PROJECT DESCRIPTION

I. GENERAL

This project involves the reconstruction of an existing Traffic Control Signal with interconnect at the intersection of MD 528 (Ocean Highway) and 52 nd Street in Worcester County. The existing interconnect run south to 48 th Street shall be replaced. MD 528 (Ocean Highway) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

1. The intersection is to operate in a NEMA six-phase, semi-actuated mode, with the MD 528 (Ocean Highway) approaches running concurrently. Exclusive/Permissive left turn phases shall be provided for both approaches of MD 528 (Ocean Highway). A pedestrian phase with pushbutton actuation shall be provided across both legs of MD 528 (Ocean Highway). The 52 nd Street approaches shall also run concurrently.

2. A full-traffic-actuated, eight-phase controller with two (2) four channel, rack mount loop detector amplifiers, housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

III. SPECIAL NOTES

1. The Contractor shall be responsible for terminating all signal cables, excluding interconnect, to the appropriate terminals and shall properly label each cable.

2. All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7650 seventy-two hours in advance of intended work.

3. All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor percieves that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A..

ITEM NO.	DESCRIPTION	QUANTITY
9000	Eight-phase, full-traffic actuated, solid state digital controller with two 4-channel, rack mount loop detector amplifiers and associated harnesses housed in a NEMA size " 6"- base mounted cabinet.	1 EA
9089	Sheet aluminum signs to consist of:	28.5 SF
	R3-14 "DIAMOND (SYMBOL) RIGHT LANE, Buses and Turns Only", sign (30" x 36") mast arm mounted.	1 EA
	R10-12 "LEFT TURN YIELD ON GREEN (BALL)" sign, (36" x 42") span wire mounted.	2 EA
9090	Sheet aluminum signs to consist of: (Blue or Green)	48 SF
	D3-2 "52 nd Street ", sign (variable x 16") mast arm mounted.	2 EA
	D3-2 "COASTAL HWY",sign (variable x 16") mast arm mounted.	2 EA
9096	Pedestrian pushbutton and R10-3C sign. (Note: Sign to read "PUSHBUTTON TO CROSS COASTAL HWY".)	4 EA

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

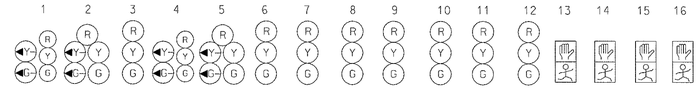
ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	1 EA
2001	Test pit excavation.	5 C.Y.
5003	12" white heat applied permanent preformed thermoplastic pavement marking.	1310 L.F.
5004	24" white heat applied permanent preformed thermoplastic pavement marking.	85 L.F.
5007	Remove existing pavement markings - any width.	850 L.F.
6001	4" concrete sidewalk.	200 S.F.
8001	Furnish and install concrete for signal foundation.	14 C.Y.
8003	Furnish and install breakaway pedestal pole (10').	2 EA
8006	Cut, clean, galvanize and cap traffic signal structure.	1 EA
8008	Furnish and install 3" weatherhead.	2 EA
8011	Install signal head (any type).	12 EA
8018	Install pushbutton and sign.	4 EA

EQUIPMENT LIST (CONT.)

