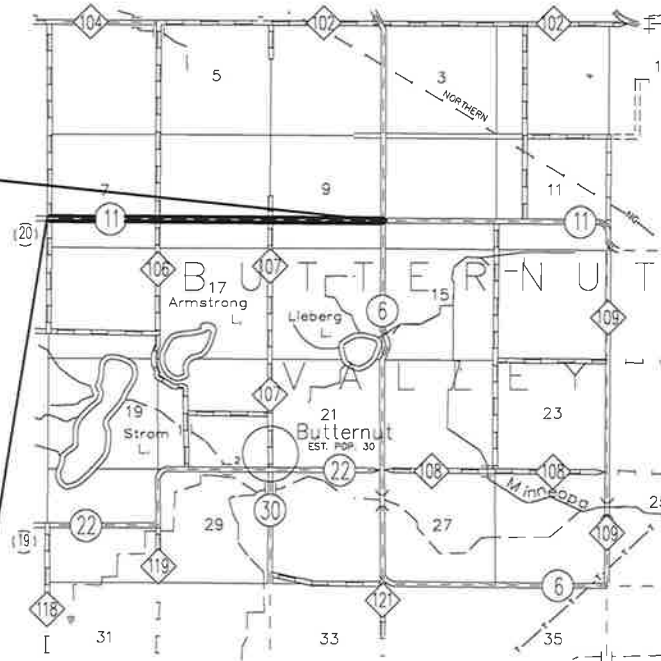


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DESIGN DESIGNATION

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INDEX OF SHEETS	
SHEET No. 1	TITLE
SHEET No. 2	ESTIMATED QUANTITIES
SHEET No. 3	STANDARD PLATES
SHEET No. 4-5	CHARTS
SHEET No. 6	TYPICAL SECTIONS
SHEET No. 7	DETAILS

PLAN NOT TO SCALE

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", SHALL GOVERN.

GRADED IN: 2024 UNDER SAP 007-611-013
SURFACED IN: 2024 UNDER SAP 007-611-013

The subsurface utility information in this plan is utility quality level "D". This utility quality level was determined according to the guidelines of CI/ASCE 38-22, entitled "Standard Guidelines for Investigating and Determining Existing Utilities."

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH, IN THE CONSTRUCTION OF THIS PROJECT.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

[Signature]
COUNTY ENGINEER

RYAN THILGES

DATE 2/6/2025

LIC. No. 45887

DISTRICT STATE AID ENG'R: REVIEWED FOR
COMPLIANCE WITH STATE-AID RULES/POLICY

DATE _____

STATE AID ENGINEER: APPROVED FOR STATE AID FUNDING

DATE _____

ESTIMATED QUANTITY

SAP 007-611-015

ITEM NO.	ITEM	UNIT	CSAH # 11	NON. PART.	TOTAL
2118.509	AGGREGATE SURFACING, CL-2	TON	65		65
2221.509	SHOULDER BASE AGGREGATE, CL-1	TON	1787		1787
2232.504	MILL BITUMINOUS SURFACE	SQ YD	264		264
2360.509	TYPE SP 12.5 WEARING COURSE MIX (2,C)	TON	4731		4731
2580.503	INTERIM PAVEMENT MARKING	LIN. FT.	1255		1255
2582.503	4" SOLID LINE - PAINT	LIN. FT.	33080		33080
2582.503	24" SOLID LINE - PAINT	LIN. FT.	14		14
2582.503	4" BROKEN LINE - PAINT	LIN. FT.	3130		3130
2582.518	PAVEMENT MESSAGE - PAINT	SQ. FT.	49.86		49.86

SEE SPECIAL PROVISIONS 1402 FOR ADJUSTMENTS FOR INCREASED AND DECREASED QUANTITIES

CERT. BY

Alan Schilges
PROFESSIONAL ENGINEER

LIC. No. 45887 MAR. 10, 2025

S.A.P. 007-611-015

SHEET No. 2 OF 7 SHEETS

BASIS FOR PLANNED QUANTITIES

AGGREGATE SHOULDERING, & SURFACING

COMPACTED DRY DENSITY – 140 LBS. PER CU. FT.

BITUMINOUS SURFACE

BITUM. MAT'L FOR TACK COAT 0.05 GALS. PER SQ. YD.

TACK COAT WILL BE CONSIDERED INCIDENTAL.

BITUM. COURSES, 113 LBS. PER 1" / SQ. YD.

