

PLAN SYMBOLS

- COUNTY LINE _____
- TOWNSHIP OR RANGE LINE _____
- SECTION LINE _____
- QUARTER LINE _____
- SIXTEENTH LINE _____
- RIGHT OF WAY LINE _____
- SLOPE EASEMENT _____
- EXISTING RIGHT OF WAY _____
- PROPERTY LINE _____
- CORPORATE OR CITY LIMITS _____
- RETAINING WALL _____
- RAILROAD _____
- RAILROAD RIGHT OF WAY _____
- RIVER OR CREEK _____
- DRAINAGE DITCH _____
- CULVERT _____
- DROP INLET _____
- GUARD RAIL _____
- BARBED WIRE FENCE _____
- WOVEN WIRE FENCE _____
- CHAIN LINK FENCE _____
- WOOD FENCE _____
- STONE WALL OR FENCE _____
- HEDGE _____

- LOWLAND _____
- TIMBER _____
- ORCHARD _____
- BRUSH _____
- NURSERY _____
- CATTLE GUARD _____
- OVERPASS (Highway Over) _____
- UNDERPASS (Highway Under) _____
- BRIDGE _____
- BUILDING (One Story Frame) _____
- F-FRAME C-CONCRETE _____
- S-STONE T-TILE _____
- B-BRICK ST-STUCCO _____
- RAILROAD CROSSING BELL _____
- RAILROAD CROSSING GATE _____
- MANHOLE _____
- CATCH BASIN _____
- FIRE HYDRANT _____
- CAST IRON MONUMENT _____
- IRON PIN _____
- GRAVEL PIT _____
- SAND PIT _____
- BORROW PIT _____
- ROCK QUARRY _____

- UTILITY SYMBOLS
- POWER POLE LINE _____
 - TELEPHONE OR TELEGRAPH POLE LINE _____
 - JOINT TELEPHONE & POWER ON POWER POLES _____
 - ON TELEPHONE POLES _____
 - ANCHOR _____
 - STEEL TOWER _____
 - STREET LIGHT _____
 - PEDESTAL (Cable Terminal) _____
 - GAS MAIN _____
 - WATER MAIN _____
 - TELEPHONE CABLE IN CONDUIT _____
 - ELECTRIC CABLE IN CONDUIT _____
 - TELEPHONE MANHOLE _____
 - ELECTRIC MANHOLE _____
 - BURIED TELEPHONE CABLE _____
 - BURIED ELECTRIC CABLE _____
 - SEWER (Sanitary or Storm) _____
 - SEWER MANHOLE _____

- SCALES
- PLAN _____
 - PROFILE _____
 - HORIZONTAL _____
 - VERTICAL _____
 - X-SECTIONS _____
 - HORIZONTAL _____
 - INDEX MAP _____

MINNESOTA DEPARTMENT OF TRANSPORTATION ANOKA COUNTY

2" BITUMINOUS OVERLAY, AGGREGATE
CONSTRUCTION PLAN FOR SHOULDERING, BIT. WIDENING FOR RIGHT TURN LANE
LOCATED ON C.R. 67 BETWEEN 100' S OF 181ST AVE. NW AND CSAH 22

CO. PROJ. NO. 11-23-67

C.R. 67

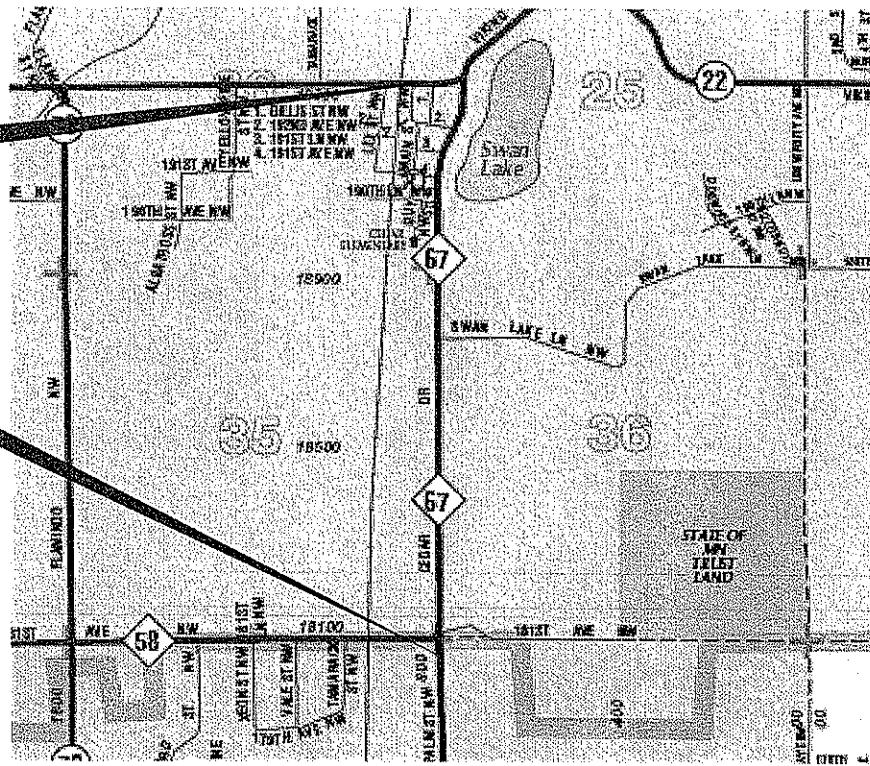
GROSS LENGTH	<u>8175 FEET</u>	<u>1.548 MILES</u>
BRIDGES-LENGTH	<u>0.00 FEET</u>	<u>0.000 MILES</u>
EXCEPTIONS-LENGTH	<u>0.00 FEET</u>	<u>0.000 MILES</u>
NET LENGTH	<u>8175 FEET</u>	<u>1.548 MILES</u>

GOVERNING SPECIFICATIONS

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE INSTALLED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MNMUTCD), AND PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS."

INDEX

SHEET NO.	DESCRIPTION
<u>1</u>	<u>TITLE SHEET</u>
<u>2</u>	<u>STATEMENT OF ESTIMATED QUANTITIES</u>
<u>3-4</u>	<u>TYPICAL SECTIONS</u>
<u>5-6</u>	<u>MISCELLANEOUS DETAILS</u>
<u>7</u>	<u>CALCULATIONS FOR RIGHT TURN LANE</u>
<u>8-10</u>	<u>CONSTRUCTION PLAN</u>
<u>11-16</u>	<u>SIGNING & STRIPING PLAN, TAB., & DETAILS</u>



END C.P. 11-23-67
C.R. 67 STA. 90+96

BEGIN C.P. 11-23-67
C.R. 67 STA. 9+21

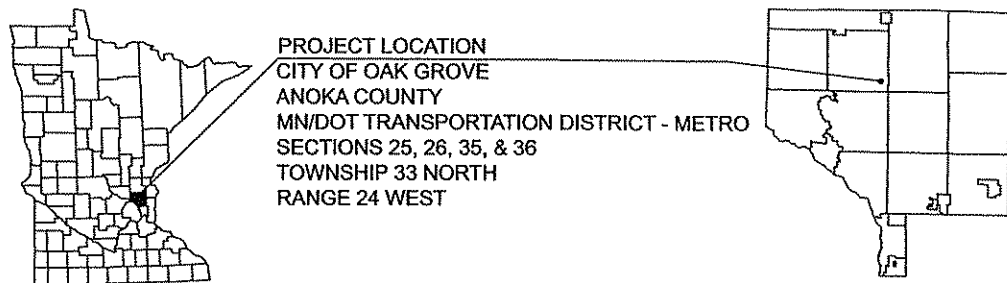
THIS PLAN CONTAINS 16 SHEETS

DESIGN DESIGNATION

ESAL 20	<u>000</u>
R VALUE	<u>000</u>
ADT (2010) =	<u>900</u>
Proj. ADT (2030) =	<u>1474</u>
Proj. HCA DT (2030) =	<u>000</u>
Soil Factor	<u>NA</u>
<u>10</u> TON DESIGN	

Functional Classification	<u>MAJOR COLLECTOR</u>
No. of Traffic Lanes	<u>2</u> No. of Parking Lanes <u>0</u>
Design Speed	<u>55</u> MPH <u>N/A</u>
Based on Stopping Sight Distance	<u>N/A</u>
Height of eye	<u>3.5'</u> Height of object <u>2.0'</u>
Design Speed not achieved at:	
STA. _____ TO STA. _____	MPH _____

Approved 4/7/2011
ANOKA COUNTY ENGINEER



NO.	DATE	BY	CHKD	APPR	REVISION
NAME: P:\11-01-00\CR_67_South of CSAH22\Plan1 Title.dgn 03/18/2011 8:16:48 AM					

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.

PRINT NAME: CHARLES CADENHEAD
SIGNATURE:
DATE: 4/7/11 LICENSE NO. 40416

DRAWN BY: SRK DATE: 2/24/2011
DESIGN BY: SRK DATE: 2/24/2011
CHECKED BY: JO DATE: _____

ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. 11-23-67

TITLE SHEET

Sheet 1 of 16 Sheets

CR 67		STATEMENT OF ESTIMATED QUANTITIES		
ITEM NO.	ITEM	NOTE NO.	UNIT	TOTAL EST. QUANT.
2021.501	MOBILIZATION		LUMP SUM	1
2104.503	REMOVE CONCRETE DRIVEWAY PAVEMENT		SQ FT	567
2104.505	REMOVE BITUMINOUS PAVEMENT	10	SQ YD	799
2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	1	LIN FT	54
2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	1	LIN FT	81
2104.523	SALVAGE SIGN TYPE C		EACH	21
2105.602	CONSTRUCT TURN LANE	8	EACH	1
2130.501	WATER		M-GAL	6
2221.501	AGGREGATE SHOULDERING CLASS 5	2	TON	424
2232.501	MILL BITUMINOUS SURFACE (2.0") (JOINTS)	1	SQ YD	227
2357.502	BITUMINOUS MATERIAL FOR TACK COAT		GALLON	1173
2360.501	TYPE SP 12.5 WEARING COURSE MIX (4,B)	7	TON	86
2360.501	TYPE SP 12.5 WEARING COURSE MIX (4,E)		TON	2696
2360.502	TYPE SP 12.5 NON-WEAR COURSE MIX (4,B)	9	TON	77
2531.507	6" CONCRETE DRIVEWAY PAVEMENT		SQ YD	63
2540.602	INSTALL MAIL BOX SUPPORT	6	EACH	21
2563.601	TRAFFIC CONTROL	3,4,5	LUMP SUM	1
2564.533	FURNISH SIGN PANEL TYPE C	11	SQ FT	37
2581.501	REMOVABLE PREFORMED PLASTIC MARKING	3	LIN FT	327
2582.502	4" SOLID LINE WHITE - EPOXY	5	LIN FT	17007
2582.502	4" SOLID LINE YELLOW - EPOXY	5	LIN FT	1294
2582.502	4" BROKEN LINE YELLOW-EPOXY	5	LIN FT	1300
2582.502	4" DOUBLE SOLID LINE YELLOW - EPOXY	5	LIN FT	1555

