

PROJECT DESCRIPTION

I. GENERAL
 This project involves the installation of a new electric flag signal at the intersection of Bus. US 1 (Belair Rd) and Auction Way in Harford County, Maryland. Bus. US 1 is considered to run in a north/south direction.

II. INTERSECTION OPERATION
 The new signal will be equipped with a pole mounted cabinet and controller, pedestal pole with pushbutton and signal indication for point of control activation.
1. Normal Operation:
 Flashing yellow indications for Bus. US 1 (Belair Rd).
2. Pre-emption Phase Operation:
 Solid red indications for Bus. US 1 (Belair Rd).
3. Phone drop to be provided, contact Robert Snyder at (410) 787-5800 for details.

EQUIPMENT LIST

A. Approved S.H.A. equipment to be purchased by the Developer and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

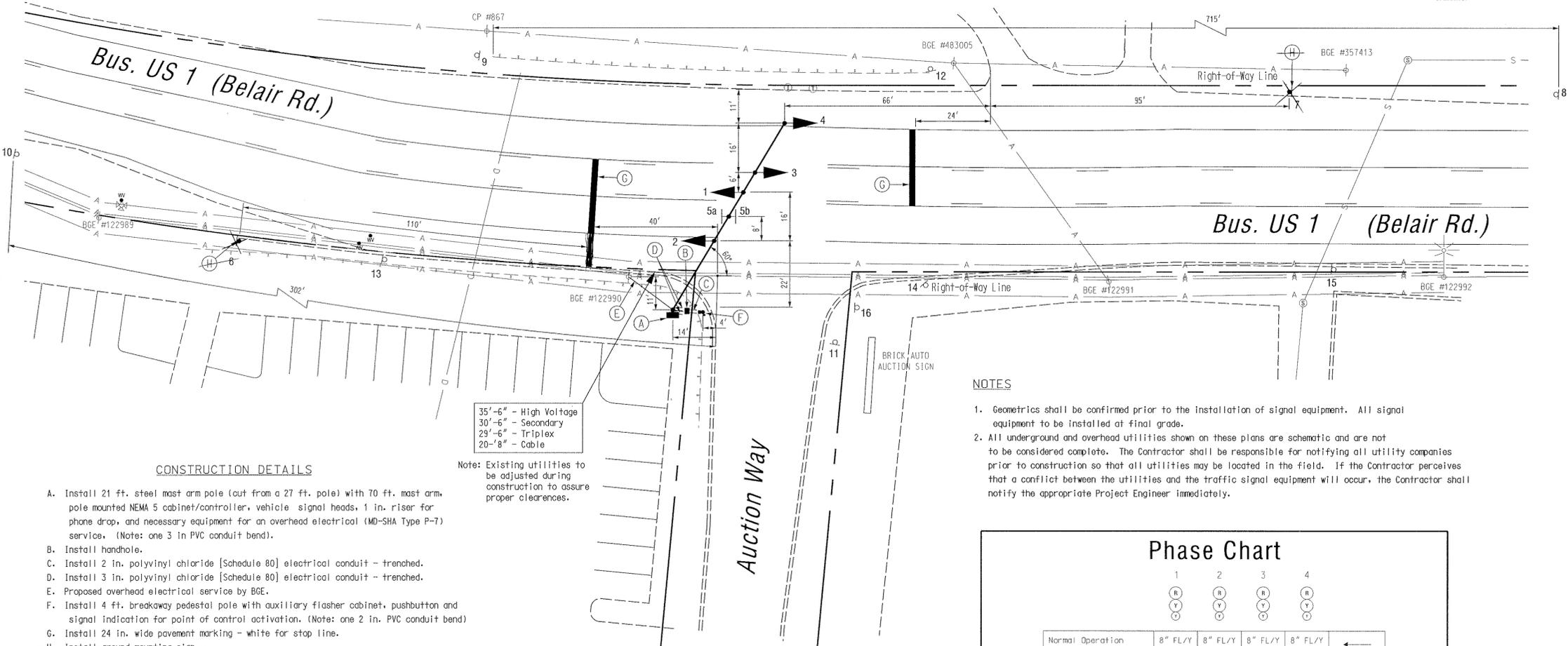
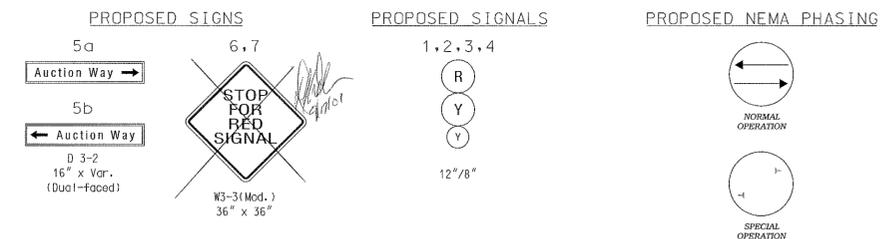
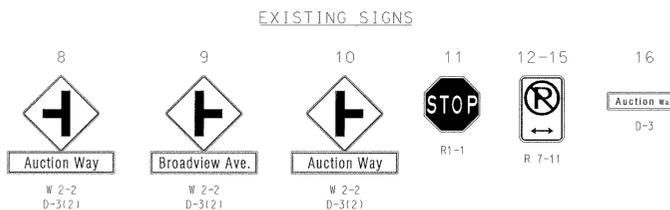
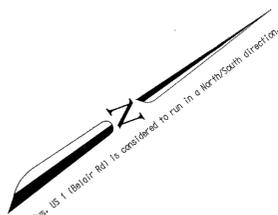
Quantity	Units	Specification Section	Description
1	EA	818	27 ft. steel mast arm pole with a 70 ft. mast arm.
1	EA	818	4 ft. steel pedestal pole with break away transformer base.
1	EA	816	Standard S.H.A. traffic signal controller, pole mounted cabinet. [Note: Controller and cabinet shall be supplied by Econolite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Roderhizer (410) 787-7650].
1	EA	816	Auxiliary flasher cabinet.
4	EA	814	12 in./8 in. one-way, three section (12 in. - R/Y/B in. - Y) adjustable block faced traffic signal head with mast arm mounting hardware and tunnelvisors.
1	EA	813	16 in. x Var. D 3-2 (Dual-Faced) with under mast arm mounting hardware.
2	EA	813	36 in. x 36 in. W 3-3 (Mod.) for ground mounting.
1	EA	---	Pushbutton assembly with signal indication.

