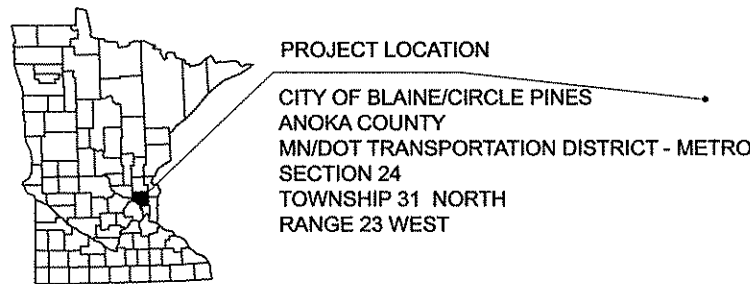
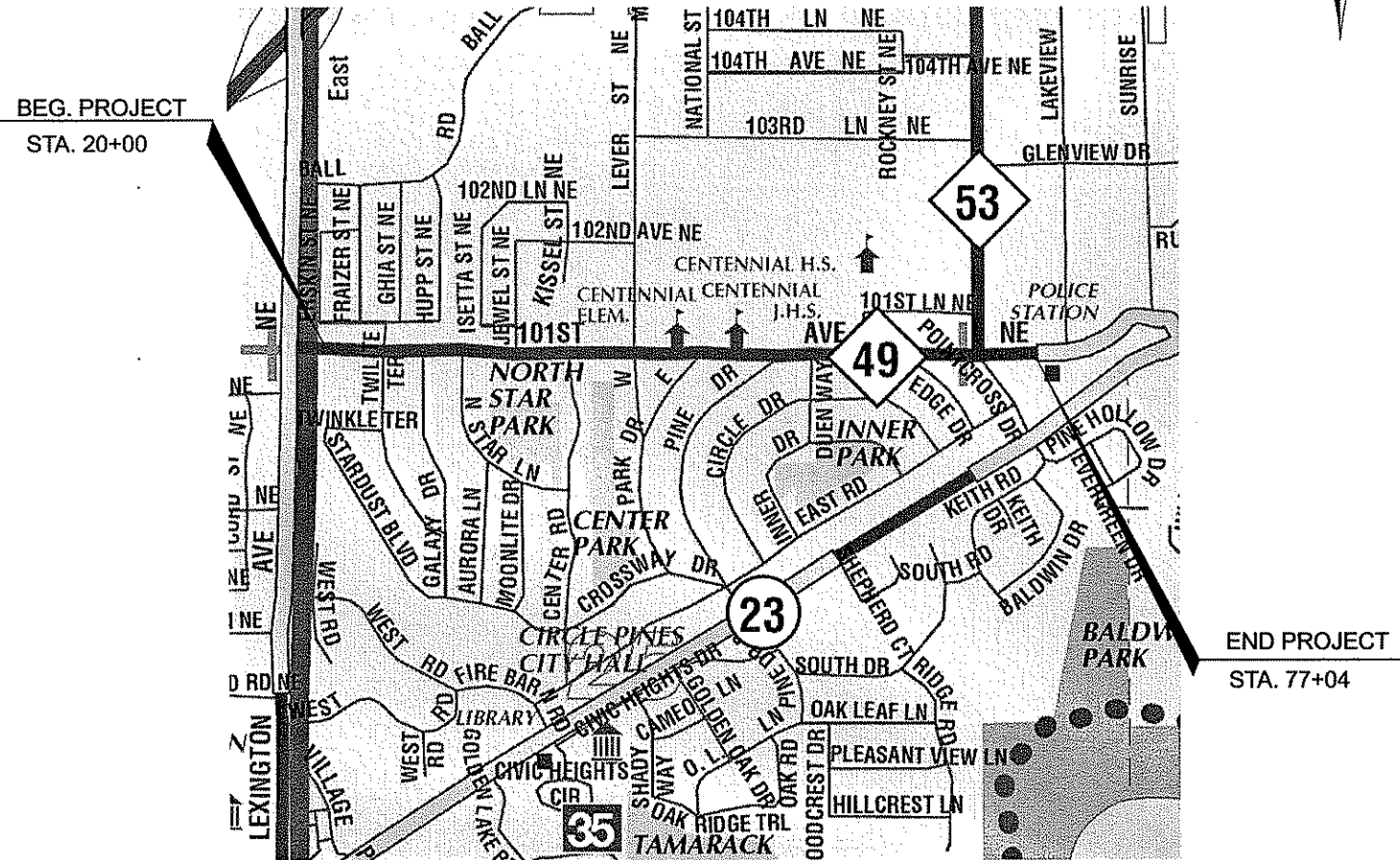


# MINNESOTA DEPARTMENT OF TRANSPORTATION ANOKA COUNTY

2" BITUMINOUS OVERLAY, AGGREGATE  
CONSTRUCTION PLAN FOR SHOULDERING EDGE BITUMINOUS MILL AND OVERLAY  
LOCATED ON       C.R. 49       BETWEEN       C.S.A.H. 17 (LEXINGTON AVE.)       AND       LAKEVIEW DRIVE      

COUNTY PROJ. NO.       09-14-49        
      C.R. 49      

GROSS LENGTH	5704 FEET	1.08 MILES
BRIDGES-LENGTH	0 FEET	0 MILES
EXCEPTIONS-LENGTH	0 FEET	0 MILES
NET LENGTH	5704 FEET	1.08 MILES



STATEMENT OF ESTIMATED QUANTITIES				09-14-49
ITEM NO.	ITEM	NOTE NO.	UNIT	TOTAL EST. QUANT.
2021.601	MOBILIZATION		LUMP SUM	1
2221.609	AGGREGATE SHOULDERING CLASS 7B	2	TON	63
2232.604	MILL BITUMINOUS SURFACE (2") ( JOINTS )	4	SQ YD	4159
2357.502	BITUMINOUS MATERIAL FOR TACK COAT		GALLON	1060
2360.609	TYPE MV3 WEAR ( 2" MVWE35035 B ) MAINLINE WEAR	2	TON	2174
2360.609	TYPE MV3 WEAR ( 2" MVWE35035 B ) STREET APPROACH WEAR	2	TON	108
2506.522	ADJUST CASTING	1	EACH	44
2540.602	INSTALL MAIL BOX SUPPORT		EACH	39
2563.601	TRAFFIC CONTROL		LUMP SUM	1
2564.603	24" SOLID LINE WHITE HOT TAPE		LIN FT	120
2564.603	4" SOLID LINE WHITE - EPOXY		LIN FT	9733
2564.603	4" BROKEN LINE YELLOW-EPOXY		LIN FT	600
2564.603	4" SOLID LINE YELLOW - EPOXY		LIN FT	1655
2564.603	4" DOUBLE SOLID LINE YELLOW - EPOXY		LIN FT	1655
2564.618	3'X6' ZEBRA X-WALK HOT TAPE		SQ FT	972
2580.603	REMOVABLE LANE TAPE	3	LIN FT	114
<b>NOTES</b>				
<p>1 EACH MANHOLE AND GATE VALVE WILL BE ADJUSTED WITH A 2" RISOR</p> <p>2 TRUCKING, PLACEMENT, AND COMPACTION INCIDENTAL TO ITEM.</p> <p>3 TO BE PLACED PRIOR TO LEAVING SITE AFTER DAYS PAVING</p> <p>4 TOTAL SQ YDS INCLUDES 6' EDGE MILL AREA</p>				
<b>BASIS OF PLANNED QUANTITIES</b>				
2221.609	AGGREGATE SHOULDERING CLASS 7B		CU YDS * 1.8 = TONS	
2357.502	BITUMINOUS MATERIAL FOR TACK COAT		.05 GAL / SQ YD	
2360.609	TYPE MV3 WEAR MIXTURE ( MVWE35035 B )		115 LBS/SQYD/IN THICKNESS	
2580.603	REMOVABLE LANE TAPE		4' AT 50' INTERVALS FOR SKIPS	

PLAN SET	
Sheet	
1	TITLE / SEQ
2	TAB SHEET
3-5	PLAN VIEW
6	TYPICALS
7-8	DETAILS
9-10	PAVEMENT MARKINGS

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: 3/23/09 LICENSE NO. 40416

DRAWN BY: CSO DATE: 2/9/09  
DESIGN BY: CSO DATE: 2/9/09  
CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



ANOKA COUNTY  
HIGHWAY DEPT.