THE FOLLOWING STANDARD PLATES AS APPROVED BY THE FHWA SHALL APPLY

STANDARD PLATES	
PLATE No.	DESCRIPTION
8000K	TEMPORARY CHANNELIZERS

MILL BITUM. SURFACE

LOCATION	STATION TO STATION	LENGTH	WIDTH	SQ.YD.
MAINLINE	99 + 40 TO 99 + 80	40	28	124
MAINLINE	256 + 11 TO 256 + 25	14	90	140
TOTAL				264

MILLINGS SHALL BECOME THE PROPERTY OF THE CONTRACTOR

ALL CENTERLINE MILLING WILL BE STARTING AT 1.5" DEPTH AND TAPERING TO 0". WILL BE MARKED BY THE ENGINEER.

ANY ADDITIONAL SKID LOADER MILLING FOR HEADERS ON INTERSECTING ROADS AND DRIVEWAYS WILL BE CONSIDERED INCIDENTAL TO THE PLACEMENT OF THE BITUMINOUS PAVEMENT.

SHLD. & SURF. QUANTITIES

ROAD # CSAH 11

PROJECT # SAP 007-611-015

LOCATION	LENGTH FEET	AVER WIDTH FEET	DEPTH INCHES	AGGR. SHLD. TON	AGGR. SURF. TON
SHOULDER CL-1					
STA 99 + 40 TO STA 223 + 45 RT	12405	6	1.5	651	
STA 227 + 25 TO STA 256 + 25 RT	2900	6	1.5	152	
STA 99 + 40 TO STA 256 + 25 LT	15685	6	1.5	823	
MATERIAL FOR FIELD ENTRANCES				160	
AGGR. SURFACING CL-2					
7 DRIVEWAYS @					35
6 INTERSECTIONS @					30
TOTAL				1787	65

CERT. BY


PROFESSIONAL ENGINEER

LIC. No. 45887 MAR. 10, 2025

S.A.P. 007-611-015 SHEET No. 4 OF 7 SHEETS

CSAH 11 SUPERPAVE BITUM. CALCULATIONS

LOCATION						LENGTH FEET	AVER WIDTH FEET	DEPTH INCHES	WEAR TON	
BITUM. WEAR										
	STA	99 + 40	TO	STA	256 + 25	15685	28	1.5	4136	
	STA	223 + 45	TO	STA	227 + 25	380	4	1.5	14	
					RT					
GRADE CORRECTION										
	STA	99 + 40	TO	STA	256 + 25				250	
	6	INTERSECTIONS @			30	TONS			180	
	7	DRIVEWAYS @			15	TONS			105	
	7	MAILBOX PADS @			175	LENGTH	1225	4	1.5	46
TOTAL									4731	

Station to Station LOC.					WHITE - PAINT			YELLOW - PAINT	
					4" SOLID	24" SOLID	PVT MSG STOP AHEAD	4" BROKEN	4" SOLID
					LIN FT	LIN FT	SQ. FT.	LIN FT	LIN FT
99 + 40	to	255 + 74	CL					3,130	
100 + 61	to	149 + 98	LT		4,937				
100 + 61	to	149 + 98	RT		4,937				
139 + 87	to	145 + 45	CL						558
148 + 48	to	153 + 80	CL						532
151 + 22	to	202 + 76	LT		5,154				
151 + 22	to	202 + 76	RT		5,154				
203 + 97	to	255 + 74	LT		5,177				
203 + 97	to	255 + 74	RT		5,177				
219 + 4	to	226 + 15	CL						711
227 + 60	to	235 + 3	CL						743
251 + 53			RT				49.86		
255 + 69			RT			14			
TOTALS					30,536	14	49.86	3,130	2,544

