

MINNESOTA DEPARTMENT OF TRANSPORTATION ANOKA COUNTY

CONSTRUCTION PLAN FOR MILL BITUMINOUS SURFACE, BITUMINOUS SURFACING, DRAINAGE, AND CURB & GUTTER

LOCATED ON C.S.A.H. 8 BETWEEN H. 47 (UNIVERSITY AVE.) AND 5TH ST.

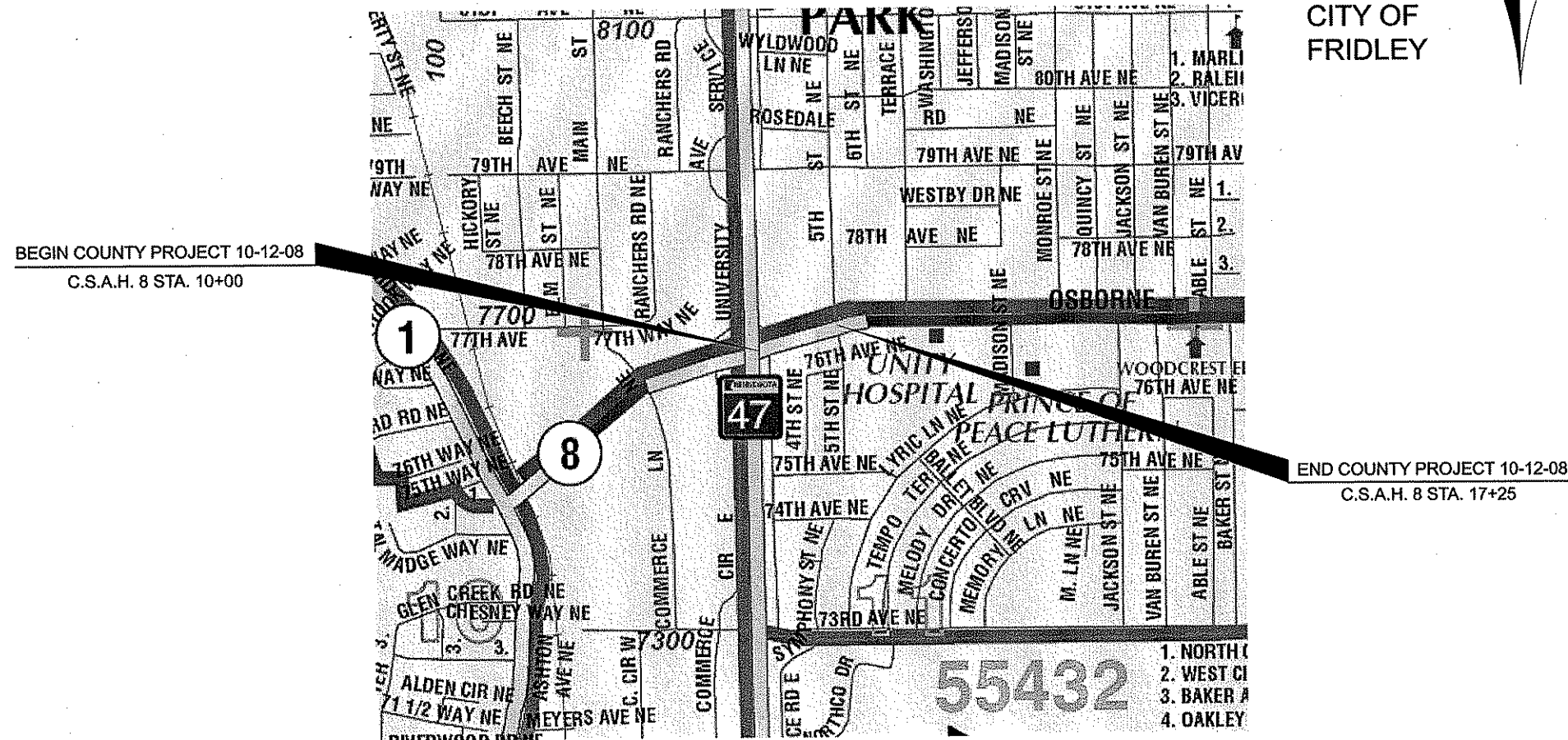
COUNTY PROJ. NO. 10-12-08

C.S.A.H. 8

GROSS LENGTH	725 FEET	0.137 MILES
BRIDGES-LENGTH	0.00 FEET	0.000 MILES
EXCEPTIONS-LENGTH	0.00 FEET	0.000 MILES
NET LENGTH	725 FEET	0.137 MILES



CITY OF FRIDLEY

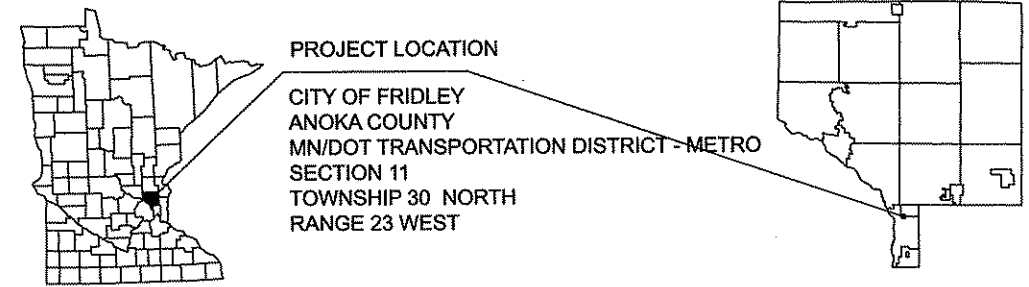


- PLAN SYMBOLS**
- COUNTY LINE _____
 - TOWNSHIP OR RANGE LINE _____
 - SECTION LINE _____
 - QUARTER LINE _____
 - SIXTEENTH LINE _____
 - RIGHT OF WAY LINE _____
 - SLOPE EASEMENT _____
 - EXISTING RIGHT OF WAY _____
 - PROPERTY LINE _____
 - CORPORATE OR CITY LIMITS _____
 - RETAINING WALL _____
 - 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 _____
- UTILITY SYMBOLS**
- POWER POLE LINE _____
 - TELEPHONE OR TELEGRAPH POLE LINE _____
 - JOINT TELEPHONE & POWER ON POWER POLES _____
 - ON TELEPHONE POLES _____
 - ANCHOR _____
 - STEEL TOWER _____
 - STREET LIGHT _____
 - PEDESTAL (Cable Terminal) _____
 - GAS MAIN _____
 - WATER MAIN _____
 - TELEPHONE CABLE IN CONDUIT _____
 - ELECTRIC CABLE IN CONDUIT _____
 - TELEPHONE MANHOLE _____
 - ELECTRIC MANHOLE _____
 - BURIED TELEPHONE CABLE _____
 - BURIED ELECTRIC CABLE _____
 - SEWER (Sanitary or Storm) _____
 - SEWER MANHOLE _____

- UTILITY SYMBOLS**
- POWER POLE LINE _____
 - TELEPHONE OR TELEGRAPH POLE LINE _____
 - JOINT TELEPHONE & POWER ON POWER POLES _____
 - ON TELEPHONE POLES _____
 - ANCHOR _____
 - STEEL TOWER _____
 - STREET LIGHT _____
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 - BURIED ELECTRIC CABLE _____
 - SEWER (Sanitary or Storm) _____
 - SEWER MANHOLE _____

SCALES

PLAN	0' = 100'
PROFILE HORIZONTAL	0' = 100'
VERTICAL	0' = 10'
X-SECTIONS HORIZONTAL	0' = 10'
VERTICAL	0' = 10'
INDEX MAP	0' = 2000'



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 PAR VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS."

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES,
3	TYPICAL SECTIONS
4	MISCELLANEOUS DETAILS
5	CONSTRUCTION STAGING PLAN
6	SIGNING & STRIPING PLAN, TAB , & DETAILS
6A - 6D	MISCELLANEOUS SIGNAL SHEETS

