



- ITEM DESCRIPTION
- A VIDEO ENCODER, SIQURA MODEL C-60-E-MC/5A WITH PSR-120C/US POWER ADAPTER
  - B CONTROL POWER TRANSFORMER, 1000VA, 208/240/480-120VAC, 1PH, SQUARE D CLASS 9070, TYPE 11000D95 (OR EQUIVALENT)
  - C FOUR (4) SINGLE CIRCUIT FUSIBLE TERMINAL BLOCKS, WITH LED BLOWN FUSE INDICATOR, COMPLETE WITH 5 AMP FUSE, MOUNTING RAIL, ANCHORS, BARRIERS, MARKING STRIPS AND JUMPERS, ALLEN BRADLEY CAT NO. 1492-FB1M30-D1, FOUR TERMINAL BLOCKS ALLEN BRADLEY CAT NO. 1492-CDB. (OR EQUIVALENT)
  - D TWO (2) GROUNDING BAR SYSTEM, HOFFMAN CAT NO. PGS2K (OR EQUIVALENT)
  - E NEMA 4X STAINLESS STEEL, 36" H X 30" W X 12" D ENCLOSURE HOFFMAN CAT NO. (A36H3012556LP) WITH 33" X 27" PANEL (A36P30) (OR EQUIVALENT)
  - F TWO DUPLEX 120V RECEPTACLES, ONE GFCI (HUBBELL GFR5362TR) AND ONE STANDARD (HUBBELL BR20WR). SEE NOTE 5
  - G NOT USED
  - H FIVE (5) MERSEN 5 AMP FUSE (OR EQUIVALENT)
  - I 240V, 2P, 30A CKT BRKR, CUTLER HAMMER TYPE HFD2030I (OR EQUIVALENT)
  - J CISCO MODEL IE-3000-BTC SWITCH
  - K CISCO MODEL PWR-IE3000-AC POWER SUPPLY
  - L CONTROL POWER TRANSFORMER, 250VA, 120-24VAC, 1PH SQUARE D CLASS 9070, TYPE 1250013 (OR EQUIVALENT)
  - M 9' 6-SMF0 LC-SC JUMPERS, CORNING CATALOG NO. 047206RW425009F
  - N SIQURA C-60-E-MC/5A POWER SUPPLY (PSR 12-DC/US)
  - O CORNING WMO-85 WITH (6) WMO-CP02-59-85 (FOR SMFD)
  - P COOPER CROUSE HINDS 240VAC SURGE SUPPRESSOR, PIN MA15/D/2/51, MOUNTED ON DIN RAIL
  - Q PANDUIT WIRING DUCT (OR EQUIVALENT) CATALOG NO. FIX1L66 WITH COVER C1L66
  - R THREE (3) MERSEN 10 AMP FUSE (ATM10) (OR EQUIVALENT)
  - S ALTECH 38041 SPLICE BLOCK (OR EQUIVALENT)
  - T ATLANTIC SCIENTIFIC COAX SURGE SUPPRESSOR, P/N 24504, MOUNTED ON COMMON DIN RAIL
  - U ATLANTIC SCIENTIFIC RS-422 SURGE SUPPRESSOR, P/N 24528, MOUNTED ON COMMON DIN RAIL
  - V ATLANTIC SCIENTIFIC 24VAC SURGE SUPPRESSOR, P/N 24580, MOUNTED ON COMMON DIN RAIL
  - W CLEAR PLEXIGLASS SAFETY COVER ENCOMPASSING ITEMS L, R, S, B, P & J, WITH OPENING FOR OPERABLE SWITCH 1. (THE INSTALLER SHALL PERMANENTLY AFFIX A LABEL STATING "DANGER 480 VAC" OR "DANGER 240 VAC" OR NO LABEL FOR 120 VAC AS FIELD CONDITIONS WARRANT.)
  - X POWER CONTROLLER, DATA LOGGERS, INC 8-CHANNEL DIN ETHERNET RELAY
  - Y (2) GLC-LX-SM-RGD = 1 GBPS SM SFP MODULES
  - Z RC-6/U COAX CABLE, BELDEN CATALOG NO. S339X5
  - AA RS-422 CONTROL CABLE, BELDEN CATALOG NO. 9829
  - AB #14 3/C CCTV POWER CABLE, BELDEN CATALOG NO. 9367.
  - AC CDMA MODEM ASSEMBLY, SIERRA WIRELESS CATALOG NO. AIRLINK RAVEN XT MODEL V2227-VD.
  - AD RS-232 SURGE SUPPRESSOR, B&B ELECTRONICS CATALOG NO. 232SP9
  - AE RS-232 NULL MODEM CABLE
  - AF AC/DC INVERTER, TRC ELECTRONICS CATALOG NO. MDR-10-12
  - AG WIRELESS MODEM ANTENNA, PCTEL CATALOG NO. MLPVDB800 / 1900 WITH ANTENNA MOUNT, PCTEL CATALOG NO. MIFML195C
  - AH WIRELESS MODEM ANTENNA CABLE, PCTEL CATALOG NO. PROFLEX PLUS 195
  - AJ 2A CIRCUIT BREAKER, ALLEN BRADLEY CATALOG NO. 1492-SP1B020
  - AJ TERMINAL BLOCK, ALLEN BRADLEY CATALOG NO. 1492-CDB
  - AK RTMS ASSEMBLY (NOT SHOWN), IMAGE SENSING SYSTEMS CANADA CATALOG NO. RTMS-C4

