

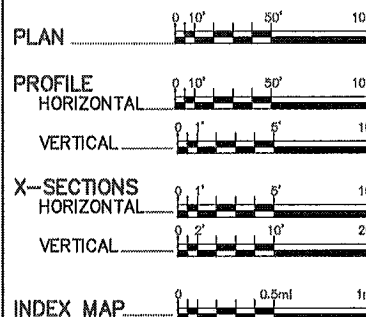
PLAN SYMBOLS

- 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.....
- HEEDGE.....
- 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.....
- AERIAL TELEPHONE CABLE.....
- SEWER (Sanitary or Storm).....
- SEWER MANHOLE.....

SCALES



MINNESOTA DEPARTMENT OF TRANSPORTATION

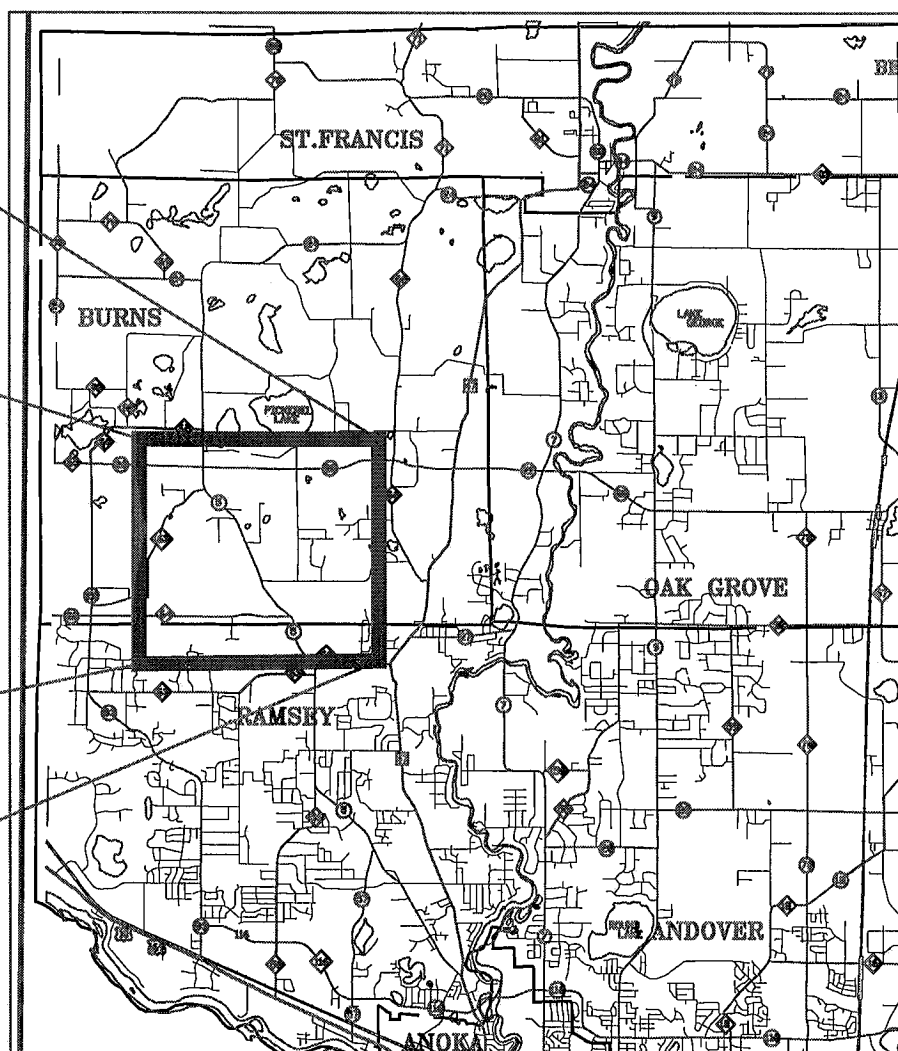
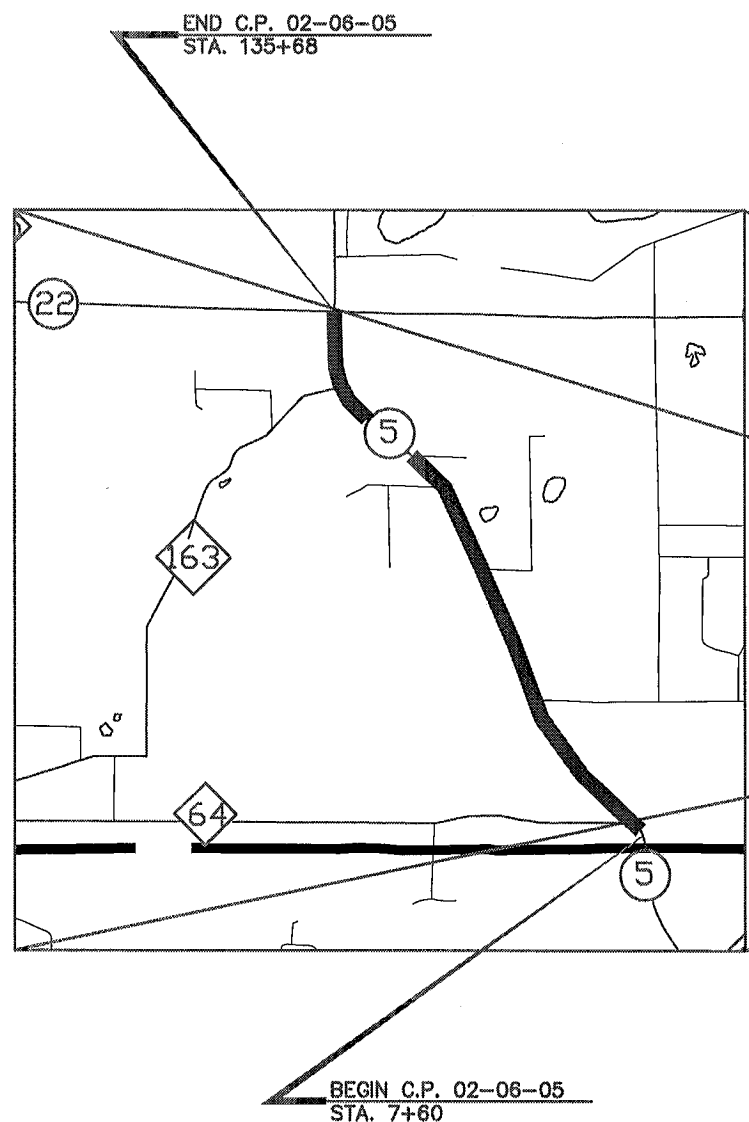
ANOKA COUNTY

CONSTRUCTION PLAN FOR BITUMINOUS MILLING, BITUMINOUS RECLAIMING, BITUMINOUS SURFACING

LOCATED ON C.S.A.H. 5 FROM COUNTY ROAD 64 TO C.S.A.H. 22 (Geographic Description)

COUNTY PROJECT NO. 02-06-05
C.S.A.H. 5

GROSS LENGTH	<u>12,808</u> FEET	<u>2.43</u> MILES
BRIDGES-LENGTH	<u>0.000</u> FEET	<u>0.000</u> MILES
EXCEPTIONS-LENGTH	<u>0.000</u> FEET	<u>0.000</u> MILES
NET LENGTH	<u>12,808.0</u> FEET	<u>2.43</u> MILES



MINN. PROJ. NO. _____
MINN. PROJ. NO. _____

GOVERNING SPECIFICATIONS

THE 2000 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MMUTCD, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS - JANUARY, 2001."

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3	TYPICAL SECTIONS
4 - 6	TABULATION CHARTS
7	MISCELLANEOUS DETAILS
8	BITUMINOUS MILLING HAUL LOCATIONS
9	DETAIL FOR RTL AT CSAH 5 AND 22
10	DETAIL FOR RTL & BYPASS AT CR 64 AND 163
11	CROSS SECTIONS
12 - 18	SIGNING PLANS

THIS PLAN CONTAINS 18 SHEETS

DESIGN DESIGNATION

ESAL ₂₀	<u>447,133</u>
R VALUE	<u>20</u>
ADT (2001)	<u>3002</u>
Proj. ADT (2021)	<u>4803</u>
Proj. HCADT (2021)	<u>283</u>
Soil Factor	<u>NA</u>
<u>10</u> TON DESIGN	

Functional Classification MINOR
 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 0.5'
 Design Speed not achieved at:
 STA. _____ TO STA. _____ MPH
 STA. _____ TO STA. _____ MPH
 STA. _____ TO STA. _____ MPH

Approved 7/9, 2002
 ANOKA COUNTY ENGINEER

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: MARK A DALY
 SIGNATURE:
 DATE: 08/27/02 LICENSE NO. 21783

