

ANOKA COUNTY HIGHWAY DEPARTMENT

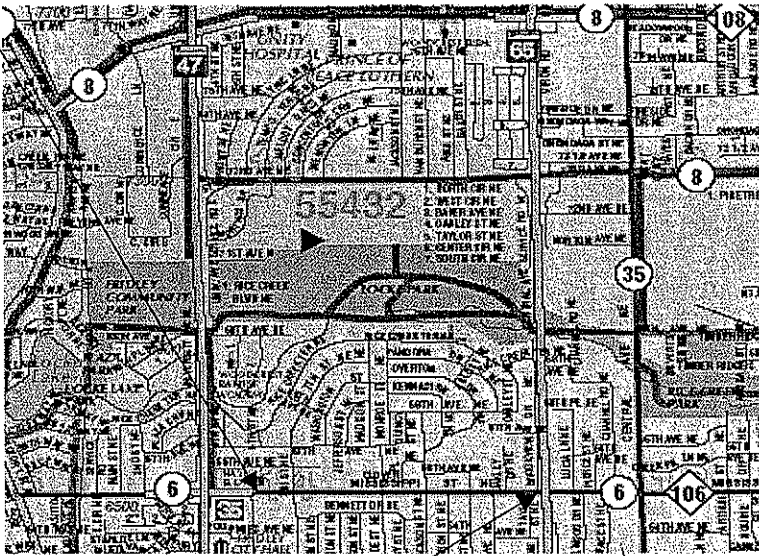
CONSTRUCTION PLAN FOR:

BIT. MILL, BIT. OVERLAY, CONC.
CURB REPAIR, STORM SEWER
REPAIR

CSAH NO: 6
FROM 150' EAST OF 5 TH ST
TO TH 65
FROM
TO

COUNTY PROJECT NO: 05-03-06
GROSS LENGTH 4400 FT 0.8 MI
BRIDGES LENGTH 0 FT 0 MI
EXCEPTION LENGTH 0 FT 0 MI
NET LENGTH 4400 FT 0.8 MI

BEGIN PROJECT C.P. 05-03-06 STATION 10+00



END PROJECT C.P. 05-03-06 STATION 54+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, 20 05

Robert J. ...
ANOKA COUNTY ENGINEER

STATEMENT OF ESTIMATED QUANTITIES

AB NO.	ITEM NO.	ITEM	NOTE NO.	UNIT	TOTAL EST. QUANT.
	2021.501	MOBILIZATION		LUMP SUM	1
A	2104.501	REMOVE CONCRETE CURB AND GUTTER		LIN FT	80
A	2104.513	SAWING BITUMINOUS PAVEMENT		LIN FT	112
	2232.501	MILL BITUMINOUS SURFACE (1.5")		SQ YD	23467
	2357.502	BITUMINOUS MATERIAL FOR TACK COAT		GALLON	1173
	2360.609	TYPE MV3 WEARING COURSE MIXTURE (MVWE35035 B)		TON	1936
	2360.609	TYPE LV3 WEARING COURSE MIXTURE FOR PATCHING (LVWE35030 B)		TON	8
A	2506.503	RECONSTRUCT DRAINAGE STRUCTURE		LIN FT	10
B	2506.516	CASTING ASSEMBLY		EACH	4
A	2506.602	GROUT CATCH BASIN OR MAN HOLE		EACH	9
A	2531.501	CONCRETE CURB AND GUTTER DESIGN B618		LIN FT	80
	2540.602	INSTALL MAIL BOX SUPPORT		EACH	4
	2563.601	TRAFFIC CONTROL		LUMP SUM	1
	2563.602	PORTABLE CHANGEABLE MESSAGE SIGN		UNIT DAY	10
	2564.603	4" DOUBLE SOLID LINE YELLOW TEMPORARY PAINT		LIN FT	3500
	2564.603	4" BROKEN LINE WHITE - TEMPORARY PAINT		LIN FT	1760
	2564.603	4" SOLID LINE WHITE - EPOXY		LIN FT	7500
	2564.603	4" BROKEN LINE WHITE - EPOXY		LIN FT	1760
	2564.603	4" DOUBLE SOLID LINE YELLOW - EPOXY		LIN FT	3500
	2564.603	24" SOLID LINE WHITE POLY PREFORM		LIN FT	96
	2564.604	ZEBRA CROSSWALK POLY PREFORM		SQ FT	612
	2565.602	LOOP DETECTOR 6'X6'		EACH	4
	2580.603	REMOVABLE LANE TAPE		LIN FT	1408


