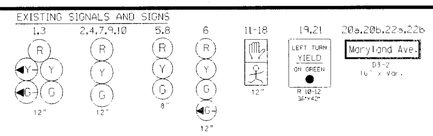
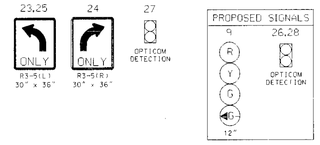
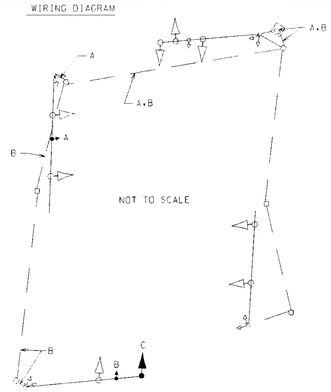
EXISTING SIGNALS AND SIGNS

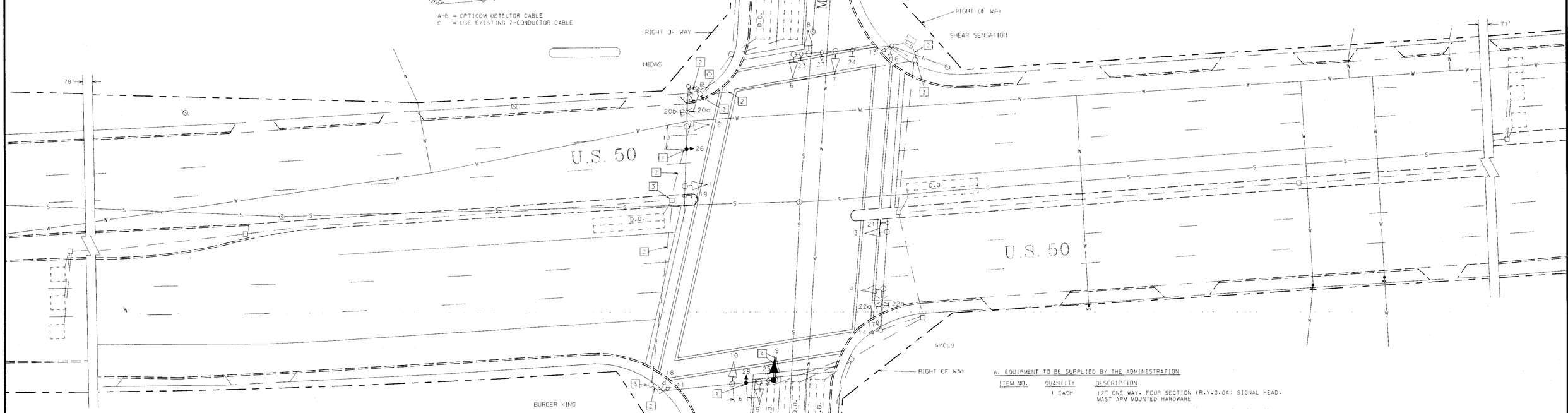




WIRING DIAGRAM



A-B = OPTICOM DETECTOR CABLE
C = USE EXISTING 7-CONDUCTOR CABLE



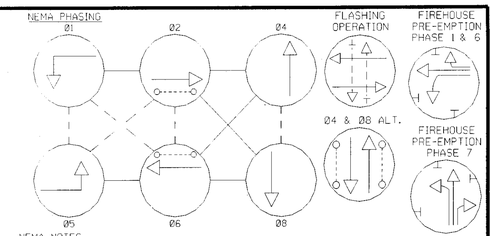
CONSTRUCTION DETAILS

1. INSTALL OPTICOM DETECTOR EYE ON EXISTING MAST ARM.
2. USE EXISTING CONDUIT.
3. USE EXISTING HANDHOLE.
4. REMOVE EXISITING SIGNAL HEAD. INSTALL PROPOSED SIGNAL HEAD.

NOTE TO CONTRACTOR:

1. THE CONTRACTOR WILL CONTACT MR. JEFF HERLEY (1-410-228-2672) OF THE CAMBRIDGE FIRE DEPARTMENT FOR THE DELIVERY OF THE THREE (3) EMITTERS TO THE CAMBRIDGE FIRE DEPARTMENT.
2. IT IS THE RESPONSIBILITY OF THE CAMBRIDGE FIRE DEPARTMENT FOR THE INSTALLATION OF THE EMITTERS ON THE FIRE TRUCKS.

