

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC CONTROL SIGNAL IN CONJUNCTION WITH CONSTRUCTION OF A NEW MEDIAN AND WIDENING OF MD 140 (BALTIMORE BOULEVARD), IN CARROLL COUNTY, MD 140 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION. WORK EFFORTS INCLUDE THE REMOVAL OF FOUR EXISTING STRAIN POLES, SPAN WIRES, SIGNAL HEADS, AND SIGNAL EQUIPMENT THAT ARE IN CONFLICT WITH PROPOSED ROADWAY MODIFICATIONS. ALSO INCLUDED IS THE REMOVAL AND REPLACING OF AN EXISTING DYNAMIC "SIGNAL AHEAD" SIGN, MAST ARM, SIGNALS, CONTROLLER, AND CABINET.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA EIGHT-PHASE SEMI-ACTUATED MODE. MD 140 WILL CONTINUE TO OPERATE WITH PROTECTED LEFT-TURN PHASING. THE EXISTING CONCURRENT PHASING OF EAST/WEST TRAFFIC WILL BE MAINTAINED.

CONTROLLER REQUIREMENTS

INSTALL A NEW FULL-TRAFFIC ACTUATED, EIGHT-PHASE CONTROLLER WITH TIME DELAY OUTPUT LOOP, DETECTOR AMPLIFIERS, AND SYSTEM PACKAGE WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA BASE MOUNTED CABINET.

EQUIPMENT LIST "B" (CONT.)

B. Equipment to be Furnished and/or Installed by the Contractor

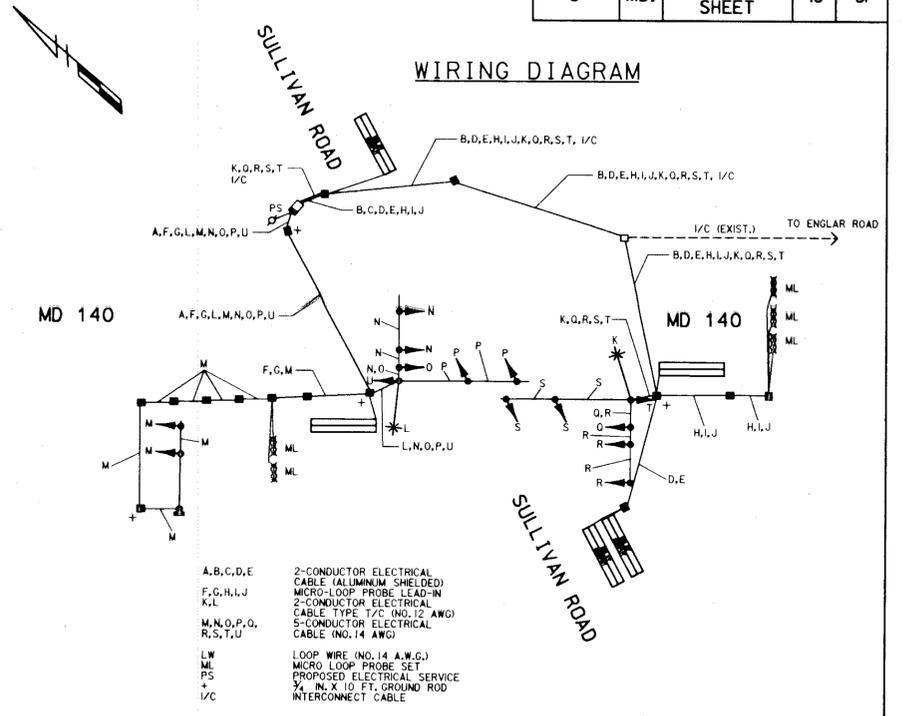
Item No.	Quantity	Description
8049	150 LF	3" schedule 80 rigid polyvinyl chloride conduit (trenched)
8030	200 LF	1" galvanized steel electrical conduit (detector wire sleeve)
8037	4 EA	Grounding rod
8001	1 EA	Control and distribution equipment
8002	40 LF	1-conductor electrical cable (No. 4 AWG), (power source)
1007	1 EA	Maintenance of Traffic
8005	14 EA	Install Signal Heads (any type)
8006	5 EA	Furnish and Install Micro Loop Probe Set (1000 FT)
8007	1 EA	Install Controller and Cabinet Base mount
8050	1 EA	Install Controller and "G" type Flasher Cabinet Pole mount
8018	3 EA	Cut, clean, galvanize and cap traffic signal structure
8011	5 EA	Remove and dispose of existing foundation 12" below grade
8013	90 SF	Install overhead mounted signs
8017	1 LS	Remove and dispose of existing material and equipment
8004	3 EA	Install loop detection amplifier
8033	2 EA	250 Watt HPS luminaire with photocell
8008	2 EA	20' lighting bracket for traffic signal structure
8003	1 EA	Use existing disk and as-built traffic control devices
8051	1 EA	Delivery of salvage poles, controller, and cabinet
8031	1 LS	Remove/Reset existing interconnect cable
8012	2 EA	Furnish and Install 27' mast arm pole and twin 38'/60' mast arms (4-2" dia. x 90" anchor bolts)
8029	1 EA	Furnish and Install 21' mast arm pole and 60' mast arm (4-2" X 90" anchor bolts)
8009	4 EA	Cut, cap, and clean mast arm in field

Notes: 1. All Equipment to be removed and not listed above shall become the property of the Contractor.
2. The Contractor shall ask for the standard State of Maryland Signal Controller Cabinet from Ecanolite.