BASIS OF PLANNED QUANTITIES

2357.502 BITUMINOUS MATERIAL FOR TACK COAT
 2360.609 TYPE MV3 WEARING COURSE MIXTURE (MVWE35035 B)
 2580.603 REMOVABLE LANE TAPE

.05 GAL / SQ YD
 110 LBS/SQ YD/ IN THICKNESS
 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

CERTIFIED BY



ANDREW J. WITTER, P.E.

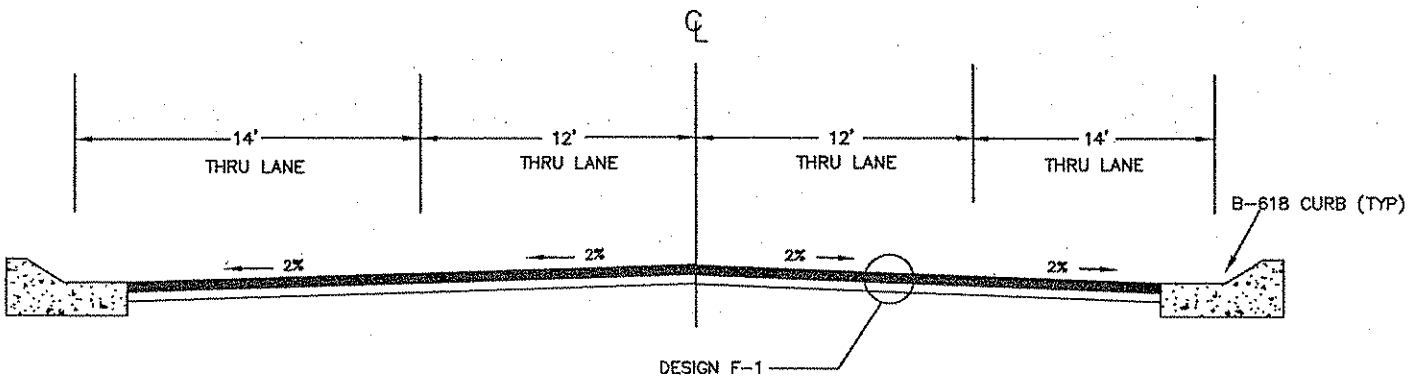
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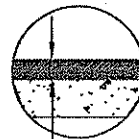
SHEET NO. 2 OF 8 SHEETS

TYPICAL SECTIONS

CSAH 6
STA 10+00 TO 54+00



DESIGN F-1



MILL 1.5" OF INPLACE BITUMINOUS
PAVE 1.5" TYPE MV3 WEARING COURSE (MVWE35035 B)

NOTE: NOT TO SCALE

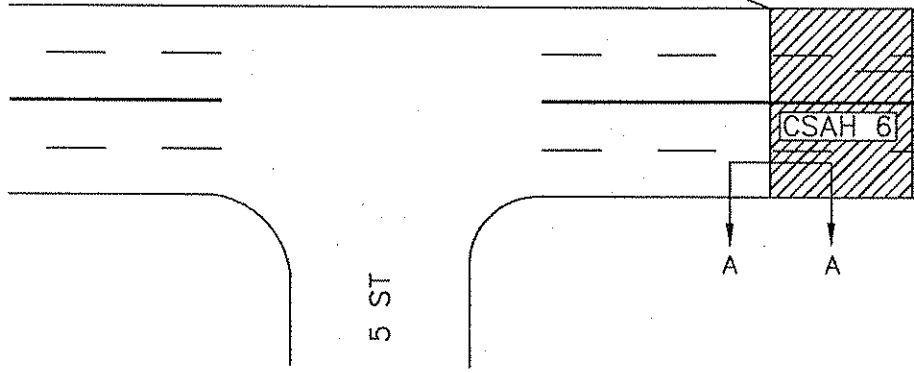
CERTIFIED BY Andy J. Witter
ANDY J. WITTER, P.E.
C.P. 05-03-06

