PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE CONSTRUCTION OF TWO TEMPORARY TRAFFIC CONTROL SIGNALS AT THE INTERSECTIONS OF MD 648 AND I-695 WEST AND MD 648 AND I-695 EAST RAMPS IN ANNE ARUNDEL COUNTY, MARYLAND. MD 648 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE MD 648 AT I-695 EAST INTERSECTION WILL OPERATE IN A FLASHING MODE WITH THE MD 648 INDICATIONS FLASHING YELLOW AND THE I-695 INDICATIONS FLASHING RED. WHEN ACTIVATED, THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, SEMI-TRAFFIC ACTUATED MODE WITH THE MD 648 APPROACHES OPERATING CONCURRENTLY AND THE I-695 APPROACH OPERATING ALONE. EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING WILL BE PROVIDED FOR SOUTHBOUND MD 648.

THE MD 648 AT I-695 WEST INTERSECTION WILL OPERATE IN A FLASHING MODE WITH THE MD 648 INDICATIONS FLASHING YELLOW AND THE I-695 INDICATIONS FLASHING RED. WHEN ACTIVATED, THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, SEMI TRAFFIC-ACTUATED MODE WITH THE MD 648 APPROACHES OPERATING CONCURRTENLY AND THE I-695/LYNVUE ROAD APPROACHES OPERATING CONCURRENTLY.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH VIDEO INTERFACE EQUIPMENT (1-8 CAMERAS) AND HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET AT EACH INTERSECTION.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.04-01 (SHOULDER WORK)
STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE)
STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE)
STANDARD NO. MD-104.04-13 (LEFT TURN BAY CLOSURE)
STANDARD NO. MD-104.04-15 (INTERSECTION LEFT LANE, TURN BAY)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. KIMBERLY TRAN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-1019

MR. JOHN S. MAYS
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 841-1013

MR. MIKE HUBER
DISTRICT UTILITY ENGINEER
PHONE: (301) 624-8115

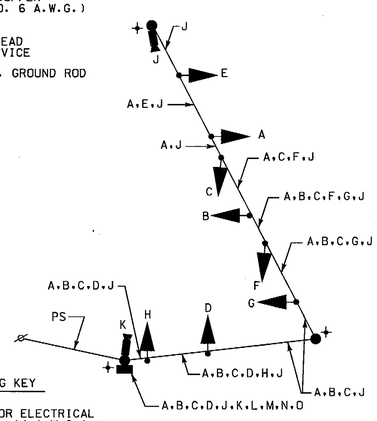
MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

WIRING DIAGRAM

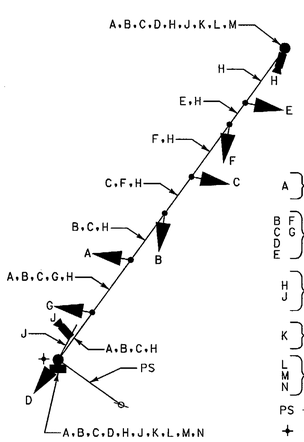
WIRING KEY

A E B F C G D H } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
J K } VIDEO CAMERA DETECTION LEAD-IN CABLE
L M N } 1-CONDUCTOR NO. 4 A.W.G (THHN/THWN)
O } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
PS - PROPOSED OVERHEAD ELECTRICAL SERVICE
⏚ - 3/4 IN. X 10 FT. GROUND ROD

MD 648 AT I-695 EAST RAMP



MD 648 AT I-695 EAST RAMP



WIRING KEY

A } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
B F C G D E } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
H J } VIDEO CAMERA DETECTION LEAD-IN CABLE
K } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
L M N } 1-CONDUCTOR NO. 4 A.W.G (THHN/THWN)
PS - PROPOSED OVERHEAD ELECTRICAL SERVICE
⏚ - 3/4 IN. X 10 FT. GROUND ROD

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CATEGORY CODE	QUANTITY	DESCRIPTION
900000	2 EACH	VIDEO INTERFACE EQUIPMENT: 1-8 CAMERAS
971016	2 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET
972023	112 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
		- 6 EACH W3-3 SIGN (BLACK ON ORANGE) (48 IN. x 48 IN.) WITH "TEMP" PANEL (30 IN. x 30 IN.) AND FLAG - GROUND MOUNT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

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.

PHASE CHART

MD 648 AT I-695 EAST RAMP

	1	2	3	4	5	6	7
SPECIAL OPERATION							
PHASE 1 + 6	R	R	G ←G—	G	R	R	R
1 + 6 CHANGE	R	R	G ←Y—	G	R	R	R
PHASE 2 + 6	G	G	G	G	R	R	R
2 + 6 CHANGE	Y	Y	Y	Y	R	R	R
PHASE 4	R	R	R	R	G	G	G
4 CHANGE	R	R	R	R	Y	Y	Y
NORMAL OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R

MD 648 AT I-695 WEST RAMP

	1	2	3	4	5	6	7	8
SPECIAL OPERATION								
PHASE 2 AND 6	G	G	G	G	R	R	R	R
2 AND 6 CHANGE	Y	Y	Y	Y	R	R	R	R
PHASE 4 AND 8	R	R	R	R	G	G	G	G
4 AND 8 CHANGE	R	R	R	R	Y	Y	Y	Y
NORMAL OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

EQUIPMENT LIST "B"

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

CATEGORY CODES	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
8001	52 ~~47~~ EACH	12 IN. LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8008	5 EACH	CLASS II WOOD POLE WITH 2 DOWN GUYS & ANCHORS
8026	1 EACH	VIDEO DETECTION ARM
8027	4 EACH	VIDEO DETECTION CAMERA & CABLE
8028	30 L.F.	3 INCH ELECTRICAL CONDUIT-PVC RISER
8035	190 L.F.	WOOD SIGN SUPPORTS UP TO 4 X 6 INCHES
8038	25 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8042	2 EACH	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS
8043	100 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/THWN
8045	112 S.F.	INSTALL GROUND MOUNTED SIGN
8058	1100 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8059	60 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8065	350 L.F.	STEEL SPAN WIRE - 3/8 INCH DIAMETER
8066	2 EACH	INSTALL CONTROLLER AND CABINET - POLE MOUNT

WR&A
WHITMAN, REQUARDT & ASSOCIATES, LLP
801 South Caroline Street, Baltimore, Maryland 21231

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

I-695 Ramps and MD 648
Temporary Traffic Signal

GENERAL INFORMATION SHEET

SCALE NONE ADVERTISED DATE 12/18/2009 CONTRACT NO. AT9135185

DESIGNED BY B. Donoway
DRAWN BY B. Donoway
CHECKED BY N. Leary
F.A.P. NO.
COUNTY Baltimore
LOGMILE 02E64806.53
TIMS NO. K274
TOD NO.

TS NO. 4746 | DRAWING TSP-3 OF 3 | SHEET NO. 3 OF 3

PLOTTED: 12-18-2009
FILE: n:\316643-012\CADD\gSG-N003_md648.dgn

BY: sbloss