



BORER REV. DATE: June 1, 2004

BY: Azoretic

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A TEMPORARY ONE-LANE TWO-WAY TRAFFIC SIGNAL TO FACILITATE THE DECK OVERLAY AND OTHER MISCELLANEOUS REPAIRS ON THE MD 213 (SINGERLY ROAD) BRIDGE OVER I-95 IN CECIL COUNTY. VIDEO DETECTION SHALL BE USED FOR BOTH APPROACHES. MD 213 (SINGERLY ROAD) IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

1. THE INTERSECTION IS TO OPERATE IN A NEMA TWO-PHASE, FULLY-ACTUATED MODE, WITH THE MD 213 (SINGERLY ROAD) APPROACHES RUNNING IN A ONE-LANE TWO-WAY OPERATION.

2. A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH VIDEO INTERFACE AND ALL NECESSARY EQUIPMENT HOUSED IN A NEMA TYPE "5" POLE-MOUNTED CABINET SHALL BE INSTALLED AT THIS INTERSECTION. A BATTERY BACKUP SYSTEM HOUSED IN NEMA TYPE "5" POLE-MOUNTED CABINET WILL BE INSTALLED.

NOTES

1. FOR TEMPORARY PAVEMENT MARKINGS AND TRAFFIC CONTROL DEVICES, REFER TO THE MAINTENANCE OF TRAFFIC PLANS, AS APPLICABLE; OTHER THAN THOSE DETAILED ON THE PLAN. ALL PAVEMENT MARKINGS AND TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH ADMINISTRATION STANDARDS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
3. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
4. THE CONTRACTOR SHALL MAINTAIN THE CONTINUOUS OPERATION OF ALL VEHICULAR, DETECTORS, AND TRAFFIC SIGNAL DEVICES. IF ANY DEVICE IS DAMAGED BY THE CONTRACTOR, IT SHALL BE REPAIRED WITHIN 72 HOURS BY THE CONTRACTOR AT NO COST TO THE MSHA AFTER NOTIFICATION BY THE ENGINEER.
5. THE TEMPORARY TRAFFIC SIGNAL SHALL BE MAINTAINED DURING PHASE II OF THE MAINTENANCE OF TRAFFIC. AT THE COMPLETION OF PHASE II, THE CONTRACTOR SHALL REMOVE THE TEMPORARY TRAFFIC SIGNAL, BACKFILLING ALL VOIDS AND RETURNING THE SURROUNDING AREA TO EXISTING CONDITIONS AS PER THE ENGINEER.

CONTACTS

DISTRICT

MR. TERRY O. WRIGHT
DISTRICT ENGINEER
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MR. JEFFERY WENTZ
ASSISTANT DISTRICT ENGINEER - TRAFFIC
410-810-3240

MR. BARRY CLOTHIER
ASSISTANT DISTRICT ENGINEER - UTILITIES
410-810-3275

MR. WM NORRIS EMBERT
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
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MR. MIKE LEWIS
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
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OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF SR.
CHIEF, TRAFFIC OPERATIONS
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MR. ROBERT SNYDER
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MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
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MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
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MS. DARLENE EIDE
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7668

EQUIPMENT LIST

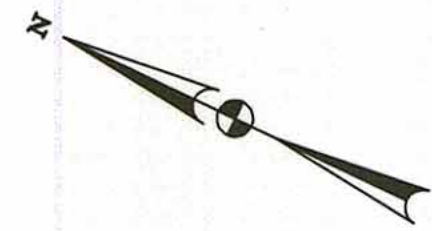
A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM NO./ CAT CODE	DESCRIPTION	UNITS	QUANTITY
1 900001	CONTROLLER CABINET, SIZE 5, POLE MOUNTED	EA	2
900002	CONTROLLER ASC III	EA	1
900003	VIDEO DETECTION INTERFACE EQUIPMENT: 1-8 CAMERAS	EA	1
1 900004	BATTERY BACKUP UPS SYSTEM FOR TRAFFIC SIGNALS	EA	1

