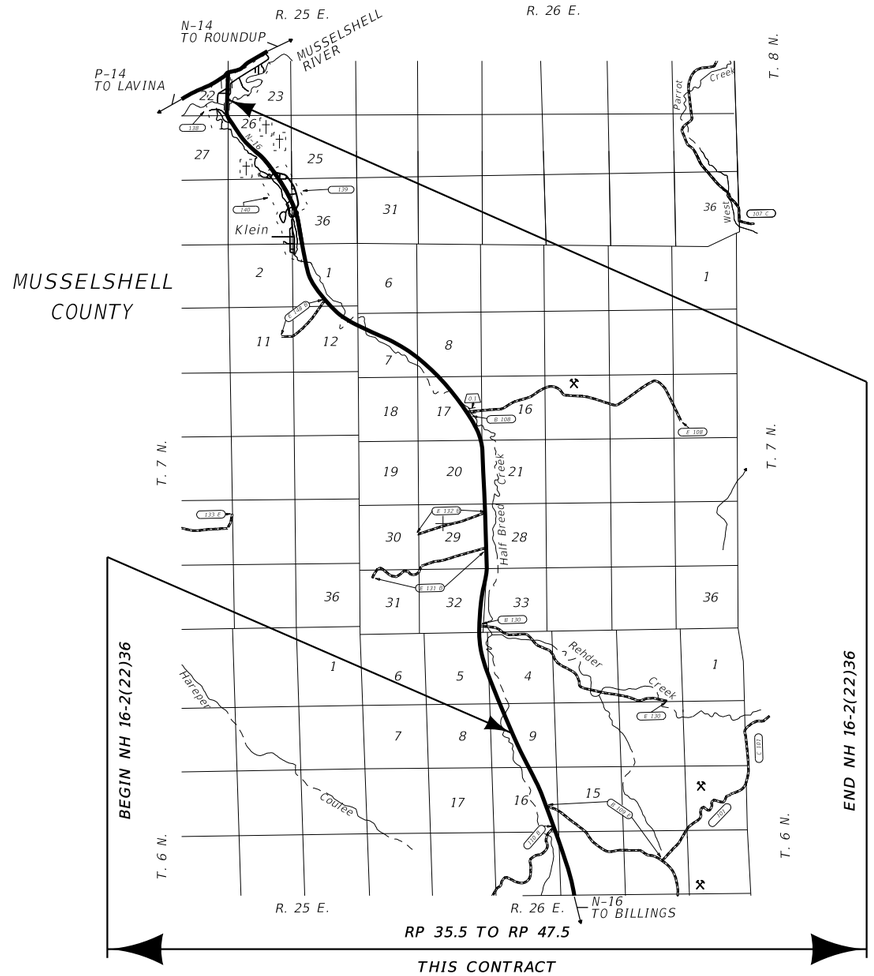
FEDERAL AID PROJECT NH 16-2(22)36
RUMBLE STRIP MITIGATION
US-87 RUMBLE STRIP MITIGATION
MUSSELSHELL COUNTY

TRAFFIC DATA		
PRESENT	2019	A.D.T. = 2,510
LETTING	2021	A.D.T. = 2,540
DESIGN	2040	A.D.T. = 3,100
		D.H.V. = 340
		TRUCKS = 10.4 %
		V. = 60 MPH
		18 KIP ESAL'S = 106 DAILY
		GROWTH RATE = 1.0% ANNUALLY

LETTING DATE - _____

LENGTH 12.0 MILES

SURFACING SOURCES -
CONTRACTOR FURNISHED



MONTANA
DEPARTMENT OF TRANSPORTATION

MALCOLM "MACK" LONG
DIRECTOR OF TRANSPORTATION

APPROVED BY:

HIGHWAYS
ENGINEER

MONTANA
DAMIAN
KRINGS
12113PE
LICENSED
PROFESSIONAL ENGINEER

DocuSigned by:
Damian Krings
1C71361CE866454...

5/4/2021
DATE

3	MDT	MONTANA DEPARTMENT OF TRANSPORTATION	C:\DGN\9809000rdtl001.dgn	DESIGNED BY	K. SHUCK	1/5/2021
2			1/26/2021	REVIEWED BY	K. SCHNIEBER	1/5/2021
			7:20:16 AM CPS - U4503	CHECKED BY	J. FLEMING	1/7/2021

ROAD PLANS

UPN 9809000

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CENTERLINE RUMBLE STRIP FILLING DETAIL	3

NOTES

WETLANDS

WETLANDS MAY EXIST ADJACENT TO THE ROADWAY AND BEYOND THE PROJECT LIMITS. A WETLAND DELINEATION HAS NOT BEEN COMPLETED FOR THIS PROJECT. IMPACTS TO WETLAND AREAS ARE NOT ANTICIPATED IN ASSOCIATION WITH THE PROPOSED WORK. NO PERMITS HAVE BEEN OBTAINED. ANY ACTION IMPACTING WETLAND AREAS WITHOUT THE APPROPRIATE PERMITTING IS THE RESPONSIBILITY OF THE CONTRACTOR.

