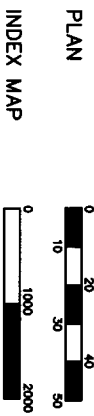


SCALES IN FEET



PLAN	5809 FEET	1.10 MILES
INDEX MAP	---	---
GROSS LENGTH	5809 FEET	1.10 MILES
BRIDGE LENGTH	---	---
EXCEPTIONS	---	---
NET LENGTH	5809 FEET	1.10 MILES

PLAN SYMBOLS

STATE LINE	=====
COUNTY LINE	=====
TOWNSHIP OR RANGE LINE	=====
SECTION LINE	=====
QUARTER LINE	=====
SIXTEENTH LINE	=====
EXISTING RIGHT OF WAY LINE	=====
PROPOSED RIGHT OF WAY LINE	=====
CORPORATE OR CITY LIMITS	=====
RAILROAD	=====
RAILROAD RIGHT-OF-WAY	=====
RAILROAD CROSSING SIGN	=====
CROSSING GATE	=====
MEANDER CORNER	=====
SLOPE EASEMENT (CONST. LIMITS)	=====
MARSH	=====
DECIDUOUS TREE	=====
CONIFEROUS TREE	=====
BUSH OR SHRUB	=====
WOODS	=====
CATCH BASIN	=====
BRIDGE	=====
IRON PIPE OR ROD MONUMENT (STONE, CONCRETE OR METAL)	=====
WOODEN HUB	=====

UTILITY SYMBOLS

UTILITY POLE	=====
GUY OR ANCHOR	=====
STREET LIGHT	=====
TELEPHONE PEDESTAL	=====
GAS MAIN	=====
WATER MAIN	=====
TELEPHONE VAULT	=====
ELECTRIC VAULT	=====
TELEPHONE CABLE	=====
ELECTRIC CABLE	=====
STORM SEWER	=====
SANITARY SEWER	=====
SEWER MANHOLE	=====
GATE VALVE	=====
CONTROLLER CABINET	=====
EXISTING HYDRANT	=====
CABLE TELEVISION-BURIED	=====
FIBER OPTIC CABLE	=====
TRAFFIC SIGNAL LINE	=====
TRAFFIC SIGNAL HAND HOLE	=====

FOR PLANS AND UTILITIES SYMBOLS SEE MN/DOT TECHNICAL MANUAL.

GOVERNING SPECIFICATIONS-

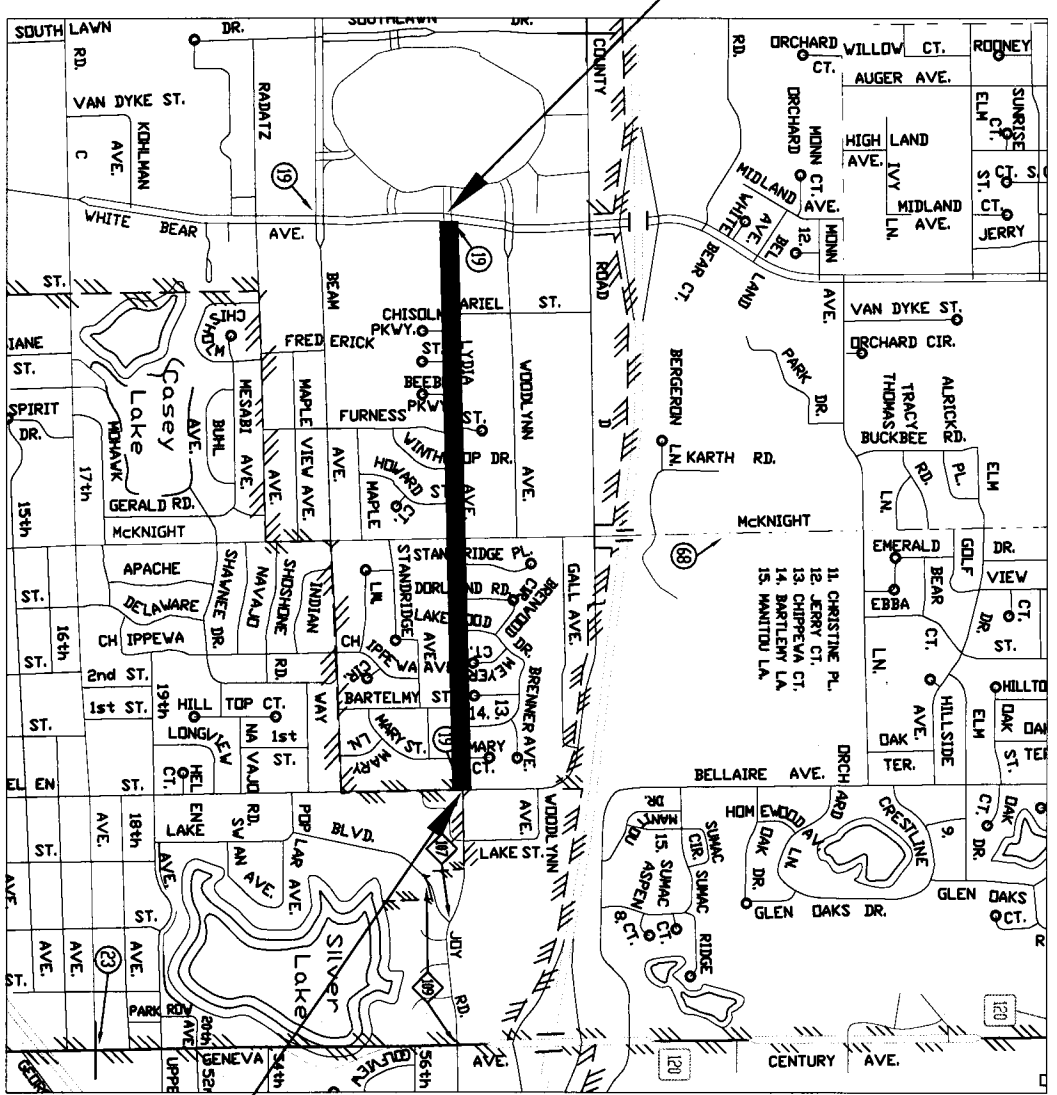
THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MMUTCD, INCLUDING FIELD MANUALS FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS, SEE HTTP://WWW.DOT.STATE.MN.US/TRAFFICENG/

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



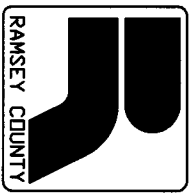
BEGIN S.A.P. 062-619-032
LYDIA AVE.
STA. 0+00.00



DESIGN DESIGNATION

WHITE BEAR AVE TO ARIEL ST.	ARIEL ST. TO MCKNIGHT RD.	MCKNIGHT RD. TO BELLAIR AVE.	
PRESENT ADT (2013)	3850	2750	3100
PROJECTED ADT (2033)	4620	3300	3720
FUNCTIONAL CLASS	B MINOR	B MINOR	B MINOR
TRAFFIC LANES	2	2	2
PARKING LANES	0	2	2
SOILS R-VALUE	50	50	50

BASED ON STOPPING DISTANCE
HEIGHT OF EYE: 3.50 FEET
HEIGHT OF OBJECT: 2.00 FEET



RAMSEY COUNTY
DEPARTMENT OF PUBLIC WORKS

PLAN FOR THE BITUMINOUS MILL & OVERLAY OF

LYDIA AVE.
S.A.P. No. 062-619-032

BETWEEN: WHITE BEAR AVE. AND BELLAIR AVE.

INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATED QUANTITIES
3	TYPICAL SECTIONS
4-8	PLAN SHEETS
9-13	STRIPING PLAN

THIS PLAN CONTAINS 13 SHEETS

END S.A.P. 062-619-032
LYDIA AVE. STA. 58+08.72

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.

RECOMMENDED FOR APPROVAL
RAMSEY COUNTY ENGINEER
DATE 5/1/13

APPROVED
CITY OF MARLEND ENGINEER
DATE 5/15/13

REG. NO. 26511 DATE 5/3/2013

MINNESOTA DEPARTMENT OF TRANSPORTATION

DATE 5/29/13
DATE 5/29/13

DRAWN BY	D. BODELSON	DATE	5-14-2013
CHECKED BY	L. LORTIE	DATE	4-29-2013
PLAN REVISIONS			
DATE	SHEET NO. & DESCRIPTION	BY	

ESTIMATED QUANTITIES

Item Number	Item	Notes	Unit	Estimated Quantity 100% S.A.P. 062-619-032
2021.501	Mobilization		L.S.	1
2104.501	Remove Bituminous Curb		L.F.	100
2105.501	Common Excavation	1,2	C.Y.	6
2105.525	Topsoil Borrow (LV)	1,3	C.Y.	6
2232.501	Mill Bituminous Surface (2")		S.Y.	33,622
2357.502	Bituminous Material for Tack Coat	4	Gal.	1,682
2360.501	Type SPWEB340E (2") Wearing Course Mixture	5	Ton	3,700
2360.505	Bituminous Mixture for Patching	6	Ton	100
2535.501	Bituminous Curb		L.F.	100
2563.601	Traffic Control		L.S.	1
2573.530	Storm Drain Inlet Protection		Each	22
2573.571	Rapid Stabilization Method 3	7	M Gal	0.04
2582.501	Pavement Message Rt Arrow - Epoxy		Each	3
2582.502	4" Solid Line White - Epoxy		L.F.	8,250
2582.502	24" Solid Line White - Epoxy		L.F.	70
2582.502	4" Broken Line White - Epoxy		L.F.	350
2582.502	24" Solid Line Yellow - Epoxy		L.F.	40
2582.502	4" Double Line Yellow - Epoxy		L.F.	5,020
2582.503	Crosswalk Marking - Epoxy		S.F.	240

QUANTITY NOTES

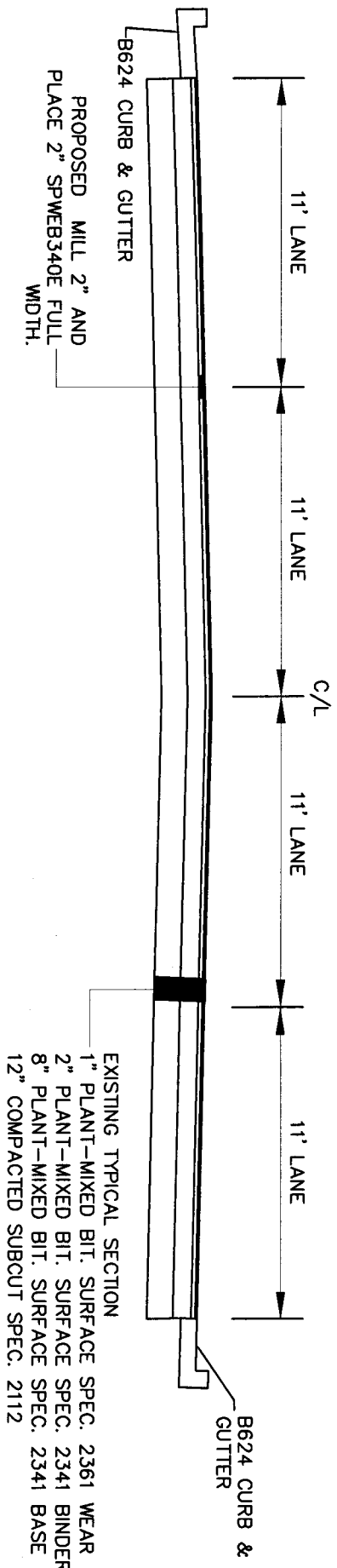
1. To be used for restoration of curb removal areas.
2. Common excavation is measured 3 feet from the back of curb at a depth of 6 inches.
3. Topsoil is measured 3 feet from back of curb at a depth of 6 inches.
4. Tack coat is estimated at 0.05 gallons / square yard bituminous / lift
5. Bituminous is estimated at 110 lbs / square yard / inch of bituminous
6. Bituminous patching mix is SPWE340B
7. Rapid stabilization method 3 is estimated at 6,000 gallons / acre

NO. REV-DATE	BY:	DESCRIPTION
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.		
SIGNED:		
REG. NO.:	21571	DATE: 5/13/2013

LYDIA AVENUE WHITE BEAR AVENUE TO BELLAIRE AVENUE	S.A.P. 062-619-032 COUNTY PROJ. P-3332
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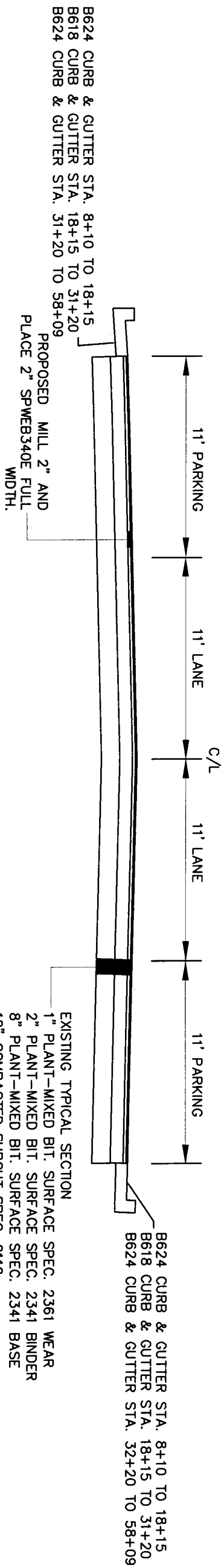


