BORDER REV. DATE: June 1, 2004

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNALS AT THE INTERSECTIONS OF MD 198 & MARYLAND CITY PLAZA AND MD 198 & WHISKEY BOTTOM ROAD IN ANNE ARUNDEL COUNTY. THE WORK WILL CONSIST OF INSTALLING PEDESTRAIN PHASES AT EACH INTERSECTION .
MD 198 IS ASSUMED TO RUN IN A EAST–WEST DIRECTION.

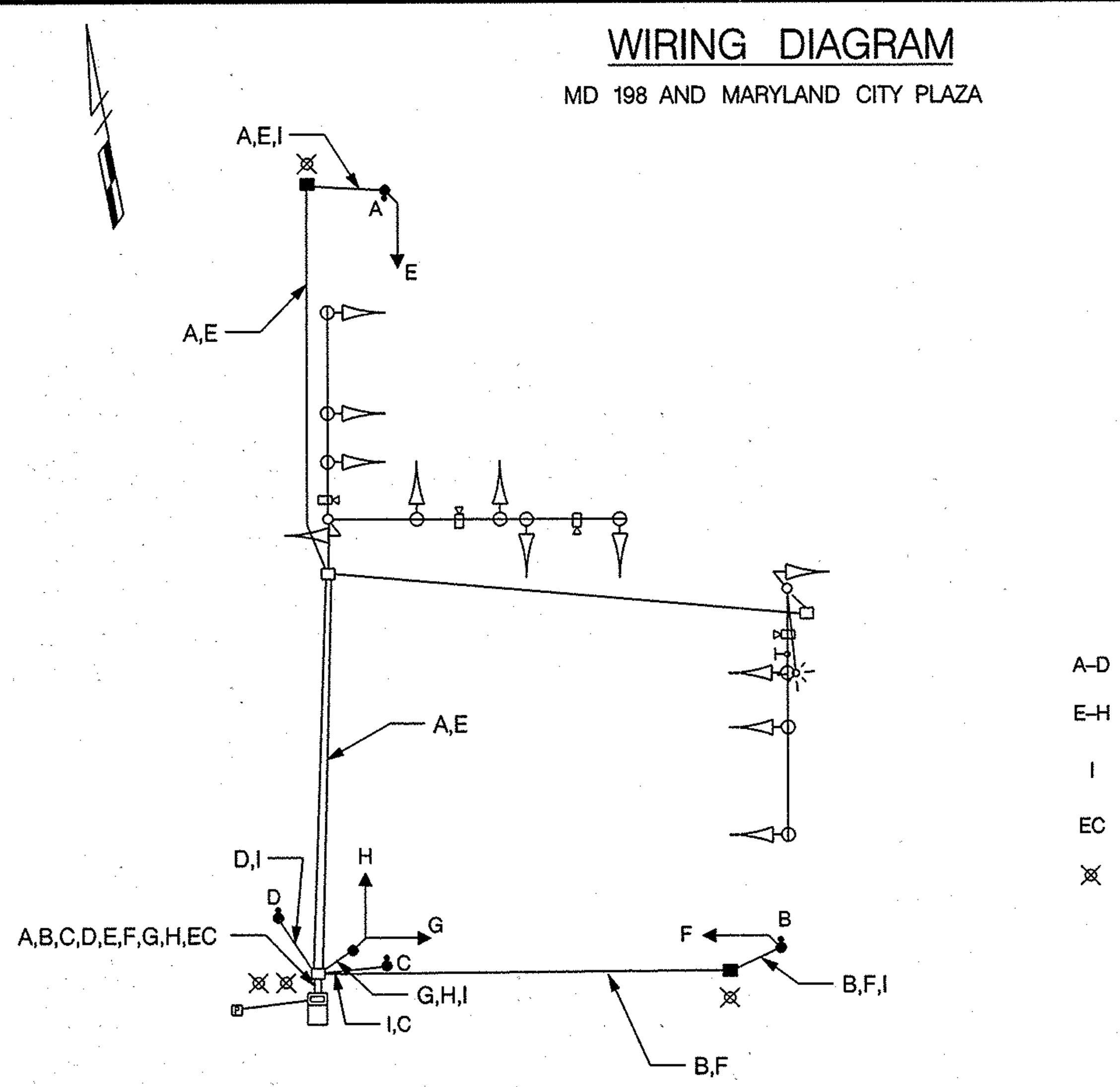
INTERSECTION OPERATION

MD 198 AND MARYLAND CITY PLAZA CURRENTLY OPERATES IN A NEMA SIX–PHASE, FULL–TRAFFIC–ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASES FOR MD 198 AND SIDE STREET SPLIT PHASING. AN ALTERNATE PEDESTRIAN PHASE FOR THE WEST LEG OF MD 198 AND CONCURRENT PEDESTRIAN PHASES FOR THE ~~NORTH AND~~ SOUTH LEGS OF THE INTERSECTION WILL BE ADDED. [1]

MD 198 AND WHISKEY BOTTOM ROAD CURRENTLY OPERATES IN A NEMA SIX–PHASE, FULL–TRAFFIC–ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASES FOR MD 198 AND CONCURRENT SIDE STREET PHASING AN ALTERNATE PEDESTRIAN PHASE FOR THE WEST LEG OF MD 198 AND CONCURRENT PEDESTRIAN PHASES FOR THE NORTH AND SOUTH LEGS OF THE INTERSECTION WILL BE ADDED.

