

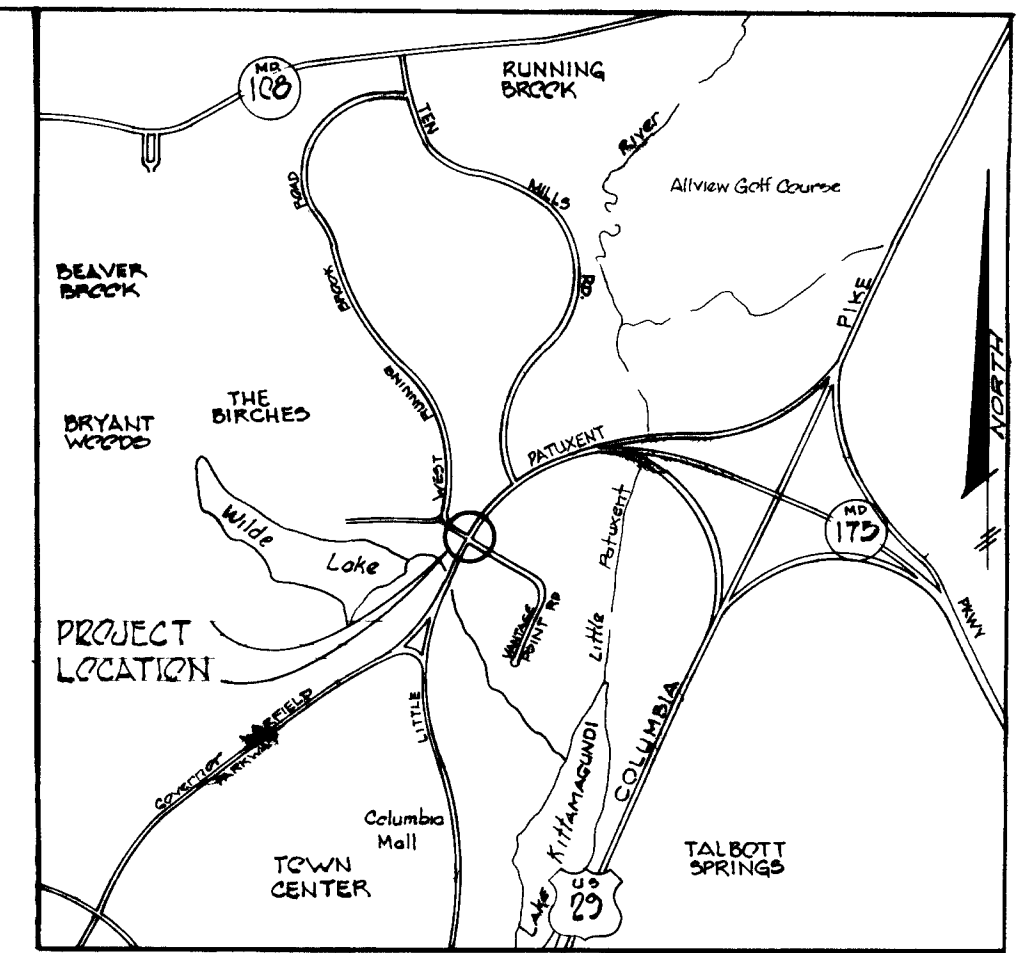
PHASE AND SEQUENCE DIAGRAM	TRAFFIC SIGNAL HEADS	
	1, 2, 7, 8	3, 4, 5, 6
	G	R
	A	R
	R	G
	R	A
	A	R

### GENERAL NOTES

- All highway marking shall be the responsibility of the Division of Traffic Engineering of the Bureau of Engineering, Department of Public Works of Howard County, Maryland, and is not to be considered a part of this contract.
- The utilities shown on the construction plan are schematic only and are not to be considered complete. The contractor shall be responsible for notifying all utility companies prior to construction so that all utilities can be located in the field. Any damage incurred by the contractor shall be repaired immediately at the contractor's expense.
- Timing of the signal system shall be furnished by the Traffic Engineer (Ref 4 03 K of the General Specifications).
- All materials and workmanship employed under this contract shall conform with the "GENERAL SPECIFICATIONS FOR INSTALLATION OF, AND EQUIPMENT FOR TRAFFIC SIGNALS FOR HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS" dated Oct 7, 1976, revised Feb 10, 1976.
- All wiring to be underground. The conduit shall be sized to accommodate future wiring for left turn detectors, left turn signals on pedestals, and pedestrian (WALK/BENT WALK) signal heads. An additional 1" conduit shall be provided in control cabinet foundation. An additional conduit band shall be provided in each pole foundation for future left turn detectors and signal heads.

