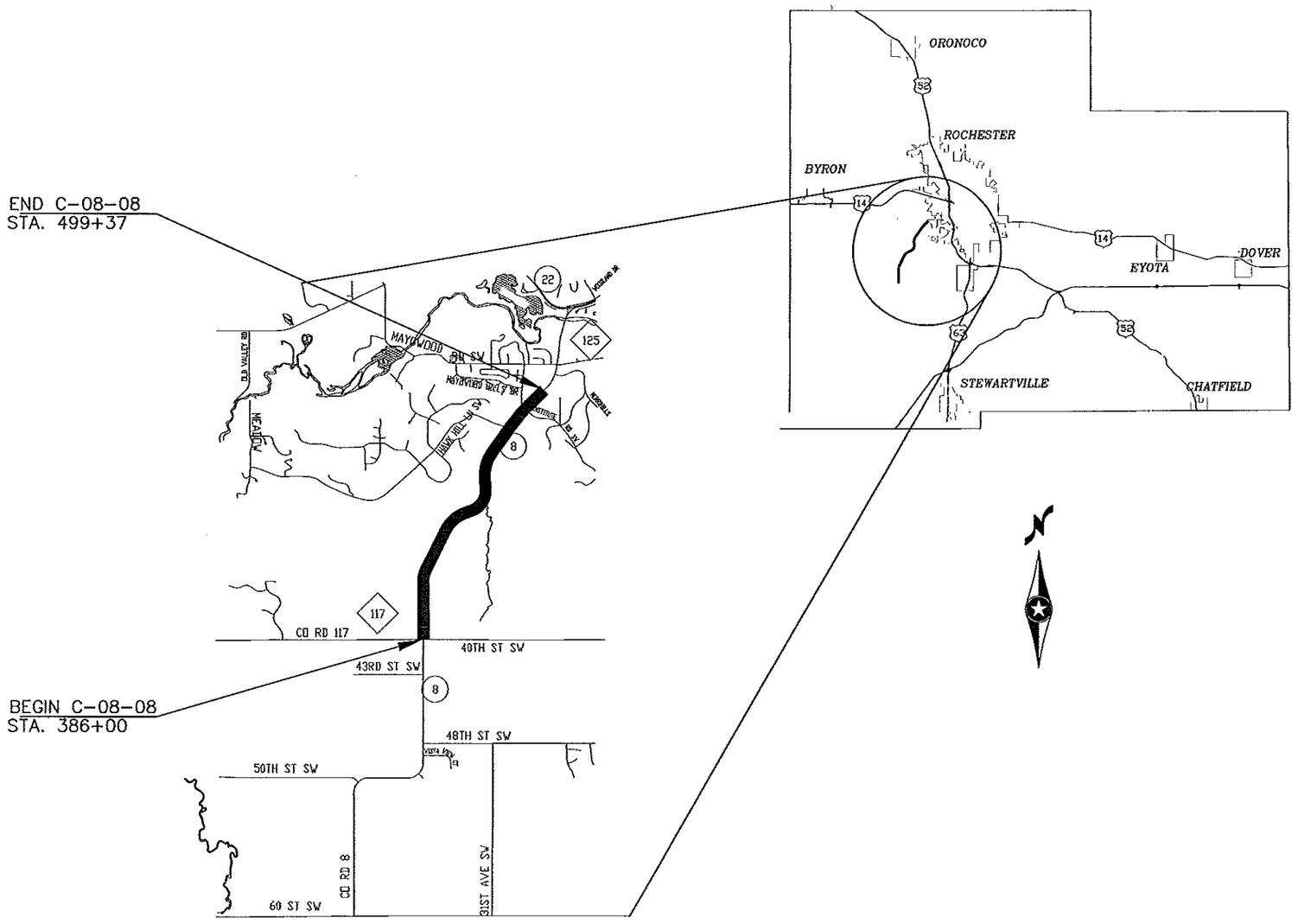
MINNESOTA DEPARTMENT OF TRANSPORTATION
THE COUNTY OF OLMSTED
CONSTRUCTION PLAN FOR BITUMINOUS RECLAMATION, BITUMINOUS MILLING, BITUMINOUS OVERLAY, AND BITUMINOUS SHOULDERS

LOCATED ON C.S.A.H. 8 BETWEEN C.R. 125 AND C.R. 117 (GEOGRAPHIC DESCRIPTION)

FROM APPROX. 1478' SO. NE. COR. SEC. 13 T106N–R15W TO 333.15' E. AND 130.66' N.E. W. 1/4 COR. SEC. 19 T107–R14W (LEGAL DESCRIPTION)

C–08–08 (C.S.A.H. 8)

