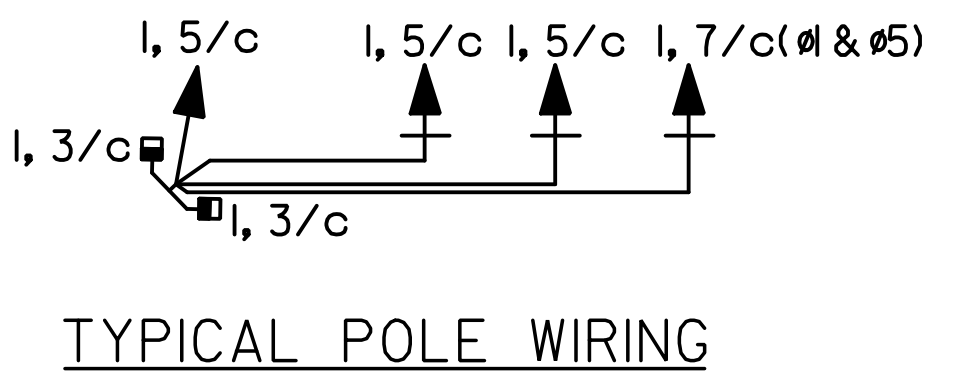


- ⊗ Power Supply
- ≠ Ground Wire #6 AWG
- \* Communication Cable

**WIRING DIAGRAM**



**SUMMARY OF TRAFFIC SIGNAL HEADS**

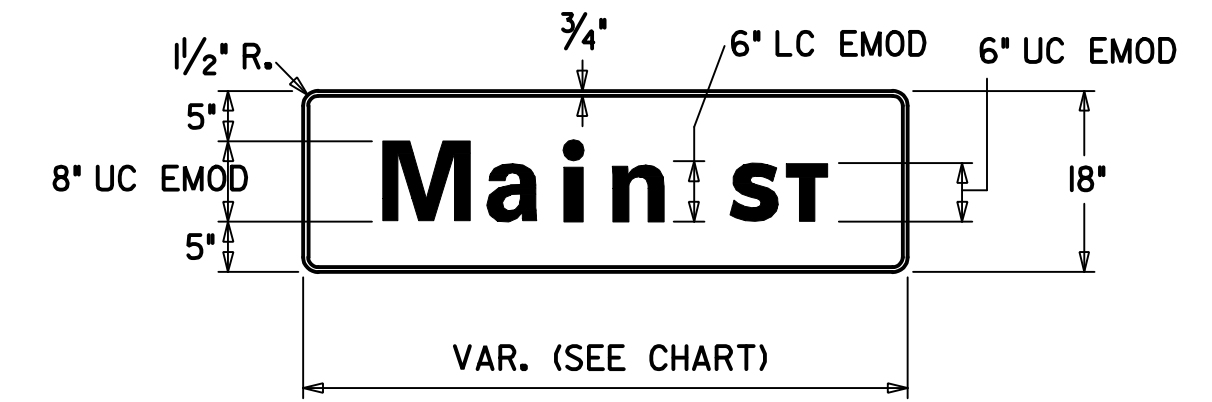
NUMBER	TYPE	SIZE	QUANTITY
2, 4, 6, 8	A	12"	13
1, 5	I	12"	2
2A, 6A, 8A	K	12"	6
TOTAL			21

**SERVICE BOX SUMMARY**

STATION	DIST.-SIDE
47+32	55' Lt.
47+52	73' Rt.
47+92.50	61' Lt.
47+95	54' Rt.
48+92	43' Rt.

**OVERHEAD STREET NAME SIGNS**

LEGEND	LENGTH	QUANTITY
← I 235 SB Gilda →	7'-0"	1
Central	5'-0"	2
← Gilda I 235 SB →	7'-0"	1



All splices to be in pole base, no splices permitted within service box.