### STANDARD SYMBOLS

- Signal heads
- Proposed steel pole
- Existing Street Lights
- Controller
- Meter (with vandal proof cover)
- Hand box
- Loop Detector
- Master Arm
- Pedestrian Push Button



VICINITY MAP  
Scale 1"=200'

### A. CONTROLLER AND ACCESSORIES

- Two phase modular controller with solid state circuitry and digital timing.
  - Equipped with one (1) each, vehicular actuated, and non-actuated module.
  - Equipped with actuated pedestrian clearance for Phase B.
  - Memory, recall, red clearance, dual maximum and pedestrian clearance for actuated phase.
  - Minimum green, yellow clearance, all red clearance and pedestrian clearance for non-actuated phase.
- Conflict monitor and solid state signal loading switches.
- Standard police panel with manual override feature.
- Base mounted control cabinet; large enough to accommodate the above control equipment and the co-ordination equipment specified on sheet 2 of 2 - DETAILS OF CO-ORDINATION OF LITTLE PATUXENT PKWY/WEST RUNNING BROOK RD/VANTAGE POINT RD WITH LITTLE PATUXENT PKWY/STREET PLACE TRAFFIC SIGNALS, and shall be finished bronze paint.

### B. LOOPS AND DETECTORS

- Two (2) delayed timer vehicle loop detectors for loops 1 & 4.
- Two (2) delayed timer vehicle loop detectors for loops 2, 3, 5 & 6. Loops 2 & 5 and 3 & 6 are to be wired separately to a common detector as per manufacturer's recommendations for correct operation.
- Loop sizes:
 

Loop No	Dimensions	Phase
1, 2, 4, 5	6' x 30'	B
3, 6	6' x 20'	B

### C. SIGNAL HEADS (WITH LEVIS HANGER)

- Signal head description
 

Signal No	Description
1, 2, 7, 8	12" diam indications
3, 4, 5, 6	12" diam red indications 8" diam yellow & green indications