NOTES

1 LOCATION TO BE DETERMINED BY ENGINEER.

2 MATERIAL FOR FINISHED 1.5' GRAVEL SHOULDER AND GRAVEL ENTRANCES.

3 CL YELLOW SKIPS TO BE APPLIED AS SOON AS POSSIBLE ON EACH LIFT (MUST BE APPLIED BEFORE CONTRACTOR LEAVES FOR DAY).

4 DO NOT PASS, PASS WITH CARE, NO CENTER STRIPE, AND BUMP/BUMP AHEAD SIGNS - TO BE INPLACE DURING PAVING OPERATIONS.

5 PERMANENT MARKINGS TO BE IN PLACE WITHIN 72 HOURS OF FINAL MAINLINE PAVING.

6 MAILBOXES TO BE INSTALLED AT THE EXISTING MAILBOX LOCATION. MAILBOX MATERIALS INCIDENTAL TO INSTALLATION.

7 TO BE DONE IN A SEPARATE OPERATION FROM MAINLINE PAVING, FOR STREET APPROACHES AND DRIVEWAYS.

8 INCLUDES ALL TIME AND MATERIALS TO CONSTRUCT-COMMON EX, SELECT GRANULAR, AGG. BASE CL-5, TOPSOIL, MOTOR GRADER HRS., DOZER HRS., PNEUMATIC-TIRE ROLLER HRS., EROSION CONTROL BLANKET (TYPE 3), SEEDING, SEED AND SILT FENCE MACHINE SLICED. ESTIMATED CALCULATIONS AND QUANTITIES FOR THESE ITEMS CAN BE FOUND IN PLAN DETAILS.

9 ITEM FOR BASE COURSE IN RIGHT TURN LANE AREA.

10 ITEM INCLUDES 3' DEPTH (COMMON EXCAVATION) UNDERNEATH BITUMINOUS PAVEMENT AND SIDE SLOPE.

11 FURNISH AND INSTALL SIGN PANEL TYPE C , MOUNTING POSTS ARE INCIDENTAL TO ITEM.

BASIS OF PLANNED QUANTITIES

2221.501 AGGREGATE SHOULDERING CLASS 5 CU YDS * 1.8 = TONS

2357.502 BITUMINOUS MATERIAL FOR TACK COAT .05 GAL / SQ YD

2360.501 TYPE SP 12.5 WEARING COURSE (SPWEB440E) (4,E) 115 LBS/SQYD/IN THICKNESS

2360.501 TYPE SP 12.5 WEARING COURSE (SPWEB440B) (4,B) 115 LBS/SQYD/IN THICKNESS

2360.502 TYPE SP 12.5 NON-WEAR COURSE (SPNWB440B) (4,B) 115 LBS/SQYD/IN THICKNESS

2581.501 REMOVABLE PREFORM PLASTIC MARKINGS 2' AT 50' INTERVALS FOR SKIPS

NO	DATE	BY	CHKD	APPR	REVISION
NAME: P:11-01-001CR_67_(South_of_CSAH22)Plan2 Seq.dgn					
04/05/2011 3:58:25 PM					

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.

PRINT NAME: CHARLES CADENHEAD

SIGNATURE: *[Signature]*

DATE: 4/7/11 LICENSE NO. #40416

DRAWN BY SRK DATE 2/24/2011

DESIGN BY SRK DATE 2/24/2011

CHECKED BY JO DATE



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____

STATE AID PROJECT NO. _____

CITY PROJECT NO. _____

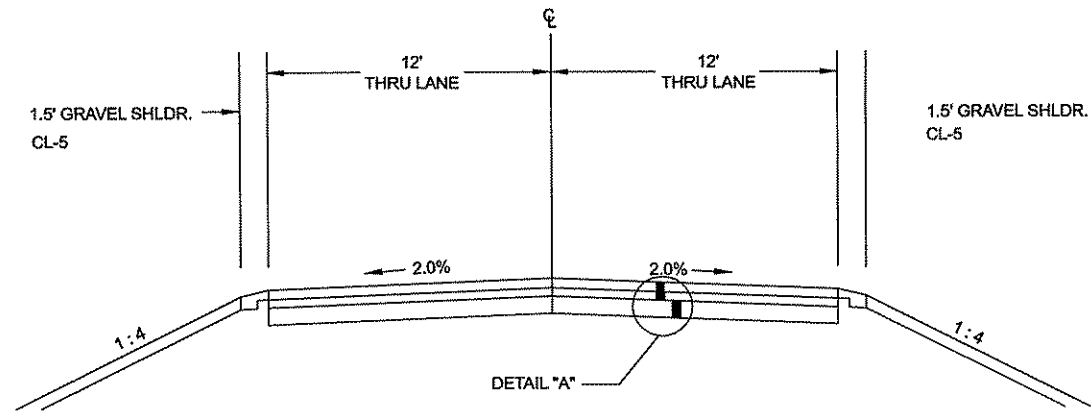
COUNTY PROJECT NO. 11-23-67

STATEMENT OF ESTIMATED QUANTITIES

Sheet 2 of 16 Sheets

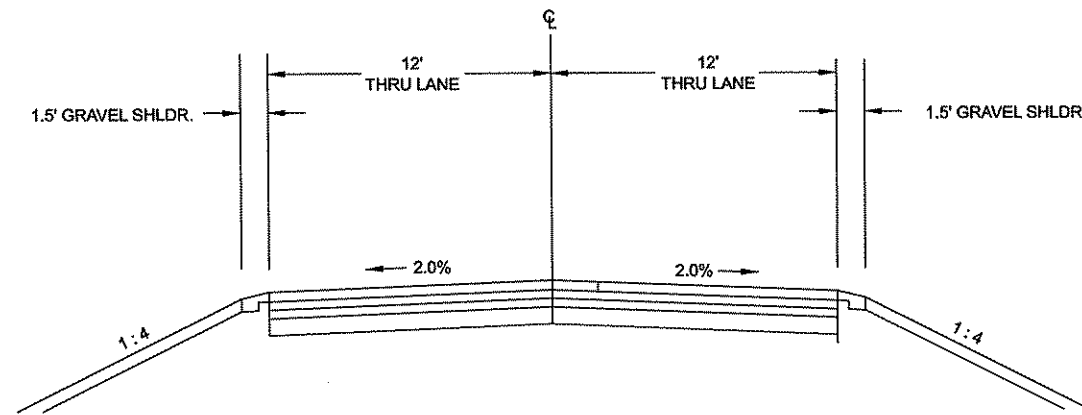
EXISTING TYPICAL SECTION

STA. 9+21 - 90+96

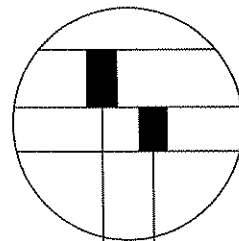


PROPOSED TYPICAL SECTION

STA. 9+21 - 86+16

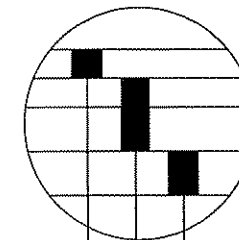


DETAIL "A"



EXISTING BITUMINOUS
6.0" CL - 5A AGG. BASE

DETAIL "B"



2" TYP SP 12.5 WEAR COURSE (SPWEB440E)
EXISTING BITUMINOUS
6.0" CL - 5A AGG. BASE

NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\11-01-00\CR_67_(South_of_CSAH22)\Plan\4 Details.dgn 03/18/2011 8:16:54 AM

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.
 PRINT NAME: CHARLES CADENHEAD
 SIGNATURE: *[Signature]*
 DATE: 3/18/11 LICENSE NO. 40416

DRAWN BY SRK DATE 2/24/2011
 DESIGN BY SRK DATE 2/24/2011
 CHECKED BY JO DATE



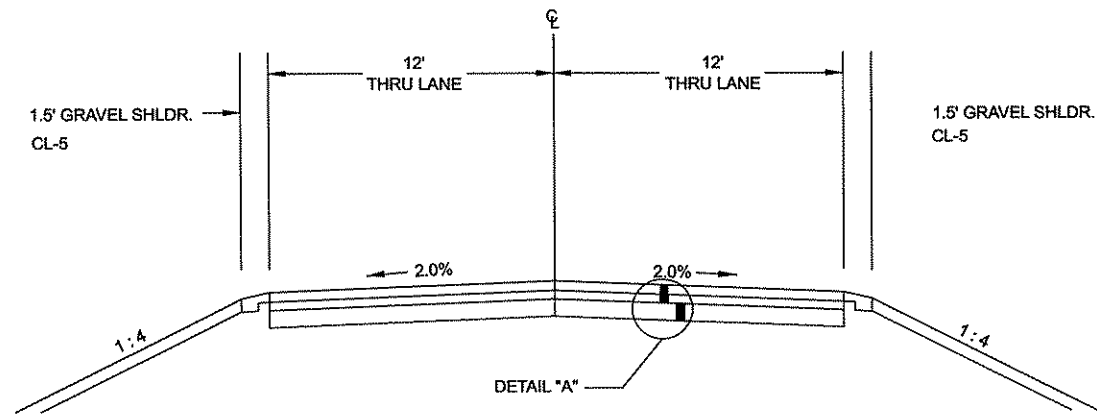
**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 11-23-67

