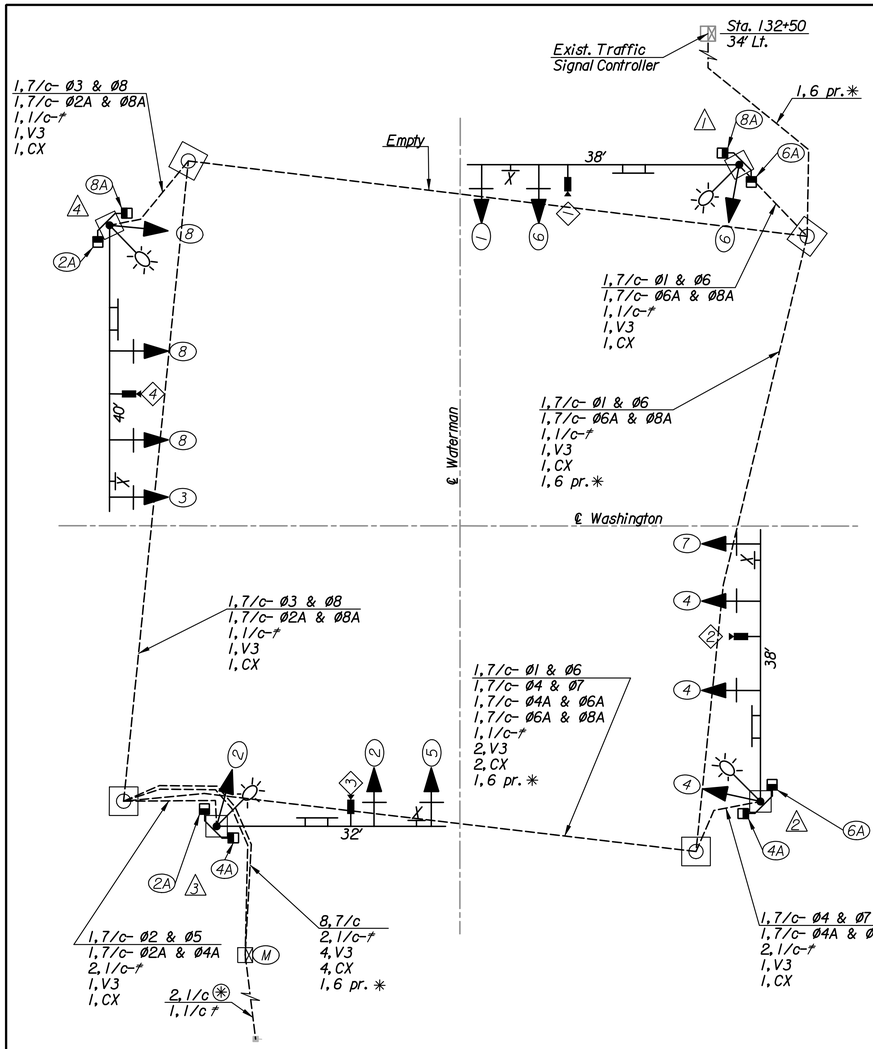
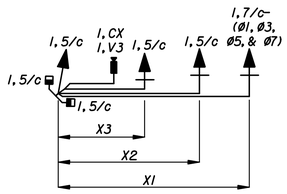




TYPICAL POLE WIRING

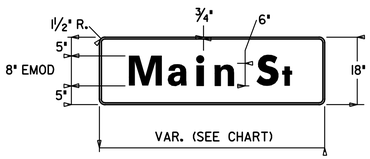
Note: Pushbutton to be wired with 1,2/c to pole base connection.

SIGNAL INTERCONNECT CONDUIT			
LOCATION	STATION TO STATION		2" HDPE CONDUIT (L.F.)
Waterman St.	*132+50*	*133+84*	*170*

SUMMARY OF TRAFFIC SIGNAL HEADS			
NUMBER	TYPE	SIZE	QUANTITY
2, 4, 6, 8	*A*	*12"*	*10*
1, 3, 5, 7	*I*	*12"*	*4*
2A, 4A, 6A, 8A	*K*	*12"*	*8*
TOTAL			*22*

SERVICE BOX SUMMARY	
STATION	DIST.-SIDE
899+62	*51' Lt.*
899+66	*42' Rt.*
900+33	*45.5' Rt.*
900+48.50	*40.5' Lt.*

OVERHEAD STREET NAME SIGNS		
LEGEND	LENGTH	QUANTITY
Washington	*7'-6"*	*2*
Waterman	*6'-6"*	*2*



Ⓐ *Street Light Power Supply*

† *2" PVC Conduit with Pull Rope for Street Light Circuit*

† *#8AWG Equipment Ground (Green)*

✳ *Communication Cable*

Ⓐ *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 servce box.