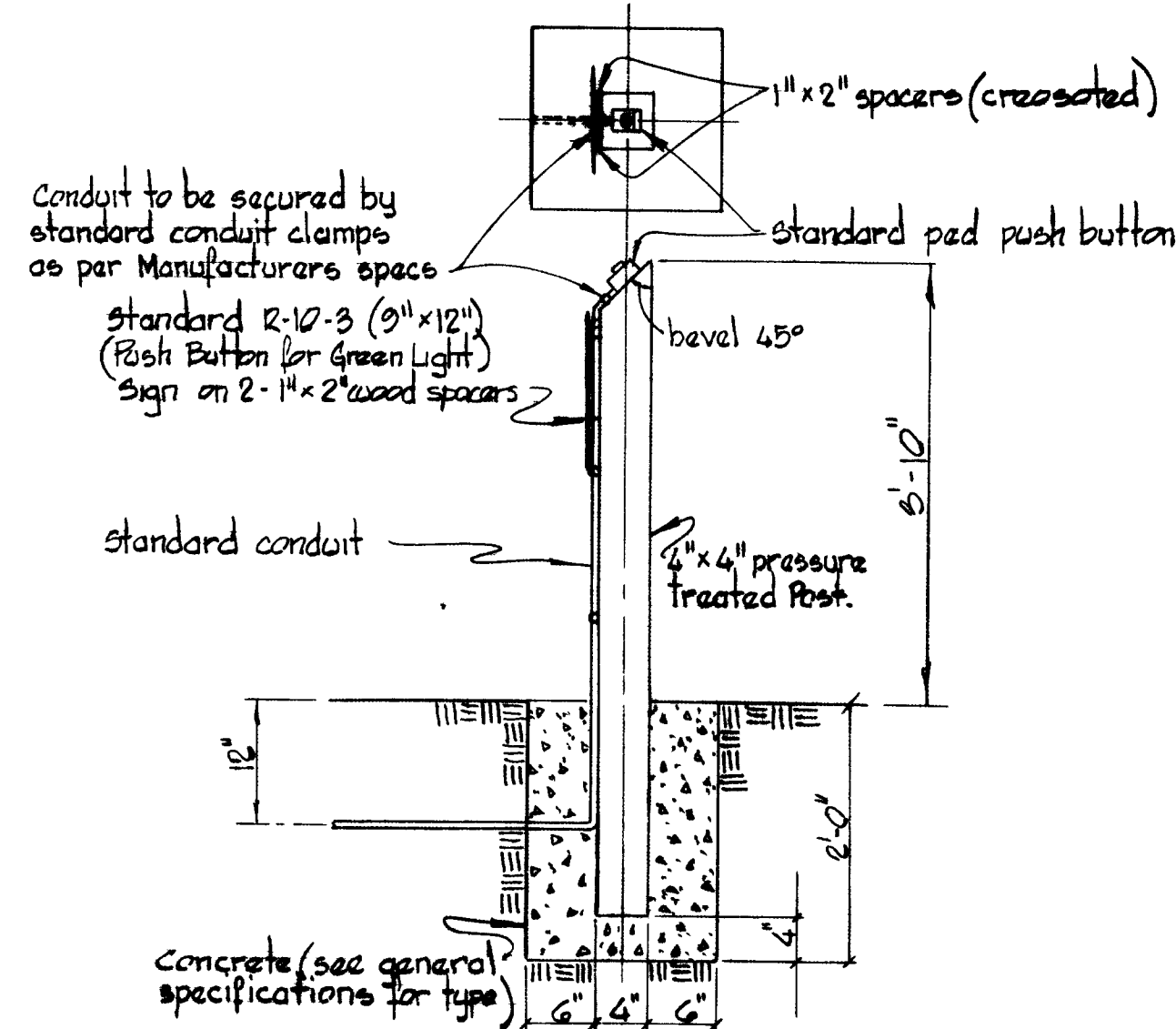
### D. POLES

- Two (2) twin arm support poles with a 90° angle of separation.
- Style and appearance equivalent to UNION METAL DESIGN # 50300. Finish shall be bronze paint.
- Pole No Description
 

