

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

### PROJECT DESCRIPTION

#### GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION MD 173 AND SOLLEY ROAD / ENTRANCE TO BG&E IN ANNE ARUNDEL COUNTY. MD 173 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

THIS WORK IS NECESSITATED BY WIDENING ON THE SOUTH-WEST CORNER OF THE INTERSECTION AND WILL CONSIST OF PHASING MODIFICATIONS AND DETECTOR, CONDUIT AND WIRING REPLACEMENT.

#### INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE, WITH THE MD 173 APPROACHES OPERATING CONCURRENTLY AND THE SOLLEY RD. / BG&E ENTRANCE APPROACHES OPERATING CONCURRENTLY.

A FIREHOUSE PREEMPTION PHASE EXISTS FOR EASTBOUND SOLLEY ROAD WORK WILL CONSIST OF SPLITTING THE SOLLEY RD. / BG&E ENTRANCE MOVEMENTS

#### CONTROLLER REQUIREMENTS

THE EXISTING FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER HOUSED IN A BASE MOUNTED WILL BE USED. INSTALL ONE 4-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER.

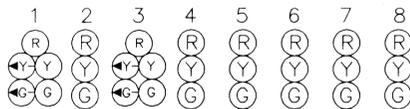
### EQUIPMENT LIST

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
---	1 EACH	TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER
5010	25 L.F.	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKINGS
5011	4 EACH	THERMOPLASTIC PAVEMENT MARKING LETTER
5012	2 EACH	THERMOPLASTIC PAVEMENT MARKING ARROW (LEFT-THRU)
5012	2 EACH	THERMOPLASTIC PAVEMENT MARKING ARROW (LEFT)
8016	2 EACH	FURNISH AND INSTALL MICRO-LOOP PROBE SET WITH 500 FT. LEAD-IN
8021	350 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8022	20 L.F.	FURNISH AND INSTALL 1 IN. GALVANIZED STEEL CONDUIT FOR DETECTOR SLEEVE
8024	360 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8026	110 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
8033	5 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8040	1000 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8045	1600 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 7 CONDUCTOR (NO. 14 A.W.G.)
---	1 EACH	FURNISH AND INSTALL 12 IN., ONE-WAY, FOUR-SECTION (R,Y,G,G) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR SPAN WIRE MOUNTING AND TUNNEL VISORS.
---	16 S.F.	FURNISH AND INSTALL SHEET ALUMINUM SIGNS TO CONSIST OF : - 1 EACH R3-6 SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT - 1 EACH R3-5L SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT
---	1 EACH	RELOCATE OVERHEAD EXISTING SIGN

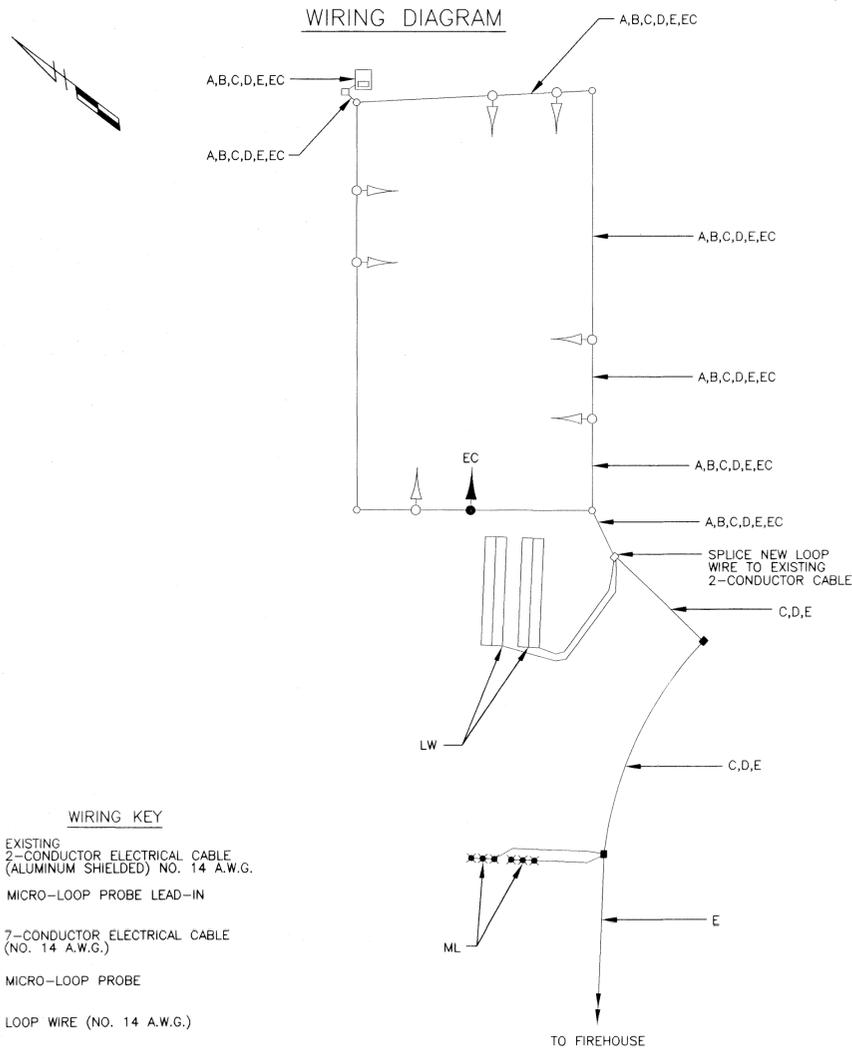
NOTE: ITEM NUMBERS CORRESPOND TO MSHA AREAWIDE CONTRACT