COUNTY PROJECT NO.       09-14-49      

TITLE / SEQ

Sheet   1   of   10   Sheets

**MILL BITUMINOUS SURFACE 2" ( JOINTS )**

MAINLINE	STATION		LENGTH	WIDTH	SQ.YDS.
<b>BIT STREETS</b>					
	20+00		31.0	10.0	34.4
TWLITE TERRACE	23+80	RT	63.0	4.0	28.0
TWLITE TERRACE	23+80	LT	68.0	4.0	30.2
GALAZY DRIVE	27+00	RT	60.0	4.0	26.7
NORTH STAR LANE	29+90	RT	54.0	4.0	24.0
JEWEL STREET	34+50	LT	32.0	4.0	14.2
CENTER RD	38+25	RT	58.0	4.0	25.8
LEVER ROAD	43+00	LT	80.0	4.0	35.6
PARK DRME WEST	43+20	RT	53.0	4.0	23.6
PARK DRIVE EAST	48+50	RT	100.0	4.0	44.4
CURB AREA	48+82 TO 77+04	RT	2830.0	6.0	1886.7
CURB AREA	48+82 TO 77+04	LT	2830.0	6.0	1886.7
	77+04		32.0	10.0	35.6
<b>DRIVEWAYS</b>					
4407	30+50	LT	23.0	2.0	5.1
ST MARKS CHURCH W	31+90	RT	32.0	2.0	7.1
ST MARKS CHURCH E	33+05	RT	40.0	2.0	8.9
2A	35+85	RT	30.0	2.0	6.7
4551	38+90	LT	26.0	2.0	5.8
APARTMENT ENT	40+10	LT	44.0	2.0	9.8
4561	40+50	LT	24.0	2.0	5.3
2	40+95	RT	26.0	2.0	5.8
4	41+40	RT	20.0	2.0	4.4
6	42+55	RT	19.0	2.0	4.2
SCHOOL WEST	45+80	LT	50.0	2.0	11.1
DRIVEWAY?	46+50	RT	39.0	2.0	8.7
SCHOOL MIDDLE	48+60	LT	43.0	2.0	9.6
					4158.9 TOTAL Sq Yds

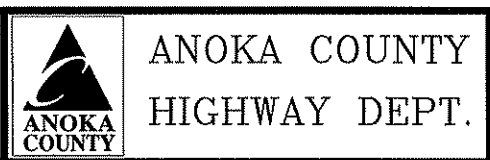
**INSTALL MAIL BOX SUPPORT**

ADDRESS	DR. LOC.	QTY	ADDRESS	DR. LOC.	QTY
4407	RT	1	24	RT	1
2A	RT	1	26	RT	1
4551	LT	1	4887	LT	1
4561	LT	1	4907	LT	1
2	RT	1	4917	LT	1
4571	LT	1	4927	LT	1
4	RT	1	4937	LT	1
6	RT	1	30	RT	1
8	RT	1	37	LT	1
10	RT	1	39	LT	1
54	RT	1	41	LT	1
56	RT	1	43	LT	1
12	RT	1	32	RT	1
14	RT	1	34	RT	1
16	RT	1	51	LT	1
18	RT	1	36	RT	1
20	RT	1	59	LT	1
4867	LT	1	38	RT	1
22	RT	1	40	RT	1
4877	LT	1			
					39 TOTAL

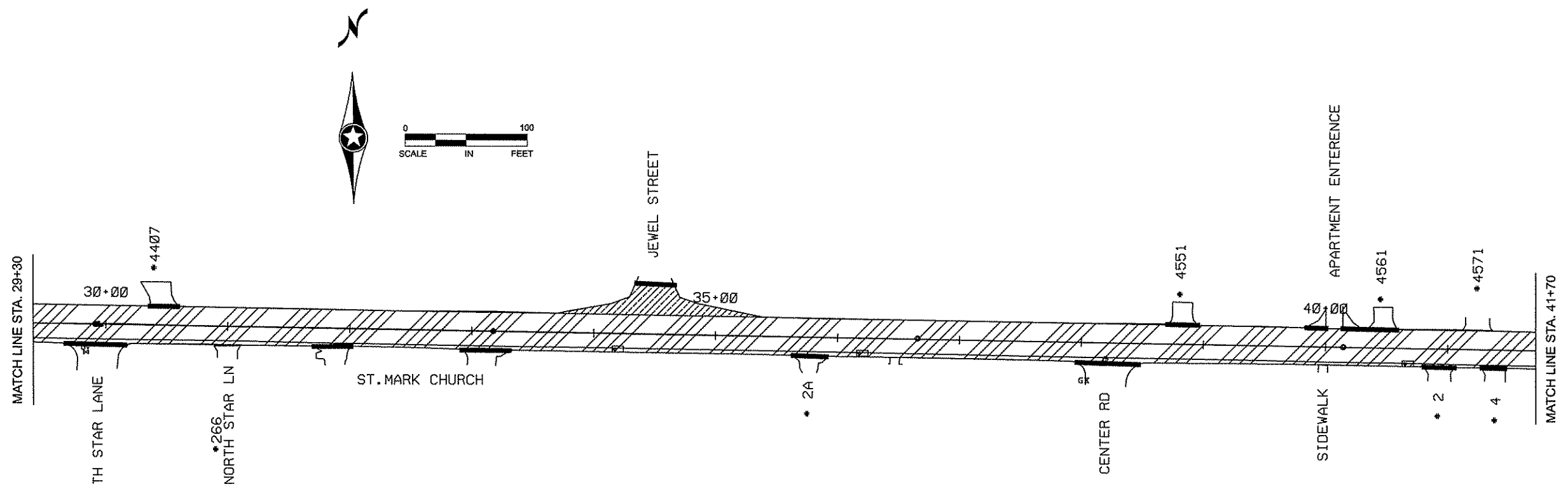
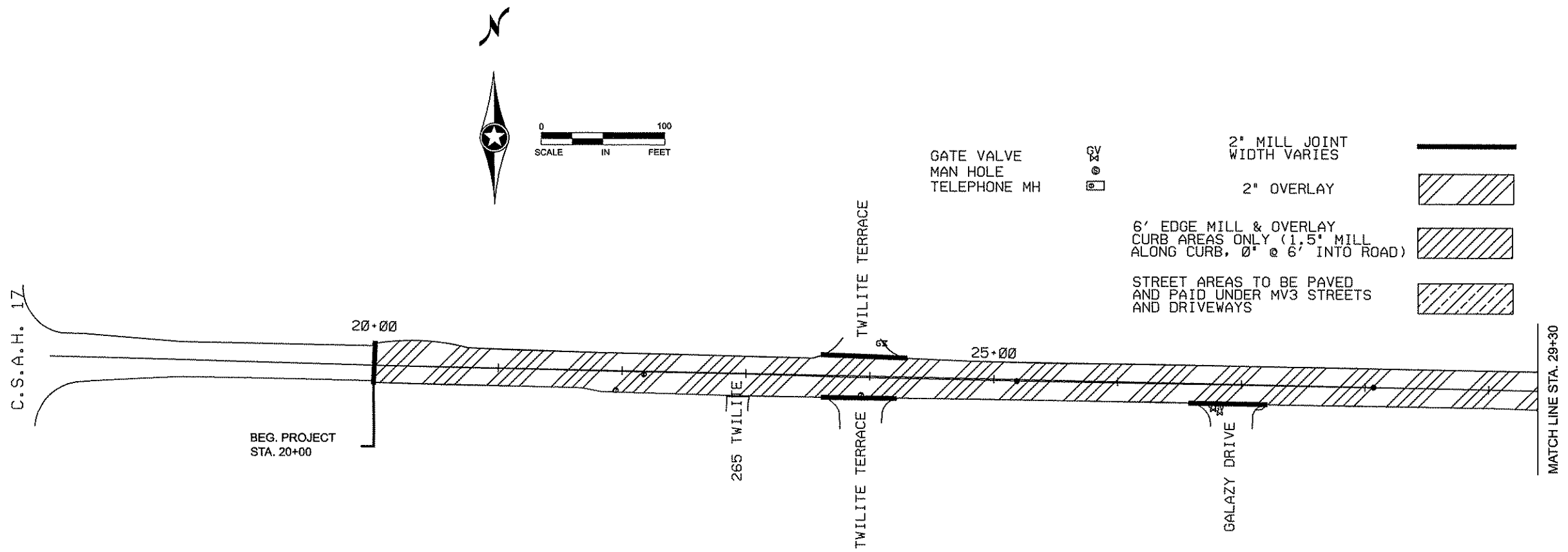
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 PRINT NAME: CHARLES CADENHEAD  
 SIGNATURE: *[Signature]*  
 DATE: 3/23/09 LICENSE NO. 40416

