

SERVICE BOX SUMMARY

STATION	DIST.-SIDE
99+40	27' Lt.
99+73	72' Rt.
100+56	27' Lt.
100+57	50' Rt.

SUMMARY OF TRAFFIC SIGNAL HEADS

NUMBER	TYPE	SIZE	QUANTITY
2, 4, 6, 8	A	12"	10
1, 5	I	12"	2
2A, 4A, 6A, 8A	K	16" x 18"	8
TOTAL			20

SUMMARY OF PAVEMENT MARKINGS

ITEM DESCRIPTION	QUANTITY	STATION	DIST.-SIDE
24" Solid White Stop Line- EB	45 L.F.	99+47	RT
12" Solid White Crosswalk Lines- EB	134 L.F.	99+53, 99+60	-
24" Solid White Stop Line- SB	19 L.F.	99+81	56' LT
12" Solid White Crosswalk Lines- SB	133 L.F.	100+00	38', 45' LT
24" Solid White Stop Line- NB	20 L.F.	100+17	71' RT
12" Solid White Crosswalk Lines- NB	109 L.F.	100+00	57', 64' RT
24" Solid White Stop Line- WB	34 L.F.	100+45, 100+52	-
12" Solid White Crosswalk Lines- WB	134 L.F.	100+59	LT
TOTAL (24" SOLID WHITE STOP LINE)		118 L.F.	
TOTAL (12" SOLID WHITE CROSSWALK LINE)		510 L.F.	

SIGNAL INTERCONNECT SERVICE BOXES

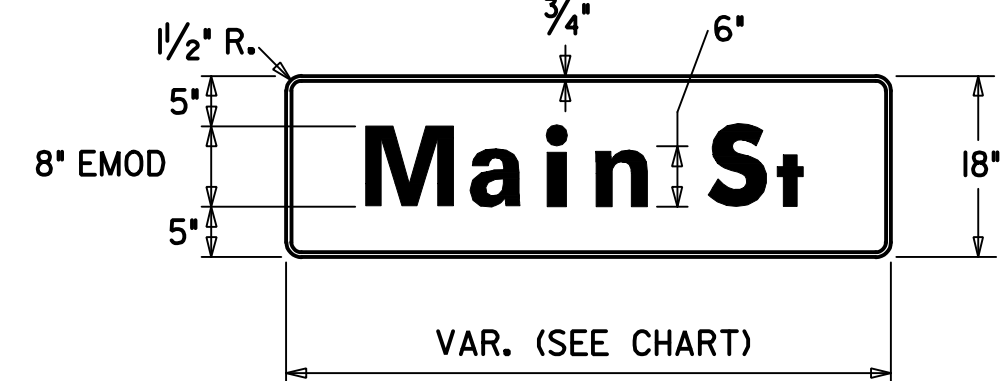
LOCATION	STATION	OFFSET	QUANTITY (EACH)
21st St.	103+42	42' Lt.	1
21st St.	104+75	64' Lt.	1
TOTAL			2

SIGNAL INTERCONNECT CONDUIT

LOCATION	STATION TO STATION	2" HDPE CONDUIT (L.F.)
21st St.	100+56 - 103+42	286
21st St.	103+42 - 104+75	135
21st St.	104+75 - 106+49	174
TOTAL		595