B. Equipment to be furnished and/or installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
1	CY	205	Test pit excavation.
50	LF	550	24 in. wide pavement marking - white for stop line.
1	EA	811	Handhole.
20	LF	810	2-conductor electrical cable (No. 14 A.W.G.).
50	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
150	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
20	LF	810	3-wire (No. 4 A.W.G.) electrical cable.
10	LF	810	Bare copper stranded ground wire (No. 6 A.W.G.).
5	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
10	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
5.35	CY	801	Concrete foundation for traffic signal equipment.
1	EA	804	Ground rod 3/4 in. diameter x 10 ft. length.
1	EA	807	Control and distribution equipment (120/240 V, one phase, three wire system) for a type P-7 overhead electrical service.
30	LF	812	4 in. x 6 in. wood sign support.
1	EA	---	Cut, clean and cap mast arm pole.
1	LS	---	As-built for S.H.A. (on CADD).

C. Existing equipment to be removed by the Contractor and delivered to the MDCHA Office of Traffic and Safety, Traffic Operations Division, Traffic Signal Shop, 7491 Community Drive, Harford MD, 21076. A twenty-four (24) hour notice is required prior to delivery. Please contact Mr. Ed Roderhizer at (410) 787-7650.

Note: All equipment and/or material not listed above shall become the property of the Contractor.



35'-6" - High Voltage
 30'-6" - Secondary
 23'-6" - Triplex
 20'-8" - Cable

Note: Existing utilities to be adjusted during construction to assure proper clearances.