Approved 3/26/10 ANOKA COUNTY ENGINEER

NO	DATE	BY	CKD	APPR	REVISION

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: CHARLES CADENHEAD
SIGNATURE:
DATE: 3/26/10 LICENSE NO. 40416

DRAWN BY: KPR DATE: 3/1/10
DESIGN BY: KPR DATE: 3/1/10
CHECKED BY: JO DATE: _____

**ANOKA COUNTY
HIGHWAY DEPT.**

COUNTY PROJECT NO. 10-12-08

TITLE SHEET

Sheet 1 of 6D Sheets

STATEMENT OF ESTIMATED QUANTITIES					
TAB NO.	ITEM NO.	ITEM	NOTE OR TAB NO.	UNIT	TOTAL EST. QUANT.
	2021.501	MOBILIZATION		LUMP SUM	1
A	2104.501	REMOVE CONCRETE CURB AND GUTTER	9	LIN FT	40
A	2104.505	REMOVE CONCRETE WALK		SQ YD	2
A	2104.505	REMOVE BITUMINOUS PAVEMENT	9	SQ YD	44
A	2104.509	REMOVE DRAINAGE STRUCTURE		EACH	4
A	2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	9	LIN FT	25
A	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	9	LIN FT	184
	2232.501	MILL BITUMINOUS SURFACE (2.0")	1,7,8,11	SQ YD	4564
	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	4	GALLON	228
	2360.501	TYPE SP 12.5 WEARING COURSE MIX (4,E) (WITHOUT SCRAP SHINGLES)		TON	525
	2360.602	TYPE SP 12.5 WEARING COURSE MIX (4,E) (WITH SCRAP SHINGLES) ALTERNATE	13	TON	525
A	2360.609	TYPE LV3 NON-WEAR COURSE MIX FOR CB PATCH (LVNW35030 B)	9	TON	18
A	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN H	9	LIN FT	5.40
A	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN DES 48-4020	9	LIN FT	7.90
A	2506.503	RECONSTRUCT DRAINAGE STRUCTURE	6,8,9	LIN FT	0.20
A,B	2506.516	CASTING ASSEMBLY	9	EACH	5
A	2506.602	GROUT CATCH BASIN OR MANHOLE	9	EACH	3
A	2531.501	CONCRETE CURB AND GUTTER DESIGN B618	6,9	LIN FT	40
A	2531.501	6" CONCRETE WALK		SQ FT	20
	2563.601	TRAFFIC CONTROL		LUMP SUM	1
	2563.610	POLICE OFFICER		hour	16
	2565.602	LOOP DETECTOR 6' X 6'	2	EACH	8
A	2575.604	EROSION CONTROL BLANKET	9,10	SQ YD	18
	2581.501	REMOVABLE PREFORM PLASTIC MARKINGS	5	LIN FT	40
	2582.603	24" SOLID LINE WHITE- PREFORMED THERMOPLASTIC	3	LIN FT	48
	2582.502	4" SOLID LINE WHITE - EPOXY	3	LIN FT	1746
	2582.502	4" BROKEN LINE WHITE-EPOXY	3	LIN FT	320
	2582.502	4" SOLID LINE YELLOW - EPOXY	3	LIN FT	751
	2582.502	4" DOUBLE YELLOW-EPOXY	3	LIN FT	661
	2582.602	PAVEMENT MESSAGE (RT ARROW)- PREFORMED THERMOPLASTIC	3	EACH	1
	2582.602	PAVEMENT MESSAGE (LT ARROW)- PREFORMED THERMOPLASTIC	3	EACH	2
	2582.603	24" SOLID LINE YELLOW-PREFORMED THERMOPLASTIC	3	LIN FT	53
	2582.603	3' X 6' ZEBRA CROSSWALK- PREFORMED THERMOPLASTIC	3	SQ FT	288

NOTES:

- MILL AREAS TO BE MARKED BY ENGINEER.
- CONTRACTOR MUST REQUEST LOOP LOCATIONS 48 HOURS PRIOR TO MILLING AND REPLACE ONLY IF DAMAGED DURING MILLING OPERATION.
- MARKINGS SHALL BE PLACED WITH IN 72 HOURS OF FINAL MAINLINE PAVING.
- TACK FOR MILLED BITUMINOUS AREAS. EST. AT 0.05 GAL / SQ YD.
- TEMP LANE TAPE SKIPS TO BE PLACED ON NEW MAT AT END OF EACH PAVING DAY.
- AGGREGATE BASE CLASS 7B USED FOR COMPACTING AROUND CB'S IS INCIDENTAL TO RECONSTRUCT.
- MAINLINE MILLING INCLUDES DETAIL MILLING AROUND MANHOLES, GATE VALVES, AND ALL STRUCTURES IN BIT. PAVEMENT AREA TO BE MILLED.
- ALL MANHOLES SHALL BE LOCATED AND PROTECTED AT ALL TIMES DURING MILLING AND PAVING OPERATIONS. CONTRACTORS RESPONSIBILITY
- SEE CB REPAIR DETAIL.
- SEED, FERTILIZER, TOPSOIL AT ALL CB REPAIRS ARE INCIDENTAL TO EROSION CONTROL BLANKET.
- AT GATE VALVES AND MANHOLES MILL 1 1/2" INCHES TAPER TO 2 INCHES.
- DO NOT PASS, PASS WITH CARE, NO CENTER STRIPE, STOP HERE ON RED, BUMP AND BUMP AHEAD SIGNS TO BE INPLACE DURING MILL AND PAVING OPERATIONS.
- TEAR OFF SCRAP SHINGLES SHALL BE INCLUDED IN THE WEARING MIXTURE AT 5% OF THE TOTAL WEIGHT OF MIXTURE. SEE SPECIAL PROVISIONS.

ITEM NO.

BASIS OF PLANNED QUANTITIES

2357.502	BITUMINOUS MATERIAL FOR TACK COAT	.05 GAL / SQ YD
2360.501	TYPE SP 12.5 WEARING COURSE MIX (4, B)	(SQ YD * IN. *115 LBS)/2000 = TONS
2360.609	TYPE LV3 NON-WEAR COURSE MIX FOR CB PATCH (LVNW35030 B)	(SQ YD * IN. *115 LBS)/2000 = TONS
2581.501	REMOVABLE PREFORM PLASTIC MARKINGS	((PROJECT LENGTH /50) * 4)

STANDARD PLATE DETAIL

PLATE NO.

DESCRIPTION

3000L	REINFORCED CONCRETE PIPE	4110F	COVER CASTING FOR MANHOLE
3006G	GASKET JOINT FOR R.C. PIPE	4126F	CATCH BASIN FRAME CASTING
4006L	MANHOLE OR CATCH BASIN	4161F	CURB BOX CASTING FOR CATCH BASIN
4010H	CONCRETE SHORT CONE AND ADJUSTING RING	4149C	CATCH BASIN GRATE CASTING
4011E	PRECAST CONCRETE BASE	7100H	CONCRETE CURB AND GUTTER
4020J	MANHOLE OR CATCH BASIN	7111J	INSTALLATION OF CATCH BASIN CASTINGS
4026A	CONCRETE ENCASED CONCRETE ADJUSTING RINGS	7113A	CONCRETE APPROACH NOSE DETAIL
4101D	RING CASTING FOR MANHOLE	8000I	STANDARD BARRICADES

NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\10-01-00\CSAH_8 (47-5th st)\Plan\2 Seq.dgn					
3/19/2010 3:38:10 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: 3/26/10 LICENSE NO. 40496

DRAWN BY: KPR DATE: 3/1/10
 DESIGN BY: KPR DATE: 3/1/10
 CHECKED BY: JO DATE:



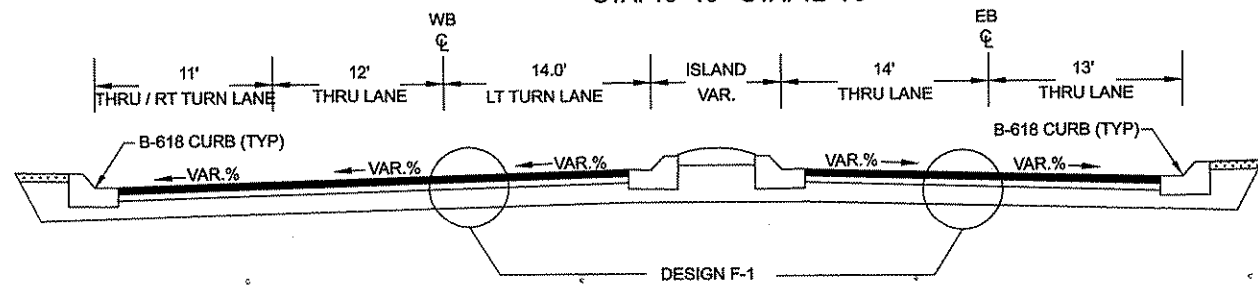
ANOKA COUNTY
 HIGHWAY DEPT.

COUNTY PROJECT NO. 10-12-08

STATEMENT OF ESTIMATED QUANTITIES
 Sheet 2 of 6D Sheets

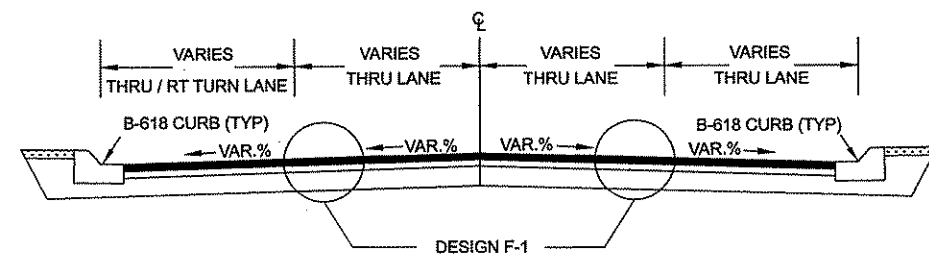
TYPICAL SECTION

STA. 10+10 - STA. 12+70



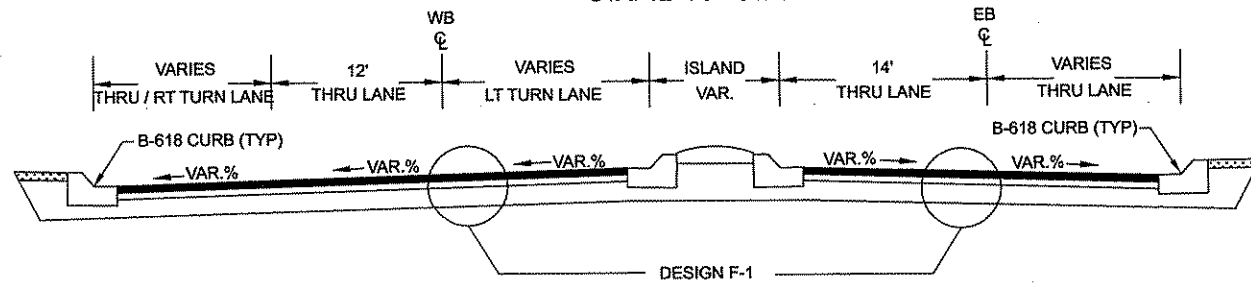
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STA. 14+30 - STA. 15+80



