PROJECT DESCRIPTION

1. GENERAL

THIS PHASE - PHASE 2 INVOLVES CONTRUCTION OF A RIGHT TURN LANE, CHANNELIZATION ISLAND, INSTALLATION OF NEW TRAFFIC SIGNAL EQUIPMENT AND REMOVAL OF THE EXISTING EQUIPMENT AFTER NEW SIGNAL IS INSTALLED AND OPERATIONAL.

2. INTERSECTION OPERATION

NORMAL OPERATION

THE TRAFFIC SIGNAL CURRENTLY OPERATES IN A NEMA THREE-PHASE FULL TRAFFIC ACTUATED MODE.

PROJECT DESCRIPTION (CONT'D)

2. INTERSECTION OPERATION (CONT'D)

DURING THIS PHASE, A NEW WESTBOUND PERMISSIVE/EXCLUSIVE LAG LEFT-TURN PHASE WILL BE ADDED. THE TRAFFIC SIGNAL WILL OPERATE IN A NEMA FOUR-PHASE FULL TRAFFIC ACTUATED MODE. VIDEO DETECTION WILL BE INSTALLED FOR THE MD 313 APPROACH AND THE MD 404 WESTBOUND LEFT-TURN MOVEMENTS. NON-INVASIVE MICROLOOP PROBE SETS WILL BE INSTALLED AT EACH INTERSECTION APPROACH.

3. CONTROLLER INFORMATION

A NEW NEMA EIGHT-PHASE CONTROLLER IN A BASE MOUNTED CABINET WILL BE INSTALLED DURING THIS PHASE.

PROJECT CONTACTS

MR. RICHARD K. LINDSAY
DISTRICT ENGINEER
PHONE: 410-810-3210

MR. ROBERT L. KIEL
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: 410-810-3240

MR. TERRY O. WRIGHT
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: 410-810-3250

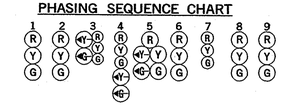
PROJECT CONTACTS (CONT'D)