TYPICAL SECTION - LYDIA AVE. STA. 0+00 TO STA. 8+10



EXISTING TYPICAL SECTION
 1" PLANT-MIXED BIT. SURFACE SPEC. 2361 WEAR
 2" PLANT-MIXED BIT. SURFACE SPEC. 2341 BINDER
 8" PLANT-MIXED BIT. SURFACE SPEC. 2341 BASE
 12" COMPACTED SUBCUT SPEC. 2112

TYPICAL SECTION - LYDIA AVE. STA. 8+10 TO STA. 59+09



EXISTING TYPICAL SECTION
 1" PLANT-MIXED BIT. SURFACE SPEC. 2361 WEAR
 2" PLANT-MIXED BIT. SURFACE SPEC. 2341 BINDER
 8" PLANT-MIXED BIT. SURFACE SPEC. 2341 BASE
 12" COMPACTED SUBCUT SPEC. 2112

B624 CURB & GUTTER STA. 8+10 TO 18+15
 B618 CURB & GUTTER STA. 18+15 TO 31+20
 B624 CURB & GUTTER STA. 32+20 TO 58+09

B624 CURB & GUTTER STA. 8+10 TO 18+15
 B618 CURB & GUTTER STA. 18+15 TO 31+20
 B624 CURB & GUTTER STA. 31+20 TO 58+09

PROPOSED MILL 2" AND
 PLACE 2" SPWEB340E FULL
 WIDTH.

NO.	REV.	DATE	BY:	DESCRIPTION

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 SIGNED: *[Signature]*
 REG NO: 2651
 DATE: 5/13/2013

LYDIA AVENUE
 WHITE BEAR AVENUE TO BELLAIRE AVENUE

S.A.P. 062-619-032
 COUNTY PROJ. P-3332



TYPICAL SECTIONS
 SHEET 3 OF 13 SHEETS

PLAZA 3000



SCALE 1"=50'

BEGIN 2" MILL STA. 0+00
S.A.P. 062-619-032

0+00

1+00

2+00

3+00

4+00

5+00

6+00

7+00

DRAIN-CB

DRAIN-CB

2" MILL LIMITS

DRAIN-CB

CONSTRUCTION C/L

MATCH LINE 7+00

HALF PRICED BOOKS

CONCORDIA ARM'S
APARTMENT'S

ARIEL ST.

2043

2049

2055

2061

2067

2073

2079

2085

2091

7+00

8+00

9+00

10+00

11+00

12+00

13+00

14+00

CONSTRUCTION C/L

DRAIN-CB

DRAIN-CB

DRAIN-CB

DRAIN-CB

MATCH LINE 14+00

2" MILL LIMITS

DRAIN-CB

DRAIN-CB

DRAIN-CB

DRAIN-CB

DRAIN-CB

ARM'S
TMENT'S

CHISOLM PKWY.

FREDERICK PKWY.

SCALE 1"=50'



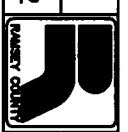
MATCH LINE 14+00

NO.	REV.	DATE	BY	DESCRIPTION

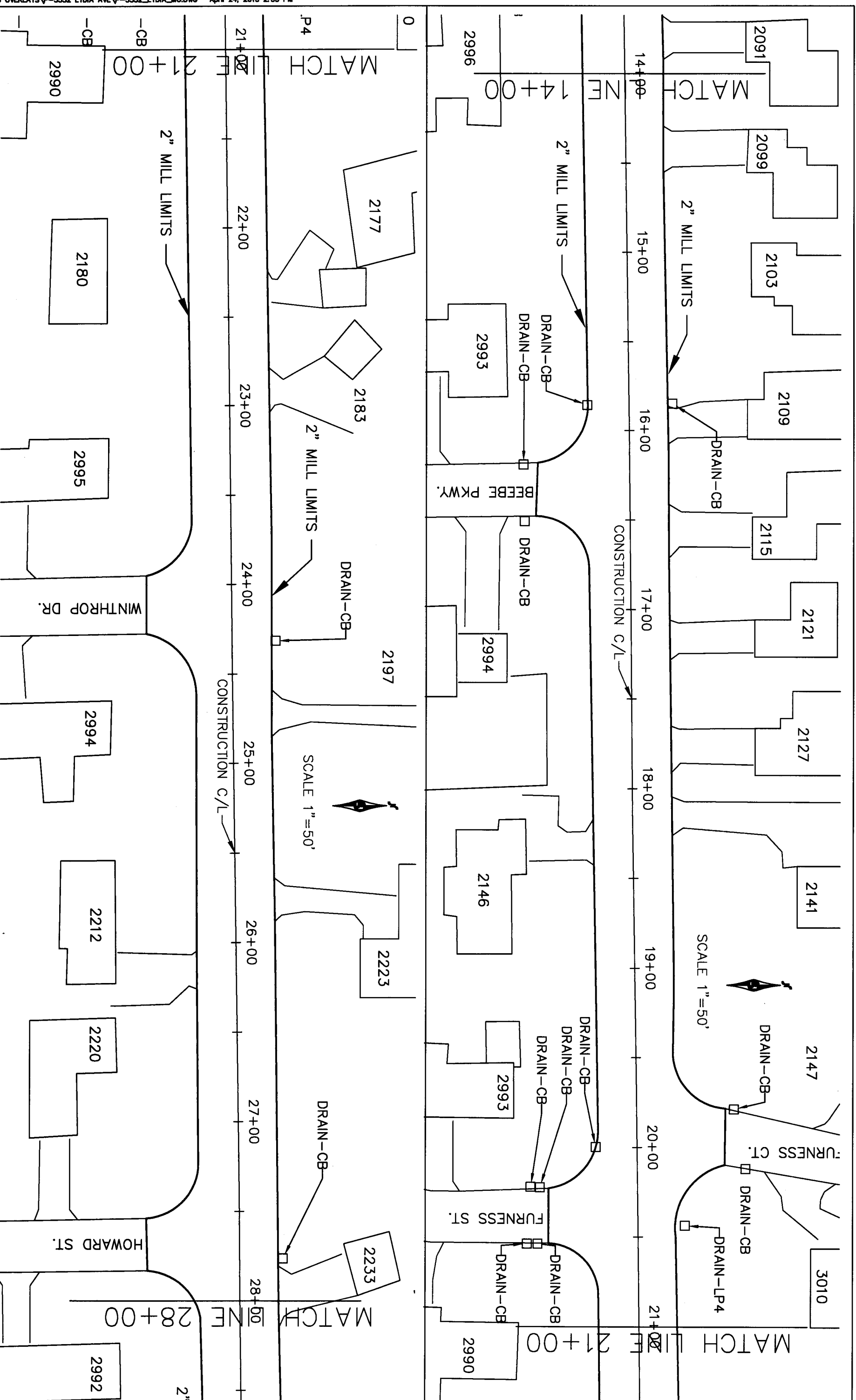
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
SIGNED: *[Signature]* DATE: 5/13/2013
REG. NO.: 26571