GROSS LENGTH	11337	FEET	2.15	MILES
BRIDGE–LENGTH	0.00	FEET	0.00	MILES
EXCEPTIONS–LENGTH	0.00	FEET	0.00	MILES
NET LENGTH	11337	FEET	2.15	MILES



COUNTY PROJECT C–08–08

GOVERNING SPECIFICATIONS

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

INDEX

SHEET NO. 1	TITLE SHEET
SHEET NO. 2	ESTIMATED QUANTITIES
SHEET NO. 3	TYPICAL SECTIONS
SHEET NO. 4	ENTRANCE DETAILS
SHEET NO. 5	STRIPING PLAN
SHEET NO. 6	EDGE LINE RUMBLE STRIP DETAILS
SHEET NO. 7	TRAFFIC CONTROL

THIS PLAN CONTAINS 7 SHEETS

C.S.A.H. 8

GRADING & AGGREGATE BASE UNDER:

GRADING: 55–608–02	1961
BASE AND BITUMINOUS: 55–608–C	1963

BITUMINOUS OVERLAY UNDER:

PROJECT C–77–2, C–87–1	1977&1987

DESIGN DESIGNATION: C–08–08

R ____ ΣN18 (20) ____

ADT (Current Year)= 3677 (2008) Design Speed 40 mph

ADT (Future Year) = 5884 (2028) Based on STOPPING Sight Distance

Height of eye 3.5' Height of object 2.0'

DHV (Design Hr. Vol.)= ____ Design Speed not achieved at:____

D (Directional Distr.) = ____ STA.____TO STA.____mph ___

T (Heavy Commercial) EST. % STA.____TO STA.____mph ___

SUBGRADE = K= 150

SHOULDER WIDTH 6 ft.

FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR

SOIL FACTOR = 130

9 TON DESIGN

AS-BUILT

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DESIGN ENGINEER: I HEREBY CERTIFY THAT THIS PLAN 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.

