

#### MICHIGAN DEPARTMENT OF TRANSPORTATION COST AGREEMENT FOR TRAFFIC SIGNAL CONTROL

Lansing	Reg
District	LTSC
County	

This Agreement Cancels and Supercedes All Previous Cost Agreements AND is terminable on thirty days notice by any party.

Typed Date 05/29/2015

LOCATION Modernization Traffic Signal Work Auth No. 17261

M150 (ROCHESTER) @ HAMLIN RD

ROCHESTER HILLS Oakland County Installation Date

\* Under authority of state law and by virtue of resolutions formally adopted by their respective governing bodies (and herein submitted), the undersigned hereby agree to participate in the cost of installation, maintenance and operation of the above traffic signal control on the basis of the division of costs as determined by the provision of applicable statutes. Details of installation are as shown on attached Michigan Department of Transportation plan dated 10/30/2014 Title to equipment shall remain with the purchasing agency, and the proper credit of salvaged value shall be issued to all parties upon removal of the equipment, in proportion to their share of original cost.

Cancels and Supercedes All Previous Cost Agreements

#### **PARTICIPATION**

AGENCY		(BY CONTRACT)	INSTAL	INSTALLATION		NANCE
			Per Cent	Estimated Cost	Per Cent	Estimated Annual Cost
Dept of Transportation 63132			0 %		50 %	\$720
ROCHESTER HILLS	City		0 %		50 %	\$720
ROAD COMMISSION FOR OAKLAND	C(		0 %		0 %	\$0
		Total	0 %		100 %	\$1,440

It is further agreed that the agency responsible for handling bills and/or leased line interconnection billings shall be MDOT

It is further agreed that the agency responsible for performing signal maintenance type D shall be ROAD COMMISSION FOR OAKLAND CO

		For Michigan Department of Transportation use ONLY.
APPROVED:	APPROVED:	APPROVED:
City of ROCHESTER HILLS	ROAD COMMISSION FOR OAKLAND CO	
Date	Date	By
	Ву	Engineer of Operations
(Title of Authorized Official)	(Title of Authorized Official)	Date
APPROVED:	APPROVED:	SIGNED:
Date	Date	MICHIGAN DEPARTMENT OF TRANSPORTATION  By  Deputy Director, Field Services
(Title of Authorized Official)	(Title of Authorized Official)	Date

<sup>\*</sup> Two copies of resolution must be submitted with this form.

# OUTLINE OF POLICY RELATING TO DIVISION OF MAINTENANCE COSTS FOR TRAFFIC SIGNALS

The "Maintenance Cost Agreement for Traffic Signal Controls" between the Michigan Department of Transportation and the county, township, city or village is based on the following policy:

- 1. The percentage of expense shall be divided on the basis of number of signalized directions. For instance, in the case of a four-legged intersection of which two state trunk line legs are both signalized and only one of the two county legs is signalized, 66-2/3% shall apply to the state trunk line and 33-1/3% to the county road.
- 2. A divided highway shall be considered the same as a two-way undivided highway.
- 3. The signalized direction for pedestrians shall be treated in the same manner as signalized vehicular direction.
- 4. In case of a contract municipality, the municipal share of expense shall include percentages for signalized directions on municipal streets, plus the municipal maintenance contract percentage of the share allocated to the signalized directions on state trunk lines.
- 5. In case of a signal being located at the intersection of two or more state trunk line maintenance sections, the "Trunk Line Share" shall be allocated to that maintenance section which extends in the north direction. If none extends in the north direction, then to the first leg encounterd starting from the north and progressing in a clockwise direction.

# OUTLINE OF POLICY RELATING TO DIVISION OF MAINTENANCE COSTS FOR ELECTRICAL SCHOOL SIGNS

The "Maintenance Cost Agreement for Traffic Signal Controls" between the Michigan Department of Transportation and the county, township, city or village is based on the following policy:

1. The Michigan Department of Transportation shall pay the entire cost of mechanical and routine maintenance, and the cost of energy billings.

#### EXPLANATION OF CODE FOR "TYPE OF INSTALLATION"

$$\frac{\text{SAMPLE}}{1} = \frac{1}{1} - \frac{4W}{2} - \frac{3C}{3} - \frac{S}{4} - \frac{A}{5}$$

### Explanation

- 1. The number of heads of each particular type of unit.
- 2. The number of signalized ways in the unit (4 ways).
- 3. The number of colors facing in each direction (3 colors).
- 4. How signal is supported: S-Span Suspension, M-Mast Arm, B-Bracket, P-Post or pedestal.
- 5. Solid or adjustable heads: S-Solid, A-Adjustable.