MR. BARRY CLOTHIER
DISTRICT UTILITY ENGINEER
PHONE: 410-810-3275

MR. EDWARD RODENHIZER
CHIEF,
SIGNAL OPERATIONS SECTION
PHONE: 410-787-7652

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
PHONE: 410-787-7631

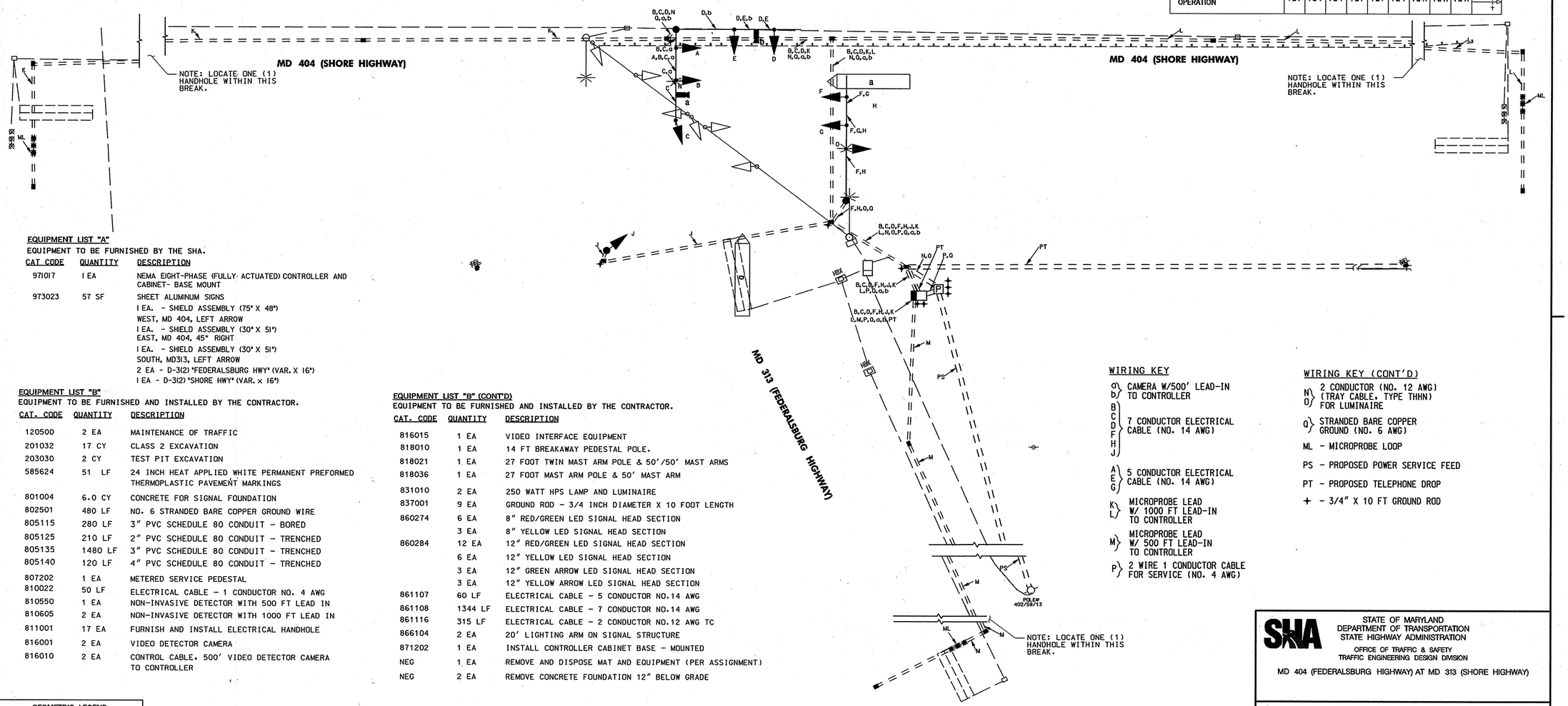
PHASING SEQUENCE CHART



PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	◁
2 AND 6 CHANGE	TO PHASE 2 AND 5						R	R	R	▷
PHASE 2 AND 5	R	R	+G/G	G/+G	+G/G	G	R	R	R	◁
2 AND 5 CHANGE	R	R	+Y/Y	Y/+Y	+Y/Y	Y	R	R	R	▼
PHASE 8	R	R	R	R	R	R	G	G	G	▲
8 CHANGE	R	R	R	R	R	R	Y	Y	Y	▲
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	▲ ▼

WIRING DIAGRAM

NOT TO SCALE



EQUIPMENT LIST "A"

EQUIPMENT TO BE FURNISHED BY THE SHA.

CAT CODE	QUANTITY	DESCRIPTION
971017	1 EA	NEMA EIGHT-PHASE (FULLY ACTUATED) CONTROLLER AND CABINET- BASE MOUNT
973023	57 SF	SHEET ALUMINUM SIGNS
		1 EA. - SHIELD ASSEMBLY (75" X 48") WEST, MD 404, LEFT ARROW
		1 EA. - SHIELD ASSEMBLY (30" X 51") EAST, MD 404, 45° RIGHT
		1 EA. - SHIELD ASSEMBLY (30" X 51") SOUTH, MD313, LEFT ARROW
		2 EA - D-3(2) "FEDERALSBURG HWY" (VAR. X 16")
		1 EA - D-3(2) "SHORE HWY" (VAR. x 16")

EQUIPMENT LIST "B"

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

CAT. CODE	QUANTITY	DESCRIPTION
120500	2 EA	MAINTENANCE OF TRAFFIC
201032	17 CY	CLASS 2 EXCAVATION
203030	2 CY	TEST PIT EXCAVATION
585624	51 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
801004	6.0 CY	CONCRETE FOR SIGNAL FOUNDATION
802501	480 LF	NO. 6 STRANDED BARE COPPER GROUND WIRE
805115	280 LF	3" PVC SCHEDULE 80 CONDUIT - BORED
805125	210 LF	2" PVC SCHEDULE 80 CONDUIT - TRENCHED
805135	1480 LF	3" PVC SCHEDULE 80 CONDUIT - TRENCHED
805140	120 LF	4" PVC SCHEDULE 80 CONDUIT - TRENCHED
807202	1 EA	METERED SERVICE PEDESTAL
810022	50 LF	ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 AWG
810550	1 EA	NON-INVASIVE DETECTOR WITH 500 FT LEAD IN
810605	2 EA	NON-INVASIVE DETECTOR WITH 1000 FT LEAD IN
811001	17 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
816001	2 EA	VIDEO DETECTOR CAMERA
816010	2 EA	CONTROL CABLE, 500' VIDEO DETECTOR CAMERA TO CONTROLLER