NEMA PHASING



NEMA NOTES

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

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11-14	15-18	
PHASE 1 & 5	◄G-R	R	◄G-R	R	R	R	R	R	R	R	DW	DW	
1 & 5 CHANGE	THE CONTROLLER MAY SKIP TO PHASES 1 & 6, 2 & 5, OR 2 & 6												
PHASE 1 & 6	◄G-G	G	R	R	R	R	R	R	R	R	DW	DW	
1 CHANGE	◄Y-G	G	R	R	R	R	R	R	R	R	DW	DW	
PHASE 2 & 5	R	R	◄G-G	G	R	R	R	R	R	R	DW	DW	
5 CHANGE	R	R	◄Y-G	G	R	R	R	R	R	R	DW	DW	
PHASE 2 & 6	G	G	G	G	R	R	R	R	R	R	WK	DW	
PED. CLEAR	G	G	G	G	R	R	R	R	R	R	FL/DW	DW	
2 & 6 CHANGE	Y	Y	Y	Y	R	R	◄R	R	R	R	DW	DW	
PHASE 4 & 8	R	R	R	R	G	G	G	G	G	G	DW	DW	
4 & 8 CHANGE	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	
4 & 8 ALT.	R	R	R	R	G	G	G	G	G	G	DW	WK	
PED. CLEAR	R	R	R	R	G	G	G	G	G	G	DW	FL/DW	
4 & 8 ALT. CHANGE	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	

FIRE HOUSE PRE-EMPTION - PHASE 1 & 6

	1	2	3	4	5	6	7	8	9	10	11-14	15-18	
FIREHOUSE PRE-EMPTION PHASE 1 & 6	◄G-G	G	R	R	R	R	R	R	R	R	DW	DW	
PRE-EMPTION CLEARANCE	◄Y-Y	Y	R	R	R	R	R	R	R	R	DW	DW	
PHASE 2 & 6 NORMAL OPERATION	G	G	G	G	R	R	R	R	R	R	DW	DW	

FIRE HOUSE PRE-EMPTION - PHASE 7

	1	2	3	4	5	6	7	8	9	10	11-14	15-18	
FIREHOUSE PRE-EMPTION PHASE 7	R	R	R	R	G	◄G-G	G	R	R	R	DW	DW	
PRE-EMPTION CLEARANCE	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	
PHASE 2 & 6 NORMAL OPERATION	G	G	G	G	R	R	R	R	R	R	DW	DW	

FIRE HOUSE PRE-EMPTION - PHASE 3

	1	2	3	4	5	6	7	8	9	10	11-14	15-18	
FIREHOUSE PRE-EMPTION PHASE 3	R	R	R	R	R	R	R	G	◄G-G	G	DW	DW	
PRE-EMPTION CLEARANCE	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	
PHASE 2 & 6 NORMAL OPERATION	G	G	G	G	R	R	R	R	R	R	DW	DW	

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION

ITEM NO.	QUANTITY	DESCRIPTION
	1 EACH	12" ONE WAY, FOUR SECTION (R,Y,G,GA) SIGNAL HEAD. MAST ARM MOUNTED HARDWARE

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
8011	1 EACH	INSTALL SIGNAL HEAD (ANY TYPE)
8012	2 EACH	F & I 3M OPTICOM #521 DETECTOR EYE
8014	1 EACH	F & I 3M OPTICOM #562 DISCRIMINATOR MODULE
8015	3 EACH	F & I 3M OPTICOM EMITTER SYSTEM 500 SERIES. VISIBLE LIGHT FILTER
803*	550 L.F.	F & I 4-CONDUCTOR OPTICOM DETECTOR CABLE
8013	1 EACH	F & I 3M OPTICOM™ 560 CARD RACK

UTILITY LEGEND

G	GAS MAIN
W	WATER MAIN
S	SEWER MAIN
E	ELECTRIC CABLES
A	AERIAL CABLES
T	TELEPHONE CABLES

REVISIONS

(F). 05/1998 - ADDED FIREHOUSE PRE-EMPTION TO W/B U.S. 50 & S/B MARYLAND AVENUE
SHA NO. AW277A5185
WBS 17B051.17 17B51

(E). 02-06-92 - REVISED FOR INSTALLATION OF EMERGENCY EQUIPMENT PRE-EMPTION (OPTICOM)
S.H.A. NO. AW-591-501-070
T.G.M. E.M.M.

D. REVISION 2 - REVISED LOOP DETECTOR PLACEMENT CONT.
S.H.A. NO. AW-591-501-070

(C). 10-25-85 - REDRAWN AND REVISED FOR GEO. IMP.: ADD PEDESTRIAN SIGNALS
S.H.A. NO. AW-591-501-070
G.C.

APPROVALS

ASST. DIVISION CHIEF, TEDD
ORIGINAL

ASST. DIVISION CHIEF, TRAFFIC
ON

CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
FILE

DIRECTOR, OFFICE OF TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

U.S. 50 and MARYLAND AVENUE
CAMBRIDGE, MARYLAND

SIGNAL NO.: 0900500I.05 DATE: 8-3-1982

DRAWN BY: B. THOMPSON
DES. BY:
CHECK BY:
SCALE: 1" = 20'

F.A.P. NO.:
S.H.A. NO.: AW277A5T/B5T
COUNTY: DORCHESTER

PLAN SHEET NO. TS-343 F

SHEET NO. 1 OF 1

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