F.H.W.A. REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD	SEE TITLE SHEET		

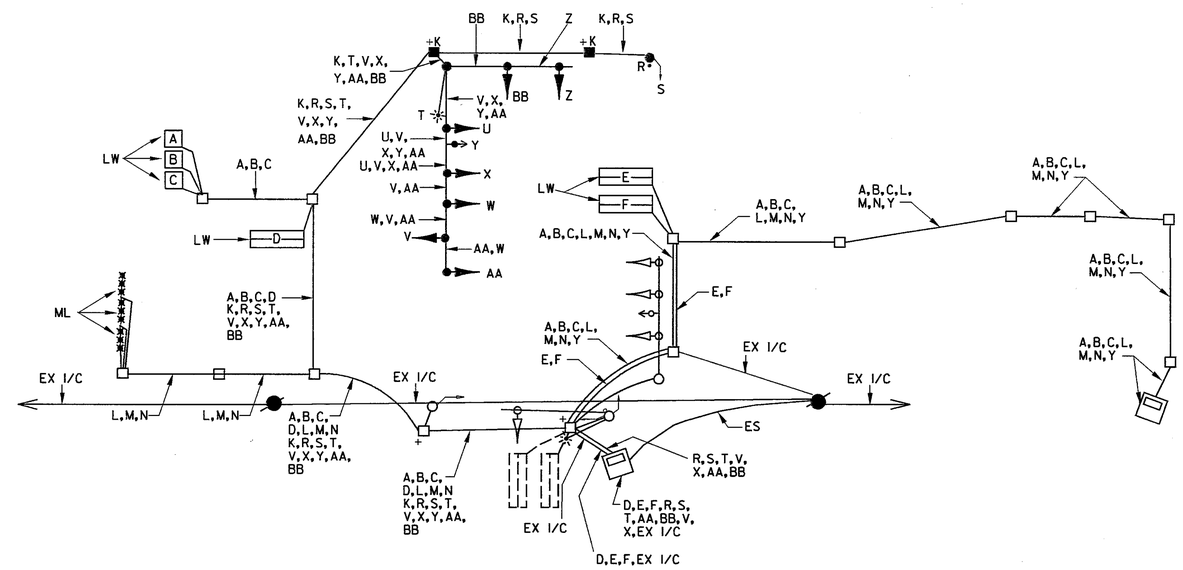
PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PHASE 1 + 5	←G—	←G—	R	R	←G—	←G—	R	R	R	R	R	DW	DW	DW	DW
1 + 5 CHANGE	←Y—	←Y—	R	R	←Y—	←Y—	R	R	R	R	R	DW	DW	DW	DW
PHASE 1 + 6	←R—	←R—	R	R	←G—	←G—	G	G	R	R	R	DW	DW	DW	DW
1 + 6 CHANGE	←R—	←R—	R	R	←Y—	←Y—	Y	Y	R	R	R	DW	DW	DW	DW
PHASE 2 + 5	←G—	←G—	G	G	←R—	←R—	R	R	R	R	R	WK	WK	DW	DW
PED. CLEAR	←G—	←G—	G	G	←R—	←R—	R	R	R	R	R	FL/DW	FL/DW	DW	DW
2 + 5 CHANGE	←Y—	←Y—	Y	Y	←R—	←R—	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 6	←R—	←R—	G	G	←R—	←R—	G	G	R	R	R	WK	WK	DW	DW
PED. CLEAR	←R—	←R—	G	G	←R—	←R—	G	G	R	R	R	FL/DW	FL/DW	DW	DW
2 + 6 CHANGE	←R—	←R—	Y	Y	←R—	←R—	Y	Y	R	R	R	DW	DW	DW	DW
PHASE 4	←R—	←R—	R	R	←R—	←R—	R	R	G	G	G	DW	DW	DW	DW
4 CHANGE	←R—	←R—	R	R	←R—	←R—	R	R	Y	Y	Y	DW	DW	DW	DW
PHASE 4 ALT.	←R—	←R—	R	R	←R—	←R—	R	R	G	G	G	DW	DW	WK	WK
PED. CLEAR	←R—	←R—	R	R	←R—	←R—	R	R	G	G	G	DW	DW	FL/DW	FL/DW
4 ALT. CHANGE	←R—	←R—	R	R	←R—	←R—	R	R	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/←R	FL/←R	FL/Y	FL/Y	FL/←R	FL/←R	FL/Y	FL/Y	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

