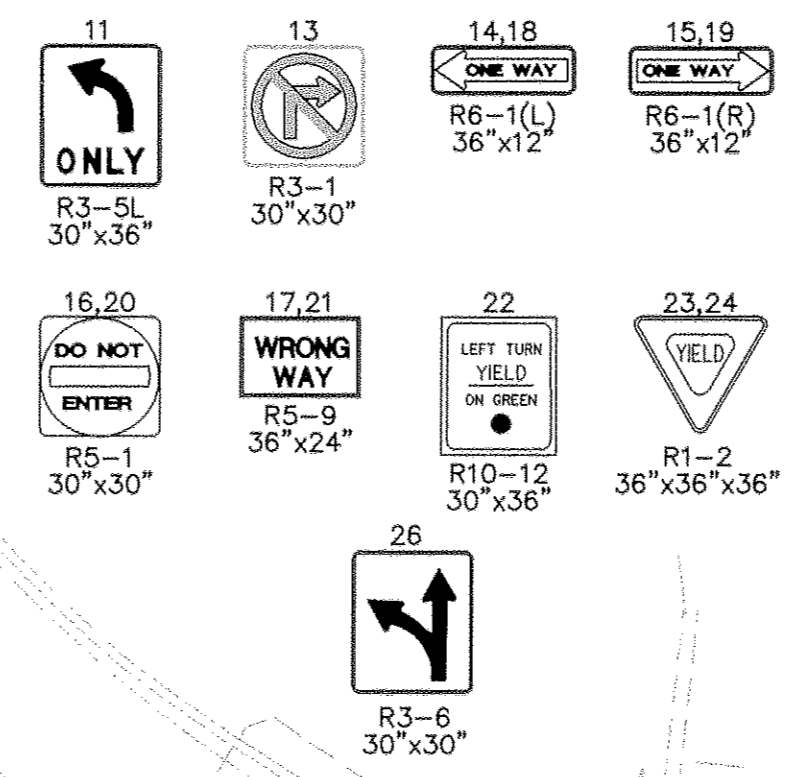


MD 146 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

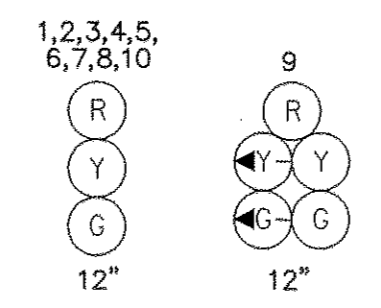
PHASING DIAGRAM

	1	2	3	4	5	6	7	8	9	10
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)
PHASE 2+5	R	R	G	G	R	R	R	R	G	G
5 CHANGE	R	R	G	G	R	R	R	R	G	G
PHASE 2+6	G	G	G	G	R	R	G	G	G	G
2+6 CHANGE	Y	Y	Y	Y	R	R	Y	Y	G	G
PHASE 4+5	R	R	R	R	G	G	R	R	G	G
4+5 CHANGE	R	R	R	R	Y	Y	R	R	G	G
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y

