

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 _____

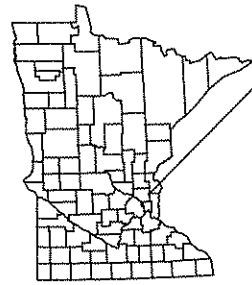
- LOWLAND _____
- TIMBER ORCHARD _____
- BRUSH NURSERY _____
- CATTLE GUARD _____
- OVERPASS (Highway Over) _____
- UNDERPASS (Highway Under) _____
- BRIDGE _____
- BUILDING (One Story Frame) _____
- F-FRAME C-CONCRETE _____
- S-STONE T-TILE _____
- B-BRICK ST-STUCCO _____
- RAILROAD CROSSING BELL _____
- 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 _____
- WATERMAIN _____
- 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 _____ 0' 100'
- PROFILE _____ 0' 100'
- HORIZONTAL _____ 0' 10'
- VERTICAL _____ 0' 10'
- X-SECTIONS _____ 0' 10'
- HORIZONTAL _____ 0' 10'
- VERTICAL _____ 0' 10'
- INDEX MAP _____ 0' 5000'



PROJECT LOCATION
 CITY OF COLUMBUS
 ANOKA COUNTY
 MN/DOT TRANSPORTATION DISTRICT - METRO
 SECTIONS 1, 11, 12, 14, 15, & 22
 TOWNSHIP T32 NORTH
 RANGE R22 WEST

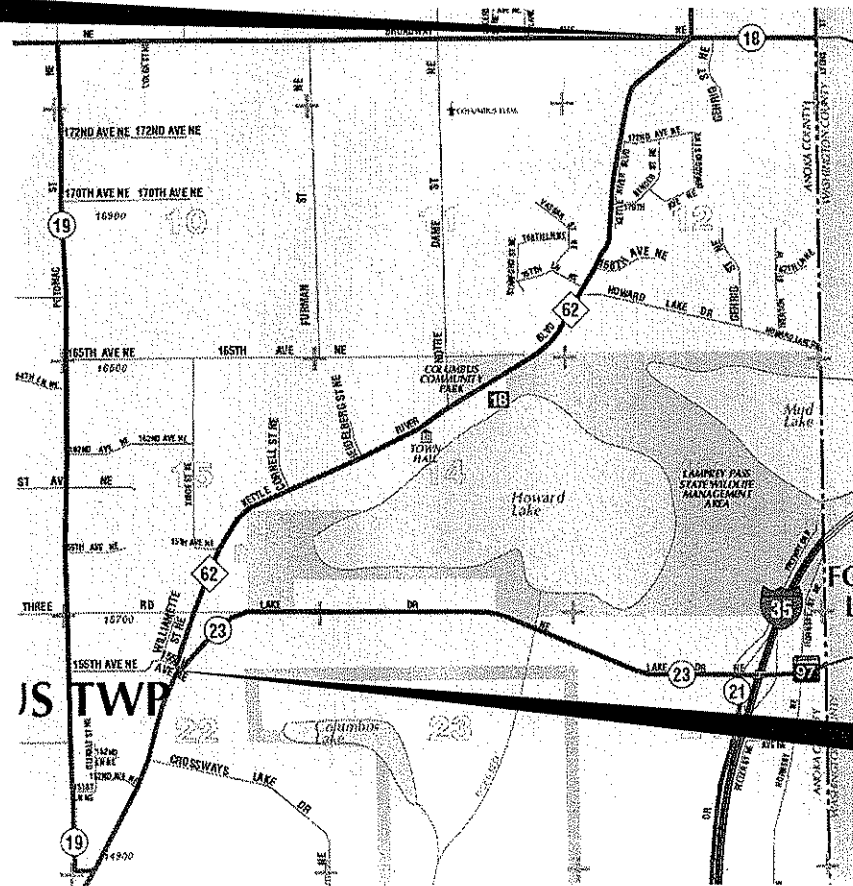
MINNESOTA DEPARTMENT OF TRANSPORTATION

ANOKA COUNTY

CONSTRUCTION PLAN FOR _____ RECLAIM AND OVERLAY, 4' WIDENING FOR NEW RTL / BYPASSES
 LOCATED ON CSAH 62 FROM CSAH 23 TO CSAH 18

CP 12-15-62
GROSS LENGTH _____ 18210 FEET _____ 3.449 MILES
BRIDGES-LENGTH _____ 0.00 FEET _____ 0.000 MILES
EXCEPTIONS-LENGTH _____ 0.00 FEET _____ 0.000 MILES
NET LENGTH _____ 18210 FEET _____ 3.449 MILES

CITY OF COLUMBUS



END CONSTRUCTION CP 12-15-62
 CSAH 62 LNB STA 192+10

BEGIN CONSTRUCTION CP 12-15-62
 CSAH 62 LNB STA 10+00

MINN. PROJ. NO. _____

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
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3	CALCULATIONS FOR RIGHT TURN & BYPASS LANES
4-5	TYPICAL SECTIONS
6-8	CONSTRUCTION TABS
9-10	MISCELLANEOUS DETAILS
11-17	CONSTRUCTION PLAN
18	PERMANENT MARKING TABULATION
19-26	TEMPORARY SIGNING, PERMANENT STRIPING, & PAVEMENT MESSAGES
27	SIGNING & STRIPING DETAILS

THIS PLAN CONTAINS 27 SHEETS

DESIGN DESIGNATION

ESAL 20 _____	XXXXXXX
R VALUE _____	50
ADT (2011) = _____	3200
Proj. ADT (2031) = _____	4500
Proj. HCADT (2031) = _____	200
Soil Factor _____	NA
_____ 10 _____	TON DESIGN

Functional Classification _____	A-MINOR ARTERIAL
No. of Traffic Lanes _____	2
No. of Parking Lanes _____	0
Design Speed _____	55 MPH
Based on Stopping Sight Distance _____	
Height of eye _____	3.5'
Height of object _____	2.0'
Design Speed not achieved at:	
STA. _____ TO STA. _____	MPH _____

Approved: ANOKA COUNTY ENGINEER 3/4/2012

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\12-01-00\CSAH_62_(CSAH23-CSAH18)\Plan1 Title.dgn 02/27/2012 2:32:01 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: 3/4/12 LICENSE NO. 40416

DRAWN BY: SRK DATE: 1/20/2012
 DESIGN BY: SRK DATE: 1/20/2012
 CHECKED BY: JO DATE: _____

ANOKA COUNTY
 HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

TITLE SHEET

Sheet 1 of 27 Sheets

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	TAB	NOTE NO.	UNIT	TOTAL EST. QUANT.
2011.601	CONSTRUCTION SURVEY			LUMP SUM	1
2021.501	MOBILIZATION			LUMP SUM	1
2104.503	REMOVE CONCRETE DRIVEWAY PAVEMENT	A	1,20	SQ YD	60
2104.505	REMOVE BITUMINOUS PAVEMENT	B	1,20	SQ YD	2267
2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	C	1	LIN FT	94
2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	D	1	LIN FT	934
2104.523	SALVAGE SIGN TYPE C			EACH	21
2105.525	TOPSOIL BORROW (LV)		19	CU YD	53
2105.602	CONSTRUCT TURN LANE		12	EACH	13
2105.602	CONSTRUCT BYPASS LANE		12	EACH	4
2123.503	MOTOR GRADER			HOUR	20
2130.501	WATER			MGAL	224
2211.501	AGGREGATE BASE CLASS 5	E	3	TON	3921
2221.501	AGGREGATE SHOULDERING CLASS 5	F	4,7	TON	863
2232.501	MILL BITUMINOUS SURFACE (2")	G	1	SQ YD	368
2331.604	BITUMINOUS PAVEMENT RECLAMATION		2	SQ YD	62247
2357.502	BITUMINOUS MATERIAL FOR TACK COAT			GALLON	3097
2360.501	TYPE SP 12.5 WEARING COURSE MIX (4,B)	H	7,13,20	TON	261
2360.501	TYPE SP 12.5 WEARING COURSE MIX (4, E)	I	15,18	TON	12813
2360.502	TYPE SP 12.5 NON-WEARING COURSE MIX (4, B)	J	16	TON	3079
2501.511	18" CS PIPE CULVERT			LIN FT	16
2501.515	18" CS PIPE APRON			EACH	2
2501.602	15" SAFETY APRON			EACH	2
2503.603	15" HDPE PIPE SEWER		1	LIN FT	30
2511.501	RANDOM RIPRAP CLASS II		21	CU YD	10
2531.507	6" CONCRETE DRIVEWAY PAVEMENT	K	14,20	SQ YD	60
2535.501	BITUMINOUS CURB (MODIFIED)		17,18	LIN FT	370
2540.602	INSTALL MAIL BOX SUPPORT		8	EACH	72
2563.601	TRAFFIC CONTROL		5,6,9	LUMP SUM	1
2564.536	INSTALL SIGN PANEL TYPE C			EACH	1
2564.550	DELINEATOR, TYPE X4-4			EACH	4
2564.550	DELINEATOR, TYPE X4-13			EACH	4
2564.602	F&I SIGN PANEL TYPE C		11	SQ FT	230.5
2573.508	BITUMINOUS LINED FLUME		21	SQ YD	16
2573.602	CULVERT END PROTECTION		1,10	EACH	5
2581.501	REMOVABLE PREFORMED PLASTIC MARKING		5	LIN FT	1457
2582.502	4" SOLID LINE WHITE - EPOXY		7	LIN FT	38117
2582.502	4" BROKEN LINE WHITE-EPOXY		7	LIN FT	160
2582.502	4" SOLID LINE YELLOW - EPOXY		7	LIN FT	6754
2582.502	4" BROKEN LINE YELLOW-EPOXY		7	LIN FT	2970
2582.502	4" DOUBLE SOLID LINE YELLOW - EPOXY		7	LIN FT	3059

NOTES:

- LOCATION TO BE DETERMINED BY ENGINEER.
- ITEM INCLUDES THE REMOVAL OF BITUMINOUS CURB.
- LEVELING 8' SHOULDERS UP TO MAINLINE BASE COURSE , PRIOR TO PAVING WEAR COURSE.
- SHOULDERING CLASS 5 FOR FINISHED 1.5' GRVL. SHLDR. AND GRAVEL ENTRANCES.
- CL YELLOW SKIPS TO BE APPLIED AS SOON AS POSSIBLE ON EACH LIFT (MUST BE APPLIED BEFORE CONTRACTOR LEAVES FOR THE DAY).
- ROAD WORK AHEAD, DO NOT PASS, PASS WITH CARE, NO CENTER STRIPE AND BUMP/BUMP AHEAD SIGNS - TO BE INPLACE DURING RECLAIM / PAVING OPERATIONS.
- SHALL BE INSTALLED WITHIN 72 HOURS OF COMPLTION OF MAINLINE WEAR COURSE PAVING
- MAILBOXES TO BE INSTALLED AT THE EXISTING MAILBOX LOCATION. MAILBOX MATERIALS INCIDENTAL TO INSTALLATION.
- ALL TRAFFIC CONTROL METHODS SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- INSTALL 1 PER CULVERT INSIDE RTL / BYPASS WIDENING AREAS - AT THE HIGH INVERT.
- FURNISH AND INSTALL SIGN PANEL TYPE C , MOUNTING POSTS ARE INCIDENTAL TO ITEM.
- INCLUDES TIME AND MATERIALS TO CONSTRUCT. - COMMON EX., SELECT GRANULAR, AGG. BASE CL-5, TOPSOIL, MOTOR GRADER HRS, DOZER HRS , PNEUMATIC TIRED ROLLER HRS, SILT FENCE, EROSION CONTROL BLANKET TYPE 3, SEEDING, SEED TYPE 250 AND FERT. TYPE 3. EST. CALCS AND QTYS FOR THESE ITEMS CAN BE FOUND ON PAGE 3, CALCULATIONS FOR RIGHT TURN & BYPASS LANES. NOTE - BITUMINOUS BASE AND WEAR FOR RTL / BYPASS IS INCLUDED IN MAIN SEQ.
- STREET APPROACHES AND DRIVEWAY WEAR. (4,B)
- 6" CONCRETE FOR DRIVEWAYS, SEE TABS.
- MAINLINE WEAR COURSE (2" 4,E) TOP WEARING SURFACE & INCLUDES SAFETY EDGE CONSTRUCTION. SEE DETAILS AND SPECIAL PROVISIONS.
- MAINLINE BASE COURSE (2" 4,B) PLACED ON RECLAIMED SURFACE.
- SHALL BE INSTALLED WITH SAME OPERATION AS MAINLINE BITUMINOUS WEAR COURSE
- BITUMINOUS TONS TO CREATE BIT CURB SHALL BE PAID UNDER 2360.501 WEARING COURSE MIX (4,E)
- ITEM FOR BACK FILLING BITUMINOUS CURB & SLOPE IMPROVEMENT AS DIRECTIED BY THE ENGINEER.
- CONTRACTORS RESPONSIBILITY TO CONTACT OWNER 48 HOURS BEFORE STARTING OPERATION.
- INSTALL AT END OF BITUMINOUS CURB (MODIFIED).

BASIS OF PLANNED QUANTITIES

2105.602	CONSTRUCT TURN LANE	SEE PLAN DETAILS PAGE 3 FOR CALCS
2105.602	CONSTRUCT BY-PASS LANE	SEE PLAN DETAILS PAGE 3 FOR CALCS
2105.609	TOPSOIL BORROW	CU YDS * 1.8 = TONS
2123.503	MOTOR GRADER	20HR +/- PER MI. OF JOB & 2HR PER RTL / BYPASS
2211.501	AGGREGATE BASE CLASS 5	CU YDS * 1.8 = TONS
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 MIX (4,E)	115 LBS/SQYD/IN THICKNESS
2360.501	TYPE SP 12.5 NON-WEARING COURSE MIX (4, B)	115 LBS/SQYD/IN THICKNESS
2581.501	REMOVABLE PREFORMED PLASTIC MARKING	2' AT 50' INTERVALS

NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\12-01-00\CSAH_62_(CSAH23-CSAH18)\Plan2 SEQ.dgn 03/01/2012 10:34:19 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: 2/2/12 LICENSE NO. 40416

DRAWN BY SRK DATE 1/20/2012
 DESIGN BY SRK DATE 1/20/2012
 CHECKED BY JO DATE

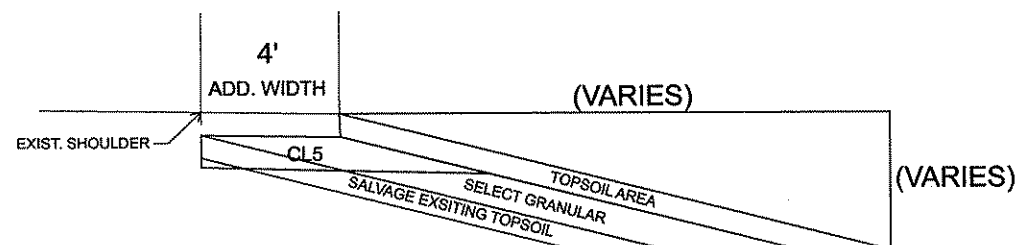


**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

STATEMENT OF
ESTIMATED QUANTITIES

**NEW RTL / BYPASS WIDENING
4' WIDENING CALC.**

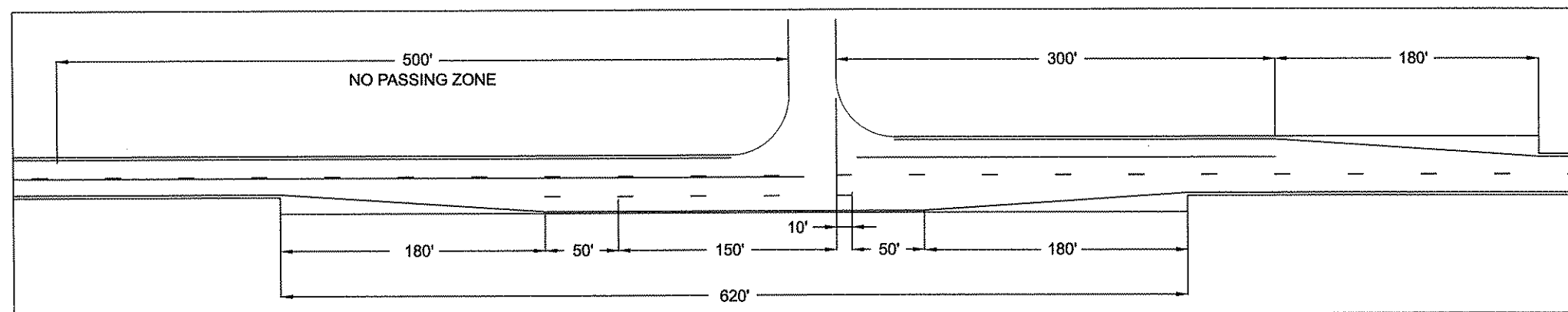


* NOTE CALC. BASED ON DIFFERENCE BETWEEN FINISHED EDGE MAT AND EXISTING DITCH BOTTOM.