SUMMARY

CENTERLINE RUMBLE STRIP FILLING

RP		CRACK FILLING - MASTIC CENTERLINE TYPE 3 RUMBLE STRIPS		REMARKS
FROM	TO	pounds	linear feet Δ	
36.000	36.681	4,505	3,596	
38.186	38.701	3,406	2,719	
40.163	40.619	3,017	2,408	
42.107	42.328	1,462	1,167	
43.414	43.863	2,970	2,371	
45.383	45.885	3,321	2,651	
46.823	47.275	2,990	2,387	
SUBTOTAL		21,671	# 17,299	
TOTAL		21,671	~	

Δ DISTANCE IS ALONG CONTINUOUS LENGTH OF ROADWAY
FOR INFORMATION ONLY

PAVEMENT MARKINGS

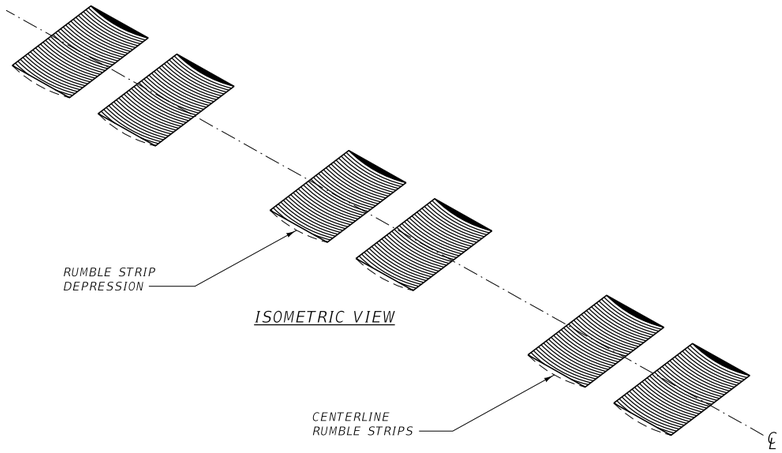
ITEM	UNIT	INTERIM APPLICATION #	FINAL APPLICATION	TOTAL
STRIPING – YELLOW EPOXY	gallon		45	45
TEMPORARY STRIPING	lnft			8,720

BASED ON 1 APPLICATION

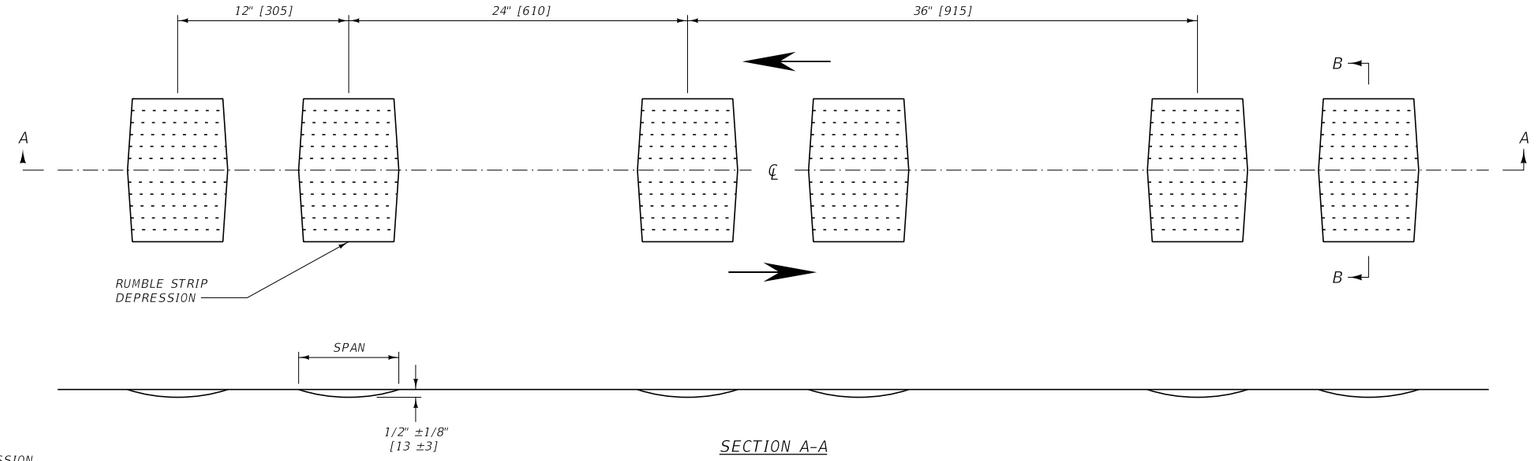
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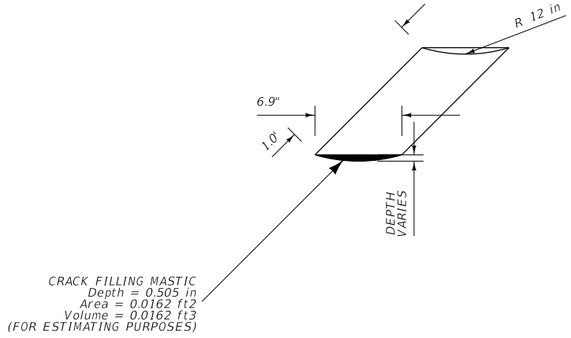
DETAIL



