

ANOKA COUNTY HIGHWAY DEPARTMENT

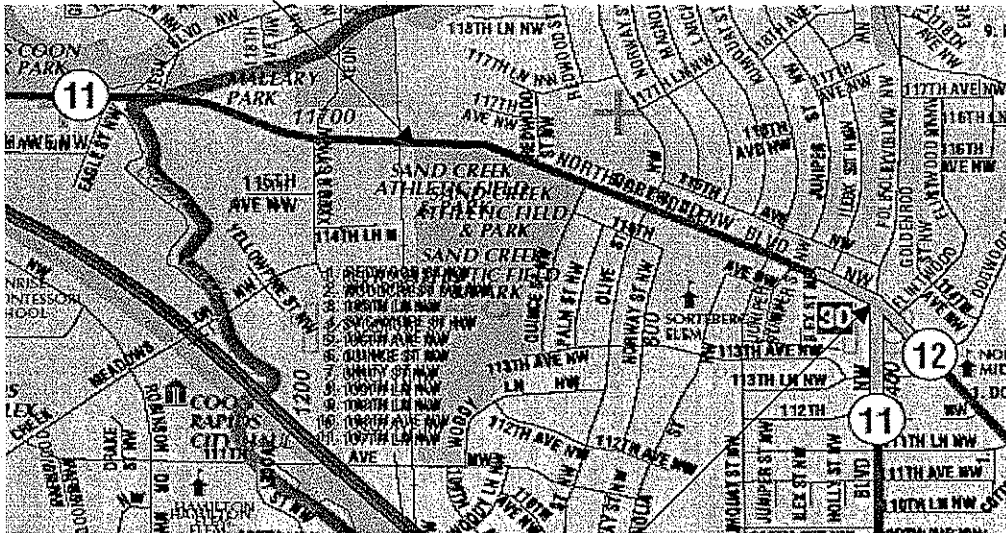
CONSTRUCTION PLAN FOR:

BIT. MILL, BIT. OVERLAY, STORM
SEWER REPAIR

CSAH NO: 11
 FROM WEST ENT. SAND CREEK PARK
 TO FOLEY BLVD
 FROM
 TO

COUNTY PROJECT NO: 05-04-11
 GROSS LENGTH 4700 FT 0.9 MI
 BRIDGES LENGTH 0 FT 0 MI
 EXCEPTION LENGTH 0 FT 0.0 MI
 NET LENGTH 4700 FT 0.9 MI

←BEGIN PROJECT C.P. 05-04-11 STATION 10+00



→END PROJECT C.P. 05-04-11 STATION 57+00

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

Andrew J. Witter
 ANDREW J. WITTER, P.E.

LIC. NO. 42757 DATE 4/14/05

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 2004."