TYPICAL SECTION
 Sheet 3 of 16 Sheets

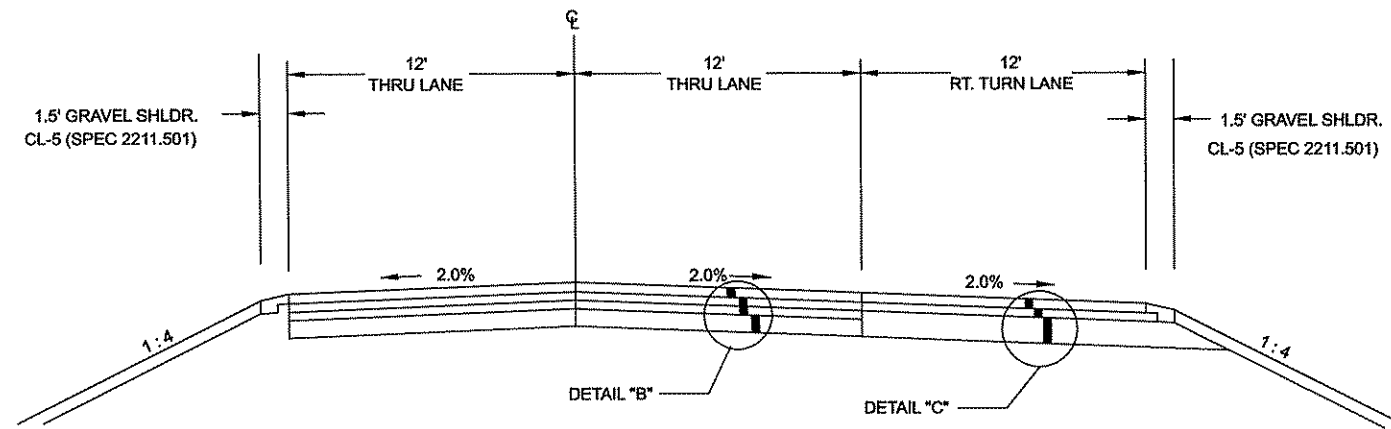
EXISTING TYPICAL SECTION (RT. TURN LANE - LNB)

STA. 86+16 - 90+96

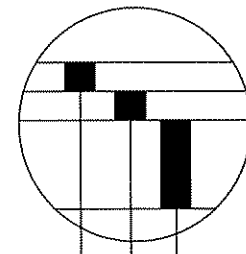


PROPOSED TYPICAL SECTION (RT. TURN LANE - LNB)

STA. 86+16 - 90+96



DETAIL "C"



- 2.0" TYP SP 12.5 WEAR COURSE (SPWEB440E)
- 2.0" TYP SP 12.5 NON-WEAR COURSE (SPNWB440B)
- 6.0" CL - 5A AGG. BASE

NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\11-01-G01CR_67_South_of_CSAH22\Plan4 Details.dgn 03/18/2011 8:19:11 AM

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.

PRINT NAME: CHARLES CADENHEAD

SIGNATURE: *[Signature]*

DATE: 4/7/11 LICENSE NO. 40416

DRAWN BY: SRK DATE: 2/24/2011

DESIGN BY: SRK DATE: 2/24/2011

CHECKED BY: JO DATE: _____



**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____

STATE AID PROJECT NO. _____

CITY PROJECT NO. _____

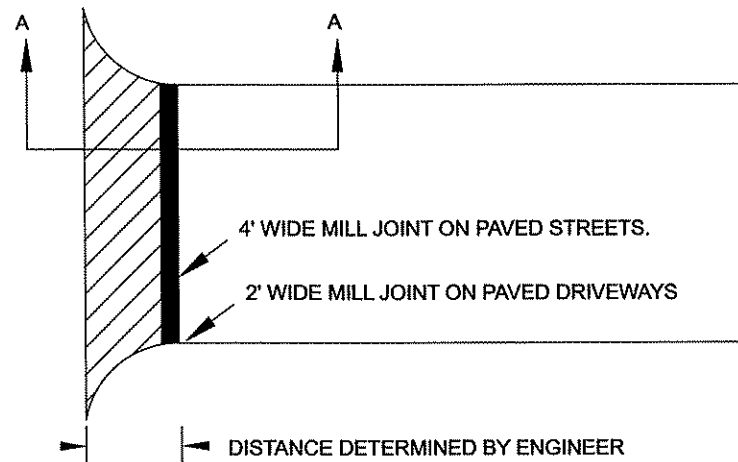
COUNTY PROJECT NO. 11-23-67

TYPICAL SECTION

Sheet 4 of 16 Sheets

PAVED DRIVEWAYS / PAVED STREETS

JOINT DETAILS



DISTANCE DETERMINED BY ENGINEER

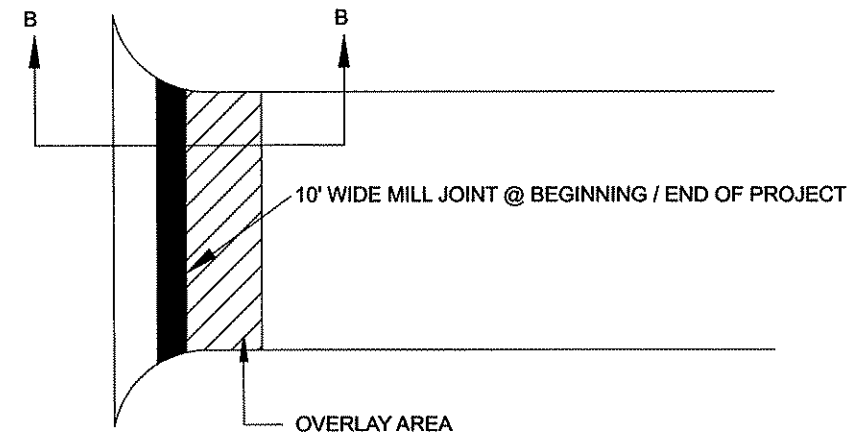
DRIVEWAYS BUMPED OUT TO BE PAVED WITH MAINLINE, PAID AS MAINLINE.

DRIVEWAYS PAVED IN DIFFERENT OPERATION FROM MAIN LINE PAVING PAID AS ST. APPROACH.

STREETS PAID AS ST. APPROACH.

MAINLINE

JOINT DETAILS

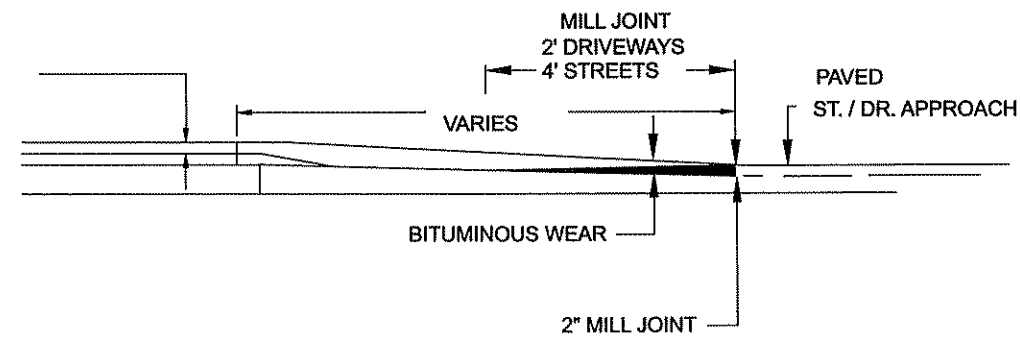


10' WIDE MILL JOINT @ BEGINNING / END OF PROJECT

OVERLAY AREA

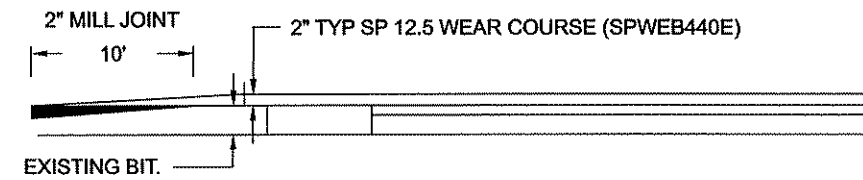
JOINT DETAILS A - A

2" TYP SP 12.5 WEAR COURSE (SPWEB440B)



PAID AS STREET APPROACH

JOINT DETAILS B - B



NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\11-01-00\CR_67_(South_of_CSAH22)\Plan4_Details.dgn 03/18/2011 8:19:23 AM

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.
 PRINT NAME: CHARLES CADENHEAD
 SIGNATURE: *[Signature]*
 DATE: 4/2/11 LICENSE NO. 40416

DRAWN BY SRK DATE 2/24/2011
 DESIGN BY SRK DATE 2/24/2011
 CHECKED BY JO DATE



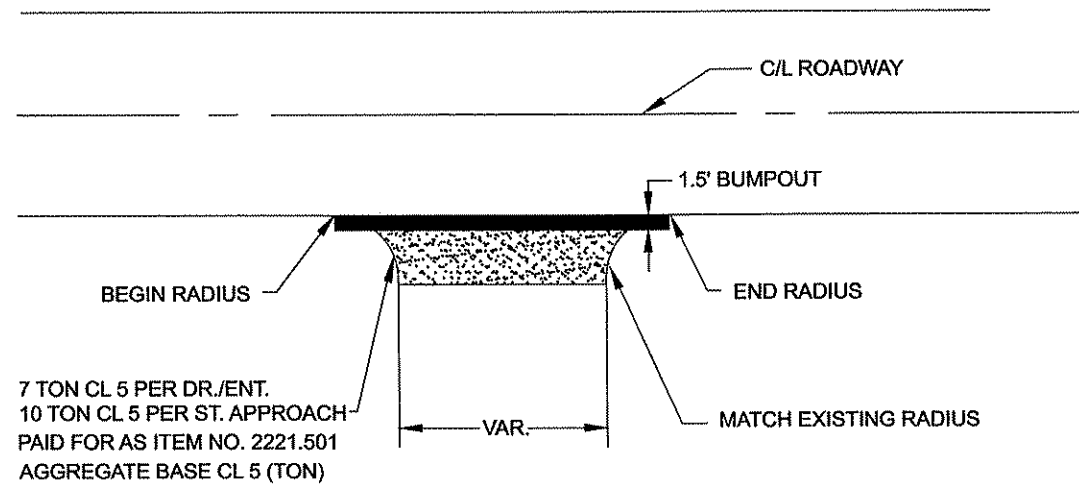
ANOKA COUNTY
 HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 11-23-67