DATE 3/17/08 REG. NUMBER 19917

PRINTED NAME: KAYE M BIENIEK

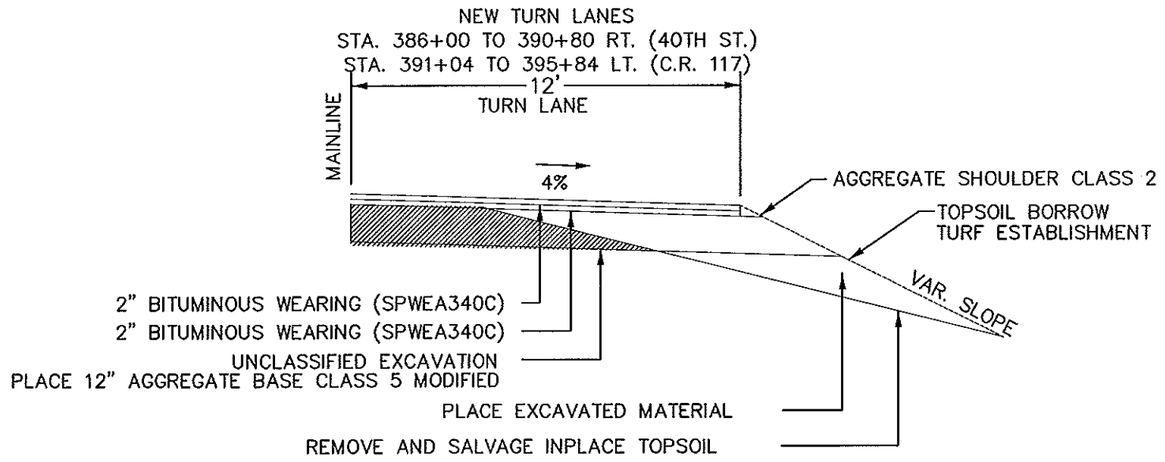
SIGNED NAME: Kaye M Bieniek

COUNTY DESIGN ENGINEER

DATE 3/17/08 REG. NUMBER 10397

APPROVED: OLMSTED COUNTY ENGINEER

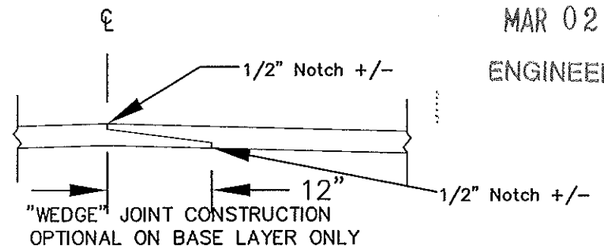
STATEMENT OF ESTIMATED QUANTITIES				
	ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES
①	2105.602	CONSTRUCT TURN LANE	EACH	2
②	2211.501	AGGREGATE BASE, CLASS 5 MODIFIED	TON	1192
③	2221.501	AGGREGATE SHOULDERING, CLASS 2	TON	858
	2232.501	MILL BITUMINOUS SURFACE	SQ.YD.	9005
	2232.603	MILLED RUMBLE STRIPS–INTERMITTENT	LN. FT.	15429
④	2331.604	BITUMINOUS PAVEMENT RECLAMATION	SQ. YD.	41977
⑤	2331.607	HAUL BITUMINOUS PAVEMENT RECLAMATION (LV)	CU. YD.	134
⑥	2360.501	TYPE SP 12.5 WEARING COURSE MIXTURE (3,C)	TON	9906
	2563.601	TRAFFIC CONTROL	LUMP SUM	1
	2580.603	INTERIM PAVEMENT MARKING	LIN. FT.	24510
	2582.502	4" SOLID LINE WHITE–EPOXY	LIN. FT.	22674
	2582.502	4" SOLID LINE YELLOW–EPOXY	LIN. FT.	3795
	2582.502	4" BROKEN LINE YELLOW–EPOXY	LIN. FT.	1495
	2582.502	4" DOUBLE SOLID LINE YELLOW–EPOXY	LIN. FT.	3856



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CONSTRUCTION NOTES:

① EXCAVATION, ANY TOPSOIL BORROW AND TURF ESTABLISHMENT ARE INCIDENTAL TO THIS ITEM.

② QUANTITY TO BE USED FOR CORRECTION OF THE SUBGRADE AS DIRECTED BY THE ENGINEER. SPECIFICATION NO. 1903 DOES NOT APPLY FOR THIS ITEM.

③ QUANTITY INCLUDES 64 TON FOR ROAD APPROACHES, AND FARM/RESIDENTIAL/FIELD ENTRANCES (SEE SHEET 4).

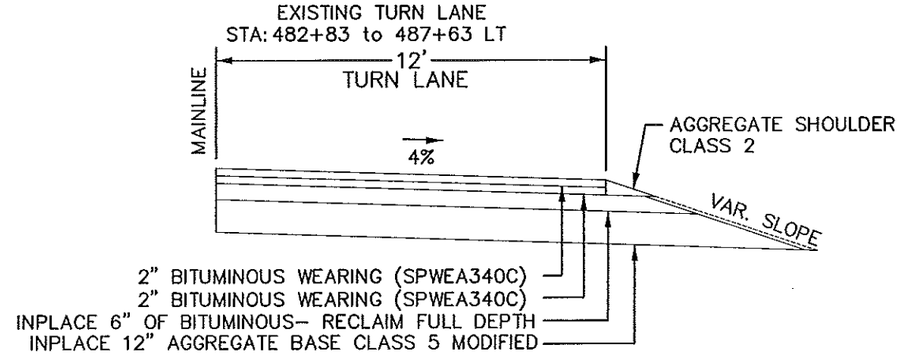
④ QUANTITY INCLUDES 1005 SQUARE YARDS FOR ROAD APPROACHES.

⑤ QUANTITY TO BE USED TO MOVE AND UTILIZE EXCESS MATERIAL ON PROJECT AS DIRECTED BY THE ENGINEER.

⑥ QUANTITY INCLUDES 148 TON FOR ROAD APPROACHES, AND FARM/RESIDENTIAL ENTRANCES.

QUANTITY NOTES

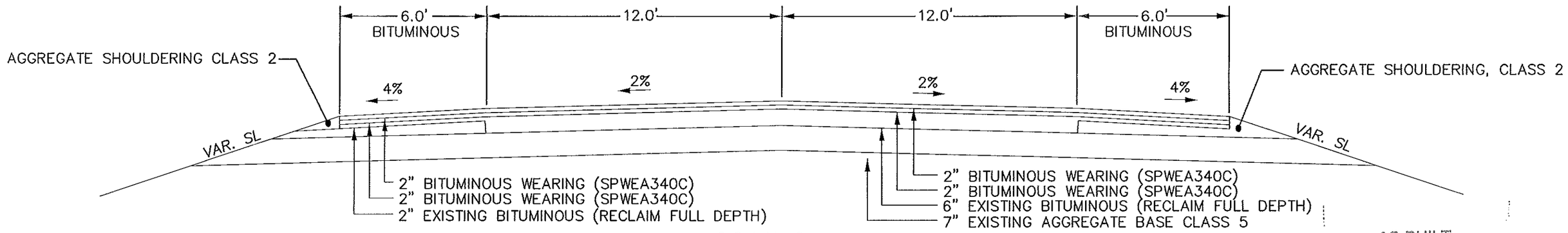
AGGREGATE BASE, SHOULDERING – 140 LBS / CU. FT. COMPACTED
2360 BITUMINOUS MIXTURE – 110 LBS. / SQ. YD. / INCH OF DEPTH
BITUMINOUS MATERIAL FOR TACK COAT – 0.05 GALLONS / SQ. YD.
SEED MIXTURE 110B – 100 LBS/ACRE
SEED MIXTURE 150 – 40 LBS/ACRE
SEED MIXTURE 250 – 70 LBS/ACRE
MULCH MATERIAL – 2 TONS/ACRE
DISK ANCHORING – ALL SEEDING AREAS EXCEPT 1:2 SLOPES
COMMERCIAL FERTILIZER – 200 LBS/ACRE