A pedestrian signal on a pedestal is designated by: 1-1W-2C-P-A.

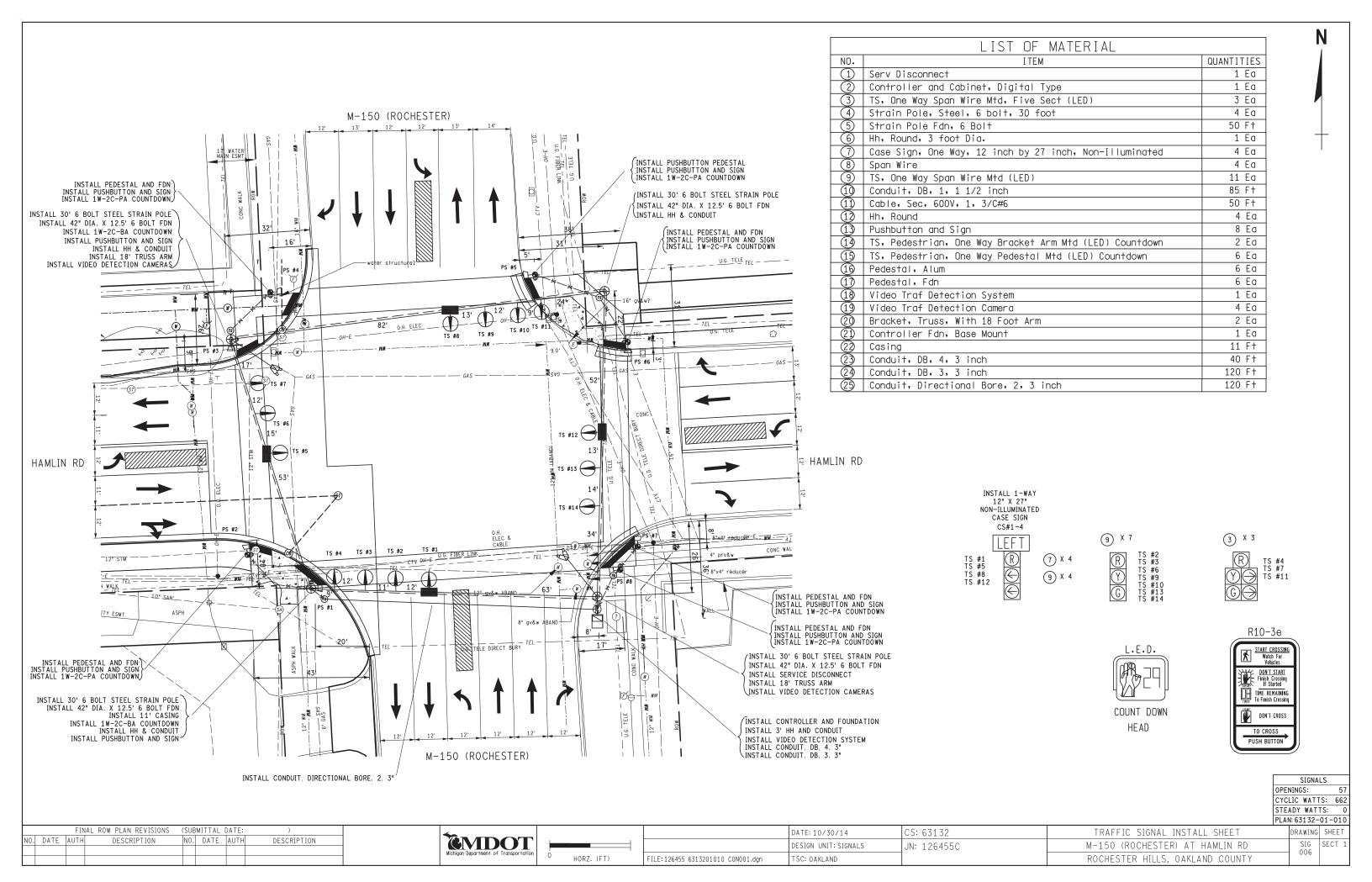
A pedestrian signal on a pole is designated by: 1-1W-2C-B-A.