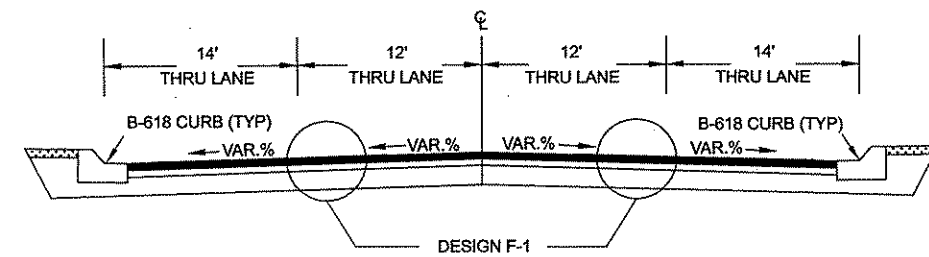
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STA. 12+70 - STA. 14+30

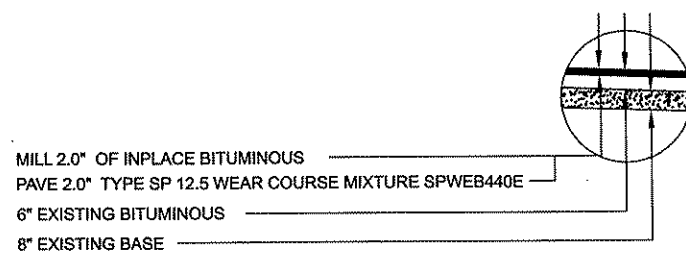


TYPICAL SECTION

STA. 15+80 - STA. 17+25



DESIGN F-1



NO	DATE	BY	CKD	APPR	REVISION

NAME: P:110-01-00\CSAH_8_(47-5th st)\Plan\typ.dgn 3/8/2010 11:12:41 AM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: Charles Cadenhead
 SIGNATURE: *[Signature]*
 DATE: 3/28/10 LICENSE NO. 40436

DRAWN BY: KPR DATE: 3/1/10
 DESIGN BY: KPR DATE: 3/1/10
 CHECKED BY: JO DATE: _____

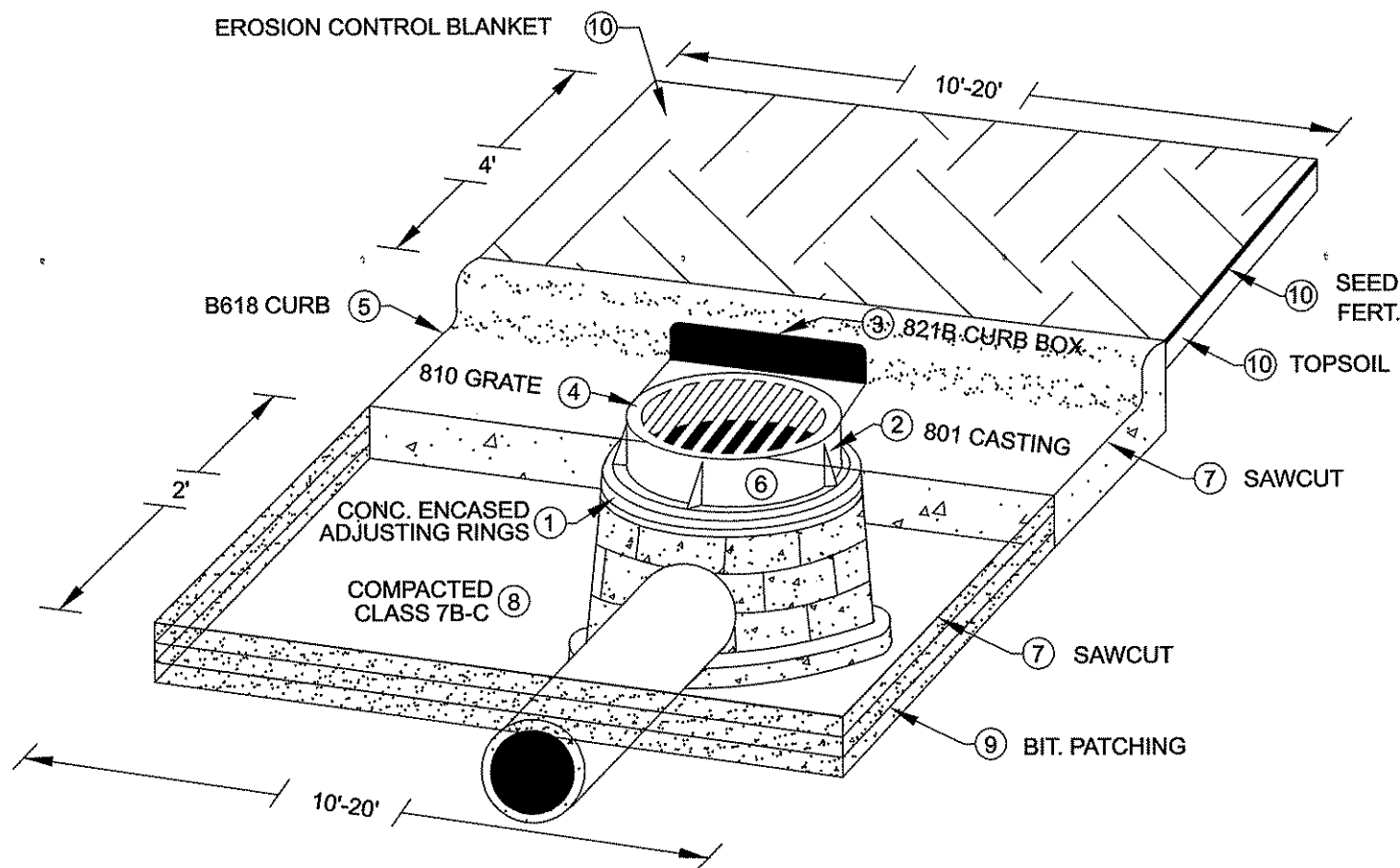


**ANOKA COUNTY
 HIGHWAY DEPT.**

COUNTY PROJECT NO. 10-12-08

TYPICALS
 Sheet 3 of 6D Sheets

C.B. REPAIR DETAIL



NOTES.. FOR TRAFFIC CONTROL AT CATCH BASIN REPAIRS REFER TO THE MINNESOTA MANUAL ON TEMPORARY TRAFFIC CONTROL LAYOUTS FIELD MANUAL.
REFER TO MINNESOTA STANDARD PLATES MANUAL FOR THE FOLLOWING...

- ① CONCRETE ENCASED CONCRETE ADJUSTING RINGS STANDARD PLATE 4026A
- ② RING AND FRAME CASTING 801 STANDARD PLATE 4126F
- ③ CURB BOX 821B STANDARD PLATE 4161F
- ④ GRATE CASTING 810 STANDARD PLATE 4149C
- ⑤ CONCRETE CURB AND GUTTER DESIGN B STANDARD PLATE 7100G
- ⑥ INSTALLATION OF CATCH BASIN CASTINGS STANDARD PLATE 7111J
- ⑦ SAWCUT BIT./CONCRETE BUS PADS/CONCRETE CURB FULL DEPTH.
- ⑧ ADD AND COMPACT CL-7B-C AROUND REPAIRED STRUCTURE.
- ⑨ REMOVE VAR. DEPTH BITUMINOUS 3"-7" / PATCH 2-LIFTS OF BITUMINOUS.
- ⑩ REPLACE DISPLACED TOPSOIL- SEED, FERT. AND COVER WITH EROS. BLANKET. SEED, FERT. AND TOPSOIL INNcidental TO BLANKET.

STRUCTURE	STATION	LOC.	STRUCTURE REPAIRS														ACTION		
			SAW BIT. PAVEMENT	REMOVE BIT. PAVEMENT	REPLACE BIT. PAVEMENT	SAW CONC. PAVEMENT	EROSION CONT. BLANKET	REMOVE C&G	REPLACE B618 C&G	REMOVE CONC. WALK	6" CONC. WALK	CASTING	GROUT	RECONSTRUCT DRAINAGE STR.	CONSTRUCT DRAIN STR 48-4020	CONSTRUCT DRAIN STR H			
			LF	SY	TON	LF	SY	LF	LF		EA	EA	FT	FT	FT				
101	10+90	32	RT													NONE			
102	10+90	16	RT													NONE			
103	11+25	43	LT													NONE			
104	11+35	43	LT													NONE			
105	12+98	39	LT	40	8.8	2	6	8.8	20	20			1		2.5	TOTAL RECONSTRUCT			
106	13+01	19	RT	40	11	6							1		3.4	TOTAL RECONSTRUCT			
107	13+01	32	RT	40	8.8	2	19	8.8	20	20	20	2	1		2.9	TOTAL RECONSTRUCT			
108	13+96	19	RT										1			GROUT			
109	14+81	21	RT	40	11	6							1		4.5	TOTAL RECONSTRUCT			
110	15+00	32	RT																
201	11+33	3	LT										1			NONE			
202	14+13	3	RT										1			NONE			
203	16+92	3	RT										1			GROUT			
301	10+33	29	RT	24	4	2								0.2		RE-RING / GROUT			
			TOTALS			184	44	18	25	18	40	40	20	2	5	3	0.2	7.9	5.4