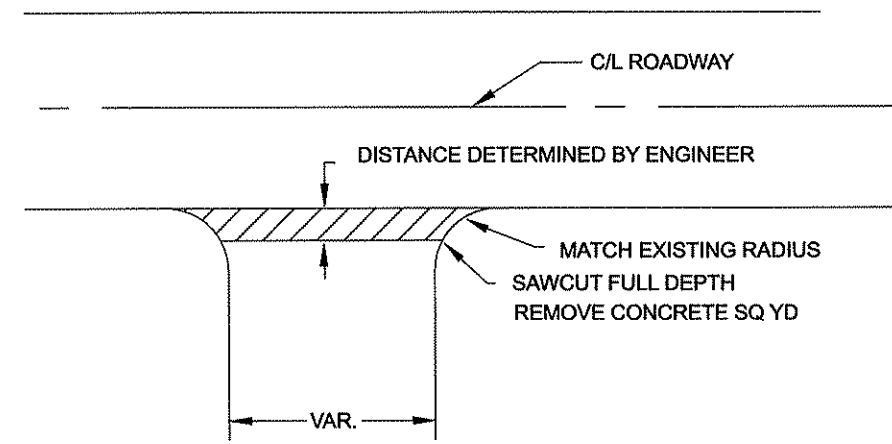
MISCELLANEOUS DETAILS

Sheet 5 of 16 Sheets

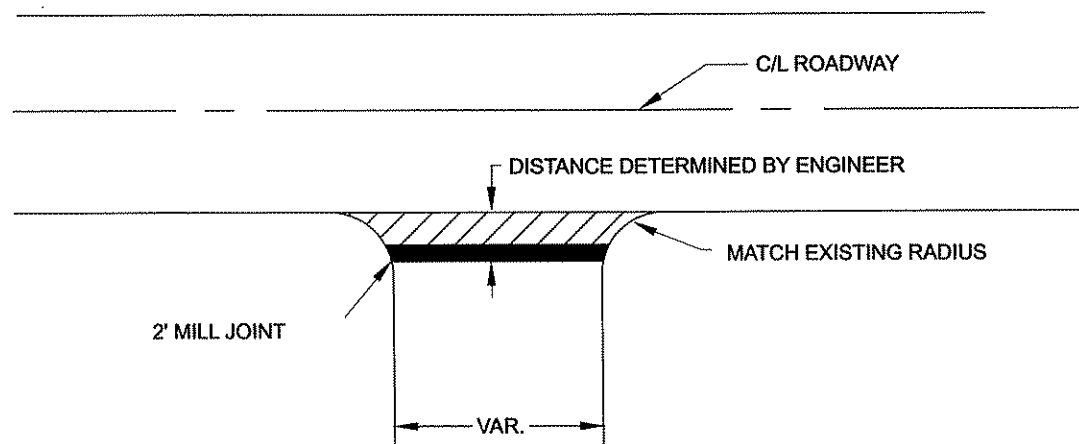
GRAVEL DRIVEWAYS / STREET APPROACHES AND FIELD ENTRANCES



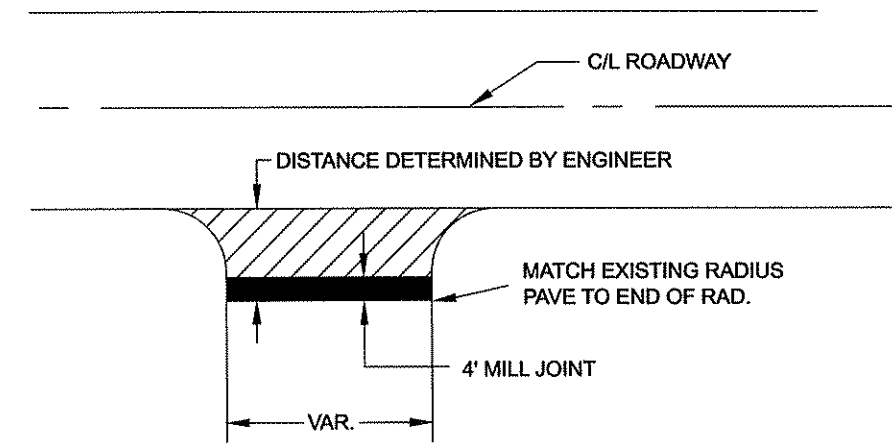
CONCRETE DRIVEWAYS



PAVED DRIVEWAYS



PAVED STREET APPROACHES



DRIVEWAYS BUMPOUT AND PAVED WITH MAINLINE PAID AS MAINLINE.
DRIVEWAYS PAVED IN DIFFERENT OPERATION FROM MAIN LINE PAVING PAID AS ST. APPROACH.

STREETS PAVED IN DIFFERENT OPERATION FROM MAIN LINE PAVING PAID AS ST. APPROACH.

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\11-01-00\CR_67_(South_of_CSAH22)\Plan4 Details.dgn 03/18/2011 8:19:37 AM

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.

PRINT NAME: CHARLES CADENHEAD

SIGNATURE: *[Signature]*

DATE: 2/24/11 LICENSE NO. 40416

DRAWN BY SRK DATE 2/24/2011

DESIGN BY SRK DATE 2/24/2011

CHECKED BY JO DATE



STATE PROJECT NO. _____

STATE AID PROJECT NO. _____

CITY PROJECT NO. _____

COUNTY PROJECT NO. 11-23-67

ESTIMATED QUANTITIES FOR RIGHT TURN LANE @ CSAH 22											
CONSTRUCT RT TURN LANE (@ CSAH 22)											
	STATION	STATION	LENGTH	WIDTH	DEPTH	CU YDS	SQ YDS	TONS	ACRE	LBS	HOURS
COMMON EX	86+16	90+96	480.0	21.3	0.5	189.3					
SELECT GRANULAR (CV)	86+16	90+96	480.0	12	1.0	219.7					
CLASS 5	86+16	90+96	480.0	12	0.5	106.7					
TOPSOIL	86+16	90+96	480.0					19.6			
MOTOR GRADER TIME	86+16	90+96	480.0								2.0
PNEUMATIC TIRE ROLLER TIME	86+16	90+96	480.0								2.0
DOZER TIME	86+16	90+96	480.0								2.0
SEEDING (ACRE)	86+16	90+96	480.0						0.09		
SEED MIXTURE 350 (LBS)	86+16	90+96	480.0							7.6	
EROSION CONTROL BLANKET	86+16	90+96	480.0				426.7				
FERTILIZER TYPE 3 (LBS)	86+16	90+96	480.0							31.5	
SILT FENCE	86+16	90+96	694.0								

AVG. DEPTH ESTIMATES IN RT TURN LANE USING EDGE MAT, SHOULDER PI, AND DITCH BOTTOM ELEVATIONS

CR 67 RT TURN LANE			
STA	EM	SH PI	DITCH BOTTOM
86+50	898.83	898.54	893.54
87+50	898.61	898.46	893.46
88+50	898.97	898.78	893.78
89+50	899.44	899.29	894.29
90+50	900.24	900.09	895.09
AVG.	899.22	899.03	894.03

AVG DEPTH = 5.19'
minus 0.5' = 4.69'

NO	DATE	BY	CKD	APPR	REVISION

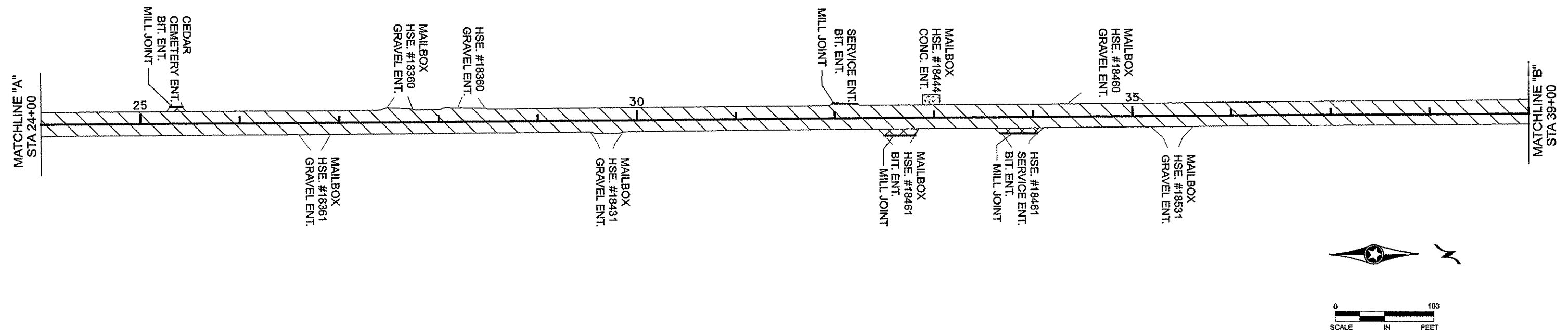
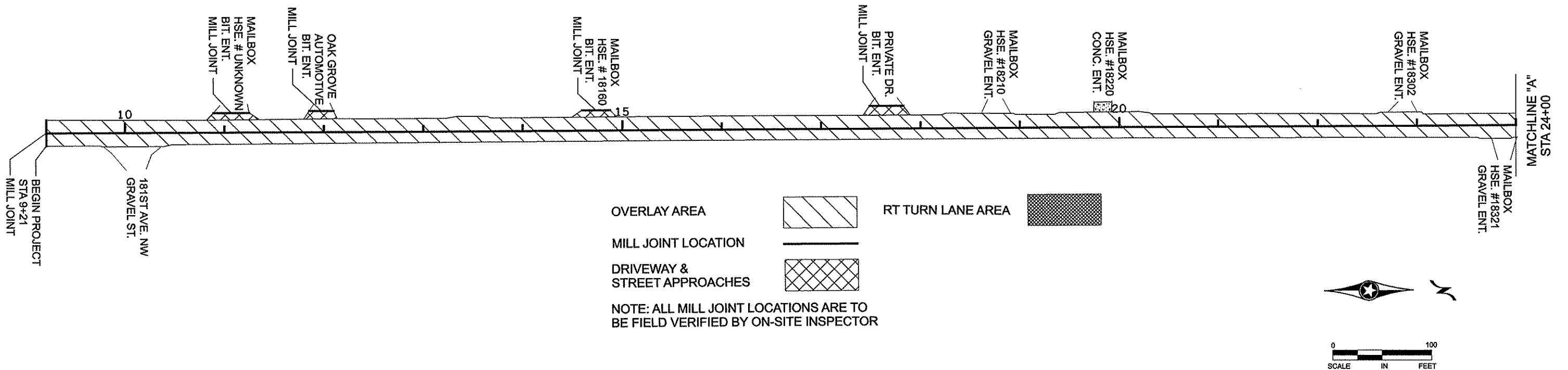
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: CHARLES CADENHEAD
 SIGNATURE: *[Signature]*
 DATE: 4/9/11 LICENSE NO. 48416

