

GBA GEORGE BUTLER ASSOCIATES, INC. Engineers - Architects Kansas - Missouri - Illinois	DATE: APRIL, 2003
	DESIGN BY: DTS
	DRAWN BY: DTS
PROJECT NO.: 9803	SHEET NO. 5
TRAFFIC SIGNAL MODIFICATION T.R. HUGHES AND COOL SPRINGS INDUSTRIAL DRIVE O'FALLON, MISSOURI	
REVISED 4/18/2003 AS PER CITY COMMENTS - DTS	

POWER SUPPLY													
LOCATION			POWER SUPPLY ASSEMBLY		CIRCUIT BREAKER TRIP RATING*				LIGHTING CONTROL * (ON POWER SUPPLY)		SERVICE POLE		
APPROACH	STATION	OFFSET	DRAWING 902.15H	DRAWING	CONTROLLER		POWER SUPPLY DISCONNECT		120 VOLT CONTROL CABINET	MAIN BREAKER	CONTRACT FURNISH	UTILITY COMPANY	
					AUXILIARY BREAKER	CONT. & SIGNAL LAMPS	MAIN BREAKER	SIGNALS				LIGHTING	CL
TR HUGHES	132+21	44.5 R	Type 2		15 Amps	Amps	40 Amps	40 Amps	1	20 Amps	CL	FL	Ameren UE

CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT (3)																									
LOCATION			SYSTEM MASTER (CLOSED LOOP)		ACTUATED		SOLID STATE PRE-TIMED			ON-OFF* SWITCH		COORDINATION INTERFACE *				TONE UNIT *		170 CABINET TYPE *		170 SOFTWARE *		VIDEO DETECTION HARDWARE*	BATTERY BACKUP*		
APPROACH	STATION	OFFSET	NEMA	170	NEMA (4)	170	TYPE			TYPE		12C/7C HARDWARE OR TONE (1)		TIME BASE	CLOSED LOOP-FIBER READY W/MODEM		TRANS-MITTER (MASTER)	RECEIVER (LOCAL)	TIME * CLOCK	332A	336S	BITRAN		WAPITI	
							S-M	S-S	S-N	I	II	MASTER	LOCAL		NEMA	170									
TR HUGHES BOULEVARD	132+31	41.1 R			1																		1	1	

VIDEO DETECTION CAMERAS*		
CAMERA NUMBER	LOCATION	PHASE CALLED
V-1	POLE 1	ø1, ø6
V-2	POLE 2	ø3, ø8
V-3	POLE 4	ø2, ø5
V-4	POLE 5	ø4, ø7

TOTAL NUMBER OF VIDEO DETECTOR CAMERAS= 4

DETECTOR SCHEDULE									
DETECTOR NUMBER	APPROACH	PUSH BUTTON	TYPE				VIDEO * DETECTION ZONE		
			INDUCTION LOOP (2)		MAGNETOMETER (2)				
			STANDARD	DELAY/EXTEND *	CALL UNIT *	STANDARD	DELAY/EXTEND *		
10	T.R. HUGHES BLVD.							1	
61	T.R. HUGHES BLVD.							1	
62	T.R. HUGHES BLVD.							1	
50	T.R. HUGHES BLVD.							1	
21	T.R. HUGHES BLVD.							1	
22	T.R. HUGHES BLVD.							1	
70	COOL SPRINGS IND.							1	
41	COOL SPRINGS IND.							1	
30	COOL SPRINGS IND.							1	
81	COOL SPRINGS IND.							1	
PB 6	T.R. HUGHES BLVD.	1							
PB 6A	T.R. HUGHES BLVD.	1							
PB 2	T.R. HUGHES BLVD.	1							
PB 2A	T.R. HUGHES BLVD.	1							
PB 4	COOL SPRINGS IND.	1							
PB 4A	COOL SPRINGS IND.	1							
PB 8	COOL SPRINGS IND.	1							
PB 8A	COOL SPRINGS IND.	1							
TOTAL		8						10	

- * ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.
- MoDOT "D" PLUG SHALL BE WIRED INTO ALL NEMA CONTROLLERS WITH 7C HARDWARE OR TONE INTERCONNECT.
 - IF 2-CHANNEL DETECTORS ARE USED, PAYMENT IS MADE FOR THE NUMBER OF 2-CHANNEL DETECTOR CARDS AS SHOWN BELOW THE ASSIGNMENT CHART.
 - CONTROLLER CABINET AND BASE SHALL BE TYPE E (MoDOT STD. 902.10N).
 - CONTROLLER SHALL BE EPAC 300, OR APPROVED EQUAL.

NEMA DETECTOR ASSIGNMENT									
CARD POSITION									
	1	2	3	4	5	6	7	8	
CHANNEL	1								
	2								

TOTAL NUMBER OF DETECTOR CARDS(2-CHANNEL) = (2)

NEMA LOAD SWITCH ASSIGNMENTS											
1	2	3	4	5	6	7	8	9	10	11	12
ø1	ø2	ø3	ø4	ø5	ø6	ø7	ø8	ø2 PED	ø4 PED	ø6 PED	ø8 PED

170 INPUT FILE ASSIGNMENTS														
CHANNEL	1	2	3	4	5	6	7	8	9	10	11	12	13	14
"I"	U													
"J"	U													
	L													

TOTAL NUMBER OF DETECTOR CARDS(2-CHANNEL) = (2)

170 OUTPUT FILE ASSIGNMENTS										
FR1										MONITOR
FR2										
FR3										
FR4										

170 AUXILIARY OUTPUT FILE										
FR5										X
FR6										