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

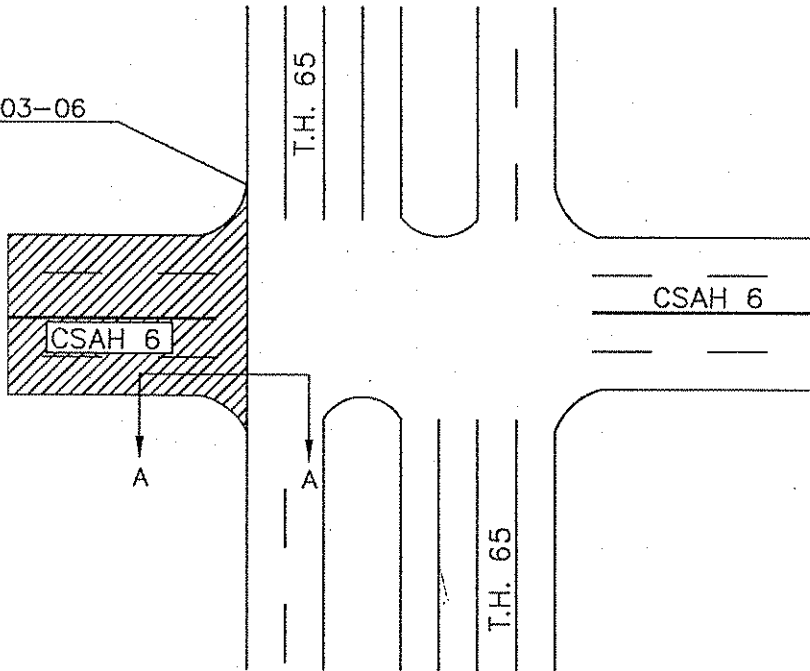
TRANSITION DETAILS

BEGIN / END PROJ.

BEGIN C.P. 05-03-06
STN 10+00

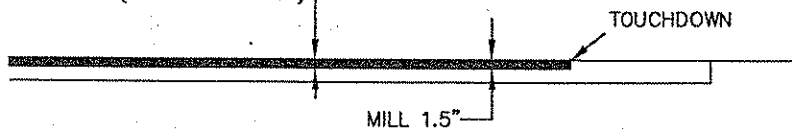


END C.P. 05-03-06
STN 54+00



TRANSITION DETAIL A - A
MILL AS DIRECTED BY THE ENGINEER

1.5" MV3 WEARING COURSE MIXTURE (MVWE35035 B)



NOTE: NOT TO SCALE

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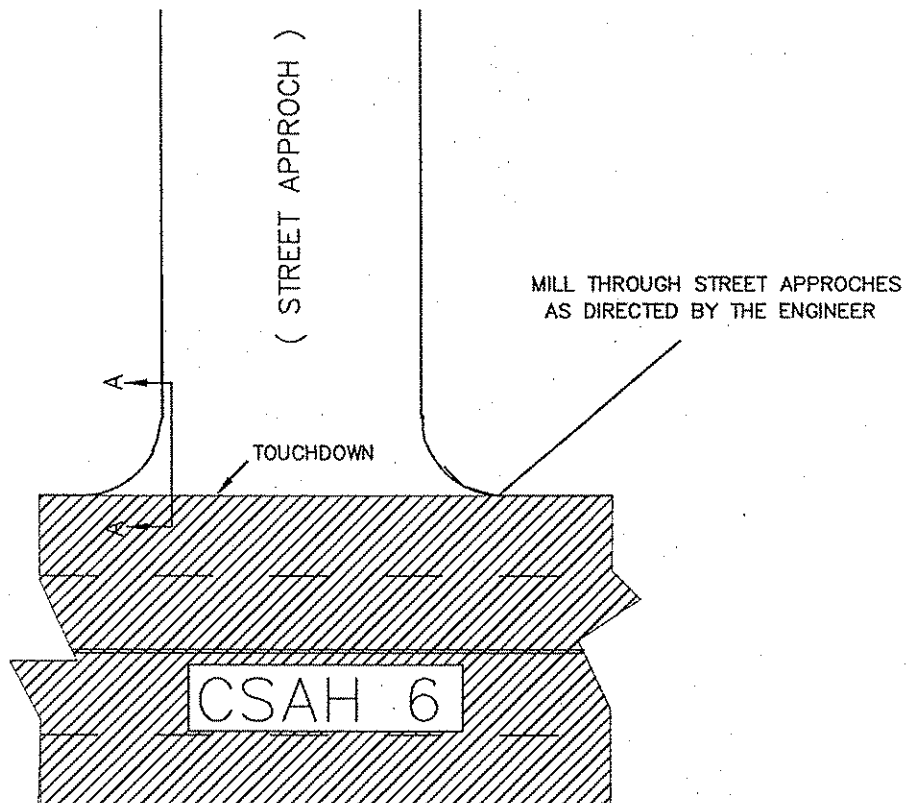
LIC. NO. 42757 DATE 4/14/05