DRAWN BY BFL DATE 08/27/02
 DESIGN BY MFG DATE 08/27/02
 CHECKED BY MAD DATE 08/27/02



**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 02-06-05

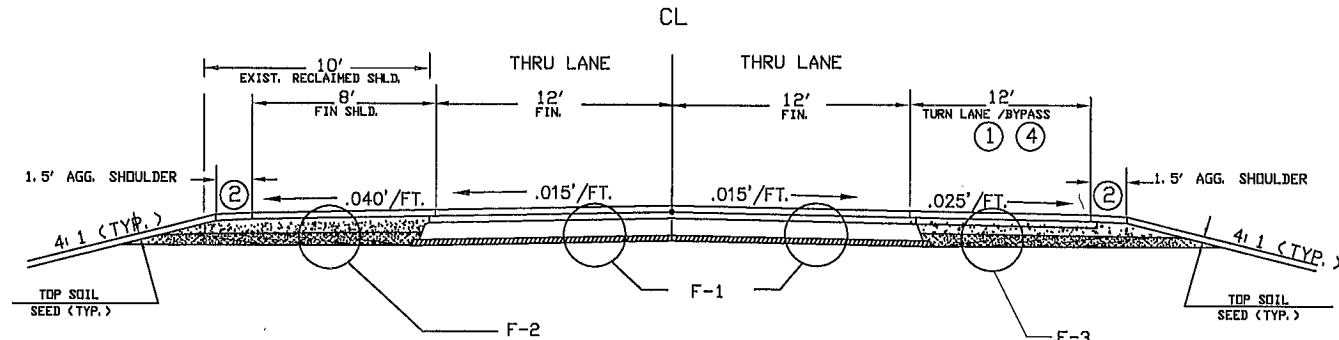
TITLE SHEET

Sheet 01 of 18 Sheets

NO	DATE	BY	CHK	APPR	REVISION

NAME: S:\SDSKPROG\02-000-00\PLAN\01-TITLE.DWG

PROPOSED CONSTRUCTION
STA 7+40 TO STA 135+68

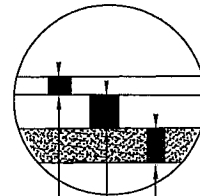


DESIGN F-1

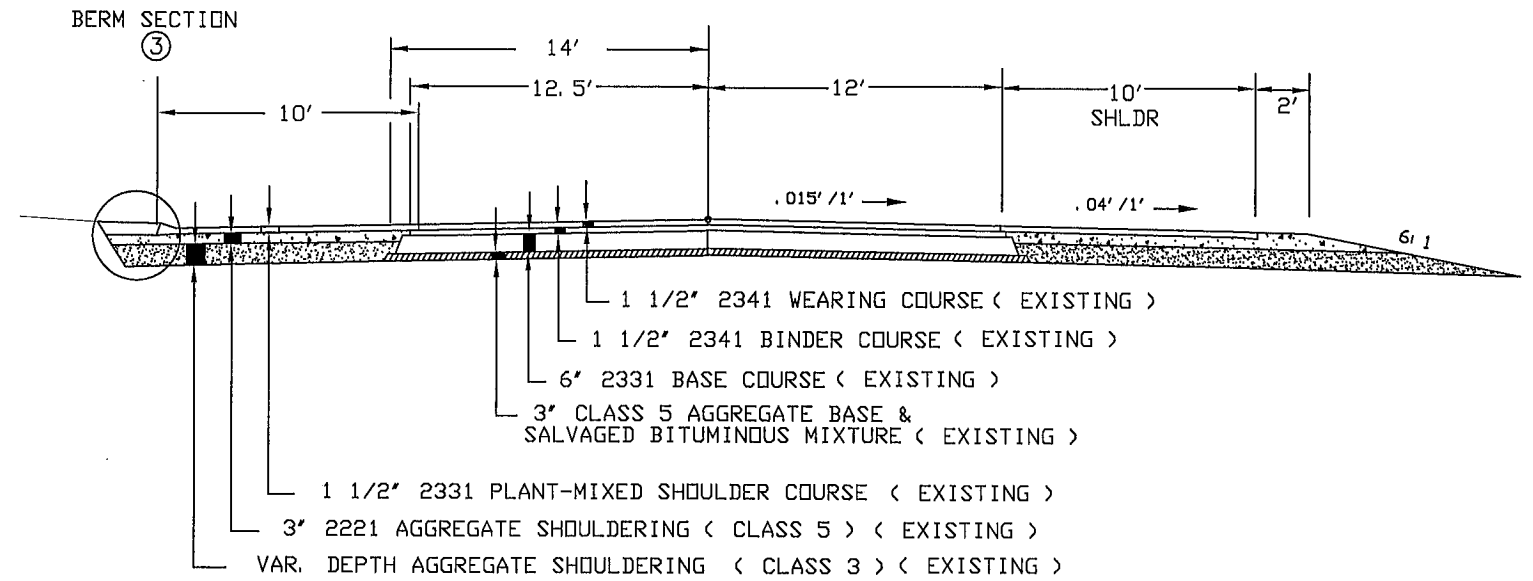
- 2" LVWE45030C
- 2" MILL BITUMINOUS SURFACE
- 2" LVNW35030C
- 7 1/2" INPLACE BIT SURFACING
- 3" INPLACE AGG. BASE

DESIGN F-2

- 2" LVWE45030C
- 4.5' PROPOSED RECLAIMED SECTION 1.5" BITUMINOUS AND 3.0" AGG. BASE (REDUCE FROM 10' TO 8' SHLDR.)
- VARIABLE DEPTH INPLACE AGG. BASE

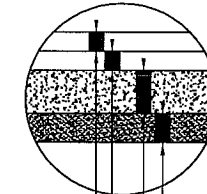


EXISTING ROADWAY
STA 7+60 TO 135+68
THRU LANE CL THRU LANE



DESIGN F-3

- 2" LVWE 45030C
- 2" LVNW 35030C
- 4.5' PROPOSED RECLAIMED SECTION 1.5" BIT. AND 3.0" AGG. BASE (EXPAND FROM 10' TO 12')
- 3" INPLACE AGG. BASE



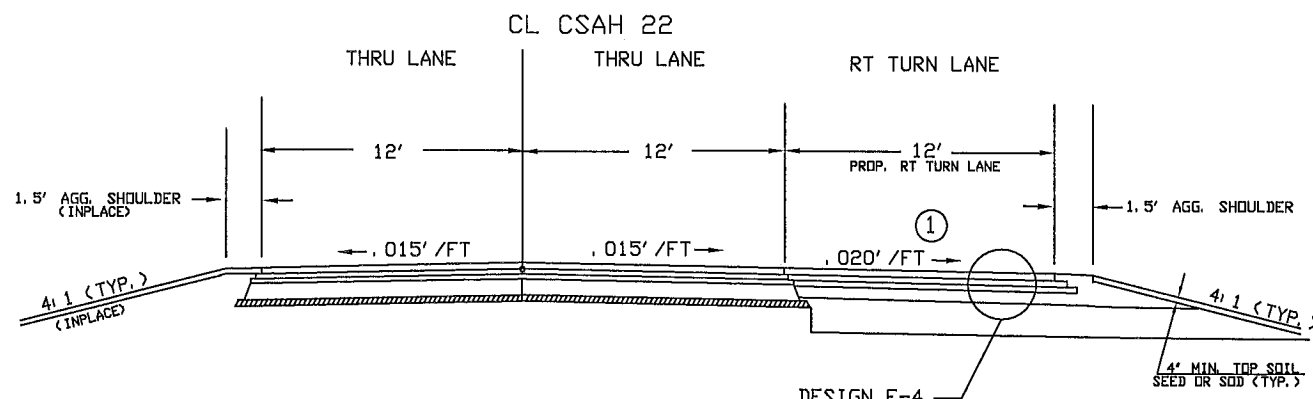
PROPOSED RIGHT TURN LANE CONSTRUCTION

- LSB CSAH 5 @ CR 64 STA 11+00 - STA 15+65
- LSB CSAH 5 @ CR 163 STA 119+45 - STA 124+05
- LNB CSAH 5 @ CSAH 22 STA 127+89 - STA 133+75
- LEB CSAH 22 @ CSAH 5 STA 11+00 - STA 15+25

PROPOSED BY-PASS LANE CONSTRUCTION

- LNB CSAH 5 @ CR 64 STA 7+40 - STA 13+30
- LNB CSAH 5 @ CR 163 STA 115+55 - STA 121+90

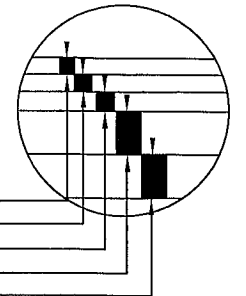
PROPOSED CONSTRUCTION
EB RTL CSAH 22 @ CSAH 5



DESIGN F-4

DESIGN F-4

- 2" LVWE 45030BC
- 2" LVNW 35030BC
- 2" LVNW 35030BC
- 4" CL 5
- VARIABLE SUBGRADE



- ① NEW FULL DEPTH CONSTRUCTION
- ② RECYCLED BIT. MATERIAL TO BE USED AS AGG. SHLDR.
- ③ 4" SHOE CURB TO BE PLACED IN BERM AREAS CONSECUTIVELY WITH 2" OVERLAY (SEE DETAIL)
- ④ ROLL OUT 2" OF RECLAIMED BITUMINOUS MATERIAL IN RIGHT TURN LANE AND BYPASS LANE AREAS TO CONSTRUCT ADDITIONAL WIDTH

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: MARIA DALY
 SIGNATURE: [Signature]
 DATE: 06/27/02 LICENSE NO. 21763

DRAWN BY: BEL DATE 06/25/02
 DESIGN BY: MEG DATE 06/25/02
 CHECKED BY: MAD DATE 06/25/02



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 02-06-05

TYPICAL SECTION

Sheet 03 of 18 Sheets

DRIVEWAY CONSTRUCTION			A
STATION	ADDRESS	REPLACEMENT BITUMINOUS	AGGREGATE BASE CLASS 5
		SQ YD	TON
12+14	HO# 18111	28.45	2
14+38	HO# 18165	19.07	
15+71	HO# 18156	19.83	
22+14	HO# 18233	18.38	
25+44	HO# 18265	17.16	
26+93	FIELD ENT.	3.33	2
27+50	HO# 18288	16.06	2
30+03	PIT. ENT.	22.10	2
34+86	FIELD ENT.	3.33	2
35+84	FIELD ENT.	3.33	2
38+50	HO# 18433	13.45	
42+25	HO# 18466	19.90	2
43+53	FIELD ENT.	3.33	2
47+00	HO# 18550	11.13	
51+23	HO# 18600	21.10	2
53+55	HO# 18650	21.16	2
55+38	HO#18675	16.15	2
61+25	HO# 18730	16.11	2
61+50		4.23	
62+15	HO# 18760	13.62	
65+34	HO# 18845	19.13	2
65+91	HO# 18830	18.31	2
69+00	HO# 18834	29.24	2
71+21	HO# 18874	17.84	2
75+20	FIELD ENT.	3.33	2
76+71	HO# 18960	19.37	
76+96	HO# 18959	23.83	
78+71	HO#18954/18964	28.06	2
79+35	HO# 18970	25.11	2
83+91	HO# 19047	29.73	
87+80	HO# 19155 S.	20.46	
89+34	HO# 19155 N.	22.43	2
99+00	HO# 19233	25.08	
102+11		22.50	2
103+35	HO# 19285	22.51	2
106+38	FIELD ENT.	3.33	2
118+15	HO# 19447	23.37	2
121+13	HO# 19454	25.42	2
122+06		32.63	2
122+87	HAPPY COR.	34.69	2
123+89		21.87	2
124+58	HO# 19550	35.33	
130+32	HO# 19620	19.67	2
130+89	CH# 19653 S.		
132+55	CH# 19653 N.		
133+23	HO# 19654	10.70	
TOTALS		825	58

TURF ESTABLISHMENT								B
STATION	STATION	LOCATION	SOD	EROSION STABILIZATION BLANKET	SEEDING	SEED MIXTURE TYPE 50A	SEED MIXTURE TYPE 130A	COM FERT ANALYSIS 22-5-10 (SLOW RELEASE)
			SQ YD	SQ YD	ACRE	POUND	POUND	TON
23+20	26+35	LT.		5.5				
26+70	27+65	LT.		5.5				
76+20	80+40	RT.		5.5				
99+75	102+05	RT		5.5				
121+60	122+60	RT		5.5				
130+45	131+45	LT		5.5				
131+60	132+10	LT		5.5				
132+30	133+40	LT		5.5				
133+85		30' LT TO 400' LT		1156				
7+60	135+68	RT & LT	200		3	155	310	0.5
121+90	115+70	RT		551				
41+00	34+80	RT		551				
TOTAL			200	2302	3	155	310	0.5

CLEARING & GRUBBING			C
STATION	LOCATION	CLEAR	GRUB
11+45	40' RT	1	1
11+46	52' RT	1	1
11+70	30' RT	1	1
12+06	49' RT	1	1
12+20	32' RT	1	1
12+30	45' RT	1	1
12+53	31' RT	1	1
12+65	32' RT	1	1
13+24	51' RT	1	1
TOTALS		9	9

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: MARK A. BALY

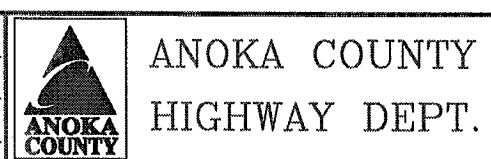
SIGNATURE: [Signature]

DATE: 06/27/02 LICENSE NO. 21763

DRAWN BY PML DATE 06/27/02

DESIGN BY PML DATE 06/27/02

CHECKED BY MAD DATE 06/27/02



STATE PROJECT NO.