RTL / BYPASS LOCATIONS

STREET	DIR.	BYPASS / RTL	ADD. WIDTH NEEDED	LENGTH	FIN. EDGE MAT ELEV.	EXIST DITCH BTTM ELEV.	COM EX (CU YDS)	SELECT GRANULAR (CU YDS)	CLASS 5 (TONS)	TOPSOIL (CU YDS)	SILT FENCE (LIN FT)	EROSION CONTROL BLANKET (SQ YDS)	
CSAH 23	SB	RTL	4.0	100.0	903.56	901.58	9.7	29.3	7.4	9.7	160.0	88.0	
155TH AVE	SB	RTL	4.0	480.0	908.93	907.00	45.3	137.2	64.0	45.3	540.0	411.7	
CAMP THREE RD	NB	RTL	4.0	480.0	911.03	909.13	46.9	142.2	64.0	46.9	540.0	426.7	
CAMP THREE RD	SB	RTL	4.0	480.0	912.26	910.62	38.5	116.6	64.0	38.5	540.0	349.9	
159TH AVE	NB	BYPASS	4.0	620.0	908.28	907.24	31.5	95.5	83.0	31.5	680.0	289.3	
159TH AVE	SB	RTL	4.0	480.0	907.37	904.25	75.1	221.9	64.0	75.1	540.0	665.6	
CORNELL ST	NB	BYPASS	4.0	620.0	907.23	906.14	33.0	100.1	83.0	33.0	680.0	300.4	
CORNELL ST	SB	RTL	4.0	480.0	906.67	902.17	105.6	320.0	64.0	105.6	540.0	960.0	
NOTRE DAME ST	SB	RTL	4.0	480.0	907.90	906.23	39.2	118.8	64.0	39.2	540.0	356.3	
HOWARD LAKE DR	NB	RTL	4.0	480.0	907.49	905.21	53.5	162.1	64.0	53.5	540.0	486.4	
167TH LANE	SB	RTL	4.0	480.0	906.22	903.27	69.2	209.8	64.0	69.2	540.0	629.3	
168TH AVE	NB	RTL	4.0	480.0	907.24	905.80	33.8	102.4	64.0	33.8	540.0	307.2	
170TH AVE	NB	RTL	4.0	480.0	912.02	909.79	52.3	158.6	64.0	52.3	540.0	475.7	
170TH AVE	SB	BYPASS	4.0	620.0	911.95	909.48	74.9	226.9	83.0	74.9	680.0	680.6	
172ND AVE	NB	RTL	4.0	480.0	907.88	905.87	47.2	142.9	64.0	47.2	540.0	428.8	
172ND AVE	SB	BYPASS	4.0	620.0	907.38	904.01	102.1	309.5	83.0	102.1	680.0	928.6	
CSAH 18	NB	RTL	4.0	480.0	909.10	907.12	46.5	140.8	64.0	46.5	540.0	422.4	
EST. TOTALS								904	2735	1107	904	9360	8207

RTL / BYPASS LAYOUT



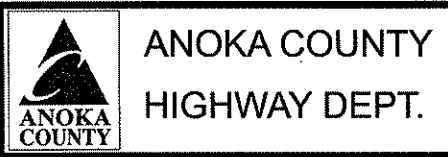
NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\12-01-00\CSAH_62_(CSAH23-CSAH18)\Plan3 CALCULATIONS FOR RIGHT TURN & BYPASS LANES.dgn 12:37:08 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 CABENIBAD
 SIGNATURE: *[Signature]*
 DATE: 3/2/12 LICENSE NO. 40416

DRAWN BY: SRK DATE: 1/20/2012
 DESIGN BY: SRK DATE: 1/20/2012
 CHECKED BY: JO DATE: _____



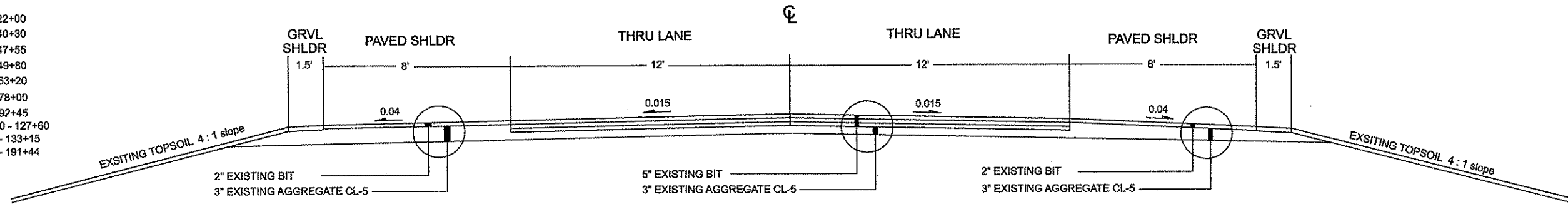
STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

CALCULATIONS FOR
 RIGHT TURN & BYPASS LANES

Sheet 3 of 27 Sheets

EXISTING TYPICAL
10+00 - 192+10

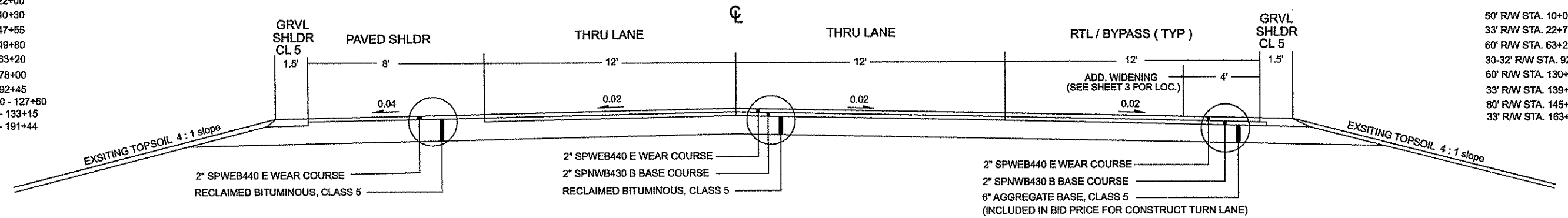
50' R/W STA. 10+00 - 22+00
33' R/W STA. 22+75 - 40+30
60' R/W STA. 40+30 - 47+55
33' R/W STA. 47+55 - 49+80
60' R/W STA. 49+80 - 63+20
50' R/W STA. 63+20 - 78+00
60' R/W STA. 78+00 - 92+45
33-35' R/W STA. 93+10 - 127+60
50' R/W STA. 127+60 - 133+15
33' R/W STA. 133+15 - 191+44



50' R/W STA. 10+00 - 22+00
33' R/W STA. 22+75 - 63+20
60' R/W STA. 63+20 - 92+00
30-32' R/W STA. 92+00 - 129+00
60' R/W STA. 130+00 - 139+00
33' R/W STA. 139+00 - 145+20
80' R/W STA. 145+20 - 162+70
33' R/W STA. 163+30 - 191+44

PROPOSED TYPICAL
10+00 - 101+05

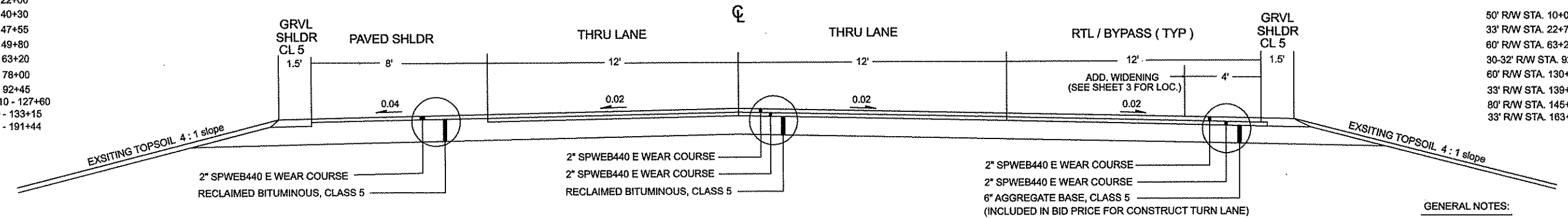
50' R/W STA. 10+00 - 22+00
33' R/W STA. 22+75 - 40+30
60' R/W STA. 40+30 - 47+55
33' R/W STA. 47+55 - 49+80
60' R/W STA. 49+80 - 63+20
50' R/W STA. 63+20 - 78+00
60' R/W STA. 78+00 - 92+45
33-35' R/W STA. 93+10 - 127+60
50' R/W STA. 127+60 - 133+15
33' R/W STA. 133+15 - 191+44



50' R/W STA. 10+00 - 22+00
33' R/W STA. 22+75 - 63+20
60' R/W STA. 63+20 - 92+00
30-32' R/W STA. 92+00 - 129+00
60' R/W STA. 130+00 - 139+00
33' R/W STA. 139+00 - 145+20
80' R/W STA. 145+20 - 162+70
33' R/W STA. 163+30 - 191+44

PROPOSED TYPICAL
101+05 - 192+10

50' R/W STA. 10+00 - 22+00
33' R/W STA. 22+75 - 40+30
60' R/W STA. 40+30 - 47+55
33' R/W STA. 47+55 - 49+80
60' R/W STA. 49+80 - 63+20
50' R/W STA. 63+20 - 78+00
60' R/W STA. 78+00 - 92+45
33-35' R/W STA. 93+10 - 127+60
50' R/W STA. 127+60 - 133+15
33' R/W STA. 133+15 - 191+44



50' R/W STA. 10+00 - 22+00
33' R/W STA. 22+75 - 63+20
60' R/W STA. 63+20 - 92+00
30-32' R/W STA. 92+00 - 129+00
60' R/W STA. 130+00 - 139+00
33' R/W STA. 139+00 - 145+20
80' R/W STA. 145+20 - 162+70
33' R/W STA. 163+30 - 191+44

GENERAL NOTES:

- ALL CROSS SLOPES ARE APPROXIMATE
- UNLESS OTHERWISE SPECIFIED, THE CLASS 5 CROSS SLOPES SHALL BE THE SAME AS THE FINISHED SURFACE OF THE MAINLINE.

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\12-01-00\CSAH_62_(CSAH23-CSAH18)\Plant4 typicals.dgn
22/27/2012 12:51:22 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: *[Signature]*
DATE: 7/2/12 LICENSE NO. 40416

DRAWN BY: SRK DATE: 1/20/2012
DESIGN BY: SRK DATE: 1/20/2012
CHECKED BY: JO DATE:



ANOKA COUNTY
HIGHWAY DEPT.

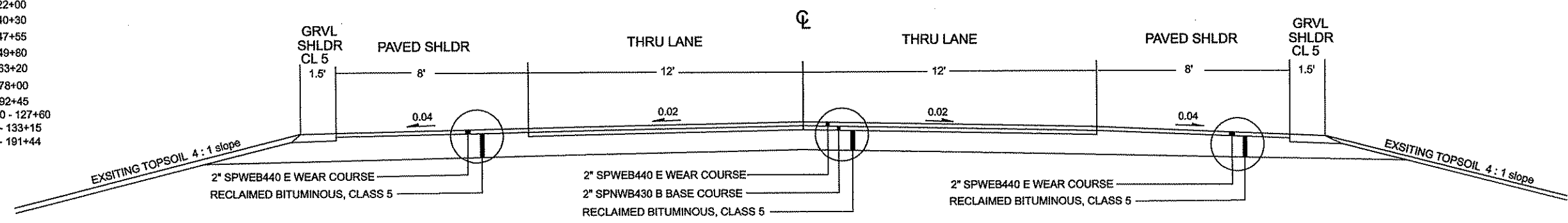
STATE PROJECT NO.
STATE AID PROJECT NO.
CITY PROJECT NO.
COUNTY PROJECT NO. 12-15-62

TYPICAL SECTIONS
Sheet 4 of 27 Sheets

PROPOSED TYPICAL
10+00 - 192+10

50' R/W STA. 10+00 - 22+00
33' R/W STA. 22+75 - 40+30
60' R/W STA. 40+30 - 47+55
33' R/W STA. 47+55 - 49+80
60' R/W STA. 49+80 - 63+20
50' R/W STA. 63+20 - 78+00
60' R/W STA. 78+00 - 92+45
33-35' R/W STA. 93+10 - 127+60
50' R/W STA. 127+60 - 133+15
33' R/W STA. 133+15 - 191+44

50' R/W STA. 10+00 - 22+00
33' R/W STA. 22+75 - 63+20
60' R/W STA. 63+20 - 92+00
30-32' R/W STA. 92+00 - 129+00
60' R/W STA. 130+00 - 139+00
33' R/W STA. 139+00 - 145+20
80' R/W STA. 145+20 - 162+70
33' R/W STA. 163+30 - 191+44



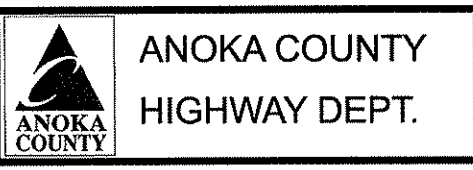
GENERAL NOTES:
- ALL CROSS SLOPES ARE APPROXIMATE
- UNLESS OTHERWISE SPECIFIED, THE CLASS 5 CROSS SLOPES SHALL BE THE SAME AS THE FINISHED SURFACE OF THE MAINLINE.

NO	DATE	BY	CHKD	APPR	REVISION

NAME: PA12-01-00\CSAH_62_(CSAH23-CSAH18)\Plan4 typicals.dgn 02/27/2012 12:51:58 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: 3/2/12 LICENSE NO. 40416

DRAWN BY SRK DATE 1/20/2012
DESIGN BY SRK DATE 1/20/2012
CHECKED BY JO DATE



STATE PROJECT NO. _____
STATE AID PROJECT NO. _____
CITY PROJECT NO. _____
COUNTY PROJECT NO. 12-15-62

TYPICAL SECTIONS
Sheet 5 of 27 Sheets

A REMOVE CONCRETE DRIVEWAY PAVEMENT	
LOCATION	SQ YDS
16271 RT	24.0
16912 LT	9.0
17059 RT	6.0
17360 LT	9.0
17384 LT	6.0
17387 RT	6.0
TOTAL SQ YDS	60.0

C SAW CONCRETE PAVEMENT (FULL DEPTH)	
LOCATION	LIN FT
16271 RT	15
16912 LT	18
17059 RT	12
17360 LT	20
17384 LT	17
17387 RT	12
TOTAL LIN FT	94.00

E AGGREGATE BASE CLASS 5							
MAINLINE	STATION	STATION	LENGTH	WIDTH	2" DEPTH	CU YDS	TONS
LNB	10+00	192+10	18210.0	9.5	0.17	1089.2	1960.6
LSB	10+00	192+10	18210.0	9.5	0.17	1089.2	1960.6
						SUB TOTAL	3921.2

INDEX OF TABULATION CHARTS		
TAB.	DESCRIPTION	SHEET NO.
A	REMOVE CONCRETE DRIVEWAY PAVEMENT	6
B	REMOVE BITUMINOUS PAVEMENT	6
C	SAW CONCRETE PAVEMENT (FULL DEPTH)	6
D	SAW BITUMINOUS PAVEMENT (FULL DEPTH)	6
E	AGGREGATE BASE CLASS 5	6
F	AGGREGATE SHOULDERING CLASS 5	7
G	MILL BITUMINOUS SURFACE 2" (JOINTS)	7
H	TYPE SP 12.5 WEARING COURSE MIX (4 , B)	7
I	TYPE SP 12.5 WEARING COURSE MIX (4 , E)	8
J	TYPE SP 12.5 NON-WEARING COURSE MIX (4 , B)	8
K	6" CONCRETE PAVEMENT	8

B REMOVE BITUMINOUS PAVEMENT	
LOCATION	SQ YDS
155TH AVE	85
CAMP THREE RD E	144
CAMP THREE RD W	67
HSE 15741	23
159TH AVE	197
HSE 15935	20
HSE 16079	32
CORNELL ST	94
HSE 16113	26
HSE 16138	31
HEIDELBERG ST	72
HSE 16225	26
HSE 16251	30
HSE 16228	20
HSE 16301	16
NOTRE DAME ST	166
CITY OF COLUMBUS (S ENT)	57
CITY OF COLUMBUS (MIDDLE ENT)	86
LAMPREY PASS ENT	41
165TH AVE	98
HSE 16554	17
HSE 16577	10
HSE 16610	17
HOWARD LAKE DR	105
HSE 16913	14
HSE 16929	8
170TH AVE	81
HSE 17010	39
HSE 17021	22
HSE 17039	10
HSE 17054	14
HSE 17129	27
172ND AVE	76
HSE 17204	20
HSE 17318	13
HSE 17318A	15
HSE 17345	51
HSE 17402	23
HSE 17418	9
HSE 17418A	23
HSE 17439	11
HSE 17451	7
TOTAL SQ YDS	2267

D SAW BITUMINOUS PAVEMENT (FULL DEPTH)	
LOCATION	LIN FT
155TH AVE	24
CAMP THREE RD E	26
CAMP THREE RD W	27
HSE 15741	12
159TH AVE	29
HSE 15935	12
HSE 16079	20
CORNELL ST	23
HSE 16113	12
HSE 16138	17
HEIDELBERG ST	33
HSE 16225	23
HSE 16251	16
HSE 16228	21
HSE 16301	15
NOTRE DAME ST	31
CITY OF COLUMBUS (S ENT)	31
CITY OF COLUMBUS (MIDDLE ENT)	33
LAMPREY PASS ENT	9
165TH AVE	31
HSE 16554	12
HSE 16577	11
HSE 16610	12
HOWARD LAKE DR	32
HSE 16913	15
HSE 16929	11
170TH AVE	23
HSE 17010	19
HSE 17021	17
HSE 17039	11
HSE 17054	20
HSE 17129	14
172ND AVE	23
HSE 17204	16
HSE 17318	17
HSE 17318A	20
HSE 17345	13
HSE 17402	12
HSE 17418	14
HSE 17418A	13
HSE 17439	16
HSE 17451	13
TOTAL SQ YDS	799

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\12-01-00\CSAH_62 (CSAH23-CSAH18)\Plan\4A TABS.dgn 02/27/2012 12:58:40 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 CADENHEAD
 SIGNATURE: *[Signature]*
 DATE: 2/27/12 LICENSE NO. 40416

DRAWN BY: SRK DATE: 1/20/2012
 DESIGN BY: SRK DATE: 1/20/2012
 CHECKED BY: JO DATE:



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

CONSTRUCTION TABS
 Sheet 6 of 27 Sheets

F AGGREGATE SHOULDERING CLASS 5 (INC GRVL ENT.)							
MAINLINE	STATION	STATION	LENGTH	WIDTH	2" DEPTH	CU YDS	
LNB	10+00	192+10	18210.0	1.5	0.17	172.0	
LSB	10+00	192+10	18210.0	1.5	0.17	172.0	
						SUB TOTAL CU YDS	344.0
SUBTRACT ST. OPENINGS			OPENING	SHLDR W.	2" DEPTH	CU YDS	
155TH AVE			100.0	1.5	0.17	0.9	
CAMP THREE RD (E SIDE)			100.0	1.5	0.17	0.9	
CAMP THREE RD (W SIDE)			100.0	1.5	0.17	0.9	
159TH AVE			100.0	1.5	0.17	0.9	
CORNELL ST			100.0	1.5	0.17	0.9	
HEIDELBERG ST			100.0	1.5	0.17	0.9	
NOTRE DAME ST			100.0	1.5	0.17	0.9	
165TH AVE			100.0	1.5	0.17	0.9	
HOWARD LAKE DR			100.0	1.5	0.17	0.9	
167TH LANE			100.0	1.5	0.17	0.9	
168TH AVE			100.0	1.5	0.17	0.9	
170TH AVE			100.0	1.5	0.17	0.9	
172ND AVE			100.0	1.5	0.17	0.9	
						ST OPENINGS	12.3
						SHLDR CU YDS	344.0
						SUBTRACT ST. OPENINGS	12.3
						CU YDS	331.7
						GRVL FACT.	X
						SUBTOTAL TONS	597.0
GRAVEL ENT.	LOC					TONS	
16010	LT					7.0	
16028	LT					7.0	
16032	LT					7.0	
16013	RT					7.0	
16013A	RT					7.0	
16059	RT					7.0	
16091	RT					7.0	
16112	LT					7.0	
16122	LT					7.0	
16122A	LT					7.0	
16139	RT					7.0	
16142	LT					7.0	
16303	RT					7.0	
CITY OF COLUMBUS	RT					7.0	
16498	LT					7.0	
16529	RT					7.0	
16534	LT					7.0	
16623	RT					7.0	
16630	LT					7.0	
16658	LT					7.0	
16746	LT					7.0	
16746A	LT					7.0	
16827	RT					7.0	
16827A	RT					7.0	
16926	LT					7.0	
17108	LT					7.0	
17108A	LT					7.0	
17115	RT					7.0	
17203	RT					7.0	
17220	LT					7.0	
17217	RT					7.0	
17340	LT					7.0	
17356	LT					7.0	
17405	RT					7.0	
17402A	LT					7.0	
17425	RT					7.0	
						TOTAL TONS	849.0

