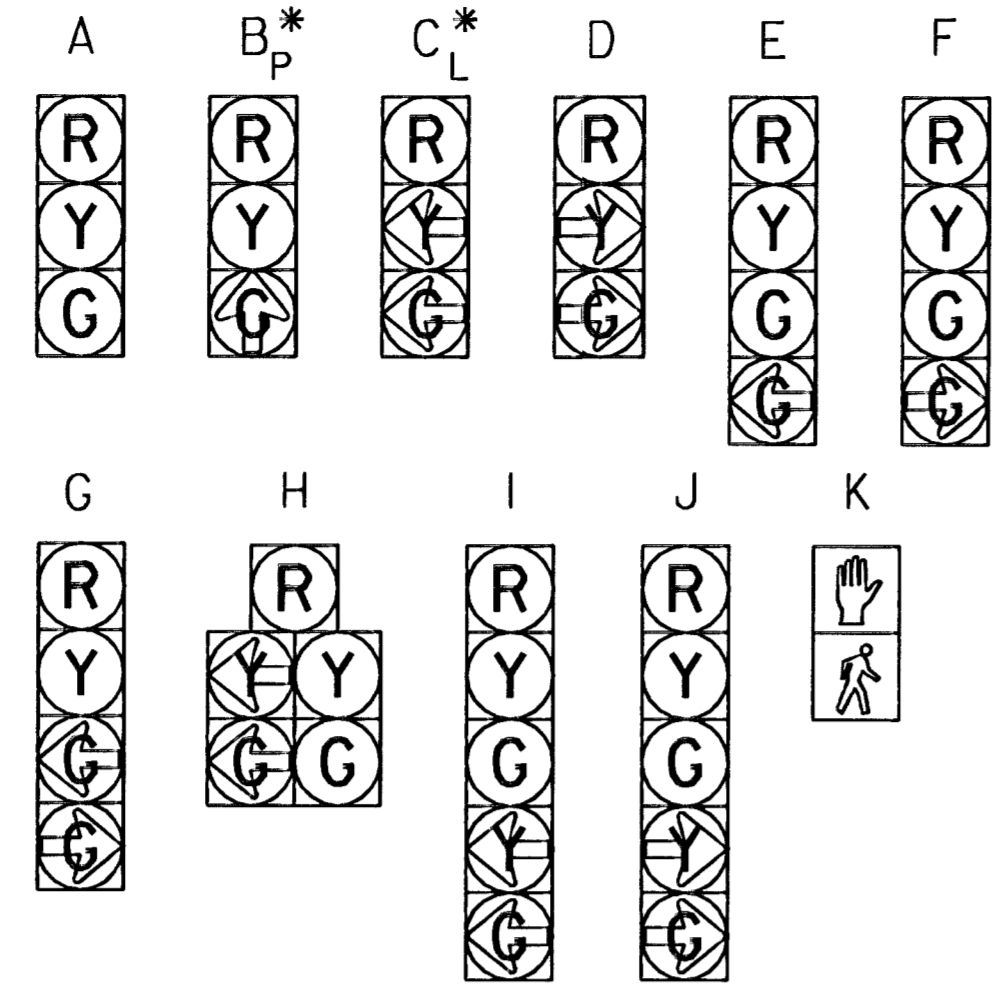


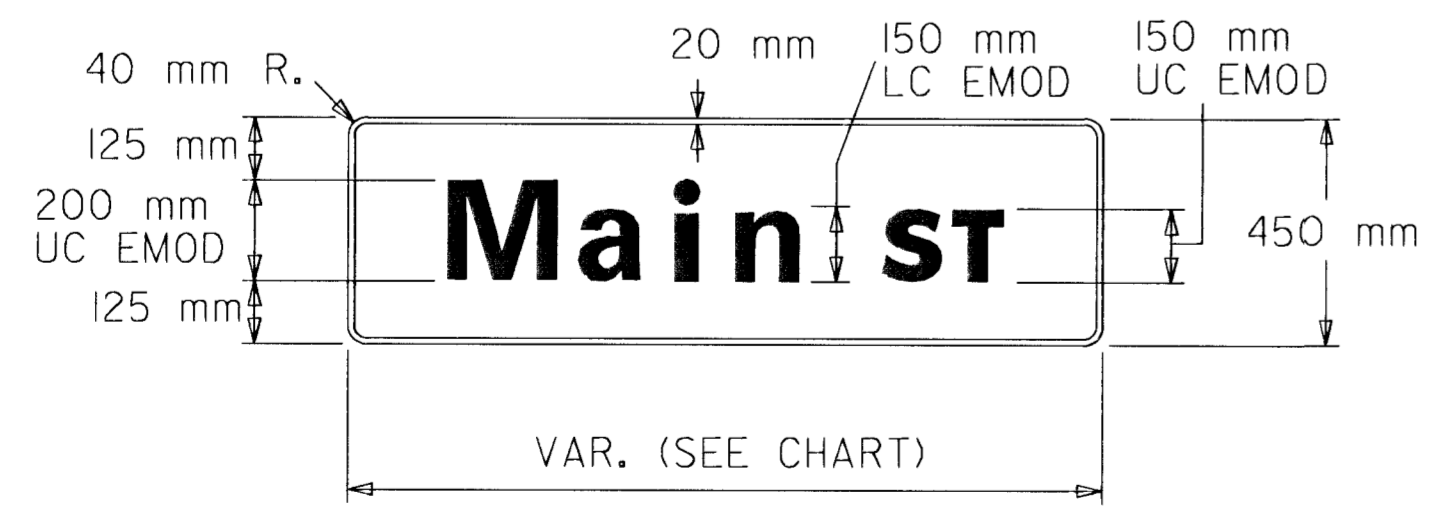
CHART A SIGNAL SUMMARY			
SIGNAL FACE ARRANGEMENT	NO. SECTIONS (PER FACE)	SIGNAL MOUNTING TYPE	QUANTITY
A	3	MAST ARM W/BACKPLATE	8
I	5	MAST ARM W/BACKPLATE	4
		MAST ARM W/BACKPLATE	
A	3	SIDE-OF-POLE	4
K	2	SIDE-OF-POLE	8
		SIDE-OF-POLE	



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

CHART B TRAFFIC SIGNAL POLES								
POLE DESIG.	POLE HEIGHT	SIGNAL ARM LENGTH	SIGNAL ARM MOUNTING HEIGHT	NO. OF SIGNALS ON ARM	SIGNAL SPACING	LUMINAIRE ARM LENGTH	LUMINAIRE MOUNTING HEIGHT	QUANT.
P1	11m	12 m	5.8 m	3	12 - 9.5 - 6.1	2 m	12.2 m	1
P2	11m	17 m	5.8 m	3	17 - 14 - 11	2 m	12.2 m	1
P3	11m	16 m	5.8 m	3	16 - 13.1 - 9.8	2 m	12.2 m	1
P4	11m	16 m	5.8 m	3	16 - 12.8 - 9.4	2 m	12.2 m	1

CHART C OVERHEAD STREET NAME SIGNS			
SIGN	LEGEND	LENGTH	QUANTITY
	Oliver		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.