LYDIA AVENUE
WHITE BEAR AVENUE TO BELLAIRE AVENUE

S.A.P. 062-619-032
COUNTY PROJ. P-3332



ROADWAY PLAN
SHEET 4 OF 13 SHEETS



NO.	REV.	DATE	BY:	DESCRIPTION

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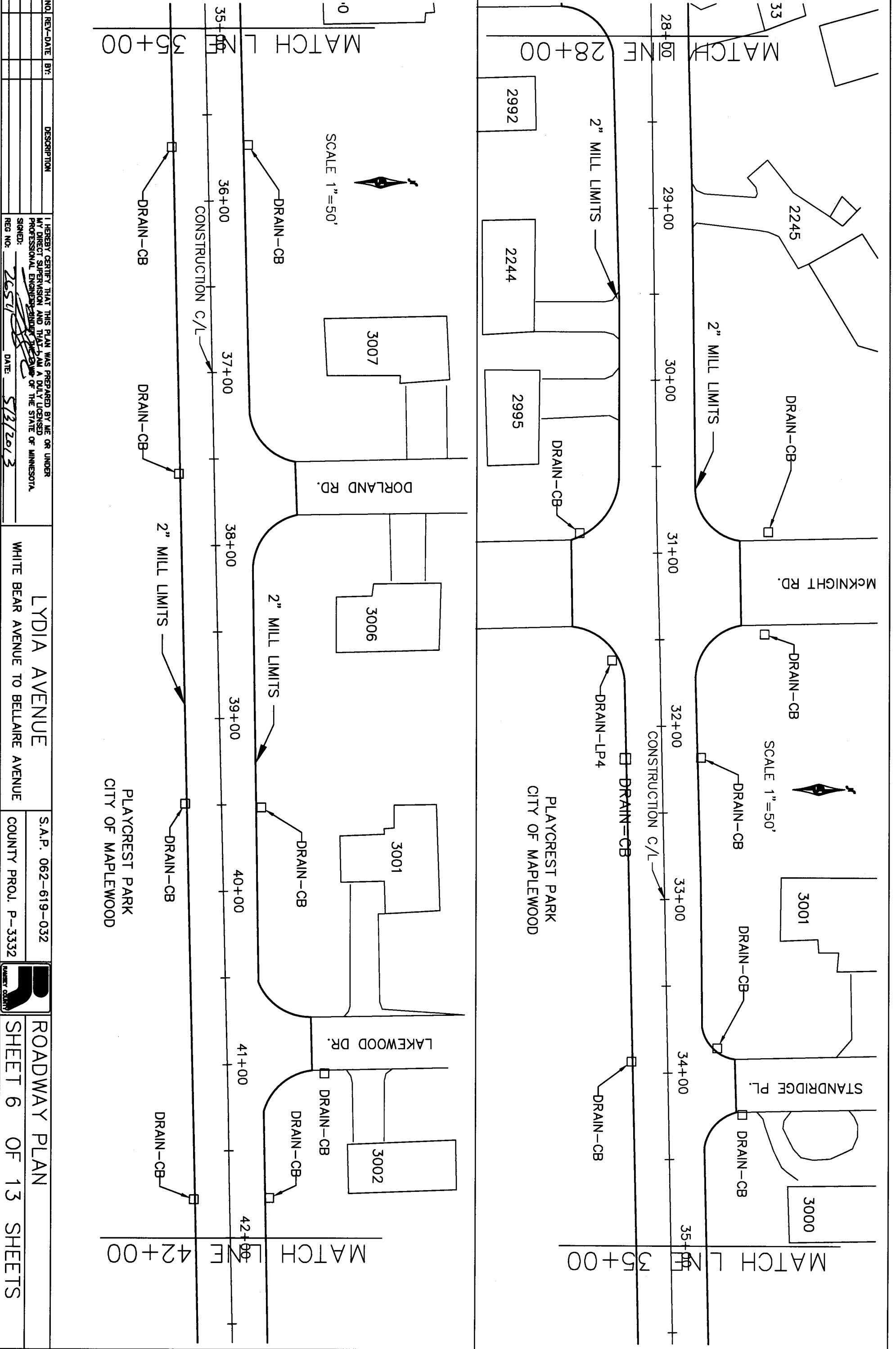
SIGNED: *[Signature]* DATE: 5/3/2013

REG. NO. 2454

LYDIA AVENUE
 WHITE BEAR AVENUE TO BELLAIRE AVENUE

S.A.P. 062-619-032
 COUNTY PROJ. P-3332

ROADWAY PLAN
 SHEET 5 OF 13 SHEETS



NO. REV. DATE	BY:	DESCRIPTION

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.

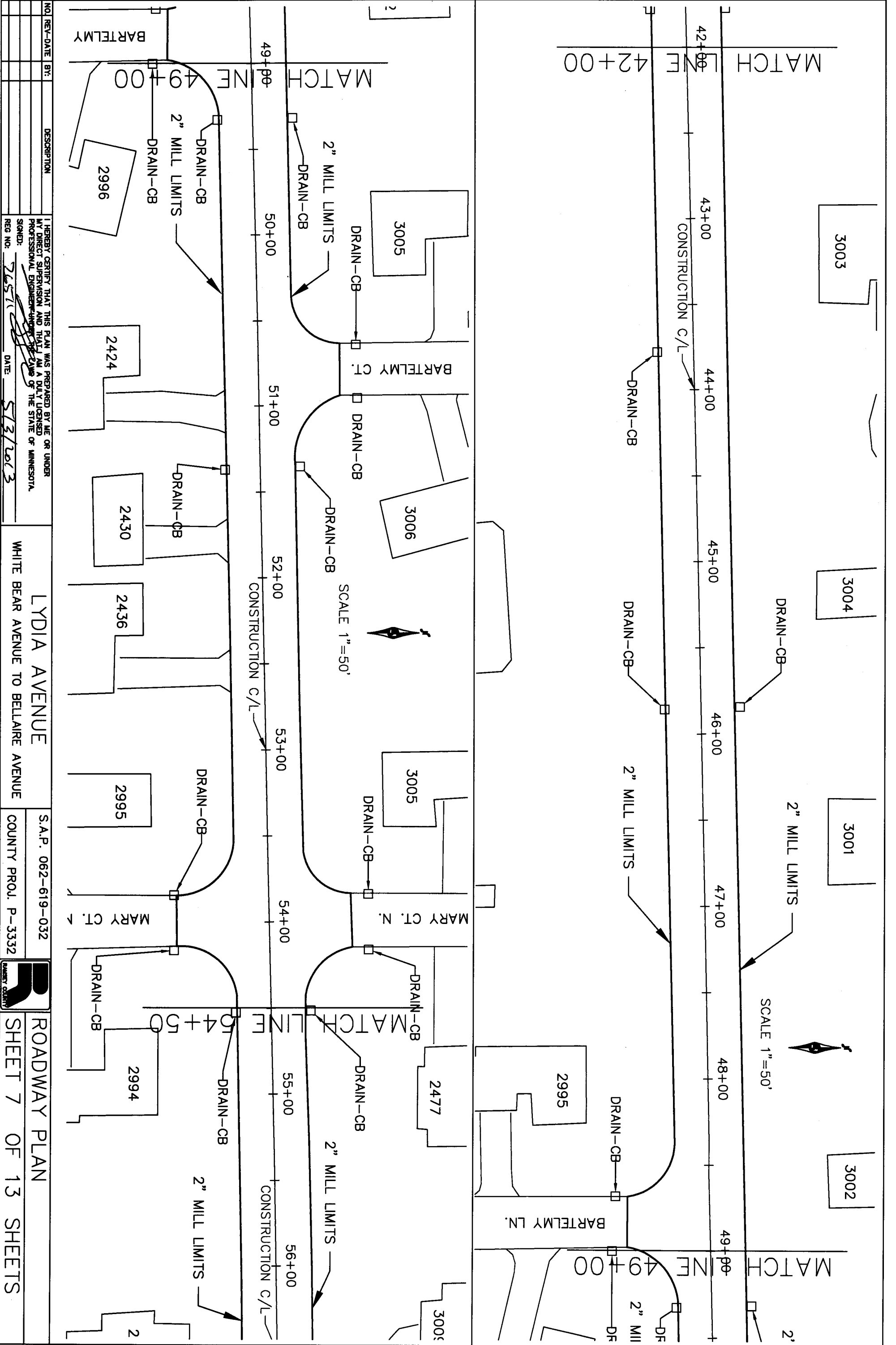
SIGNED: *[Signature]* REG. NO. 26571 DATE 5/3/2013