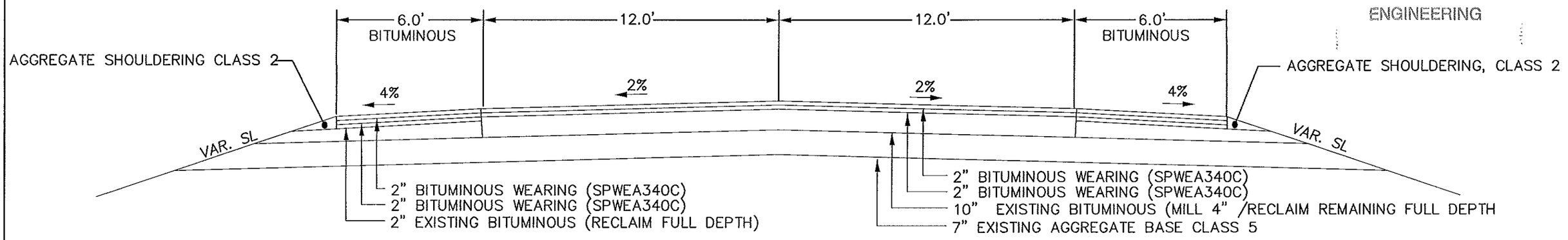
ESTIMATED QUANTITIES

CERTIFIED BY Kaye M Bienick LICENSED PROFESSIONAL ENGINEER REG. NO. 19917 3/17 2008

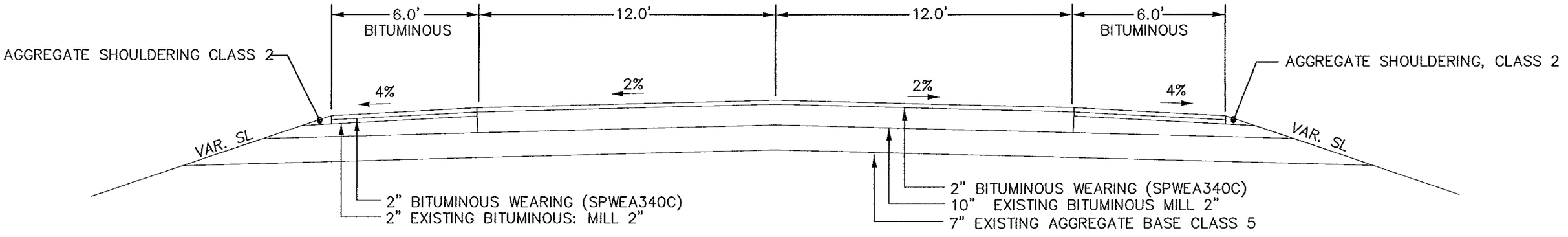
C.S.A.H. 8
STA. 386+00 TO 471+47
℄



C.S.A.H. 8
STA. 471+47 TO 487+63
℄



C.S.A.H. 8
STA. 487+63 TO 499+37
℄



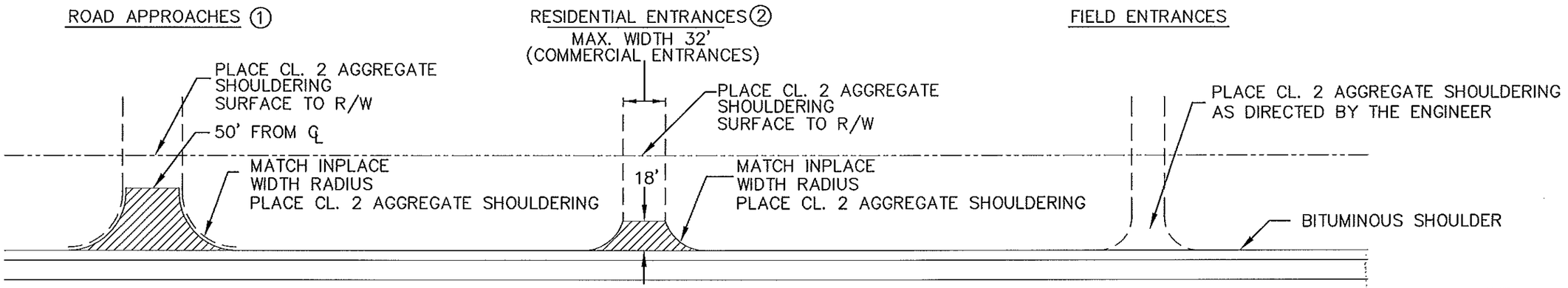
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TYPICAL SECTIONS C.S.A.H. 8