APPROVED 4/15, 2005

[Signature]
 ANOKA COUNTY ENGINEER

STATEMENT OF ESTIMATED QUANTITIES

NO	ITEM NO.	ITEM	NOTE NO.	UNIT	TOTAL EST. QUANT.
	2021.501	MOBILIZATION		LUMP SUM	1
	2104.501	REMOVE CONCRETE CURB AND GUTTER		LIN FT	90
A	2104.513	SAWING BITUMINOUS PAVEMENT		LIN FT	56
	2221.503	AGGREGATE SHOULDERING CLASS 7		CU YD	43
	2232.501	MILL BITUMINOUS SURFACE (1.5")		SQ YD	4773
	2357.502	BITUMINOUS MATERIAL FOR TACK COAT		GALLON	1071
	2360.609	TYPE MV3 WEARING COURSE MIXTURE (MVWE35035 B)		TON	1767
	2360.609	TYPE LV3 WEARING COURSE MIXTURE FOR PATCHING (LVWE35030 B)		TON	4
	2504.602	ADJUST GATE VALVE AND BOX		EACH	2
A	2506.503	RECONSTRUCT DRAINAGE STRUCTURE		LIN FT	5
B	2506.516	CASTING ASSEMBLY		EACH	2
	2506.522	ADJUST FRAME AND RING CASTING (SANITARY)		EACH	11
A	2506.602	GROUT CATCH BASIN OR MAN HOLE		EACH	1
	2531.501	CONCRETE CURB AND GUTTER DESIGN B618		LIN FT	90
	2540.602	INSTALL MAIL BOX SUPPORT		EACH	54
	2563.601	TRAFFIC CONTROL		LUMP SUM	1
	2563.602	PORTABLE CHANGEABLE MESSAGE SIGN		UNIT DAY	10
	2564.602	PAVEMENT MESSAGE (LT ARROW) POLY PREFORM		EACH	2
	2564.602	PAVEMENT MESSAGE (RT / THRU ARROW) POLY PREFORM		EACH	2
	2564.602	PAVEMENT MESSAGE (ONLY) POLY PREFORM		EACH	1
	2564.602	PAVEMENT MESSAGE (R X R CROSSING) POLY PREFORM		EACH	1
	2564.603	4" SOLID LINE WHITE - EPOXY		LIN FT	8600
	2564.603	4" SOLID LINE YELLOW - EPOXY		LIN FT	1930
	2564.603	4" DOUBLE SOLID LINE YELLOW - EPOXY		LIN FT	2583
	2564.603	24" SOLID LINE YELLOW - EPOXY		LIN FT	90
	2564.603	24" SOLID LINE WHITE - EPOXY		LIN FT	72
	2564.604	ZEBRA CROSSWALK - POLY PREFORM		SQ FT	378
	2565.602	LOOP DETECTOR 6'X6'		EACH	2
	2580.603	REMOVABLE LANE TAPE		LIN FT	732

BASIS OF PLANNED QUANTITIES

2357.502 BITUMINOUS MATERIAL FOR TACK COAT	.05 GAL / SQ YD
2360.609 TYPE MV3 WEARING COURSE MIXTURE (MVWE35035 E)	110 LBS/SQ YD/ IN THICKNESS
2580.603 REMOVABLE LANE TAPE	4' AT 50' INTERVALS FOR SKIPS

STANDARD DETAIL PLATES

PLATE NO	DESCRIPTION
4010	CONCRETE SHOT CONE AND ADJUSTING RING
4026A	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
4126F	CATCH BASIN FRAME CASTING
4149C	GRATE CASTING FOR CATCH BASIN
4161F	CURB BOX CASTING FOR CATCH BASIN
7100G	CONCRETE CURB AND GUTTER (DESIGN B)
7111J	INSTALLATION OF CATCH BASIN CASTING
8000I	STANDARD BARRICADES

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C.P. 05-04-11

SHEET NO. 2 OF 9 SHEETS

A. STORM SEWER REPAIRS												
STRUCTURE	STATION	LT/RT	801 CASTING		GROUT CB	SAW BIT. PAVEMENT	REMOVE BIT. PAVEMENT	REMOVE C&G	B618 C:&G		RECONSTRUCT STORM C.B.	COMMENTS
			EA		EA	LF	SY	LF	LF		FT	
1	37+85	RT	1			28	9	20	20		2.3	6" CASTING
2	37+85	LT			1							
3	38+80	LT	1			28	9	20	20		2.6	11" CASTING
	TOTALS		2		1	56	18	40	40		4.9	

B. SCHEDULE OF CASTINGS				
ASSEMBLY	RING OR FRAME CASTING	COVER OR GRATE CASTING	CURB BOX CASTING	QUANTITY
A	801	810	821B	2