CONSTRUCTION DETAILS

- A. Install 21 ft. steel mast arm pole (cut from a 27 ft. pole) with 70 ft. mast arm, pole mounted NEMA 5 cabinet/controller, vehicle signal heads, 1 in. riser for phone drop, and necessary equipment for an overhead electrical (MO-SHA Type P-7) service. (Note: one 3 in PVC conduit bend).
- B. Install handhole.
- C. Install 2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
- D. Install 3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
- E. Proposed overhead electrical service by BGE.
- F. Install 4 ft. breakaway pedestal pole with auxiliary flasher cabinet, pushbutton and signal indication for point of control activation. (Note: one 2 in. PVC conduit bend)
- G. Install 24 in. wide pavement marking - white for stop line.
- H. Install ground mounting sign.

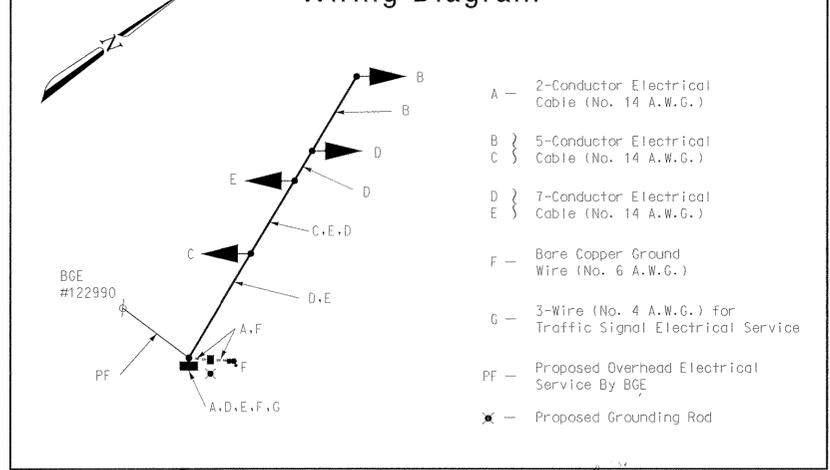
NOTES

- 1. Geometrics shall be confirmed prior to the installation of signal equipment. All signal equipment to be installed at final grade.
- 2. All underground and overhead utilities shown on these plans are schematic and are not to be considered complete. The Contractor shall be responsible for notifying all utility companies prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal equipment will occur, the Contractor shall notify the appropriate Project Engineer immediately.

Phase Chart

	1	2	3	4	
Normal Operation	8" FL/Y	8" FL/Y	8" FL/Y	8" FL/Y	←
Pre-Emption Warning	8" OFL/Y	8" OFL/Y	8" OFL/Y	8" OFL/Y	←
Warning Change	12" Y	12" Y	12" Y	12" Y	→
Pre-Emption Phase	R	R	R	R	↑
Pre-Emption Change	R	R	R	R	↓
Flashing Operation	12" FL/Y	12" FL/Y	12" FL/Y	12" FL/Y	←

Wiring Diagram



GEOMETRIC LEGEND

--- EXISTING GEOMETRICS
 --- PROPOSED GEOMETRICS

UTILITY LEGEND

--- GAS MAIN
 --- WATER MAIN
 --- SEWER MAIN
 --- ELECTRIC CABLES
 --- STORM DRAIN
 --- AERIAL CABLES
 --- TELEPHONE CABLES

The Traffic Group, Inc.
 410-931-6600
 Fax 410-931-6601

REVISIONS

APPROVALS

[Signature]
 TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION

[Signature]
 ASST. CHIEF TRAFFIC ENGINEERING DESIGN DIVISION

[Signature] 3/03/01
 CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION

[Signature] 3/11/01
 DIRECTOR, TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
 (Traffic Signal Plan)
U.S. Business Route 1 (Belair Rd.) at Auction Way

DRAWN BY: F. Brownley
 CHECKED BY:
 SCALE: 1" = 20'
 DATE: June 25, 2001

F.A.P. NO. N/A
 S.H.A. NO. BW996M82
 COUNTY: Harford
 LOG MILE: XXX

TS NO. 4100
 T.I.M.S. NO. D-959
 SHEET NO. 1 OF 1