STATE AID PROJECT NO.

STATE AID PROJECT NO.

COUNTY PROJECT NO. 02-06-05

TABULATION CHARTS

Sheet 04 of 18 Sheets

MILL BITUMINOUS SURFACE (2")				D
LOCATION	LENGTH FEET	WIDTH FEET	AREA SQ YD	REMARKS
CSAH 5	12790	25	35528	MILL BITUMINOUS, 2" DEPTH
RT TURN LANE, SOUTHBOUND AT CR 64	480	11	587	MILL BITUMINOUS / CLASS 5, 2" DEPTH
RT TURN LANE, NORTHBOUND AT CSAH 22	480	11	587	MILL BITUMINOUS / CLASS 5, 2" DEPTH
BYPASS, NORTHBOUND AT CR 64	620	11	758	MILL BITUMINOUS / CLASS 5, 2" DEPTH
TOTAL			37459	

BITUMINOUS PAVEMENT RECLAMATION				E
LOCATION	LENGTH FEET	WIDTH FEET	AREA SQ YD	REMARKS
CSAH 5 NORTHBOUND SHOULDER	12660	9.5	13363	STA 8+10 TO 134+70
CSAH 5 SOUTHBOUND SHOULDER	12240	9.5	12920	STA 12+30 TO 134+70
TOTAL			26283	

MILL BIT DR. / STREET APPROACHES (BUTT JOINTS)			F
LOCATION	LENGTH FEET	MILL WIDTH FEET	MILL SQ YDS
W. CR 64	28	2	6.22
HO# 18165	17	2	3.78
HO# 18156	22	2	4.89
HO# 18233	15	2	3.33
HO# 18265	22	2	4.89
HO# 18433	14	2	3.11
185TH AVE	23	2	5.11
PERIDOT ST	33	2	7.33
HO# 18760	12	2	2.67
HO# 18960	26	2	5.78
HO# 18959	14	2	3.11
HO# 19047	15	2	3.33
HO# 19155 S.	12	2	2.67
HO# 19233	18	2	4.00
CR 163	27	2	6.00
HO# 19550	18	2	4.00
HO# 19653 S.	29	2	6.44
HO# 19653 N.	41	2	9.11
HO# 8040 (CSAH 22)	18	2	4.00
TOTAL			89.8

BITUMINOUS SUMMARY											G	
LOCATION	LENGTH FEET	LV3NW WIDTH FEET	LV3NW SQ YD	LV3NW TONS	LV3NW WIDTH FEET	LV3NW SQ YD	LV3NW TONS	LV4WE WIDTH FEET	LV4WE SQ YD	LV4WE TONS	TYPE 41 PATCHING TONS	TACK GALLON
CSAH 5 NB DRIVING LANE (1),(2)	12790				12.5	17764	2443	12.0	17053	1876	60	1741
CSAH 5 NB DRIVING LANE (1),(2)	12790				12.5	17764	2443	12.0	17053	1876	60	1741
CSAH 5 RTL, NB AT CSAH 22	480				11.5	613	67	12.0	640	70		63
CSAH 5 RTL, NB AT CR 64	480				11.5	613	67	12.0	640	70		63
CSAH 5 RTL, NB AT CR 163	480				11.5	613	67	12.0	640	70		63
CSAH 5 BYPASS LANE, NB AT CR 64	620				11.5	792	87	12.0	827	91		81
CSAH 5 BYPASS LANE, NB AT CR 163	620				11.5	792	87	12.0	827	91		81
CSAH 5 NB SHOULDER	11070							8.0	9840	1082		492
CSAH 5 NB SHOULDER	11830							8.0	10516	1157		526
CSAH 22 RTL, EB AT CSAH 5	480	13	693	76	12.5	667	73	12.0	640	70		65
BITUMINOUS STREETS AND ENTRANCES, 2" THICK									2288	252		114
TOTALS			76	95	39619	5335	112.0	60964	6706	120	5029	

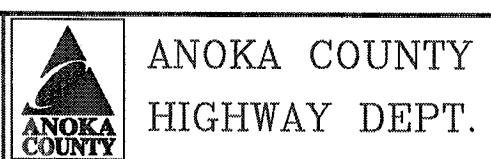
CONSTRUCTION NOTES
(1) QUANTITY ESTIMATED AT 275#/SQUARE YARD FOR FIELD VARIATIONS
(2) TYPE 41 BITUMINOUS MIXTURE FOR PATCHING ESTIMATED AT 50 TONS PER MILE.

NO	DATE	BY	CHKD	APPR	REVISION

NAME: 5:\SDSKPROJ\000000\000000\028000.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: MARK A DADY
SIGNATURE: *Mark A Dady*
DATE: 06/27/02 LICENSE NO. 21783

DRAWN BY: PML DATE 06/27/02
DESIGN BY: PML DATE 06/27/02
CHECKED BY: MAD DATE 06/27/02



STATE PROJECT NO. _____
STATE AID PROJECT NO. _____
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. 02-06-05

EARTHWORK

STATION	DRIVEWAY STREET ADDRESS	DRIVEWAY MATERIAL	BUMP OUT - 1.5'	BUMP OUT - 4'	BUMP OUT - END OF RADIUS	MILL BUTT JOINT	CLASS 5 -2 TON
11+61	W. CR 64	BIT			X	X	
12+14	HO# 18111	GRAVEL		X			X
14+38	HO# 18165	BIT		X		X	
15+71	HO# 18156	BIT		X		X	
22+14	HO# 18233	BIT		X		X	
25+44	HO# 18265	BIT		X		X	
26+93	FIELD ENT.	GRAVEL	X				X
27+50	HO# 18288	GRAVEL		X			X
30+03	PIT ENT.	GRAVEL		X			X
34+86	FIELD ENT.	GRAVEL	X				X
35+84	FIELD ENT.	GRAVEL	X				X
38+50	HO# 18433	BIT		X		X	
42+25	HO# 18466	GRAVEL		X			X
43+31	185TH AVE	BIT			X	X	
43+53	FIELD ENT.	GRAVEL	X				X
47+00	HO# 18550	CONCRETE		X			
50+04	PERIDOT ST	BIT			X	X	
51+23	HO# 18600	GRAVEL		X			X
53+55	HO# 18650	GRAVEL		X			X
55+38	HO#18675	GRAVEL		X			X
61+25	HO# 18730	GRAVEL		X			X
61+50		CONCRETE		X			
62+15	HO# 18760	BIT		X		X	
65+34	HO# 18845	GRAVEL		X			X
65+91	HO# 18830	GRAVEL		X			X
69+00	HO# 18834	GRAVEL		X			X
71+21	HO# 18874	GRAVEL		X			X
71+85	189TH AVE	GRAVEL			X		X
75+20	FIELD ENT.	GRAVEL	X				X
76+71	HO# 18960	BIT		X		X	
76+96	HO# 18959	BIT		X		X	
78+71	HO#18954/#18964	GRAVEL		X			X
79+35	HO# 18970	GRAVEL		X			X
83+91	HO# 19047	BIT		X		X	
87+80	HO# 19155 S.	BIT		X		X	
89+34	HO# 19155 N.	GRAVEL		X			X
91+23	191ST LA	GRAVEL			X		
99+00	HO# 19233	BIT		X		X	
102+11		GRAVEL		X			X
103+35	HO# 19285	GRAVEL		X			X
106+38	FIELD ENT.	GRAVEL	X				X
118+15	HO# 19447	GRAVEL		X			X
120+19	CR 163	BIT			X	X	
121+13	HO# 19454	GRAVEL		X			X
122+06		GRAVEL		X			X
122+87	HAPPY COR.	GRAVEL		X			X
123+89		GRAVEL		X			X
124+58	HO# 19550	BIT		X		X	
130+32	HO# 19620	GRAVEL		X			X
130+89	CH# 19653 S.	BIT		X		X	
132+55	CH# 19653 N.	BIT		X		X	
133+23	HO# 19654	CONCRETE		X			
134+95	E. CSAH 22	BIT			X		
135+57	N. CSAH 5	BIT			X		
12+50	HO# 8040	BIT				X	

STATION	DISTANCE	REG.		BAL. TOTALS	
		CUT	FILL	CU.YD.	CU.YD.
11+00.00	25.00	182	49	182	49
11+25.00	25.00	7	47	189	96
11+50.00	25.00	7	45	196	141
11+75.00	25.00	21	31	217	172
12+00.00	25.00	17	9	234	181
12+25.00	25.00	10	19	243	200
12+50.00	25.00	13	35	257	235
12+75.00	25.00	19	28	276	263
13+00.00	25.00	36	20	312	283
13+25.00	25.00	48	15	360	298
13+50.00	25.00	61	13	421	311
13+75.00	25.00	69	12	490	322
14+00.00	25.00	67	9	556	331
14+25.00	50.00	131	8	687	339
14+50.00	25.00	53	1	740	341
14+75.00	50.00	61	1	801	341
15+00.00	25.00	11	0	812	341
15+25.00	25.00	0	0	812	341
15+46.44	3.56	0	0	812	341
15+50.00				812	341
				812	341

EARTHWORK NOTES

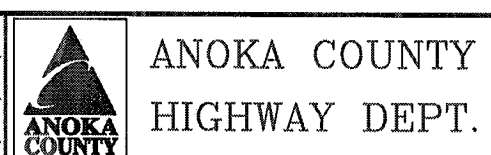
COMMON EXCAVATION - 812 C.Y.(E.V.) @ X 0.80% = 650 C.Y.(C.V.).
 SALV. T.S. AVAIL. = 232 C.Y.(E.V.) X 0.80% = 186 C.Y.(C.V.) AVAIL.
 COMMON EXC. - 650 C.Y.(C.V.) - 175 C.Y.(C.V.) TOPSOIL REQ'D. =
 475 C.Y.(C.V.) AVAIL. COMMON EXCAVATION.