DRAWN BY: CSO DATE: 2/9/09  
 DESIGN BY: CSO DATE: 2/9/09  
 CHECKED BY: DATE:



COUNTY ROAD 49  
 BETWEEN C.S.A.H. 17  
 AND LAKEVIEW DRIVE  
 COUNTY PROJECT NO. 09-14-49



NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\09-01-00\CR\_49\_(BETWEEN 17 & 53)\Plan\PLAN PLAN.dgn      02/09/2009      1:52:56 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: *Charles Cadenhead*  
 DATE: 3/23/09      LICENSE NO. 40418

DRAWN BY: CSO      DATE: 2/9/09  
 DESIGN BY: CSO      DATE: 2/9/09  
 CHECKED BY:      DATE:     

**ANOKA COUNTY**  
**HIGHWAY DEPT.**

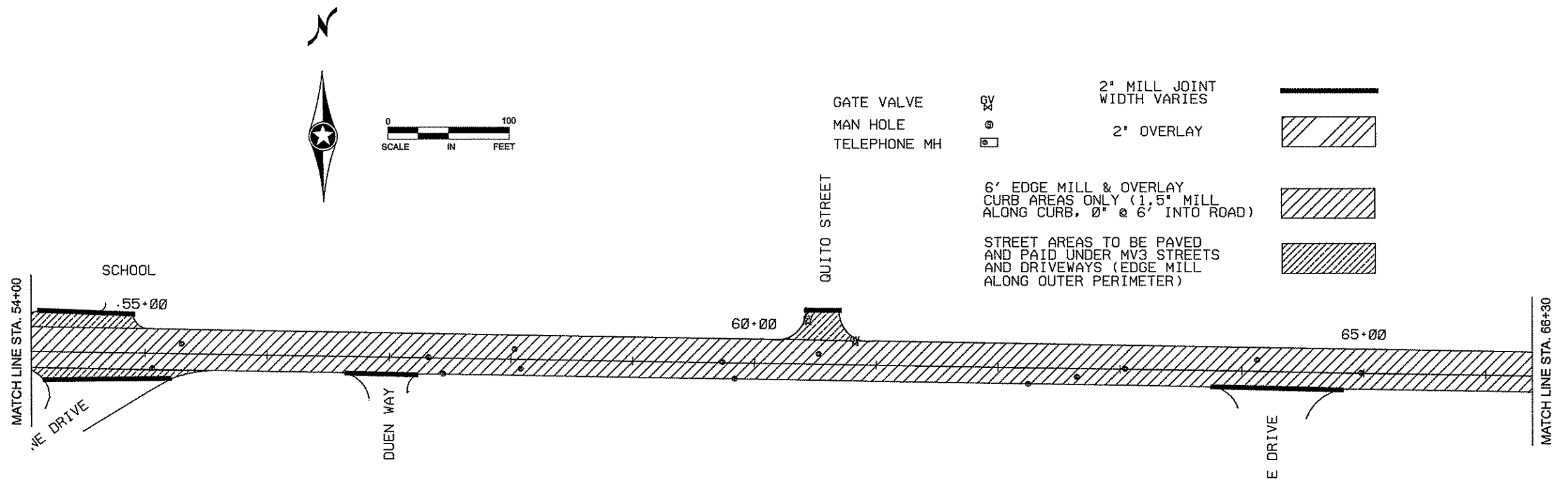
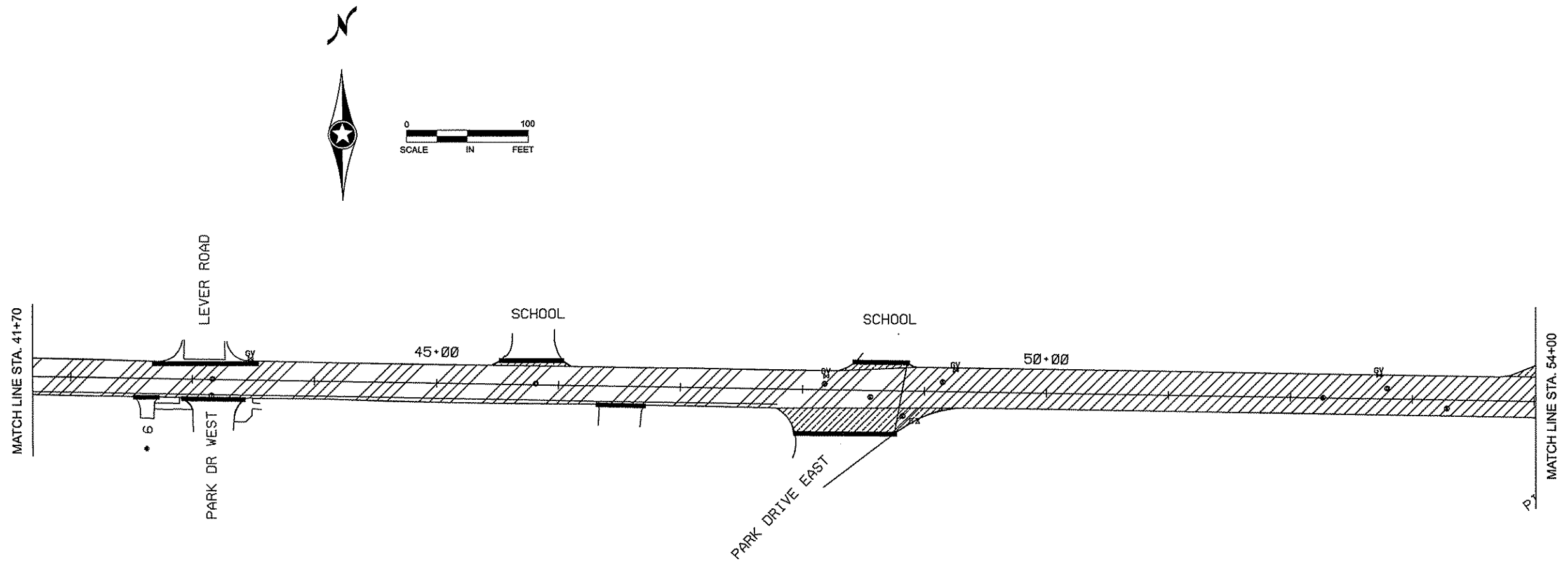
COUNTY ROAD 49  
 BETWEEN C.S.A.H. 17  
 AND LAKEVIEW DRIVE