G MILL BITUMINOUS SURFACE 2" (JOINTS)				
CSAH 5	STA	LENGTH	WIDTH	SQ YDS
MAINLINE	10+00	48.00	10.0	53.3
MAINLINE	192+10	138.00	10.0	153.3
BIT STREETS		LENGTH	WIDTH	SQ YDS
155TH AVE		25.00	4.0	11.1
CAMP THREE RD (E SIDE)		26.00	4.0	11.6
CAMP THREE RD (W SIDE)		27.00	4.0	12.0
159TH AVE		30.00	4.0	13.3
CORNELL ST		24.00	4.0	10.7
HEIDELBERG ST		33.00	4.0	14.7
NOTRE DAME ST		31.00	4.0	13.8
165TH AVE		31.00	4.0	13.8
HOWARD LAKE DR		29.00	4.0	12.9
167TH LANE		35.00	4.0	15.6
168TH AVE		27.00	4.0	12.0
170TH AVE		23.00	4.0	10.2
172ND AVE		22.00	4.0	9.8
TOTAL SQ YDS				368.0

H TYPE SP 12.5 WEARING COURSE MIX (4 , B)	
STREETS / BIT ENTRANCES	SQ YDS
155TH AVE	85.0
CAMP THREE RD E	144.0
CAMP THREE RD W	67.0
HSE 15741	23.0
159TH AVE	197.0
HSE 15935	20.0
HSE 16079	32.0
CORNELL ST	94.0
HSE 16113	26.0
HSE 16138	31.0
HEIDELBERG ST	72.0
HSE 16225	28.0
HSE 16251	30.0
HSE 16228	20.0
HSE 16301	16.0
NOTRE DAME ST	166.0
CITY OF COLUMBUS (S ENT)	57.0
CITY OF COLUMBUS (MIDDLE ENT)	86.0
LAMPREY PASS ENT	41.0
165TH AVE	98.0
HSE 16554	17.0
HSE 16577	10.0
HSE 16610	17.0
HOWARD LAKE DR	105.0
HSE 16913	14.0
HSE 16929	8.0
170TH AVE	81.0
HSE 17010	39.0
HSE 17021	22.0
HSE 17039	10.0
HSE 17054	14.0
HSE 17129	27.0
172ND AVE	76.0
HSE 17418	9.0
HSE 17418A	23.0
HSE 17439	11.0
HSE 17451	7.0
SQ YDS	1821.0
TOTAL TONS	209

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\12-01-00\CSAH_62 (CSAH23-CSAH18)\Plan\4A TABS.dgn 02/27/2012 12:57:00 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: 3/2/12 LICENSE NO. 40416

DRAWN BY SRK DATE 1/20/2012

DESIGN BY SRK DATE 1/20/2012

CHECKED BY JO DATE



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____

STATE AID PROJECT NO. _____

CITY PROJECT NO. _____

COUNTY PROJECT NO. 12-15-62

CONSTRUCTION TABS

Sheet 7 of 27 Sheets

I TYPE SP12.5 WEARING COURSE MIX (4 , E)				
MAINLINE (TOP LIFT)		LENGTH	WIDTH	SQ YDS
LNB / LSB		18210.0	24.0	48560.0
RTL/BYPASS (TOP LIFT)		LENGTH	WIDTH	SQ YDS
CSAH 23	SB RTL	100.0	12.0	133.3
155TH AVE	SB RTL	480.0	12.0	640.0
CAMP THREE RD	NB RTL	480.0	12.0	640.0
CAMP THREE RD	SB RTL	480.0	12.0	640.0
159TH AVE	NB BYPASS	620.0	12.0	826.7
159TH AVE	SB RTL	480.0	12.0	640.0
CORNELL ST	NB BYPASS	620.0	12.0	826.7
CORNELL ST	SB RTL	480.0	12.0	640.0
NOTRE DAME ST	SB RTL	480.0	12.0	640.0
HOWARD LAKE DR	NB RTL	480.0	12.0	640.0
167TH LANE	SB RTL	480.0	12.0	640.0
168TH AVE	NB RTL	480.0	12.0	640.0
170TH AVE	NB RTL	480.0	12.0	640.0
170TH AVE	SB BYPASS	620.0	12.0	826.7
172ND AVE	NB RTL	480.0	12.0	640.0
172ND AVE	SB BYPASS	620.0	12.0	826.7
CSAH 18	NB RTL	480.0	12.0	640.0
LNB (4120' OF RTL & BYPASS AREAS)		14090.0	8.0	12524.4
LSB (4220' OF RTL & BYPASS AREAS)		13990.0	8.0	12435.6
TOTAL SQ YDS				84640.0
TOTAL TONS				9734

J TYPE SP 12.5 NON-WEARING COURSE MIX (4 , B)		SQ.YDS.
MAINLINE		
LNB / LSB		50583.3
BIT STREET APPROACHES		
155TH AVE		85.0
CAMP THREE RD E		144.0
CAMP THREE RD W		67.0
HSE 15741		23.0
159TH AVE		197.0
HSE 15935		20.0
HSE 16079		32.0
CORNELL ST		94.0
HSE 16113		26.0
HSE 16138		31.0
HEIDELBERG ST		72.0
HSE 16225		26.0
HSE 16251		30.0
HSE 16228		20.0
HSE 16301		16.0
NOTRE DAME ST		166.0
CITY OF COLUMBUS (S ENT)		57.0
CITY OF COLUMBUS (MIDDLE ENT)		86.0
LAMPREYPASS ENT		41.0
165TH AVE		98.0
HSE 16554		17.0
HSE 16711		29.0
HSE 16735		33.0
168TH AVE		97.0
HSE 16913		14.0
HSE 16929		8.0
170TH AVE		81.0
HSE 17010		39.0
HSE 17021		22.0
HSE 17039		10.0
HSE 17318A		15.0
HSE 17345		51.0
HSE 17402		23.0
HSE 17418		9.0
HSE 17418A		23.0
HSE 17439		11.0
HSE 17451		7.0
SQ YDS		52403
TOTAL TONS		6026

K 6" CONCRETE DRIVEWAY PAVEMENT		
16271 RT	24.0	
16912 LT	9.0	
17059 RT	6.0	
17360 LT	9.0	
17384 LT	6.0	
17387 RT	6.0	
TOTAL SQ YDS		60.0

NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\12-01-00\CSAH_62_CSAH23-CSAH18\Plan4A TABS.dgn 02/27/2012 12:57:24 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: 3/2/12 LICENSE NO. 40416

DRAWN BY SRK DATE 1/20/2012

DESIGN BY SRK DATE 1/20/2012

CHECKED BY JO DATE



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____

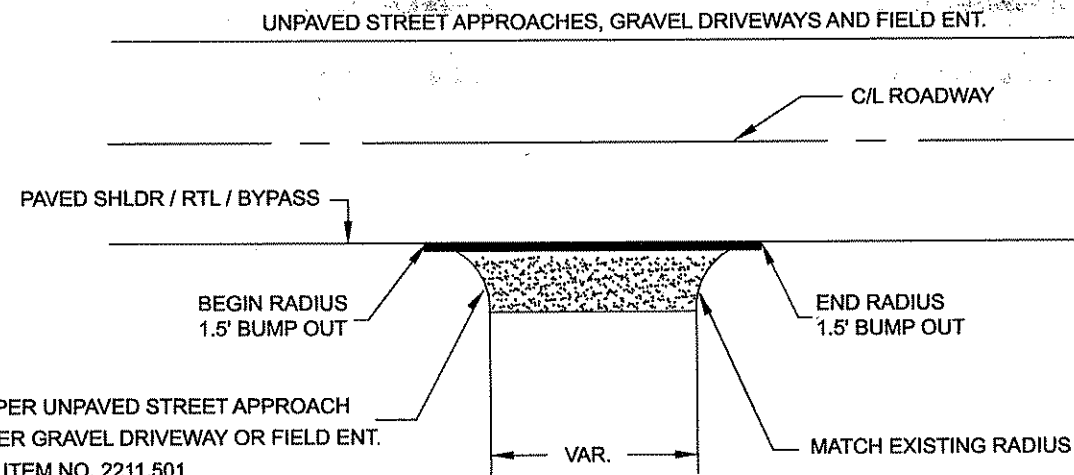
STATE AID PROJECT NO. _____

CITY PROJECT NO. _____

COUNTY PROJECT NO. 12-15-62

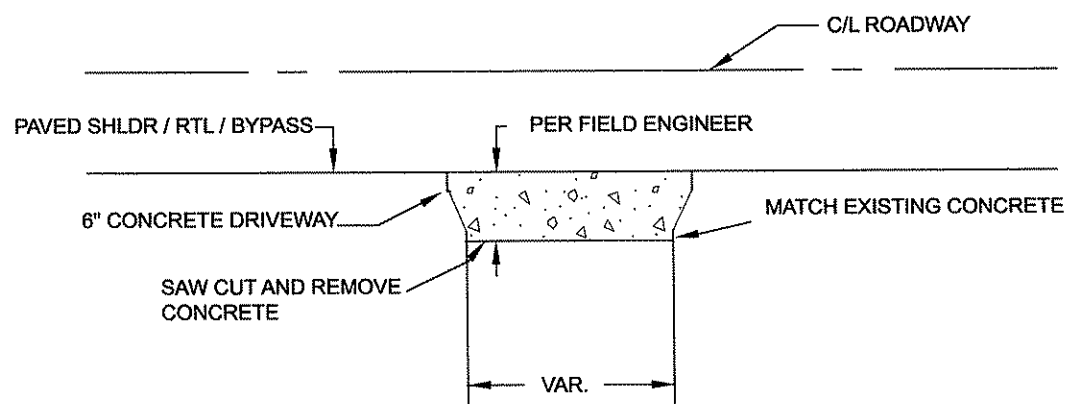
CONSTRUCTION TABS

Sheet 8 of 27 Sheets

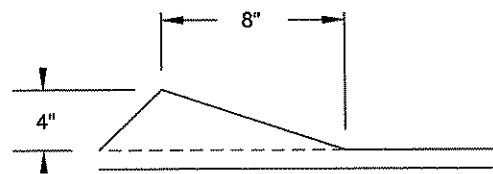


10 TON CL 5 PER UNPAVED STREET APPROACH
 7 TON CL 5 PER GRAVEL DRIVEWAY OR FIELD ENT.
 PAID FOR AS ITEM NO. 2211.501
 AGGREGATE BASE CL 5 (TON)

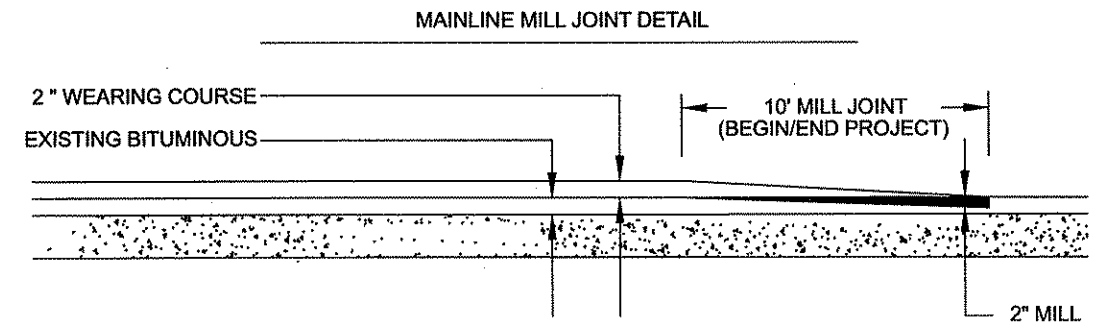
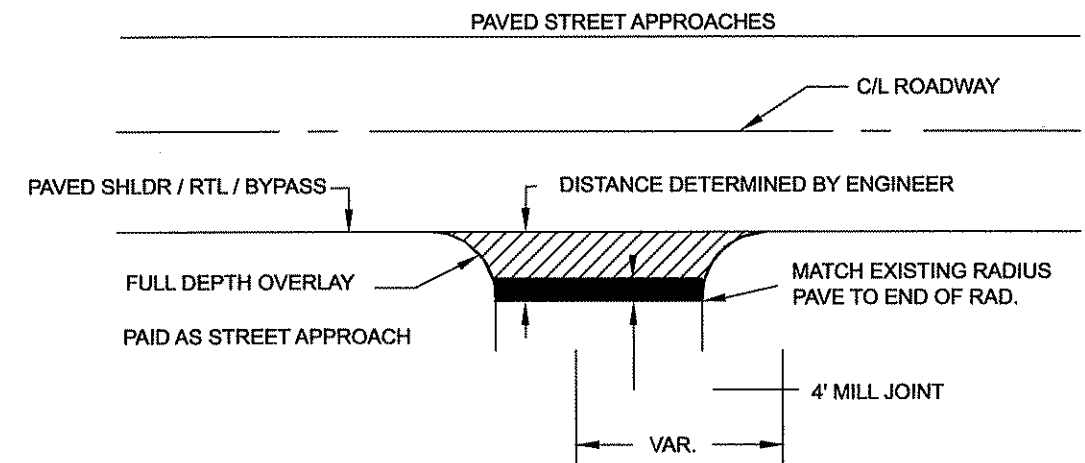
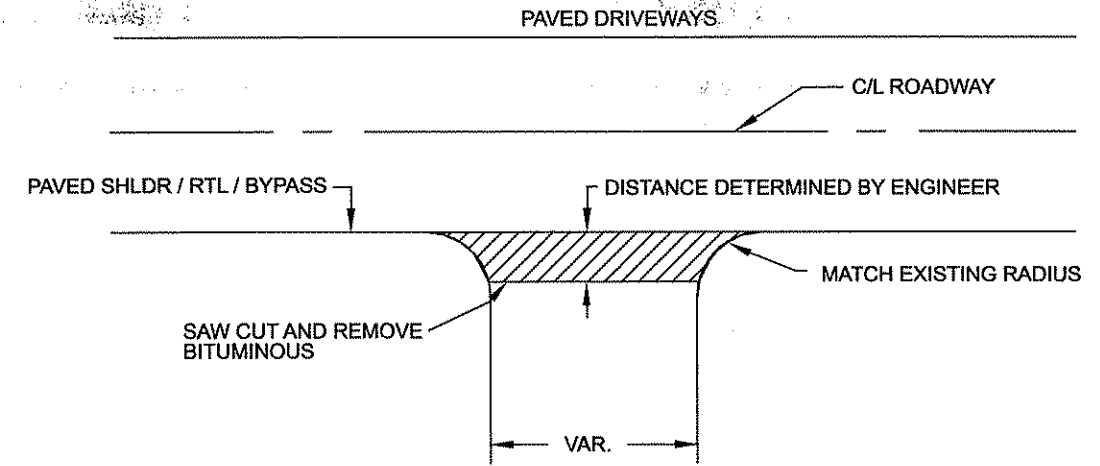
CONCRETE DRIVEWAYS



BITUMINOUS CURB
 LNB STA 112+15 - 115+85
 (PLACED DURING THE PAVING OF MAIN LINE WEAR COURSE)



EXISTING BITUMINOUS CURB (LIP) TO BE RECLAIMED WITH SHOULDER
 PROPOSED BITUMINOUS CURB (LIP) TO BE PAID UNDER ITEM NO. 2535.501



NOTE: DRIVEWAYS TO BE PAVED IN SEPERATE OPERATION OTHER THAN MAINLINE WEAR.
 PAID AS STREET APPROACH WEAR

NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\12-01-00\CSAH_82_(CSAH23-CSAH18)\Plan3A_Details.dgn					
02/27/2012 1:04:06 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: 3/27/12 LICENSE NO. # 40416

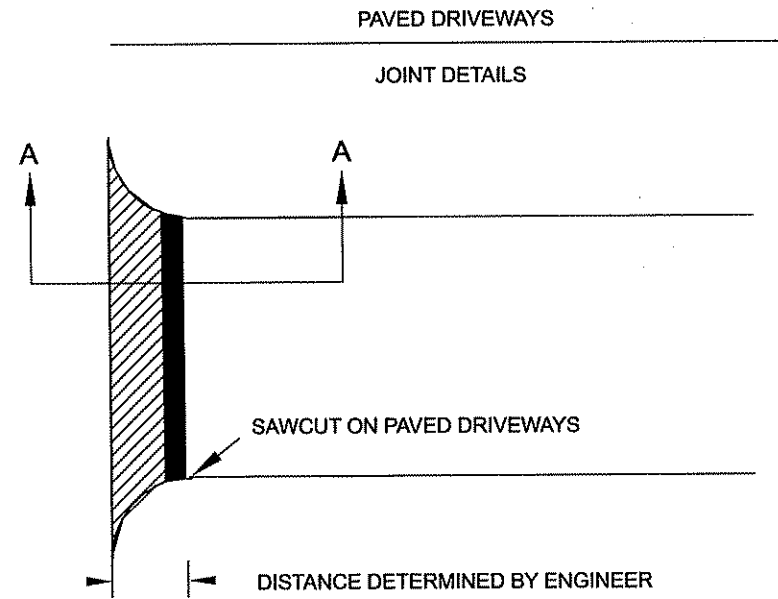
DRAWN BY SRK DATE 1/20/2012
 DESIGN BY SRK DATE 1/20/2012
 CHECKED BY JO DATE



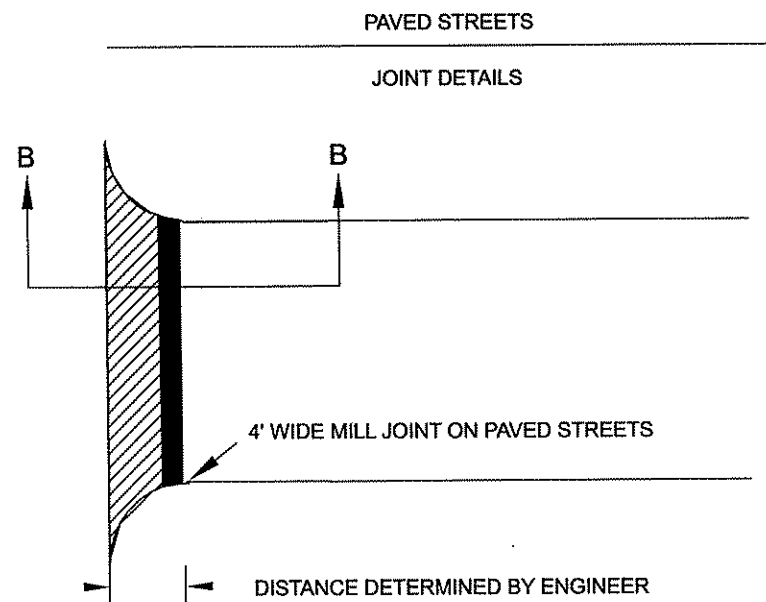
ANOKA COUNTY
 HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

MISCELLANEOUS DETAILS
 Sheet 9 of 27 Sheets



DRIVEWAYS TO BE PAVED IN SEPERATE OPERATION OTHER THAN MAINLINE WEAR.
PAID AS DRIVEWAY/STREET APPROACH WEAR



OVERLAY EXISTING STEET APPROACH, DO NOT RECLAIM
STREETS TO BE PAVED IN SEPERATE OPERATION OTHER THAN MAINLINE WEAR.
PAID AS DRIVEWAY/STREET APPROACH WEAR