POLE MOUNTED CCTV+RTMS CABINET - IP RELAY WIRING TABLE							
FROM CONNECTION			DESCRIPTION	WIRE OR CABLE	TO CONNECTION		
DEVICE	TB	CONNECTION			DEVICE	TB	CONNECTION
C	TB1	+ 24 VDC	CIRCUIT BREAKER FOR CCTV				
				IP_RELAY	TB1	1 NC	
				IP_RELAY	TB1	1 NO	
V	TB1	POWER +	24VAC SURGE PROTECTOR FOR CCTV	16 AWG	IP_RELAY	TB1	1 COM
C	TB1	+ 12VDC	CIRCUIT BREAKER FOR ENCODER		IP_RELAY	TB1	2 NC
					IP_RELAY	TB1	2 NO
A	TB1	POWER +	OPTELECOM C-60-E/1P/5A		IP_RELAY	TB1	2 COM
			RESERVED FOR WIRELESS RADIO/SENSYS AP		IP_RELAY	TB1	3 NC
					IP_RELAY	TB1	3 NO
					IP_RELAY	TB1	3 COM
			RESERVED FOR DMS OR WIM		IP_RELAY	TB1	4 NC
					IP_RELAY	TB1	4 NO
					IP_RELAY	TB1	4 COM
			RESERVED FOR FLASHING BEACONS		IP_RELAY	TB1	5 NC
					IP_RELAY	TB1	5 NO
					IP_RELAY	TB1	5 COM
AI	TB1	+ 12 VDC	CIRCUIT BREAKER +12VDC		IP_RELAY	TB1	6 NC
					IP_RELAY	TB1	6 NO
AC	TB1	POWER +	RTMS CELLULAR MODEM		IP_RELAY	TB1	6 COM
AI	TB1	+ 12 VDC	CIRCUIT BREAKER +12VDC		IP_RELAY	TB1	7 NC
					IP_RELAY	TB1	7 NO
V	TB1	POWER +	ZONE BARRIER SURGE PROTECTOR		IP_RELAY	TB1	7 COM
			UNUSED		IP_RELAY	TB1	8 NC
					IP_RELAY	TB1	8 NO
					IP_RELAY	TB1	8 COM

- NOTES:
- ALL POWER WIRING SHALL BE RHH/RHW
  - CONTRACTOR TO VERIFY CORRECT TRANSFORMER TAPS ARE USED BASED ON INCOMING POWER SOURCE
  - ALL CABLES AND EQUIPMENT SHALL BE PROPERLY DRESSED AND LABELED. ALL CONDUITS SHALL BE PROPERLY PLUGGED WITH DUCT SEAL PUTTY (RAINBOW TECHNOLOGIES OR EQUIVALENT).
  - NOT USED
  - EACH 120VAC OUTLET, PS OR TRANSFORMER (ITEM F, K, L & N) SHALL BE FED FROM A SEPARATE FUSED INPUT LINE.
  - MOUNT ITEMS J, K & N ON A 15 INCH CONTINUOUS SECTION OF DIN RAIL. THE DIN RAIL SHALL BE INSTALLED WITH THE CENTER LINE NO LESS THAN 5 INCHES FROM ANY OBSTACLE ABOVE AND NO LESS THAN 4 INCHES FROM ANY OBSTACLE BELOW.
  - ALL CABLES INSTALLED WITHIN THE CCTV CABINET AND POLE SHALL BE OUTDOOR RATED.
  - THESE ELEMENTS ARE ILLUSTRATED FOR FUTURE USAGE. THEY ARE THE SURGE SUPPRESSOR AND POWER OVER ETHERNET DEVICES FOR AN ACCESS POINT ELEMENT UTILIZED FOR RAMP QUEUE DETECTION.
  - THE GFI OUTLETS LOAD SHALL NOT BE CONNECTED TO ANY OTHER LOAD IN THE ENCLOSURE. THE GFI IS INTENDED TO BE UTILIZED FOR EXTERNAL EQUIPMENT ONLY.
  - ALL BREAKERS SHALL BE LABELED (e.g. CAMERA, ENCODER, IP RELAY).
  - THE GROUND WIRE IN THE 3/C #14 CCTV POWER CABLE SHALL BE TAPED GREEN.
  - USE THE MOUNTING TABS ON THE IP RELAY UNIT TO MOUNT THE UNIT DIRECTLY TO THE BACK PLATE. REFER TO THE IP RELAY WIRING TABLE FOR WIRING DETAILS.

**BOWMAN, BARRETT & ASSOCIATES INC.**  
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FILE NAME: #1154	USER NAME: dr1out	DESIGNED: JMG	REVISED: 7/17/2012 JMG
		DRAWN: JMG	REVISED: -
		CHECKED: RGR	REVISED: -
		DATE: 6/19/2012	REVISED: -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ITS DETAILS  
 SCALE: N/A SHEET NO. 4 OF 8 SHEETS STA. N/A TO STA. N/A

DATE	REVISIONS
11-16-2011	INITIAL VERSION
06-20-2012	REVISION 1

CAM-1B  
(previously called CAM-1C)

**Illinois Tollway**  
*Open Roads for a Faster Future*

POLE MOUNTED CO-LOCATED  
 CCTV & RTMS CABINET  
 WIRING DETAIL

P.O. RTE. 94	SECTION 49-1-R-1	COUNTY LAKE	TOTAL SHEETS 677	SHEET NO. 432
CONTRACT NO. 60L77				

ILLINOIS FED. AID PROJECT