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PROJECT C-08-08 C.S.A.H.8 SHEET NO. 3 OF 7 SHEETS

COMMERCIAL ENTRANCES
FARM OR RESIDENTIAL ENTRANCES



	ROAD APPROACHES	FARM OR RESIDENTIAL ENTRANCES	FIELD ENTRANCES
C.S.A.H. 8	3	3	8

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① ON ROAD APPROACHES, RECLAIM INPLACE BITUMINOUS AND PLACE TWO–2" LIFTS OF BITUMINOUS.

② ON RESIDENTIAL ENTRANCES, RECLAIM TO A POINT 14 FT. FROM CENTER LINE AND OVERLAY INPLACE BITUMINOUS WITH ONE–2" LIFT OF WEAR. CLASS 5 AGG. BASE MAY BE REQUIRED TO SHAPE RES. DRIVES PRIOR TO PLACEMENT OF BITUMINOUS ALL COSTS ASSOCIATED WITH PLACEMENT WILL BE INCLUDED IN BID PRICE FOR CLASS 5 AGG. BASE.

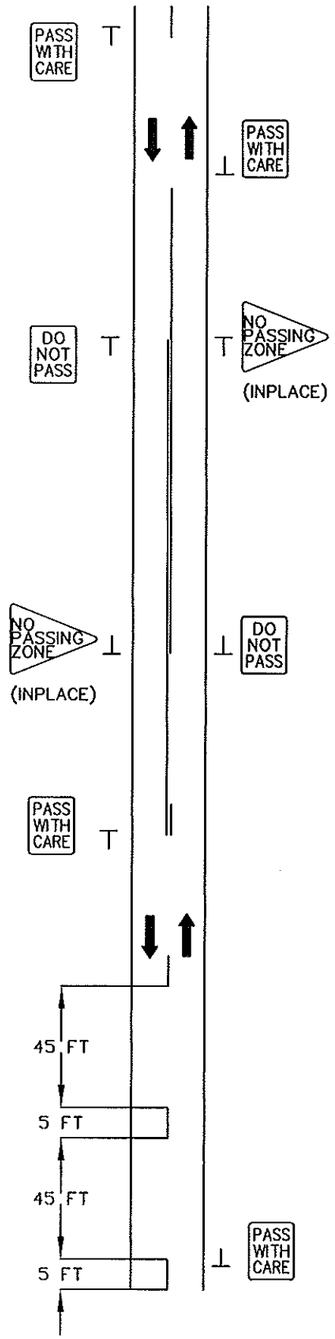
▨ BITUMINOUS SURFACE

TYPICAL ENTRANCE DETAILS

CERTIFIED BY Kaye M Bienieh LICENSED PROFESSIONAL ENGINEER REG. NO. 19917 3/17 2008

PROJECT C–08–08 SHEET NO. 4 OF 7 SHEETS

INTERIM PAVEMENT MARKING LAYOUT
TWO LANE, UNDIVIDED



GENERAL NOTES:

1. PASS WITH CARE AND DO NOT PASS SIGNS SHALL BE INSTALLED AS SOON AS INPLACE PAVEMENT MARKINGS ARE REMOVED (I.E. MILLING OR BITUMINOUS RECLAMATION).
2. INTERIM PAVEMENT MARKINGS SHALL BE INSTALLED ON FULL WIDTH, PAVED SECTIONS, OF THE ROADWAY AT THE END OF EACH DAYS PAVING OPERATIONS.
3. PLACEMENT OF INTERIM PAVEMENT MARKINGS SHALL BE DURING DAYLIGHT HOURS.
4. MATERIAL USED FOR INTERIM PAVEMENT MARKINGS SHALL BE HIGH SOLIDS WATER BASED TRAFFIC PAINT. APPLIED AT A 10 MIL THICKNESS.
5. ALL PERMANENT PAVEMENT MARKINGS INCLUDING EDGE LINES, AND CENTERLINE MARKINGS, SHALL BE INSTALLED WITHIN 14 CALENDAR DAYS AFTER COMPLETION OF AGGREGATE SHOULDERING OPERATIONS.