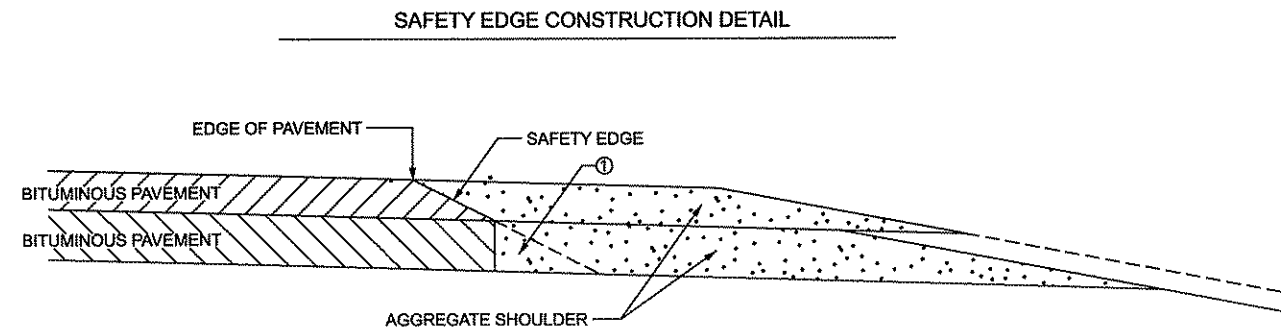
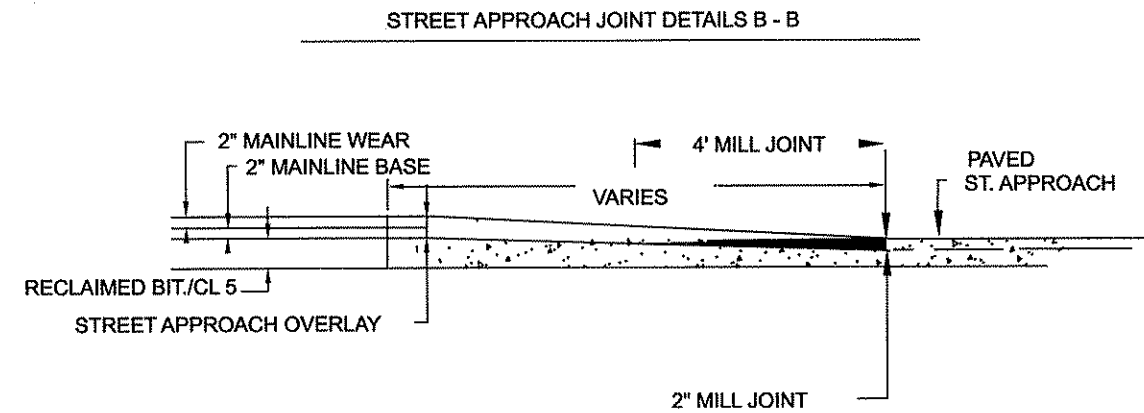
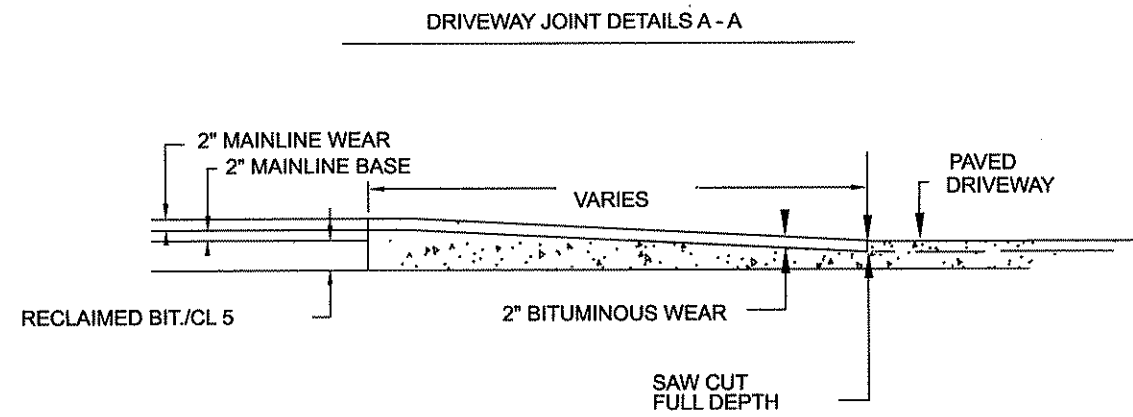


FIGURE B
BITUMINOUS PAVEMENT

① OPTIONAL DESIGN EXTENDS SAFETY EDGE DEEPER
THAN 6" AND WIDER THAN 10.5". SEE SPECIAL PROVISIONS.

NO	DATE	BY	CRD	APPR	REVISION

NAME: P:\12-01-00\CSAH_62_(CSAH23-CSAH18)\Plan3A_Details.dgn 02/27/2012 1:14:14 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: 3/2/12 LICENSE NO. #40416

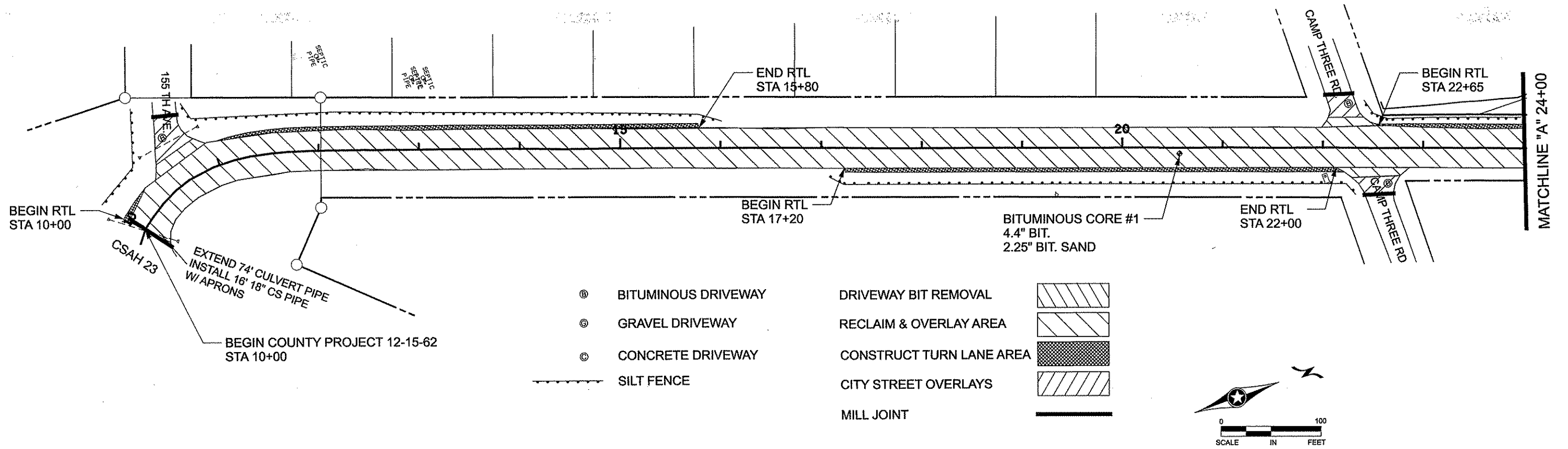
DRAWN BY SRK DATE 1/20/2012
DESIGN BY SRK DATE 1/20/2012
CHECKED BY JO DATE



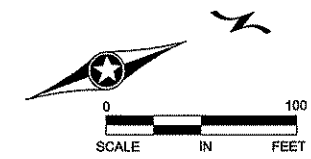
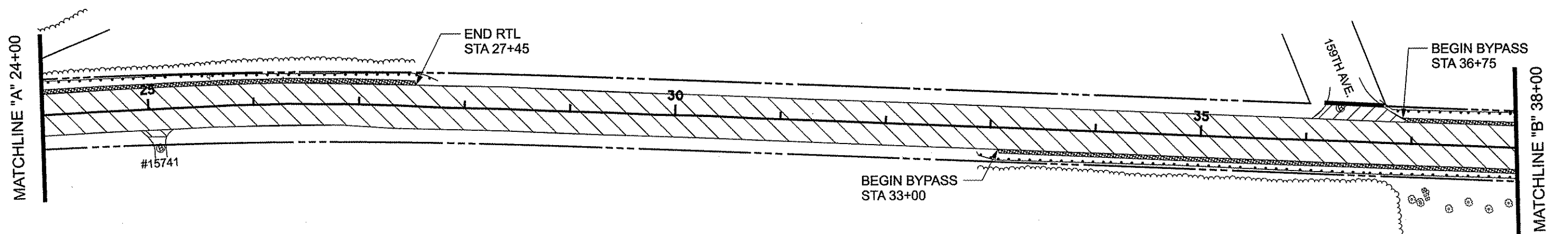
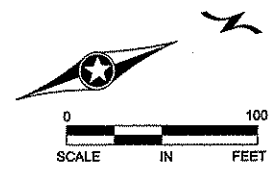
ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
STATE AID PROJECT NO. _____
CITY PROJECT NO. _____
COUNTY PROJECT NO. 12-15-62

MISCELLANEOUS DETAILS
Sheet 10 of 27 Sheets



- ⊗ BITUMINOUS DRIVEWAY
- ⊙ GRAVEL DRIVEWAY
- ⊙ CONCRETE DRIVEWAY
- SILT FENCE
- DRIVEWAY BIT REMOVAL
- RECLAIM & OVERLAY AREA
- CONSTRUCT TURN LANE AREA
- CITY STREET OVERLAYS
- MILL JOINT



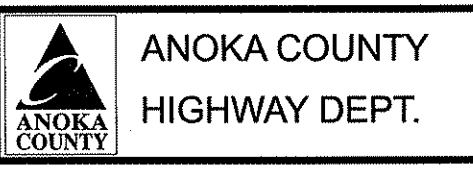
NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\12-01-00\CSAH_62_(CSAH23-CSAH18)\Plan\new plan sheet 1.dgn 02/27/2012 1:52:25 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.

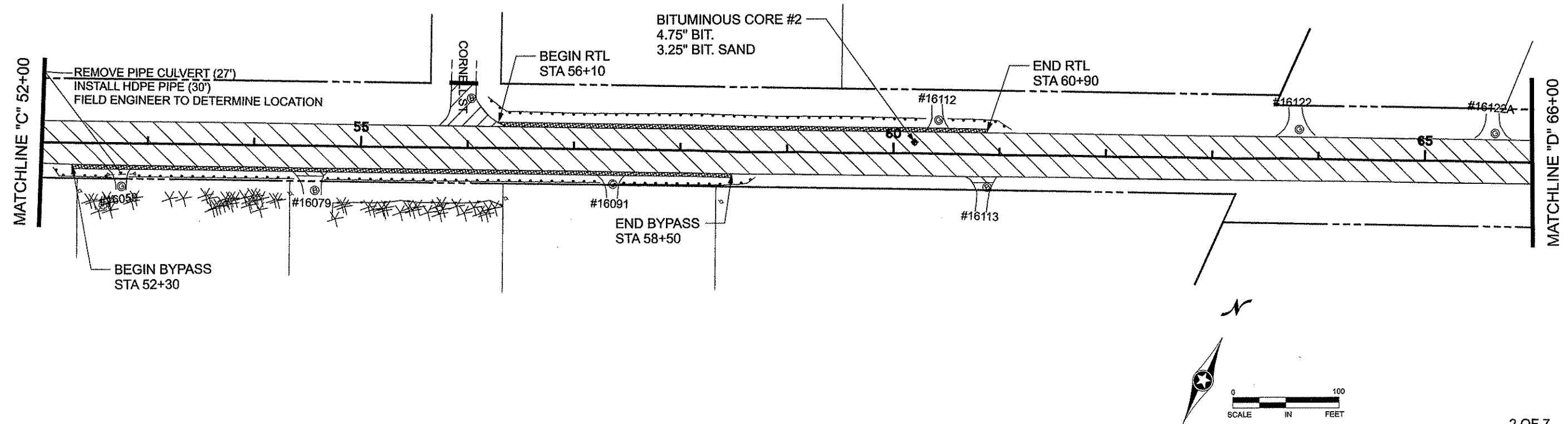
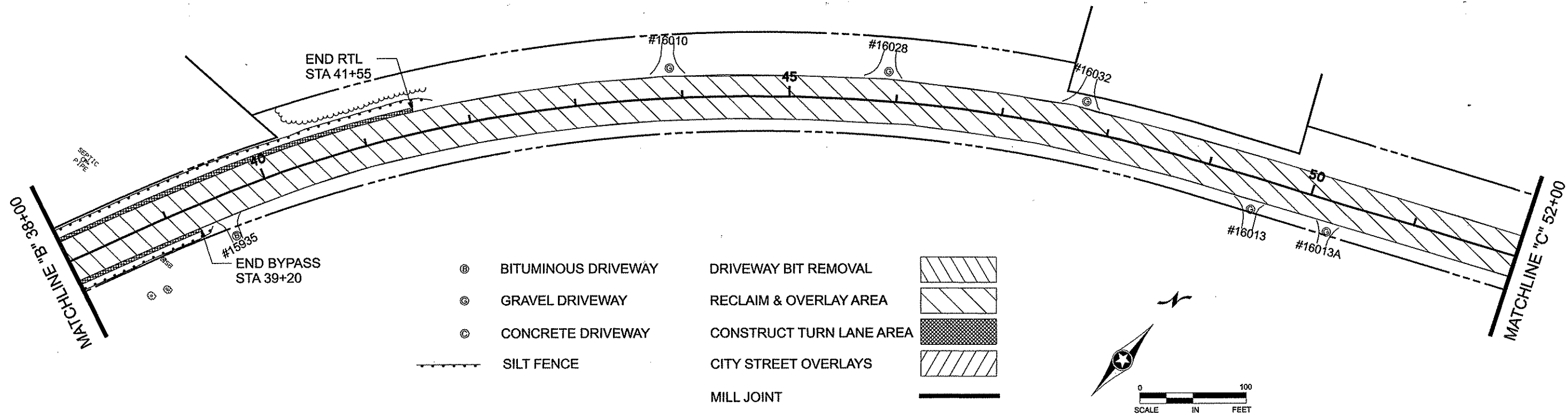
PRINT NAME: CHARLES CADENHEAD
 SIGNATURE: *[Signature]*
 DATE: 3/2/12 LICENSE NO. 40416

DRAWN BY: SRK DATE: 1/20/2012
 DESIGN BY: SRK DATE: 1/20/2012
 CHECKED BY: JO DATE: _____



STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

CONSTRUCTION PLAN
 STA 10+00 TO 38+00
 Sheet 11 of 27 Sheets



NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\12-01-00\CSAH_62_(CSAH23-CSAH18)\Planview plan sheet 2.dgn
 02/27/2012 1:53:54 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.

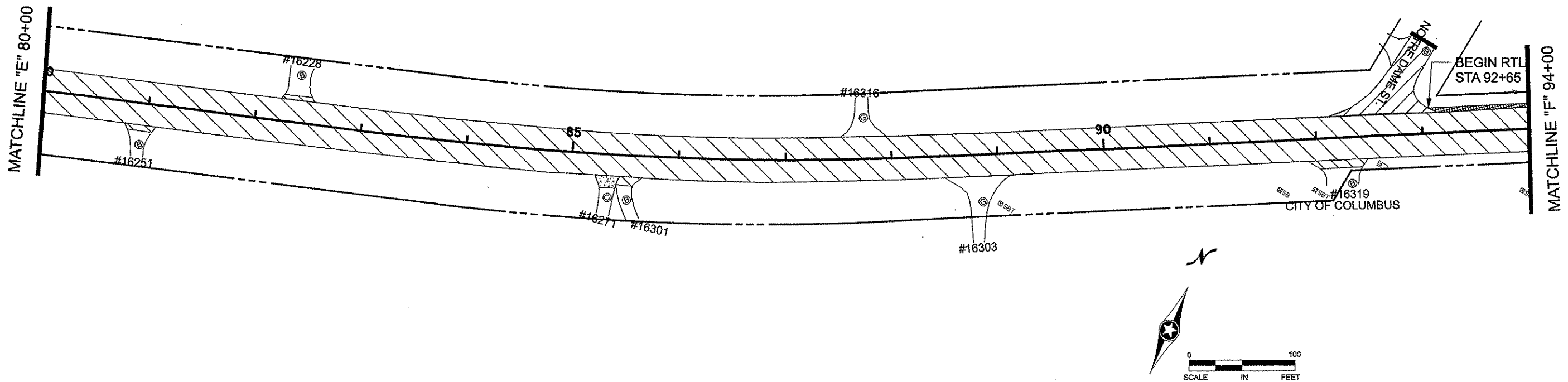
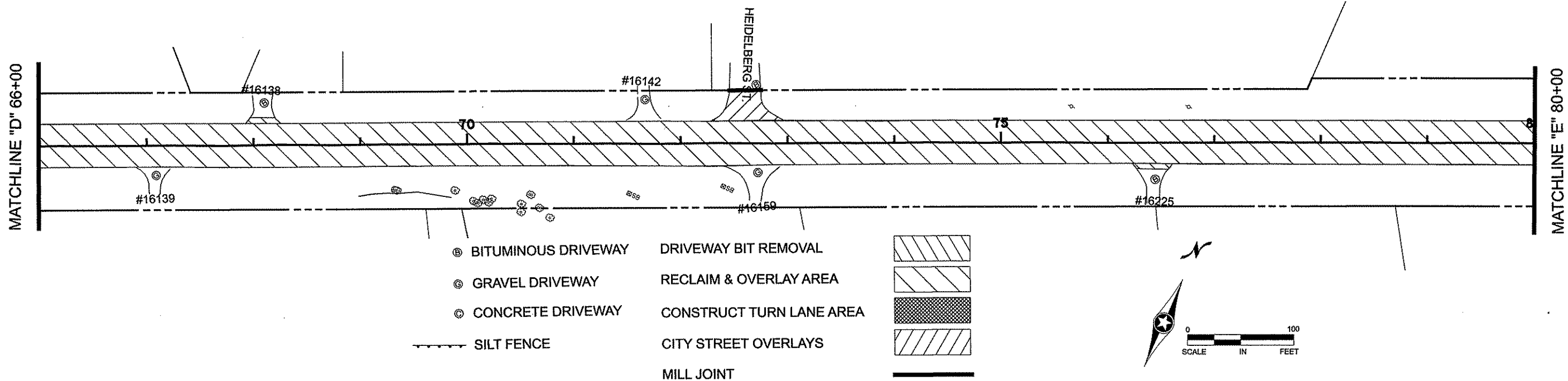
PRINT NAME: CHARLES CADENHEAD
 SIGNATURE: *[Signature]*
 DATE: 2/27/12 LICENSE NO. 40416

DRAWN BY: SRK DATE: 1/20/2012
 DESIGN BY: SRK DATE: 1/20/2012
 CHECKED BY: JO DATE: _____

ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

CONSTRUCTION PLAN
 STA 38+00 TO 66+00
 Sheet 12 of 27 Sheets



NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\12-01-00\CSAH_62_(CSAH23-CSAH18)\Plan\new plan sheet 3.dgn					

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.