REG. EMB. = 341 C.Y.(C.V.) - 475 C.Y.(C.V.) COMMON EXC. =
 134 C.Y.(C.V.) X 130% = 174 C.Y.(L.V.) EXCESS

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: MARK A. DADY
 SIGNATURE: *M. A. Dady*
 DATE: 6/27/02 LICENSE NO. 21763

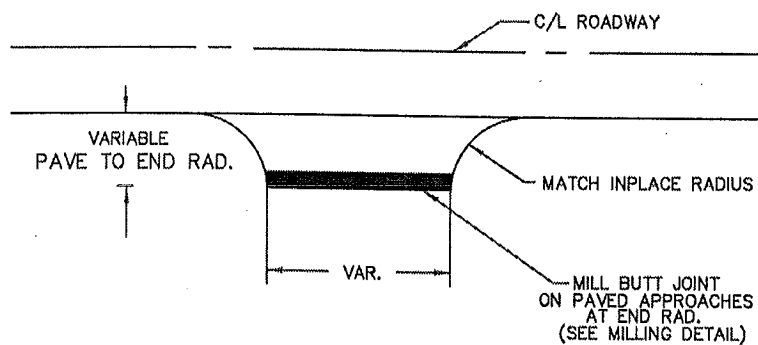
DRAWN BY: KGJ DATE 07/08/02
 DESIGN BY: MFG DATE 07/08/02
 CHECKED BY: MAD DATE 07/08/02



STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 02-06-05

TABULATION CHARTS
 Sheet 06 of 18 Sheets

PAVED & UNPAVED STREET APPROACHES

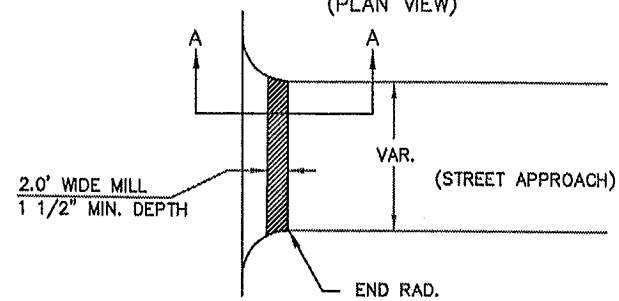


NOTE: PAID FOR AS ITEM NO. 2350.604
(2" THICK BITUMINOUS WEARING COURSE)
* APPROACHES TO BE PAID BY THE SQ YD

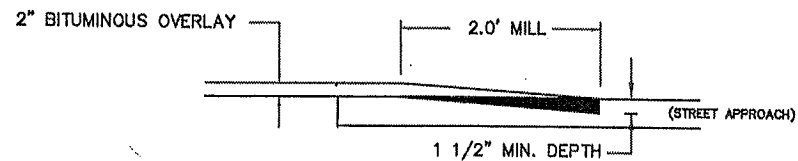
MILLING DETAILS

BUTT JOINTS

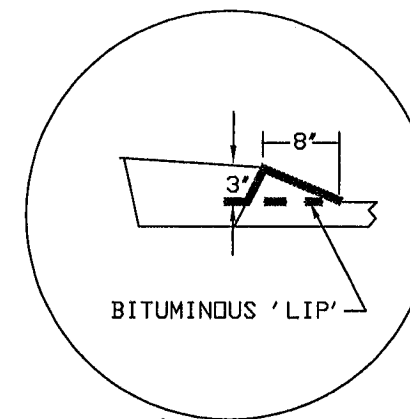
(PLAN VIEW)



(SECTION A-A)



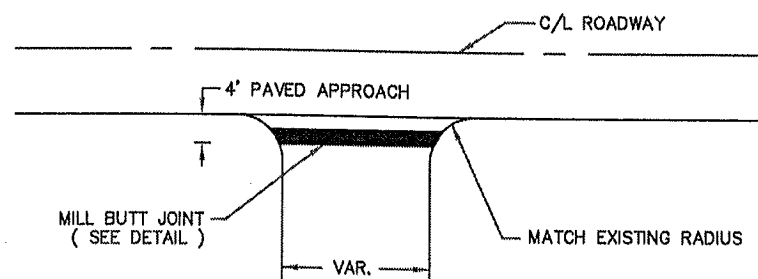
BERM SECTION



- ① EXISTING BITUMINOUS LIP TO BE RECLAIMED WITH SHOULDER
- ② PROPOSED BITUMINOUS LIP TO BE PAID AS BITUMINOUS CURB, ITEM NO. 2535.501

BITUMINOUS CURB			H
STATION	STATION	LOCATION	LENGTH
			FEET
23+20	26+35	LT	315
26+70	27+65	LT	95
76+20	80+40	RT	420
99+75	102+05	RT	230
121+60	122+60	RT	100
130+45	131+45	LT	100
131+60	132+10	LT	50
132+30	133+40	LT	110
TOTAL			1420

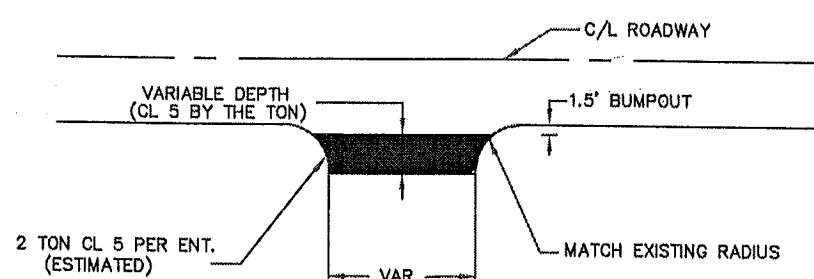
PAVED ENTRANCES



NOTE: PAID FOR AS ITEM NO. 2350.604
(2" THICK BITUMINOUS WEARING COURSE)

- * APPROACHES TO BE PAID BY THE TON IF PAVED AS PART OF MAINLINE PAVING
- * APPROACHES TO BE PAID BY THE SQ YD IF PAVED AS A SEPARATE OPERATION.

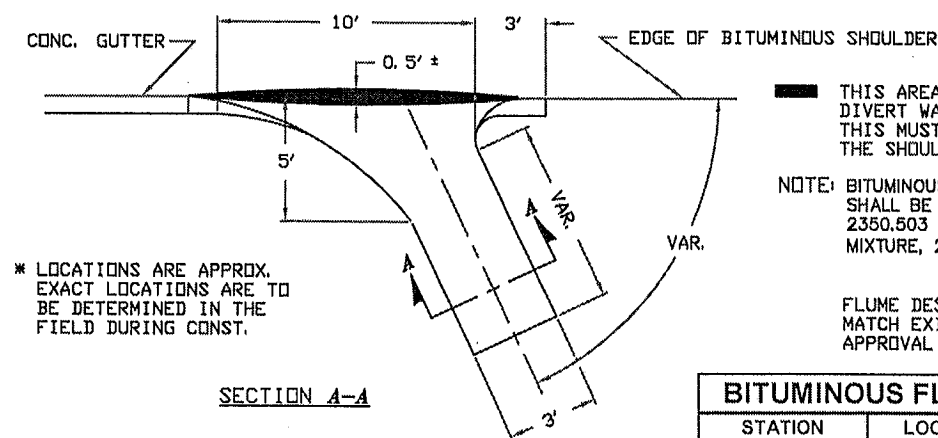
FIELD AND UNPAVED ENTRANCES



NOTE: PAID FOR AS ITEM NO. 2211.501
(AGGREGATE BASE CL 5 (TON))

(NOT TO SCALE)

TYPICAL BITUMINOUS FLUME



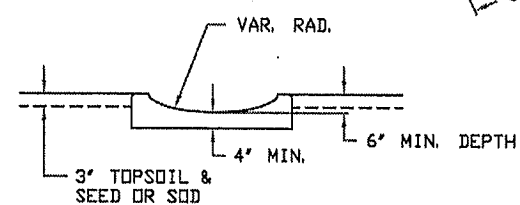
* LOCATIONS ARE APPROX. EXACT LOCATIONS ARE TO BE DETERMINED IN THE FIELD DURING CONST.

THIS AREA OF INCREASED SLOPE TO DIVERT WATER FLOW INTO FLUME. THIS MUST BE ACCOMPLISHED DURING THE SHOULDER PAVING OPERATION.

NOTE: BITUMINOUS FLUME CONSTRUCTION SHALL BE PAID BY THE SQ YD AS 2350.503 TYPE LV4 WEARING COURSE MIXTURE, 2" THICK.

FLUME DESIGN MAY BE MODIFIED TO MATCH EXISTING CONDITIONS UPON APPROVAL OF THE ENGINEER.

SECTION A-A



BITUMINOUS FLUME			J
STATION	LOCATION	VOLUME	
		SQ YD	
23+20	LT	5.5	
27+65	LT	5.5	
76+20	RT	5.5	
99+75	RT	5.5	
122+60	RT	5.5	
131+45	LT	5.5	
132+10	LT	5.5	
133+40	LT	5.5	
TOTAL		44	

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: MARK A DALY
SIGNATURE: *MR DALY*
DATE: 6/27/02 REG. NO. 21763

DRAWN BY: BFL DATE: 06/27/02
DESIGN BY: MFG DATE: 06/27/02
CHECKED BY: MAD DATE: 06/27/02



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
STATE AID PROJECT NO. _____
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. 02-06-05

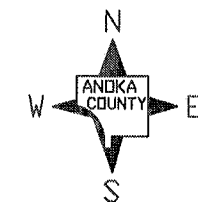
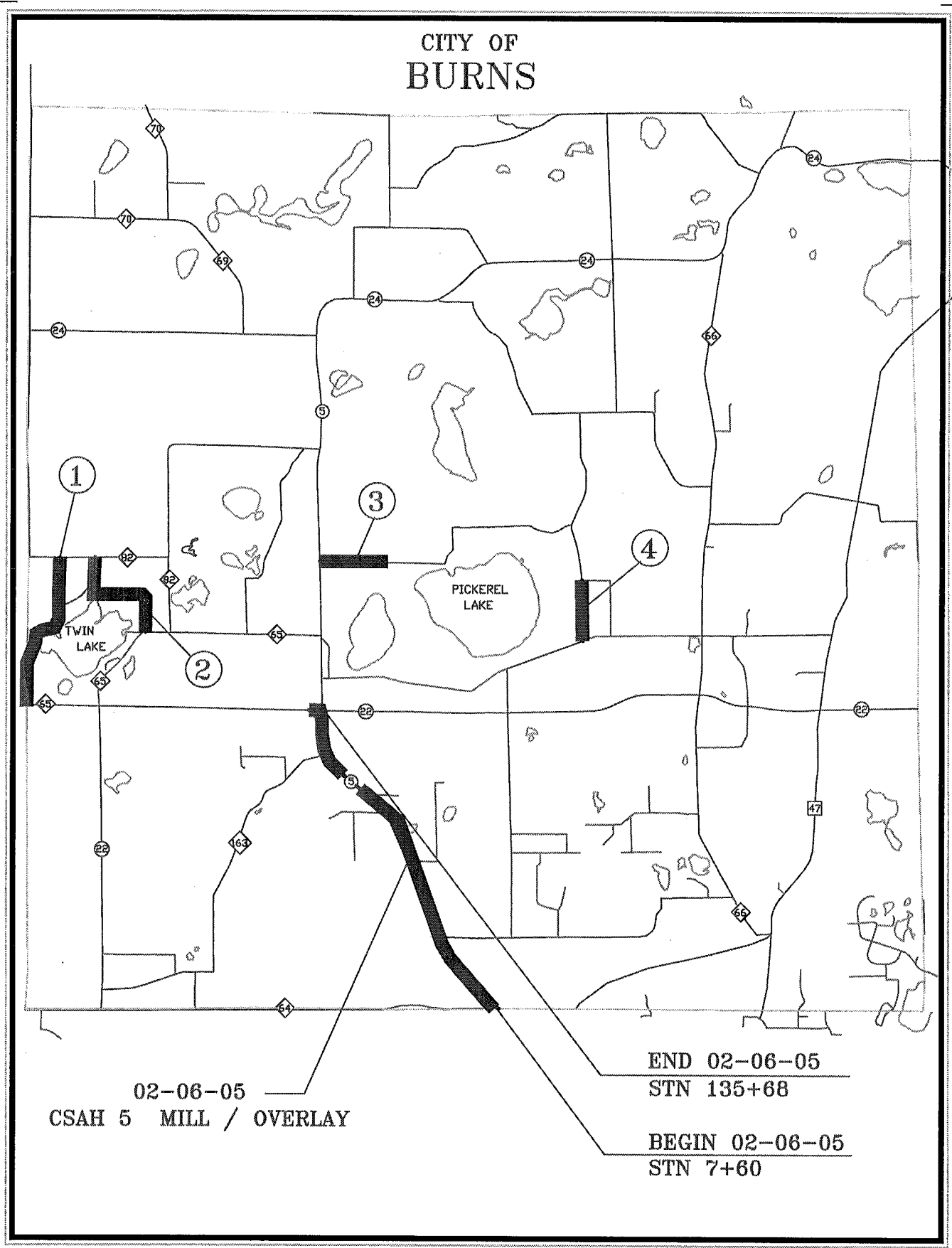
DETAILS

Sheet 07 of 18 Sheets

NO	DATE	BY	CKD	APPR	REVISION
1	6/7/01	TA			LVNW35030B

NAME: P:\02-01-00\02-06-05\plan\04-Typical.dwg 06/25/02 06:51:14 PM CDT

CITY OF
BURNS



ROADS FOR BITUMINOUS MILLINGS TO BE
HAULED TO, AS DIRECTED BY ENGINEER.

