

CONSTRUCTION PLAN FOR: BITUMINOUS OVERLAY, MILLING, AND AGGREGATE SHOULDERS.

STATE AID PROJECT 042-624-019 SHEET 1 OF 5 SHEETS

	ITEM NO.	ITEM	UNIT	RURAL	TOTAL ESTIMATED QUANTITY
	2016.601	QUALITY MANAGEMENT—THERMAL PROFILE	LUMP SUM	1	1
	2016.601	QUALITY MANAGEMENT—INTELLIGENT COMPACTION	LUMP SUM	1	1
1	2021.501	MOBILIZATION	LUMP SUM	1	1
	2051.501	MAINTENANCE & RESTORATION OF HAUL ROADS	LUMP SUM	1	1
2	2221.509	SHOULDER BASE AGGREGATE CLASS 5 MOD	TON	3235	3235
3	2232.504	MILL BITUMINOUS SURFACE (2.00")	SQ YD	1022	1022
4	2360.509	TYPE SP 4.75 WEAR COURSE MIXTURE (3,B)	TON	4038	4038
5	2360.509	TYPE SP 12.5 WEAR COURSE MIXTURE (3,B)	TON	8075	8075
6	2563.601	TRAFFIC CONTROL	LUMP SUM	1	1
7	2580.501	INTERIM PAVEMENT MARKING	LUMP SUM	1	1
8	2582.503	4" SOLID LINE PAINT	LIN FT	16400	16400
8	2582.503	6" SOLID LINE PAINT	LIN FT	57200	57200
8	2582.503	24" SOLID LINE PAINT	LIN FT	14	14
8	2582.503	4" BROKEN LINE PAINT	LIN FT	4800	4800

CONSTRUCTION NOTES

- TOTAL BID PRICE SHALL INCLUDE ALL OPERATIONS IN A SINGLE LUMP SUM BID.
- 1325 TONS INCLUDED IN TOTAL QUANTITY FOR CROSSROADS & FIELD APPROACHES. #200 SIEVE MODIFIED TO 6-12%.
- MILL EXISTING BITUMINOUS SURFACE 8' WIDE X 2.0" DEEP AS DIRECTED BY THE ENGINEER. MILLINGS SHALL BECOME PROPERTY OF THE CONTRACTOR. TOTAL QUANTITY INCLUDES X-RDS AND DRIVEWAYS.

MILL 100' X 28' WIDE AT EACH EXISTING CENTERLINE CULVERT FOR PATCHING. MILLINGS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
- CONSTRUCT LONGITUDINAL JOINT AS PER MnDOT SPECIFICATION 2360.3C.
- 30' SAFETY EDGE SHALL BE INCLUDED ON ALL LIFTS. BITUMINOUS SAFETY EDGE SHALL EXTEND AT A 30° ANGLE FROM THE TOP OF EACH COURSE.

BITUMINOUS TACK COAT SHALL BE INCLUDED WITH THE TOTAL BID PRICE. SUPPLY AND CONSTRUCT BITUMINOUS TACK COAT AS PER MnDOT SPECIFICATION 2357.

480 TONS INCLUDED IN TOTAL QUANTITY FOR AUXILIARY APPROACH PAVING INCLUDING TURN LANES.

105 TONS INCLUDED IN TOTAL QUANTITY FOR PATCHING AT SPECIFIED LOCATIONS.
- TOTAL BID PRICE SHALL INCLUDE ALL TRAFFIC CONTROL OPERATIONS IN A SINGLE LUMP SUM BID. SEE SHEET 5 FOR DETAILS.
- INTERIM PAVEMENT MARKING SHALL BE APPLIED AFTER EACH DAYS PAVING OPERATIONS. INTERIM MARKINGS SHALL CONSIST OF CENTER LINE MARKINGS AND INCLUDE NO PASSING ZONES IN ACCORDANCE WITH THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MN MUTCD).
- TOTAL PAINT PLACED. PLACE 6" SOLID EDGE LINE PAINT AT 11.5 FT.

