



POLE WIRING DIAGRAMS
Note: Pushbutton to be wired with 2,1/C to pole base connection

- #8AWG Equipment Ground (Green)
 - ⊕ Power Supply
 - V3 Video Power Cable
 - CX Video Coax Cable
 - △ Signal Pole Reference Number
- All splices to be in pole base, no splices permitted within service box.

Top Coat Finish for Traffic Signal Poles & Controller Cabinet
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 2.0 mils. Prior to application of the top coat, the surface shall be mechanically etched and pre-heated to 450 degrees F for a minimum of one hour. The coating shall be electro-statically applied and cured at a minimum temperature of 400 degrees F. The finished color for the poles shall be black and approved by the Engineer prior to application on the basis of color chip submittals.

Special Finish for Traffic Signal Equipment
The traffic signal, mounting brackets, signal head backs, sign backs, meter box, disconnect box, and miscellaneous hardware shall be shop painted with an aerosol lacquer cellulose ester to match the traffic signal pole color. The Contractor shall submit two copies of the proposed coating system to the Engineer for approval prior to application. In addition to the requirements stipulated in the Standard Specifications, banding material shall be coated with ethylene-vinyl-alcohol (EVA) copolymer. The color shall be black.

NOTE:
The contractor shall supply and install all necessary materials and equipment for the complete installation and operation of the traffic signal system whether specifically mentioned or not.

POLE NO	TYPE ①	ARM LENGTH	NO.OF SIGNALS ON ARM	BRACKET TYPE	X1	X2	X3	NO.OF SIGNALS ON POLE	BRACKET TYPE	NO.OF PUSH BUTTONS ON POLE	REMARKS
1	B	26'	1	I	26	-	-	3	II & III	2	
2	C	40'	3	I	40	32	22	3	II & III	2	
3	B	38'	1	I	38	-	-	2	II	1	
4	C	46'	3	I	46	38	28	2	II	1	

- ① 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

NUMBER	TYPE	SIZE	QUANTITY
3	I	12"	1
2	A	12"	2
4	A	12"	3
7	I	12"	1
6	A	12"	2
8	A	12"	3
4A	K	12"	2
8A	K	12"	2
6A	K	12"	2
TOTAL			18

STATION	DIST.-SIDE
34+63	40' RT.
34+77	53' LT.
35+65	53' LT.
35+65	40' RT.

ITEM	UNIT	QUANTITY
TRAFFIC SIGNAL INSTALLATION (Webb Rd. & Wilson Estates Parkway)	LUMP SUM	LUMP SUM
	1	1

ITEM	UNIT	QUANTITY
PAD MOUNTED CONTROLLER & CABINET	EACH	1
TRAFFIC SIGNAL HEAD W/MOUNTING HARDWARE	EACH	18
TRAFFIC SIGNAL POLE STEEL (20')	EACH	2
TRAFFIC SIGNAL POLE (JOINT USE) STEEL (35')	EACH	2
CONCRETE CONTROLLER PAD	EACH	1
CONCRETE FOOTING - PEDESTAL	EACH	-
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	6
BACK PLATE 5" 5 SECTION	EACH	2
TERMINAL BLOCK	EACH	-
SERVICE BOX	EACH	4
JUNCTION BOX (PRE-FAB)	EACH	-
GROUND ROD & CLAMP	EACH	6
TRAFFIC SIGNAL LAMP 135 WATT	EACH	-
LED TRAFFIC SIGNAL LENS	EACH	52
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.	-
DETECTOR LOOP WIRE NO. 14 AWG 1/c	LIN.FT.	-
LEAD-IN WIRE NO.6 AWG 1/c	LIN.FT.	-
MULTI-CONDUCTOR CABLE NO.14 AWG 7/c	LIN.FT.	1600
MULTI-CONDUCTOR CABLE NO.14 AWG 5/c	LIN.FT.	1150
MULTI-CONDUCTOR CABLE NO.14 AWG 3/c	LIN.FT.	75
SHEILDED DETECTOR LEAD-IN NO.14 AWG 2/c	LIN.FT.	-
CONDUIT 1"(PVC)	LIN.FT.	150
CONDUIT 1 1/2"(RGC)	LIN.FT.	100
CONDUIT 2"(PVC)	LIN.FT.	220
CONDUIT 2"(RGC)	LIN.FT.	50
CONDUIT 3"(RGC)	LIN.FT.	450
#8 AWG GROUND (GREEN)	LIN.FT.	500
STREET NAME SIGN	EACH	4
VIDEO DETECTION CAMERA (VANTAGE OZ2), MOUNTING HARDWARE	EACH	4
VIDEO DETECTION UNIT (VANTAGE EDGE MODULE)	EACH	4
VIDEO POWER CABLE #16 A.W.G. 3/C	LIN.FT.	700
VIDEO CABLE 75 OHM COAXIAL (BELDON #8281 OR APPROVED EQUAL)	LIN.FT.	700
TV MONITOR	EACH	1

-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.

WILSON ESTATES PARKWAY AND WEBB ROAD

TRAFFIC SIGNAL WIRING AND QUANTITIES

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

Designed by BER	Checked by
Drawn by SAW	Date JANUARY 2003 Job No. 02620-004

DSNR: BER OPER: BUS SCALE: 1=40.00
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