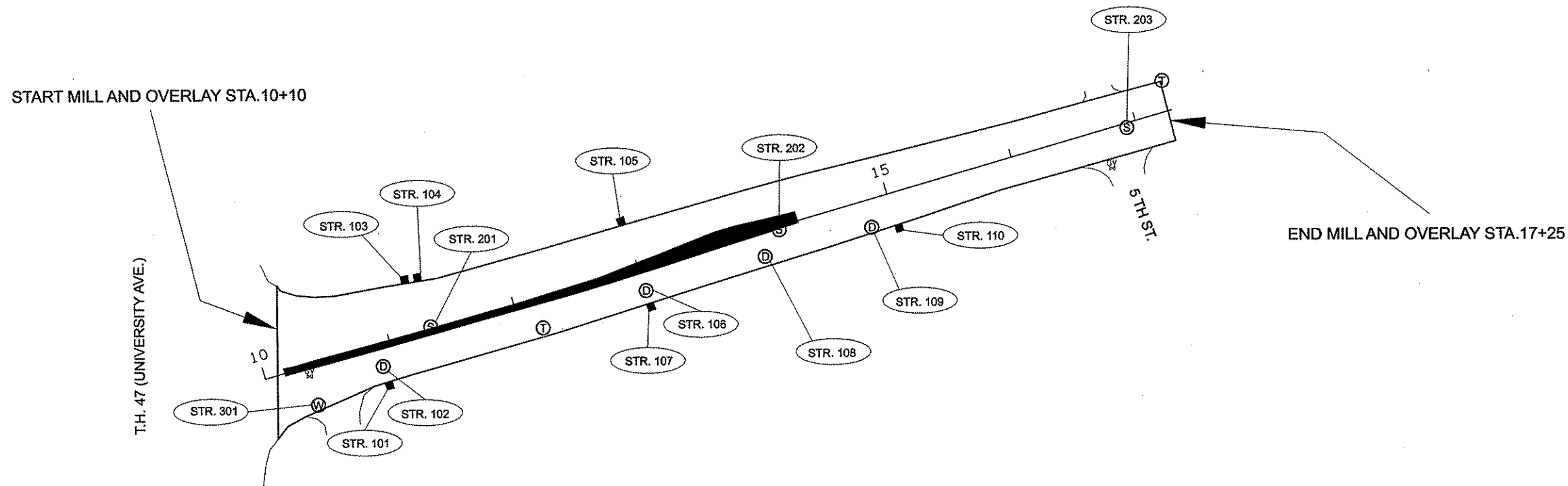
B. SCHEDULE OF CASTINGS				
ASSEMBLY	CASTING	GRATE	CURB BOX	QTY.
	801	810	821B	2

- NOTES.. FOR TRAFFIC CONTROL AT MANHOLES REFER TO MINNESOTA TEMPORARY CONTROL ZONE LAYOUTS FIELD MANUAL.
- 1 ALL CASTING HIEGHTS ARE TO BE DETERMINED IN THE FIELD.
 - 2 ALL MANHOLE CASTINGS NEED TO HAVE "SANITARY SEWER" OR "WATER" STAMPED ON THEM.
 - 3 CONCRETE ENCASED CONCRETE ADJUSTING RINGS STANDARD PLATE 4026A.
 - 4 STR. 105 AND STR. 107 HAS ADDITIONAL BITUMINOUS REMOVAL AND CONCRETE REMOVAL FOR DRIVEWAYS AND BIKE PATH.
 - 5 STR. 106 AND STR. 109 HAS ADDITIONAL BITUMINOUS REMOVAL DUE TO FACT OF THE TYPE OF STRUCTURE NEEDED TO BE REPLACED.

NOTE: NOT TO SCALE

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: <i>Charles Cadenhead</i> DATE: 3/26/10 LICENSE NO. 40416					DRAWN BY: KPR DATE: 3/1/10 DESIGN BY: KPR DATE: 3/1/10 CHECKED BY: JO DATE:		ANOKA COUNTY HIGHWAY DEPT.		COUNTY PROJECT NO. 10-12-08		DETAILS Sheet 4 of 6D Sheets	
NO	DATE	BY	CKD	APPR	REVISION							
					3/15/2010							

NAME: P:\10-01-00\CSAH_8_(47-5th st)\Plan\dot.dgn 8:58:52 AM



- Ⓧ STORM SEWER MANHOLE
- Ⓜ WATERMAIN MANHOLE
- Ⓢ SANITARY SEWER MANHOLE
- Ⓣ TELEPHONE MANHOLE
- STORM SEWER CATCH BASIN
- Ⓦ WATERMAIN GATE VALVE



NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\10-01-00\CSAH_8 (47-5th et)\Plan\3 plan sheet 1.dgn 3/8/2010 11:02:08 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.

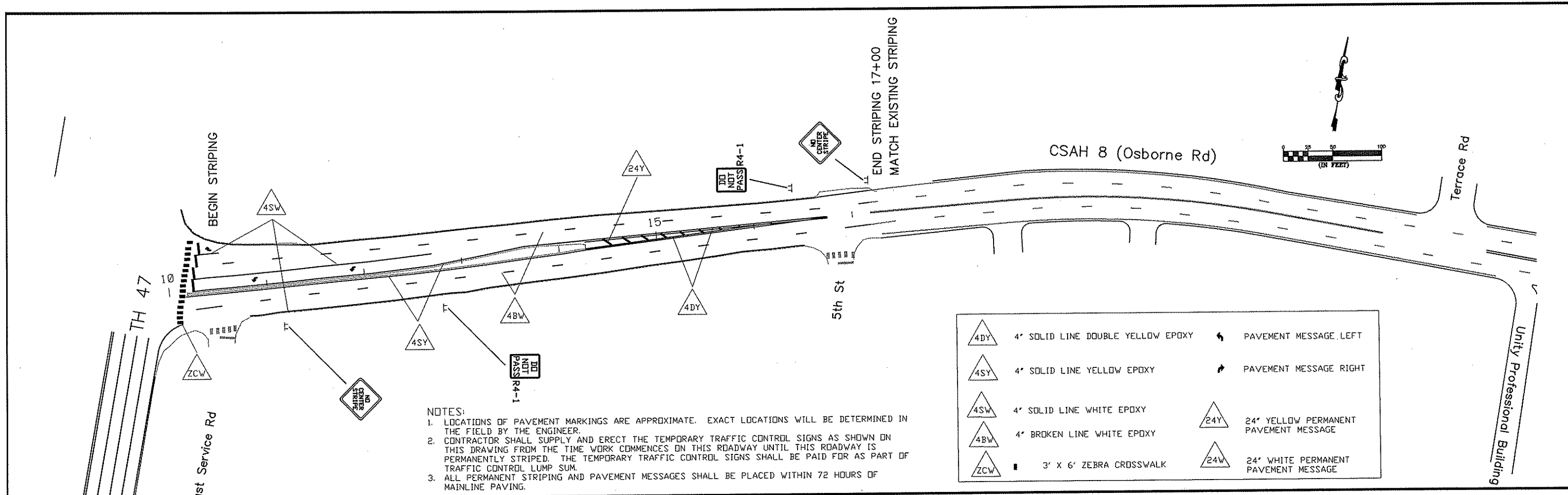
PRINT NAME: CHARLES CADENHEAD
 SIGNATURE: *Charles Cadenhead*
 DATE: 3/26/10 LICENSE NO. 40416

DRAWN BY: KPR DATE: 3/1/10
 DESIGN BY: KPR DATE: 3/1/10
 CHECKED BY: JO DATE:

ANOKA COUNTY
HIGHWAY DEPT.

COUNTY PROJECT NO. 10-12-08

CONSTRUCTION PLAN
 STA 10+00 TO 17+25
 Sheet 5 of 6D Sheets



NOTES:
 1. LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 2. CONTRACTOR SHALL SUPPLY AND ERECT THE TEMPORARY TRAFFIC CONTROL SIGNS AS SHOWN ON THIS DRAWING FROM THE TIME WORK COMMENCES ON THIS ROADWAY UNTIL THIS ROADWAY IS PERMANENTLY STRIPED. THE TEMPORARY TRAFFIC CONTROL SIGNS SHALL BE PAID FOR AS PART OF TRAFFIC CONTROL LUMP SUM.
 3. ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.