WIRING DIAGRAM

MD 198 AND MARYLAND CITY PLAZA

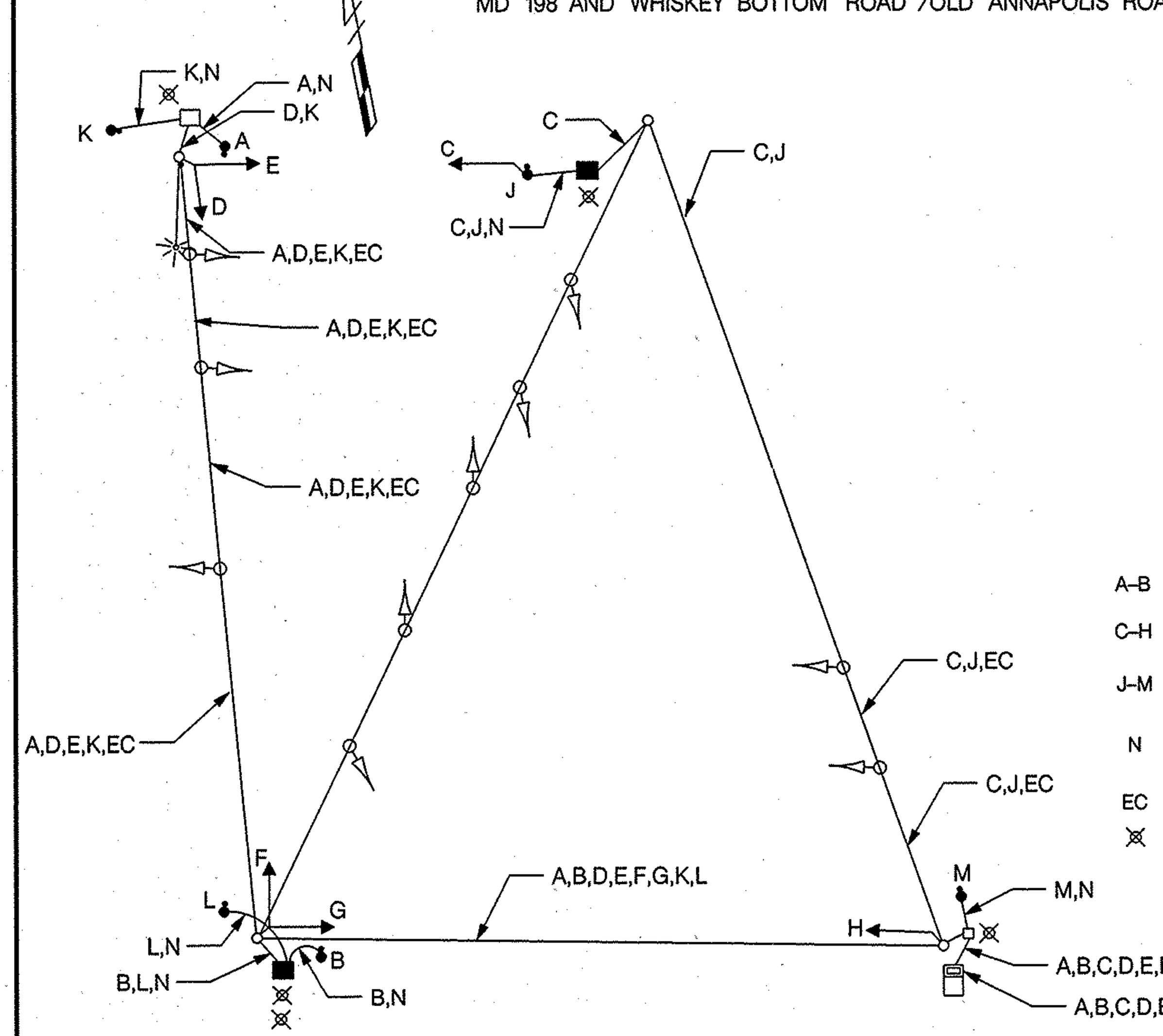


WIRING KEY

A–D	2–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
E–H	5–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
I	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
EC	EXISTING CABLE
⊠	GROUND ROD

WIRING DIAGRAM

MD 198 AND WHISKEY BOTTOM ROAD /OLD ANNAPOLIS ROAD



WIRING KEY

A–B	2–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
C–H	5–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
J–M	2–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
N	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
EC	EXISTING CABLE
⊠	GROUND ROD

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

Rev.	ITEM NO.	QUANTITY	DESCRIPTION
	1001	2 EA	MAINTENANCE OF TRAFFIC
[1]	2001	20 CY ~~8 CY~~	CLASS 2 EXCAVATION
[1]	2002	12 CY ~~10 CY~~	TEST PIT EXCAVATION