GENERAL NOTES

- THE UTILITIES SHOWN ON THE CONSTRUCTION PLAN ARE SCHEMATIC ONLY AND ARE NOT TO BE CONSIDERED TO BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES CAN BE LOCATED IN THE FIELD. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF THE UTILITIES. ANY DAMAGE INCURRED BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES AND/OR AGENCIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
MISS UTILITY 1-800-257-7777
- CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS (SHA, OCTOBER, 1993) AND ALL AMENDMENTS.
- EXISTING TRAFFIC SIGNAL SHALL REMAIN IN OPERATION AND NOT BE REMOVED UNTIL THE NEW SIGNAL EQUIPMENT IS FULLY OPERATIONAL AND AS APPROVED BY THE ENGINEER. PROPOSED SIGNAL HEADS SHALL NOT CONFLICT WITH OR OBSTRUCT EXISTING SIGNAL HEADS. PROPOSED SIGNAL HEADS MAY HAVE TO BE TEMPORARILY SHIFTED SO THAT NO CONFLICT BETWEEN PROPOSED AND EXISTING SIGNAL HEADS EXIST.
- D.O. INDICATES DELAYED OUTPUT.
- EXACT SIGNAL HEAD AND SIGN LOCATION SHALL BE DETERMINED IN THE FIELD BY ENGINEER.
- ALL EXISTING FOUNDATIONS SHALL BE REMOVED TO A DEPTH OF 1'-0" BELOW GRADE AND BACK-FILLED IN ACCORDANCE WITH SHA STANDARDS.

FHWA REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD.	SEE TITLE SHEET	45	51



PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12
Phase 2 & 6	←R	←R	G	G	←R	←R	G	G	R	R	R	R
2 & 6 Change	←R	←R	Y	Y	←R	←R	Y	Y	R	R	R	R
Phase 1 & 6	←G	←G	G	G	←R	←R	R	R	R	R	R	R
1 & 6 Change	←Y	←Y	Y	Y	←R	←R	R	R	R	R	R	R
Phase 1 & 5	←G	←G	R	R	←G	←G	R	R	R	R	R	R
1 & 5 Change	←Y	←Y	R	R	←Y	←Y	R	R	R	R	R	R
Phase 2 & 5	←R	←R	R	R	←G	←G	G	G	R	R	R	R
2 & 5 Change	←R	←R	R	R	←Y	←Y	Y	Y	R	R	R	R
Phase 4 & 8	←R	←R	R	R	←R	←R	R	R	G	G	G	G
4 & 8 Change	←R	←R	R	R	←R	←R	R	R	Y	Y	Y	Y
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

EQUIPMENT LIST "A"

A. Equipment to be Furnished by SHA and Installed by the Contractor

Item No.	Quantity	Description
9002	8 EA	12" one-way three-section (R,Y,G) adjustable traffic signal head with proper mast arm mounting hardware and tunnel visors
9003	4 EA	12" one-way three-section (R,Y,G) adjustable traffic signal head with proper mast arm mounting hardware and tunnel visors
9015	2 EA	12" one-way one-section (Y) adjustable traffic signal head with proper mast arm mounting hardware and tunnel visors
9006	1 EA	Eight-phase full-traffic actuated solid state digital controller with intersection monitor with battery back-up for phone drop, and all other necessary equipment housed in a NEMA base mounted cabinet
9018	1 EA	Pole mount "G" type flasher cabinet and controller
9004	90 SF	Sheet aluminum signs to consist of: 2 EA D3-2 "Sullivan Rd" (72"x16") mast arm mounted 2 EA D3-2 "Baltimore Blvd" (72"x16") mast arm mounted 1 EA R3-5L lane use control-Left Only (30"x36") 1 EA W3-3(2) "Signal Ahead-Prepare to Stop When Flashing" (120"x60")
9001	3 EA	Four-channel, time delay output, loop detector amplifier

EQUIPMENT LIST "B"

B. Equipment to be Furnished and/or Installed by the Contractor

Item No.	Quantity	Description
2006	2 CY	Test Pit Excavation
5017	170 LF	24" white permanent preformed pavement marking tape
8022	16 CY	Concrete Foundation
8048	1520 LF	2" schedule 80 rigid PVC conduit (trenched)
8032	340 LF	3" schedule 80 rigid PVC conduit (slotted)
8040	1070 LF	2-conductor electrical cable (aluminum shielded)
8043	540 LF	2-conductor electrical cable type T/C (No. 12 AWG)
8041	3600 LF	5-conductor electrical cable (No. 14 AWG)
8044	2330 LF	1-conductor wire (NO. 14 AWG) encased in 1/2" flexible (loop detector)
8045	775 LF	Saw cut for signal (loop detector)
8046	14 EA	Handhole

ADDENDUM NO. 1
DECEMBER 2, 1998

WHITNEY BAILEY COX MAGNANI

REVISIONS	APPROVALS
1. REVISED 1/18/94 2. REVISED 2/14/94 3. REVISED 10/78 4. REVISED 10/78	CHIEF, SIGNAL DESIGN SECTION ASST. DISTRICT ENGINEER, TRAFFIC CHIEF, TRAFFIC ENGINEERING DESIGN DIV. DIRECTOR, OFFICE OF TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 140 (BALTIMORE BLVD) AND SULLIVAN ROAD

DATE: 4/5/79
SCALE: 1" = 20'
APPROVED BY: _____

DRAWN BY: J. GORDON
DESIGNED BY: _____
CHECKED BY: _____

F.A.P. NO. _____
S.H.A. NO. _____
COUNTY: CARROLL

PLAN SHEET NO. TS-1577C
SHEET NO. 45 OF 51