LYDIA AVENUE
 WHITE BEAR AVENUE TO BELLAIRE AVENUE

S.A.P. 062-619-032
 COUNTY PROJ. P-3332



ROADWAY PLAN
 SHEET 6 OF 13 SHEETS



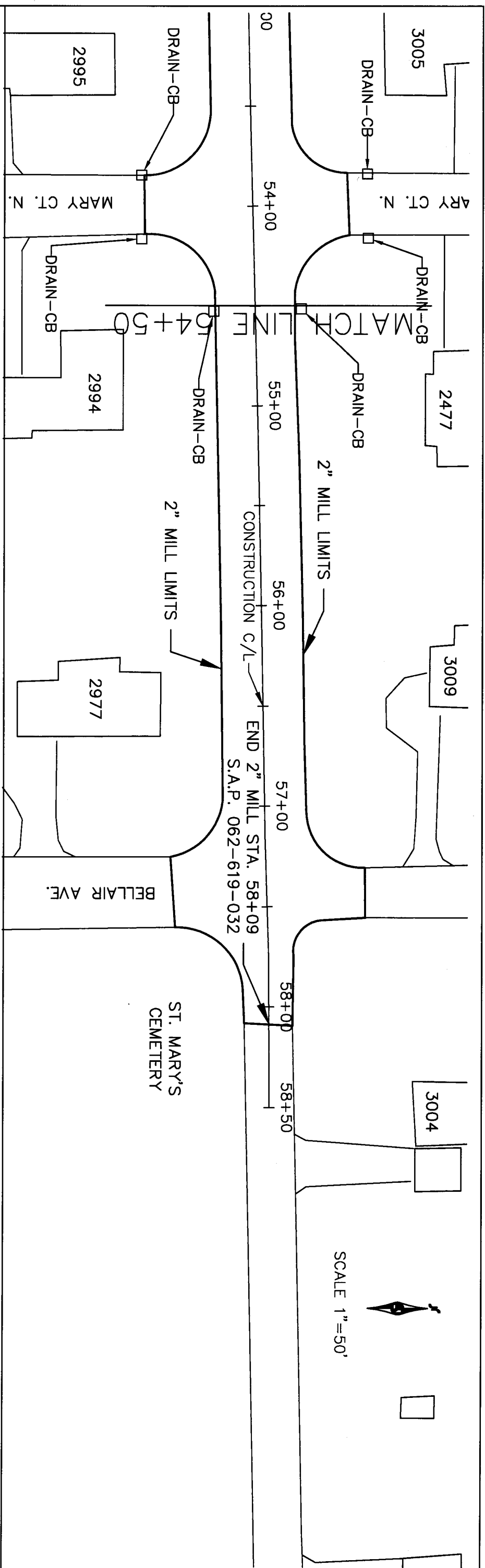
NO.	REV.	DATE	BY:	DESCRIPTION

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 SIGNED: *[Signature]* DATE: 5/3/2013
 REG. NO.: 24511

LYDIA AVENUE
 WHITE BEAR AVENUE TO BELLAIRE AVENUE
 S.A.P. 062-619-032
 COUNTY PROJ. P-3332



ROADWAY PLAN
 SHEET 7 OF 13 SHEETS



NO.	REV.	DATE	BY:	DESCRIPTION

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SIGNED: *[Signature]* DATE: 5/3/2013