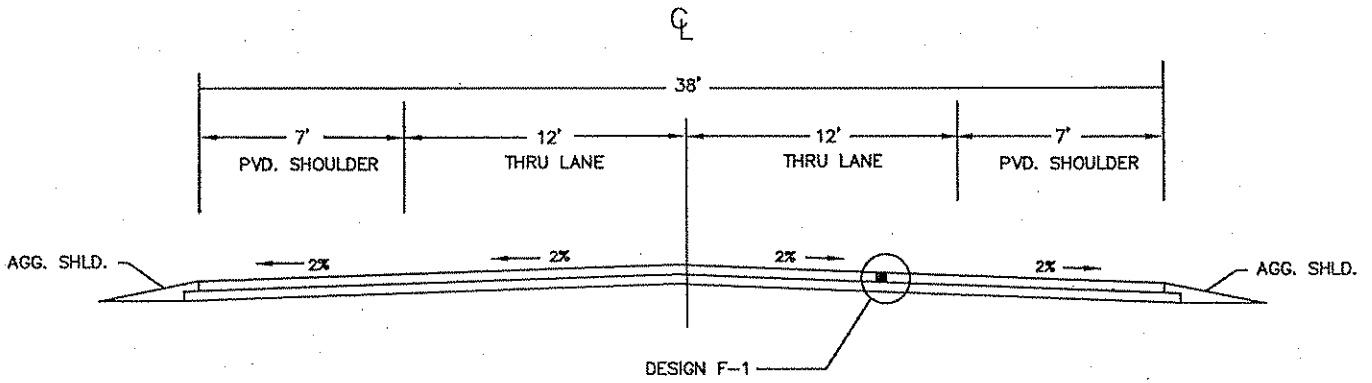
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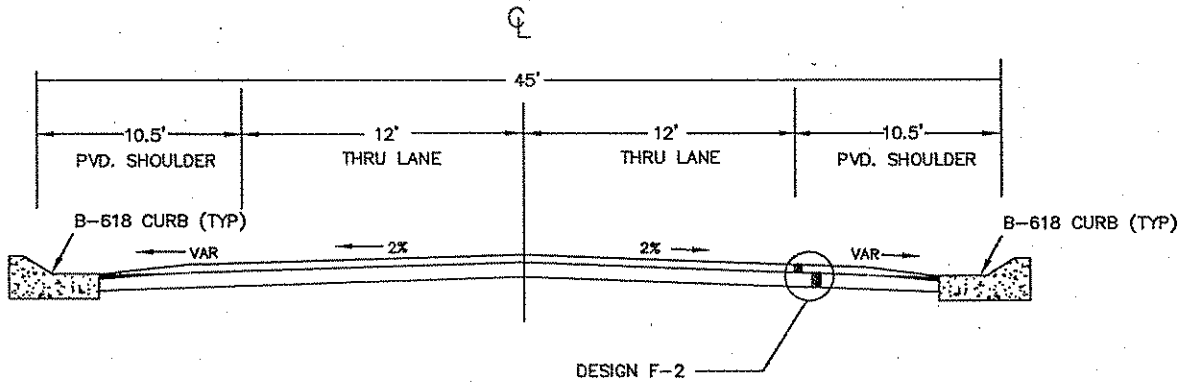
LIC. NO. 42757 DATE 4/14/05
 SHEET NO. 3 OF 9 SHEETS

TYPICAL SECTIONS

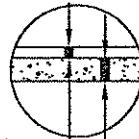
CSAH 11
STA 10+00 TO 21+60



CSAH 11
STA 21+60 TO 47+96

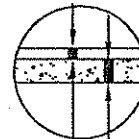


DESIGN F-1



PAVE 1.5" MV3 WEAR (MWWE35035 B)
EXISTING BITUMINOUS

DESIGN F-2



PAVE 1.5" MV3 WEAR (MWWE35035 B)
EXISTING BITUMINOUS
* (6" WIDE X 1.5" DEPTH EDGE MILL AT LIP OF CURB)

NOTE: NOT TO SCALE

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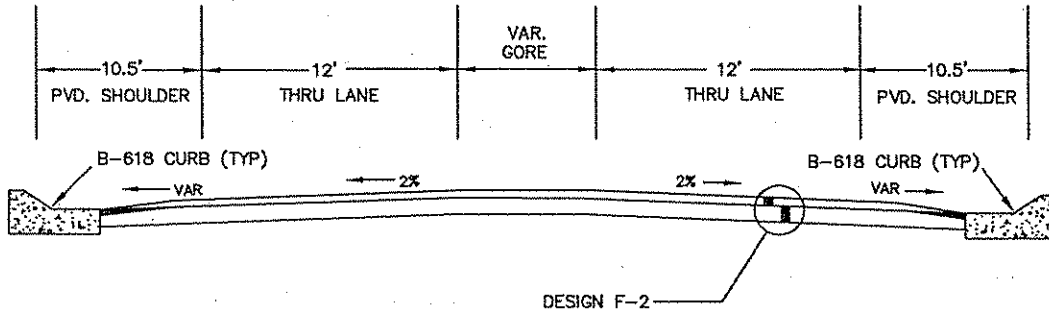
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C.P. 05-04-11

