

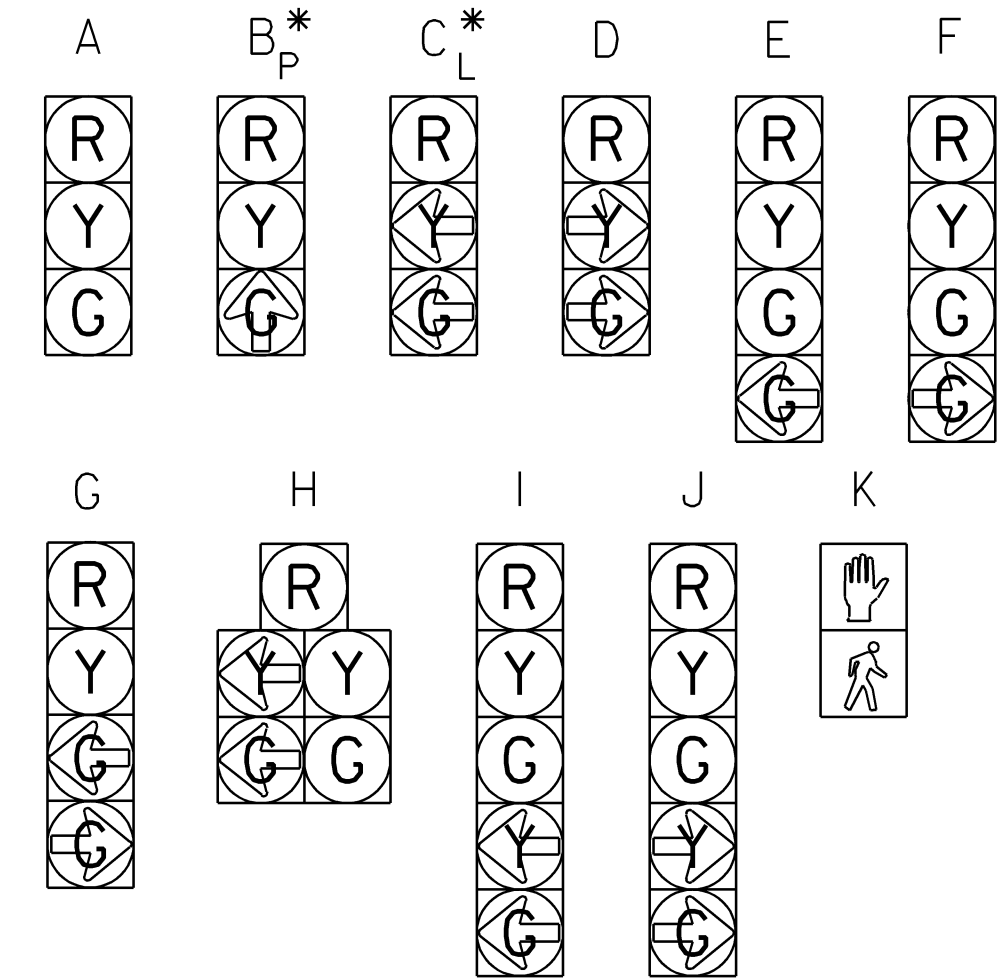
BILL OF MATERIALS (FOR INFORMATION ONLY)