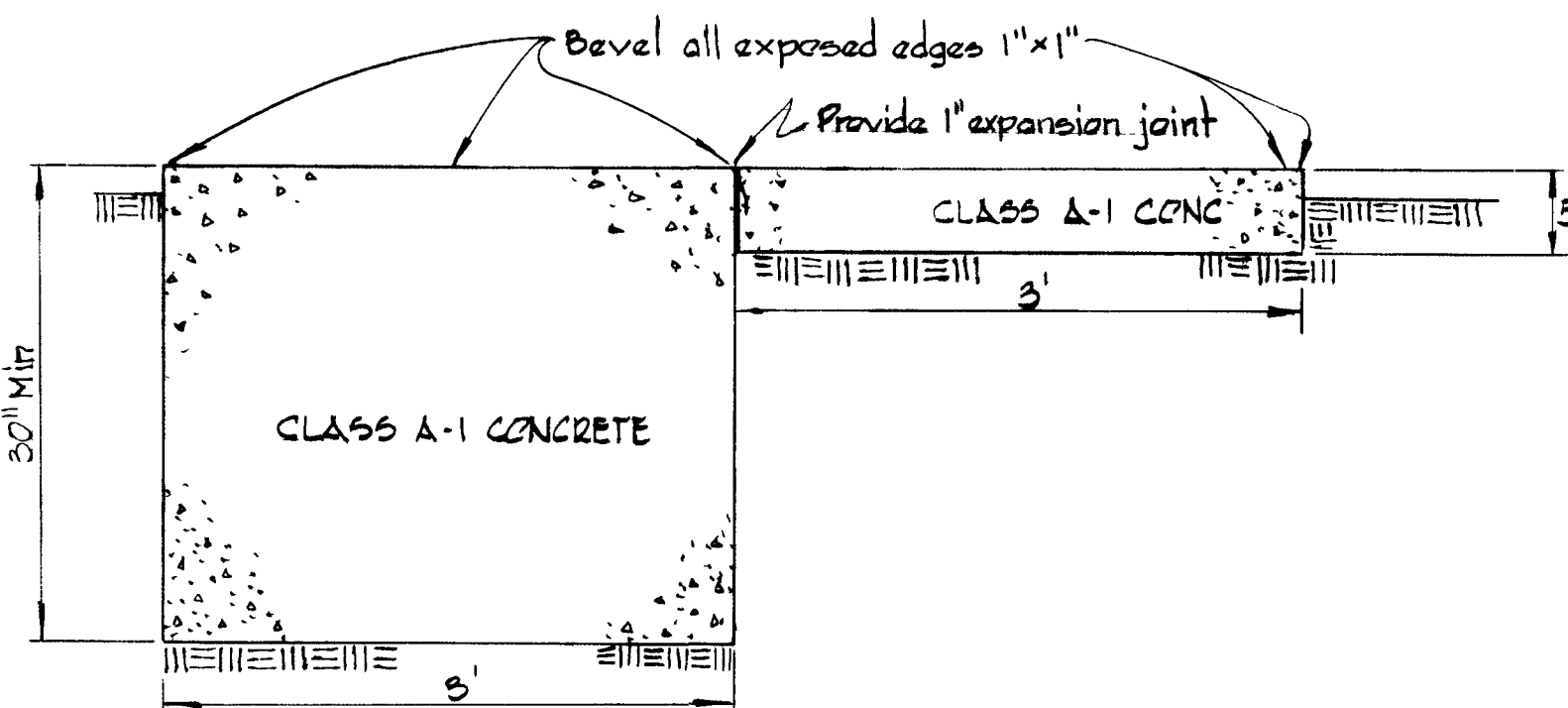
Pole No	Description
1 & 2	40' x 34' span (40' span supports 2-12" heads, 34' span supports 2-combination heads)

### E. PEDESTRIAN PUSH BUTTON

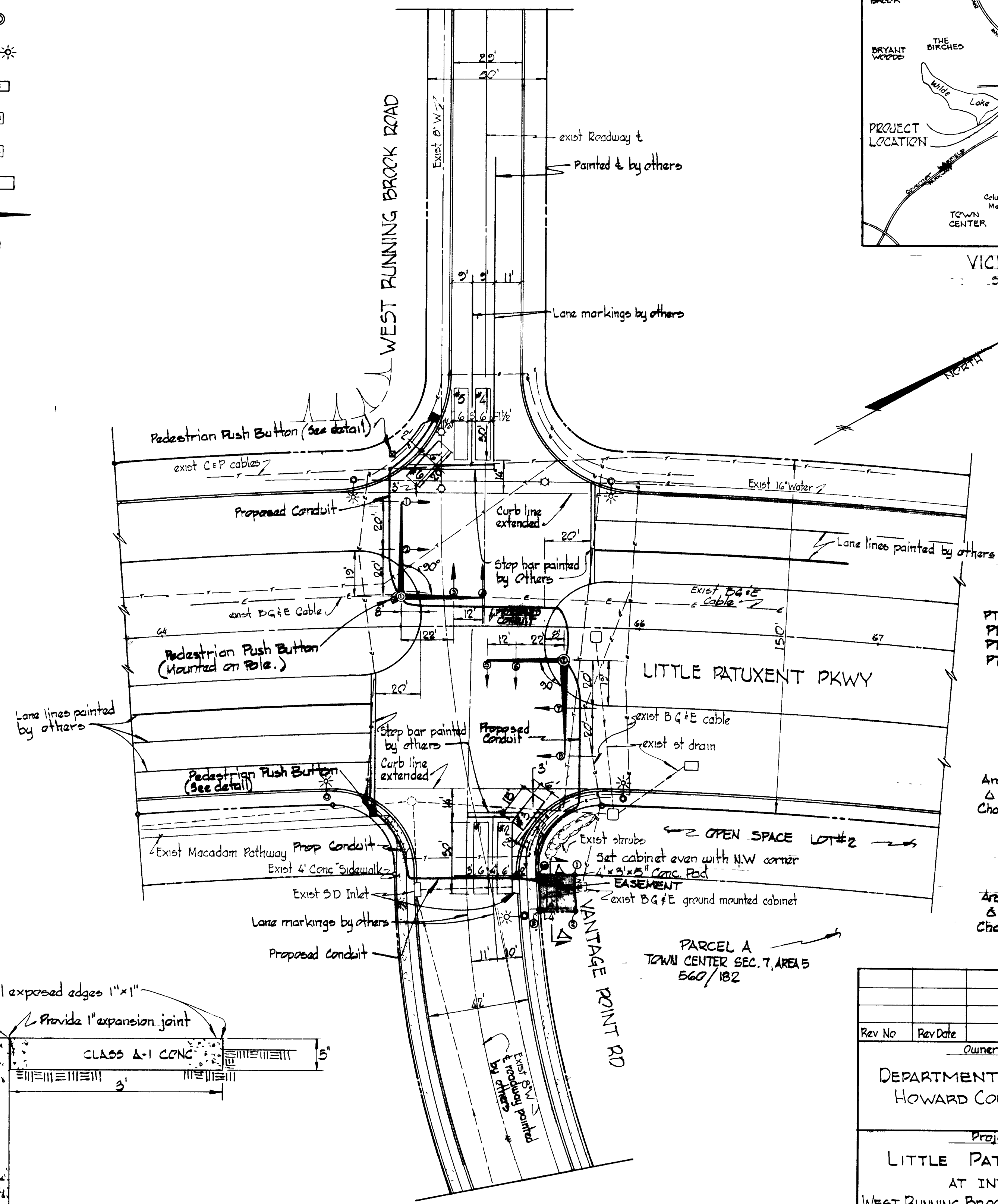
- QUANTITY - 3
- LOCATION - In accordance with plan.
- DESIGN - See detail below
- SIGN - R-10-3 - 9" x 12" (quantity 3)