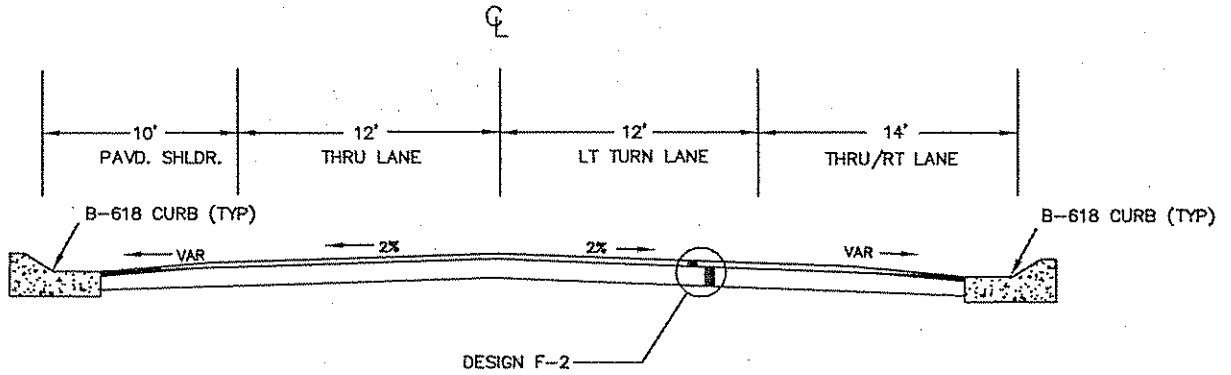
SHEET NO. 4 OF 9 SHEETS

TYPICAL SECTIONS

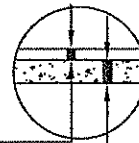
CSAH 11
STA 47+96 TO STA 53+82



CSAH 11
STA 53+82 TO STA 57+00



DESIGN F-2



PAVE 1.5" MV3 WEAR (MVWE35035 B)
EXISTING BITUMINOUS
* (6" WIDE X 1.5" DEPTH EDGE MILL AT LIP OF CURB)

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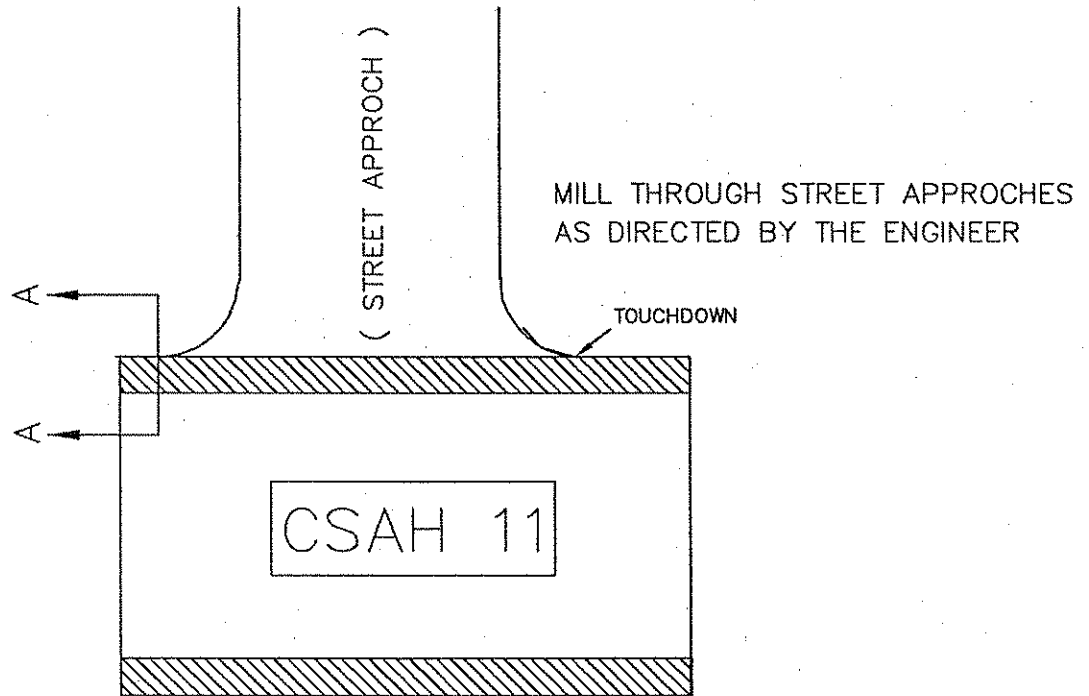
DATE 4/14/05