#### EXPLANATION OF MDOT PLAN NUMBER

$$\frac{\text{SAMPLE}}{1} = \frac{65032}{1} - \frac{01}{2} - \frac{001}{3}$$

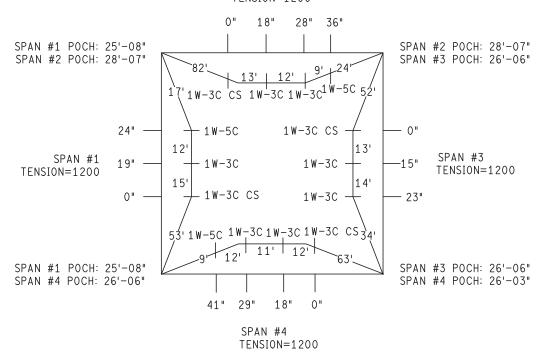
#### Explanation

- 1. Control section number.
- 2. Type of operation. (01-Stop and Go; 02-Flasher; 03-Keep Right Sign; 04-School Speed Limit; 05-School Flasher; 06-Street Lighting; 07-Illuminated Sign; 08-Emergency Traffic Signal; 09-Misc.).
- 3. Assigned number within a control section.



# BOX SPAN CALCULATIONS NOT TO SCALE

SPAN #2 TENSION=1200



### CABLES TO BE USED UNLESS SPECIFIED OTHERWISE

- TRAFFIC SIGNAL CABLES ARE 5/C#16 PJ.

- PEDESTRIAN SIGNALS & 1W-5C (DOGHOUSE) CABLES ARE 7/C#16 PJ.
  PUSHBUTTON CABLES ARE 2/C#16 SHIELDED PJ.
  CABLE TO VIDEO CAMERAS TO BE COMBINATION COAXIAL/POWER CABLE RG 59-3 CONDUCTOR 16AWG.

FOR ELECTRICAL SERVICE INSPECTION CONTACT THE MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS AT 248-496-0916 COST TO CONTRACTOR WILL BE INCIDENTAL.

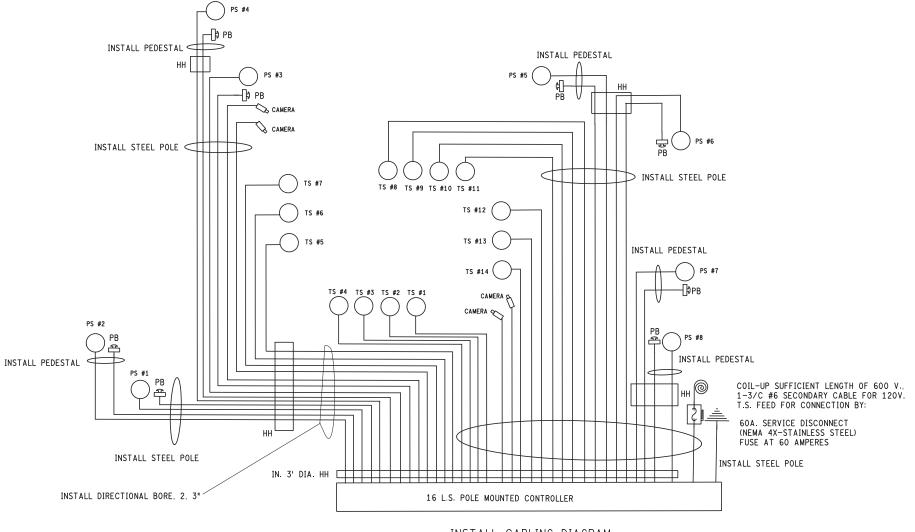
CONTACT: STEVE WHEELER OR AHMAD JAWAD (RCOC 248-858-7250) FOR LAYOUT OF AREAS OF DETECTION.

NOTE: DIGITAL TYPE CONTROLLER SHALL BE MODEL 52 SCATS NEMA COMPATIBLE WITH 16 LOAD SWITCH BASE MOUNTED. SCATS COMPATIBLE

CONTACT: BRIAN BOLLING OF DTE ENERGY AT (586-412-4715) FOR ELECTRICAL SERVICE CONNECTION. ESTIMATED COST TO CONTRACTOR IS \$0.00.

CONTRACTOR TO COORDINATE WITH STEVE WHEELER (RCOC AT 248-858-7250) FOR INSTALLING A PHONE LINE FOR THE INTERCONNECT.

VIDEO CAMERAS TO BE SCATS COMPATIBLE.



INSTALL CABLING DIAGRAM NOT TO SCALE

OPENINGS:	60
CYCLIC WATTS:	662
STEADY WATTS:	0
PLAN: 63132-01-	-010

SIGNALS

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:

**EMDOT** 

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Ó	HORZ. (FT)	

PLAN: 65152-01-0.				-01-010	
	DATE: 10/30/14	CS: 63132	TRAFFIC SIGNAL INSTALL SHEET	DRAWING	SHEET
	DESIGN UNIT: SIGNALS	JN: 126455C	M-150 (ROCHESTER) AT HAMLIN RD	SIG 007	SECT 1
FILE:126455 6313201010 C0N001.dgn	TSC: OAKLAND		ROCHESTER HILLS, OAKLAND COUNTY	007	