DRAWN BY: SRK DATE: 2/24/2011
 DESIGN BY: SRK DATE: 2/24/2011
 CHECKED BY: JO DATE: _____



STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 11-23-67

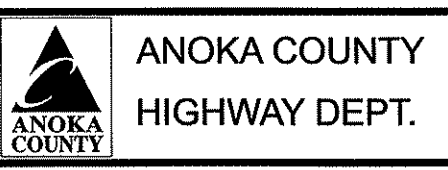


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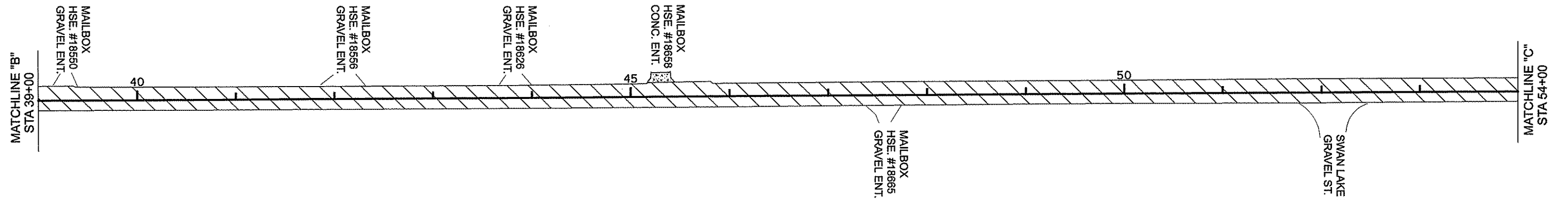
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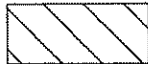



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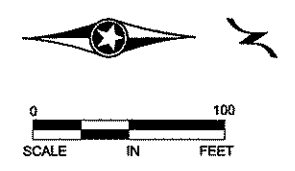
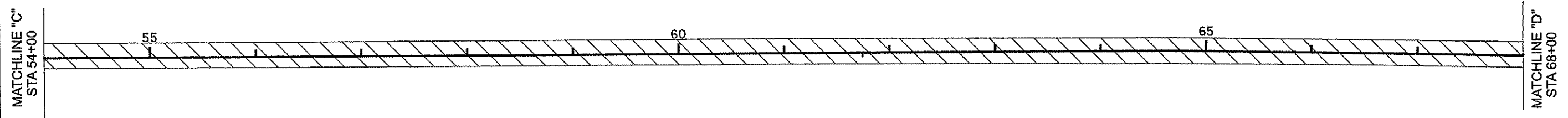
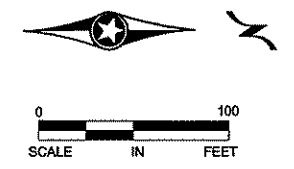


STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 11-23-67

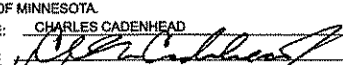
CONSTRUCTION PLAN
 STA 9+21 TO 39+00
 Sheet 8 of 16 Sheets



OVERLAY AREA  RT TURN LANE AREA 
 MILL JOINT LOCATION 
 DRIVEWAY & STREET APPROACHES 
 NOTE: ALL MILL JOINT LOCATIONS ARE TO BE FIELD VERIFIED BY ON-SITE INSPECTOR



NO	DATE	BY	CHKD	APPR	REVISION
NAME: P:\11-01-00\CR_67_South_of_CSAH22\Plan3 plan sheet.dgn					
03/18/2011 8:17:57 AM					

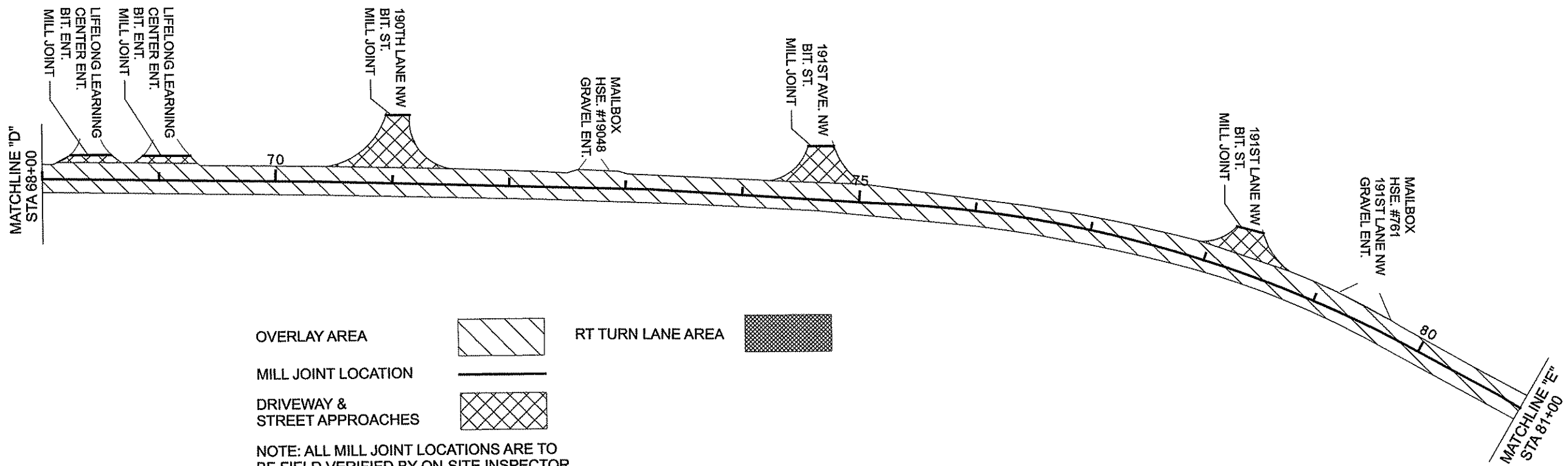
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: CHARLES CADENHEAD
 SIGNATURE: 
 DATE: 3/7/11 LICENSE NO. 40416



DRAWN BY: SRK DATE: 2/24/2011
 DESIGN BY: SRK DATE: 2/24/2011
 CHECKED BY: JO DATE:





STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 11-23-67

CONSTRUCTION PLAN
 STA 39+00 TO 68+00
 Sheet 9 of 16 Sheets

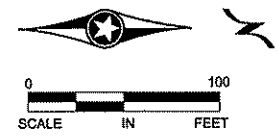
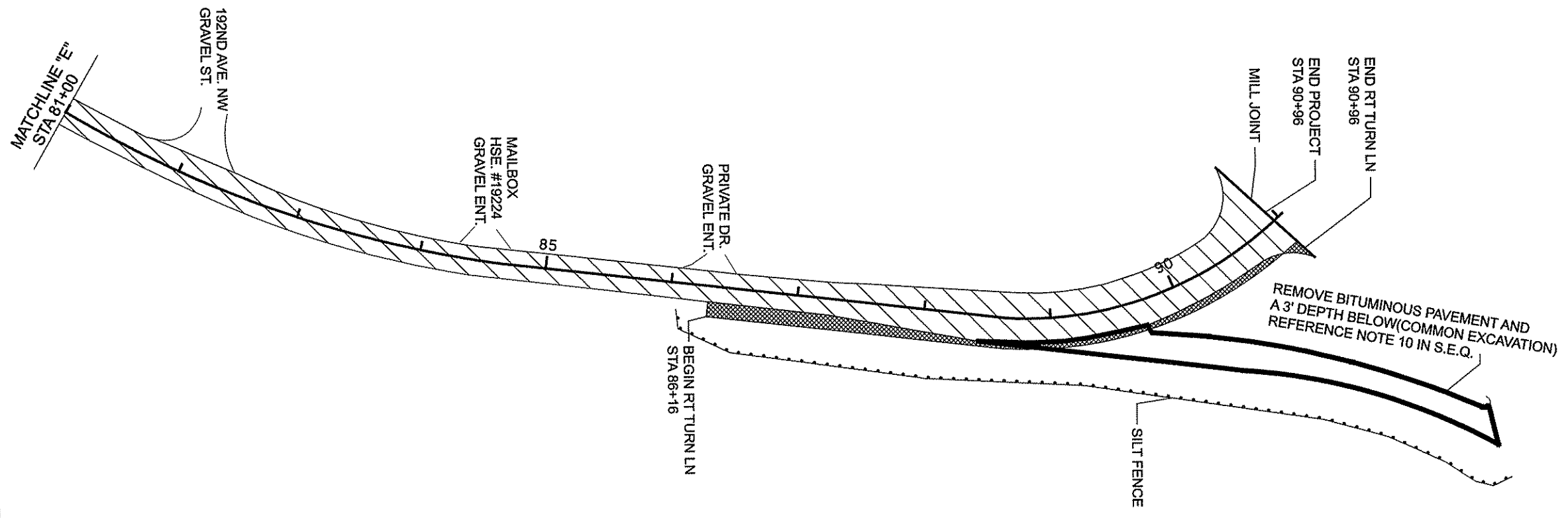
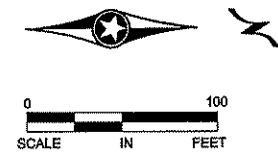


OVERLAY AREA  RT TURN LANE AREA 

MILL JOINT LOCATION 

DRIVEWAY & STREET APPROACHES 

NOTE: ALL MILL JOINT LOCATIONS ARE TO BE FIELD VERIFIED BY ON-SITE INSPECTOR




NO	DATE	BY	CKD	APPR	REVISION	DATES	STMS

NAME: SDGNS

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.