COUNTY PROJECT NO. 09-14-49

PLAN VIEW

STA 20+00 TO 41+70

Sheet 3 of 10 Sheets



- GATE VALVE 2" MILL JOINT WIDTH VARIES
- MAN HOLE 2" OVERLAY
- TELEPHONE MH
- 6' EDGE MILL & OVERLAY CURB AREAS ONLY (1.5" MILL ALONG CURB, 0" @ 6' INTO ROAD)
- STREET AREAS TO BE PAVED AND PAID UNDER MV3 STREETS AND DRIVEWAYS (EDGE MILL ALONG OUTER PERIMETER)

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\09-01-00\CR\_49\_(BETWEEN 17 & 53)\Plan\PLAN PLAN.dgn      03/23/2009      9:35:37 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 GADENHEAD  
 SIGNATURE: *Charles Gadenhead*  
 DATE: 3/23/09      LICENSE NO. 40416

DRAWN BY: CSO      DATE: 2/8/09  
 DESIGN BY: CSO      DATE: 2/9/09  
 CHECKED BY:      DATE:     



**ANOKA COUNTY  
HIGHWAY DEPT.**

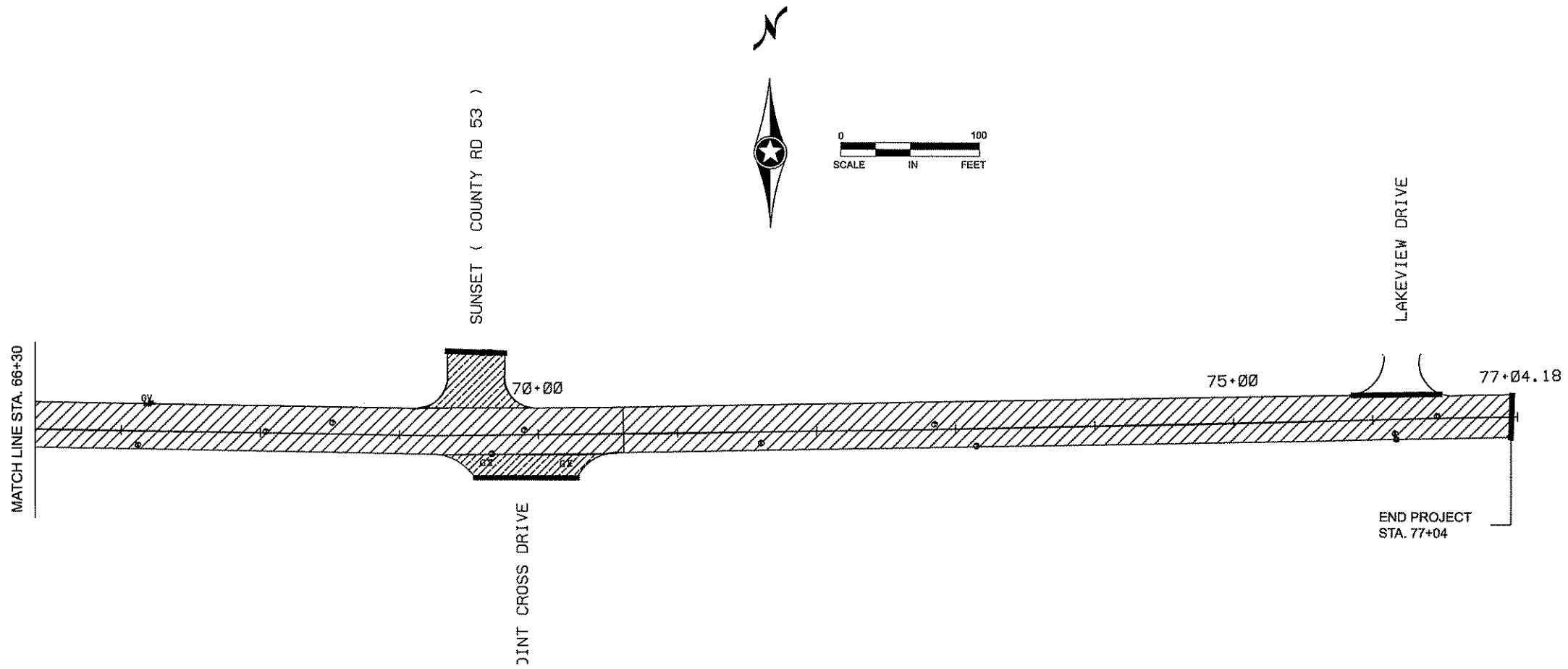
COUNTY ROAD 49  
BETWEEN C.S.A.H. 17  
AND LAKEVIEW DRIVE





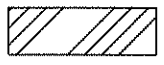
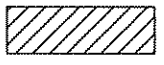
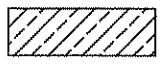
COUNTY PROJECT NO. 09-14-49

PLAN VIEW

STA 41+70 TO 66+30

Sheet 4 of 10 Sheets



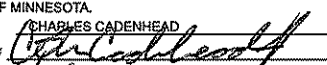
- GATE VALVE 
- MAN HOLE 
- TELEPHONE MH 
- 2" MILL JOINT WIDTH VARIES 
- 2' OVERLAY 
- 6' EDGE MILL & OVERLAY CURB AREAS ONLY (1.5" MILL ALONG CURB, 0" @ 6' INTO ROAD) 
- STREET AREAS TO BE PAVED AND PAID UNDER MV3 STREETS AND DRIVEWAYS 

NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\09-01-00\CR\_49\_(BETWEEN 17 & 53)\Plan\PLAN PLAN.dgn      02/09/2009      1:53:22 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: 

DATE: 3/23/09      LICENSE NO. 40416

DRAWN BY: CSO      DATE: 2/9/09

DESIGN BY: CSO      DATE: 2/9/09

CHECKED BY: \_\_\_\_\_      DATE: \_\_\_\_\_



ANOKA COUNTY  
HIGHWAY DEPT.