**BILL OF MATERIALS**

ITEM	UNIT	QUANTITY
PAD MOUNTED CONTROLLER & CABINET	EACH	1
TRAFFIC SIGNAL HEAD W/MOUNTING HARDWARE	EACH	21
TRAFFIC SIGNAL POLE (JOINT USE) STEEL (35')	EACH	3
TRAFFIC SIGNAL POLE STEEL (20')	EACH	1
TRAFFIC SIGNAL PEDISTAL	EACH	1
CONCRETE CONTROLLER PAD	EACH	1
CONCRETE FOOTING - PEDESTAL	EACH	1
CONCRETE FOOTING - POLE	EACH	4
CONDUIT ELBOW 90°2"	EACH	AS REQ'D
CONDUIT ELBOW 90°3"	EACH	AS REQ'D
BACK PLATE 5" 3 SECTION	EACH	9
BACK PLATE 5" 5 SECTION	EACH	2
TERMINAL BLOCK	EACH	-
SERVICE BOX	EACH	5
JUNCTION BOX (PRE-FAB)	EACH	-
GROUND ROD & CLAMP	EACH	7
PEDESTRIAN INDICATIONS LED (12" COMBINATION)	EACH	6
LED TRAFFIC SIGNAL LENS	EACH	49
ENTRANCE HEAD	EACH	4
CIRCUIT BREAKER & BOX 50 AMP.	EACH	1
SURGE ARRESTOR - A.C.SERVICE	EACH	1
SURGE ARRESTOR - DETECTOR	EACH	-
PEDESTRIAN PUSHBUTTON W/SIGN	EACH	6
6 PR. COMMUNICATION CABLE	LIN.FT.	150
DETECTOR LOOP WIRE NO.14 AWG 1/c	LIN.FT.	-
LEAD-IN WIRE NO.6 AWG 1/c	LIN.FT.	AS REQ'D
MULTI-CONDUCTOR CABLE NO.14 AWG 7/c	LIN.FT.	700
MULTI-CONDUCTOR CABLE NO.14 AWG 5/c	LIN.FT.	1000
MULTI-CONDUCTOR CABLE NO.14 AWG 3/c	LIN.FT.	100
SHIELDED DETECTOR LEAD-IN NO.14 AWG 2/c	LIN.FT.	-
CONDUIT 1"(RGC)	LIN.FT.	AS REQ'D
CONDUIT 1 1/2"(RGC)	LIN.FT.	-
CONDUIT 2"(PVC)	LIN.FT.	-
CONDUIT 2"(RGC)	LIN.FT.	107
CONDUIT 3"(RGC)	LIN.FT.	520
*#6 AWG GROUND (GREEN)	LIN.FT.	500
STREET NAME SIGN	EACH	4
LEFT-TURN YIELD ON GREEN (R10-I2) SIGN	EACH	2
VIDEO DETECTION CAMERA, MOUNTING HARDWARE AND SUNSHIELD	EACH	4
VIDEO DETECTION UNIT	EACH	1
VIDEO POWER CABLE #16 A.W.G. 3/C	LIN.FT.	700
VIDEO CABLE 75 OHM COAXIAL (BELDON #8281OR APPROVED EQUAL)	LIN.FT.	700
TV MONITOR	EACH	1
MAST ARM CAMERA RISER BRACKETS	EACH	4

⌀ 4 Modules required

-QUANTITIES FOR INFORMATION ONLY-

NOTE: The traffic signal system shall be complete and the contractor shall furnish and install all equipment and materials necessary for the satisfactory operation of electrical apparatus and for the complete operation of the traffic signal system whether specifically mentioned or not.

**TRAFFIC SIGNAL POLE SUMMARY**

POLE NO.	TYPE	ARM LENGTH	NO. OF SIGNALS ON ARM	BRACKET TYPE	X1	X2	X3	X4	NO. OF SIGNALS ON POLE	BRACKET TYPE	NO. OF PUSH BUTTONS ON POLE	REMARKS
1	C	42	3	I	41	30	19	-	3	II/III	2	
2	C	23	2	I	22	11	-	-	2	II/III	1	
3	B	60	4	I	61	44	33	22	2	II/III	1	
4	C	18	2	I	17	6	-	-	1	II	-	
5	A	-	-	-	-	-	-	-	2	III	2	

- Ⓛ A-10' Pedestal (Alum.)
- B-20' Steel with Mast Arm(s)
- C-35' Steel (Joint Use) with Mast Arm(s)
- D-40' Steel with Mast Arm

**RECAPITULATION OF TRAFFIC SIGNAL QUANTITIES**

ITEM	UNIT	QUANTITY
TRAFFIC SIGNAL INSTALLATION Central/Gilda/I-235 S. Bd.	LUMP SUM	1
TEMPORARY TRAFFIC SIGNAL Central/Gilda/I-235 S. Bd.	LUMP SUM	1

**POLE AND EQUIPMENT FINISH:**

**Surface preparation**  
The exterior steel surface shall be blasted clean in accordance with the requirements outlined in the Steel Structures Painting Council Surface Preparation Specification No. 6, (SSPCSP60) utilizing a dry abrasive, closed cycle, recirculating system with centrifugal wheels and abrasive. The abrasive used shall be steel shot conforming to the Society of Automotive Engineers (SAE) Recommended Practice No. J827 with particle size meeting SAE Shot No. S280.

**Zinc Coating**  
The pole assembly shall be hot-dip galvanized to the requirements of either ASTM A123 (Fabricated items) or ASTM A153 (Hardware items) by immersion in a molten bath of prime western grade zinc maintained between 810o F and 850o F. Maximum aluminum content of the bath shall not exceed 0.01%.

**Top Coat**  
All visually exposed exterior surfaces shall be coated with a urethane or triglycidyl isocyanurate (TGIC) polyester powder to a minimum dry film thickness (DFT) of 0.05mm (2.0 mils). Prior to application of the topcoat, the surface shall be mechanically etched and pre-heated to 450o F for a minimum of one hour. The coating shall be electrostatically applied and cured at a minimum temperature of 400o F and the color shall be black.

Professional Engineering Consultants, P.A.  
303 S. TOPEKA • WICHITA, KANSAS 67202  
316-262-2691 • FAX 316-262-3003

Designed by BER Job No. 06655  
Drawn by DRP Date Jan. 2008

Sht. 64 of 142