CONSTRUCTION NOTES (GENERAL)

- THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY LEVEL "D". THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINES FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES."

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LICENSED PROFESSIONAL ENGINEER

STATE AID PROJECT 042-624-019 SHEET 2 OF 5 SHEETS

BASIS FOR ESTIMATED QUANTITIES

WEAR COURSE MIXTURE

BITUMINOUS MATERIAL FOR MIXTURE (MAXIMUM DENSITY)
110LBS./SQ.YD./INCH OF DEPTH

TACK COAT

BITUMINOUS MATERIAL FOR TACK COAT .05 GALS. PER SQ.YD.

SHOULDER BASE AGGREGATE CL 5 MOD

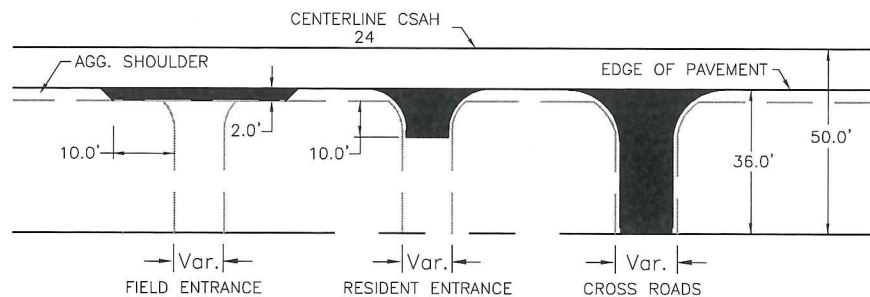
140 POUNDS/CU.YD.
#200 SIEVE MODIFIED 6-12% PASSING
50 TON AT GRAVEL CROSS ROADS, 25 TON AT ENTRANCES

STANDARD PLATES AS APPROVED BY THE FEDERAL HIGHWAY
ADMINISTRATION SHALL APPLY ON THIS PROJECT.

STANDARD PLATES	
PLATE NO.	DESCRIPTION
8000 K	CHANNELIZERS
9000 E	APPROACHES AND ENTRANCES

TYPICAL AUXILIARY APPROACH PAVING

STANDARD PLATE 9000E SHALL APPLY. FIELD ADJUST AS DIRECTED BY THE ENGINEER.



ENTRANCE TYPE	#	EST. TONS
FIELD ENTRANCE (5 TON EA.)	34	170
ENTRANCE (20 TON EA.)	5	100
CROSS ROAD (30 TON EA.)	7	210
		480

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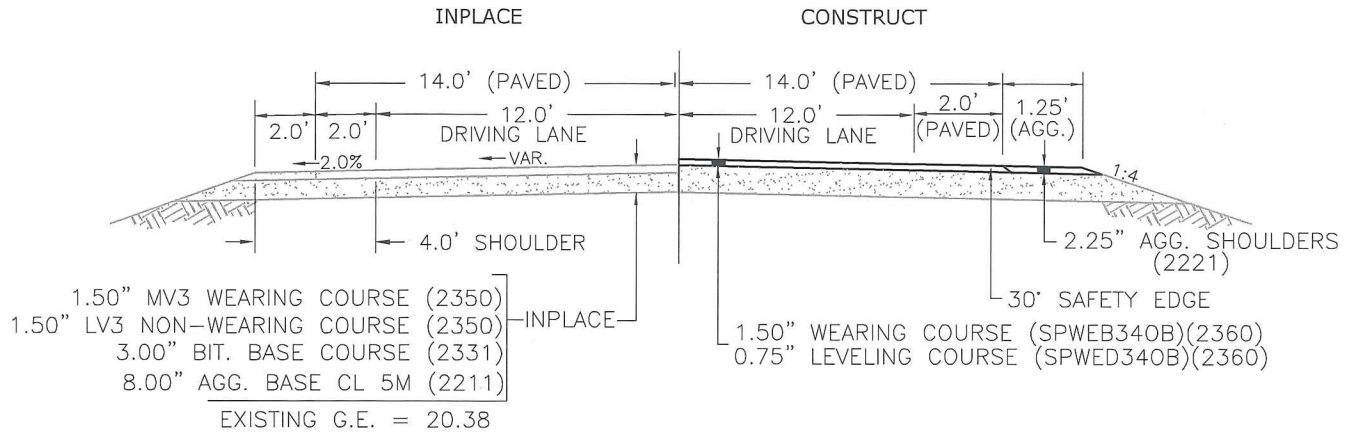
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STATE AID PROJECT 042-624-019 SHEET 3 OF 5 SHEETS