	4" SOLID LINE DOUBLE YELLOW EPOXY		PAVEMENT MESSAGE, LEFT
	4" SOLID LINE YELLOW EPOXY		PAVEMENT MESSAGE RIGHT
	4" SOLID LINE WHITE EPOXY		24" YELLOW PERMANENT PAVEMENT MESSAGE
	4" BROKEN LINE WHITE EPOXY		24" WHITE PERMANENT PAVEMENT MESSAGE
	3' X 6' ZEBRA CROSSWALK		

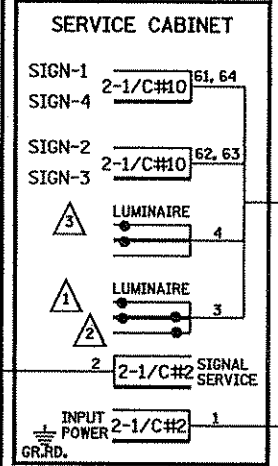
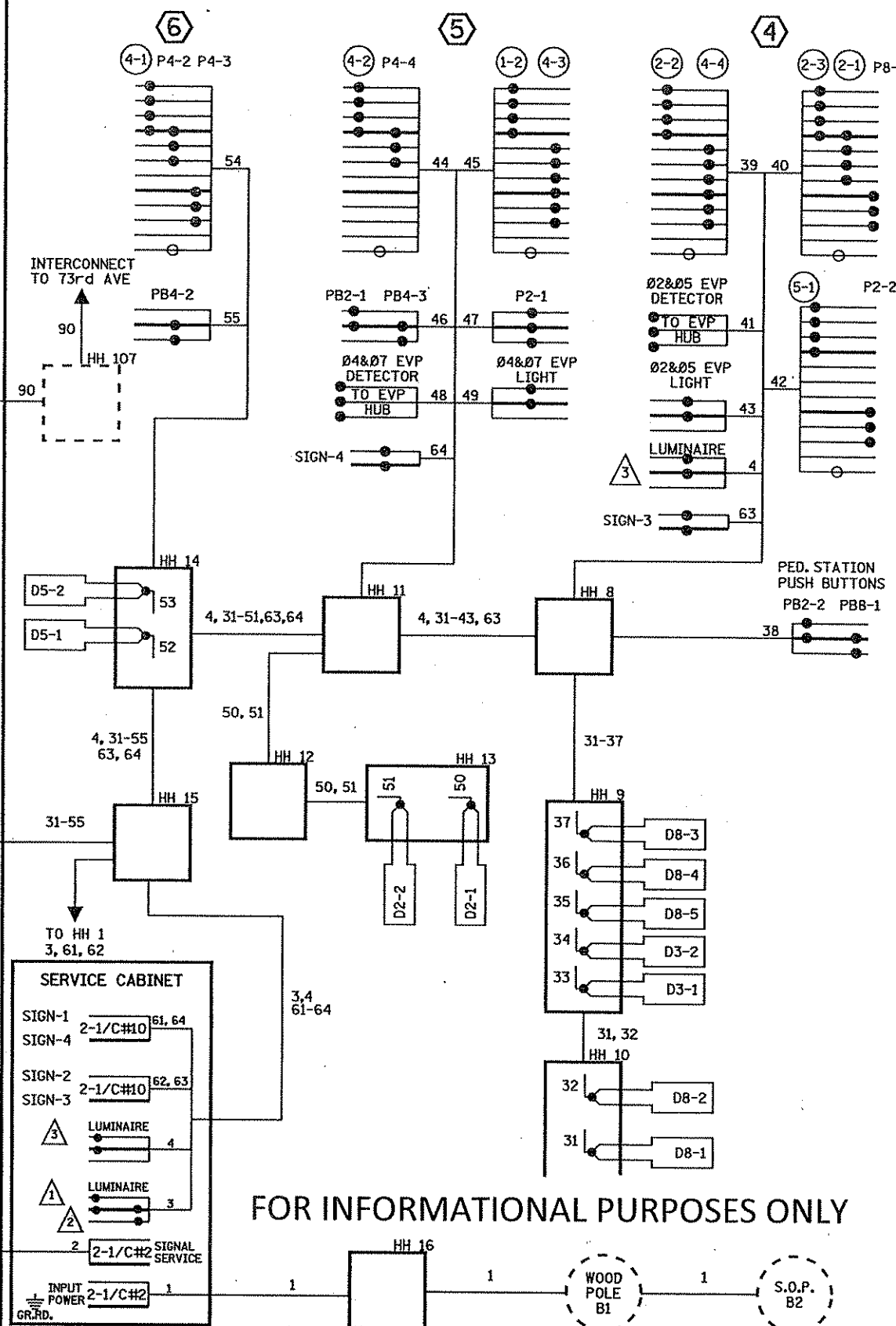
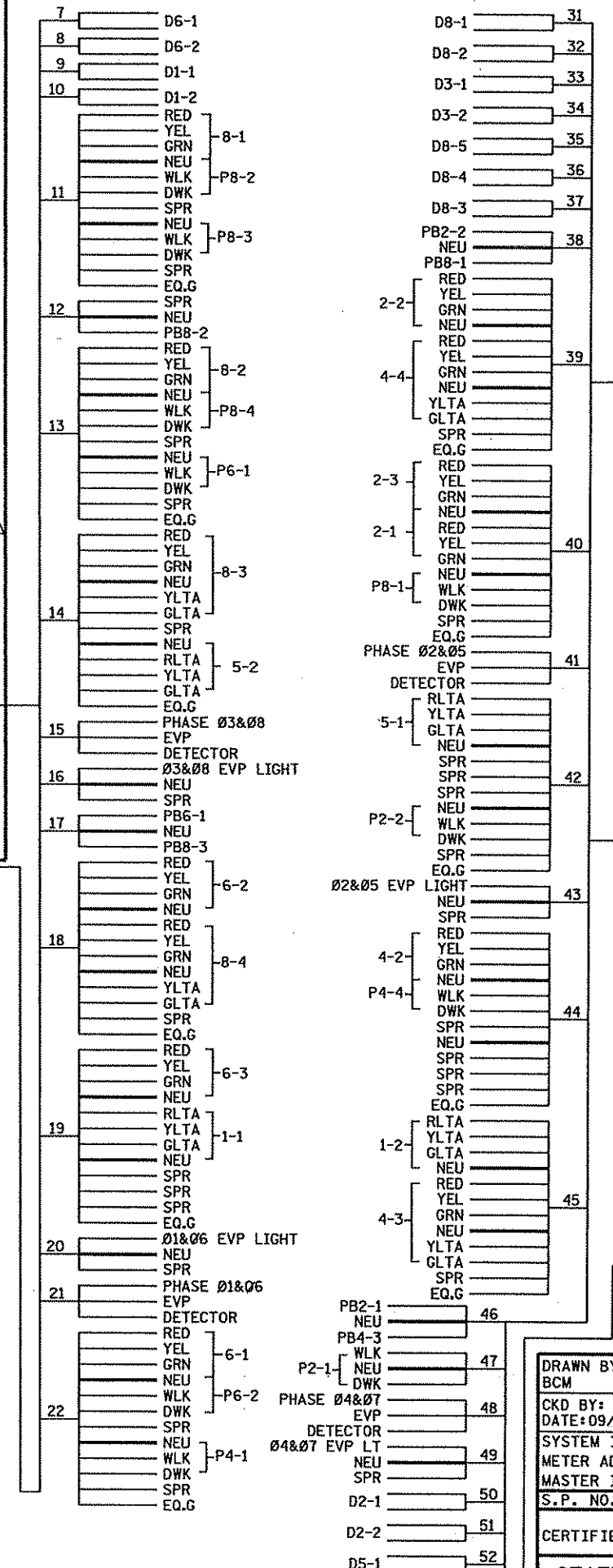
SIGN PANELS TYPE C						
M. U. T. C. D. CODE	SIZE	PANEL AREA FT. ²	INSERT	QUANTITY	No. POST	MOUNTING HEIGHT (to pavement edge) FT.
WB-12	48' x 48'	16.00		2	2	7.0'
R4-1	24' x 30'	5.00		2	2	7.0'
R4-2	24' x 30'	5.00		0	2	7.0'

GENERAL NOTES:
 1.) ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), AND PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".

PLOTTED/REVISED: 2/16/2010 wire

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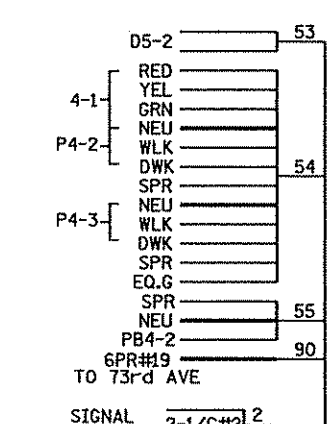
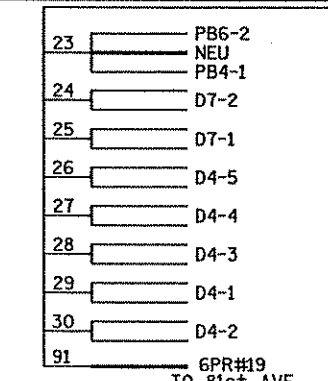
CONTROLLER CABINET



FOR INFORMATIONAL PURPOSES ONLY

CONDUCTOR COLOR CODE

TO SIGNAL CABINET		TO DEVICE	
R	RED	R	RED
O	YEL	BL	YEL
BL	GRN	WH	GRN
R/BLK	NEU	BLK	NEU
O/BLK	YLTA	Y	YLTA
BL/BLK	GLTA	BRN	GLTA
WH/BLK	SPR	R	SPR
BLK	3 & 4-SECTION SIGNAL INDICATION	O	RED
BLK/WH		BL	YEL
G/BLK		WH	GRN
G		BLK	GLTA
R		R	DWK
O		BL	WLK
BL		WH	NEU
WH		BLK	SPR
G			



DRAWN BY: BCM	REVISED BY: JDP 01-10-07	REVISED BY:	AS BUILT BY:
CKD BY: MPG	CKD BY: DATE: 09/07/05	CKD BY: DATE:	CKD BY: DATE:
SYSTEM ID: 20681			
METER ADDRESS: 7			
MASTER ID: 20677			
S.P. NO. 127-010			
CERTIFIED BY: _____			
STATE PROJ			

STATE AID PROJECT NO. _____	MISCELLANEOUS SIGNAL SHEETS
STATE PROJECT NO. _____	Sheet 6A of 6D Sheets
CITY PROJECT NO. _____	
COUNTY PROJECT NO. 10-12-08	

FIELD WIRING DIAGRAM T.H. 47 AT CSAH 8 (OSBORNE RD.)