EQUIPMENT LIST "B" (CONT'D)

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

CAT. CODE	QUANTITY	DESCRIPTION
816015	1 EA	VIDEO INTERFACE EQUIPMENT
818010	1 EA	14 FT BREAKAWAY PEDESTAL POLE.
818021	1 EA	27 FOOT TWIN MAST ARM POLE & 50'/50' MAST ARMS
818036	1 EA	27 FOOT MAST ARM POLE & 50' MAST ARM
831010	2 EA	250 WATT HPS LAMP AND LUMINAIRE
837001	9 EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860274	6 EA	8" RED/GREEN LED SIGNAL HEAD SECTION
	3 EA	8" YELLOW LED SIGNAL HEAD SECTION
860284	12 EA	12" RED/GREEN LED SIGNAL HEAD SECTION
	6 EA	12" YELLOW LED SIGNAL HEAD SECTION
	3 EA	12" GREEN ARROW LED SIGNAL HEAD SECTION
	3 EA	12" YELLOW ARROW LED SIGNAL HEAD SECTION
861107	60 LF	ELECTRICAL CABLE - 5 CONDUCTOR NO.14 AWG
861108	1344 LF	ELECTRICAL CABLE - 7 CONDUCTOR NO.14 AWG
861116	315 LF	ELECTRICAL CABLE - 2 CONDUCTOR NO.12 AWG TC
866104	2 EA	20' LIGHTING ARM ON SIGNAL STRUCTURE
871202	1 EA	INSTALL CONTROLLER CABINET BASE - MOUNTED
NEG	1 EA	REMOVE AND DISPOSE MAT AND EQUIPMENT (PER ASSIGNMENT)
NEG	2 EA	REMOVE CONCRETE FOUNDATION 12" BELOW GRADE

WIRING KEY

- a, b — CAMERA W/500' LEAD-IN TO CONTROLLER
- B, C, D, F, H, J — 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- A, E, G — 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- K, L — MICROPROBE LEAD W/ 1000 FT LEAD-IN TO CONTROLLER
- M — MICROPROBE LEAD W/ 500 FT LEAD-IN TO CONTROLLER
- P — 2 WIRE 1 CONDUCTOR CABLE FOR SERVICE (NO. 4 AWG)

WIRING KEY (CONT'D)

- N, O — 2 CONDUCTOR (NO. 12 AWG) (TRAY CABLE, TYPE THHN) FOR LUMINAIRE
- Q — STRANDED BARE COPPER GROUND (NO. 6 AWG)
- ML - MICROPROBE LOOP
- PS - PROPOSED POWER SERVICE FEED
- PT - PROPOSED TELEPHONE DROP
- + - 3/4" X 10 FT GROUND ROD

GEOMETRIC LEGEND

- EXISTING
- PROPOSED

UTILITY LEGEND

- SD — STORM DRAIN
- G — GAS MAIN
- W — WATER MAIN
- S — SEWER MAIN
- E — ELECTRIC CABLES
- A — AERIAL CABLES
- T — TELEPHONE CABLES
- F — FIBER-OPTIC

BY: hennyad

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

MD 404 (FEDERALSBURG HIGHWAY) AT MD 313 (SHORE HIGHWAY)

GENERAL INFORMATION SHEET - PHASE 2

SCALE 1" = 20' DATE 2/22/2008 CONTRACT NO. C05885187

DESIGNED BY H. DONG
DRAWN BY A. POWELL
CHECKED BY CJW
F.A.P. NO.
COUNTY CAROLINE
LOGMILE 05040413.30
T.I.M.S. NO. H442
TOD NO.

DRAWING NO. 367D 529-TS 1 OF 1
SHEET NO. 3 OF 9

Edwards AND Kelcey
100 South Charles Street
Tower 2, Suite 1000
Baltimore, Maryland 21201
410-837-5840

PLOTTED: Wednesday, April 02, 2008 AT 03:25 PM
FILE: J:\2007 Projects\17L002003\Cad\March 08\pSG-H001_MD404atMD313CombinedPhase2-3.dgn