PEDESTRIAN PUSHBUTTON  
No scale



SECTION A-A  
Scale 1"=1'-0"



PLAN  
Scale 1"=30'

COORDINATE SCHEDULE			
PT#362	N 506,524.28	E 840,562.74	
PT#1	N 848,537.47	E 860,569.89	
PT#2	N 828,538.09	E 840,568.24	
PT#3	N 826,517.40	E 840,576.09	

EASEMENT DESCRIPTION			
From #362 to #1	N 28° 27' 46" E - 15.00'		
From #1 to #2	Arc = 15.00'	Rad = 955.00'	
	Δ = 2° 25' 27"	Tan = 7.50'	
	Chd. = 15.00'	Chd. brg. = S 62° 46' 08" E	
From #2 to #3	S 28° 27' 46" E - 15.00'		
From #3 to #4	Arc = 15.00'	Rad = 370.00'	
	Δ = 2° 10' 23"	Tan = 7.50'	
	Chd. = 15.00'	Chd. brg. = N 60° 46' 08" E	

Rev No	Rev Date	Revision Description
		Owner and Developer
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND		
Project Area LITTLE PATUXENT PARKWAY AT INTERSECTION OF WEST RUNNING BROOK ROAD AND VANTAGE POINT ROAD		
Project Title PLAN FOR CONSTRUCTION OF TRAFFIC SIGNAL EQUIPMENT LISTS		
CAPITAL PROJECT No T-8-7006		
Designed: K. BAZZO	Scale: As NOTED	
Drawn: M. Wilhelms	Date: May 25, 1977	
Checked: J. Kienker	Sheet: 1 of 2	
Approved:		
Prepared By DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING DIVISION OF INSPECTION AND SURVEY 8350 ROUTE 108 COLUMBIA, MARYLAND 21045	Scale: As NOTED Date: May 25, 1977 Sheet: 1 of 2	
Approved: <i>Thomas J. McManus</i> Chief - Bureau of Highway Safety	Approved: <i>Thomas J. McManus</i> TOWN CENTER SEC. 7, AREA B 567/182	Approved: <i>Thomas J. McManus</i> Director of Public Works
Approved: <i>William E. Filbert</i> Chief - Division of Traffic Engineering & Highway Safety	Approved: <i>William E. Filbert</i> 8-25-77 Date	Approved: <i>William E. Filbert</i> 8-25-77 Date