C.P. 05-03-06

SHEET NO. 5 OF 8 SHEETS

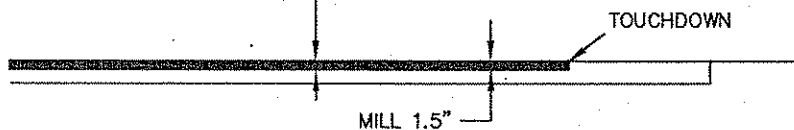
TYPICAL SECTIONS

JOINT DETAILS DRIVEWAYS/STREET APPROACHES



JOINT DETAILS A - A MILL AS DIRECTED BY THE ENGINEER

1.5" MV3 WEARING COURSE MIXTURE (MVWE35035 B)



NOTE: NOT TO SCALE

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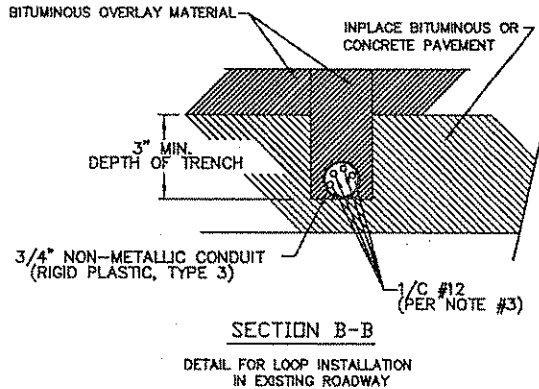
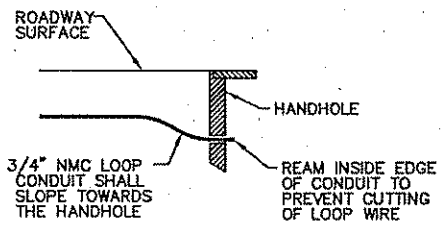
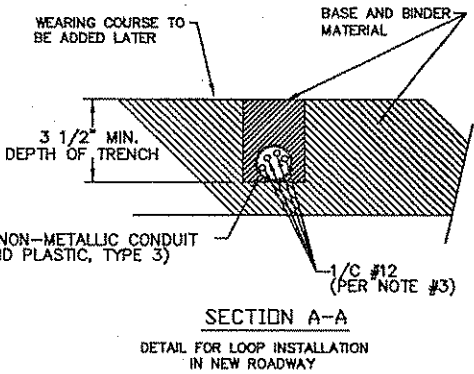
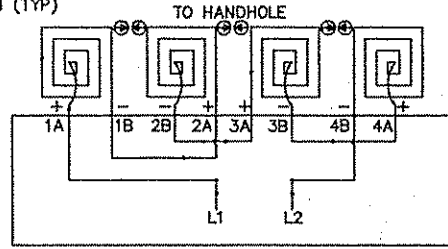
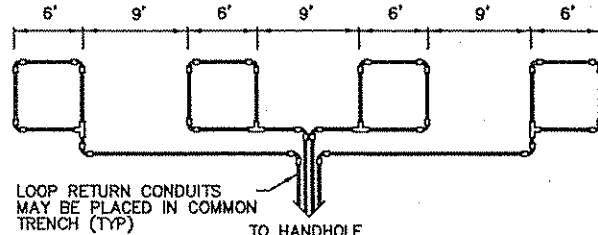
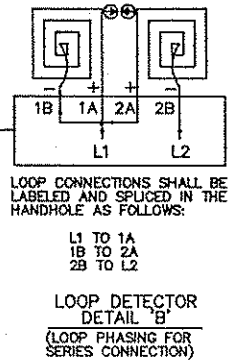
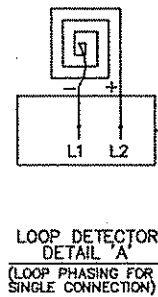
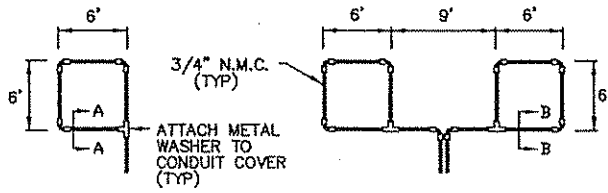
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SHEET NO. 6 OF 8 SHEETS