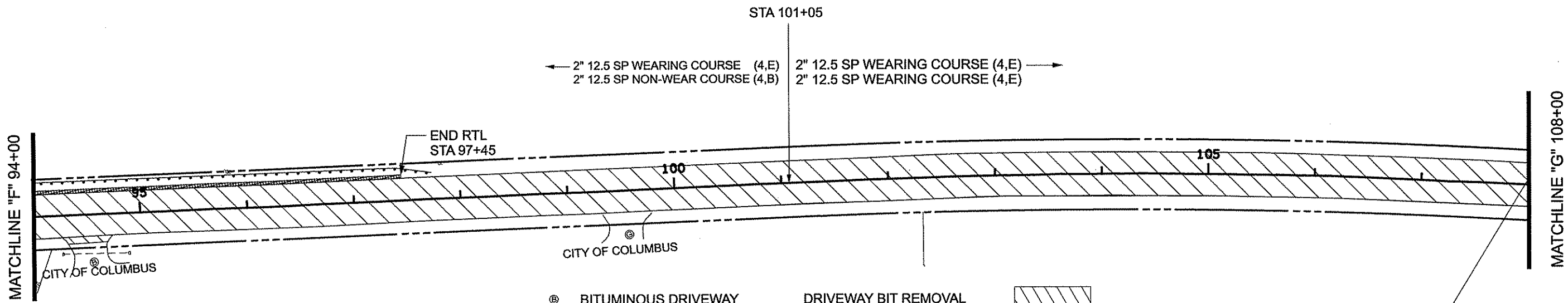
PRINT NAME: CHARLES CADENHEAD
 SIGNATURE: *[Signature]*
 DATE: 3/2/12 LICENSE NO. 40416

DRAWN BY SRK DATE 1/20/2012
 DESIGN BY SRK DATE 1/20/2012
 CHECKED BY JO DATE

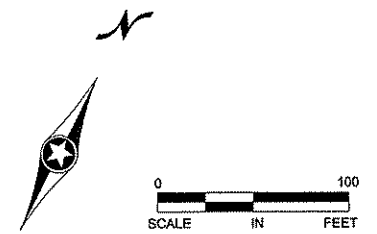
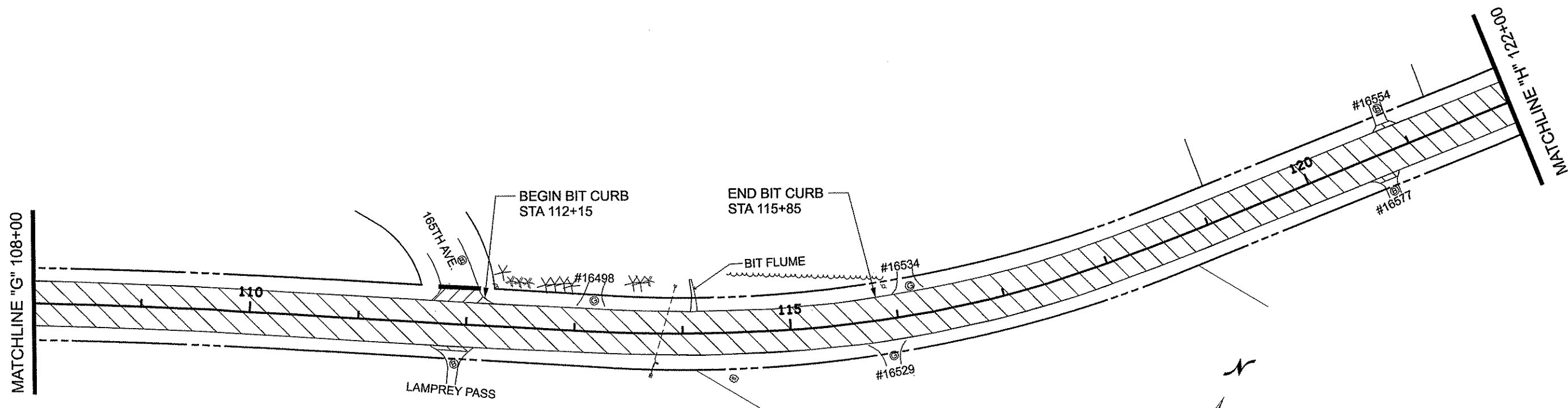
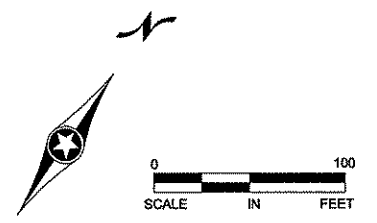
ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

CONSTRUCTION PLAN
 STA 66+00 TO 94+00
 Sheet 13 of 27 Sheets



- ⊙ BITUMINOUS DRIVEWAY
- ⊙ GRAVEL DRIVEWAY
- ⊙ CONCRETE DRIVEWAY
- SILT FENCE
- DRIVEWAY BIT REMOVAL
- RECLAIM & OVERLAY AREA
- CONSTRUCT TURN LANE AREA
- CITY STREET OVERLAYS
- MILL JOINT



NO	DATE	BY	CHKD	APPR	REVISION
NAME: P:\12-01-00\CSAH_62_(CSAH23-CSAH18)\Plan\new plan sheet 4.dgn					

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

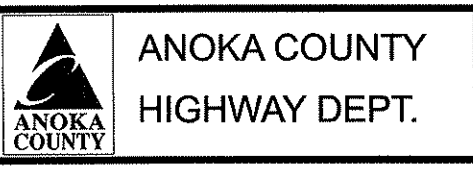
SIGNATURE: *[Signature]*

DATE: 3/2/12 LICENSE NO. 40416

DRAWN BY: SRK DATE: 1/20/2012

DESIGN BY: SRK DATE: 1/20/2012

CHECKED BY: JO DATE: _____



STATE PROJECT NO. _____

STATE AID PROJECT NO. _____

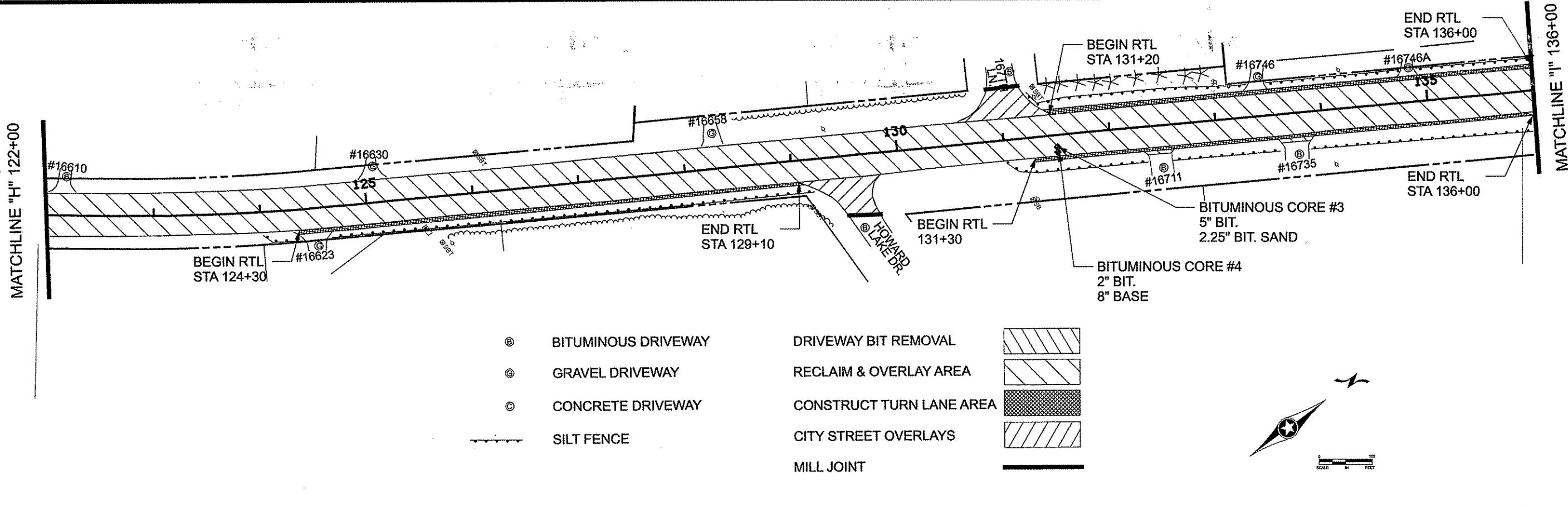
CITY PROJECT NO. _____

COUNTY PROJECT NO. 12-15-62

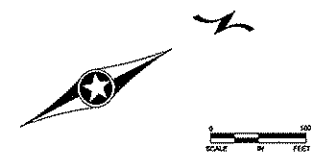
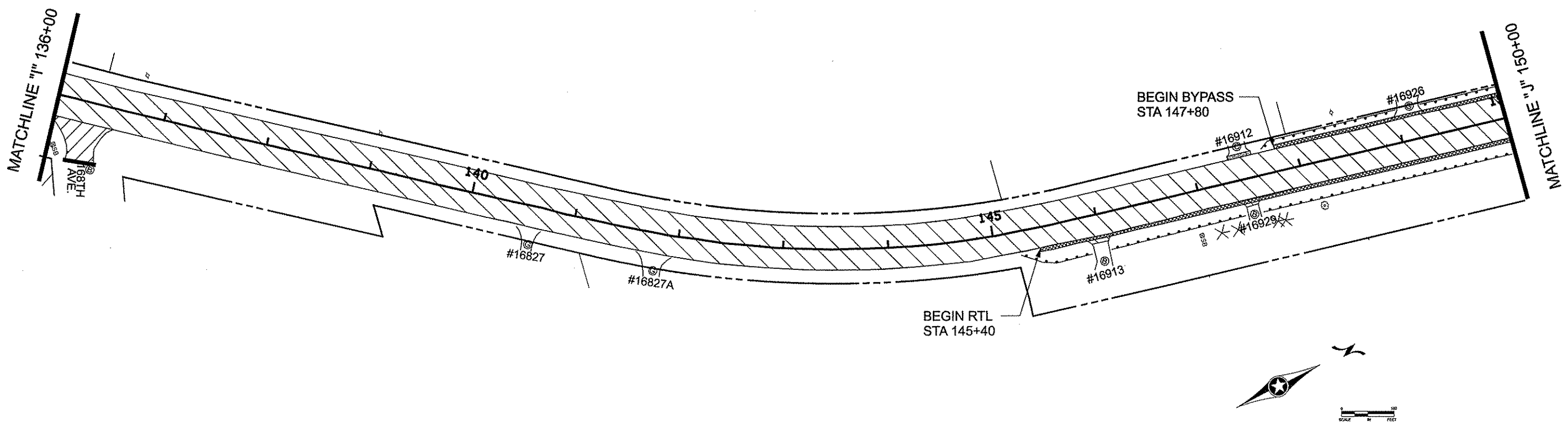
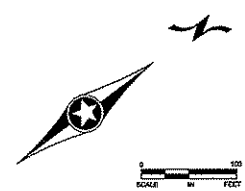
CONSTRUCTION PLAN

STA 94+00 TO 122+00

Sheet 14 of 27 Sheets



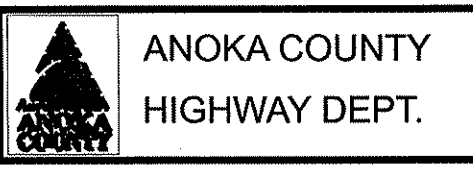
- ⊙ BITUMINOUS DRIVEWAY
- ⊙ GRAVEL DRIVEWAY
- ⊙ CONCRETE DRIVEWAY
- - - SILT FENCE
- DRIVEWAY BIT REMOVAL
- RECLAIM & OVERLAY AREA
- CONSTRUCT TURN LANE AREA
- CITY STREET OVERLAYS
- MILL JOINT



NO	DATE	BY	CKD	APPR	REVISION
NAME: P:112-01-00\CSAH_62_(CSAH23-CSAH18)\Plan\new plan sheet 5.dgn					02/27/2012 2:17:16 PM

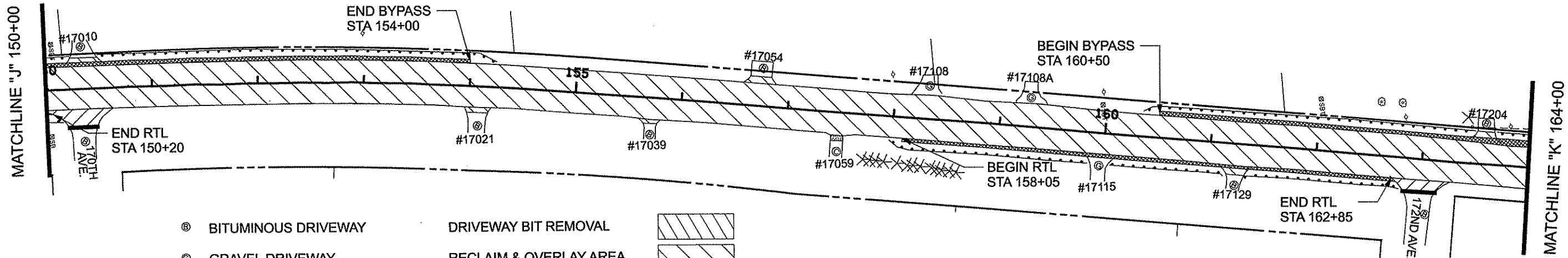
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: CHARLES CADESHED
 SIGNATURE: *[Signature]*
 DATE: 2/2/12 LICENSE NO. 40416

DRAWN BY SRK DATE 1/20/2012
 DESIGN BY SRK DATE 1/20/2012
 CHECKED BY JO DATE

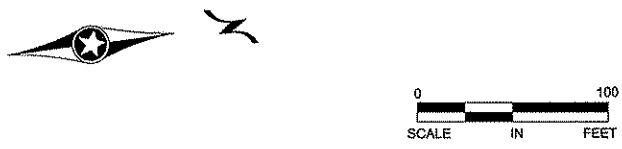
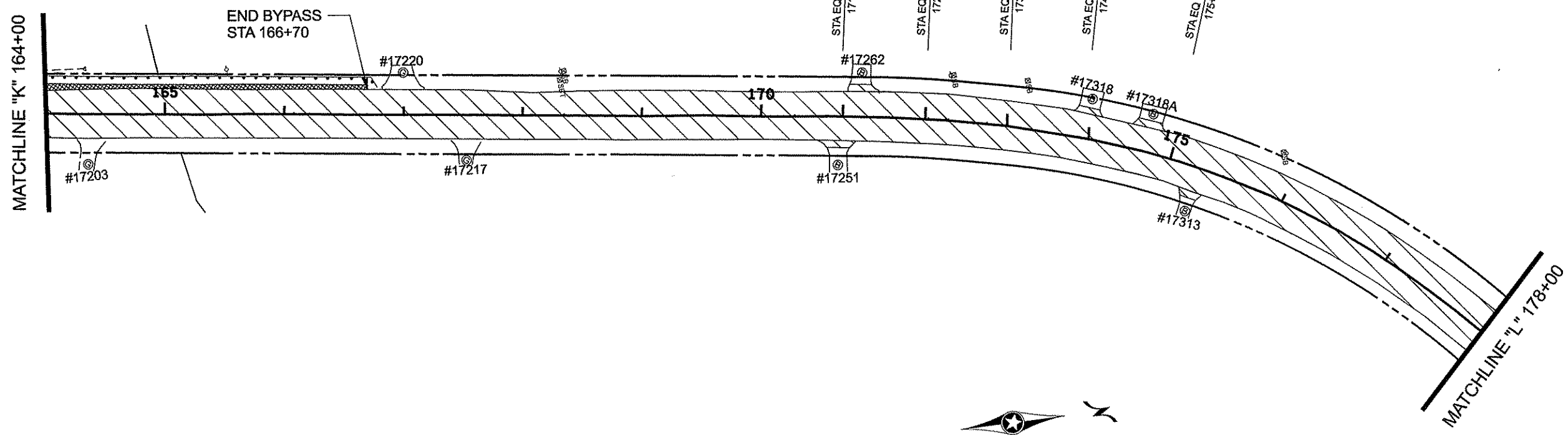


STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 CITY PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

CONSTRUCTION PLAN
 STA 122+00 TO 150+00
 Sheet 15 of 27 Sheets

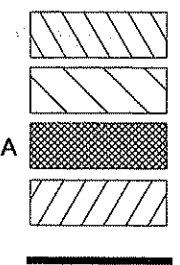


- ⊙ BITUMINOUS DRIVEWAY
- ⊙ GRAVEL DRIVEWAY
- ⊙ CONCRETE DRIVEWAY
- SILT FENCE
- DRIVEWAY BIT REMOVAL
- RECLAIM & OVERLAY AREA
- CONSTRUCT TURN LANE AREA
- CITY STREET OVERLAYS
- MILL JOINT

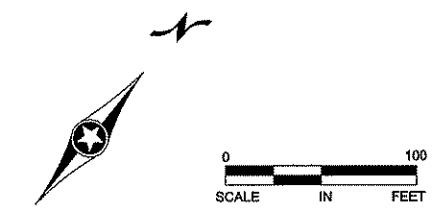
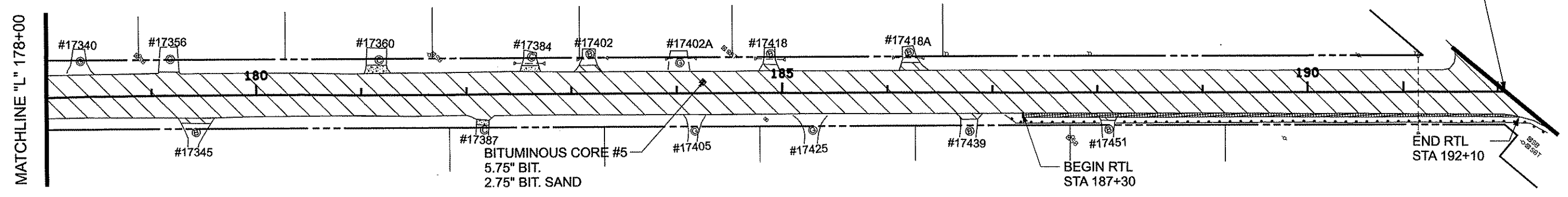


<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO</th> <th>DATE</th> <th>BY</th> <th>CKD</th> <th>APPR</th> <th>REVISION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>NAME: P:\12-01-00\CSAH_62 (CSAH23-CSAH18)\Plan\new plan sheet 6.dgn</p>	NO	DATE	BY	CKD	APPR	REVISION							<p>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.</p> <p>PRINT NAME: CHARLES CADENHEAD</p> <p>SIGNATURE: <i>[Signature]</i></p> <p>DATE: 3/2/12 LICENSE NO. 40418</p>	<p>DRAWN BY: SRK DATE: 1/20/2012</p> <p>DESIGN BY: SRK DATE: 1/20/2012</p> <p>CHECKED BY: JO DATE: _____</p>	<div style="text-align: center;"> <p>ANOKA COUNTY HIGHWAY DEPT.</p> </div> <p>STATE PROJECT NO. _____</p> <p>STATE AID PROJECT NO. _____</p> <p>CITY PROJECT NO. _____</p> <p>COUNTY PROJECT NO. 12-15-62</p>	<p style="text-align: center;">CONSTRUCTION PLAN</p> <p>STA 150+00 TO 178+00</p> <p>Sheet 16 of 27 Sheets</p>
NO	DATE	BY	CKD	APPR	REVISION											