PRE-EMPTION PHASING

PE #1	←R—	←R—	R	R	←G—	←G—	G	G	R	R	R	DW	DW	DW	DW
PE #1 CHANGE	←R—	←R—	R	R	←Y—	←Y—	Y	Y	R	R	R	DW	DW	DW	DW
PE #2	←R—	←R—	G	G	←R—	←R—	G	G	R	R	R	DW	DW	DW	DW
PE #2 CHANGE	←R—	←R—	Y	Y	←R—	←R—	Y	Y	R	R	R	DW	DW	DW	DW

WIRING DIAGRAM



PROJECT DESCRIPTION

GENERAL:

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING INTERSECTION TRAFFIC SIGNAL AND STREET LIGHTING AT MD 235 AND EXPLORATION PARK DR. IN ST. MARY'S COUNTY. MD 235 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION:

1. NORMAL OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FIVE-PHASE, FULL-TRAFFIC ACTUATED MODE, WITH THE MD 235 APPROACHES RUNNING CONCURRENTLY.
EXCLUSIVE LEFT TURN PHASING WILL BE PROVIDED FOR THE MD 235 NORTHBOUND APPROACH..

2. SPECIAL OPERATION

THE INTERSECTION WILL OPERATE AS INDICATED ABOVE UNLESS THE OPTICOM DEVICE IS ACTIVATED WHICH WILL PRE-EMPT THE TRAFFIC SIGNAL AND STOP THE EB APPROACH OF EXPLORATION PARK DR. AND EITHER THE NB OR SB APPROACHES ON MD 235.

CONTROLLER REQUIREMENTS:

A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH THREE (3) FOUR-CHANNEL, TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS. INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, TELEMETRY MODULE, ISOLATION BOARD AND SPECIAL RELAY HOUSED IN A NEMA SIZE '6' BASE MOUNTED CABINET.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #5 ARE AS FOLLOWS:

MR. PAUL ARMSTRONG
DISTRICT ENGINEER
PHONE: 410-841-5450

MR. LAWRENCE E. ELLIOTT
ACTING ASSISTANT
DISTRICT ENGINEER - TRAFFIC
PHONE: 410-841-5450

MR. JOHN MAYS
UTILITY ENGINEER
PHONE: 410-841-5450

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

THE POWER COMPANY REPRESENTATIVE IS:
SOUTHERN MARYLAND ELECTRIC COOPERATIVE (SMECO)
PO BOX 1937
HUGHESVILLE, MD 20637-1937
301-274-3111

WIRING KEY

A,B,C, D,E,F	2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED)
R	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
S	3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
U,W,Z	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
V,X,AA, BB	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
T	2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
K	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
Y	4-CONDUCTOR OPTICOM DETECTOR CABLE (NO. 20 A.W.G.)
L,M,N	MICRO-LOOP PROBE SET WITH 1325 FOOT LEAD-IN

LW - LOOP WIRE (NO. 14 A.W.G.)

ML - MICRO-LOOP PROBE SET

ES - EXISTING SERVICE

EX. I/C - EXISTING INTERCONNECT (12 PAIR CONNUNICATION CABLE, SELF SUPPORTING)

+ - 3/4IN. x 10 FT. GROUND ROD

4 THIS SHEET NO. 169A REPLACES SHEET NO. 169

PHASE 3 AND FINAL SIGNAL PLAN

SS-25A

RUMMEL, KLEPPER & KAHL, LLP
CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
TELE:(410)728-2900 FAX:(410)728-3160

REVISIONS:

4 REDLINE REVISION NO. 4 ADDED SHEET SHA No.: SM7685270 12/7/2000

A Nov. 1, 1998 Reconstruct Due To New Geometrics. SHA No.: SM7685270

APPROVALS:

CHIEF SIGNAL DESIGN SECTION

ASST. DISTRICT ENGINEER TRAFFIC

CHIEF TRAFFIC ENGINEERING DESIGN DIVISION

DIRECTOR OFFICE OF TRAFFIC & SAFETY

MDOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

LOG MILE # 1802351 3.13

DRAWN BY: DED/SMH
DES. BY: DK/DLA/SMH
CHK. BY: BJH

MD 235 @ EXPLORATION PARK DRIVE
SIGNAL PLAN

COUNTY: ST. MARY'S

DATE: ARRIL , 2000 F.A.P. NO. SEE TITLE SHEET
SCALE: N.T.S. S.H.A. NO. SEE TITLE SHEET

TS/STD. NO.: 3787A-GI1

SHEET NO. 169A OF 241

4/14/00 04:59:37
k:\data\shadsign\9582\task18\dgn\ms3hm235.dgn (*no instructions*)