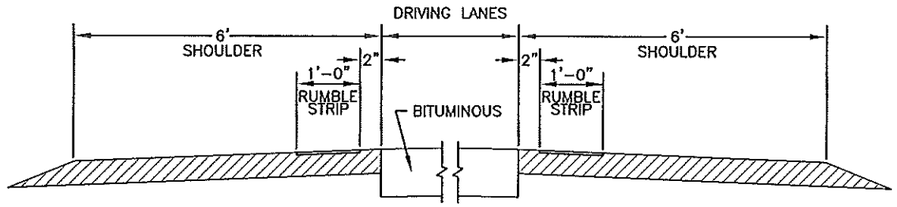
EMERGENCY SITUATIONS:

1. IN THE EVENT THAT IT IS NOT POSSIBLE TO INSTALL INTERIM PAVEMENT MARKING, REFLECTORIZED CONES SHALL BE USED TO DELINEATE THE CENTER LINE, CONTINUOUS SURVEILLANCE (24 HOURS PER DAY) OF THE CONES SHALL BE MAINTAINED. SPACING OF THE CHANNELIZING DEVICES SHALL BE 100 FT IN AREAS WHERE THE SPEED LIMIT IS 45 MPH OR GREATER AND 50 FT WHERE THE SPEED LIMIT IS 40 MPH OR LESS. THE CONTRACTOR SHALL HAVE AVAILABLE, A SUFFICIENT NUMBER OF REFLECTORIZED CONES OR OTHER PRE-APPROVED DEVICES TO COVER THE LENGTH OF ONE DAYS PAVING. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 2580.603 INTERIM PAVEMENT MARKING.

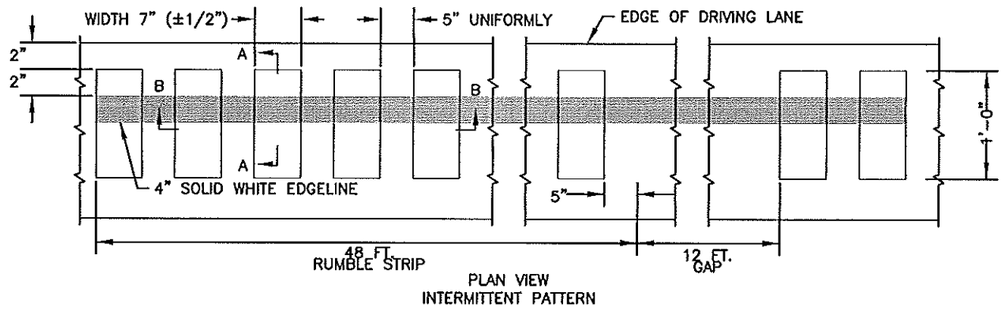
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MAR 02 2008

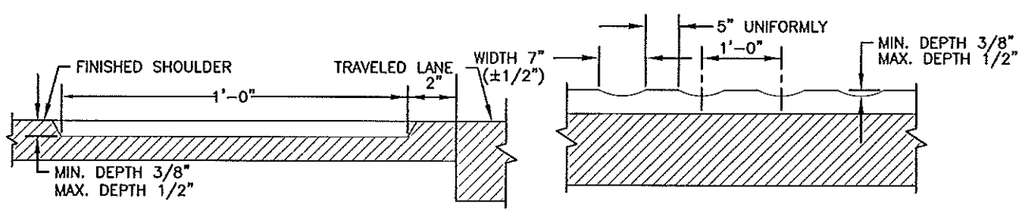
CERTIFIED BY Kaye M Briesch REG. NO. 19917 3/17 2008
LICENSED PROFESSIONAL ENGINEER



SECTION VIEW OF TWO-LANE ROADWAY
(WITH 6'-0" TO 10'-0" PAVED SHOULDERS)