PLACED BY BURNS TOWNSHIP
(1.5" - 2" IN DEPTH, 22' - 24' WIDE)

LISTED IN ORDER OF HAUL ROAD PLACEMENT

1. TWIN PARKWAY N.W.
(FROM CR 65 TO CR 82)
2. BAUGH ST N.W.
WOLVERINE ST N.W.
203 RD AVE N.W.
(FROM CR 65 TO CR 82)
3. 205 TH AVE N.W.
(FROM CSAH 5 TO 1640' EAST OF CSAH 5)
4. BASALT STREET N.W.
(FROM OLD VIKING BLVD N.W. TO 204 TH AVE N.W.)

02-06-05
CSAH 5 MILL / OVERLAY

END 02-06-05
STN 135+68

BEGIN 02-06-05
STN 7+60

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: MARK A DALY
SIGNATURE: *Mark A Daly*
DATE: 06/27/02 LICENSE NO. 21763

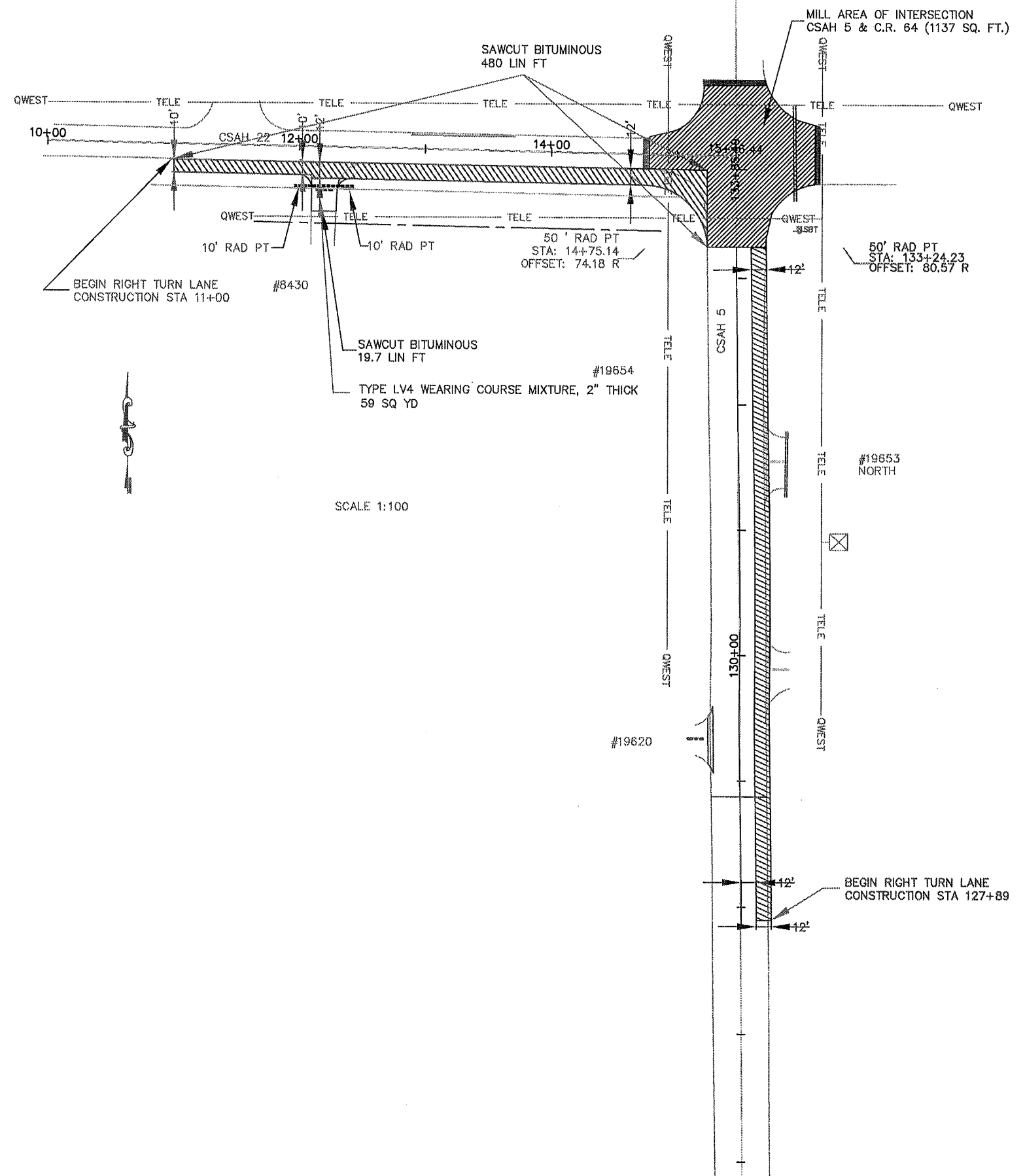
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DESIGN BY: MFG DATE: 06/27/02
CHECKED BY: MAD DATE: 06/27/02



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
STATE AID PROJECT NO. _____
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. 02-06-05

MILLING PLACEMENT
MAP
Sheet 08 of 18 Sheets



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: MARK A DALY

SIGNATURE: *Mark A Daly*

DATE: 06/27/02 LICENSE NO. 21763

DRAWN BY BFL DATE 06/27/02

DESIGN BY MFG DATE 06/27/02

CHECKED BY MAD DATE 06/27/02



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____

STATE AID PROJECT NO. _____

COUNTY PROJECT NO. 02-01-00

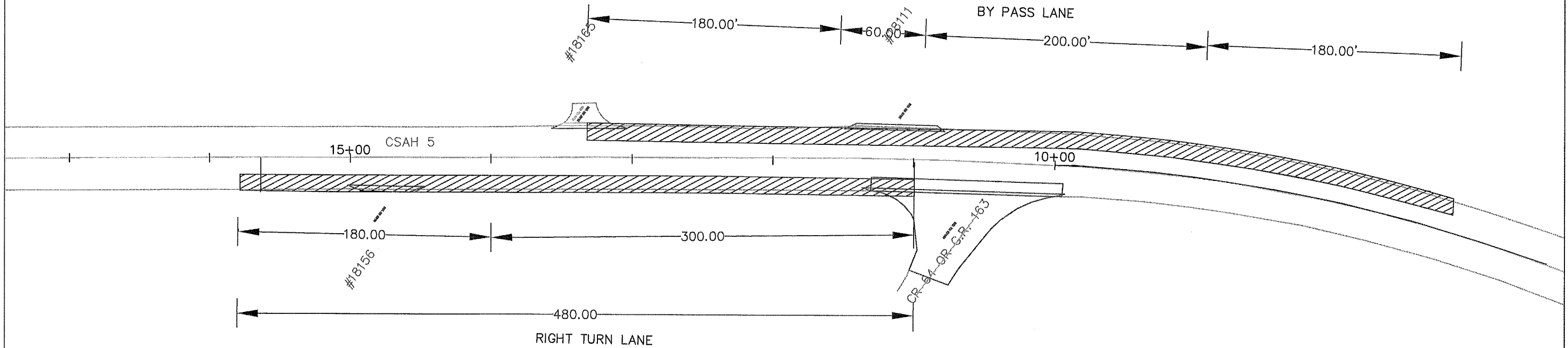
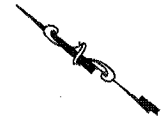
COUNTY PROJECT NO. 02-06-05

RIGHT TURN LANE
CSAH 22 & CSAH 5
DETAIL

Sheet 09 of 18 Sheets

NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDK\PROJ\000000\000000\028000.DWG



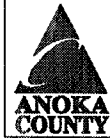
NOTE: NOT TO SCALE

TYPICAL RIGHT TURN LANE & BY PASS LANE CONSTRUCTION
 CONSTRUCT 12' BY 480' RTL SB CSAH 5 AT CR 64 NB CSAH 5 AT CR 163 ,NB CSAH 5 AT CSAH 22
 CONSTRUCT 12' BY 620' BYPASS NB CSAH 5 AT CR 64 AND NB CSAH 5 AT CR 163

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: MARK A DALY
 SIGNATURE: *Mark A Daly*
 DATE: 08/27/02 LICENSE NO. 21783

