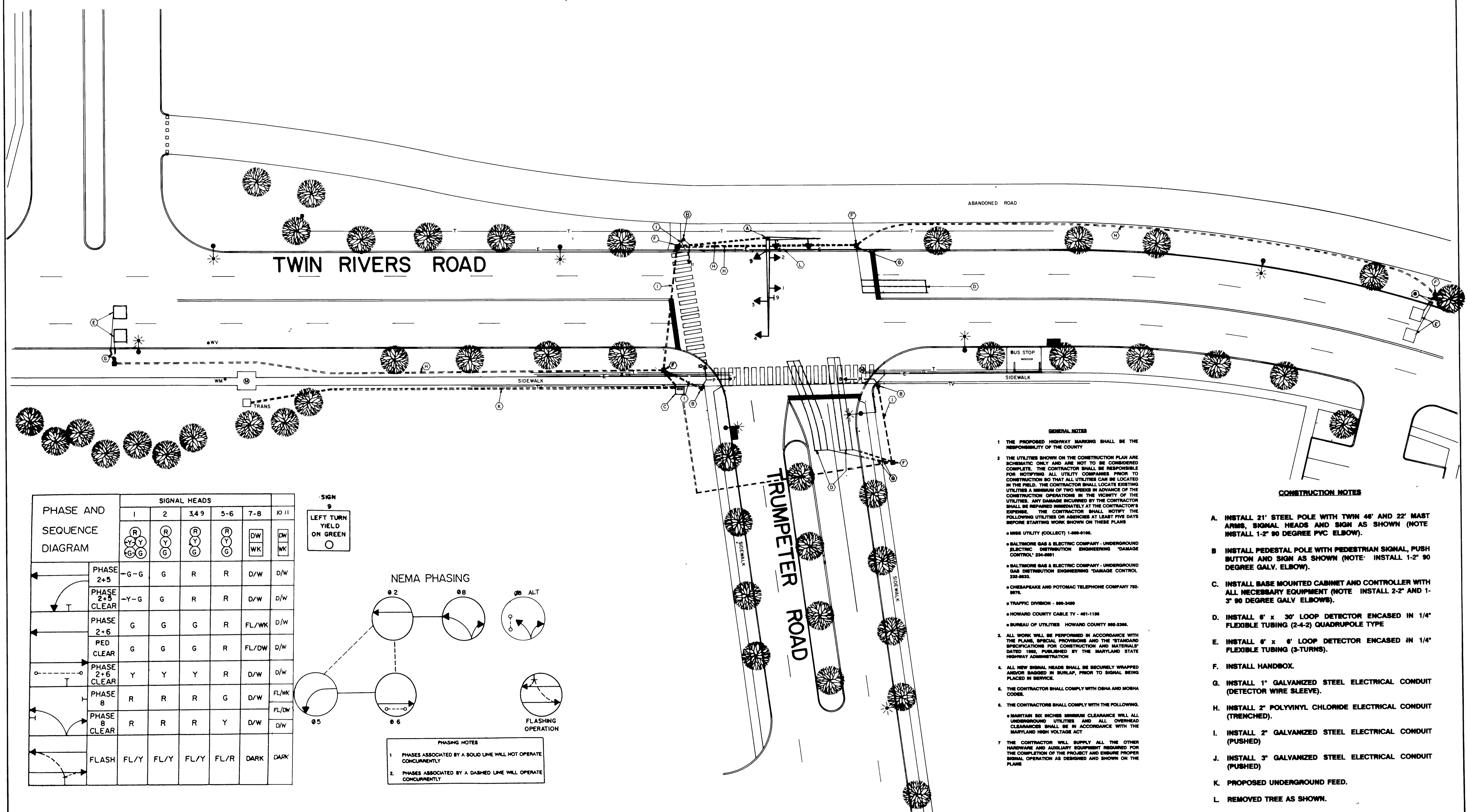
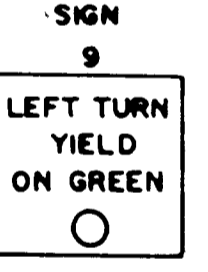