CERT. BY

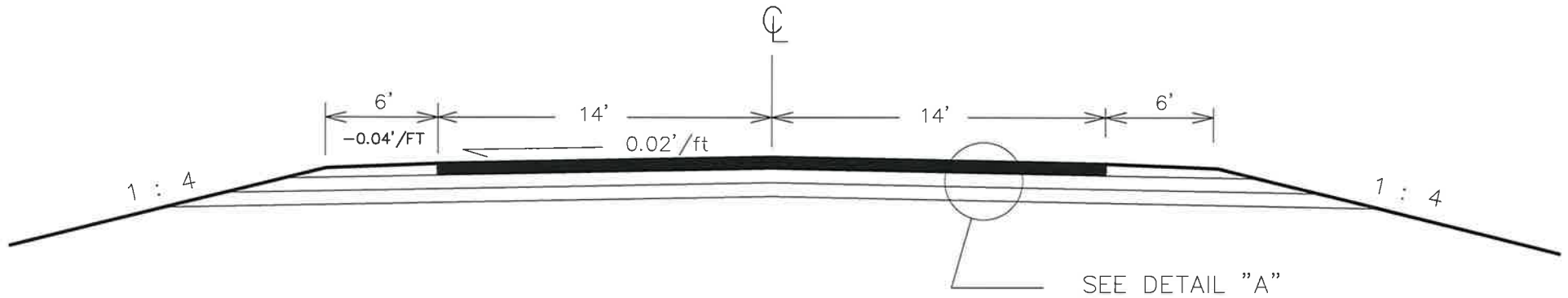
Ayan Shilges
PROFESSIONAL ENGINEER

LIC. No. 45887 MAR. 10, 2025

S.A.P. 007-611-015 SHEET No. 5 OF 7 SHEETS

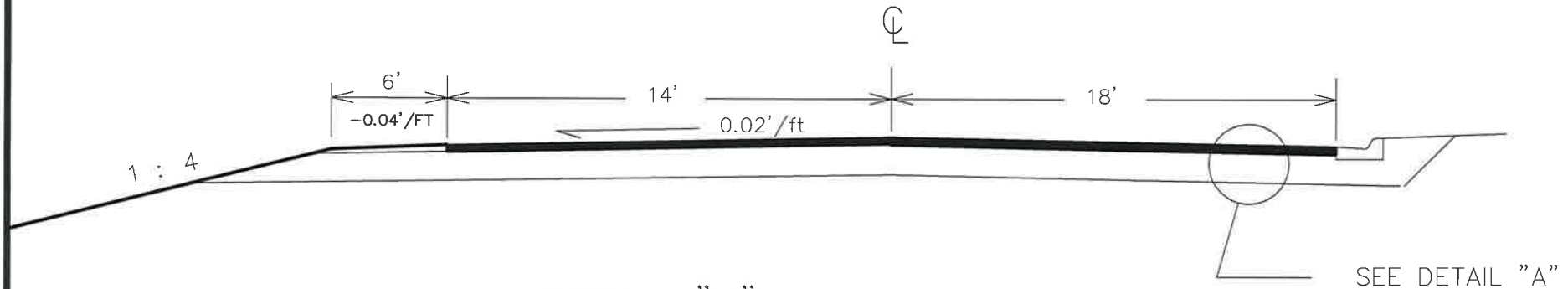
TYPICAL SECTION

STA 99 + 40 TO STA 223 + 45
STA 227 + 25 TO STA 256 + 25

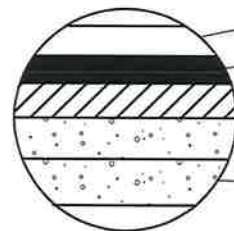


TYPICAL SECTION

STA 223 + 45 TO STA 227 + 25



DETAIL "A"



- 1.5" WEARING COURSE MIXTURE (2360)
- INPLACE 2" WEARING COURSE MIXTURE (2360)
- INPLACE 2" BINDER COURSE MIXTURE (2360)
- INPLACE 4" AGGR. BASE CL-5 (2211)
- INPLACE 8" FULL DEPTH RECLAIM/SALVAGED AGGREGATE