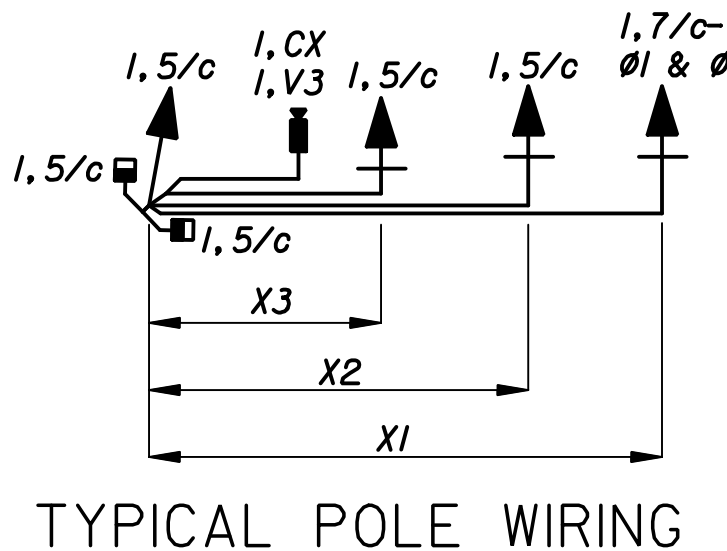
OVERHEAD STREET NAME SIGNS

LEGEND	LENGTH	QUANTITY
21st St	5'-0"	2
Greenleaf	5'-6"	2



BILL OF MATERIALS

ITEM	UNIT	QUANTITY
PAD MOUNTED CONTROLLER & CABINET	EACH	1
TRAFFIC SIGNAL HEAD W/MOUNTING HARDWARE	EACH	20
TRAFFIC SIGNAL POLE (JOINT USE) STEEL (35')	EACH	2
TRAFFIC SIGNAL POLE STEEL (20')	EACH	2
TRAFFIC SIGNAL PEDESTAL (15')	EACH	-
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	5
PEDESTRIAN PUSHBUTTON W/SIGN	EACH	8
6 PR. COMMUNICATION CABLE	LIN.FT.	940
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.	2000
MULTI-CONDUCTOR CABLE NO.14 AWG 5/c	LIN.FT.	480
MULTI-CONDUCTOR CABLE NO.14 AWG 3/c	LIN.FT.	-
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.	60
CONDUIT 3"(RGC)	LIN.FT.	500
CONDUIT 2"(HDPE)	LIN.FT.	825
*8 AWG GROUND (GREEN)	LIN.FT.	1220
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.	1090
VIDEO CABLE 75 OHM COAXIAL (BELDON #8281OR APPROVED EQUAL)	LIN.FT.	1090
TV MONITOR	EACH	1
MAST ARM CAMERA RISER BRACKETS	EACH	4



- * Communication Cable
 - # BAWG 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.

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

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	B	32'	1	I	-	31'	-	-	3	II/III	2	Install Audible Ped. Signals
2	C	47'	3	I	45'	37'	26'	-	3	II/III	2	Install Audible Ped. Signals
3	C	23'	1	I	-	21'	-	-	3	II/III	2	Install Audible Ped. Signals
4	B	44'	3	I	41'	33'	21'	-	3	II/III	2	Install Audible Ped. Signals

- ① A-15' Pedestal (Alum.)
- B-20' Steel with Mast Arm(s)
- C-35' Steel (Joint Use) with Mast Arm(s)
- D-40' Steel with Mast Arm
- ⊙ Audible Pedestrian Signals shall include:
 - A. A locating tone.
 - B. Selectable sound choices (including verbal).
 - C. Vibratable indication when Walk cycle is active.
 - D. ADA-compliant pushbutton

Audible Pedestrian Signal equipment shall be colored flat black. All materials and labor required for full operation of the audible pedestrian signals shall be SUBSIDIARY to the Traffic Signal Installation - 21st & Greenleaf bid item.

RECAPITULATION OF TRAFFIC SIGNAL QUANTITIES

ITEM	UNIT	QUANTITY
TRAFFIC SIGNAL INSTALLATION 21st & Greenleaf	LUMP SUM	1
PAVEMENT MARKING 21st & Greenleaf	LUMP SUM	1
TRAFFIC SIGNAL INTERCONNECT 21st & Greenleaf	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 810°F and 850°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 450°F for a minimum of one hour. The coating shall be electrostatically applied and cured at a minimum temperature of 400°F and the color shall be black.

-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.

21ST STREET & GREENLEAF STREET

TRAFFIC SIGNAL WIRING & QUANTITIES

JAMES L. ARMOUR, P.E.-CITY ENGINEER
CITY OF WICHITA PROJECT NO. 472-84720 PHASE I

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303 S. TOPKA • WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-3003

Designed by: DRM Job No.: 08521
Drawn by: DRP Date: Dec. 2008

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