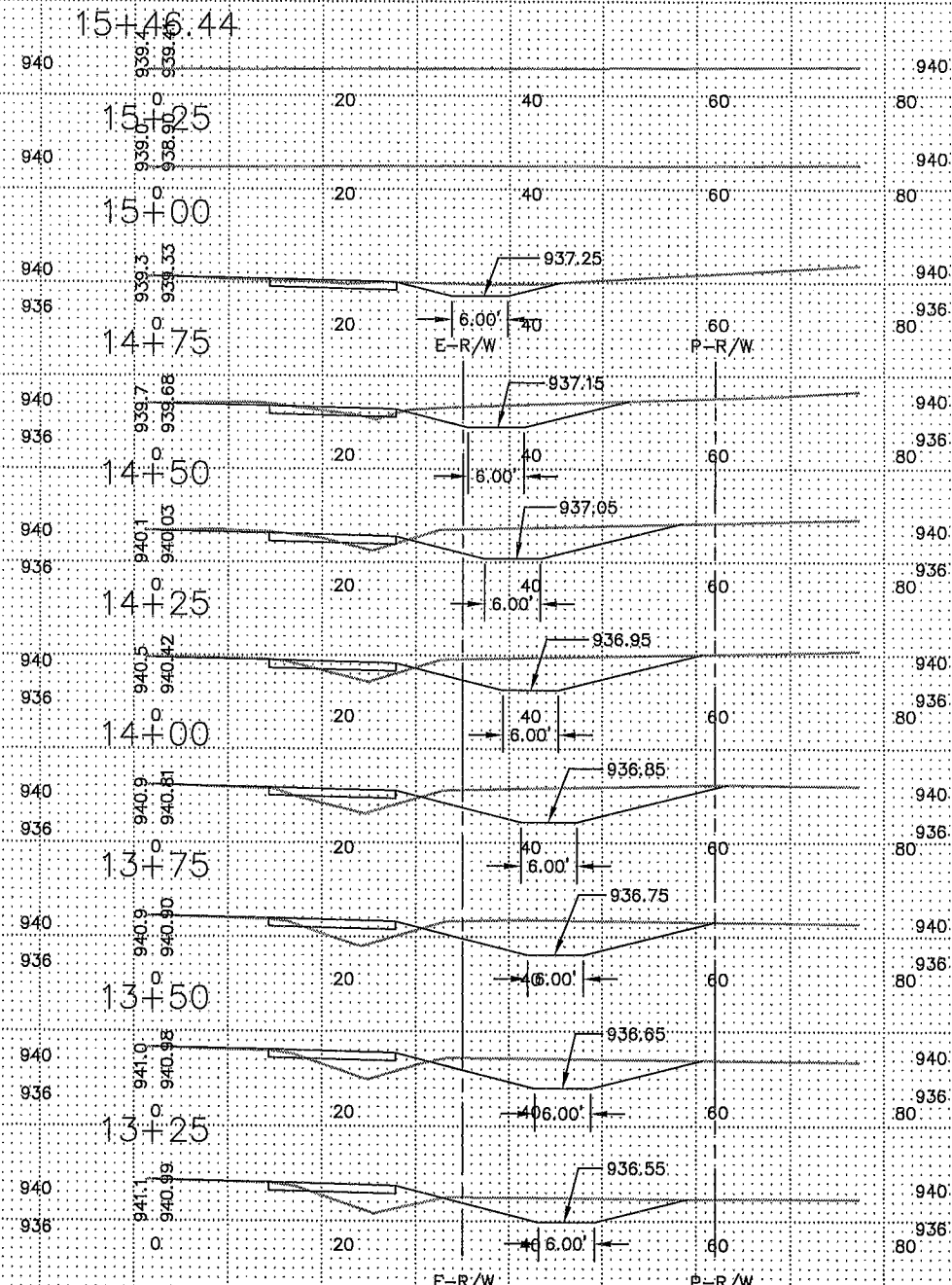
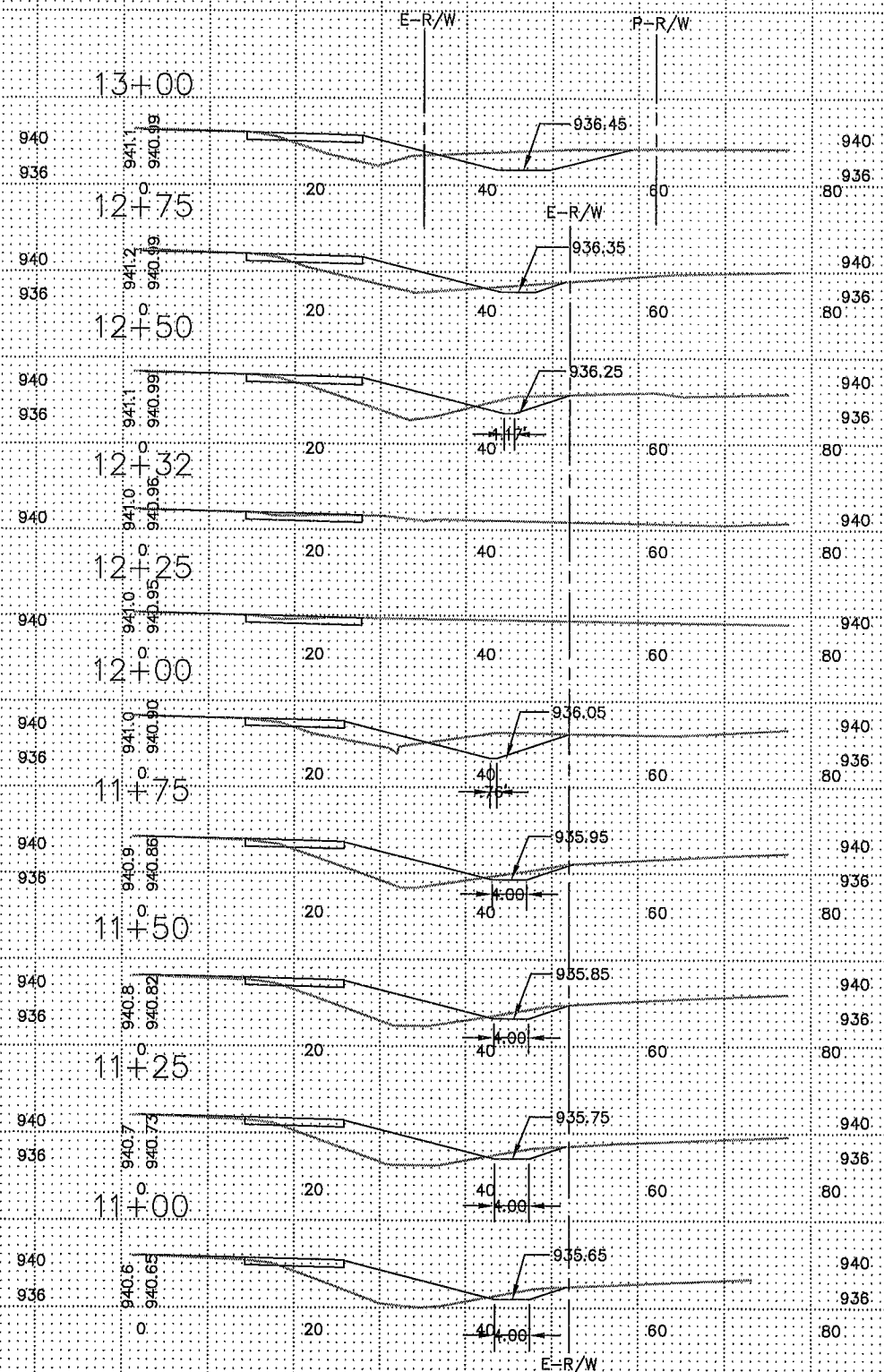
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 DESIGN BY: MFG DATE 08/27/02
 CHECKED BY: MAD DATE 08/27/02



**ANOKA COUNTY
 HIGHWAY DEPT.**

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 02-06-05

RTL & BYPASS DETAIL
 C.R. 64 & C.R. 163
 Sheet 10 of 18 Sheets



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: MARK DAL...
 SIGNATURE: *MLADH*
 DATE: 06/27/02 LICENSE NO. 21783

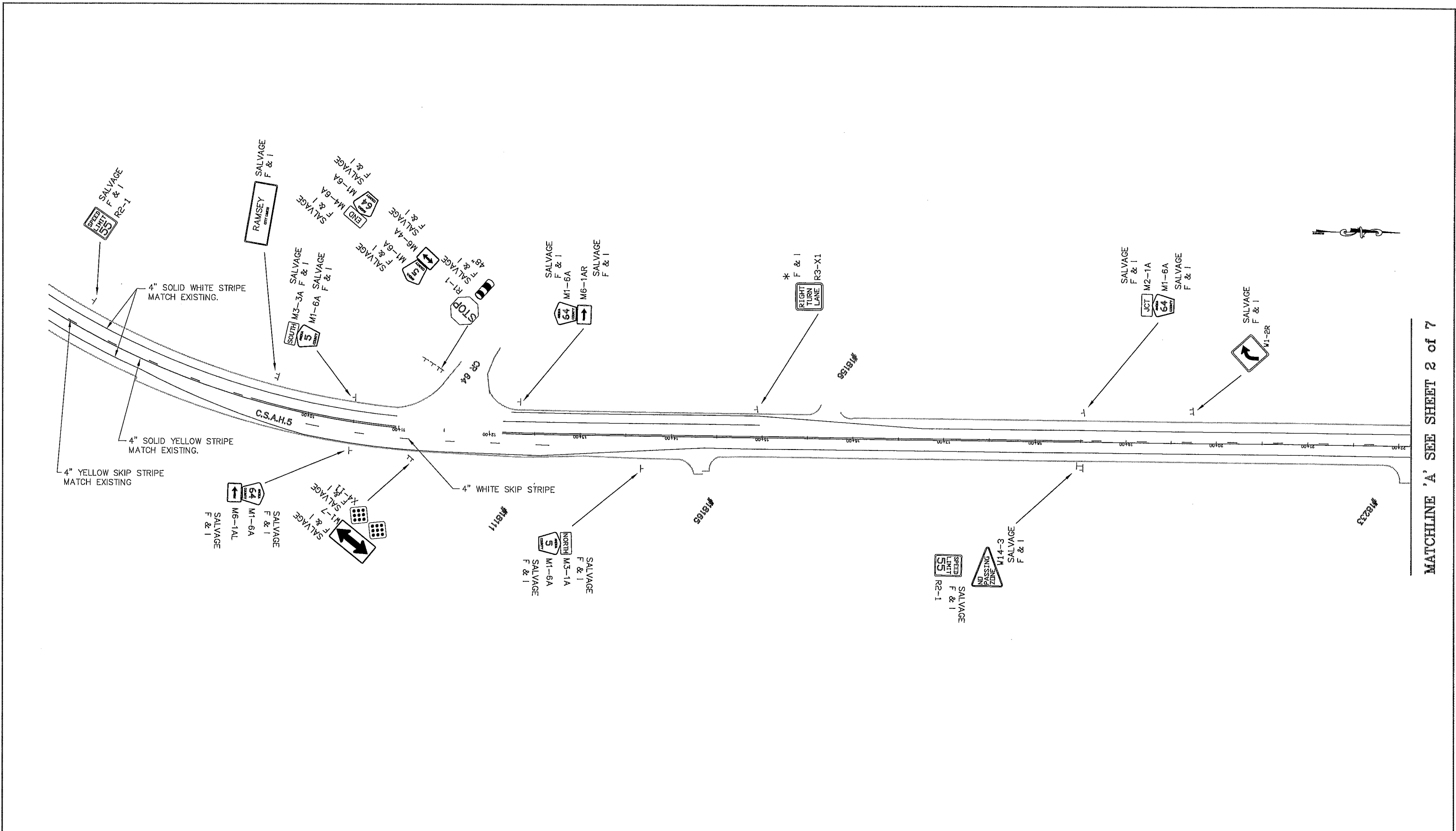
DRAWN BY: BFL DATE 06/27/02
 DESIGN BY: MFG DATE 06/27/02
 CHECKED BY: MAD DATE 06/27/02



ANOKA COUNTY
 HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 02-06-05

CROSS SECTIONS
 STA 10+00 TO 15+46.44
 Sheet 11 of 18 Sheets



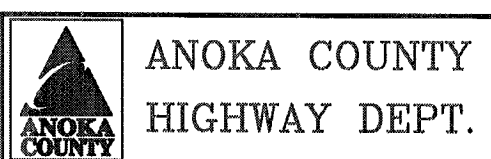
C.S.A.H. 5 NOWTHEN BLVD.
FROM C.R. 64 TO C.S.A.H. 22

MATCHLINE 'A' SEE SHEET 2 OF 7

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 REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: MARIS A Daly
 SIGNATURE: [Signature]
 DATE: 6/27/02 REG. NO. 21763

DRAWN BY: DM DATE: 07/3/02
 DESIGN BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____



STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. 02-06-05

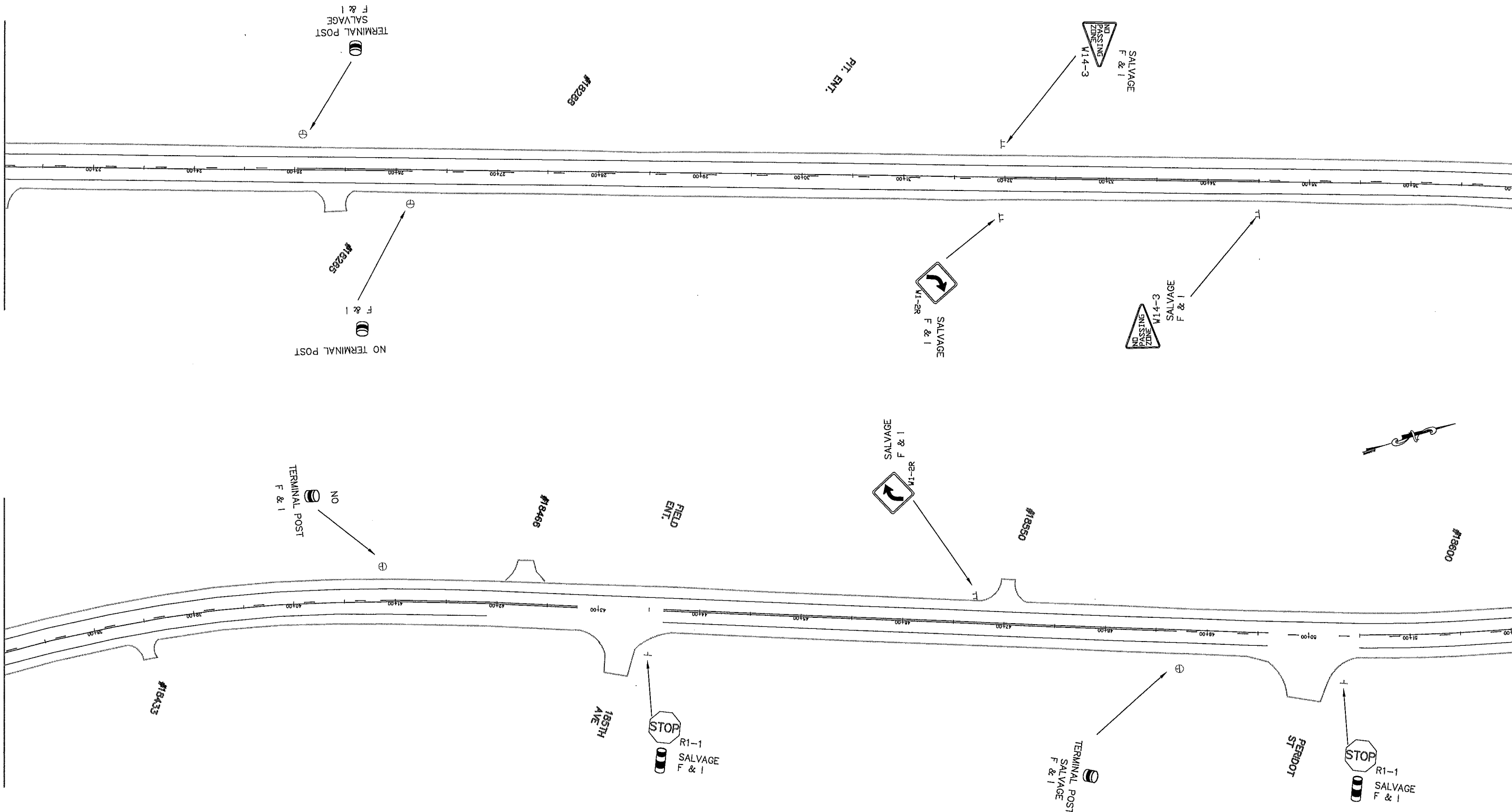
PERMANENT
SIGN / STRIPE
 Sheet 12 of 18 Sheets

MATCHLINE 'A' SEE SHEET 1 OF 7

MATCHLINE 'B' SEE ABOVE RIGHT

MATCHLINE 'B' SEE BELOW LEFT

MATCHLINE 'C' SEE SHEET 3 OF 7



C.S.A.H. 5 NOWTHEN BLVD.
FROM C.R. 64 TO C.S.A.H. 22

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 REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: *Mr ADG*

SIGNATURE: *[Signature]*

DATE: *6/27/02* REG. NO. *21763*

DRAWN BY: DM DATE 07/3/02

DESIGN BY: DATE

CHECKED BY: DATE

ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____

STATE AID PROJECT NO. _____

STATE AID PROJECT NO. _____

COUNTY PROJECT NO. **02-06-05**

PERMANENT SIGN / STRIPE

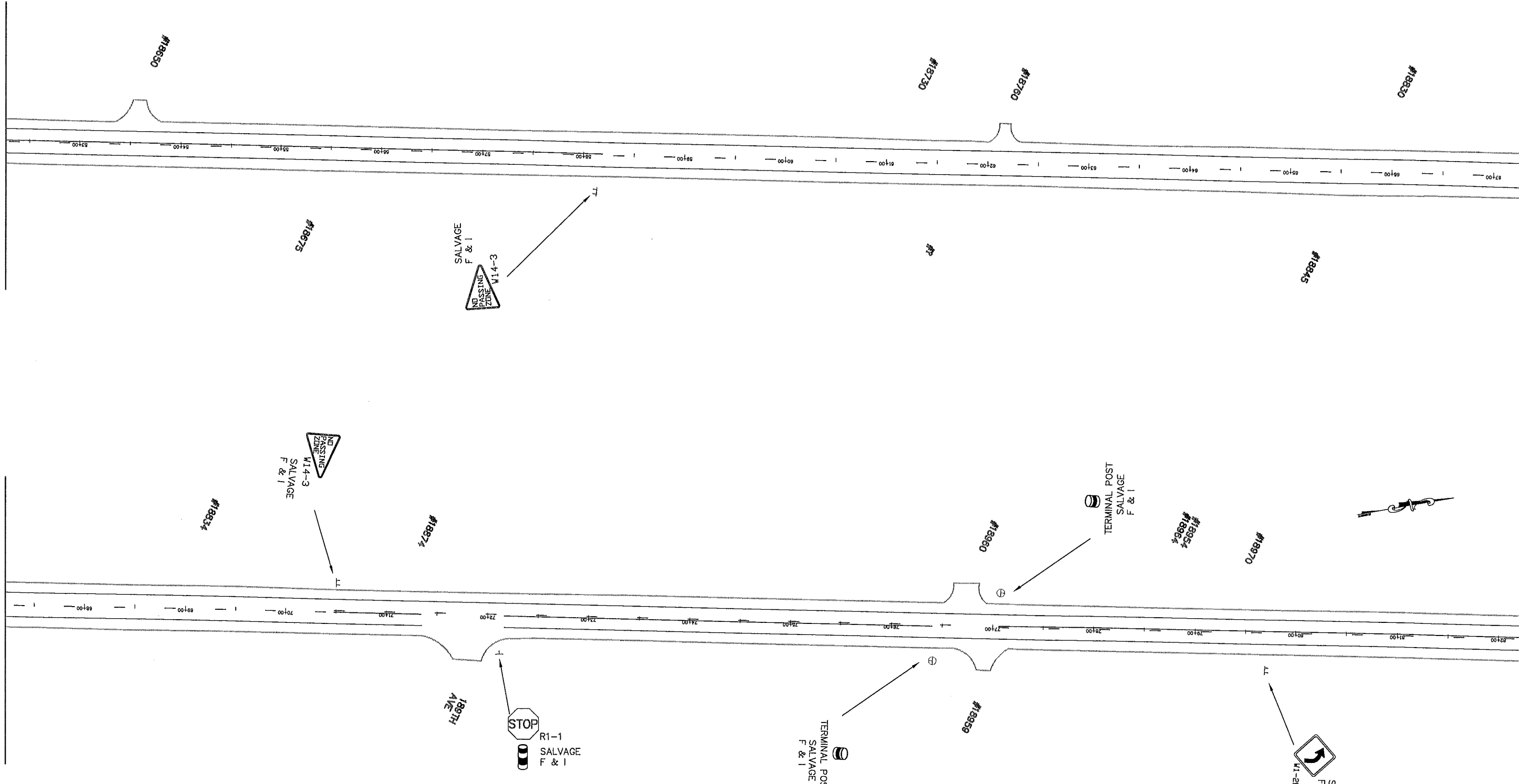
Sheet **13** of **18** Sheets

MATCHLINE 'C' SEE SHEET 1 OF X

MATCHLINE 'D' SEE ABOVE RIGHT

MATCHLINE 'D' SEE BELOW LEFT

MATCHLINE 'E' SEE SHEET 4 OF 7



C.S.A.H. 5 NOWTHEN BLVD.
 FROM C.R. 64 TO C.S.A.H. 22

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 REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: *MR ADL*