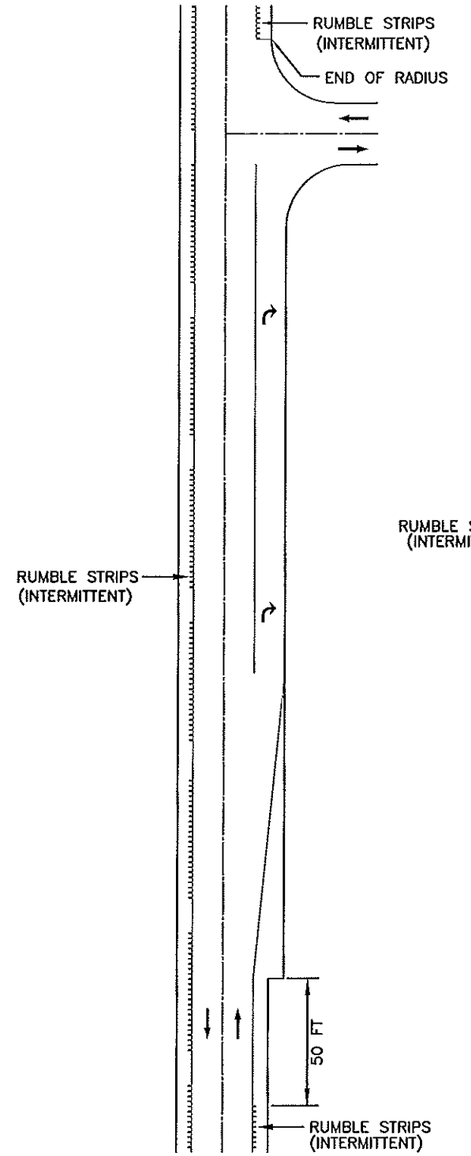


PLAN VIEW
INTERMITTENT PATTERN

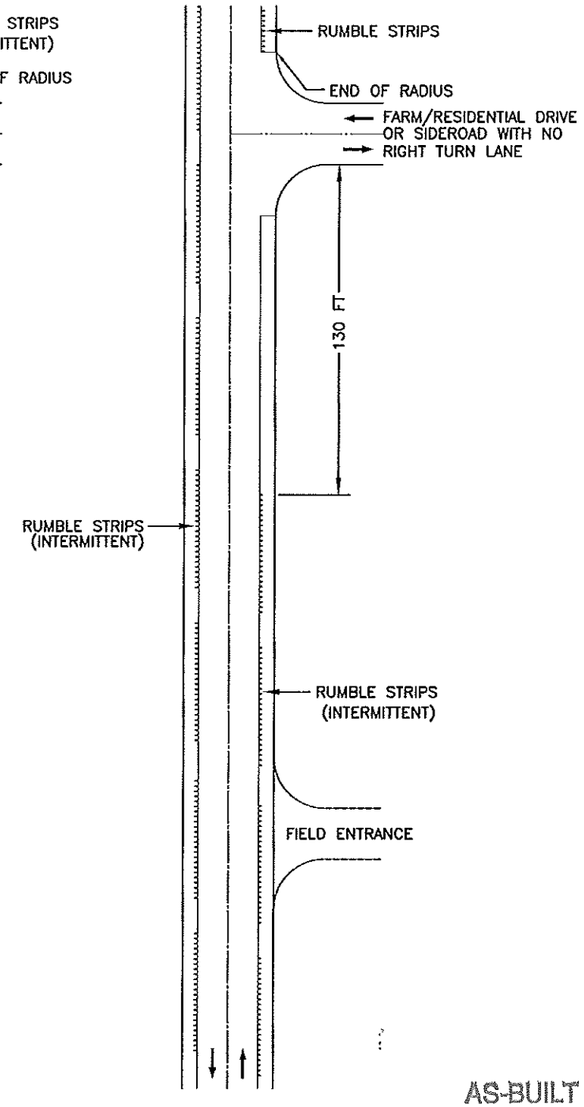


SECTION A-A

SECTION B-B



RIGHT TURN LANE



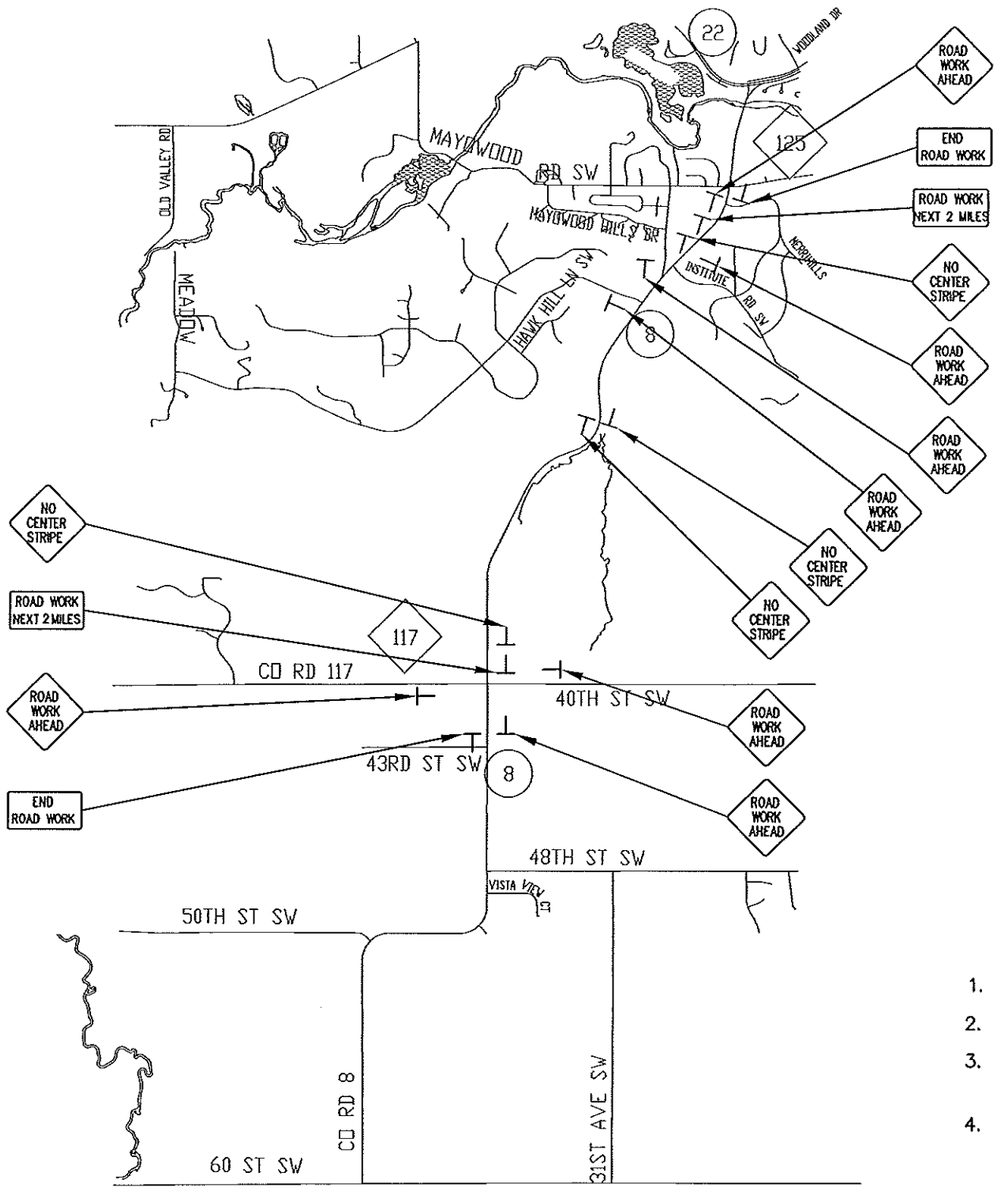
DRIVEWAYS AND ENTRANCES

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LICENSED PROFESSIONAL ENGINEER

PROJECT C-08-08 C.S.A.H. 8 SHEET NO. 6 OF 7 SHEETS



ESTIMATE OF TRAFFIC CONTROL DEVICES

DEVICE	NUMBER	SIZE (INCHES)	COLOR	C.S.A.H. 8	TOTAL QUANTITY
DO NOT PASS	R4-1	24 x 30	BLK/WH	4	4
PASS WITH CARE	R4-2	24 x 30	BLK/WH	6	6
LOW SHOULDER	W8-9	48 x 48	BLK/OR	— — —	SEE NOTE #5
UNEVEN LANES	W8-11	48 x 48	BLK/OR	— — —	SEE NOTE #5
NO CENTER STRIPE	W8-12	48 x 48	BLK/OR	4	4
ROAD WORK AHEAD	W20-1	48 x 48	BLK/OR	7	7
NO SHOULDER	W21-X1	48 x 48	BLK/OR	— — —	SEE NOTE #5
END ROAD WORK	G20-2A	48 x 24	BLK/OR	2	2
ROAD WORK NEXT 2 MILES	G20-2A	48 x 24	BLK/OR	2	2
	REBOUNDABLE PLASTIC DRUM	APPROX. 36"	OR & WH	— — —	SEE NOTE #5

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TRAFFIC CONTROL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL FOR THIS PROJECT.
2. THE LOCATION OF SIGNS AND DEVICES WILL BE STAKED BY THE ENGINEER IN THE FIELD.
3. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING THE TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS FIELD MANUAL.
4. CONSTRUCTION ZONE SIGNING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND WILL INCLUDE, BUT NOT BE LIMITED TO SIGNS FOR LANE CLOSURES, MACHINERY AHEAD, BUMP, DIP, LOOSE GRAVEL, ETC. THE NUMBER AND LOCATION WILL BE DETERMINED BY THE CONTRACTORS OPERATION.
5. THE CONTRACTOR SHALL INSTALL TRAFFIC CONTROL DEVICES FOR EDGE DROP OFFS AT THE END OF EACH WORK SHIFT AS THE SITUATIONS EXIST.

⊥ POST MOUNTED SIGN

C.S.A.H. 8 TRAFFIC CONTROL

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LICENSED PROFESSIONAL ENGINEER