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO./ CAT CODE	UNITS	QUANTITY	DESCRIPTION
203030	CY	3	TEST PIT EXCAVATION
585625	LF	1 30-100	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
800001	EA	1 4-6	FURNISH AND INSTALL 40 FOOT CLASS II WOOD POLES
800002	EA	1 2-5	VIDEO DETECTION CAMERA WITH CABLE
800003	LF	275	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BRIDGE MOUNTED
1 800004	EA	1	INSTALL BATTERY BACKUP SYSTEM AND CABINET - POLE MOUNT
802501	LF	1 875-950	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805050	EA	1 3-6	WEATHER HEAD, 3 INCH
805135	EA	1 450-400	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
1 805150	LF	50	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
807400	EA	1	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS
810022	LF	50	ELECTRICAL CABLE 1-CONDUCTOR, NO. 8 AWG-THHN/THWN
811001	EA	5	FURNISH AND INSTALL ELECTRICAL HANDHOLE
833060	LF	1 100-160	3 INCH DIAMETER POLYVINYL CHLORIDE CONDUIT, SCHEDULE 80, RISER
837001	EA	1 5-7	GROUND ROD - 3/4 INCH DIA. X 10 FOOT LENGTH
860272	EA	1 12-30	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861107	LF	1 925-2200	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
869102	LF	1 200	STEEL SPAN WIRE - 3/8 INCH DIAMETER
871201	EA	1	INSTALL CONTROLLER AND CABINET - POLE MOUNT
1 816201	EA	1	DISCRIMINATOR MODULE, 4 CHANNEL, NO. 764
1 816215	EA	2	OPTICOM NO. 721 DETECTOR EYE
1 860288	LF	1000	FURNISH AND INSTALL 4 CONDUCTOR OPTICOM CABLE

- C. UPON COMPLETION OF THE MOT, SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.



1	2	3	4	5	6	7	8	9	10
(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)
(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)