CERT. BY

Ayan Thilges
PROFESSIONAL ENGINEER

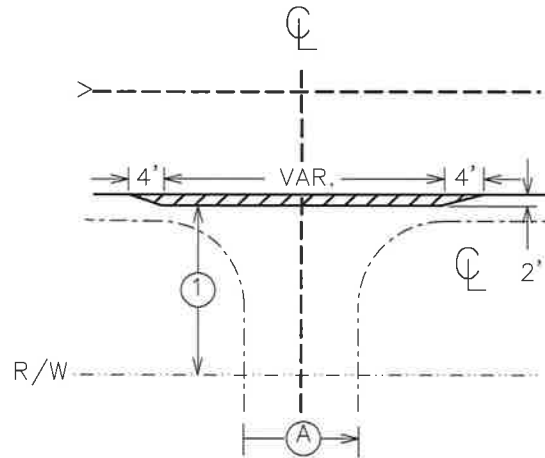
LIC. No. 45887 MAR. 10, 2025

S.A.P. 007-611-015

SHEET No. 6 OF 7 SHEETS

BITUMINOUS APPROACHES AND ENTRANCES DETAIL

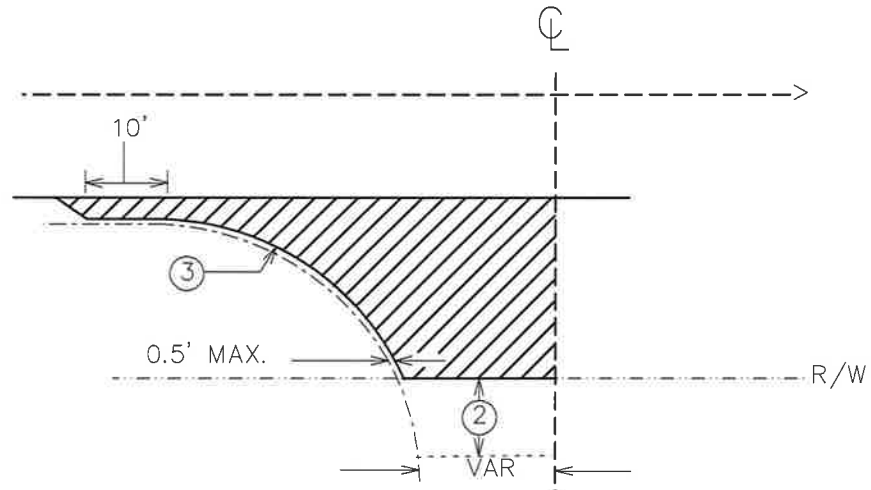
FIELD ENTRANCE



(A) 20' FOR SINGLE F.E.
28' FOR DOUBLE F.E.

MINIMUM DEPTH 1.5" OF BIT

ROAD APPROACH



MINIMUM DEPTH 1.5" OF BIT

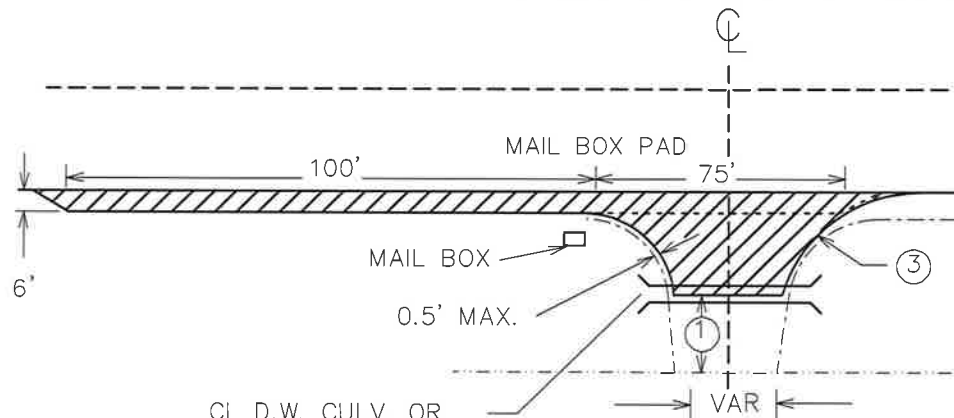
- ① FINISH WITH AGGR. MATERIAL FROM EDGE OF BITUM. TO A MIN. OF 10' BEHIND BITUM.
- ② FINISH WITH AGGR. MATERIAL, MIN. OF 10'.
- ③ BITUM. RADIUS TO BE STAKED IN FIELD BY THE ENGINEER - 25' MIN. (FOR FARM D.W. CONSIDER 30' TO 40' MAX.)

CONTRACTOR WILL BE REQUIRED TO SHAPE & NOTCH ALL DRIVEWAYS, INTERSECTIONS & MAIL BOX PADS THAT ARE NOT ALREADY PAVED AS DIRECTED BY THE ENGINEER. WORK SHALL BE DONE INCIDENTAL TO THE WEAR.

CONTRACTOR WILL BE REQUIRED TO HAND FINISH SHOULDERS ON ALL APPROACHES AND ENTRANCES AS DIRECTED BY THE ENGINEER.

ANY ADDITIONAL WORK ASSOCIATED WITH BRIDGE WINGWALL PAVING AND SKID LOADER MILLING FOR HEADERS ON INTERSECTING ROADS WILL BE CONSIDERED INCIDENTAL TO PLACEMENT OF THE BITUMINOUS PAVEMENT.

FARM & OTHER ENTRANCES



CL D.W. CULV. OR
CENTER OF DITCH

MINIMUM DEPTH 1.5" OF BIT