PLOTTED/REVISED: 2/18/2010

PLOTTED: 16-FEB-20 10:08 AM FILENAME: IF:\PROJECTS\1034\T206811.sg1.dgn

1 S.B. STA. 443+10, 32.2' LT.
 PA100 POLE FOUNDATION
 TYPE PA100-A-55-D40-9 (DAVIT AT 350")
 3-ONE WAY SIGNALS OVERHEAD
 (0', 17', 29' FROM THE END OF THE MAST ARM)
 ONE WAY SIGNAL MOUNTED AT 45° (RC DESIGN)
 ONE WAY SIGNAL MOUNTED AT 225° (RC DESIGN)
 1-PEDESTRIAN INDICATION MOUNTED AT 45°
 1-PEDESTRIAN INDICATION MOUNTED AT 225°
 ** ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 LUMINAIRE 250W HPS
 * 1-INTERNALLY LIT TYPE D SIGN (SEE SIGN DETAILS)
 1-R6-1L SIGN (48"X18")
 1-R6-1R SIGN (48"X18")
 EXTEND INTO HH 1:
 3" RSC
 * 2-1/C#10
 3-12/C#12
 2-3/C#12
 ** 1-3/C#12 (EVP)
 ** 1-3/C#20 (EVP)

2 S.B. STA. 444+45, 51.6' LT.
 PA100 POLE FOUNDATION
 TYPE PA100-A-50-D40-9 (DAVIT AT 350")
 2-ONE WAY SIGNALS OVERHEAD
 (0' AND 11' FROM THE END OF MAST ARM)
 ONE WAY SIGNAL MOUNTED AT 45° (RC DESIGN)
 1-PEDESTRIAN INDICATION MOUNTED AT 45°
 1-PEDESTRIAN INDICATION MOUNTED AT 225°
 ** ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 2-PEDESTRIANS PUSH BUTTONS AND SIGNS (R10-4b, 1 EA. LH AND RH)
 LUMINAIRE 250W HPS
 1-R10-12 SIGN (36"X48") ADJACENT TO HEAD 8-3
 * 1-INTERNALLY LIT TYPE D SIGN (SEE SIGN DETAILS)
 EXTEND INTO HH 4:
 3" RSC
 * 2-1/C#10
 2-12/C#12
 2-3/C#12
 ** 1-3/C#12 (EVP)
 ** 1-3/C#20 (EVP)

3 N.B. STA. 444+79, 29.3' LT.
 PEDESTAL FOUNDATION
 15' SIGNAL PEDESTAL POLE AND BASE
 ONE WAY SIGNAL MOUNTED AT 270° (RC DESIGN)
 1-PEDESTRIAN INDICATION MOUNTED AT 90°
 1-PEDESTRIAN INDICATION MOUNTED AT 270°
 1-PEDESTRIAN PUSH BUTTON AND SIGN (R10-4b, DH)
 EXTEND INTO HH 7:
 2" RSC
 1-12/C#12
 1-3/C#12

4 N.B. STA. 445+20, 32.2' RT.
 PA100 POLE FOUNDATION
 TYPE PA100-A-55-D40-9 (DAVIT AT 350")
 3-ONE WAY SIGNALS OVERHEAD
 (0', 17', 29' FROM THE END OF THE MAST ARM)
 ONE WAY SIGNAL MOUNTED AT 45° (RC DESIGN)
 ONE WAY SIGNAL MOUNTED AT 225° (RC DESIGN)
 1-PEDESTRIAN INDICATION MOUNTED AT 45°
 1-PEDESTRIAN INDICATION MOUNTED AT 225°
 ** ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 LUMINAIRE 250W HPS
 * 1-INTERNALLY LIT TYPE D SIGN (SEE SIGN DETAILS)
 1-R6-1L SIGN (48"X18")
 1-R6-1R SIGN (48"X18")
 EXTEND INTO HH 8:
 3" RSC
 * 2-1/C#10
 3-12/C#12
 1-3/C#12
 ** 1-3/C#12 (EVP)
 ** 1-3/C#20 (EVP)

5 N.B. STA. 443+73, 49.5' RT.
 PA100 POLE FOUNDATION
 TYPE PA100-A-50
 2-ONE WAY SIGNALS OVERHEAD
 (0' AND 11' FROM THE END OF MAST ARM)
 ONE WAY SIGNAL MOUNTED AT 45° (RC DESIGN)
 1-PEDESTRIAN INDICATION MOUNTED AT 45°
 1-PEDESTRIAN INDICATION MOUNTED AT 225°
 ** ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 2-PEDESTRIANS PUSH BUTTONS AND SIGNS (R10-4b, 1 EA. LH AND RH)
 1-R10-12 SIGN (36"X48") ADJACENT TO HEAD 4-3
 * 1-INTERNALLY LIT TYPE D SIGN (SEE SIGN DETAILS)
 EXTEND INTO HH 11:
 3" RSC
 * 2-1/C#10
 2-12/C#12
 2-3/C#12
 ** 1-3/C#12 (EVP)
 ** 1-3/C#20 (EVP)

6 N.B. STA. 443+49, 52.5' LT.
 PEDESTAL FOUNDATION
 15' SIGNAL PEDESTAL POLE AND BASE
 ONE WAY SIGNAL MOUNTED AT 270° (RC DESIGN)
 1-PEDESTRIAN INDICATION MOUNTED AT 90°
 1-PEDESTRIAN INDICATION MOUNTED AT 270°
 1-PEDESTRIAN PUSH BUTTON AND SIGN (R10-4b, DH)
 EXTEND INTO HH 14:
 2" RSC
 1-12/C#12
 1-3/C#12

A S.B. STA. 442+74, 59 LT.
 EQUIPMENT PAD (SEE DETAIL)
 SERVICE CABINET (STATE FURNISHED)
 CONTROLLER AND CABINET (STATE FURNISHED)
 4" RSC TO HH 1: 4" RSC TO HH 15: 2" RSC TO HH 107:
 6-12/C#12 6-12/C#12 INSTALL: 1-6PR#19 (TO 73rd AVE.)
 3-3/C#12 4-3/C#12
 ** 2-3/C#12 (EVP) ** 2-3/C#12 (EVP)
 11-2/C#14 11-2/C#14
 1-6PR#19 (TO 81st AVE.) ** 2-3/C#20 (EVP)
 ** 2-3/C#20 (EVP)

3" RSC STUBBED OUT (THREADED AND CAPPED BOTH ENDS)
 3/4" PVC STUBBED OUT (CAPPED FOR TELEPHONE LINE)
 2" RSC STUBBED OUT (THREADED AND CAPPED BOTH ENDS)

SERVICE CABINET TO CONTROLLER CABINET:
 2" RSC
 2-1/C#6
 1-1/C#6 INS. GRD.

SERVICE CABINET TO HH 15:
 2" RSC
 2-3/C#12
 8-1/C#10

SERVICE CABINET TO HH 16 (FOR SOP)
 2" RSC
 3-1/C#2

HH 15 TO HH 1:
 2" RSC
 4-1/C#10
 1-3/C#12

B1 INPLACE WOOD POLE (WITH OVERHEAD CABLE TO TRANSFORMER AT B2 BY XCEL ENERGY).
 2" RSC RISER, WEATHERHEAD AND CONDUIT INTO HH 16:
 3-1/C#2 (SPOOL 150' OF CABLE AT WEATHERHEAD)

B2 INPLACE SOP (WOOD POLE AND TRANSFORMER BY XCEL ENERGY)
 3-1/C#2 OVERHEAD TO TRANSFORMER (BY XCEL ENERGY)

NOTES:

- SEE SPECIAL PROVISIONS FOR STATE FURNISHED MATERIALS, LED PEDESTRIAN INDICATIONS, LED VEHICLE INDICATIONS AND PAINTING OF SIGNAL SYSTEM..
- THE EXACT LOCATION OF HANDHOLES, POLES, LOOP DETECTORS AND EQUIPMENT PAD SHALL BE DETERMINED IN THE FIELD BY MNDOT TRAFFIC OFFICE PERSONNEL.
- A 3/4" HALF COUPLING, 3/4" PIPE NIPPLE AND CONDUIT OUTLET BODY FOR EMERGENCY VEHICLE PREEMPTION EQUIPMENT SHALL BE F & I 6' FROM THE END OF EACH MAST ARM.
- PAVEMENT MARKINGS ARE BY OTHERS (SEE STRIPING PLAN FOR REFERENCE).
- THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE POWER COMPANY TO ARRANGE FOR THE POWER CONNECTION.
- THE CONTRACTOR SHALL LOCATE AND VERIFY INPLACE UTILITIES PRIOR TO COMMENCING WORK.
- * INDICATES INTERNALLY LIT TYPE D SIGN ITEMS (SEE DETAIL SHEET). TYPE D SIGNS ARE TO BE PAID SEPARATELY UNDER ITEM 2564 "INTERNALLY LIT SIGN TYPE D."
- 6PR#19 INTERCONNECT CABLE TO 73rd AVE. SHALL BE PULLED BACK FROM INPLACE CABINET TO INPLACE HH 107 AND REINSTALLED TO NEW CABINET.
- 6PR#19 INTERCONNECT CABLE TO 81st AVE. SHALL BE REMOVED AND RELOCATED TO NEW HH 7. PROVIDE A SPLICE AT HH 7 AND F&I INTERCONNECT CABLE TO THE NEW CABINET.
- SALVAGE/REMOVAL OF THE INPLACE SIGNAL IS INCIDENTAL TO THE SIGNAL PAY ITEM.
- CONCRETE WALK AND/OR BITUMINOUS REMOVAL/REPLACEMENT TO BE DONE BY OTHERS. SEE THE APPROPRIATE CONCRETE/BITUMINOUS TABULATIONS FOR REFERENCE.
- ** INDICATES EVP ITEMS TO BE PAID FOR SEPARATELY UNDER ITEM 2565 "EMERGENCY VEHICLE PREEMPTION SYSTEM"
- SEE THE UTILITY AND ROAD CONSTRUCTION DETAIL SHEETS FOR THE LOCATION OF TWO-60" WATERMAINS CROSSING T.H. 47 ON THE NORTH SIDE OF THE INTERSECTION.