PRINT NAME: CHARLES CADENHEAD


SIGNATURE: 

DATE: 7/7/11 LICENSE NO. 40416

DRAWN BY: SRK DATE: 2/24/2011

DESIGN BY: SRK DATE: 2/24/2011

CHECKED BY: JO DATE: _____



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____

STATE AID PROJECT NO. _____

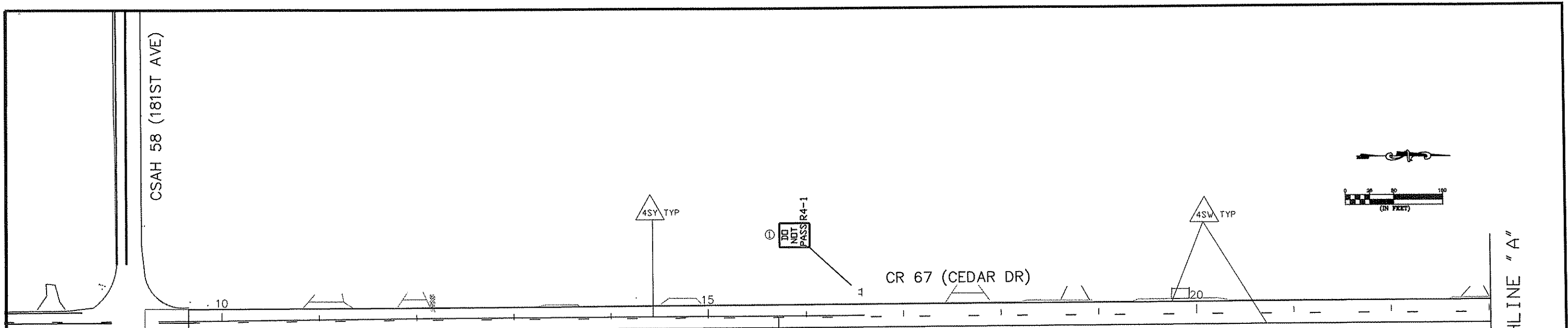
CITY PROJECT NO. _____

COUNTY PROJECT NO. 11-23-67

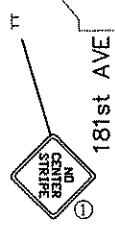
CONSTRUCTION PLAN

STA 68+00 TO 90+96

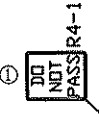
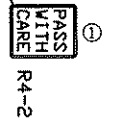
Sheet 10 of 16 Sheets



BEGIN STRIPING STA 9+20



181st AVE

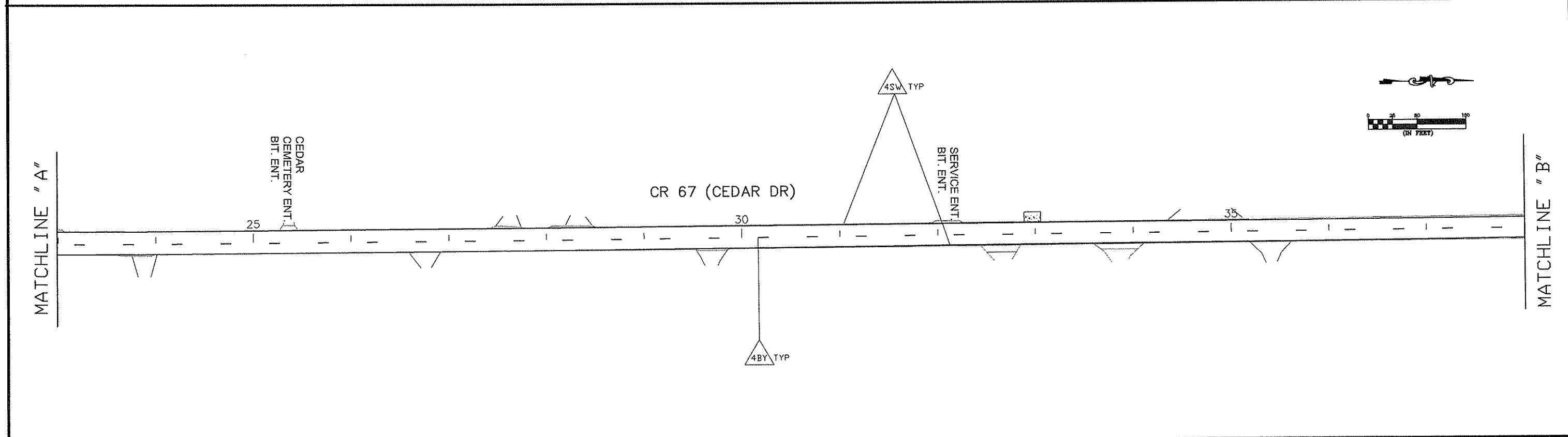


CR 67 (CEDAR DR)



NOTES:

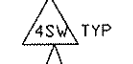
1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), AND PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
2. LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
3. CONTRACTOR SHALL SUPPLY AND ERECT THE TEMPORARY TRAFFIC CONTROL SIGNS AS SHOWN ON THIS DRAWING AND DETAILED IN THE SPECIAL PROVISIONS FROM THE TIME WORK COMMENCES ON THIS ROADWAY UNTIL THIS ROADWAY IS PERMANENTLY STRIPED. ALL NECESSARY TEMPORARY TRAFFIC CONTROL SIGNS SHALL BE PAID FOR AS PART OF TRAFFIC CONTROL LUMP SUM.
4. ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.
5. ALL PERMANENT SIGNING SHALL BE INSTALLED THE SAME DAY AS PERMANENT STRIPING.



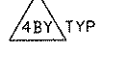
MATCHLINE "A"

CEDAR CEMETERY ENT. BIT. ENT.

CR 67 (CEDAR DR)



SERVICE ENT. BIT. ENT.



NO	DATE	BY	CKD	APPR	REVISION

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: CHARLES CADENHEAD
 SIGNATURE: *[Signature]*
 DATE: 4/7/11 REG. NO. 40416

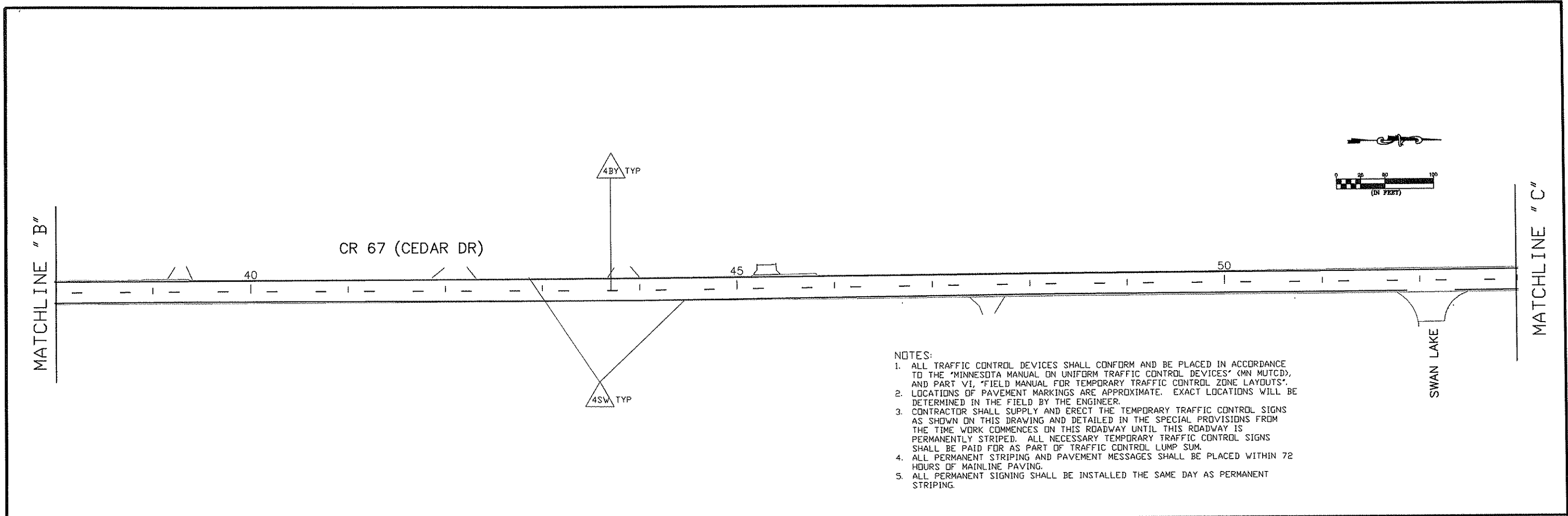
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 DESIGN BY: MTH DATE: 2/01/11
 CHECKED BY: JR DATE: 3/01/11



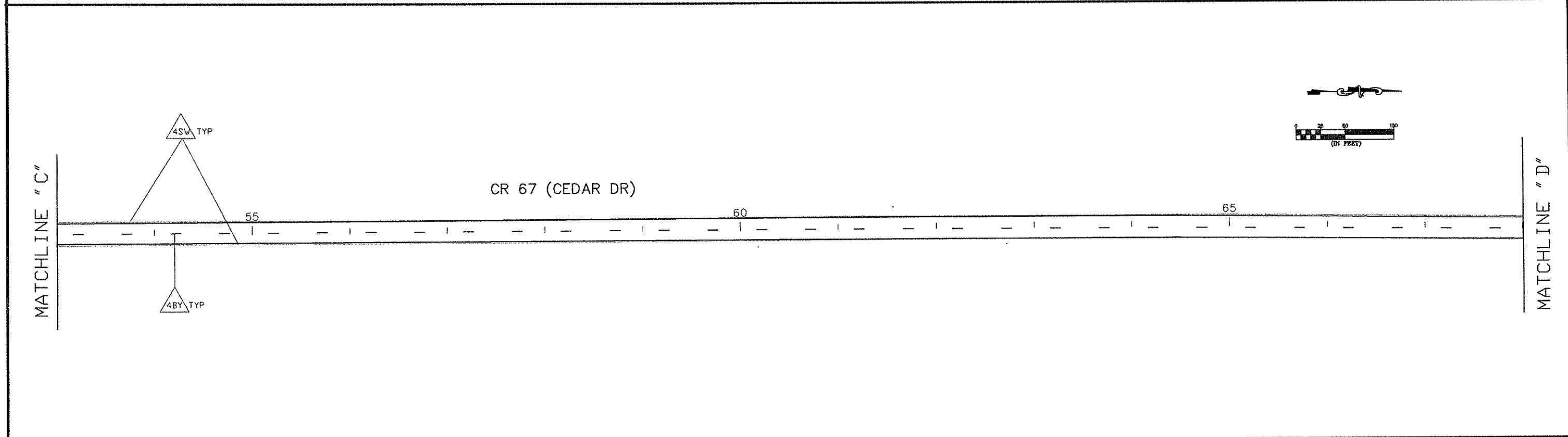
ANOKA COUNTY
 HIGHWAY DEPT.


STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 11-23-67

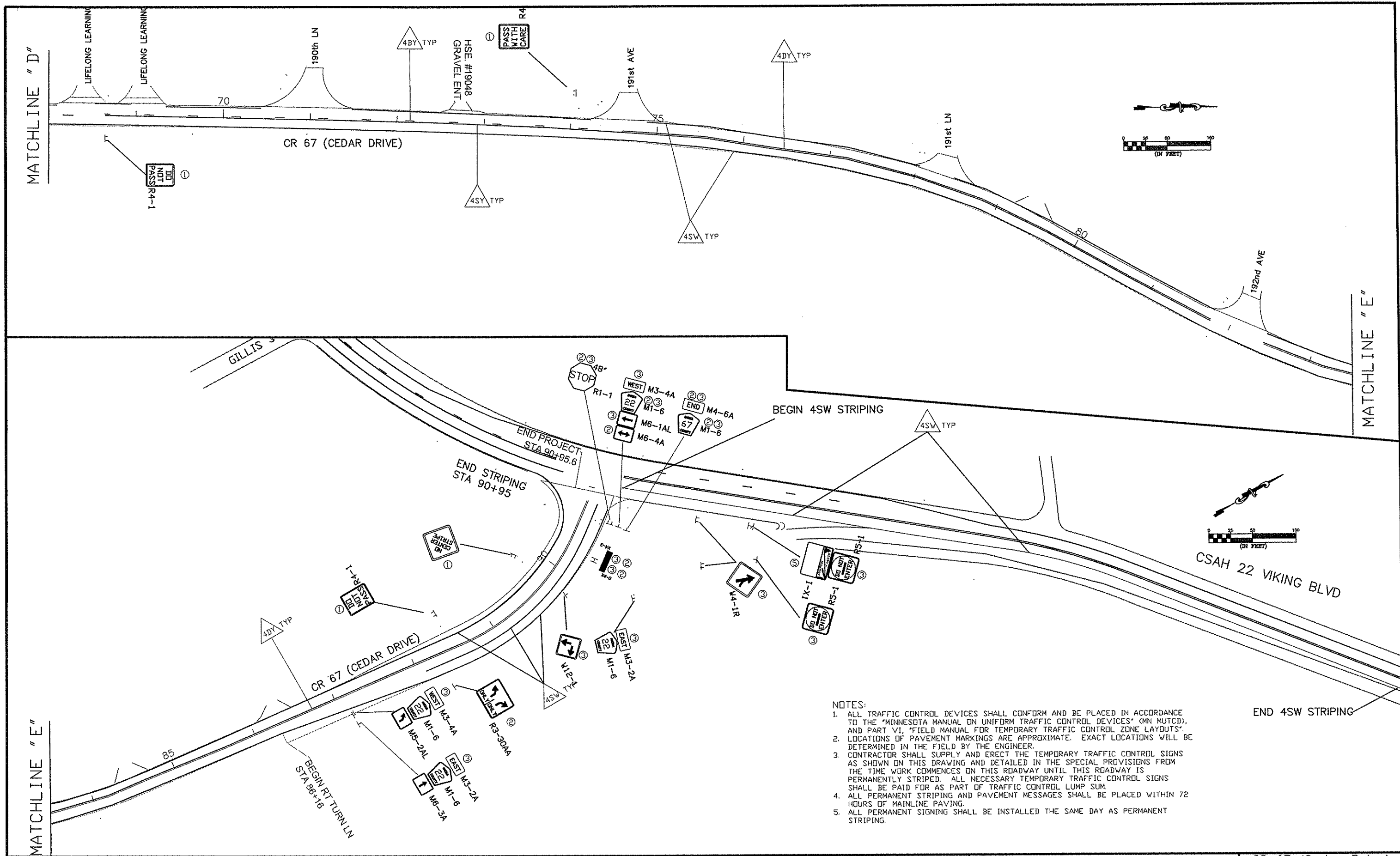
CR 67 (Cedar Drive)
 TEMPORARY SIGNING
 PERMANENT SIGNING, STRIPING
 AND PAVEMENT MESSAGES
 Sheet 11 of 16 Sheets



- NOTES:
1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE 'MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES' (MN MUTCD), AND PART VI, 'FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS'.
 2. LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 3. CONTRACTOR SHALL SUPPLY AND ERECT THE TEMPORARY TRAFFIC CONTROL SIGNS AS SHOWN ON THIS DRAWING AND DETAILED IN THE SPECIAL PROVISIONS FROM THE TIME WORK COMMENCES ON THIS ROADWAY UNTIL THIS ROADWAY IS PERMANENTLY STRIPED. ALL NECESSARY TEMPORARY TRAFFIC CONTROL SIGNS SHALL BE PAID FOR AS PART OF TRAFFIC CONTROL LUMP SUM.
 4. ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.
 5. ALL PERMANENT SIGNING SHALL BE INSTALLED THE SAME DAY AS PERMANENT STRIPING.



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINT NAME: CHARLES CADENHEAD SIGNATURE: <i>[Signature]</i> DATE: 4/7/11 REG. NO. 40416					DRAWN BY: MTH DATE: 2/01/11 DESIGN BY: MTH DATE: 2/01/11 CHECKED BY: JR DATE: 3/01/11	 ANOKA COUNTY HIGHWAY DEPT.	STATE PROJECT NO. _____ STATE AID PROJECT NO. _____ STATE AID PROJECT NO. _____ COUNTY PROJECT NO. 11-23-67	CR 67 (Cedar Drive) TEMPORARY SIGNING PERMANENT SIGNING, STRIPING AND PAVEMENT MESSAGES Sheet 12 of 16 Sheets	
NO	DATE	BY	CKD	APPR	REVISION	NAME: T:\Traffic\dwg\CR 67 (Cedar Dr)\from CSAH 88 to CSAH 22.dwg			



- NOTES:
1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE 'MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES' (MN MUTCD), AND PART VI, 'FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS'.
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NO	DATE	BY	CKD	APPR	REVISION

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PRINT NAME: CHARLES CADENHEAD
 SIGNATURE: *[Signature]*
 DATE: 4/7/11 REG. NO. 40416

DRAWN BY: MTH DATE: 2/01/11
 DESIGN BY: MTH DATE: 2/01/11
 CHECKED BY: JR DATE: 3/01/11



ANOKA COUNTY
 HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 11-23-67

CR 67 (Cedar Drive)
 TEMPORARY SIGNING
 PERMANENT SIGNING, STRIPING
 AND PAVEMENT MESSAGES
 Sheet 13 of 16 Sheets

Item	Quantity	Units
4" Double Yellow Striping	1555	Lin Ft
4" Solid Yellow Striping	1294	Lin Ft
4" Broken Yellow Striping	1300	Lin Ft
4" Solid White Striping	17007	Lin Ft
4" Broken White Striping	0	Lin Ft
24" Yellow Thermoplastic	0	Lin Ft
24" White Thermoplastic	0	Lin Ft
3'x6' Zebra Crosswalk Thermoplastic	0	SQ FT
Right Turn Arrow Thermoplastic	0	Each
Left Turn Arrow Thermoplastic	0	Each
Thru/Right Turn Arrow Thermoplastic	0	Each
Thru Arrow Thermoplastic	0	Each

	4' SOLID LINE DOUBLE YELLOW PAINT		PAVEMENT MESSAGE RIGHT
	4' SOLID LINE YELLOW PAINT		PAVEMENT MESSAGE LEFT
	4' BROKEN LINE YELLOW PAINT		PAVEMENT MESSAGE THRU/RIGHT
	4' SOLID LINE WHITE PAINT		PAVEMENT MESSAGE THRU
	4' BROKEN LINE WHITE PAINT	<u>SEE SPECIAL PROVISIONS</u>	
	24' YELLOW PERMANENT PAVEMENT MESSAGE		TEMPORARY TRAFFIC CONTROL SIGN
	24' WHITE PERMANENT PAVEMENT MESSAGE		F & I PERMANENT SIGN
	3' x 6' ZEBRA CROSSWALK		SALVAGE PERMANENT SIGN
			RE-INSTALL PERMANENT SIGN

NOTES:

- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE 'MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES' (MN MUTCD), AND PART VI, 'FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS'.
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PERMANENT SIGNS						
M. U. T. C. D. CODE	SIZE	PANEL AREA	INSERT	QUANTITY		MOUNTING HEIGHT (to pavement edge) FT.
		FT. ²		No.	POST	
R1-1	48' x 48'	16.00		2	2	7.0'
R9-30AA	36' x 30'	7.50		1	1	7.0'
M1-6	24' x 24'	4.00		1	1	7.0'
M1-6	24' x 24'	4.00		1	1	7.0'
M4-6	24' x 12'	2.00		1	1	7.0'
M6-4	21' x 15'	2.19		1	1	7.0'
X4-3	6' x 12'	0.50		2	1	5.0'
TOTAL PANEL AREA		36.69				

TEMPORARY TRAFFIC CONTROL SIGNS						
M. U. T. C. D. CODE	SIZE	PANEL AREA	INSERT	QUANTITY		MOUNTING HEIGHT (to pavement edge) FT.
		FT. ²		No.	POST	
WB-12	48' x 48'	16.00		2	2	7.0'
R4-1	24' x 30'	5.00		3	1	7.0'
R4-2	24' x 30'	5.00		2	1	7.0'
WB-1A	48' x 48'	16.00		AS NEEDED		
WB-1A	48' x 48'	16.00		AS NEEDED		
WB-8	48' x 48'	16.00		AS NEEDED		
WB-11	48' x 48'	16.00		AS NEEDED		

NO	DATE	BY	CKD	APPR	REVISION

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PRINT NAME: CHARLES CADENHEAD
 SIGNATURE:
 DATE: 4/7/11 REG. NO. 40416