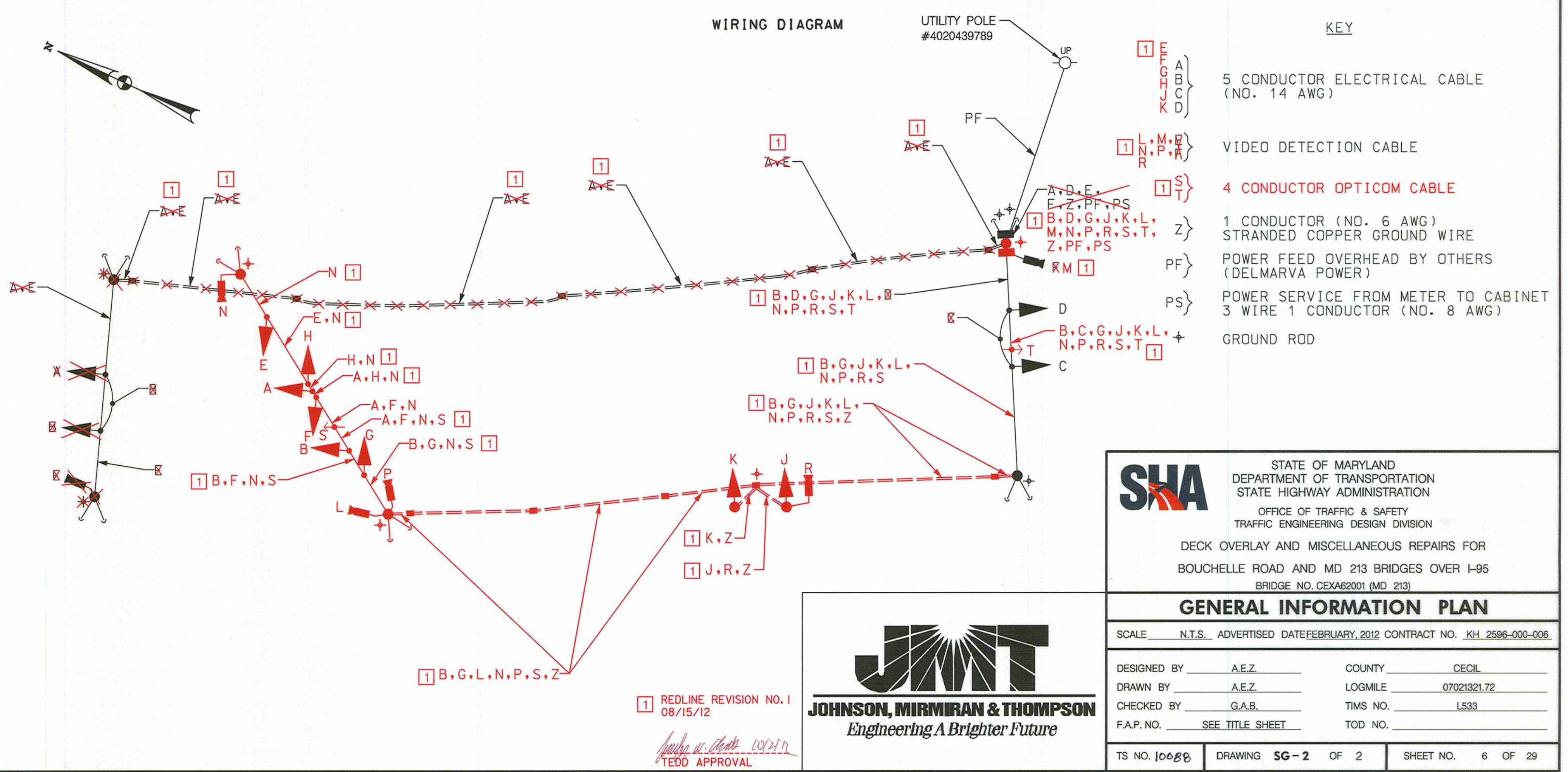
1 PHASE 1	G	G	R	R	R	R	R	R	R	R
PHASE 1 CHANGE	Y	Y	R	R	R	R	R	R	R	R
CLEARANCE	R	R	R	R	R	R	R	R	R	R
PHASE 2	R	R	R	R	G	G	G	G	R	R
PHASE 2 CHANGE	R	R	R	R	Y	Y	Y	Y	R	R
CLEARANCE	R	R	R	R	R	R	R	R	R	R
PHASE 3	R	R	R	R	R	R	R	G	G	G
PHASE 3 CHANGE	R	R	R	R	R	R	R	Y	Y	Y
CLEARANCE	R	R	R	R	R	R	R	R	R	R
PHASE 4	R	R	G	G	R	R	R	R	R	R
PHASE 4 CHANGE	R	R	Y	Y	R	R	R	R	R	R
CLEARANCE	R	R	R	R	R	R	R	R	R	R
FLASHING OPERATION	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R

PRE-EMPTION PHASE 1	G	G	R	R	R	R	R	R	R	R
PHASE 1 CHANGE	Y	Y	R	R	R	R	R	R	R	R

PRE-EMPTION PHASE 4	R	R	G	G	R	R	R	R	R	R
PHASE 4 CHANGE	R	R	Y	Y	R	R	R	R	R	R

PHASE CHART

1	2	3	4		
(R)	(R)	(R)	(R)		
(Y)	(Y)	(Y)	(Y)		
(G)	(G)	(G)	(G)		
PHASE 2	G	G	R	R	→
PHASE 2 CHANGE	Y	Y	R	R	→
CLEARANCE	R	R	R	R	←
PHASE 6	R	R	G	G	←
PHASE 6 CHANGE	R	R	Y	Y	←
CLEARANCE	R	R	R	R	←
FLASHING OPERATION	FL/R	FL/R	FL/R	FL/R	←---+ +---→



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