ITEM	QUANT.	UNIT	SPEC. NO.	NOTE
CONTROLLER UNIT (2070)	CITY	EACH	3.2.3.5	
PROGRAM MODULE	-	EACH	3.2.3.6	
CONFLICT MONITOR (2010 ECL)	CITY	EACH	3.2.3.7	
FLASHER	-	EACH	3.2.3.8	
LOAD SWITCH	-	EACH	3.2.3.9	
FLASH TRANSFER RELAY	-	EACH	3.2.3.10	
SURGE PROTECTOR	-	EACH	3.2.3.11	
DC ISOLATOR	-	EACH	3.2.3.12	
AC ISOLATOR	-	EACH	3.2.3.13	
DETECTOR, 2-CHANNEL	-	EACH	3.2.3.14	
DETECTOR, 4-CHANNEL	-	EACH	3.2.3.14	
POLE MOUNTED CABINET	-	EACH	3.2.3.4 3.2.3.4.5	
PAD MOUNTED CABINET	1	EACH	3.2.3.4 3.2.3.4.6	
TRAFFIC SIGNAL HEAD	CHART A	EACH	3.2.4	
SIGNAL HEAD MOUNTING BRACKET	CHART A	EACH	3.2.6	
BACK PLATE	CHART A	EACH	3.2.7	
VEHICLE TRAFFIC SIGNAL LAMP	53	EACH	3.2.5	
PEDESTRIAN TRAFFIC SIGNAL LAMP	16	EACH	3.2.5	
L.E.D. LENS	CHART A	EACH	3.2.4.4	
PEDESTRIAN PUSHBUTTON & SIGN	8	EACH	3.2.8, 3.2.9	
TRAFFIC SIGNAL POLE	CHART B	EACH	3.2.10	
TRAFFIC SIGNAL PEDESTAL ALUMINUM	4	EACH	3.2.11	
TERMINAL BLOCK	-	EACH	3.2.12	
CONCRETE FOOTING - TRAFFIC SIGNAL POLE	4	EACH		
CONCRETE FOOTING - PEDESTRIAN PEDESTAL	4	EACH		
LUMINAIRE	-	EACH	3.2.16	
LUMINAIRE LAMP WATT	-	EACH	3.2.17	
PHOTOCELL	-	EACH	3.2.18	
UNFUSED STREET LIGHT CONNECTOR KIT	-	EACH	3.2.19	
FUSED STREET LIGHT CONNECTOR KIT	-	EACH	3.2.20	
OVERHEAD STREET NAME SIGN	CHART C	EACH	3.2.21	
RIO-10 SIGN (24" X 30")	-	EACH	3.2.22	
RIO-12 SIGN (24" X 30")	4	EACH	3.2.22	
BLANK OUT SIGN	-	EACH	3.2.23	
ENTRANCE HEAD	-	EACH	3.2.24	
SERVICE ENCLOSURE, AMP.	-	EACH	3.2.25	
CIRCUIT BREAKER, TRAFFIC SIGNAL, AMP.	1	EACH	3.2.26	
CIRCUIT BREAKER, LUMINAIRE, AMP.	-	EACH	3.2.26	
GROUND ROD & CLAMP	9	EACH	3.2.27, 3.2.28	
SERVICE WIRE NO. 6 AWG 1/C	-	LIN FT	3.2.29	
LIGHTING DISTRIBUTION WIRE NO. 8 AWG 1/C	-	LIN FT	3.2.30	
POLE & BRACKET WIRE NO. 10 AWG 1/C	-	LIN FT	3.2.31	
GROUND WIRE NO. 8 AWG 1/C	610	LIN FT	3.2.32	
MULTI-CONDUCTOR CABLE NO. 14 AWG 5/C	458	LIN FT	3.2.33	
MULTI-CONDUCTOR CABLE NO. 14 AWG 7/C	1,452	LIN FT	3.2.33	
MULTI-CONDUCTOR CABLE NO. 14 AWG 1/C	90	LIN FT	3.2.33	
VIDEO DETECTION UNIT (VANTAGE EDGE MODULE OR APPROVED EQUAL)	4	EACH		
VID. DET. CAM. (VANTAGE OZ2), MOUNTING HARDWARE (OR APPROVED EQUAL)	4	EACH		
VIDEO CABLE 75 OHM COAXIAL (BELDON #8281OR APPROVED EQUAL)	740	LIN FT		
VIDEO POWER CABLE #16 A.W.G. 3/C	740	LIN FT		
CONDUIT, 1" & FITTINGS	-	LIN FT	3.2.38	
CONDUIT, 1 1/2" & FITTINGS	-	LIN FT	3.2.38	
CONDUIT, 2" & FITTINGS	80	LIN FT	3.2.38	
CONDUIT, 3" & FITTINGS	320	LIN FT	3.2.38	
CONDUIT, 4" & FITTINGS	-	LIN FT	3.2.38	

* Does not include slack as required in specifications.