TYPICAL SECTION

STA. 162+95.00 TO STA. 448+95.00

NOT TO SCALE

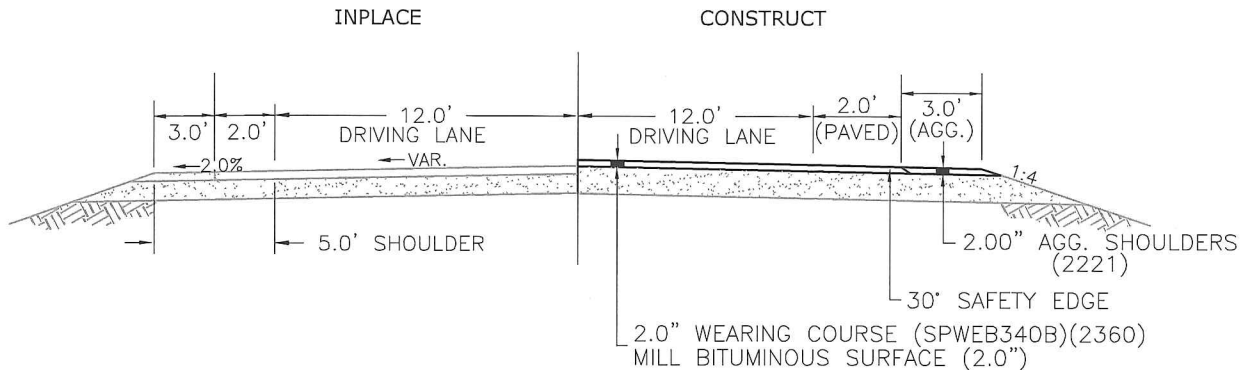


GRANULAR EQUIVALENT
10 TON
R VALUE: 10
ESAL'S: 129,000 (20 YR-FLEX)
REQUIRED G.E. 20.50
G.E. ON PLANS: 25.44

PATCHING

STA. 36+36.00 TO STA. 37+36.00
STA. 120+00.00 TO STA. 121+00.00
STA. 148+00.00 TO STA. 149+00.00

NOT TO SCALE

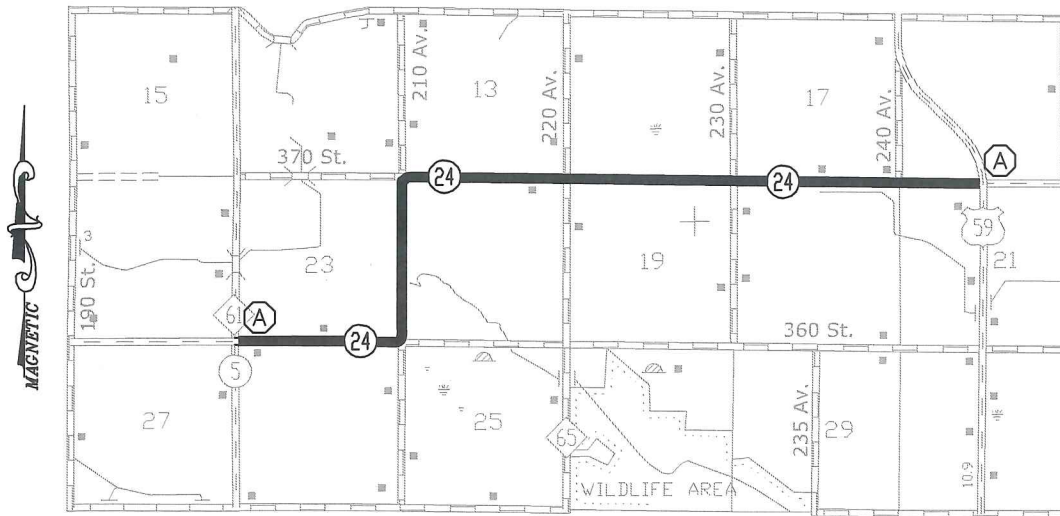











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STATE AID PROJECT 042-624-019 SHEET 4 OF 5 SHEETS

TEMPORARY TRAFFIC CONTROL PLAN



TEMPORARY TRAFFIC CONTROL SIGNS							
INSERT	SIGN	QUANTITY	NOTES	INSERT	SIGN	QUANTITY	NOTES
(A)	 G20-1 NEXT 5.5 MILES	2	INSTALL ON TYPE 3 BARRICADE BLACK ON ORANGE 48"x24" "NEXT 5.5 MILES"	 W8-11	AS NEEDED	INSTALL 1/MILE MINIMUM BLACK ON ORANGE 48"x48"	
	 W8-1A			AS NEEDED	BLACK ON ORANGE 48"x48"		
	 W8-1A			AS NEEDED	BLACK ON ORANGE 48"x48"		
	 W20-1			AS NEEDED	BLACK ON ORANGE 48"x48"		
	 W8-12	AS NEEDED	INSTALL 1/MILE MINIMUM BLACK ON ORANGE 48"x48"				
	 W8-9	AS NEEDED	INSTALL 1/MILE MINIMUM BLACK ON ORANGE 48"x48"				
	 R4-1	AS NEEDED	INSTALL AT NO PASSING ZONE BLACK ON WHITE 24"x30"		 R4-2	AS NEEDED	INSTALL AT NO PASSING ZONE BLACK ON WHITE 24"x30"