REG. NO.: 26571

LYDIA AVENUE
 WHITE BEAR AVENUE TO BELLAIRE AVENUE

S.A.P. 062-619-032
 COUNTY PROJ. P-3332

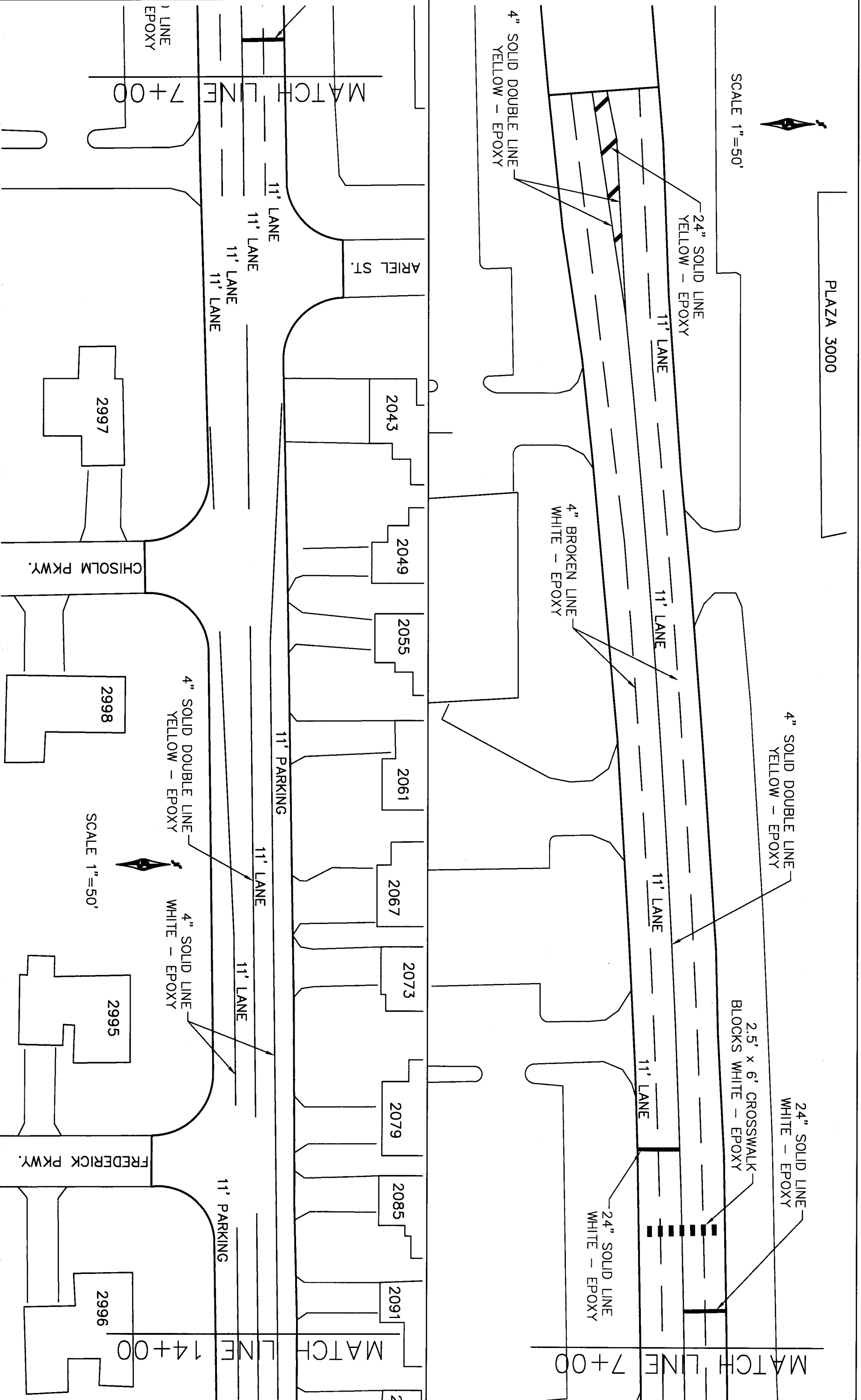


ROADWAY PLAN
 SHEET 8 OF 13 SHEETS

PLAZA 3000



SCALE 1"=50'



NO.	REV.	DATE	BY:	DESCRIPTION

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 SIGNED: *[Signature]*
 REG. NO.: 26571 DATE: 5/31/2013

LYDIA AVENUE
 WHITE BEAR AVENUE TO BELLAIRE AVENUE

S.A.P. 062-619-032
 COUNTY PROJ. P-3332



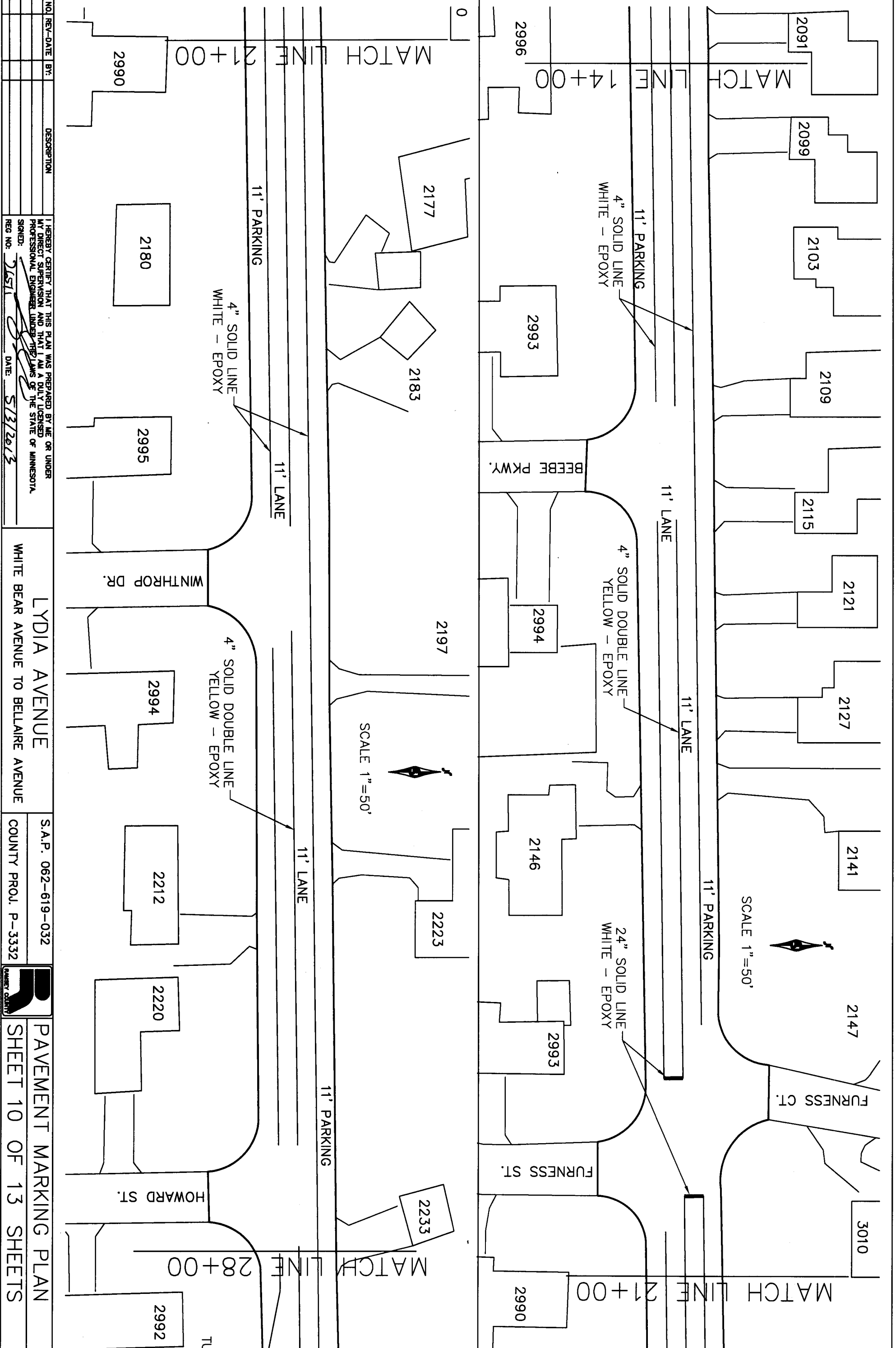
PAVEMENT MARKING PLAN
 SHEET 9 OF 13 SHEETS

SCALE 1"=50'



7+00

14+00



NO.	REV.	DATE	BY:	DESCRIPTION

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 PLANS OF THE STATE OF MINNESOTA.