SIGNATURE: *MR ADL*

DATE: *6/27/02* REG. NO. *21763*

DRAWN BY: *DM* DATE: *07/3/02*

DESIGN BY: _____ DATE: _____

CHECKED BY: _____ DATE: _____



**ANOKA COUNTY
 HIGHWAY DEPT.**

STATE PROJECT NO. _____

STATE AID PROJECT NO. _____

STATE AID PROJECT NO. _____

COUNTY PROJECT NO. **02-06-05**

**PERMANENT
 SIGN / STRIPE**

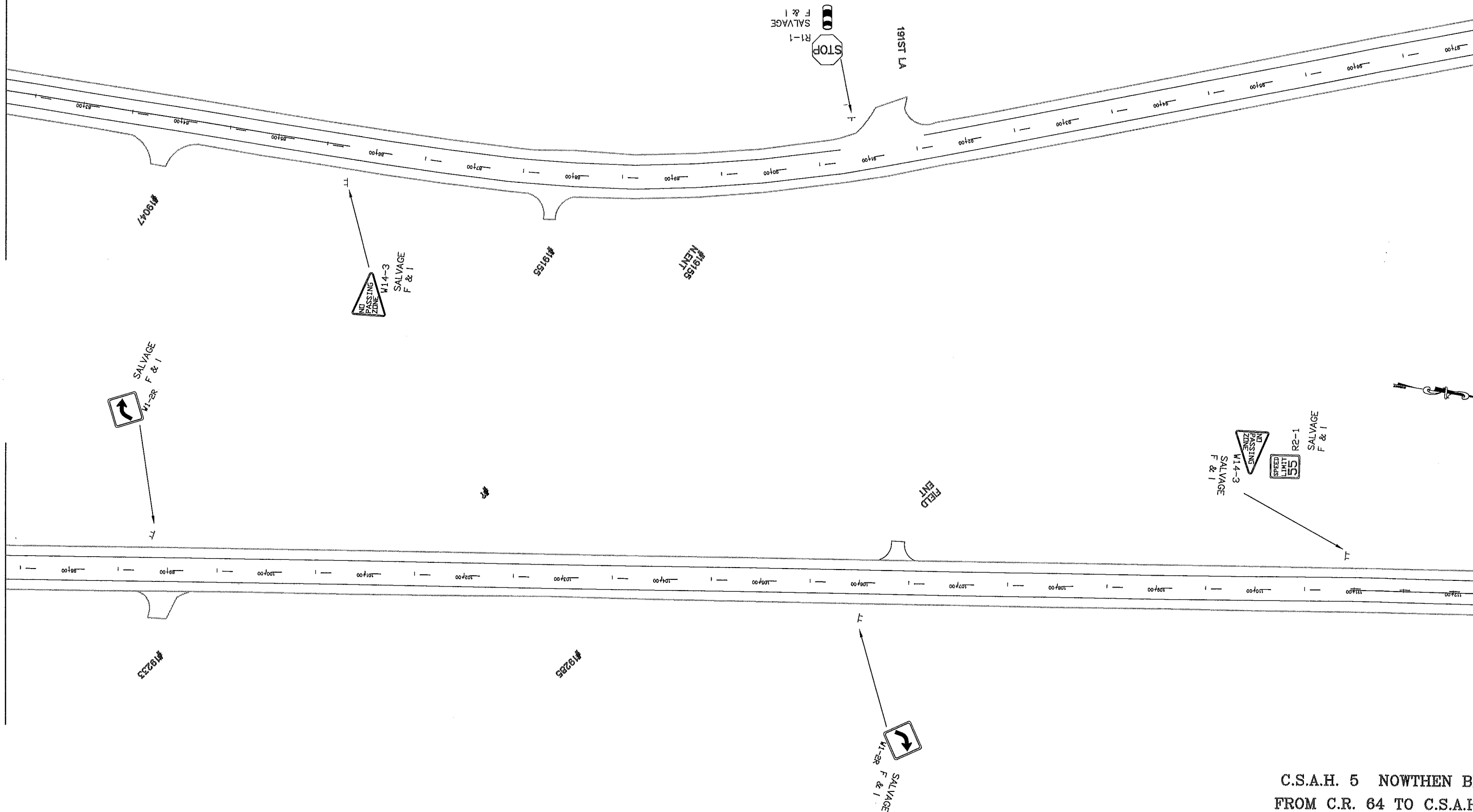
Sheet **14** of **18** Sheets

MATCHLINE 'E' SEE SHEET 5 of 7

MATCHLINE 'F' SEE ABOVE RIGHT

MATCHLINE 'F' SEE BELOW LEFT

MATCHLINE 'G' SEE SHEET 5 of 7



C.S.A.H. 5 NOWTHEN BLVD.
FROM C.R. 64 TO C.S.A.H. 22

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 REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: MEADY

SIGNATURE: [Signature]

DATE: 6/27/02 REG. NO. 21763

DRAWN BY: DM DATE 07/3/02

DESIGN BY: DATE

CHECKED BY: DATE



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____

STATE AID PROJECT NO. _____

STATE AID PROJECT NO. _____

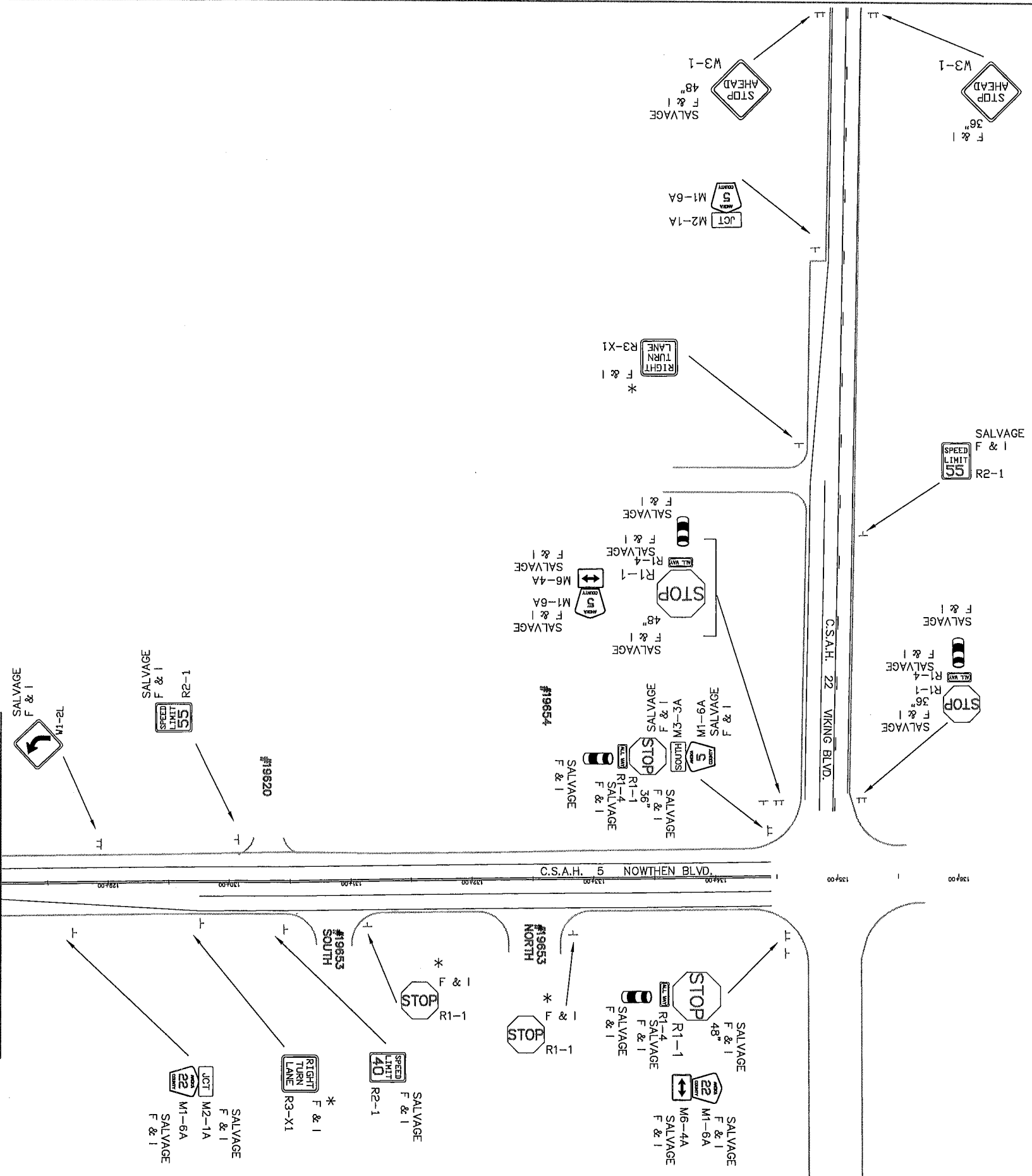
COUNTY PROJECT NO. 02-06-05

PERMANENT
SIGN / STRIPE

Sheet 15 of 18 Sheets



MATCHLINE 'J' SEE SHEET 5 OF 7



C.S.A.H. 5 NOWTHEN BLVD.
FROM C.R. 64 TO C.S.A.H. 22

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: *M. J. [Signature]*

SIGNATURE: *[Signature]*

DATE: *6/27/02* REG. NO. *21763*

DRAWN BY: DM DATE: 07/3/02

DESIGN BY: DATE:

CHECKED BY: DATE:

ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____

STATE AID PROJECT NO. _____

STATE AID PROJECT NO. _____

COUNTY PROJECT NO. **02-06-05**

PERMANENT SIGN / STRIPE

Sheet **17** of **18** Sheets

M. U. T. C. D. CODE	SIZE	INSERT	QTY	SQ. FT.	TOTAL SQ. FT.	MOUNTING POST PER INSTALLATION	MOUNTING HEIGHT
R1-1	30" x 30"		8	6.25	86.25	1	7.0
R1-1	36" x 36"	STOP	2	9.00	18.00	2	7.0
R1-1	48" x 48"	STOP	3	16.00	48.00	2	7.0
R1-4	18" x 6"	ALL WAY	4	.75	3.00	①	
DELINEATOR	4"DIA x 15"		13	0.87	11.31	②	
R2-1	30" x 24"	SPEED LIMIT 55	4	5.00	20.00	③	7.0
R2-1	30" x 24"	SPEED LIMIT 40	1	5.00	5.00	1	7.0
R3-X1	30" x 30"	RIGHT TURN LANE	3	6.25	18.75	1	7.0
W1-2R	36" x 36"	RIGHT TURN	5	9.00	45.00	2	7.0
W1-2L	36" x 36"	LEFT TURN	2	9.00	18.00	1	7.0
W3-1	36" x 36"	STOP AHEAD	2	9.00	18.00	2	7.0
W3-1	48" x 48"	STOP AHEAD	2	16.00	32.00	2	7.0
W14-3	36"x48"x48"	NO PASSING ZONE	7	6.00	35.00	2	7.0
W1-7	48" x 24"	NO PASSING ZONE	2	8.00	16.00	2	7.0
X4-11	18" x 18"	NO PASSING ZONE	4	2.25	9.00		
SUB-TOTAL					383.31		

M. U. T. C. D. CODE	SIZE	INSERT	QTY	SQ. FT.	TOTAL SQ. FT.	MOUNTING POST PER INSTALLATION	MOUNTING HEIGHT
ADOPT	30" x 24"	ADOPT A HIGHWAY ANOKA COUNTY THANKS YOU	2	5.00	10.00	1	7.0
CITY	60" x 24"	RAMSEY CITY LIMITS	1	10.00	10.00	2	7.0
TERMINAL	4"DIA x 4"		8	0.35	2.80	1	5.0
JCT	21" x 15"	JCT M2-1A	1	2.20	2.20		
	24" x 12"	NORTH M3-1A	2	2.00	4.00		
		SOUTH M3-3A	3	2.00	6.00	④	
M1-6A	24" x 24"	ANOKA COUNTY 5	9	4.00	36.00	1	7.0
	21" x 15"	M6-4A	3	2.20	6.60		
JCT	21" x 15"	JCT M2-1A	1	2.20	2.20		
	24" x 12"	END M4-6A	1	2.00	2.00		
M1-6A	24" x 24"	ANOKA COUNTY 64	4	4.00	16.00	1	7.0
	21" x 15"	M6-1AR	1	2.20	2.20		
		M6-1AL	1	2.20	2.20		
JCT	21" x 15"	JCT M2-1A	2	2.20	4.40		
	24" x 12"	END M4-6A	1	2.00	4.00		
M1-6A	24" x 24"	ANOKA COUNTY 163	5	4.00	20.00	1	7.0
	21" x 15"	M6-1AR	1	2.20	2.20		
		M6-1AL	1	2.20	2.20		

SUB-TOTAL (COLUMN 2)	135.00
SUB-TOTAL (COLUMN 1)	383.31
TOTAL	518.31

THE KRUSCHKE FAMILY

- ① MOUNTED BELOW R1-1
- ② MOUNTED BELOW R1-1
- ③ 2 MOUNTED BACK/BACK w/ W14-3
- ④ MOUNTED BACK/BACK w/ R1-1

1> LOCATIONS OF NO PASSING ZONES ARE APPROXIMATE EXACT LOCATIONS WILL BE DETERMIND IN THE FIELD.
 2> ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL DATED JANUARY, 2001

C.S.A.H. 5 NOWTHEN BLVD.
FROM C.R. 64 TO C.S.A.H. 22

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 REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: *MIC ADH*
 SIGNATURE: *[Signature]*
 DATE: *6/27/02* REG. NO. *21763*

DRAWN BY: *DM* DATE: *02/24/02*
 DESIGN BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. _____
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. *02-06-05*

PERMANENT
SIGN QUANTITIES
Sheet *18* of *18* Sheets