- Ⓟ BITUMINOUS DRIVEWAY
- Ⓞ GRAVEL DRIVEWAY
- Ⓞ CONCRETE DRIVEWAY
- SILT FENCE
- DRIVEWAY BIT REMOVAL
- RECLAIM & OVERLAY AREA
- CONSTRUCT TURN LANE AREA
- CITY STREET OVERLAYS
- MILL JOINT



END COUNTY PROJECT 12-15-62
STA 192+10



<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO</th> <th>DATE</th> <th>BY</th> <th>CHKD</th> <th>APPR</th> <th>REVISION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>NAME: P:\12-01-00\CSAH_62_(CSAH23-CSAH18)\Plan\new plan sheet 7.dgn 02/27/2012 2:37:38 PM</p>	NO	DATE	BY	CHKD	APPR	REVISION							<p>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.</p> <p>PRINT NAME: CHARLES CADENHEAD</p> <p>SIGNATURE: <i>[Signature]</i></p> <p>DATE: 2/27/12 LICENSE NO. 40416</p>	<p>DRAWN BY: SRK DATE: 1/20/2012</p> <p>DESIGN BY: SRK DATE: 1/20/2012</p> <p>CHECKED BY: JO DATE: _____</p>	<p>ANOKA COUNTY HIGHWAY DEPT.</p>	<p>STATE PROJECT NO. _____</p> <p>STATE AID PROJECT NO. _____</p> <p>CITY PROJECT NO. _____</p> <p>COUNTY PROJECT NO. 12-15-62</p>	<p style="text-align: center;">CONSTRUCTION PLAN</p> <p>STA 178+00 TO 192+10</p> <p>Sheet 17 of 27 Sheets</p>
NO	DATE	BY	CHKD	APPR	REVISION												

PERMANENT PAVEMENT MARKING PLAN

NOTES AND GUIDELINES

GENERAL INFORMATION:

THE ENGINEER'S INVOLVEMENT IN THE APPLICATION OF THE MATERIAL SHALL BE LIMITED TO FIELD CONSULTATION AND INSPECTION. ANOKA COUNTY HIGHWAY DEPARTMENT WILL PLACE NECESSARY "SPOTTING" AT APPROPRIATE POINTS TO PROVIDE HORIZONTAL CONTROL FOR STRIPING AND TO DETERMINE NECESSARY STARTING AND CUTOFF POINTS, LONGITUDINAL JOINTS, PAVEMENT EDGES AND EXISTING MARKINGS MAY SERVE AS HORIZONTAL CONTROL WHEN SO DIRECTED.

EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS AND AT PRIVATE ENTRANCES IF THEY ARE CONTROLLED BY A YIELD SIGN, STOP SIGN OR TRAFFIC SIGNAL. THE BREAK POINT IS TO BE AT THE START OF THE RADIUS FOR THE INTERSECTION OR AT MARKED STOP LINES OR CROSSWALKS.

A TOLERANCE OF 1/4 INCH UNDER OR 1/4 INCH OVER THE SPECIFIED WIDTH WILL BE ALLOWED FOR STRIPING PROVIDED THE VARIATION IS GRADUAL AND DOES NOT DETRACT FROM THE GENERAL APPEARANCE. BROKEN LINE SEGMENTS MAY VARY UP TO ONE-HALF FOOT FROM THE SPECIFIED LENGTHS PROVIDED THE OVER AND UNDER VARIATIONS ARE REASONABLY COMPENSATORY. ALIGNMENT DEVIATIONS FROM THE CONTROL GUIDE SHALL NOT EXCEED 1 INCH. MATERIAL SHALL NOT BE APPLIED OVER LONGITUDINAL JOINTS, ESTABLISHMENT OF APPLICATION TOLERANCES SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLY AS CLOSELY AS PRACTICABLE WITH THE PLANNED DIMENSIONS.

EPOXY:

THE ROAD SURFACE SHALL BE CLEANED AT THE DIRECTION OF THE ENGINEER JUST PRIOR TO APPLICATION. PAVEMENT CLEANING SHALL CONSIST OF AT LEAST BRUSHING WITH A ROTARY BROOM (NON-METALLIC) OR AS RECOMMENDED BY THE MATERIAL MANUFACTURER AND ACCEPTABLE TO THE ENGINEER. NEW PORTLAND CEMENT CONCRETE SURFACES SHALL BE SANDBLAST CLEANED TO REMOVE ANY SURFACE TREATMENT AND/OR LAITANCE ON LOW SPEED (SPEED LIMIT 35 MPH OR LESS) URBAN PORTLAND CEMENT CONCRETE ROADWAYS. SANDBLAST CLEANING SHALL BE USED FOR ALL EPOXY PAVEMENT MARKINGS.

THE EPOXY MARKING APPLICATION SHALL IMMEDIATELY FOLLOW THE PAVEMENT CLEANING. GLASS BEANS SHALL BE APPLIED IMMEDIATELY AFTER APPLICATION OF THE EPOXY RESIN LINE TO PROVIDE AN IMMEDIATE NO-TRACK SYSTEM.

AN EPOLY RESIN LINE 4" WIDE AND 15 MILL THICKNESS (WET), REQUIRES AN APPLICATION RATE OF ONE (1) GALLON OF COMPONENTS FOR 320 FEET OF LINE. GLASS BEADS SHALL BE APPLIED AT A POUND PER GALLON RATE SUFFICIENT TO ACHIEVE AN ACCEPTABLE NO-TRACK SYSTEM.

OPERATIONS SHALL BE CONDUCTED ONLY WHEN THE ROAD PAVEMENT SURFACE TEMPERATURES ARE 50 DEGREES FAHRENHEIT OR GREATER.

PERMANENT PAVEMENT MARKINGS SHALL NOT BE PLACED OVER TEMPORARY TAPE MARKINGS.

PREFORMED THERMOPLASTIC:

THE PREFORMED THERMOPLASTIC MARKINGS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS ON CLEAN AND DRY SURFACES. SEE SPECIAL PROVISIONS FOR PREFORMED THERMOPLASTIC MARKING SPECIFICATIONS.

PAINT:

AT THE TIME OF APPLYING THE MARKING MATERIAL, THE APPLICATION AREA SHALL BE FREE OF CONTAMINATION. THE CONTRACTOR SHALL CLEAN THE ROADWAY SURFACE PRIOR TO THE LINE APPLICATION IN A MANNER AND TO THE EXTENT REQUIRED BY THE ENGINEER.

GLASS BEADS SHALL BE APPLIED IMMEDIATELY AFTER APPLICATION OF THE PAINT LINE.

EXCEPT WHEN USED AS A TEMPORARY MARKING, PAVEMENT MARKINGS SHALL ONLY BE APPLIED IN SEASONABLE WEATHER WHEN AIR TEMPERATURE IS 50 DEGREES FARHENHEIT OR HIGHER AND SHALL NOT BE APPLIED WHEN THE WIND OR OTHER CONDITIONS CAUSE A FILD OR DUST TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING AND BEFORE THE MARKING MATERIAL CAN BE APPLIED.

THE FILLING OF TANKS, POURING OF MATERIALS OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENT SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF MATERIAL.

SYMBOLS & MATERIALS LEGEND

■ CROSSWALK BLOCK WHITE PREFORMED THERMOPLASTIC

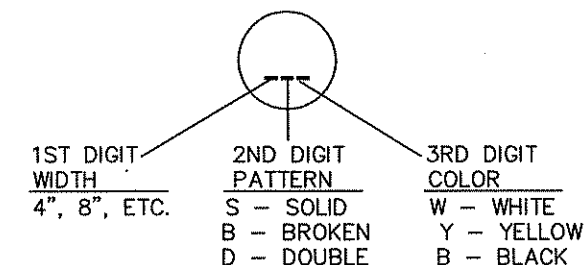
↩ PAVEMENT MESSAGE (LEFT ARROW) PREFORMED THERMOPLASTIC

STRIPING KEY

○ CIRCLE - EPOXY □ SQUARE PREFORMED THERMOPLASTIC

△ TRIANGLE - PAINT

⬠ PENTAGON - REMOVABLE PREFORMED PLASTIC MARKING



EXAMPLE: (4SW) = 4" SOLID LINE WHITE - EPOXY

PAVEMENT MARKING QUANTITIES		
Item	Quantity	Units
4" Double Solid Line Yellow - Epoxy	3059	Lin Ft
4" Solid Linen Yellow - Epoxy	6754	Lin Ft
4" Broken Line Yellow - Epoxy (10 ft stripe / 40 ft gap)	2970	Lin Ft
4" Solid Line White - Epoxy	38117	Lin Ft
4" Broken Line White - Epoxy (10 ft stripe / 40 ft gap)	160	Lin Ft

NO	DATE	BY	CHKD	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: 2/2/12 LICENSE NO. 40416

DRAWN BY: MTH DATE: 1/26/12
 DESIGN BY: MTH DATE: 1/26/12
 CHECKED BY: JR DATE: 2/14/12

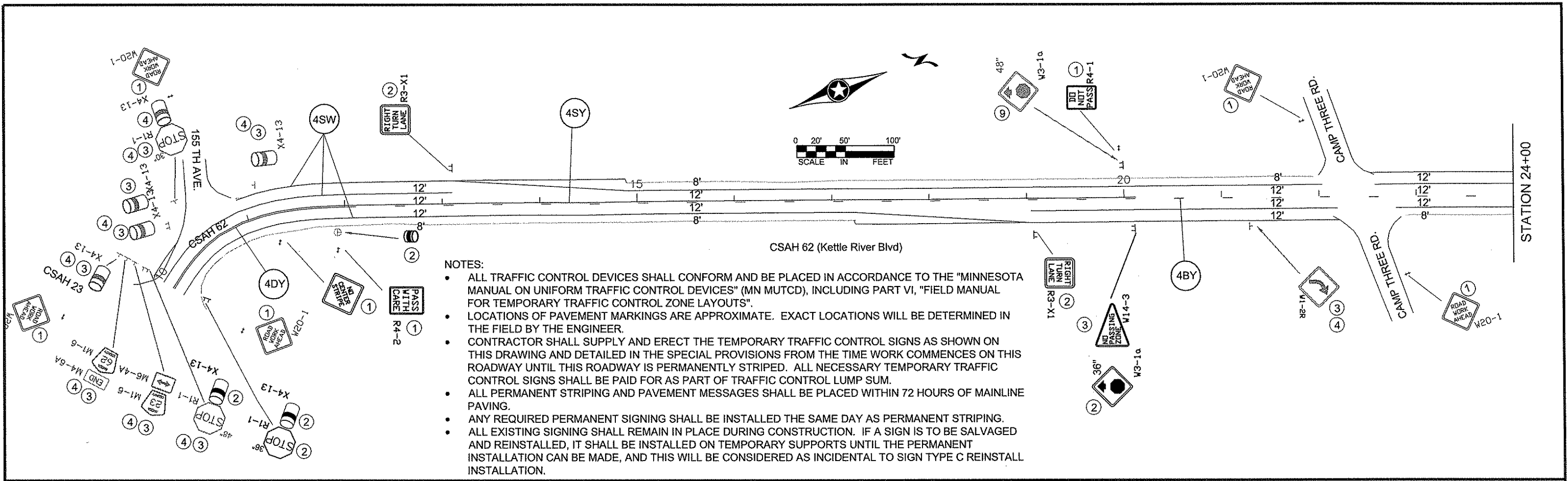


**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

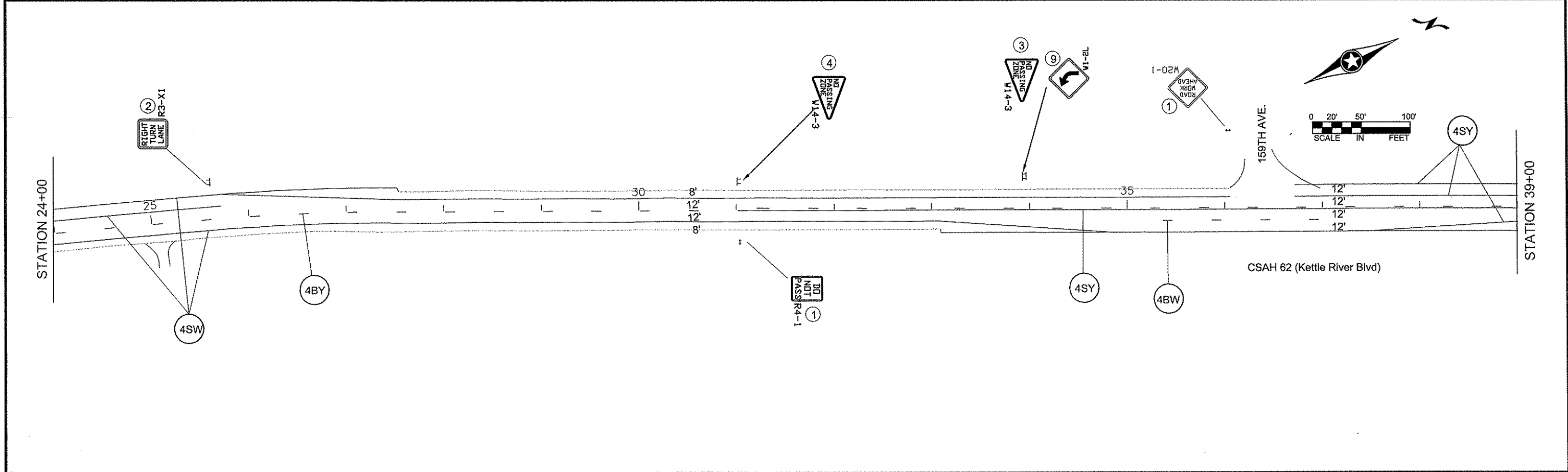
PERMANENT MARKING
TABULATION

Sheet 18 of 27 Sheets

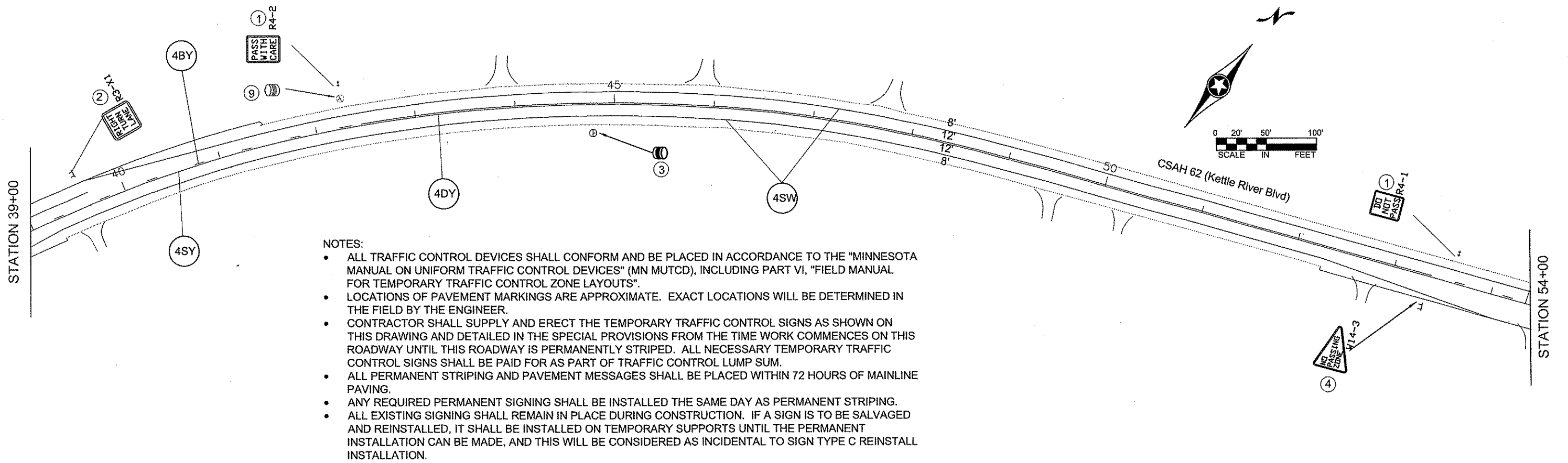


NOTES:

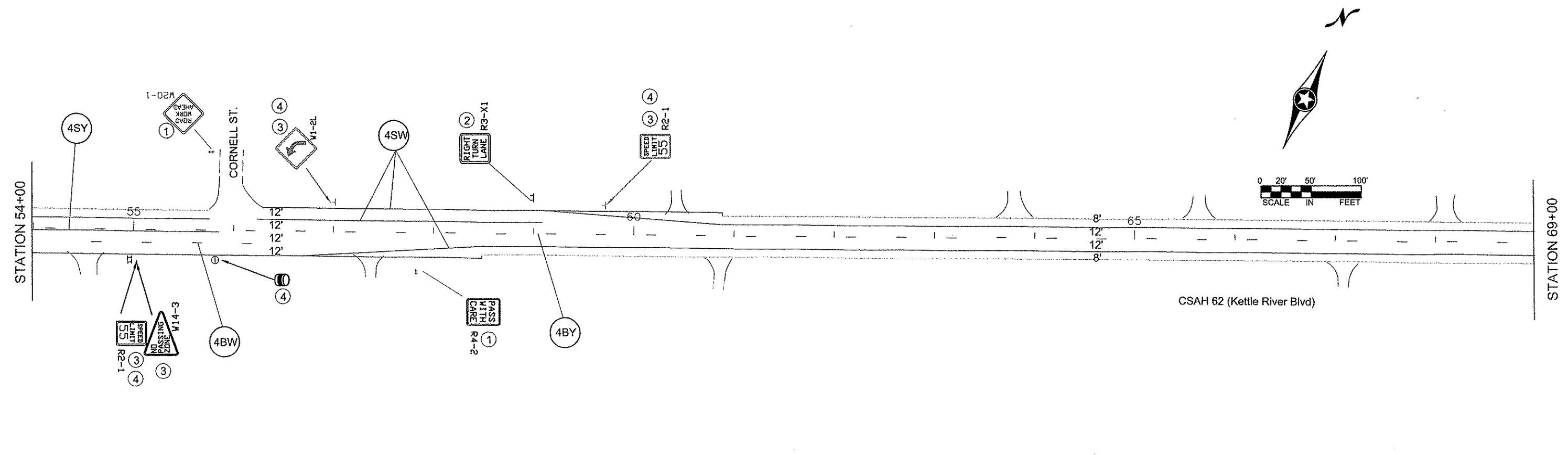
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), INCLUDING PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
- LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 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.
- ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.
- ANY REQUIRED PERMANENT SIGNING SHALL BE INSTALLED THE SAME DAY AS PERMANENT STRIPING.
- ALL EXISTING SIGNING SHALL REMAIN IN PLACE DURING CONSTRUCTION. IF A SIGN IS TO BE SALVAGED AND REINSTALLED, IT SHALL BE INSTALLED ON TEMPORARY SUPPORTS UNTIL THE PERMANENT INSTALLATION CAN BE MADE, AND THIS WILL BE CONSIDERED AS INCIDENTAL TO SIGN TYPE C REINSTALL INSTALLATION.