SIGNED: *[Signature]* DATE: 5/3/2013

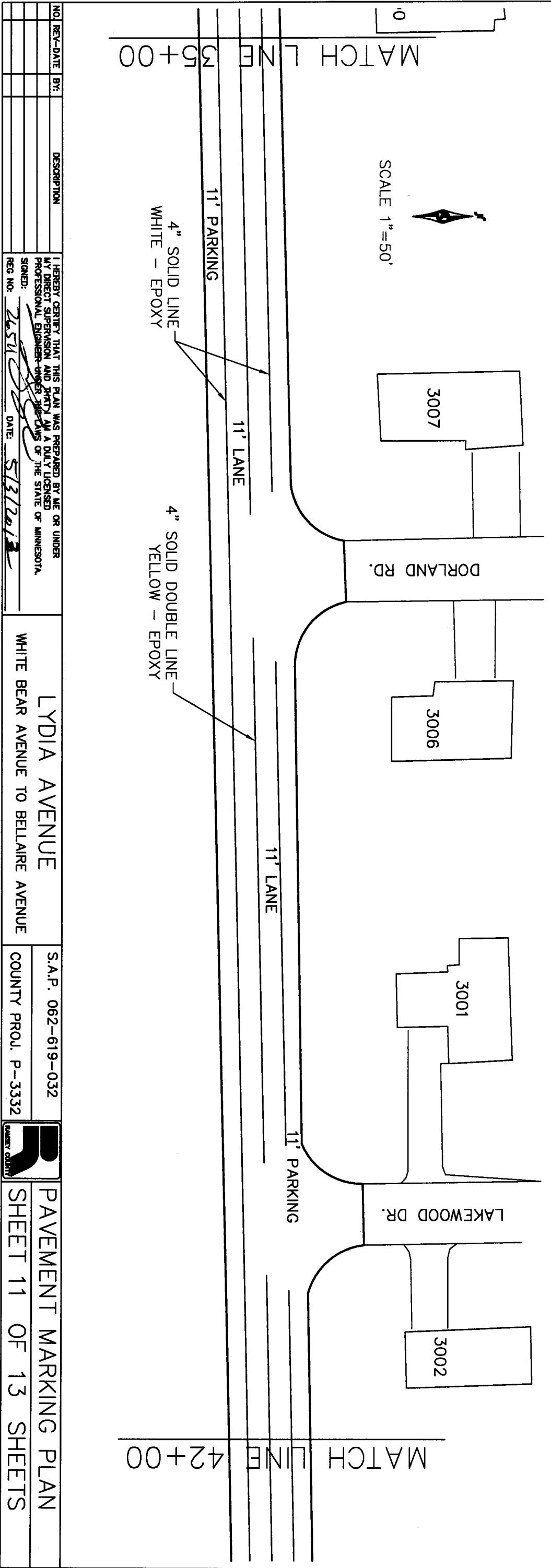
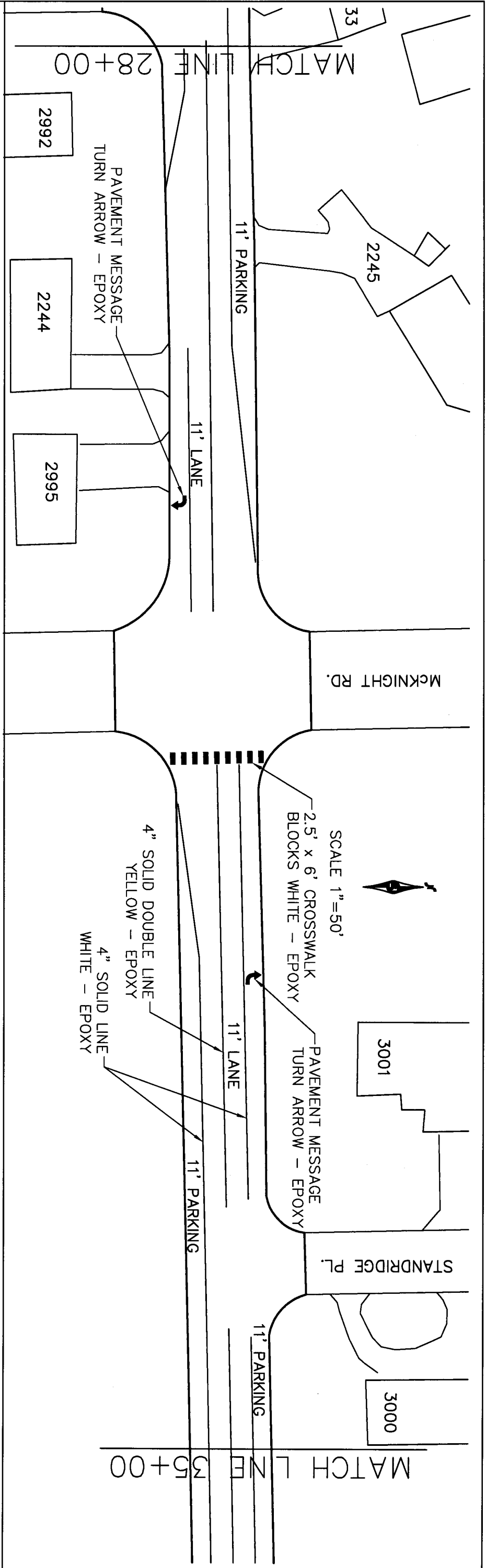
REG. NO. 21571

LYDIA AVENUE
WHITE BEAR AVENUE TO BELLAIRE AVENUE



S.A.P. 062-619-032
COUNTY PROJ. P-3332

PAVEMENT MARKING PLAN
SHEET 10 OF 13 SHEETS



NO.	REV.	DATE	BY:	DESCRIPTION

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SIGNED: *[Signature]* DATE: 5/3/2013