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. 05-03-06

LIC. NO. 42757 DATE 4/14/05
SHEET NO. 7 OF 8 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	PABS 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	(A)
SIGNAL BASE NO.	(B)
SIGNAL FACE NO.	(C)
LUMINAIRE NO.	(D)
CONTROLLER AND CABINET	(E)
CONTROLLER AND CABINET - IN PLACE	(F)
HANDHOLE	(G)
HANDHOLE - IN PLACE	(H)
RIGID STEEL CONDUIT (RSC)	(I)
RIGID STEEL CONDUIT (RSC) - IN PLACE	(J)
SIGNAL FACE WITH BACKGROUND SHIELD	(K)
SIGNAL FACE W/O BACKGROUND SHIELD	(L)
SIGNAL FACE - IN PLACE	(M)
PEDESTRIAN INDICATORS	(N)
PEDESTRIAN INDICATORS - IN PLACE	(O)
PEDESTRIAN PUSH BUTTONS ON PEDESTAL OR POLE	(P)
PEDESTRIAN PUSH BUTTON STATION	(Q)
TRAFFIC SIGNAL PEDESTAL	(R)
TRAFFIC SIGNAL PEDESTAL - INPLACE	(S)
TRAFFIC SIGNAL POLE AND MAST ARM	(T)
TRAFFIC SIGNAL POLE AND MAST ARM - IN PLACE	(U)
STREET LIGHT POLE AND LUMINAIRE	(V)
STREET LIGHT POLE AND LUMINAIRE - IN PLACE	(W)
MAST ARM AND LUMINAIRE	(X)
MAST ARM AND LUMINAIRE - INPLACE	(Y)
WOOD POLE	(Z)
WOOD POLE - IN PLACE	(AA)
SOURCE OF POWER	(AB)
RAILROAD SIGNAL - IN PLACE	(AC)
RIGHT OF WAY LINE	(AD)
CENTERLINE	(AE)
EDGE OF ROADWAY	(AF)
SHOULDERLINE	(AG)
CURB LINE	(AH)
STOP BAR	(AI)
EMERGENCY VEHICLE PREEMPTION DETECTOR	(AJ)

ABBREVIATIONS

3-(KEG)	SIGNAL HEAD PHASE "3" - NO. "1"	P2-(KEG)	PED INDICATION PHASE "2" - NO. "1"
BR. GR.	BARE GROUND	PB	PUSH BUTTON
CH. SW.	CHECK SWITCH	PB2-(KEG)	PUSH BUTTON PHASE "2" - NO. "1"
CLR	CLEAR	PEC	PHOTOELECTRIC CELL
D2-(KEG)	DETECTOR PHASE "2" - NO. "1"	PED	PEDESTRIAN
DWK	DON'T WALK	R	RED
EGG	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	SDP	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	SWD	SWITCHED
HJ	HANDHOLE	S&R	SALVAGE AND REINSTALL
HPS	HIGH PRESSURE SODIUM	TDW	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

CERTIFIED BY

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SHEET NO. 8 OF 8 SHEETS