CHART A SIGNAL SUMMARY

SIGNAL FACE ARRANGEMENT	NO. SECTIONS (PER FACE)	SIGNAL MOUNTING TYPE	QUANTITY
A	3	MAST ARM W/BACKPLATE	7
I	5	MAST ARM W/BACKPLATE	4
A	3	SIDE-OF-POLE	4
K	1	SIDE-OF-POLE	8



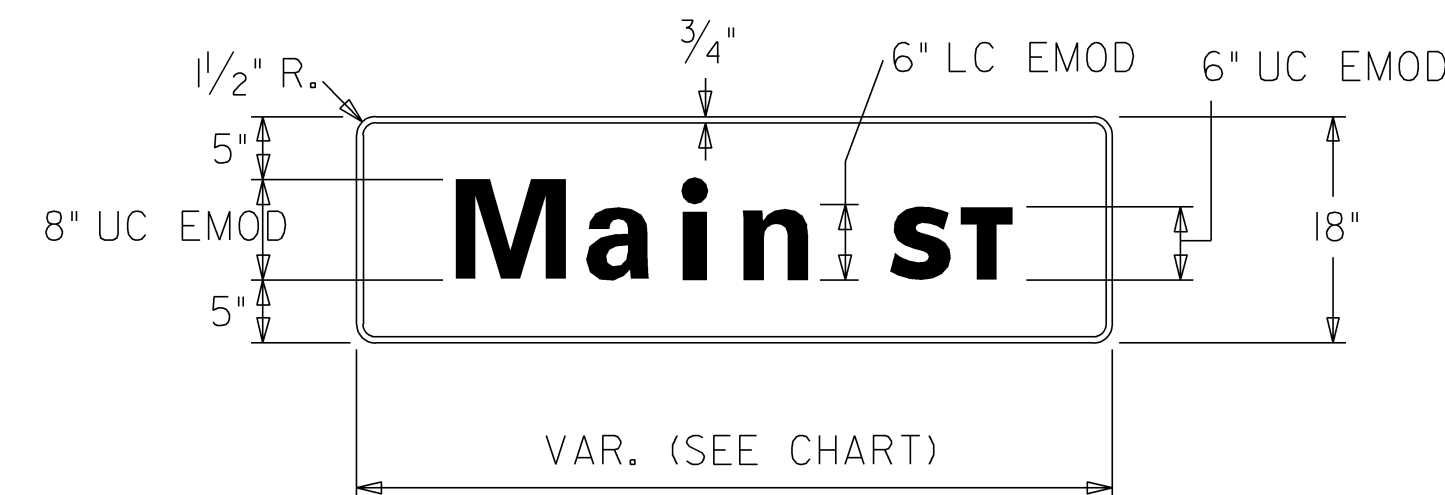
* SUBSCRIPT "P" INDICATES PROGRAMMED SIGNALS;
SUBSCRIPT "L" INDICATES L.E.D. LENSES.

CHART B TRAFFIC SIGNAL POLES

POLE HEIGHT	SIGNAL ARM LENGTH	SIGNAL ARM MOUNTING HEIGHT	NO. OF SIGNALS ON ARM	SIGNAL SPACING	LUMINAIRE ARM LENGTH	LUMINAIRE MOUNTING HEIGHT	QUANT.
1. 20'	20'	19	2	38', 12'	-	-	1
2. 20'	20'	19	3	21', 11', 11.5'	-	-	1
3. 20'	20'	19	3	8.5', 11', 11.5'	-	-	1
4. 20'	20'	19	3	25', 11', 11.5'	-	-	1
5. 15'	-	-	-	-	-	-	1
6. 15'	-	-	-	-	-	-	1
7. 15'	-	-	-	-	-	-	1
8. 15'	-	-	-	-	-	-	1

CHART C OVERHEAD STREET NAME SIGNS

SIGN	LEGEND	LENGTH	QUANTITY
	Maize Rd.		2
	Pawnee		2



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 COMPLETE OPERATION OF THE TRAFFIC SIGNAL SYSTEM WHETHER SPECIFICALLY MENTIONED OR NOT.
- ALL SIGNALS SHALL BE HIFLUX.
- ALL ARROWS SHALL BE OMNIDIRECTIONAL.

BID ITEM

ITEM	UNIT	QUANTITY
TRAFFIC SIGNAL INSTALLATION	L.S.	L.S.

-QUANTITIES FOR INFORMATION ONLY-

3				
2				
1	03/26/2003	Current version		
NO.	DATE		BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION
TYPE 170E SYSTEM
TRAFFIC SIGNAL QUANTITIES SHEET

TEI30B-				
FHWA APPROVAL	J.F.F. DETAILED	04/29/03 APP'D	Linda G. Voss, P.E.	
DESIGNED	J.F.F. QUANTITIES		TRACED	
DESIGN CK.	G.J.O. DETAIL CK.	G.J.O. QUAN. CK.	TRACE CK.	