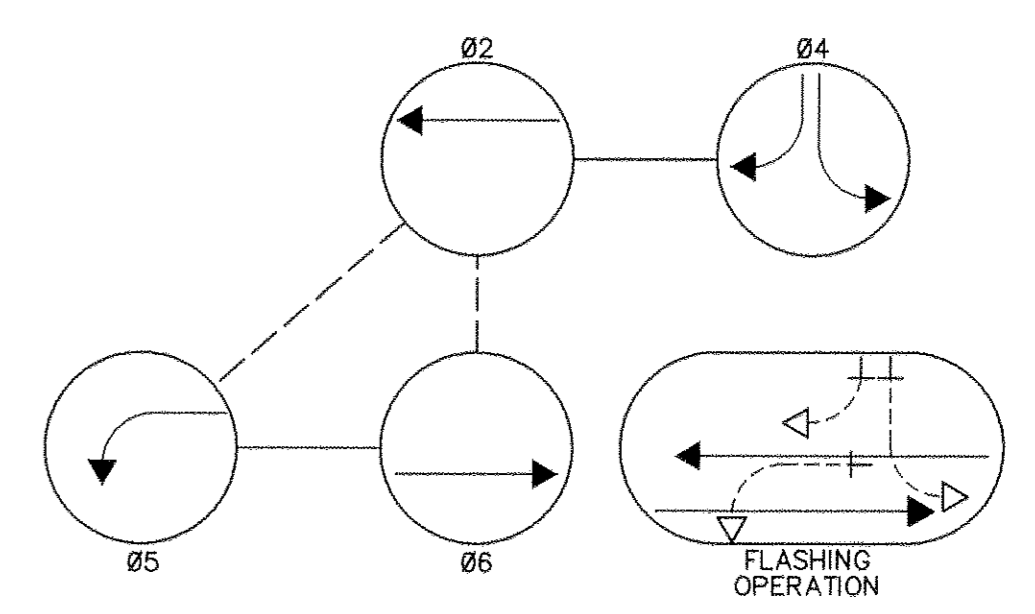
SIGNS



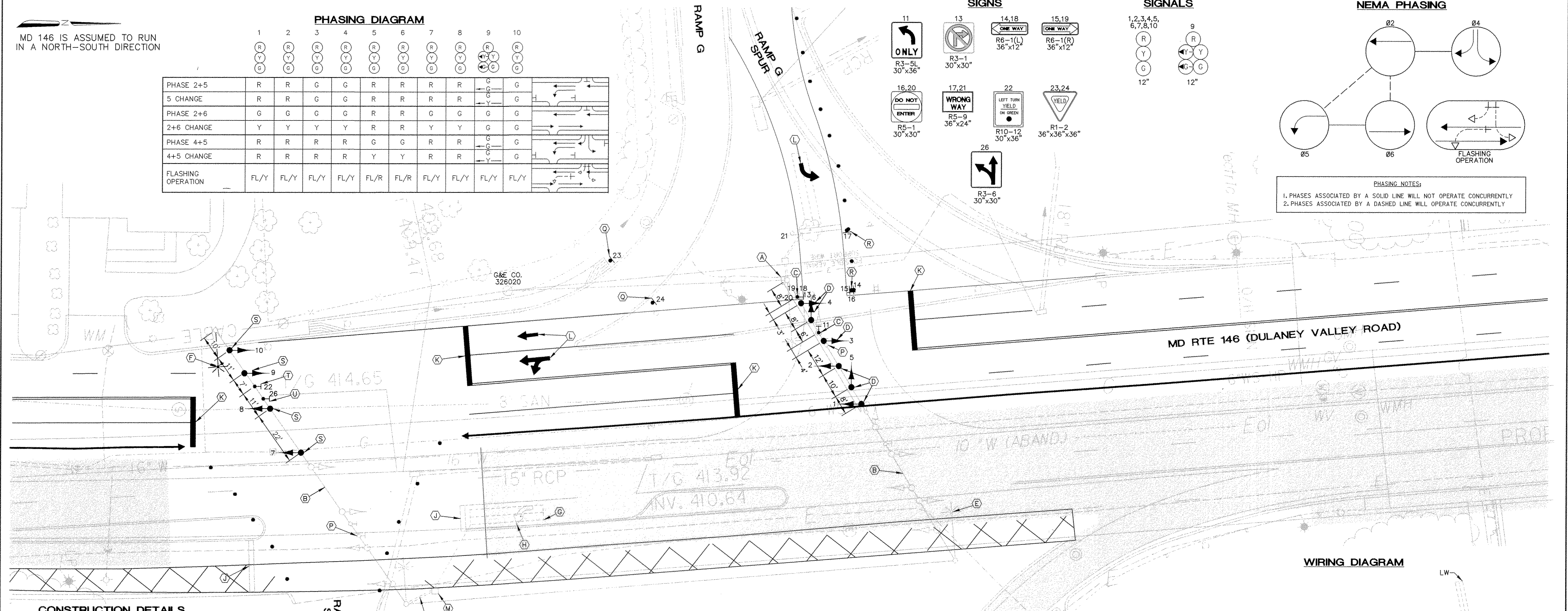
SIGNALS



NEMA PHASING



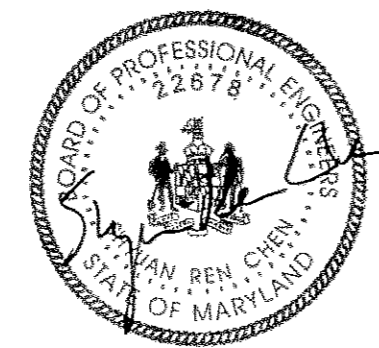
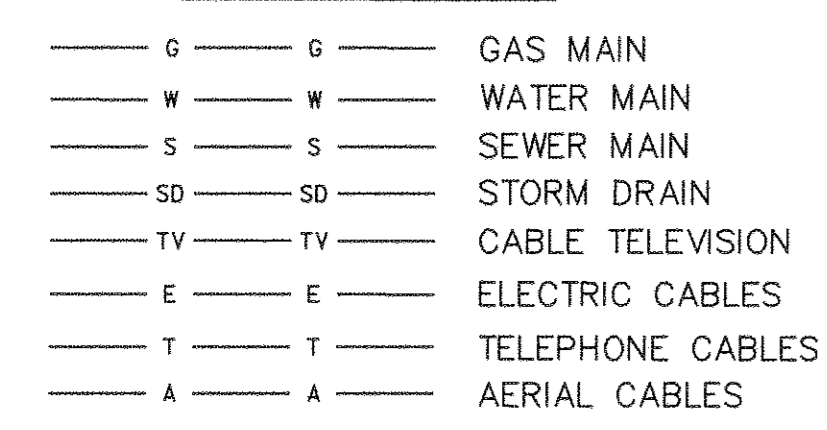
PHASING NOTES:
 1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY
 2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY



CONSTRUCTION DETAILS

- (A) EXISTING POLE MOUNTED CONTROLLER TO BE UTILIZED.
- (B) USE EXISTING SPAN WIRE.
- (C) RELOCATE AND UNCOVER EXISTING SIGN.
- (D) RELOCATE AND UNCOVER EXISTING SIGNAL HEAD.
- (E) REMOVE AND RELOCATED EXISTING 15' LIGHTING ARM LUMINAIRE (SEE NOTE (F)).
- (F) INSTALL RELOCATED 15' LIGHTING ARM AND LUMINAIRE (SEE NOTE (E)).
- (G) ABANDON EXISTING LOOP DETECTOR AND LEAD-IN CABLE.
- (H) REMOVE EXISTING PAVEMENT MARKING ARROW.
- (J) REMOVE EXISTING STOP BAR.
- (K) INSTALL 24" SOLID WHITE TEMPORARY PREFORMED PAVEMENT MARKING TAPE FOR STOP BAR.
- (L) INSTALL TEMPORARY PREFORMED PAVEMENT MARKING ARROW
- (M) ABANDON EXISTING HANDHOLE.
- (N) ABANDON EXISTING CONDUIT.
- (P) REMOVE EXISTING SPAN WIRE MOUNTED SIGN.
- (Q) INSTALL GROUND MOUNTED SIGN.
- (R) RELOCATE EXISTING GROUND MOUNTED SIGN.
- (S) RELOCATE EXISTING SIGNAL HEAD.
- (T) RELOCATE EXISTING SPAN WIRE MOUNTED SIGN.
- (U) INSTALL SPAN WIRE MOUNTED SIGN.

UTILITY LEGEND



11-03-98

NOTES:

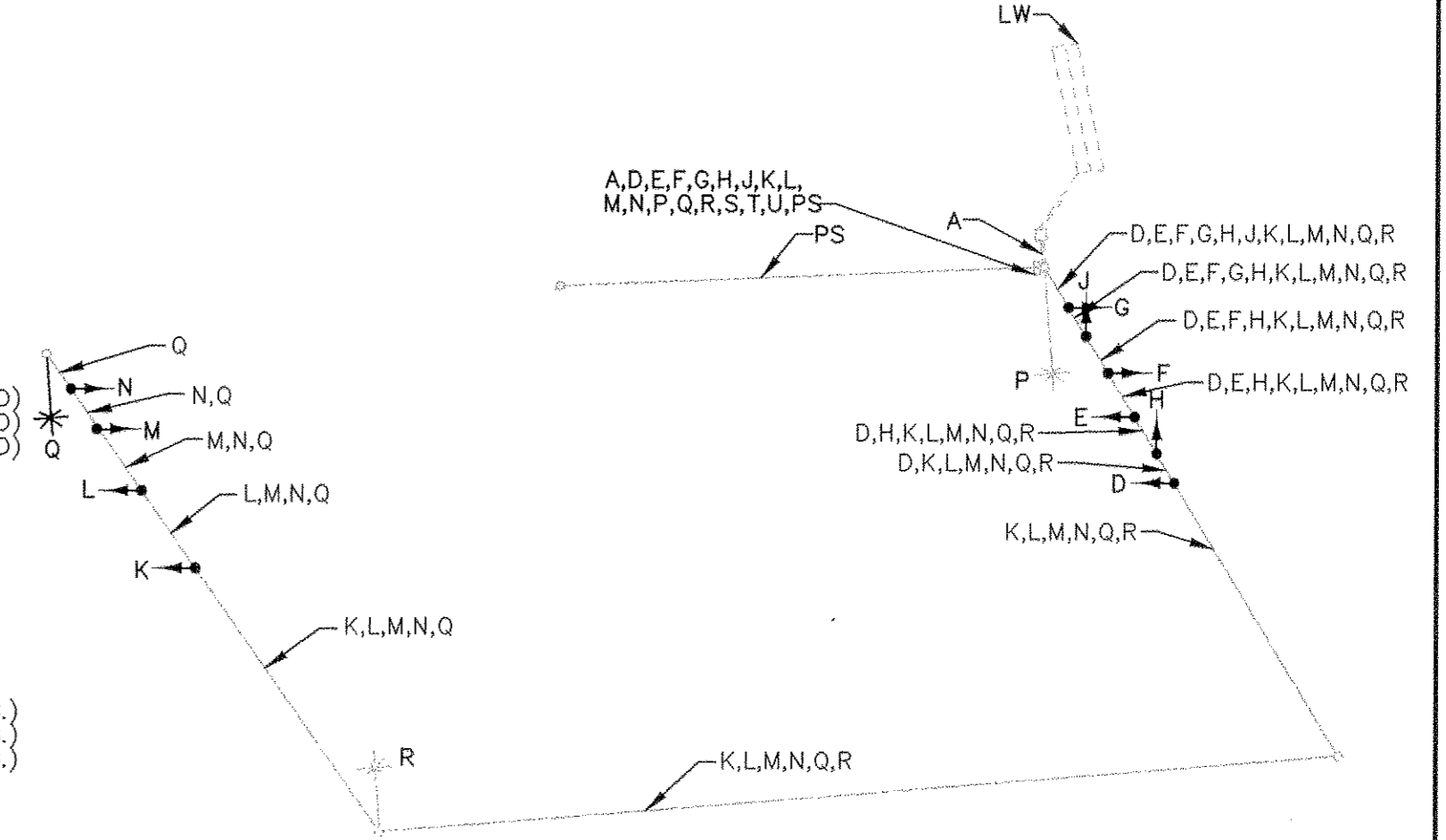
1. CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL PROPOSED GEOMETRICS PRIOR TO INSTALLING THE TRAFFIC SIGNAL EQUIPMENT. PAVEMENT MARKINGS ARE NOT TO BE INSTALLED UNTIL LOOP DETECTORS AND CONDUIT INSTALLATIONS ARE COMPLETE.
2. SEE SHEET 4 FOR PROJECT DESCRIPTION AND EQUIPMENT LIST PROVIDE SUFFICIENT CABLE FOR ALL SIGNALS FOR RELOCATION FOR ALL OTHER PHASES.
3. ALL UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION AND ARE NOT TO BE CONSIDERED AS COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING MISS UTILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE PERSONNEL PRIOR TO CONSTRUCTION TO AVOID POTENTIAL CONFLICTS SO THAT FIELD ADJUSTMENTS CAN BE MADE.
4. ALL SIGNALS MUST HAVE A VERTICAL CLEARANCE OF 17 FEET (MIN.) FROM PROPOSED GRADE.

A/E GROUP, INC.
 ENGINEERS • PLANNERS
 181 E. Main Street
 Westminster, Maryland 21157
 A/E Job No. 93-253-002

WIRING LEGEND

- A - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- B - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- C - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- D - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- E - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- F - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- G - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- H - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- J - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- K - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- L - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- M - 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
- N - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- P - 2 CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
- Q - 2 CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
- R - 2 CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
- S - 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
- T - 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
- U - 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
- PS - PROPOSED ELECTRICAL SERVICE
- LW - LOOP WIRE

WIRING DIAGRAM



SS-21

TRAFFIC CONTROL STAGE IIA

MDOT - STATE HIGHWAY ADMINISTRATION
 Office of Traffic & Safety
 TRAFFIC ENGINEERING DESIGN DIVISION LOG ML

**MD RTE 146
 (DULANEY VALLEY RD.)
 AT SPUR TO EASTBOUND I-695**
 COUNTY: BALTIMORE

REVISIONS	APPROVALS	DRAWN BY: M.J.G.		DATE: 9-30-98	F.A.P. NO.	TS/STD. NO.	SHEET NO.
	<i>[Signature]</i> 11/12/98 CHIEF, SIGNAL DESIGN SECTION	DES. BY: R.W.P.		SCALE: 1" = 20'	S.H.A. NO. BA9775372	3774X3	124 OF 155
	<i>[Signature]</i> 11/17/98 ASST. DISTRICT ENGINEER, TRAFFIC	CHK. BY: C.S.C. <i>[Signature]</i>					
	<i>[Signature]</i> 11/20/98 DIRECTOR, OFFICE OF TRAFFIC & SAFETY						