### PHASE CHART



	1	2	3	4	5	6	7	8	
PHASE 1 + 5	R	R	R	R	R	R	R	R	↑
1 + 5 CHANGE	←G	↓							
PHASE 1 + 6	G	G	R	R	R	R	R	R	↑
1 + 6 CHANGE	←G	↓							
PHASE 2 + 5	R	R	←G	G	R	R	R	R	↑
2 + 5 CHANGE	R	R	←G	G	R	R	R	R	↓
PHASE 2 + 6	G	G	G	G	R	R	R	R	↑
2 + 6 CHANGE	Y	Y	Y	Y	R	R	R	R	↓
PHASE 3	R	R	R	R	R	R	←G	G	↑
3 CHANGE	R	R	R	R	R	R	Y	Y	↓
PHASE 4	R	R	R	R	←G	G	R	R	↑
4 CHANGE	R	R	R	R	Y	Y	R	R	↓
PRE-EMPTION	R	R	R	R	←G	G	R	R	↑
PRE-EMPTION CHANGE	R	R	R	R	Y	Y	R	R	↓
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	↑

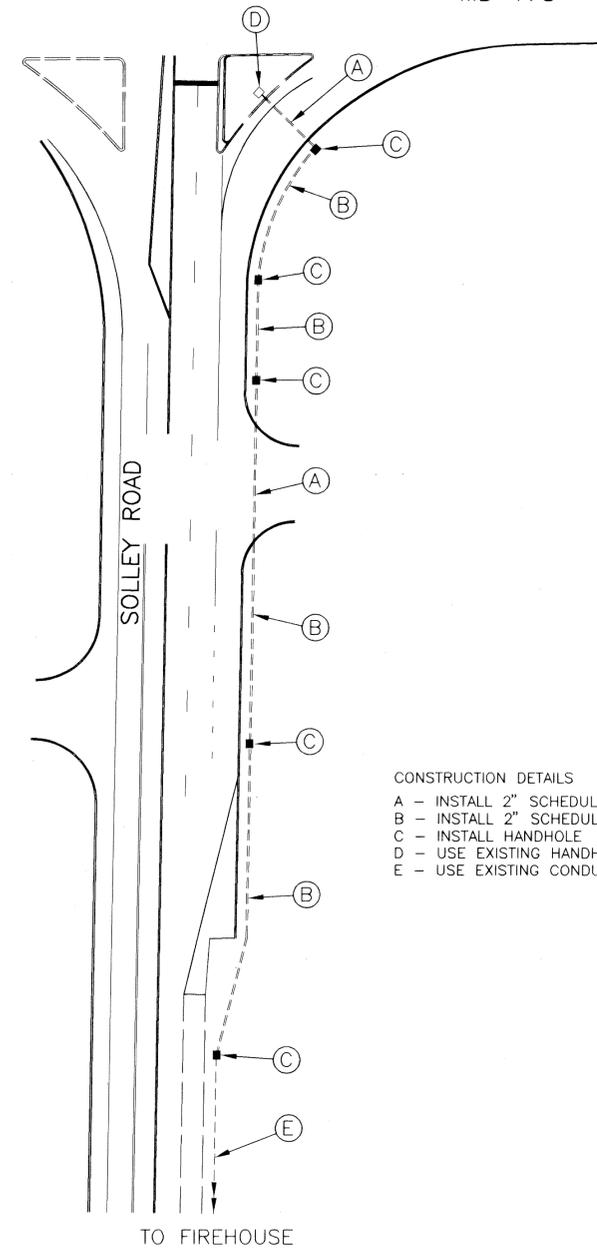
### WIRING DIAGRAM



#### WIRING KEY

- A } EXISTING 2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED) NO. 14 A.W.G.
- B } MICRO-LOOP PROBE LEAD-IN
- C } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D } MICRO-LOOP PROBE
- E } LOOP WIRE (NO. 14 A.W.G.)
- EC } EXISTING CABLE

SCALE: 1" = 40'



- CONSTRUCTION DETAILS
- A - INSTALL 2" SCHEDULE 80 PVC CONDUIT (BORED)
  - B - INSTALL 2" SCHEDULE 80 PVC CONDUIT (TRENCHED)
  - C - INSTALL HANDHOLE
  - D - USE EXISTING HANDHOLE
  - E - USE EXISTING CONDUIT

### TRAFFIC CONCEPTS, INC.

Brightview Business Center  
8258 Veterans Highway  
Suite 19B  
Millersville, MD 21108  
(410) 987-0427

REVISIONS	APPROVALS
	ASSISTANT DIVISION CHIEF
	ASST. DISTRICT ENGINEER, TRAFFIC
	CHIEF, TRAFFIC ENG. DESIGN DIV.
	DIR., OFFICE OF TRAFFIC & SAFETY



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION  
GENERAL INFORMATION SHEET  
MD 173 AND SOLLEY ROAD /  
ENTRANCE TO BG&E

DATE: 9-28-98	DRAWN BY: T. ZAYDEL	F.A.P. NO.	PLAN SHEET NO.:	SHEET NO.
SCALE: NONE	DESIGNED BY: T. ZAYDEL	S.H.A. NO.	16690 GI	2 OF 2
APPROVED BY:	CHECKED BY: K. SCHMID	COUNTY: ANNE ARUNDEL		