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: 2/2/12 REG. NO. 40416					DRAWN BY: MTH DATE 1/18/2012 DESIGN BY: MTH DATE 1/18/2012 CHECKED BY: JR DATE 2/14/2012		ANOKA COUNTY HIGHWAY DEPT.		STATE PROJECT NO. _____ STATE AID PROJECT NO. _____ STATE AID PROJECT NO. _____ COUNTY PROJECT NO. 12-15-62		CSAH 62 (KETTLE RIVER BLVD) TEMPORARY SIGNING PERMANENT STRIPING AND PAVEMENT MESSAGES Sheet 19 of 27 Sheets	
NO	DATE	BY	CKD	APPR	REVISION							
NAME: P:\12-01-00\CSAH 62\Base\TRAFFIC\12-15-62_Signing and Striping.dwg												



- NOTES:
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), INCLUDING PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
 - LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 - 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.
 - ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.
 - ANY REQUIRED PERMANENT SIGNING SHALL BE INSTALLED THE SAME DAY AS PERMANENT STRIPING.
 - ALL EXISTING SIGNING SHALL REMAIN IN PLACE DURING CONSTRUCTION. IF A SIGN IS TO BE SALVAGED AND REINSTALLED, IT SHALL BE INSTALLED ON TEMPORARY SUPPORTS UNTIL THE PERMANENT INSTALLATION CAN BE MADE, AND THIS WILL BE CONSIDERED AS INCIDENTAL TO SIGN TYPE C REINSTALL INSTALLATION.



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: *Charles Cadenhead*
 DATE: 7/2/12 REG. NO. 40416

DRAWN BY: MTH DATE 1/18/2012
 DESIGN BY: MTH DATE 1/18/2012
 CHECKED BY: JR DATE 2/14/2012

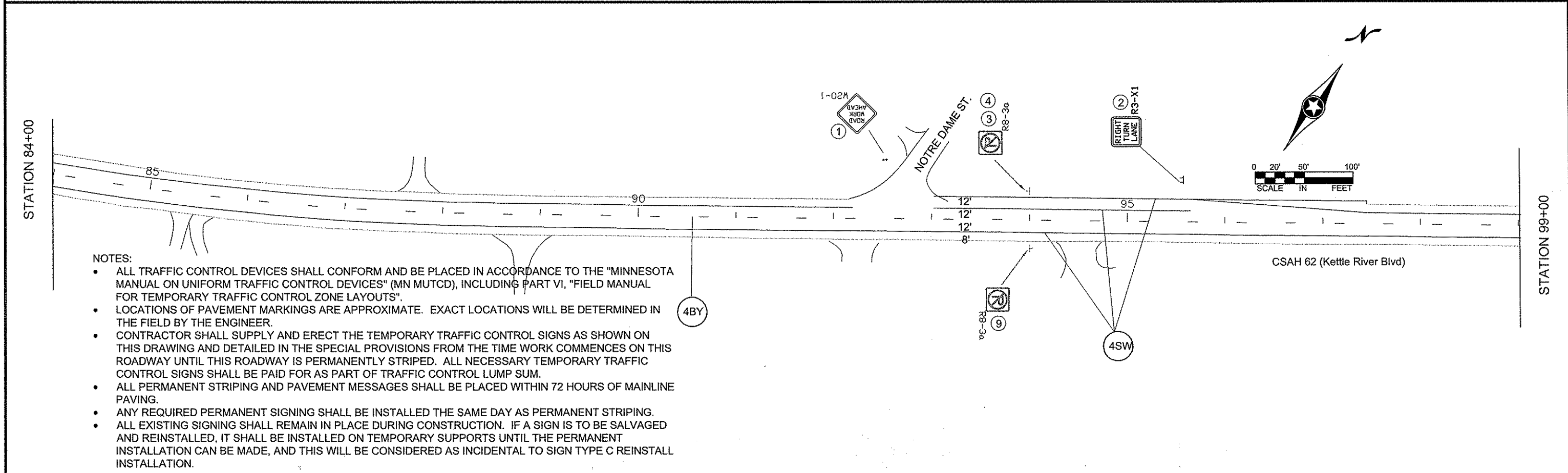
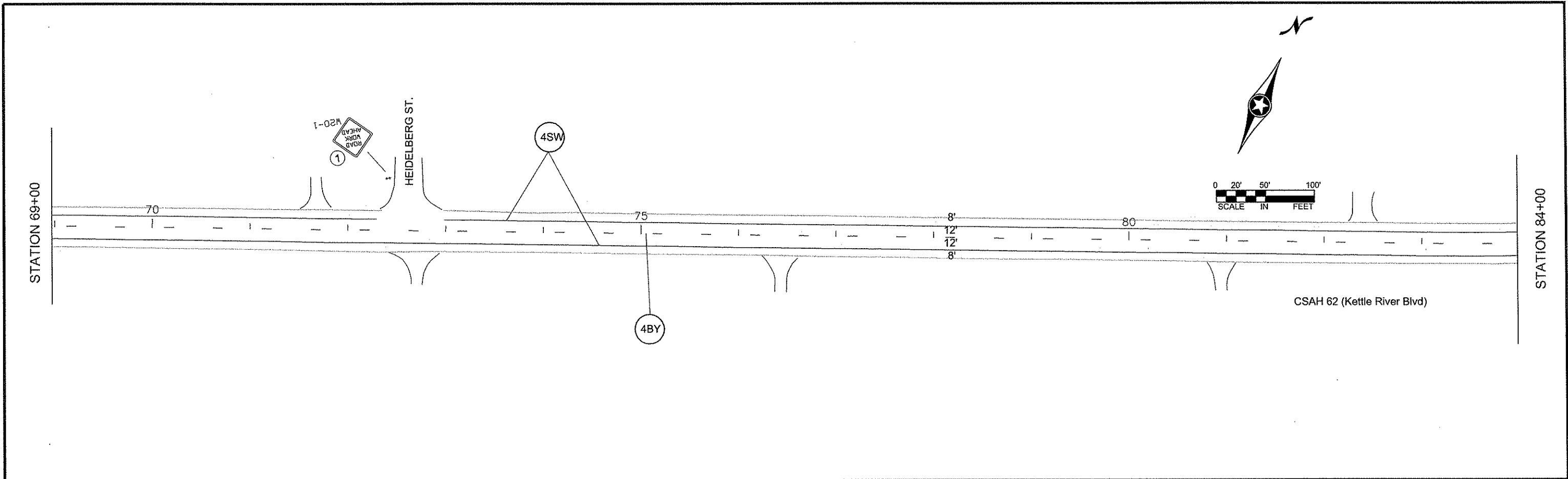


ANOKA COUNTY
 HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

CSAH 62 (KETTLE RIVER BLVD)
 TEMPORARY SIGNING
 PERMANENT STRIPING
 AND PAVEMENT MESSAGES

Sheet 20 of 27 Sheets



- NOTES:
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), INCLUDING PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
 - LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 - 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.
 - ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.
 - ANY REQUIRED PERMANENT SIGNING SHALL BE INSTALLED THE SAME DAY AS PERMANENT STRIPING.
 - ALL EXISTING SIGNING SHALL REMAIN IN PLACE DURING CONSTRUCTION. IF A SIGN IS TO BE SALVAGED AND REINSTALLED, IT SHALL BE INSTALLED ON TEMPORARY SUPPORTS UNTIL THE PERMANENT INSTALLATION CAN BE MADE, AND THIS WILL BE CONSIDERED AS INCIDENTAL TO SIGN TYPE C REINSTALL INSTALLATION.

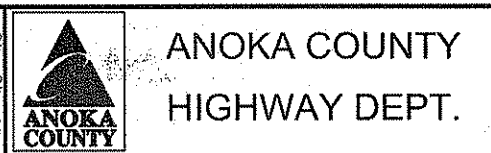
NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\12-01-00\CSAH 62\Base\TRAFFIC\12-15-62 Signing and Striping.dwg

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: 2/2/12 REG. NO. 40416

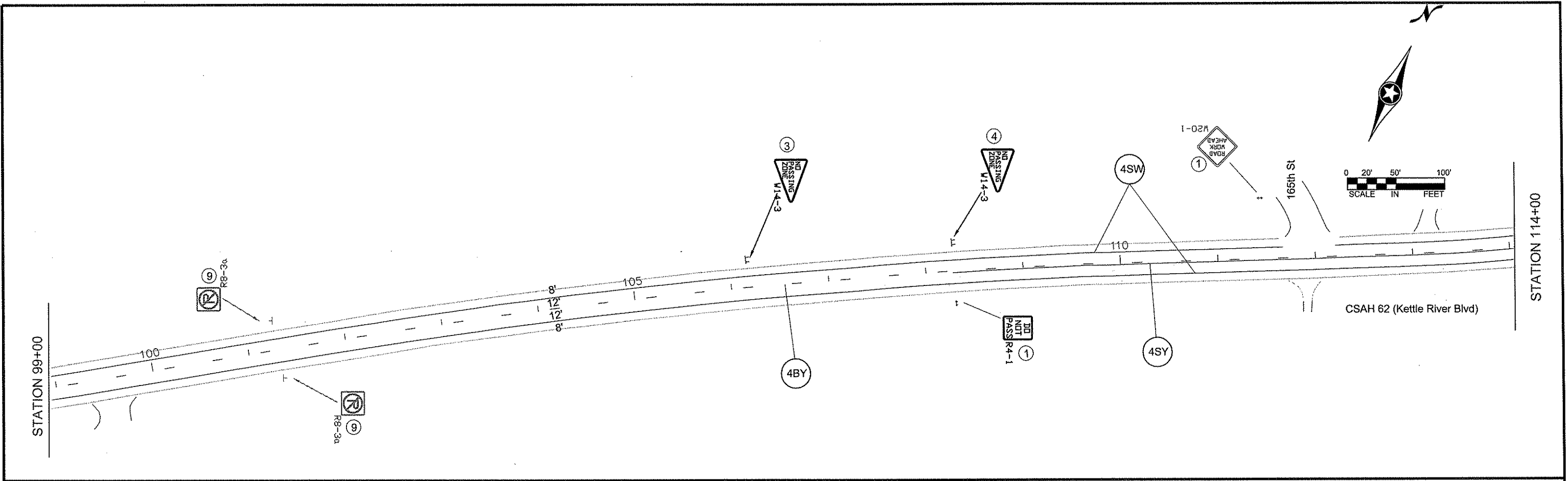
DRAWN BY: MTH DATE 1/18/2012
 DESIGN BY: MTH DATE 1/18/2012
 CHECKED BY: JR DATE 2/01/2012



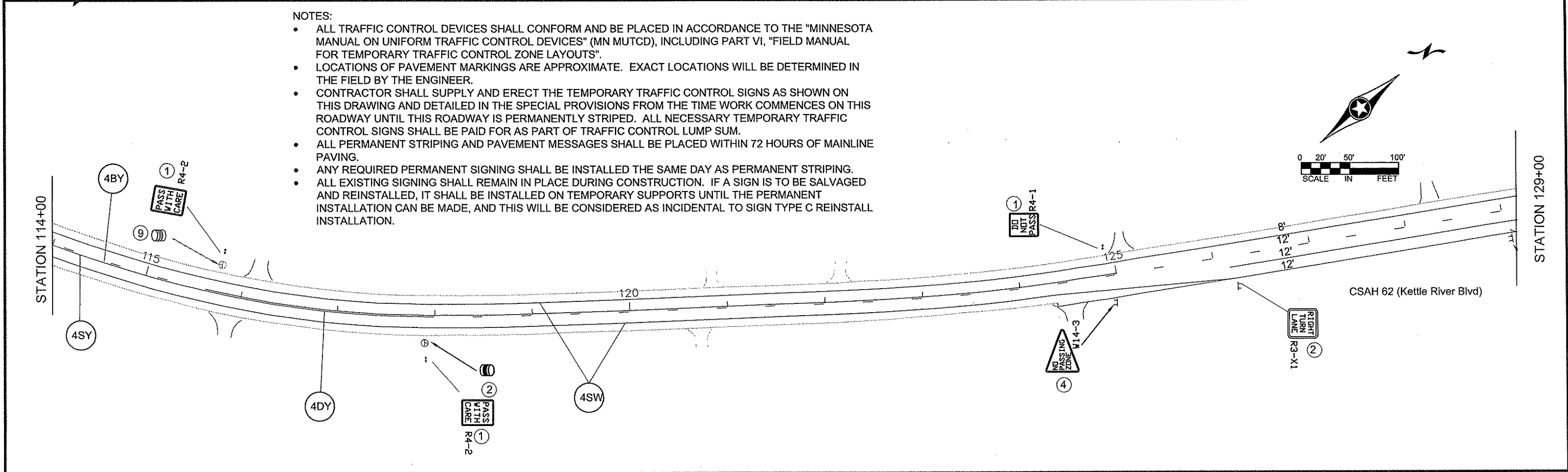
STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

CSAH 62 (KETTLE RIVER BLVD)
 TEMPORARY SIGNING
 PERMANENT STRIPING
 AND PAVEMENT MESSAGES

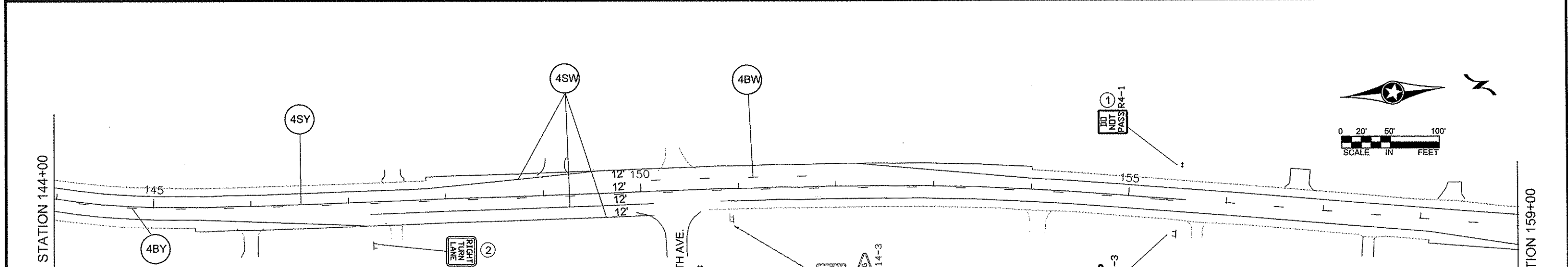
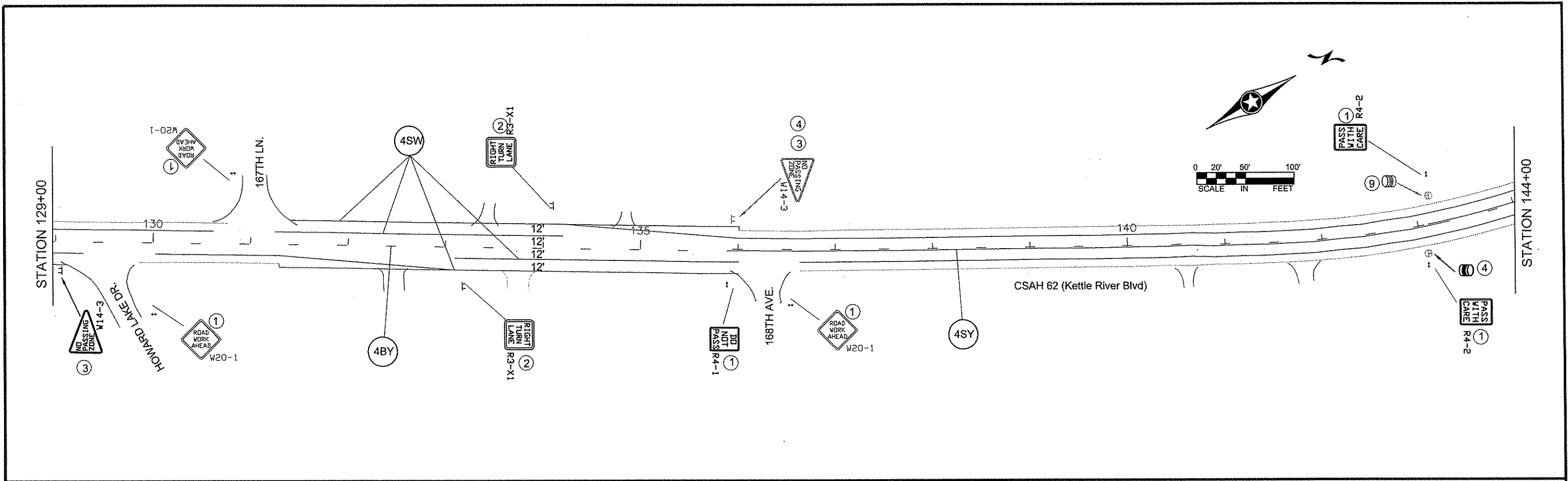
Sheet 21 of 27 Sheets



- NOTES:
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), INCLUDING PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
 - LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 - 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.
 - ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.
 - ANY REQUIRED PERMANENT SIGNING SHALL BE INSTALLED THE SAME DAY AS PERMANENT STRIPING.
 - ALL EXISTING SIGNING SHALL REMAIN IN PLACE DURING CONSTRUCTION. IF A SIGN IS TO BE SALVAGED AND REINSTALLED, IT SHALL BE INSTALLED ON TEMPORARY SUPPORTS UNTIL THE PERMANENT INSTALLATION CAN BE MADE, AND THIS WILL BE CONSIDERED AS INCIDENTAL TO SIGN TYPE C REINSTALL INSTALLATION.



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: 7/2/12 REG. NO. 40416					DRAWN BY: MTH DATE 1/18/2012 DESIGN BY: MTH DATE 1/18/2012 CHECKED BY: JR DATE 2/01/2012		ANOKA COUNTY HIGHWAY DEPT.		STATE PROJECT NO. _____ STATE AID PROJECT NO. _____ STATE AID PROJECT NO. _____ COUNTY PROJECT NO. 12-15-62		CSAH 62 (KETTLE RIVER BLVD) TEMPORARY SIGNING PERMANENT STRIPING AND PAVEMENT MESSAGES Sheet 22 of 27 Sheets	
NO	DATE	BY	CKD	APPR	REVISION	NAME: P:\12-01-00\CSAH 62\Bases\TRAFFIC\12-15-62 Signing and Striping.dwg						



- NOTES:
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), INCLUDING PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
 - LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 - 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.
 - ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.
 - ANY REQUIRED PERMANENT SIGNING SHALL BE INSTALLED THE SAME DAY AS PERMANENT STRIPING.
 - ALL EXISTING SIGNING SHALL REMAIN IN PLACE DURING CONSTRUCTION. IF A SIGN IS TO BE SALVAGED AND REINSTALLED, IT SHALL BE INSTALLED ON TEMPORARY SUPPORTS UNTIL THE PERMANENT INSTALLATION CAN BE MADE, AND THIS WILL BE CONSIDERED AS INCIDENTAL TO SIGN TYPE C REINSTALL INSTALLATION.