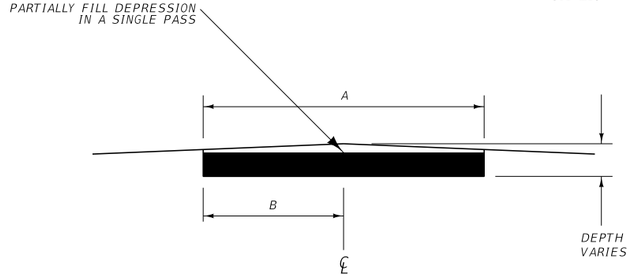
ISOMETRIC VIEW



SECTION A-A



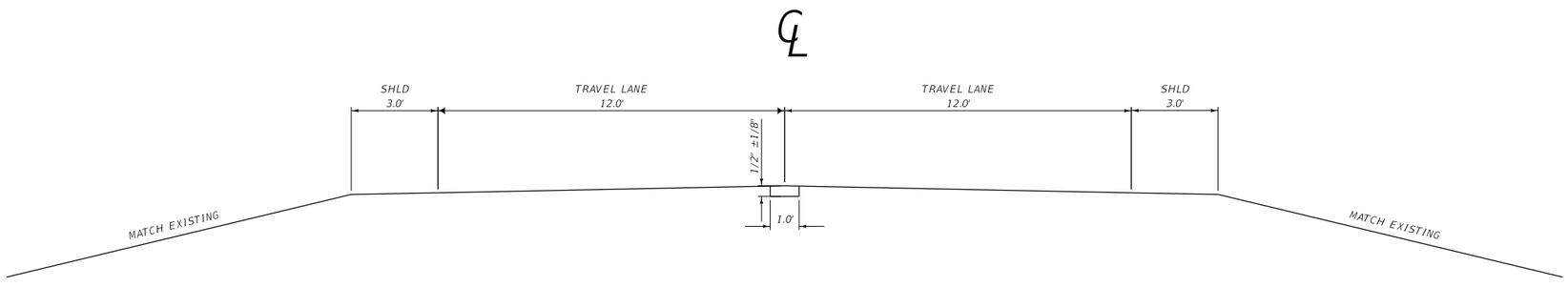
ISOMETRIC VIEW



SECTION B-B

ENGLISH DIMENSIONS			
TYPE		INCHES	
		A	B
1	NO SHOULDER	6	3
2	≤ 2.0' SHOULDER	8	4
3	> 2.0' SHOULDER	12	6

METRIC DIMENSIONS			
TYPE		mm	
		A	B
1	NO SHOULDER	150	75
2	≤ 0.6 m SHOULDER	200	100
3	> 0.6 m SHOULDER	300	150



CENTERLINE RUMBLE STRIP FILLING DETAIL

NO SCALE

3	MDT MONTANA DEPARTMENT OF TRANSPORTATION	C:\DGN\9809000rddet001.dgn	DESIGNED BY	K. SHUCK	1/5/2021	ROAD PLANS	US-87 RUMBLE STRIP MITIGATION / NH 16-2(22)36
2		1/26/2021	REVIEWED BY	K. SCHNIEBER	1/5/2021		
		7:20:32 AM CPS - U4503	CHECKED BY	J. FLEMING	1/7/2021	MUSSELSHELL COUNTY	UPN 9809000 / 3