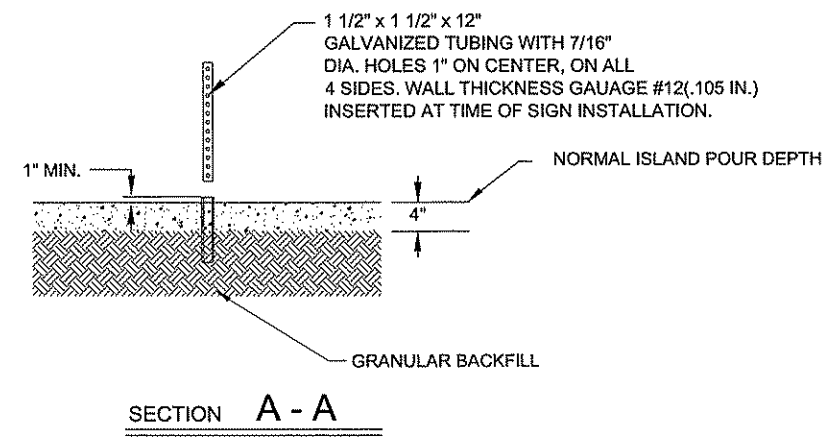
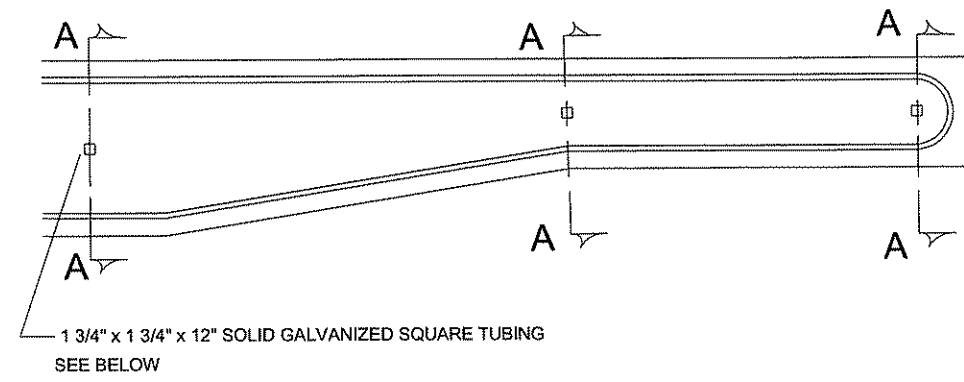
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 DESIGN BY: MTH DATE: 2/01/11
 CHECKED BY: JR DATE: 3/01/11



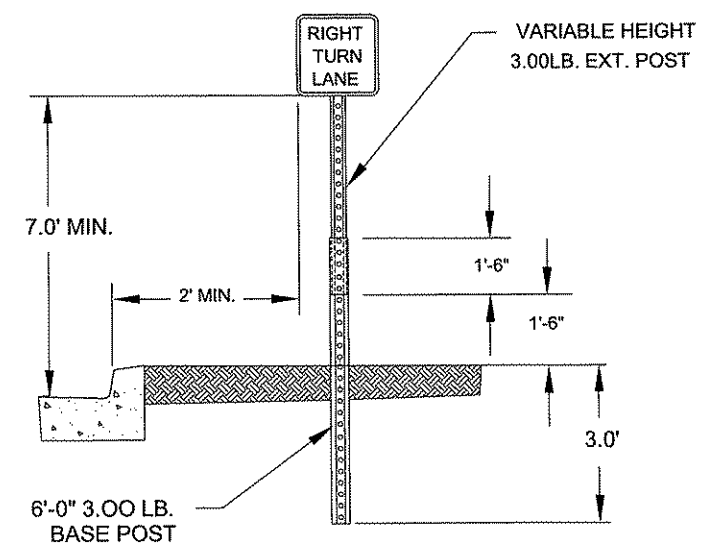
ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
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 COUNTY PROJECT NO. 11-23-67

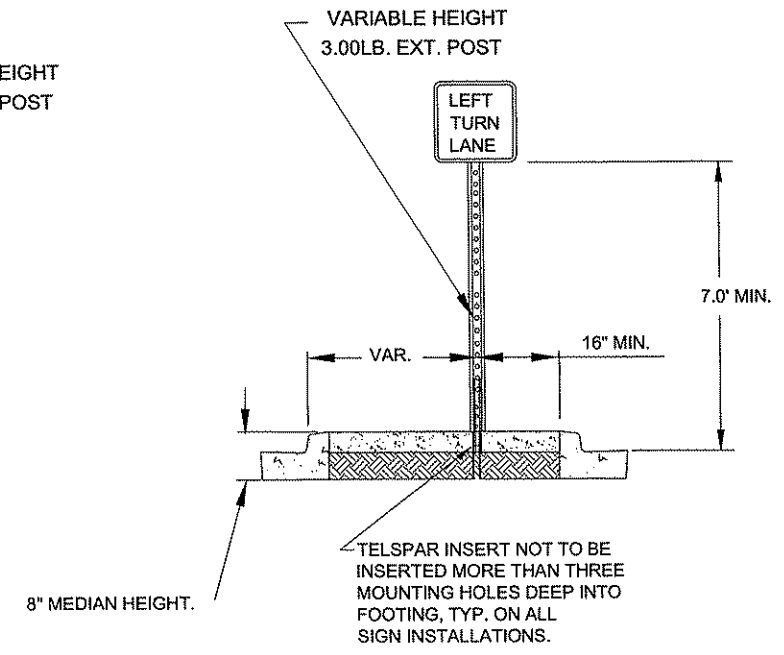
CR 67 (Cedar Drive)
 TEMPORARY SIGNING
 PERMANENT SIGNING, STRIPING
 AND PAVEMENT MESSAGES
 Sheet 14 of 16 Sheets



GROUND POST MOUNT SIGN
INSTALLATION TYPICAL



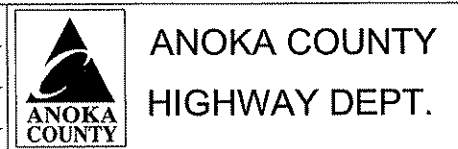
ISLAND MOUNT BREAK-AWAY SIGN
INSTALLATION TYPICAL



NO	DATE	BY	CKD	APPR	REVISION

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.
 PRINT NAME: CHARLES CADENHEAD
 SIGNATURE: *[Signature]*
 DATE: 9/7/11 LICENSE NO. 40416

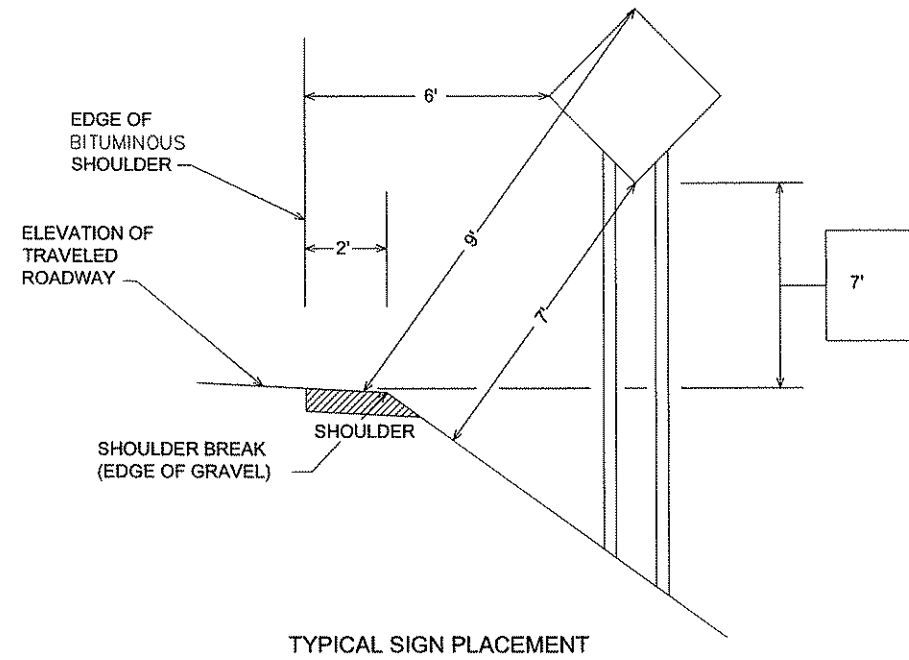
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 DESIGN BY MTH DATE 1-21-11
 CHECKED BY JR DATE 1-21-11



STATE PROJECT NO. _____
 STATE PROJECT NO. _____
 STATE PROJECT NO. _____
 COUNTY PROJECT NO. 11-23-67

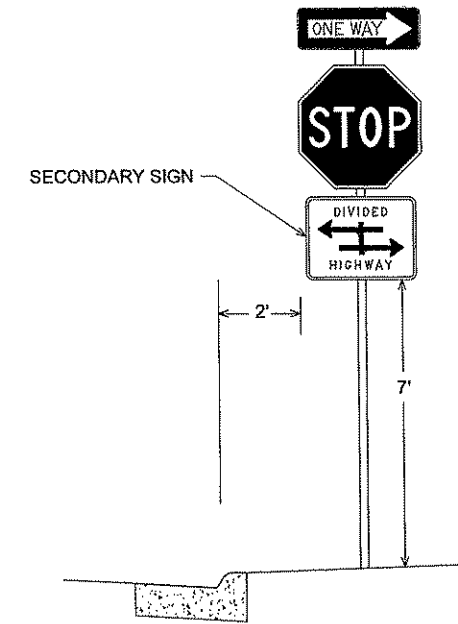
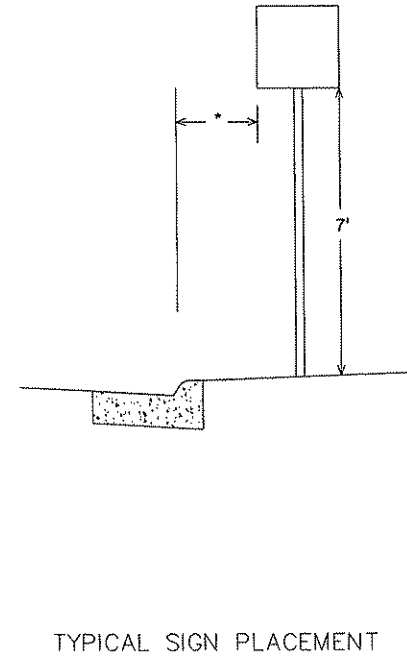
SIGNING & STRIPING DETAILS
 Sheet 15 of 16 Sheets

RURAL



URBAN

2' - NARROW BOULEVARD (< 8' WIDE)
6' - WIDE BOULEVARD



NOTE:

- ALL DIMENSIONS ARE MINIMUMS
- MAINTAIN 2' CLEAR FROM SIGNS TO BITUMINOUS TRAIL

NO	DATE	BY	CKD	APPR	REVISION

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.

PRINT NAME: CHARLES CAGENHEAD

SIGNATURE: *[Signature]*

DATE: 4/9/11 LICENSE NO. 40918

DRAWN BY MTH DATE 1-21-11

DESIGN BY MTH DATE 1-21-11

CHECKED BY JR DATE 1-21-11



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____

STATE PROJECT NO. _____

STATE PROJECT NO. _____

COUNTY PROJECT NO. 02-23-67

SIGNING & STRIPING DETAILS

Sheet 16 of 16 Sheets