GENERAL TEMPORARY SIGNING NOTES:

1. TRAFFIC CONTROL LAYOUT FOR EACH OPERATION OF PAVING, SHOULDERING AND STRIPING SHALL MEET THE REQUIREMENTS OF THE CURRENT EDITION OF THE MnMUTCD, INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
2. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST MnMUTCD, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
3. ALL NECESSARY TRAFFIC CONTROL DEVICES ON THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR THE IMMEDIATE REPAIR OR REPLACEMENT OF ALL TRAFFIC CONTROL DEVICES THAT BECOME DAMAGED, MOVED, OR DESTROYED.
4. ALL INPLACE REGULATORY AND WARNING SIGNS TO REMAIN INPLACE THROUGHOUT CONSTRUCTION.
5. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE ALL TRAFFIC CONTROL DEVICES REQUIRED TO PROVIDE SAFE MOVEMENT OF LOCAL VEHICULAR TRAFFIC THROUGHOUT THE PROJECT. THE ENGINEER WILL HAVE THE RIGHT TO MODIFY THE REQUIREMENTS OF TRAFFIC CONTROL AS DEEMED NECESSARY DUE TO FIELD CONDITIONS. THE STREET SHALL REMAIN OPEN TO LOCAL TRAFFIC AT ALL TIMES. TEMPORARY SIGNING AND TRAFFIC CONTROL SHALL BE A LUMP SUM MEASUREMENT, AND TOTAL NUMBER OF SIGNS AND HOURS OF FLAGGING SHALL VARY BASED ON THE CONTRACTORS OPERATION.

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