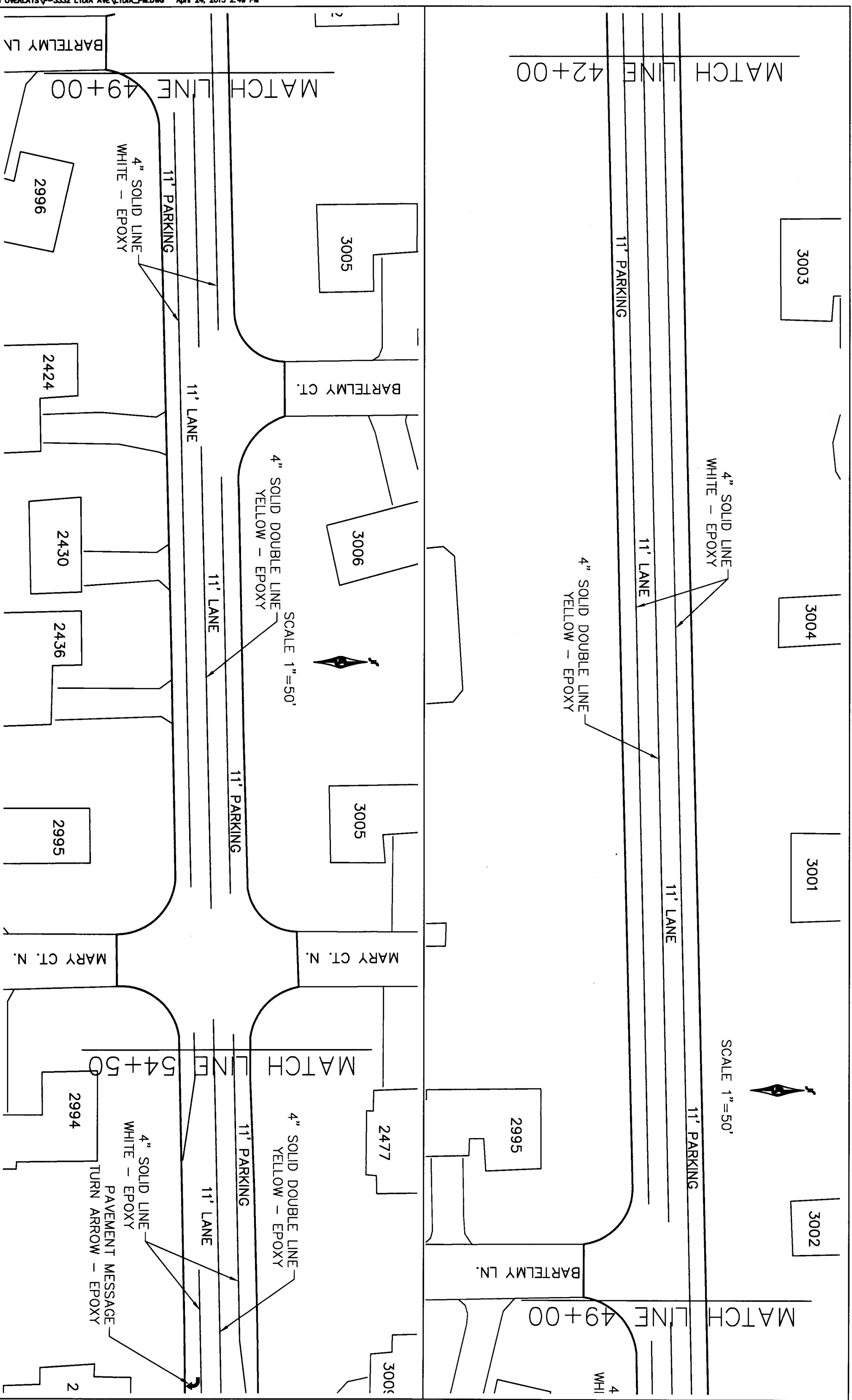
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LYDIA AVENUE
WHITE BEAR AVENUE TO BELLAIRE AVENUE


S.A.P. 062-619-032
COUNTY PROJ. P-3332

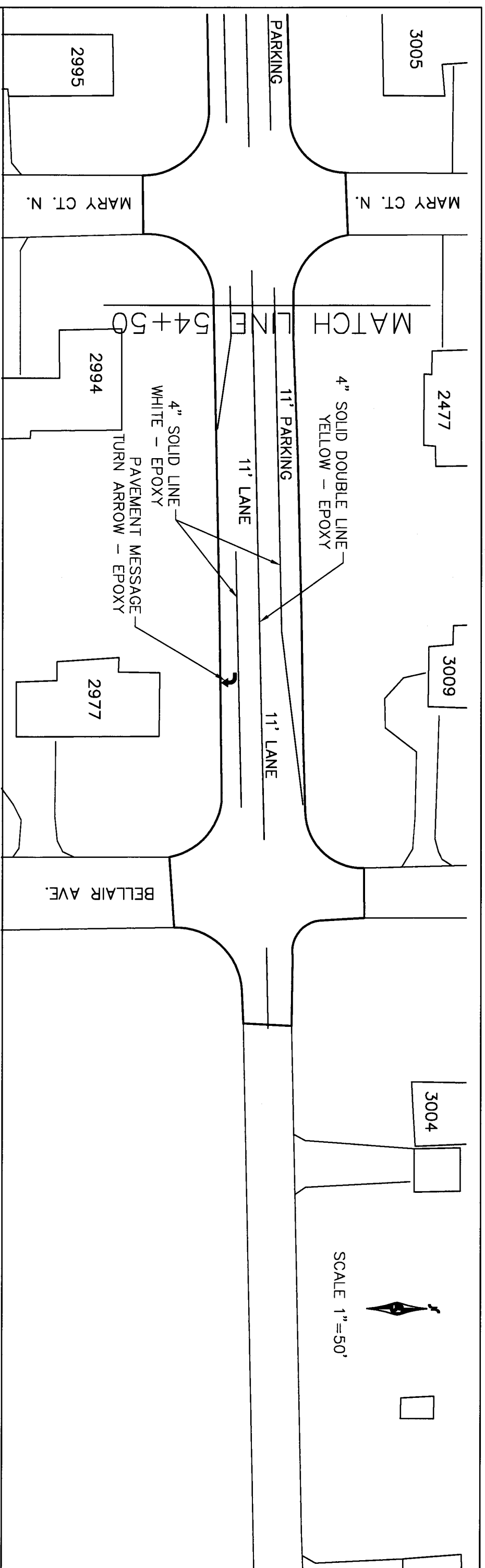
PAVEMENT MARKING PLAN
SHEET 11 OF 13 SHEETS



NO. REV.-DATE	BY:	DESCRIPTION
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. SIGNED: <i>[Signature]</i> DATE: 5/31/2013 REG. NO.: 26511		

LYDIA AVENUE
 WHITE BEAR AVENUE TO BELLAIRE AVENUE
 S.A.P. 062-619-032
 COUNTY PROJ. P-3332


 PAVEMENT MARKING PLAN
 SHEET 12 OF 13 SHEETS



NO.	REV.	DATE	BY:	DESCRIPTION

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 SIGNED: *[Signature]* REG. NO. 26511 DATE: 5/3/2013

LYDIA AVENUE
 WHITE BEAR AVENUE TO BELLAIRE AVENUE

S.A.P. 062-619-032
 COUNTY PROJ. P-3332



PAVEMENT MARKING PLAN
 SHEET 13 OF 13 SHEETS