TRAFFIC SIGNAL POLE SUMMARY											
POLE NO.	TYPE①	ARM LENGTH	NO. OF SIGNALS ON ARM	BRACKET TYPE	XI	X2	X3	X4	NO. OF SIGNALS ON POLE	BRACKET TYPE	NO.OF PUSH BUTTONS ON POLE	REMARKS
1	*C*	*38'*	*2*	*I*	*36'*	*28'*	-	-	*3*	*II/III*	*2*	
2	*C*	*38'*	*3*	*I*	*36'*	*28'*	*17'*	-	*3*	*II/III*	*2*	
3	*C*	*32'*	*2*	*I*	*30'*	*22'*	-	-	*3*	*II/III*	*2*	
4	*C*	*40'*	*3*	*I*	*38'*	*30'*	*18'*	-	*3*	*II/III*	*2*	

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

RECAPITULATION OF TRAFFIC SIGNAL QUANTITIES		
ITEM	UNIT	QUANTITY
TRAFFIC SIGNAL INSTALLATION (Washington/Waterman)	LUMP SUM	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION (Washington/Waterman)	LUMP SUM	1

BILL OF MATERIALS		
ITEM	UNIT	QUANTITY
PAD MOUNTED CONTROLLER & CABINET	EACH	1
TRAFFIC SIGNAL HEAD W/MOUNTING HARDWARE	EACH	22
TRAFFIC SIGNAL POLE STEEL (20')	EACH	-
TRAFFIC SIGNAL POLE (JOINT USE) STEEL (35')	EACH	4
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	4
TERMINAL BLOCK	EACH	-
SERVICE BOX	EACH	4
JUNCTION BOX (PRE-FAB)	EACH	-
GROUND ROD & CLAMP	EACH	5
PEDESTRIAN INDICATIONS LED (16"x18" COMB. W/COUNTDOWN)	EACH	8
LED TRAFFIC SIGNAL LENS	EACH	50
ENTRANCE HEAD	EACH	1
CIRCUIT BREAKER & BOX 50 AMP.	EACH	1
SURGE ARRESTOR - A.C.SERVICE	EACH	1
SURGE ARRESTOR - DETECTOR	EACH	-
PEDESTRIAN PUSHBUTTON W/SIGN	EACH	8
6 PR. COMMUNICATION CABLE	LIN.FT.	540
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.	2,100
MULTI-CONDUCTOR CABLE NO.14 AWG 5/c	LIN.FT.	550
MULTI-CONDUCTOR CABLE NO.14 AWG 3/c	LIN.FT.	-
SHEILDED DETECTOR LEAD-IN NO.14 AWG 2/c	LIN.FT.	-
CONDUIT 1"(PVC)	LIN.FT.	-
CONDUIT 1 1/2"(RGC)	LIN.FT.	-
CONDUIT 2"(PVC)	LIN.FT.	520
CONDUIT 2"(RGC)	LIN.FT.	265
CONDUIT 2"(HDPE)	LIN.FT.	-
CONDUIT 3"(RGC)	LIN.FT.	640
#8 AWG GROUND (GREEN)	LIN.FT.	1,200
STREET NAME SIGN	EACH	4
LEFT-TURN YIELD ON GREEN (R10-12) SIGN	EACH	4
VIDEO DETECTION CAMERA (VANTAGE OZ2), MOUNTING HARDWARE	EACH	4
VIDEO DETECTION UNIT (VANTAGE EDGE MODULE)	EACH	1Ø
VIDEO POWER CABLE #16 A.W.G. 3/C	LIN.FT.	1,120
VIDEO CABLE 75 OHM COAXIAL (BELDON #8281 OR APPROVED EQUAL)	LIN.FT.	1,120
TV MONITOR	EACH	1
ITERIS LENS ADJUSTMENT UNIT	EACH	1
VIDEO SYSTEM PROGRAMMING UNIT	EACH	1
MAST ARM CAMERA RISER BRACKETS	EACH	4

Ø *4 Modules required*
Ø *2 Modules required*

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.

No.	Revision	By	Date

WASHINGTON STREET

TRAFFIC SIGNAL WIRING AND QUANTITIES

JAMES L. ARMOUR, P.E.-CITY ENGINEER
CITY OF WICHITA PROJECT NO. 472-84657

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

Designed by	WDH	Job No.	05493-8	Sht. R44 of R73
Drawn by	DRP	Date	Dec., 2008	

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