C.P. 05-04-11

SHEET NO. 5 OF 9 SHEETS

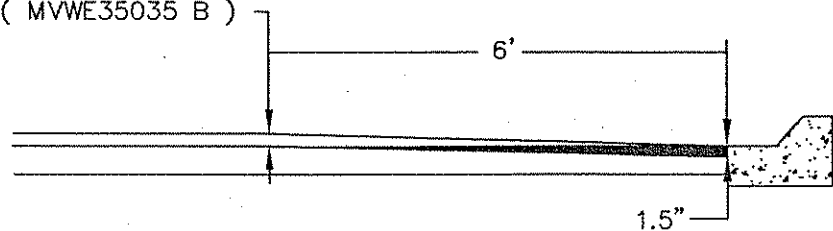
TYPICAL SECTIONS

MILL DETAILS STREET APPROACHES



MILL DETAILS A - A MILL AS DIRECTED BY THE ENGINEER

1.5" MV3 WEAR MIXTURE (MVWE35035 B)



NOTE: NOT TO SCALE

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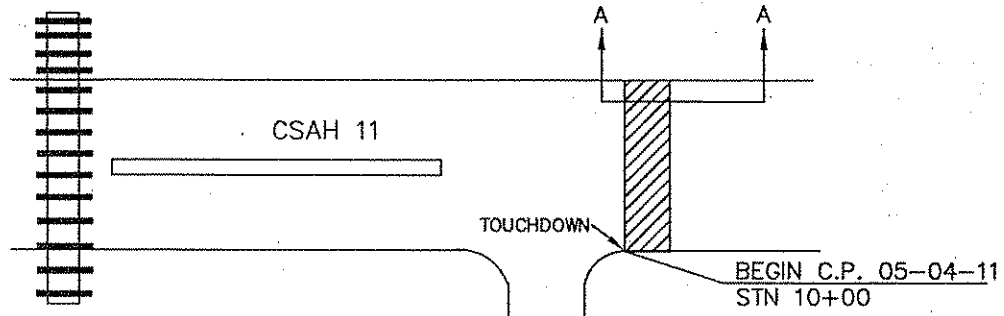
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DATE 4/14/05