COUNTY ROAD 49  
BETWEEN C.S.A.H. 17  
AND LAKEVIEW DRIVE

COUNTY PROJECT NO. 09-14-49

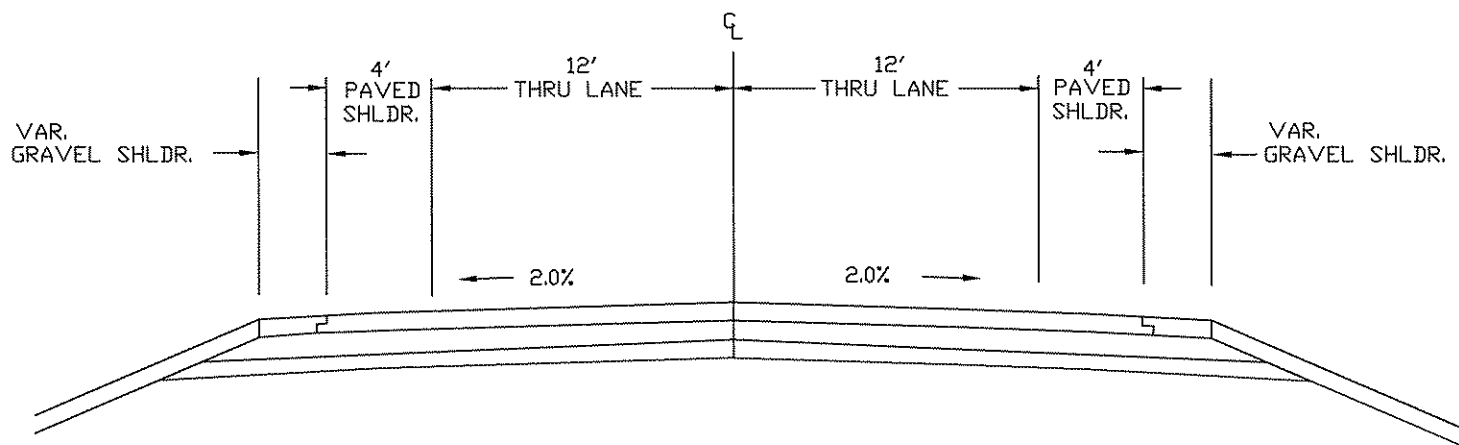
PLAN VIEW

STA 66+30 TO 77+04

Sheet 5 of 10 Sheets

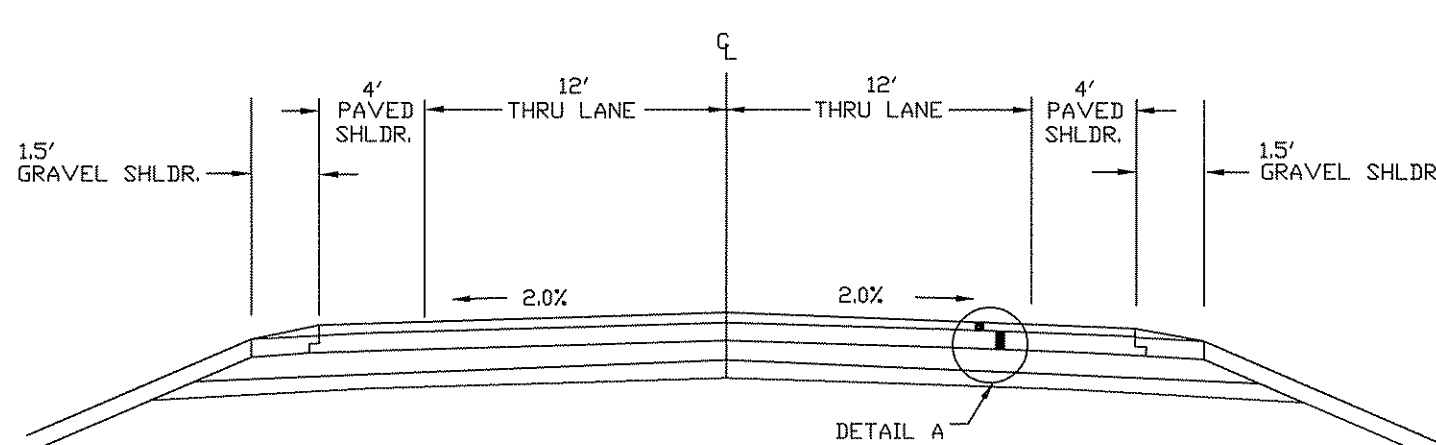
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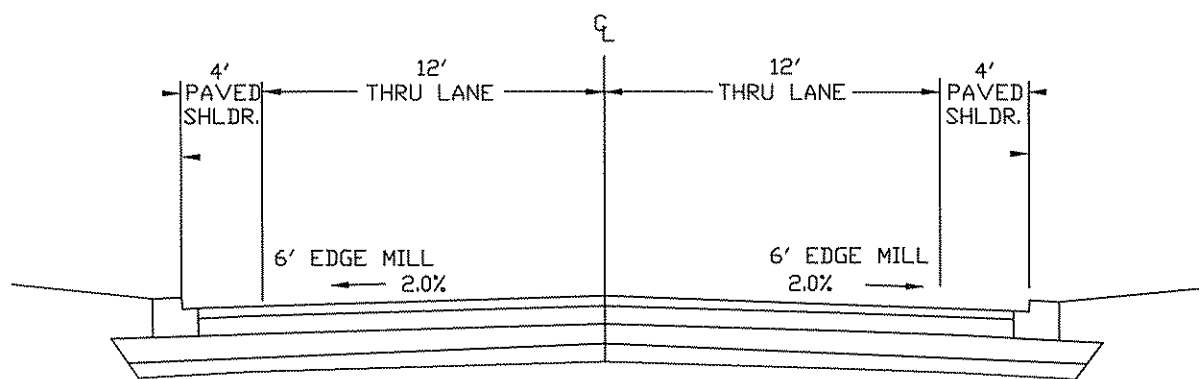
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STA. 20+00 - STA. 48+50



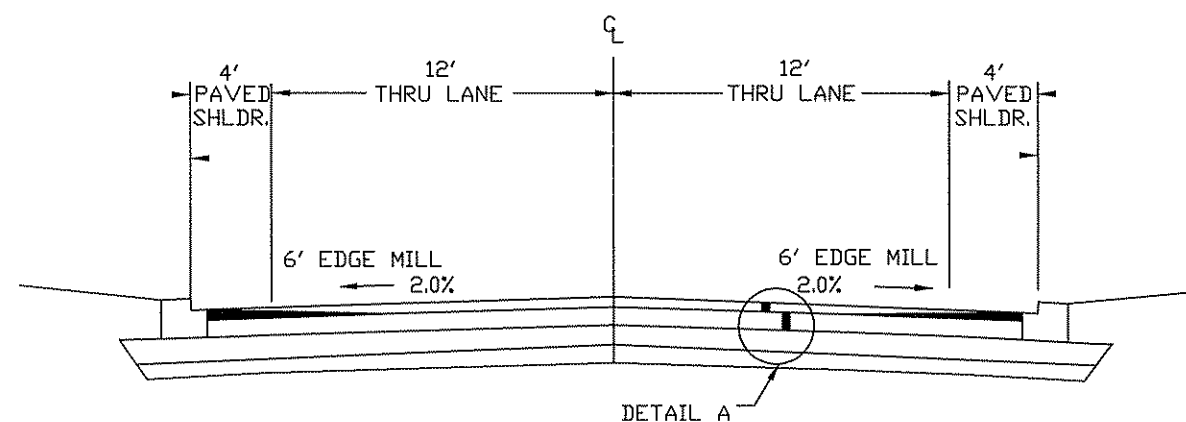
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STA. 48+50 - STA. 77+04



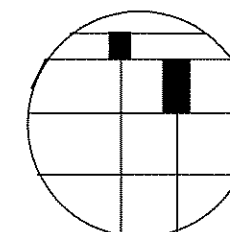
PROPOSED SECTION

STA. 48+50 - STA. 77+04



DETAIL A

2" TYPE MV3 WEAR ( MVWE35035 B )  
EXISTING BITUMINDUS



NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\09-01-00\CR\_49\_(BETWEEN 17 & 53)\Plan\OVERLAY TEMPLT TYP DETAILS&09/2009 2:25:50 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: *Charles Cadenhead*  
DATE: 3/23/09 LICENSE NO. 40416

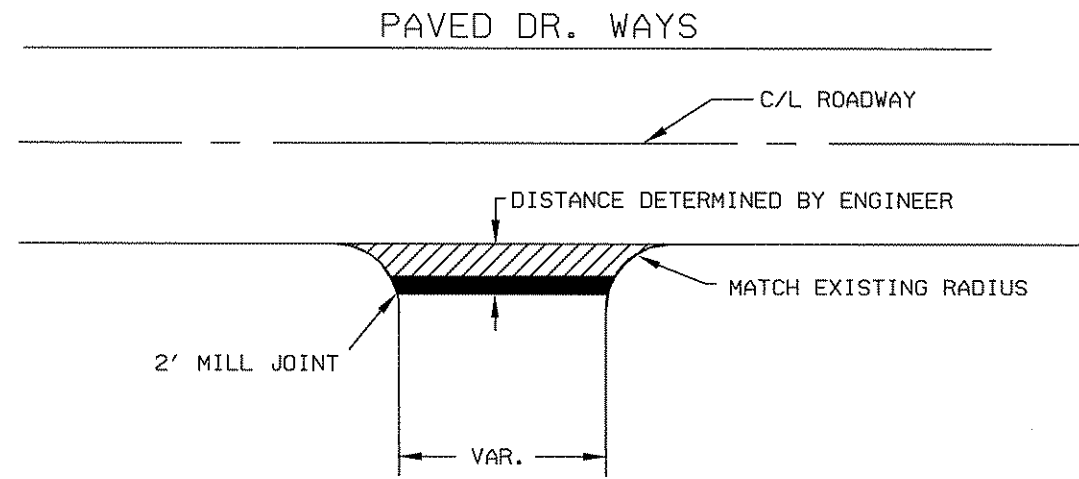
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CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