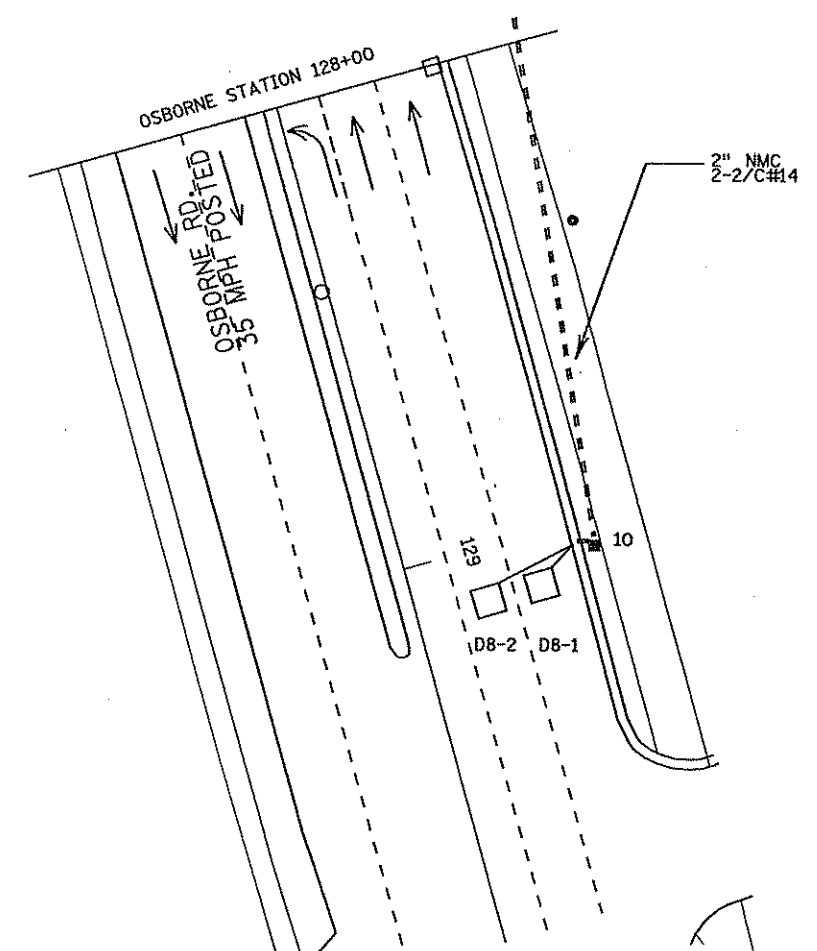
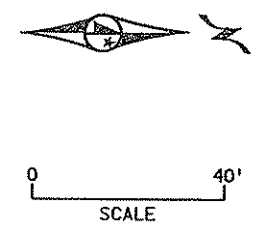
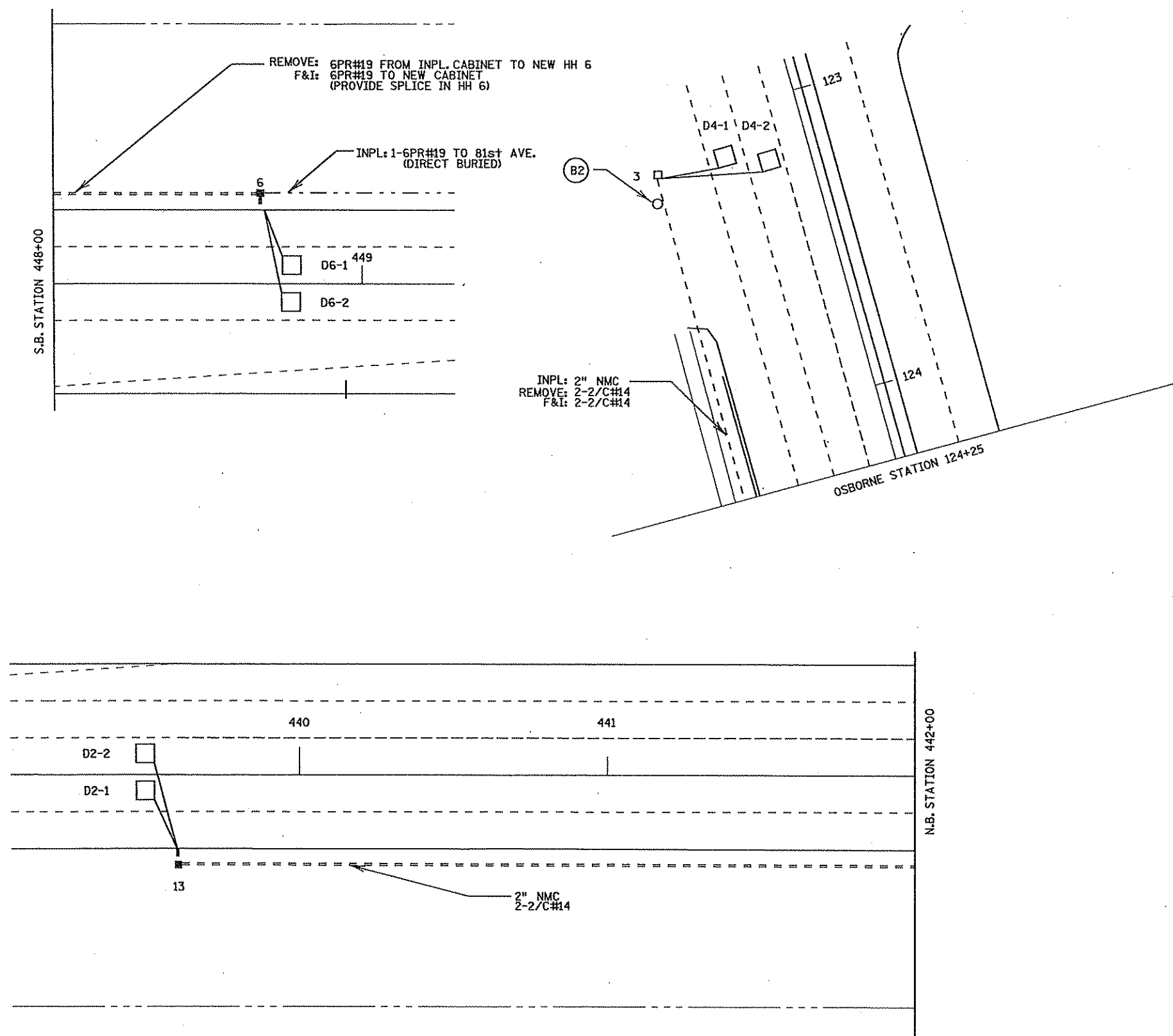
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DRAWN BY: BCM	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY:MPG DATE:09/08/05	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:
SYSTEM ID: 20681	METER ADDRESS: 7	MASTER ID: 20677	S.P. NO. 127-01
CERTIFIED BY _____			STATE PROJ _____

GENERAL AND POLE NOTES T.H. 47 AT CSAH 8 (OSBORNE RD.)	
STATE AID PROJECT NO. _____	MISCELLANEOUS SIGNAL SHEETS
STATE PROJECT NO. _____	Sheet <u>6B</u> of <u>6D</u> Sheets
CITY PROJECT NO. _____	
COUNTY PROJECT NO. <u>10-12-08</u>	