SHEET NO. 6 OF 9 SHEETS

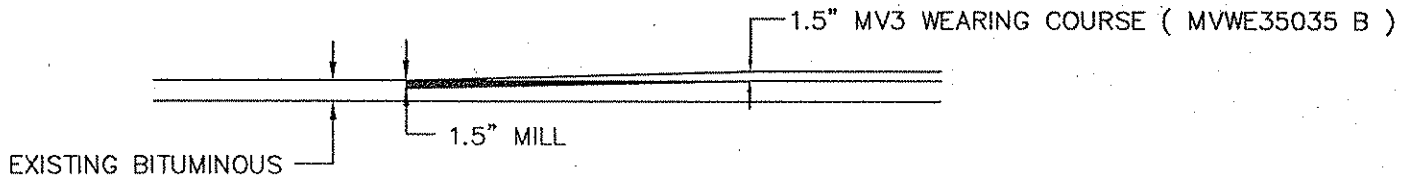
TYPICAL SECTIONS

BEGIN PROJECT

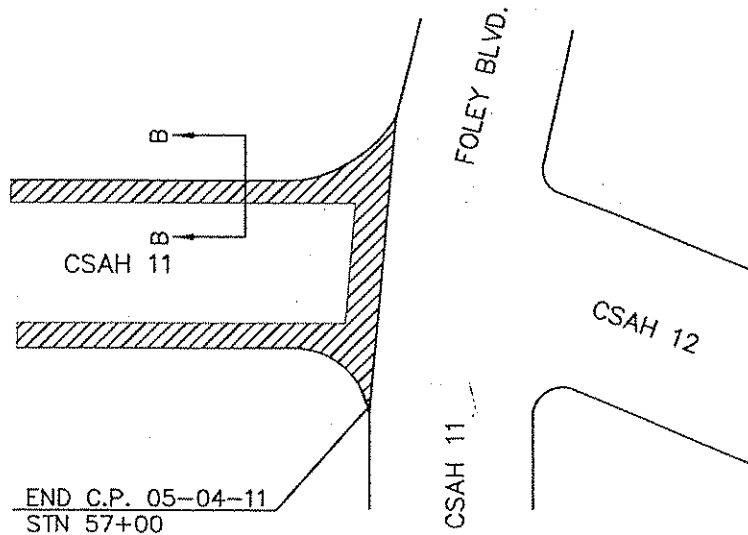


MILL DETAILS A - A

MILL AS DIRECTED BY THE ENGINEER

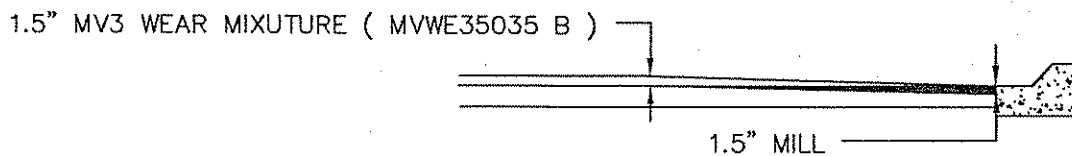


END PROJECT



MILL DETAILS B - B

MILL AS DIRECTED BY THE ENGINEER



NOTE: NOT TO SCALE

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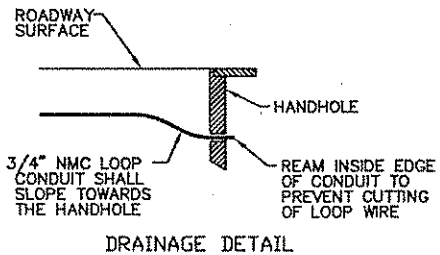
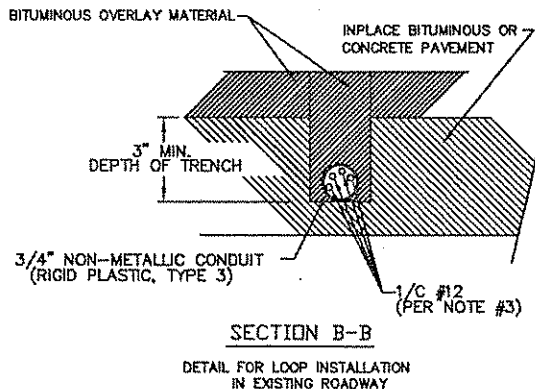
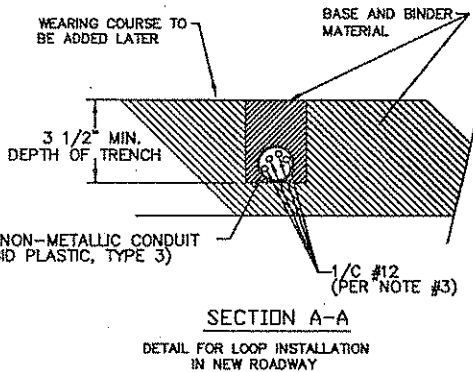
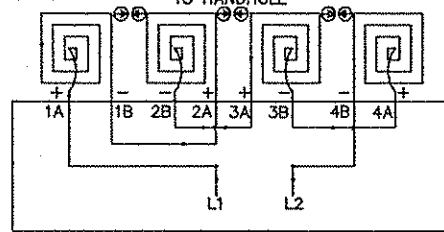
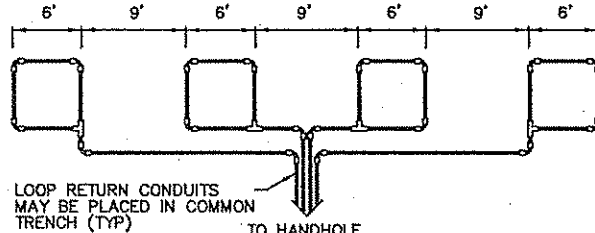
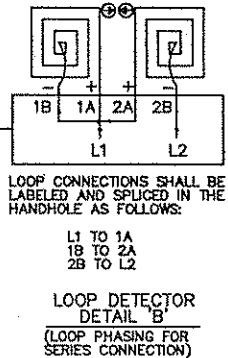
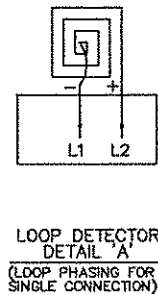
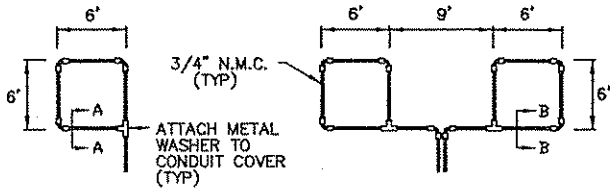
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C.P. 05-04-11