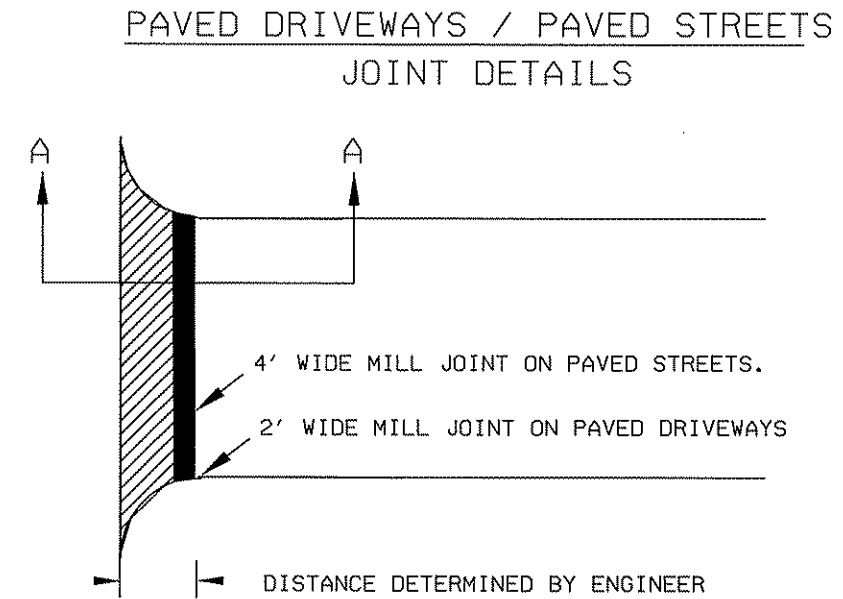
ANOKA COUNTY  
HIGHWAY DEPT.

STATE PROJECT NO. \_\_\_\_\_  
STATE AID PROJECT NO. \_\_\_\_\_  
CITY PROJECT NO. \_\_\_\_\_  
COUNTY PROJECT NO. 09-14-49

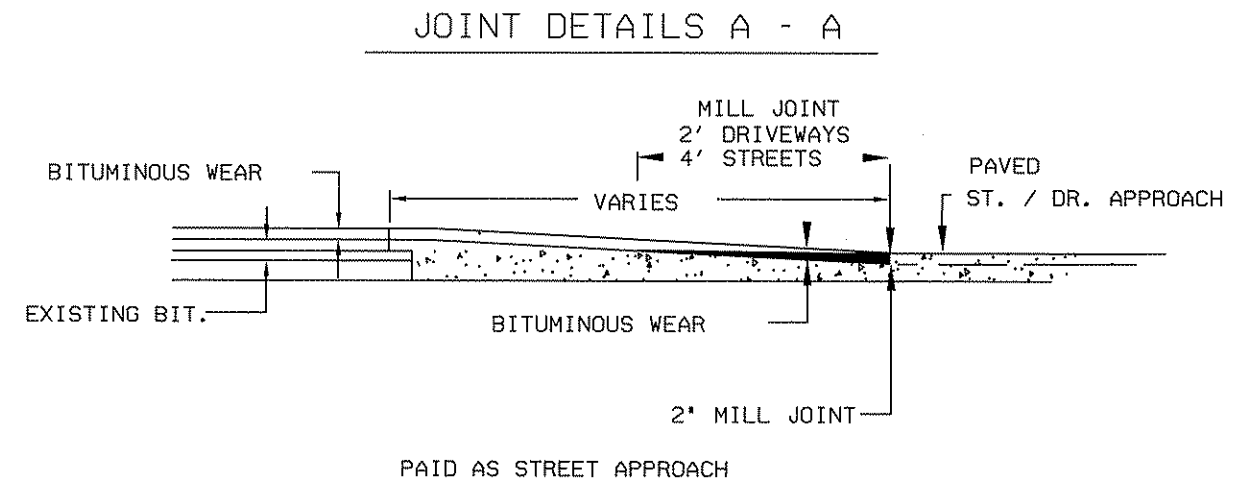
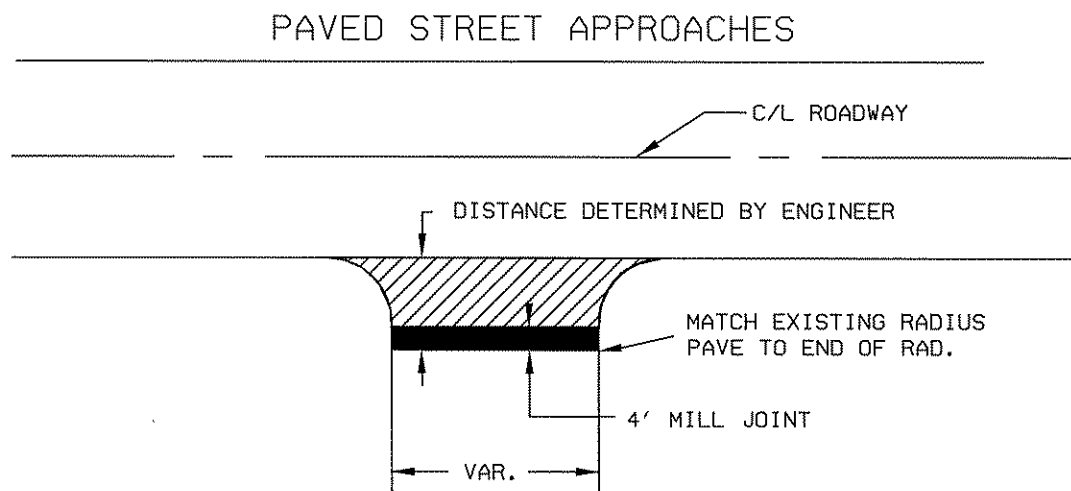
TYPICALS  
Sheet 6 of 10 Sheets



DRIVEWAYS BUMPED OUT AND PAVED WITH MAINLINE PAID AS MAINLINE.  
 DRIVEWAYS PAVED IN DIFFERENT OPERATION FROM MAIN LINE PAVING PAID AS ST./DR. APPROACH.



DRIVEWAYS BUMPED OUT AND PAVED WITH MAINLINE, PAID AS MAINLINE.  
 DRIVEWAYS PAVED IN DIFFERENT OPERATION FROM MAIN LINE PAVING PAID AS ST./DR. APPROACH.  
 STREETS PAID AS ST./DR. APPROACH.



NO	DATE	BY	CKD	APPR	REVISION

NAME: P:109-01-00/CR\_49\_(BETWEEN 17 & 53)Plan/OVERLAY TEMPLT TYP DETAILS02/09/2009 2:20:40 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 Carlshead

SIGNATURE: *Charles Carlshead*

DATE: 3/23/09 LICENSE NO. 40416

DRAWN BY JF DATE 2/9/09  
 DESIGN BY JF DATE 2/9/09  
 CHECKED BY DATE



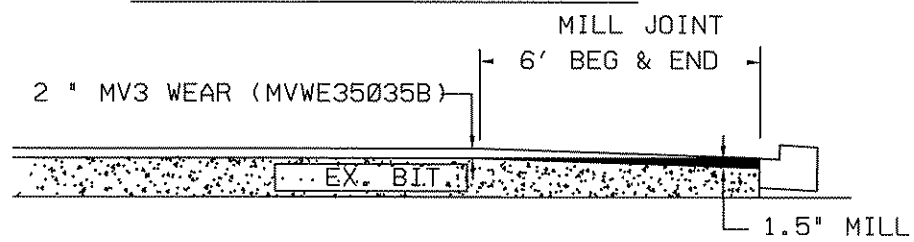
ANOKA COUNTY  
 HIGHWAY DEPT.

