FHWA REGION NO	STATE	FED. AID PROJ. NO	SHEET NO.	TOTAL SHEETS
3	MD.	SEE TITLE SHEET		

Intersection Operation

This intersection operates in a NEMA six phase, semi–traffic–actuated mode. There are exclusive left turns for both the north and southbound movements of MD 355. The through movements for MD 355 operate concurrently and have a concurrent pedestrian phase across the east and west legs of the intersection. The Middlebrook Road movements operate as a side street split and have an actuated pedestrian phase across the south leg of the intersection.

An eight phase, full–traffic–actuated, solid state digital controller with ten two–channel time delay output loop detector amplifiers housed in a base mounted cabinet are installed at this location.

Construction Details

A. Install handhole.

B. Install 1 in. liquid tight, non–metallic conduit for loop detector sleeve.

C. Install 2 in. polyvinyl chloride (Schedule 40) electrical conduit – trenched.

D. Install 3 in. polyvinyl chloride (Schedule 80) electrical conduit – slotted.

E. Install 6 ft. x 6 ft. vehicle loop detector (3 turns).

F. Use existing handhole.

G. Use existing conduit.

H. Existing cabinet/controller to be utilized.

J. Install 12 in. preformed white pavement marking for pedestrian crossing.

K. Remove existing span wire and all attached equipment.

L. Cap and abandon existing conduit.

M. Remove existing handhole.

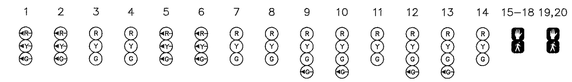
N. Remove existing steel pole and all attached equipment.

O. Conduit for interconnect cable. Refer to interconnect plans.

Equipment List "B"

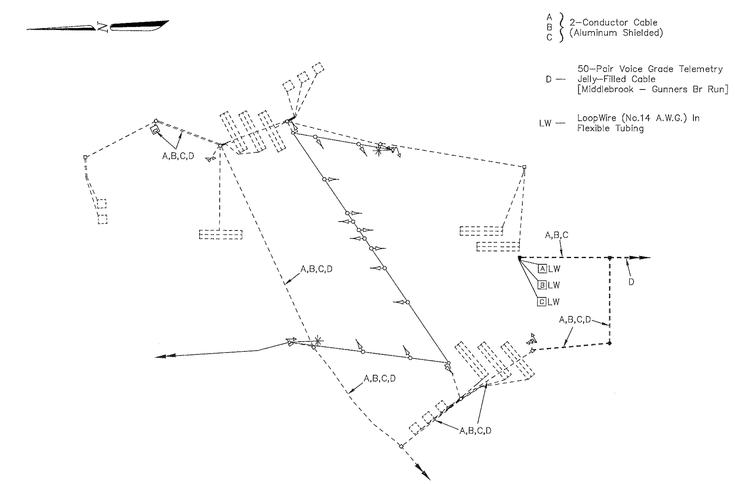
Equipment to be furnished and/or installed by the Contractor.

Quantity	Unit	Description
150	LF	12 in. preformed white pavement marking for pedestrian crossing.
3	EA	Handhole.
125	LF	Sawcut for signal loop detector.
325	LF	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
15	LF	1 in. liquid tight, flexible, non–metallic conduit for loop detector sleeve.
65	LF	2 in. polyvinyl chloride (Schedule 40) electrical conduit – trenched.
125	LF	3 in. polyvinyl chloride (Schedule 80) electrical conduit – slotted.
1975	LF	2–conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
LS	LS	Removal of existing traffic signal equipment.



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15–18	19,20
Phase 1 & 5	←G—	←G—	R	R	←G—	←G—	R	R	R	R	R	R	R	R	DW	DW
1 & 5 Change To Phase 1 & 6 or Phase 2 & 5																
Phase 1 & 6	←G—	←G—	G	G	←R—	←R—	R	R	R	R	R	R	R	R	DW	DW
1 Change	←Y—	←Y—	G	G	←R—	←R—	R	R	R	R	R	R	R	R	DW	DW
Phase 2 & 5	←R—	←R—	R	R	←G—	←G—	G	G	R	R	R	R	R	R	DW	DW
5 Change	←R—	←R—	R	R	←Y—	←Y—	G	G	R	R	R	R	R	R	DW	DW
Phase 2 & 6	←R—	←R—	G	G	←R—	←R—	G	G	R	R	R	R	R	R	WK	DW
Ped Clearance	←R—	←R—	G	G	←R—	←R—	G	G	R	R	R	R	R	R	FL/DW	DW
2 & 6 Change	←R—	←R—	Y	Y	←R—	←R—	Y	Y	R	R	R	R	R	R	DW	DW
Phase 3	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	G ←G—	G ←G—	G	DW	DW
3 Change	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	Y	Y	Y	DW	DW
Phase 4	←R—	←R—	R	R	←R—	←R—	R	R	G ←G—	G ←G—	G	R	R	R	DW	DW
4 Change	←R—	←R—	R	R	←R—	←R—	R	R	Y	Y	Y	R	R	R	DW	DW
Phase Alt. 4	←R—	←R—	R	R	←R—	←R—	R	R	G ←G—	G ←G—	G	R	R	R	DW	WK
Ped Clearance	←R—	←R—	R	R	←R—	←R—	R	R	G ←G—	G ←G—	G	R	R	R	DW	FL/DW
Alt. 4 Change	←R—	←R—	R	R	←R—	←R—	R	R	Y	Y	Y	R	R	R	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	FL/R	FL/R	FL/R	DARK	DARK

Phase Chart



Wiring Diagram

Ultimate Traffic Control Signal

Sheet 2 of 52

Revision 'D'

A/E GROUP, INC.
CONSULTING ENGINEERS • PLANNERS
11409 CRONHILL DRIVE
OWINGS MILLS, MD. 21117
(410) 363–1908
A/E JOB NO: 94–284

REVISIONS	APPROVALS
	CHIEF, SIGNAL DESIGN SECTION
	ASST. DISTRICT ENGINEER, TRAFFIC
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
D December 12, 1995 Modify for new geometrics. S.H.A. No.: M 611–501–371	DIRECTOR, OFFICE OF TRAFFIC & SAFETY

ORIGINAL ON FILE

MDOT – STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION SIGNAL # 15035518.11

DRAWN BY: G.E. Cook
DES. BY: M.A. Mears
CHK. BY: D.A. Doda

MD 355 at Middlebrook Road

COUNTY: MONTGOMERY

DATE: December 22, 1986 F.A.P. NO. N/A
SCALE: N/A S.H.A. NO. N/A

TS/STD. NO. **2283D-GI**

SHEET NO. ____ OF ____