LIC. NO. 42757 DATE 4/14/08

SHEET NO. 7 OF 9 SHEETS

SIGNAL LOOP DETAIL



LOOP DETECTOR WIRING

- 1) ALL CORNERS SHALL BE 90° CONDUIT BENDS.
- 2) CONNECT WIRES IN HANDHOLES USING SPLICE KIT METHOD DESCRIBED IN THE SPECIAL PROVISIONS.
- 3) LOOP DETECTOR WIRES SHALL BE #12 AWG CROSSED LINKED POLYETHYLENE (XLP). SEE SPECIAL PROVISIONS.
- 4) LOOP LEAD IN WIRES SHALL BE TWISTED A MIN. OF (5) TURNS PER FOOT THROUGH THE CONDUIT TO THE HANDHOLE.
- 5) NMC DESIGNATES NON-METALLIC CONDUIT (SPEC. 3803)
- 6) LOOPS 6' x 6' THRU 6' x 14' SHALL HAVE (4) TURNS.
- 7) LOOPS 6' x 15' AND LARGER SHALL HAVE (2) TURNS.

NOTE: NOT TO SCALE

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C.P. 05-04-11

LIC. NO. 42757 DATE 4/14/05
SHEET NO. 8 OF 9 SHEETS

SIGNAL LOOP DETAIL

STANDARD PLATES	
THESE STANDARD PLATES AS APPROVED BY FHWA SHALL APPLY:	
PLATE NO.	DESCRIPTION
7035 L	CONCRETE WALK AND CURB RETURNS AT ENTRANCES
7036 E	PEDESTRIAN CURB RAMP
7100 G	CONCRETE CURB AND GUTTER (DESIGN B)
8110 D	TRAFFIC SIGNAL BRACKETING - POLE MOUNTED
8111 C	TRAFFIC SIGNAL BRACKETING - PEDESTAL MOUNTED
8112 C	PEDESTAL FOUNDATION
8114 A	PVC HANDHOLE/PULLBOX
8115 D	PEDESTRIAN PUSH BUTTON INSTALLATION
8118 C	SERVICE EQUIPMENT AND POLE-TRAFFIC CONTROL SIGNALS
8119 C	GROUND MOUNTED CABINET FOUNDATION
8120 K	IPAB5 POLE FOUNDATION
8121 D	TRANSFORMER BASE AND POLE BASE PLATE
8122 C	PEDESTAL AND PEDESTAL BASE
8123 E	POLE AND MAST ARM
8124 E	MAST ARM SIGNAL HEAD MOUNTS
8126 F	PABO AND PATOO POLE FOUNDATION