BILL OF MATERIALS

ITEM	QUANT.	UNIT	NOTE
CONTROLLER UNIT I70 E	1	EACH	W/ 400 MODEM
PROGRAM MODULE 470 IB	1	EACH	
CONFLICT MONITOR	1	EACH	
FLASHER	2	EACH	
LOAD SWITCH	12	EACH	
FLASH TRANSFER RELAY	4	EACH	
SURGE PROTECTOR	1	EACH	
DC ISOLATOR	3	EACH	
AC ISOLATOR		EACH	
DETECTOR, 2-CHANNEL C 800	12	EACH	
DETECTOR, 4-CHANNEL		EACH	
POLE MOUNTED CABINET		EACH	
PAD MOUNTED CABINET	1	EACH	
DIAL UP MODEM (HAYES COMPATIBLE)	1	EACH	
STAND ALONE MODEL 400 MODEM (HAYES COMPATIBLE)	1	EACH	
TRAFFIC SIGNAL HEAD	CHART A	EACH	
SIGNAL HEAD MOUNTING BRACKET	CHART A	EACH	
BACK PLATE	CHART A	EACH	
VEHICLE TRAFFIC SIGNAL LAMP	64	EACH	
PEDESTRIAN TRAFFIC SIGNAL LAMP	16	EACH	
PEDESTRIAN PUSHBUTTON & SIGN	8	EACH	
TRAFFIC SIGNAL POLE	CHART B	EACH	
TRAFFIC SIGNAL PEDESTAL ALUMINUM		EACH	
TERMINAL BLOCK		EACH	
JUNCTION BOX	12	EACH	
SERVICE BOX	4	EACH	
LUMINAIRE		EACH	
LUMINAIRE LAMP WATT		EACH	
PHOTOCELL		EACH	
UNFUSED STREET LIGHT CONNECTOR KIT		EACH	
FUSED STREET LIGHT CONNECTOR KIT		EACH	
OVERHEAD STREET NAME SIGN	CHART C	EACH	
R10-I0 SIGN (600 mm X 750 mm)		EACH	
R10-I2 SIGN (600 mm X 750 mm)	4	EACH	
BLANK OUT SIGN		EACH	
ENTRANCE HEAD	1	EACH	
SERVICE ENCLOSURE, AMP.	1	EACH	
CIRCUIT BREAKER, TRAFFIC SIGNAL, AMP.	1	EACH	
CIRCUIT BREAKER, LUMINAIRE, AMP.		EACH	
GROUND ROD & CLAMP	6	EACH	
SERVICE WIRE NO. 6 AWG 1/C	45	METER	
LIGHTING DISTRIBUTION WIRE NO. 4 AWG 2/C	195	METER	
POLE & BRACKET WIRE NO. 10 AWG 1/C		METER	
GROUND WIRE NO. 8 AWG 1/C	165	METER	
MULTI-CONDUCTOR CABLE NO. 14 AWG 5/C	60	METER	
MULTI-CONDUCTOR CABLE NO. 14 AWG 7/C	650	METER	
MULTI-CONDUCTOR CABLE NO. 14 AWG 1/C		METER	
COMMUNICATION CABLE NO. 19 AWG 6 PR	240		
SHIELDED DETECTOR LEAD-IN CABLE NO. 14 AWG 2/C	1150	METER	
DETECTOR LOOP WIRE NO. 14 AWG 1/C	1370	METER	
LOOP SEALANT	AS REQ'D		
PRE-FORMED LOOP		EACH	
SPLICE KIT	2	EACH	
CONDUIT, 25 mm & FITTINGS	160	METER	
CONDUIT, 40 mm & FITTINGS	115	METER	
CONDUIT, 50 mm & FITTINGS	90	METER	
CONDUIT, 75 mm & FITTINGS	160	METER	
CONDUIT, 100 mm & FITTINGS		METER	

FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	87 N-0092-01	1999	35	75

-QUANTITIES FOR INFORMATION ONLY-
To be bid as "Traffic Signalization - Lump Sum"

3				
2				
1				
NO.	DATE	BY	APP'D	

KANSAS DEPARTMENT OF TRANSPORTATION

TYPE I70E SYSTEM
TRAFFIC SIGNAL QUANTITIES SHEET

TEI30BSI 04/28/98
 FHWA APPROVAL 05/18/98 APP'D Linda G. Voss, P.E.
 DESIGNED J.F.F. DETAILED J.F.F. QUANTITIES TRACED
 DESIGN CK. D.A.C. DETAIL CK. D.A.C. QUAN. CK. TRACE CK.

Plotted By : J. Olson
 Plot File : I827V1E130bsi
 Plot Date : 5-31-00
 Tracher Bldg., 4th Floor