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\12-01-00\CSAH 62\Base\TRAFFIC\12-15-62_Signing and Striping.dwg

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: *Charles Cadenhead*
 DATE: 2/2/12 REG. NO. 40416

DRAWN BY: MTH DATE 1/18/2012
 DESIGN BY: MTH DATE 1/18/2012
 CHECKED BY: JR DATE 2/14/2012

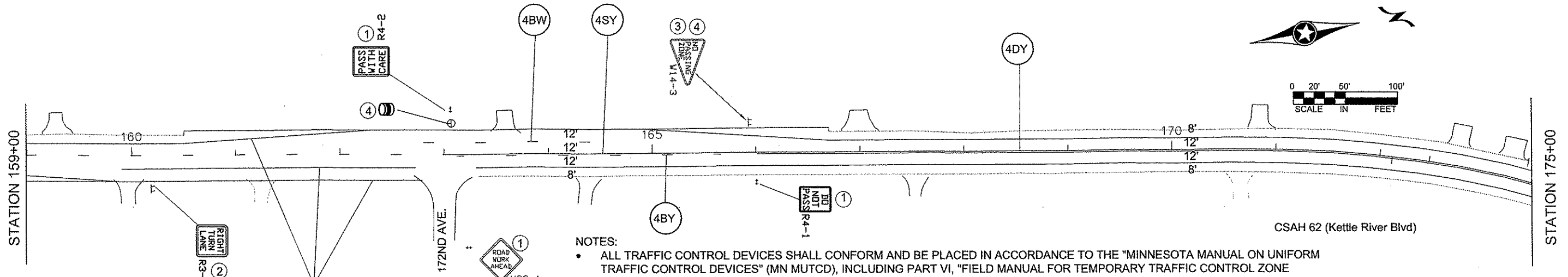


**ANOKA COUNTY
HIGHWAY DEPT.**

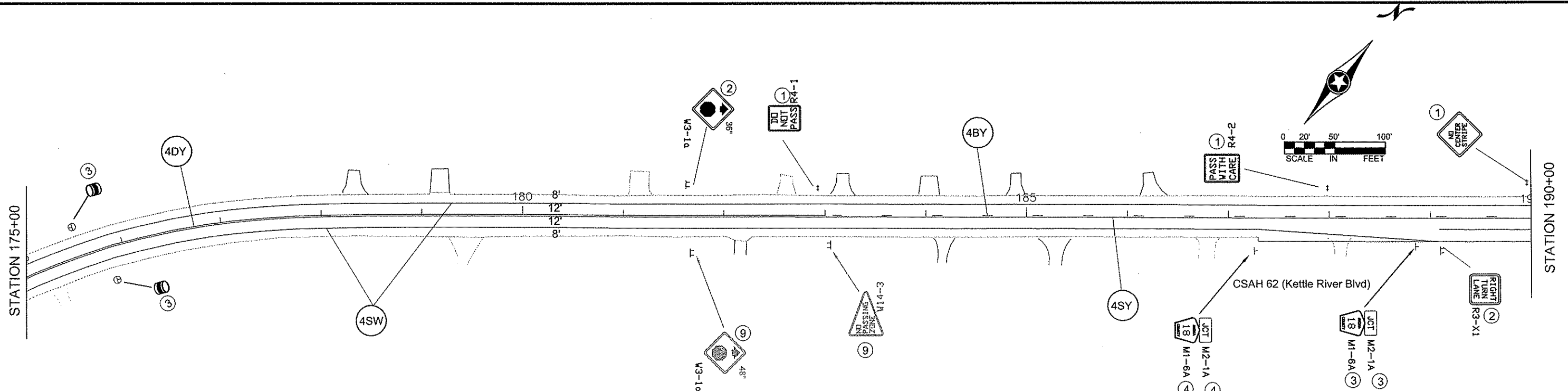
STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

CSAH 62 (KETTLE RIVER BLVD)
 TEMPORARY SIGNING
 PERMANENT STRIPING
 AND PAVEMENT MESSAGES

Sheet 23 of 27 Sheets



- NOTES:
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), INCLUDING PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
 - LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 - 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.
 - ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.
 - ANY REQUIRED PERMANENT SIGNING SHALL BE INSTALLED THE SAME DAY AS PERMANENT STRIPING.
 - ALL EXISTING SIGNING SHALL REMAIN IN PLACE DURING CONSTRUCTION. IF A SIGN IS TO BE SALVAGED AND REINSTALLED, IT SHALL BE INSTALLED ON TEMPORARY SUPPORTS UNTIL THE PERMANENT INSTALLATION CAN BE MADE, AND THIS WILL BE CONSIDERED AS INCIDENTAL TO SIGN TYPE C REINSTALL INSTALLATION.



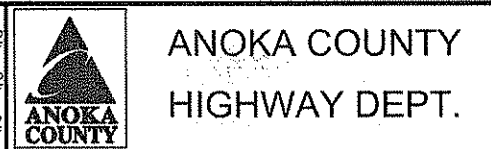
NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\12-01-00\CSAH 62\Base\TRAFFIC\12-15-62 Signing and Striping.dwg

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 GADENHEAD
 SIGNATURE: *[Signature]*
 DATE: 2/2/12 REG. NO. 40416

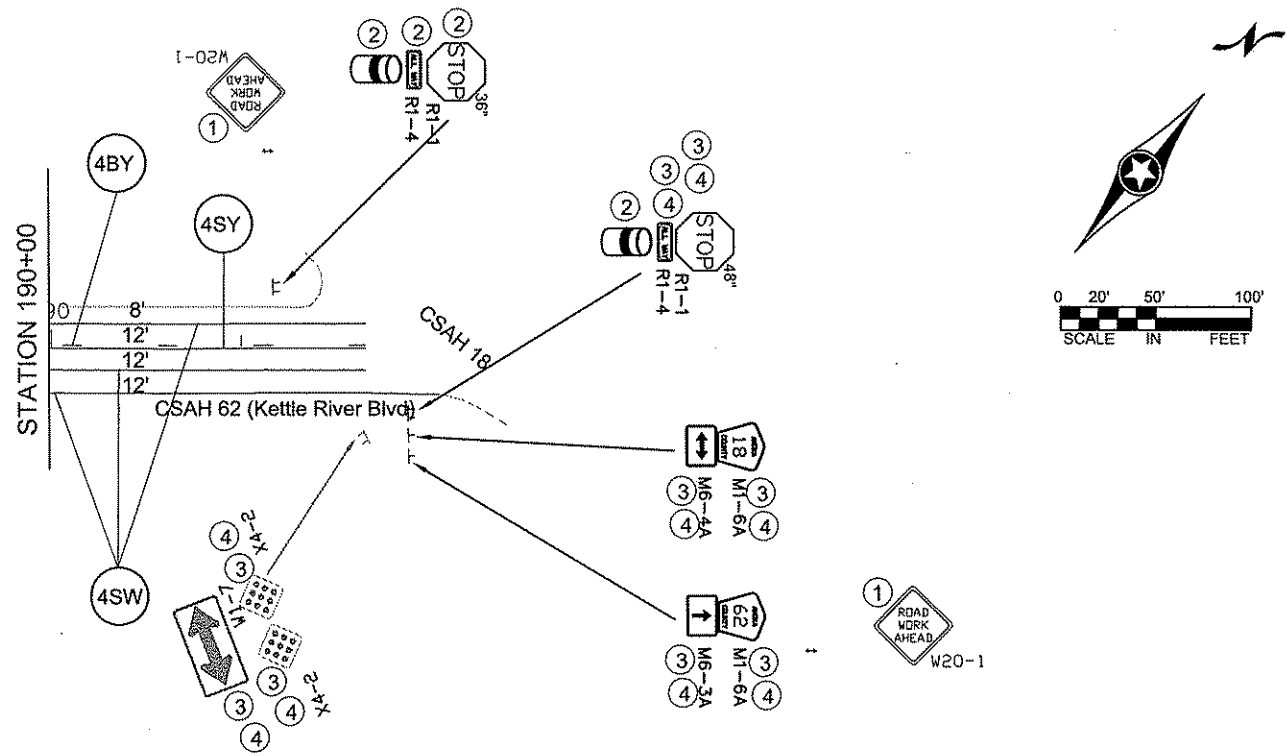
DRAWN BY: MTH DATE 1/18/2012
 DESIGN BY: MTH DATE 1/18/2012
 CHECKED BY: JR DATE 2/14/2012



STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

CSAH 62 (KETTLE RIVER BLVD)
 TEMPORARY SIGNING
 PERMANENT STRIPING
 AND PAVEMENT MESSAGES

Sheet 24 of 27 Sheets



NOTES:

- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), INCLUDING PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
- LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 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.
- ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.
- ANY REQUIRED PERMANENT SIGNING SHALL BE INSTALLED THE SAME DAY AS PERMANENT STRIPING.
- ALL EXISTING SIGNING SHALL REMAIN IN PLACE DURING CONSTRUCTION. IF A SIGN IS TO BE SALVAGED AND REINSTALLED, IT SHALL BE INSTALLED ON TEMPORARY SUPPORTS UNTIL THE PERMANENT INSTALLATION CAN BE MADE, AND THIS WILL BE CONSIDERED AS INCIDENTAL TO SIGN TYPE C REINSTALL INSTALLATION.

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\12-01-00\CSAH 62\Base\TRAFFIC\12-15-62_Signing and Striping.dwg

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: 3/2/12 REG. NO. 40418

DRAWN BY: MTH DATE 1/18/2012
 DESIGN BY: MTH DATE 1/18/2012
 CHECKED BY: JR DATE 2/14/2012


















ANOKA COUNTY
 HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

CSAH 62 (KETTLE RIVER BLVD)
 TEMPORARY SIGNING
 PERMANENT STRIPING
 AND PAVEMENT MESSAGES

Sheet 25 of 27 Sheets

TEMPORARY TRAFFIC CONTROL SIGNS						
M.U.T.C.D. CODE	SIZE	PANEL AREA FT. ²	INSERT	QUANTITY	No. POST	MOUNTING HEIGHT (TO POINT EDGE) FT.
W8-12	48" x 48"	16.00		2		7.0
R4-1	24" x 30"	5.00	 R4-1	9		7.0
R4-2	24" x 30"	5.00	 R4-2	9		7.0
W8-1A	48" x 48"	16.00	 W8-1A	AS NEEDED		
W8-1A	48" x 48"	16.00	 W8-1A	AS NEEDED		
W8-8	48" x 48"	16.00	 W8-8	AS NEEDED		
W8-11	48" x 48"	16.00	 W8-11	AS NEEDED		
W8-11	48" x 48"	16.00	 W20-1	AS NEEDED (ESTIMATED 17)		

PERMANENT TRAFFIC CONTROL SIGNS						
M.U.T.C.D. CODE	SIZE	PANEL AREA FT. ²	INSERT	QUANTITY	MOUNTING HEIGHT (TO POINT EDGE) FT.	TOTAL AREA FT. ²
R1-1	36" x 36"	9.00	 R1-1	2	7.00	18.00
R1-4	18" x 6"	0.75	 R1-4	1		0.75
X4-13	8" x 12"			4	6.00	
R3-X1	30" x 30"	6.25	 R3-X1	12	7.00	75.0
W3-1	36" x 36"	9.00	 W3-1a	2	7.00	18.00
W14-3	48" x 36"	6.00	 W14-3	0	7.00	0.00
X4-13	4" x 4"			2	4.00	
TOTAL PANEL AREA						111.75

- SEE SPECIAL PROVISIONS
- ① TEMPORARY TRAFFIC CONTROL SIGN
 - ② F & I PERMANENT SIGN
 - ③ SALVAGE PERMANENT SIGN
 - ④ RE-INSTALL PERMANENT SIGN
 - ⑨ INPLACE - RETAIN

NOTES:


- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), INCLUDING PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
- LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 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.
- ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.
- ANY REQUIRED PERMANENT SIGNING SHALL BE INSTALLED THE SAME DAY AS PERMANENT STRIPING.
- ALL EXISTING SIGNING SHALL REMAIN IN PLACE DURING CONSTRUCTION. IF A SIGN IS TO BE SALVAGED AND REINSTALLED, IT SHALL BE INSTALLED ON TEMPORARY SUPPORTS UNTIL THE PERMANENT INSTALLATION CAN BE MADE, AND THIS WILL BE CONSIDERED AS INCIDENTAL TO SIGN TYPE C REINSTALL INSTALLATION.

STATION		SALVAGE SIGN TYPE C	INSTALL SIGN TYPE C	SIGN NUMBER
		EACH	EACH	
10+00	Rt	1	1	R1-1
10+00	Rt	1	1	M1-6 / M4-6a
10+00	Rt	1	1	M4-6a / M1-6
10+00	Rt	1	1	X4-13
10+30	Rt	1	1	X4-13
10+50	Rt	1	1	R1-1 / x4-13
11+00	Rt	1	1	X4-13
21+30	Lt	1	1	W1-2R
31+00	Lt		1	W14-3
34+00	Lt	1		W14-3
44+80	Rt	1		Terminal post
53+33	Rt		1	W14-3
55+00	Rt		1	R2-1
55+00	Rt	1		W14-3
56+00	Rt		1	Terminal post
57+00	Lt	1	1	W1-2L
59+70	Lt	1	1	R2-1
94+00	Lt	1	1	R8-3a
106+20	Lt	1		W14-3
108+20	Lt		1	W14-3
125+00	Rt		1	W14-3
129+00	Rt	1		W14-3
136+00	Lt	1	1	W14-3
143+00	Rt		1	Terminal post
151+00	Rt	1		W14-3
151+00	Rt			R2-1
155+50	Rt		1	W14-3
163+00	Lt		1	Terminal post
166+00	Lt	1	1	W14-3
175+50	Lt	1		Terminal post
175+80	Rt	1		Terminal post
187+20	Rt		1	M2-1a / M1-6a
188+80	Rt	1		M2-1a / M1-6a
191+50	Rt	1	1	W1-7 / x4-2 / x4-2
192+00	Rt	1	1	M1-6a M6-3a
192+00	Rt	1	1	M1-6a M6-4a
192+00	Rt	1	1	R1-1 / R1-4
TOTAL		26	27	

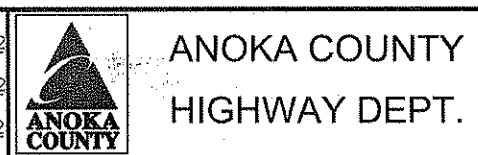
NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\12-01-00\CSAH 62\Base\TRAFFIC\12-15-62_Signing and Striping.dwg

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.

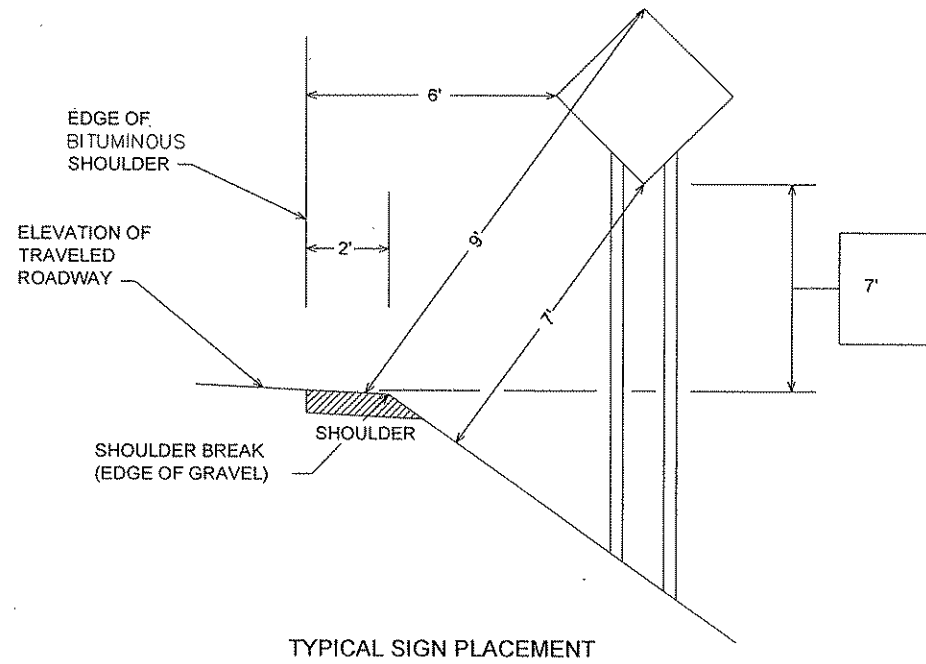
PRINT NAME: CHARLES CADENHEAD
 SIGNATURE: 
 DATE: 2/2/12 REG. NO. 40416

DRAWN BY: MTH DATE 1/18/2012
 DESIGN BY: MTH DATE 1/18/2012
 CHECKED BY: JR DATE 2/14/2012



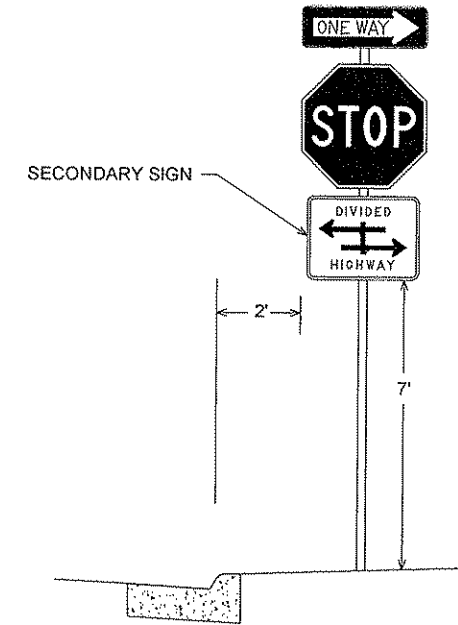
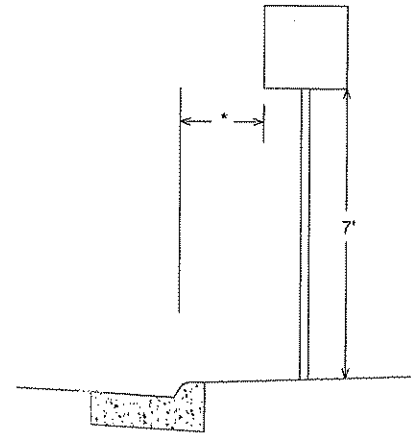
STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 12-15-62

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

NAME: T:\Traffic\Dwg\CR 53 (Sunset Ave)\Sign&Stripe_Details.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 CADENHEAD

SIGNATURE: *Charles Cadenhead*

DATE: 3/2/12 LICENSE NO. 40416

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. 12-15-62

SIGNING & STRIPING DETAILS

Sheet 27 of 27 Sheets