STATE PROJECT NO. \_\_\_\_\_  
 STATE AID PROJECT NO. \_\_\_\_\_  
 CITY PROJECT NO. \_\_\_\_\_  
 COUNTY PROJECT NO. 09-14-49

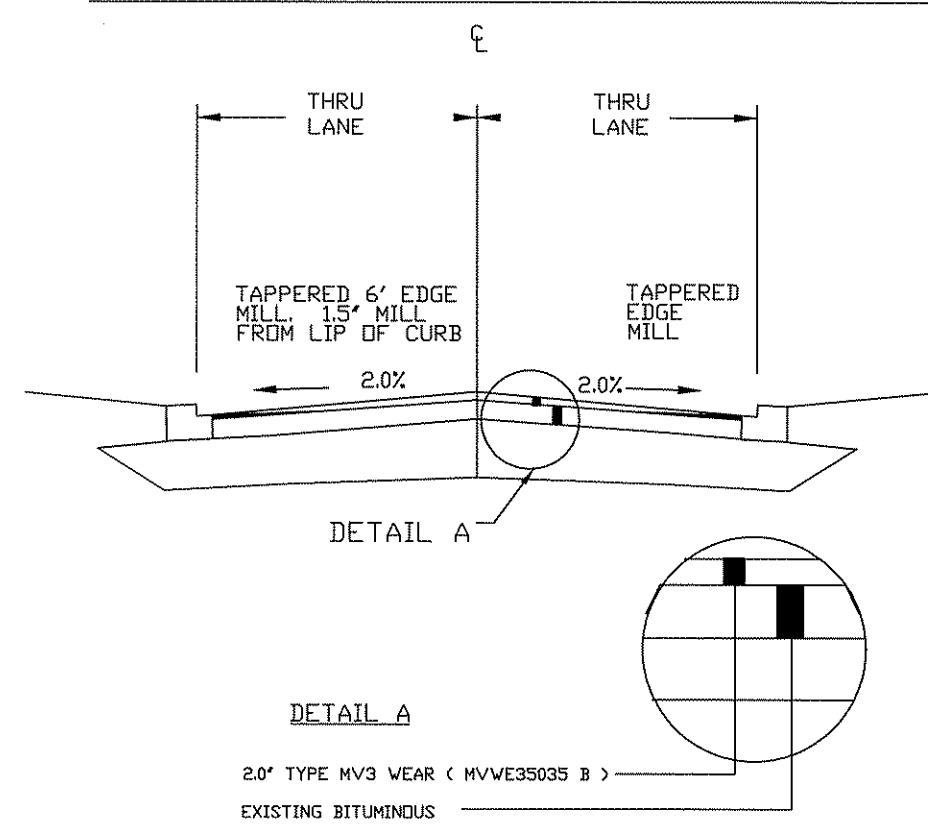
DETAILS

Sheet 7 of 10 Sheets

EDGE MILL CURB DETAILS



PROPOSED SECTION



NO	DATE	BY	CKD	APPR	REVISION

NAME: P:109-01-00\CR\_49\_(BETWEEN 17 & 53)\Plan\OVERLAY TEMPLET TYP DETAILS02/09/2009 2:20:57 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: *Charles Cadenhead*  
 DATE: 3/23/09 LICENSE NO. 40416

DRAWN BY JF DATE 2/9/09  
 DESIGN BY JF DATE 2/9/09  
 CHECKED BY DATE

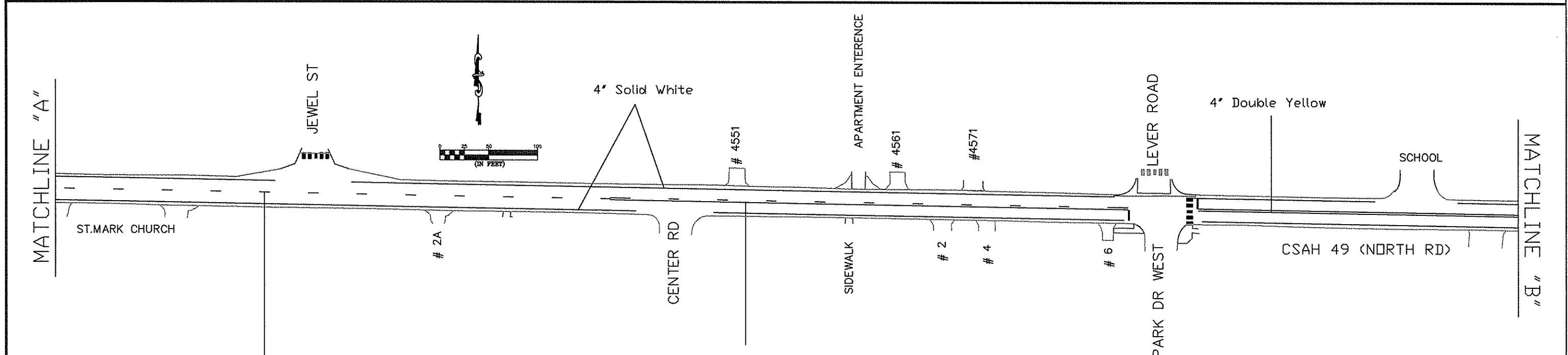
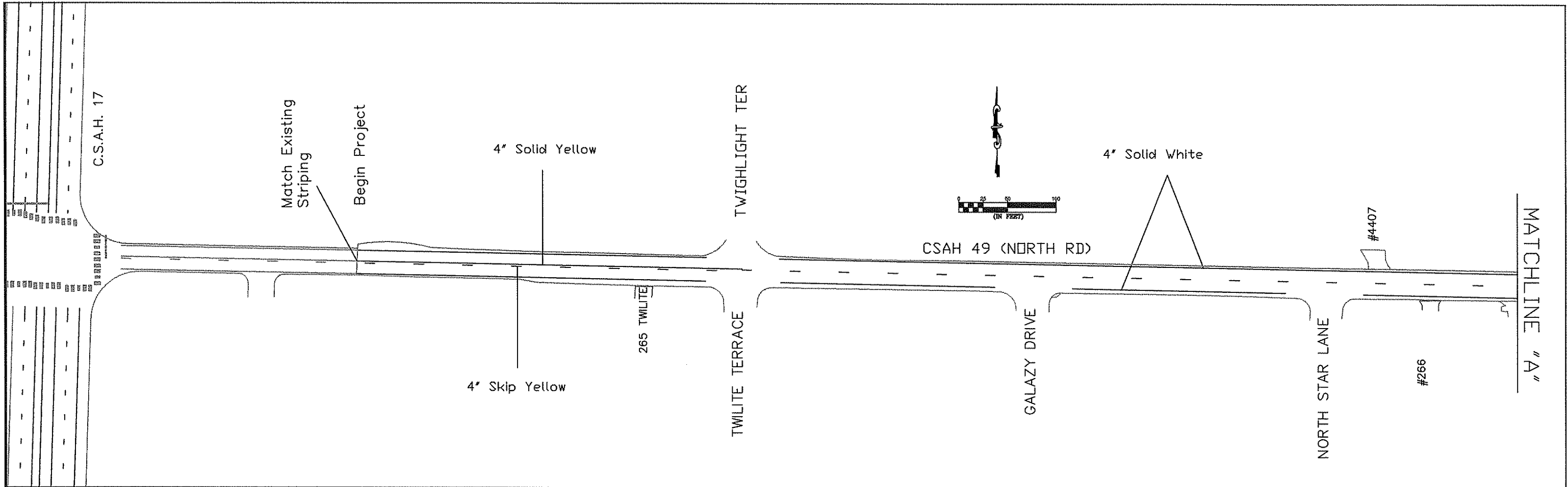


ANOKA COUNTY  
 HIGHWAY DEPT.

