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### TRAFFIC SIGNAL LEGEND

••	PROPOSED SIGNAL POST	G.S.C.	GALVANIZED STEEL CONDUIT
<u> </u>	PROPOSED TRAFFIC SIGNAL MAST ARM W/STREET NAME SIGN & TRAFFIC SIGN	P.V.C.C.	POLYVINYL CHLORIDE CONDUIT
<b>2</b>	PROPOSED HANDHOLE	-	STREET NAME SIGN
24	PROPOSED DOUBLE HANDHOLE	=	TRAFFIC SIGN ON MAST ARM
	PROPOSED CONDUIT: 'T' TRENCH,	B	PROPOSED CONTROLLER
;	'P' PUSHED, SIZE SPECIFIED	<b>(A)</b>	STREET NAME OR TRAFFIC SIG
	PROPOSED SERVICE INSTALLATION		1 1

DETECTOR LODE REQUIREMENTS & CALCULATIONS

LOOP	PHASE	LOOP SIZE (FT)	REQUIRED NO. OF TURNS	CALCULATED INDUCTANCE microhenries	CALCULATED RESISTANCE ohms
				ИH	
		OLD TROY	ROAD AND GO	SHEN ROAD	
WRIT	ı <u>ı</u>				2.2
WB LT	1 6	6' X 50'	ROAD AND GO	SHEN ROAD 811 809	2.2 2.1
WB LT WB THRU NB LT	1 6 3		3-6-3	811	
WB THRU		6' X 50' 6' X 50'	3-6-3 3-6-3	811 809	2.1

THE ABOVE VALUES ARE CALCULATION OF COMBINED LOOP & LEAD-IN INDUCTANCE HOLD RESISTANCE, ACTUAL MEASURED VALUES SHOULD BE WITHIN +2 - 20% OF THESE VALUES.

## ELECTRICAL GENERAL NOTES:

- ALL VEHICLE SIGNAL HEADS SHALL HAVE 12 INCH L.E.D. INDICATIONS AND BLACK HOUSINGS. ALL MOUNTING HARDWARE, MAST ARM AND SIGNAL POSTS, BASES, AND MAST ARMS SHALL BE BLACK. ALL BOLTS, SCREWS, NUTS AND WASHERS SHALL BE STANLESS STEEL. ANTI-SIEZE PASTS COMPOUND SHALL BE USED ON ALL MOUNTING HARDWARE FIELD CONNECTIONS.
- 2. BACKPLATES SHALL BE ABS PLASTIC.
- 3. THE LOCATION OF MAST ARM SUPPORTS SHALL BE APPROVED BY THE ENGINEER BEFORE FOUNDATIONS ARE CONSTRUCTED. MAST ARM POLES SHALL BE LOCATED A MINIMUM OF 10 FEET FROM THE EDGE OF SHOULDER, WHICHEVER DISTANCE IS GREATER. IN CURBED SECTIONS, THE MAST ARM POLE SHALL BE LOCATED A MINIMUM OF 5 FEET FROM THE FACE OF CURB. THESE DISTANCES ARE TO THE NEAR FACE OF THE MAST ARM POLES SHALL BE CALVANIZED.
- 4. THE ESTIMATED DEPTHS OF CONCRETE FOUNDATIONS FOR MAST ARM SUPPORT POLES ARE:

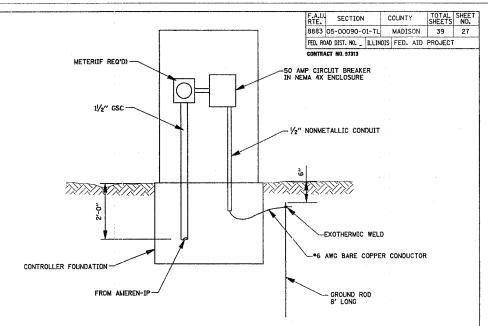
OLD TROY/GOSHEN

S.E. CORNER 13.0 F

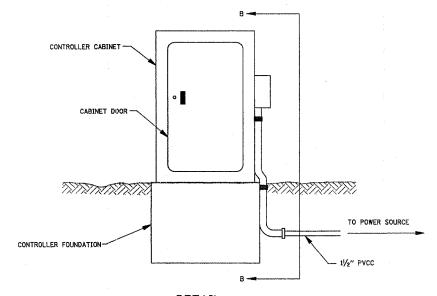
- 5. ALL TRAFFIC SIGNAL CABLES SHALL BE \*14 AWG STRANDED COPPER, UNLESS OTHERWISE SPECIFIED. TERMINAL ENDS SHALL HAVE CRIMPED-ON FULL RING TONGUE CONNECTORS.
- 6. THE LOCATION OF ALL DETECTOR LOOPS SHALL BE APPROVED BY THE ENGINEER BEFORE ANY SLOTS ARE SAWED IN THE PAVEMENT.
- 7. DETECTOR LOOP LEAD-IN SPLICES SHALL BE MADE IN A HANDHOLE PER ARTICLE 873.03 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STANDARD DRAWING 886001. CONDUCTORS SHALL BE SPLICED IN A RIGID MOLD. ROSIN-CORE SOLDER SHALL BE USED.
- 8. CALL DELAY SHALL NOT FUNCTION WHEN THE RELATED PHASES ARE IN THE GREEN MODE,
- 9. ALL HANDHOLES SHALL BE CAST-IN-PLACE PORTLAND CEMENT CONCRETE (PER ARTICLE 814.03(o)). THE CAST IN PLACE LEGEND IN THE COVER SHALL BE "TRAFFIC SIGNALS". SLOPE HANDHOLE COVERS TO MATCH PROPOSED GRADE ELEVATIONS.
- 10. ALL UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY ATTEMPT TO CONSTRUCT ANY COMPONENT OF THE VARIOUS TRAFFIC SIGNAL INSTALLATION. AGENCIES KNOWN TO HAVE UNDERGROUND FACILITIES WITHIN THE LIMITS OF THIS IMPROVEMENT ARE THE FOLLOWING (MEMBER OF JULLIE, PHONE (800) 892-0123 ARE INDICATED BY \*(CALL ONE WEEK BEFORE YOU PLAN TO DIG).
- CITY OF EDWARDSVILLE
- AMERENIP
- AT&T • CHARTER COMMUNICATIONS, INC.
- 11. ALL INDUCTIVE LOOP DETECTORS SUPPLIED FOR THIS PROJECT SHALL HAVE THE CAPACITY OF OPERATING WITH BOTH DELAY AND EXTENSION MODES ACTIVE, IF A TIME SETTING IS PROGRAMMED. THEY SHALL BE RACK MOUNTED.
- 12. THE CONTRACTOR SHALL FABRICATE, DELIVER AND INSTALL 3 STREET NAME SIGNS AT THE SPECIFIED LOCATIONS. THE SIGNS AND INSTALLATION SHALL CONFORM TO SECTION 720 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STANDARDS 720004 AND 720016
- TRE STANDARD OF THE STANDARD OF THE MAST ARM AS SHOWN ON THE PLANS. THESE SIGNS SHALL INSTALL THE STREET NAME SIGNS ON THE MAST ARM AS SHOWN ON THE PLANS. THESE SIGNS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR SIGN PANEL TYPE 2.
- 13. CABLE MARKING TAPE SHALL BE INCLUDED WITH THE PAY ITEM "TRENCH AND BACKFILL FOR ELECTRICAL "YORK" AND INSTALLED PER ARTICLE 819.05 OF THE STANDARD SPECIFICTIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- 14. ANCHOR BOLTS, NUTS, AND WASHERS REQUIRED WITH TYPE D FOUNDATION SHALL BE INCLUDED IN THE PAY ITEM "FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL."
- 15. THE CONTRACTOR SHALL INSTALL FOUR (4) GROUND RODS (3/4" X 12 FT. LONG) AND \*6 AWG BARE COPPER GROUND CONDUCTORS IN THE CONTROLLER FOUNDATION AS PER THE SPECIAL PROVISION, "CONCRETE FOUNDATION, TYPE D (SPECIAL)"
- 16. A  $1/4^{\prime\prime}$  NYLON PULL ROPE SHALL BE FURNISHED AND INSTALLED IN ALL SIGNAL CONDUITS, THIS WORK SHALL BE INCLUDED WITH THE CONDUIT PAY ITEMS.

## STANDARDS

720001 877001-02 720016-01 878001-05 805001 880006 814001-01 886001 814006-01 886006 857001



# SECTION B-B THESE ITEMS ARE INCLUDED IN THE PAY ITEM "SERVICE INSTALLATION (SPECIAL)"



### <u>DETAIL</u> SERVICE INSTALLATION, MODIFIED

TO BE PAID FOR AS CONDUIT IN TRENCH,  $1^{\prime}2^{\prime\prime}$  DIA., PVC THE TRENCH SHALL BE PAID FOR AS TRENCH AND BACKFILL FOR ELECTRICAL WORK