* -- APPLIES TO THIS PROJECT

CONDUCTOR COLOR CODE

R	RED
O	ORANGE
BL	BLUE
WH	WHITE
R/BLK	RED WITH BLACK TRACER
O/BLK	ORANGE WITH BLACK TRACER
BL/BLK	BLUE WITH BLACK TRACER
WH/BLK	WHITE WITH BLACK TRACER
BLK	BLACK
BLK/WH	BLACK WITH WHITE TRACER
G/BLK	GREEN WITH BLACK TRACER
G	GREEN

LEGEND OF SYMBOLS

CONTROLLER AND SERVICE EQUIP. NO'S	
SIGNAL BASE NO.	
SIGNAL FACE NO.	
LUMINAIRE NO.	
CONTROLLER AND CABINET	
CONTROLLER AND CABINET - IN PLACE	
HANDHOLE	
HANDHOLE - IN PLACE	
RIGID STEEL CONDUIT (RSC)	
RIGID STEEL CONDUIT (RSC) - IN PLACE	
SIGNAL FACE WITH BACKGROUND SHIELD	
SIGNAL FACE W/O BACKGROUND SHIELD	
SIGNAL FACE - IN PLACE	
PEDESTRIAN INDICATORS	
PEDESTRIAN INDICATORS - IN PLACE	
PEDESTRIAN PUSH BUTTONS ON PEDESTAL OR POLE	
PEDESTRIAN PUSH BUTTON STATION	
TRAFFIC SIGNAL PEDESTAL	
TRAFFIC SIGNAL PEDESTAL - INPLACE	
TRAFFIC SIGNAL POLE AND MAST ARM	
TRAFFIC SIGNAL POLE AND MAST ARM - IN PLACE	
STREET LIGHT POLE AND LUMINAIRE	
STREET LIGHT POLE AND LUMINAIRE - IN PLACE	
MAST ARM AND LUMINAIRE	
MAST ARM AND LUMINAIRE - INPLACE	
WOOD POLE	
WOOD POLE - IN PLACE	
SOURCE OF POWER	
RAILROAD SIGNAL - IN PLACE	
RIGHT OF WAY LINE	
CENTERLINE	
EDGE OF ROADWAY	
SHOULDERLINE	
CURB LINE	
STOP BAR	
EMERGENCY VEHICLE PREEMPTION DETECTOR	

ABBREVIATIONS

3-1(EG)	SIGNAL HEAD PHASE "3" - NO. "1"	P2-1(EG)	PED INDICATION PHASE "2" - NO. "1"
BR, GR.	BARE GROUND	PB	PUSH BUTTON
CH. SW.	CHECK SWITCH	PB2-1(EG)	PUSH BUTTON PHASE "2" - NO. "1"
CLR	CLEAR	PEC	PHOTOELECTRIC CELL
D2-1(EG)	DETECTOR PHASE "2" - NO. "1"	PED	PEDESTRIAN
DWK	DON'T WALK	R	RED
EDG	EQUIPMENT GROUND	R&S	REMOVE AND SALVAGE
EVP	EMERGENCY VEHICLE PRE-EMPTION	RLTA	RED LEFT TURN ARROW
F&I	FURNISH AND INSTALL	RRTA	RED RIGHT TURN ARROW
FL	FLASH/FLASHING	RSC	RIGID STEEL CONDUIT
G	GREEN	SOP	SOURCE OF POWER
GLTA	GREEN LEFT TURN ARROW	SPR	SPARE
GRN	GREEN	ST. LHT	STREET LIGHT
GR. R	GROUND ROD	STA	STATION
GRTA	GREEN RIGHT TURN ARROW	SW	SWITCH
GTHA	GREEN THRU ARROW	SVD	SWITCHED
HH	HANDHOLE	S&R	SALVAGE AND REINSTALL
HPS	HIGH PRESSURE SODIUM	TIW	TELEPHONE DROP WIRE
JB	JUNCTION BOX	WLK	WALK
LUM	LUMINAIRE	YEL	YELLOW
NEU	NEUTRAL	YLTA	YELLOW LEFT TURN ARROW
NMC	NONMETALLIC CONDUIT	YRTA	YELLOW RIGHT TURN ARROW
		YTHA	YELLOW THRU ARROW

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C.P. 05-04-11

SHEET NO. 9 OF 9 SHEETS