STATE PROJECT NO. \_\_\_\_\_  
 STATE AID PROJECT NO. \_\_\_\_\_  
 CITY PROJECT NO. \_\_\_\_\_  
 COUNTY PROJECT NO. 09-14-49

DETAILS  
 Sheet 8 of 10 Sheets





- Notes:
1. All Traffic Control Devices shall conform to the Minnesota Manual on Uniform Traffic Control Devices, including "Field Manual for Temporary Traffic Control Zone Layouts - January 2007"
  2. All Traffic Control Devices shall have Retroreflective sheeting.
  3. Anoka County Traffic Personnel will mark begin and end points for all lane marking.

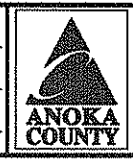
NO	DATE	BY	CKD	APPR	REVISION

NAME: T:\Traffic\dwg\CSAH 49\from CSAH 17 to CSAH 23.dwg

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 Underwood*  
 SIGNATURE: *Charles Underwood*  
 DATE: *3/23/09* LICENSE NO. *40914*

DRAWN BY: *MIH* DATE: *01/14/09*  
 DESIGN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

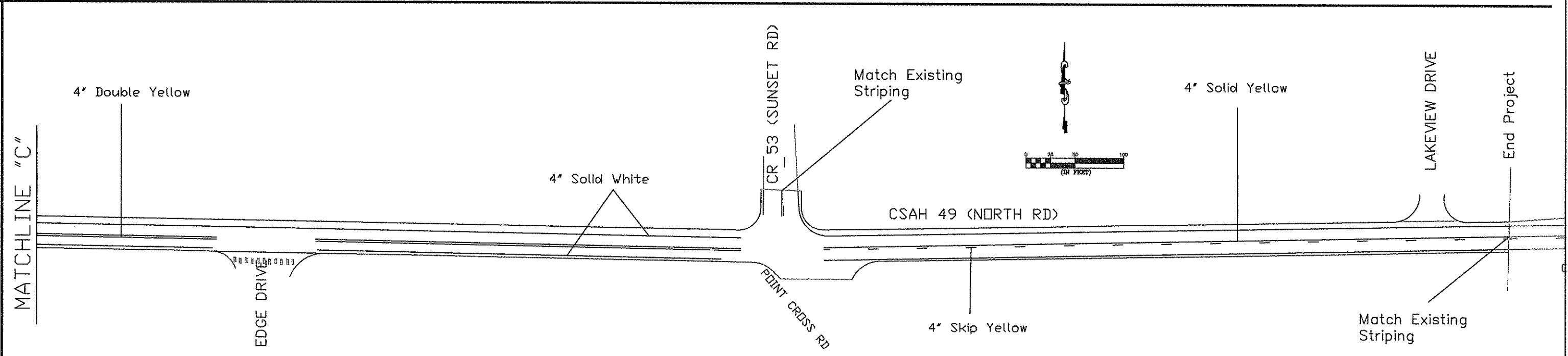
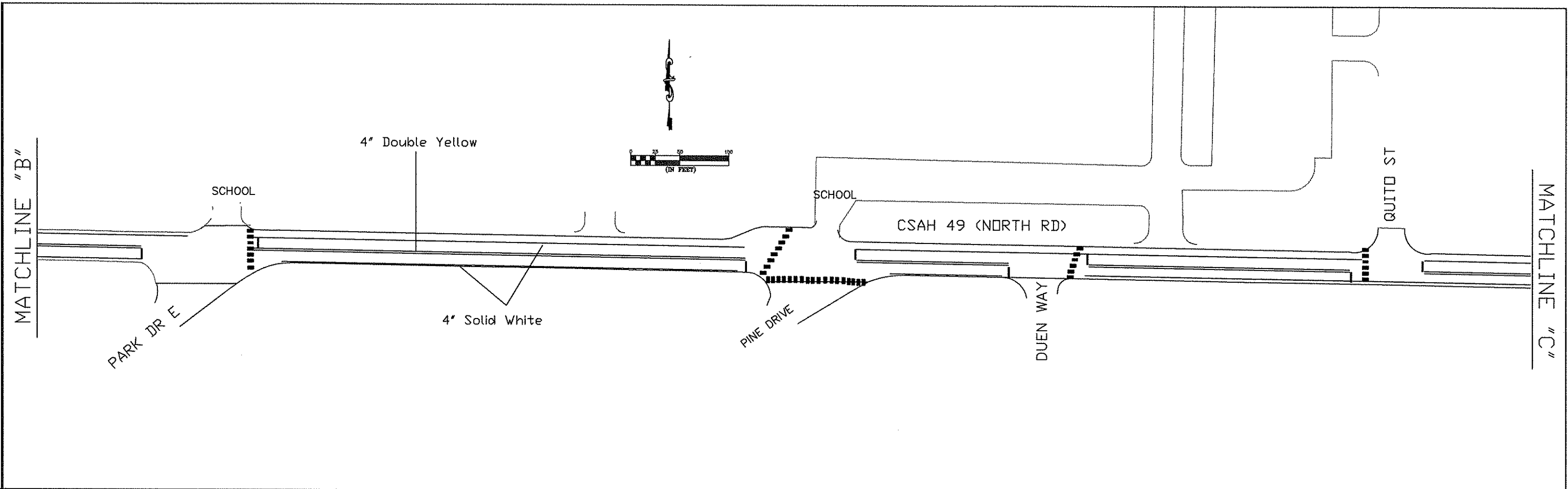


**ANOKA COUNTY  
HIGHWAY DEPT.**

STATE PROJECT NO. \_\_\_\_\_  
 STATE AID PROJECT NO. \_\_\_\_\_  
 CITY PROJECT NO. \_\_\_\_\_  
 COUNTY PROJECT NO. *09-14-49*

**CR 49 (NORTH RD)  
from CSAH 17 to  
CR 53 (Sunset Rd)**

Sheet *09* of *10* Sheets



- Notes:
1. All Traffic Control Devices shall conform to the Minnesota Manual on Uniform Traffic Control Devices, including "Field Manual for Temporary Traffic Control Zone Layouts - January 2007"
  2. All Traffic Control Devices shall have Retroreflective sheeting.
  3. Anoka County Traffic Personnel will mark begin and end points for all lane marking.

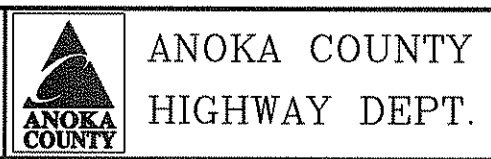
NO	DATE	BY	CKD	APPR	REVISION

NAME: T:\Traffic\dwg\CSAH 49\from CSAH 17 to CSAH 23.dwg

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 Cadzow*  
 SIGNATURE: *Charles Cadzow*  
 DATE: *3/23/09* LICENSE NO. *90416*

DRAWN BY: *MTM* DATE: *01/14/09*  
 DESIGN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



STATE PROJECT NO. \_\_\_\_\_  
 STATE AID PROJECT NO. \_\_\_\_\_  
 CITY PROJECT NO. \_\_\_\_\_  
 COUNTY PROJECT NO. *09-14-49*

CR 49 (NORTH RD)  
 from CSAH 17 to  
 CR 53 (Sunset Rd)  
 Sheet *10* of *10* Sheets