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

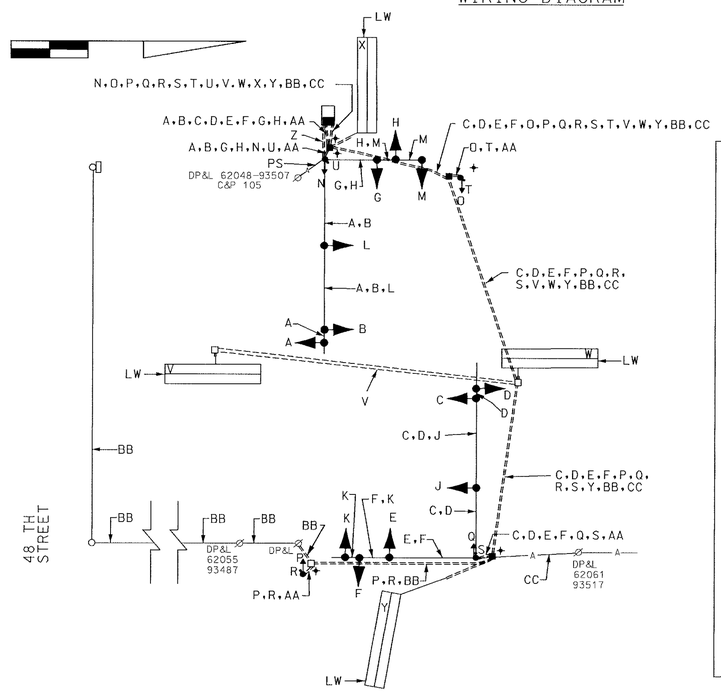
ITEM NO.	DESCRIPTION	QUANTITY
8020	Install controller and cabinet base mount.	1 EA
8021	Furnish and install saw cut for signal (loop detector).	450 L.F.
8022	Furnish and install 1" electrical conduit galvanized sleeve.	40 L.F.
8023	Furnish and install 1" liquid tight flexible non-metallic conduit for detector sleeve.	10 L.F.
8024	Furnish and install 2" schedule 80 rigid polyvinyl chloride - trenched	15 L.F.
8027	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - trenched	45 L.F.
8030	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - trenched.	25 L.F.
8031	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - slotted.	235 L.F.
8033	Furnish and install electrical handhole.	3 EA
8034	Furnish and install ground rod -3/4" x 10'.	5 EA
8038	Furnish and install 12-pair communication cable, self-supporting (overhead).	1740 L.F.
8040	Furnish and install loop wire encased in flexible tubing (No. 14 AWG).	1820 L.F.
8041	Furnish and install electrical cable - 2 conductor (aluminum shielded).	610 L.F.
8042	Furnish and install electrical cable - 2 conductor (No. 14 AWG).	590 L.F.
8043	Furnish and install electrical cable - 3 conductor (No. 14 AWG).	615 L.F.
8044	Furnish and install electrical cable - 5 conductor (No. 14 AWG).	115 L.F.
8045	Furnish and install electrical cable - 7 conductor (No. 14 AWG).	1400 L.F.
8048	Furnish and install No. 6 AWG stranded bare copper ground wire.	40 L.F.
8053	Install overhead sign.	76.5 S.F.
8057	Remove and dispose of existing foundation 12" below grade.	5 EA
8058	Removal of existing controller, cabinet and galvanized signal structure.	1 EA
8059	Delivery of removed controller, cabinet and galvanized signal structure (per intersection).	1 EA
8060	Remove and dispose of existing material and equipment per assignment.	1 EA
8063	Furnish and install 3" electrical conduit - polyvinyl chloride riser.	30 L.F.
8066	Furnish and install control and distribution equipment (120/240 V, 1 phase 3 wire system).	1 EA
8081	Furnish and install mast arm pole and twin (50' (cut to 30') / 60') mast arms.	1 EA
8081	Furnish and install mast arm pole and twin (50' / 60') mast arms.	1 EA
8084	Furnish and install 12" vehicular traffic signal head section	38 EA
8085	Furnish and install 8" vehicular traffic signal head section.	6 EA
8087	Furnish and install pedestrian signal head section	8 EA
Neg.	Remove existing 12-pair communication cable	1590 L.F.
Neg.	Remove concrete sidewalk.	200 L.F.
Neg.	Pull back and reroute 12-pair interconnect cable	275 L.F.

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 & 5	◄G-/R	◄G-/R	R	◄G-/R	◄G-/R	R	R	R	R	R	R	R	DW	DW	DW	DW
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6																
PHASE 1 & 6	◄G-/G	◄G-/G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 & 6 CHANGE	◄Y-/G	◄Y-/G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 & 5	R	R	R	◄G-/G	◄G-/G	G	R	R	R	R	R	R	DW	DW	DW	DW
2 & 5 CHANGE	R	R	R	◄Y-/G	◄Y-/G	G	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW
PED CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 & 8 ALT	R	R	R	R	R	R	G	G	G	G	G	G	WK	WK	WK	WK
PED CLEARANCE	R	R	R	R	R	R	G	G	G	G	G	G	FL/DW	FL/DW	FL/DW	FL/DW
4 & 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

- A B C D E F G H — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)
- J K L M — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)
- N O P Q — 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)
- R S T U — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)
- V W X Y — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G) ALUMINUM SHIELDED
- Z - 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- AA - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- BB - 12-PAIR VOICE GRADE INTERCONNECT CABLE (SELF SUPPORTING)
- CC - REROUTED 12-PAIR VOICE GRADE INTERCONNECT CABLE (SELF SUPPORTING)
- LW - LOOP WIRE (NO. 14 A.W.G.)
- PS - PROPOSED OVERHEAD SERVICE TO BE INSTALLED BY CONECTIV
- + - GROUND ROD

REVISION "B"

STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy.NW.
Glen Burnie,MD 21061
Ph (410) 590-5500
Fax (410) 590-6637

PTASK48GI.DGN

REVISIONS	APPROVALS
	TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION
	ASST. CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRAT
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISIO
GENERAL INFORMATION SHEET
MD 528 (OCEAN HIGHWAY) AND 52nd STRE

DRAWN BY: ROB CICCHINI	F.A.P. NO.		TS NO. 949B	SHEE
CHECKED BY: RRZ	S.H.A. NO.			
SCALE:	COUNTY: WORCESTER		T.I.M.S. NO. E174	2 O
DATE: 10-26-2000	LOG MILE: 23052805.28			