DISTRICT: METRO
 IPLOT NAME: notes

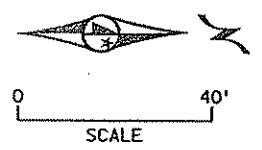
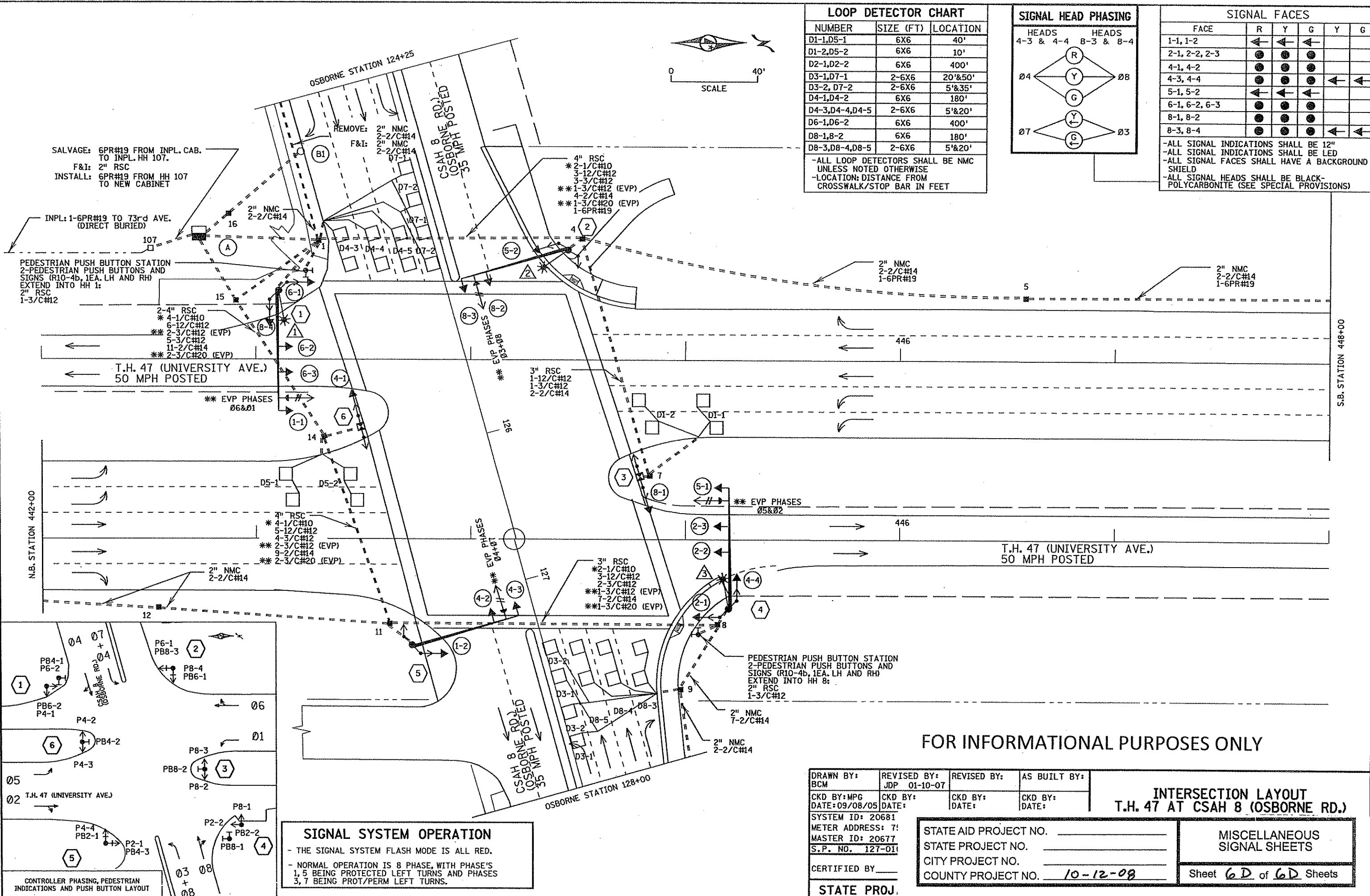
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 PLOT NAME: matchline
 PLOTTED: 16-FEB-20 10:08 AM FILENAME: I:\P\PROJECTS\127-010\T20681L.dgn
 PLOTTED/REVISED: 2/16/2010



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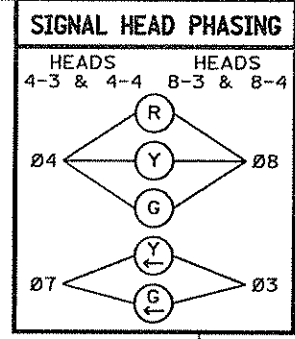
DRAWN BY: BCM	REVISED BY: 	REVISED BY: 	AS BUILT BY: 	INTERSECTION LAYOUT MATCH LINE T.H. 47 AT CSAH 8 (OSBORNE RD.)
CKD BY:MPG DATE:09/08/05	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:	
SYSTEM ID: 20681 METER ADDRESS: 7 MASTER ID: 20677 S.P. NO. 127-010				MISCELLANEOUS SIGNAL SHEETS
CERTIFIED BY: _____				
STATE PROJ				STATE AID PROJECT NO. _____ STATE PROJECT NO. _____ CITY PROJECT NO. _____ COUNTY PROJECT NO. <u>10-12-08</u>
				Sheet <u>6C</u> of <u>6D</u> Sheets

DISTRICT #: METRO
 PLOT NAME: layout
 PLOTTED: 16-FEB-2010 10:08 AM FILENAME: IF_PAWARWED034747_E08B13078034\T20681L.dgn



LOOP DETECTOR CHART		
NUMBER	SIZE (FT)	LOCATION
D1-1,D5-1	6X6	40'
D1-2,D5-2	6X6	10'
D2-1,D2-2	6X6	400'
D3-1,D7-1	2-6X6	20'&50'
D3-2,D7-2	2-6X6	5'&35'
D4-1,D4-2	6X6	180'
D4-3,D4-4,D4-5	2-6X6	5'&20'
D6-1,D6-2	6X6	400'
D8-1,8-2	6X6	180'
D8-3,D8-4,D8-5	2-6X6	5'&20'

-ALL LOOP DETECTORS SHALL BE NMC UNLESS NOTED OTHERWISE
 -LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET



SIGNAL FACES					
FACE	R	Y	G	Y	G
1-1, 1-2	←	←	←		
2-1, 2-2, 2-3	●	●	●		
4-1, 4-2	●	●	●		
4-3, 4-4	●	●	●	←	←
5-1, 5-2	←	←	←		
6-1, 6-2, 6-3	●	●	●		
8-1, 8-2	●	●	●		
8-3, 8-4	●	●	●	←	←

-ALL SIGNAL INDICATIONS SHALL BE 12"
 -ALL SIGNAL INDICATIONS SHALL BE LED
 -ALL SIGNAL FACES SHALL HAVE A BACKGROUND SHIELD
 -ALL SIGNAL HEADS SHALL BE BLACK-POLYCARBONITE (SEE SPECIAL PROVISIONS)

SALVAGE: 6PR#19 FROM INPL. CAB. TO INPL. HH 107.
 F&I: 2" RSC
 INSTALL: 6PR#19 FROM HH 107 TO NEW CABINET

INPL: 1-6PR#19 TO 73rd AVE. (DIRECT BURIED)
 PEDESTRIAN PUSH BUTTON STATION
 2-PEDESTRIAN PUSH BUTTONS AND SIGNS (R10-4b, 1EA. LH AND RH)
 EXTEND INTO HH 1:
 2" RSC
 1-3/C#12

2-4" RSC
 * 4-1/C#10
 * 5-12/C#12
 ** 2-3/C#12 (EVP)
 * 5-3/C#12
 ** 11-2/C#14
 ** 2-3/C#20 (EVP)

** EVP PHASES Ø6&Ø1

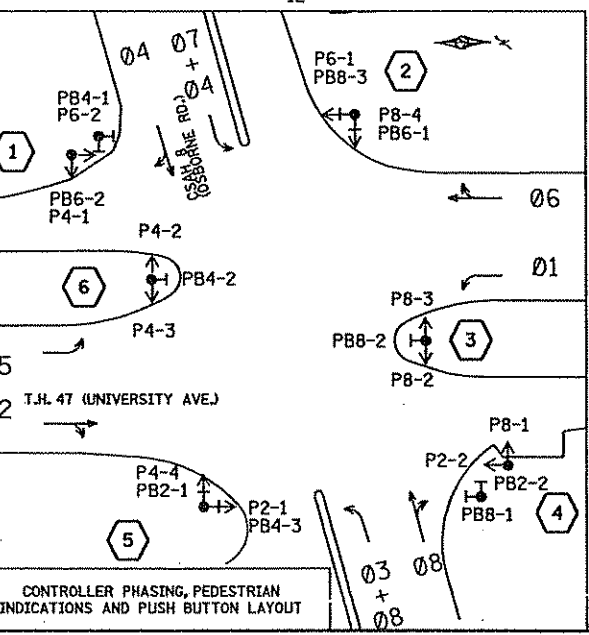
4" RSC
 * 4-1/C#10
 * 5-12/C#12
 * 4-3/C#12
 ** 2-3/C#12 (EVP)
 * 9-2/C#14
 ** 2-3/C#20 (EVP)

** EVP PHASES Ø4+Ø1

3" RSC
 * 2-1/C#10
 * 3-12/C#12
 * 2-3/C#12
 ** 1-3/C#12 (EVP)
 * 7-2/C#14
 ** 1-3/C#20 (EVP)

** EVP PHASES Ø5&Ø2

PEDESTRIAN PUSH BUTTON STATION
 2-PEDESTRIAN PUSH BUTTONS AND SIGNS (R10-4b, 1EA. LH AND RH)
 EXTEND INTO HH 8:
 2" RSC
 1-3/C#12



SIGNAL SYSTEM OPERATION
 - THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
 - NORMAL OPERATION IS 8 PHASE, WITH PHASE'S 1, 5 BEING PROTECTED LEFT TURNS AND PHASES 3, 7 BEING PROT/PERM LEFT TURNS.

FOR INFORMATIONAL PURPOSES ONLY

DRAWN BY: BCM	REVISED BY: JDP 01-10-07	REVISED BY:	AS BUILT BY:
CKD BY: MPG	CKD BY: DATE: 09/08/05	CKD BY: DATE:	CKD BY: DATE:
SYSTEM ID: 20681			
METER ADDRESS: 71			
MASTER ID: 20677			
S.P. NO. 127-01			
CERTIFIED BY: _____			
STATE PROJ.			

INTERSECTION LAYOUT
T.H. 47 AT CSAH 8 (OSBORNE RD.)

STATE AID PROJECT NO. _____
STATE PROJECT NO. _____
CITY PROJECT NO. _____
COUNTY PROJECT NO. <u>10-12-08</u>

MISCELLANEOUS SIGNAL SHEETS
Sheet <u>6D</u> of <u>6D</u> Sheets