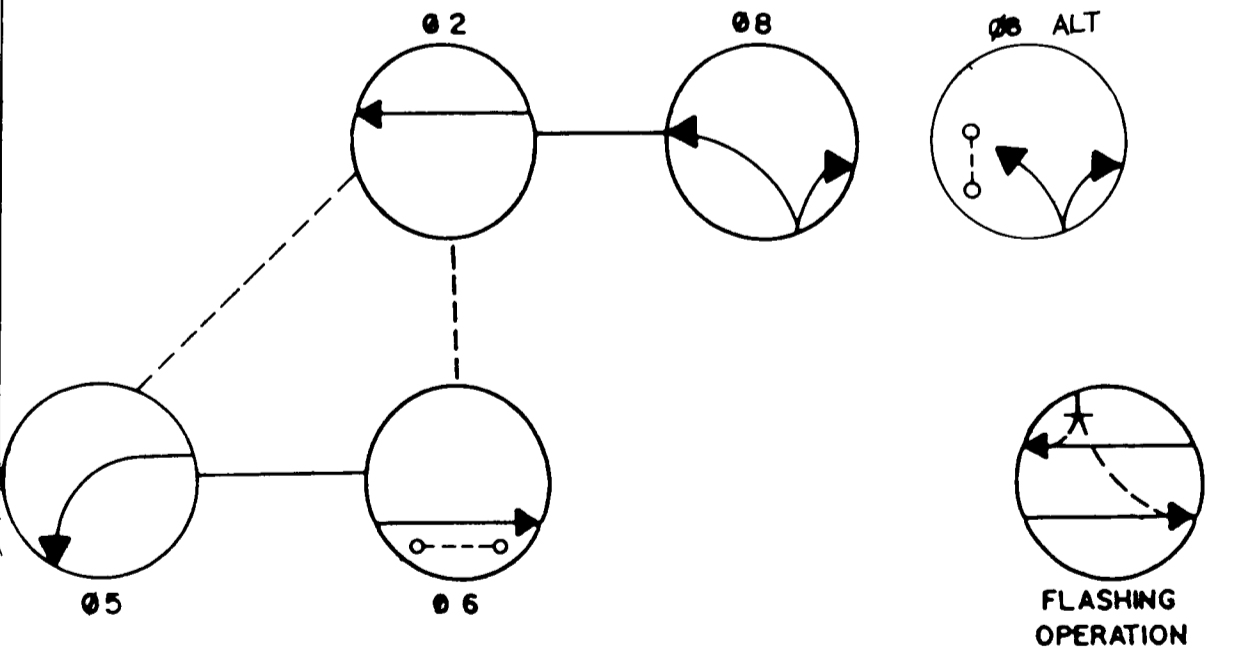
1" = 20'



PHASE AND SEQUENCE DIAGRAM	SIGNAL HEADS					
	1	2	3,4,9	5-6	7-8	10,11
PHASE 2+5	G	G	R	R	D/W	D/W
PHASE 2+5 CLEAR	Y	Y	Y	R	D/W	D/W
PHASE 2+6	G	G	G	R	FL/WK	D/W
PED CLEAR	G	G	G	R	FL/DW	D/W
PHASE 2+6 CLEAR	Y	Y	Y	R	D/W	D/W
PHASE 8	R	R	R	G	D/W	FL/WK
PHASE 8 CLEAR	R	R	R	Y	D/W	D/W
FLASH	FL/Y	FL/Y	FL/Y	FL/R	DARK	DARK



NEMA PHASING



PHASING NOTES  
 1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY  
 2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY

- GENERAL NOTES**
- THE PROPOSED HIGHWAY MARKING SHALL BE THE RESPONSIBILITY OF THE COUNTY
  - 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. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO WEEKS IN ADVANCE OF THE 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 OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
    - MBS UTILITY (COLLECT) 1-888-6188
    - BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND ELECTRIC DISTRIBUTION ENGINEERING "DAMAGE CONTROL" 234-8881
    - BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND GAS DISTRIBUTION ENGINEERING "DAMAGE CONTROL" 232-8833
    - CHESAPEAKE AND POTOMAC TELEPHONE COMPANY 782-9976
    - TRAFFIC DIVISION - 888-3488
    - HOWARD COUNTY CABLE TV - 461-1188
    - BUREAU OF UTILITIES HOWARD COUNTY 888-3388
  - ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH THE PLANS, SPECIAL PROVISIONS AND THE "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS" DATED 1982, PUBLISHED BY THE MARYLAND STATE HIGHWAY ADMINISTRATION
  - ALL NEW SIGNAL HEADS SHALL BE SECURELY WRAPPED AND/OR BAGGED IN BURLAP, PRIOR TO SIGNAL BEING PLACED IN SERVICE.
  - THE CONTRACTOR SHALL COMPLY WITH OSHA AND MSHA CODES.
  - THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING:
    - MAINTAIN SIX INCHES MINIMUM CLEARANCE WILL ALL UNDERGROUND UTILITIES AND ALL OVERHEAD CLEARANCES SHALL BE IN ACCORDANCE WITH THE MARYLAND HIGH VOLTAGE ACT
  - THE CONTRACTOR WILL SUPPLY ALL THE OTHER HARDWARE AND AUXILIARY EQUIPMENT REQUIRED FOR THE COMPLETION OF THE PROJECT AND ENSURE PROPER SIGNAL OPERATION AS DESIGNED AND SHOWN ON THE PLANS

**CONSTRUCTION NOTES**

- INSTALL 21" STEEL POLE WITH TWIN 48" AND 22" MAST ARMS, SIGNAL HEADS AND SIGN AS SHOWN (NOTE INSTALL 1-2" 90 DEGREE PVC ELBOW).
- INSTALL PEDESTAL POLE WITH PEDESTRIAN SIGNAL, PUSH BUTTON AND SIGN AS SHOWN (NOTE: INSTALL 1-2" 90 DEGREE GALV. ELBOW).
- INSTALL BASE MOUNTED CABINET AND CONTROLLER WITH ALL NECESSARY EQUIPMENT (NOTE: INSTALL 2-2" AND 1-3" 90 DEGREE GALV ELBOWS).
- INSTALL 6' x 30' LOOP DETECTOR ENCASED IN 1/4" FLEXIBLE TUBING (2-4-2) QUADRUPOLE TYPE
- INSTALL 6' x 6' LOOP DETECTOR ENCASED IN 1/4" FLEXIBLE TUBING (3-TURNS).
- INSTALL HANDBOX.
- INSTALL 1" GALVANIZED STEEL ELECTRICAL CONDUIT (DETECTOR WIRE SLEEVE).
- INSTALL 2" POLYVINYL CHLORIDE ELECTRICAL CONDUIT (TRENCHED).
- INSTALL 2" GALVANIZED STEEL ELECTRICAL CONDUIT (PUSHED)
- INSTALL 3" GALVANIZED STEEL ELECTRICAL CONDUIT (PUSHED)
- PROPOSED UNDERGROUND FEED.
- REMOVED TREE AS SHOWN.

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DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

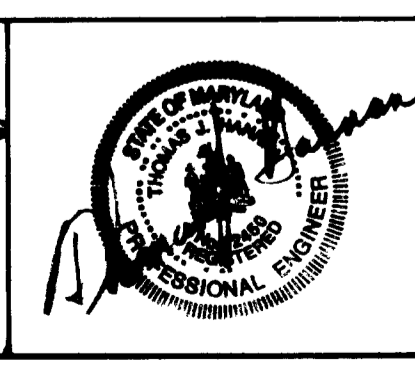
*James J. ...* 4/10/90  
 DIRECTOR OF PUBLIC WORKS DATE

*Elizabeth G. ...* 4/10/90  
 CHIEF, BUREAU OF ENGINEERING DATE

*C. ...* 4/10/90  
 CHIEF, TRAFFIC ENGINEERING DATE

A/E GROUP, INC.  
 CONSULTING ENGINEERS-PLANNERS

11408 CROKHILL DRIVE  
 P O BOX 768  
 OWINGS MILLS, MD, 21117  
 301-343-1808  
 FAX 301-343-1243



DES TMZ	AS	AS	5-6-91
DRN TMZ			
CHK EGS			
DATE 9/19/89	BY	NO	REVISION

T-7050 FF

600' SCALE MAP NO \_\_\_\_\_ BLOCK NO \_\_\_\_\_

TRAFFIC SIGNAL PLAN  
 TWIN RIVERS ROAD & TRUMPETER ROAD

AS-BUILT 3-6-91 TWINTRUM

SCALE AS SHOWN  
 SHEET 2 OF 3