[1]	5003	1000 LF ~~1050 LF~~	FURNISH AND INSTALL 12 IN. WHITE THERMOPLASTIC PAVEMENT MARKING
[1]	5004	160 LF ~~150 LF~~	FURNISH AND INSTALL 24 IN. WHITE THERMOPLASTIC PAVEMENT MARKING
	5005	200 LF	REMOVE EXISTING PAVEMENT MARKING.
[1]	6001	220 LF ~~180 LF~~	DEPRESSED CURB AND GUTTER
[1]	6002	50 SF ~~20 SF~~	STANDARD TYPE "A" CURB AND GUTTER
[1]	6003	1100 SF ~~525 SF~~	4 IN. CONCRETE SIDEWALK
[1]	8006	2 EA	FURNISH AND INSTALL 2–WIRE CENTRAL CONTROL UNIT
[1]	8014	10 EA ~~12 EA~~	FURNISH AND INSTALL AUIBLE /TACTILE PEDESTRIAN PUSHBUTTON
[1]	8015	12 EA ~~10 EA~~	FURNISH AND INSTALL PEDESTAL POLE ANY SIZE
	8016	2 EA	INSTALL CONDUIT BEND IN EXISTING BASE
[1]	8024	10 EA ~~10 EA~~	FURNISH AND INSTALL 16 IN. L.E.D. COUNTDOWN PEDESTRIAN SIGNAL
[1]	8032	150 LF ~~140 LF~~	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT – TRENCHED
	8037	130 SF	FURNISH AND INSTALL DETECTABLE WARNING SURFACES
[1]	8038	10 SF	RELOCATE EXISTING GROUND MOUNTED SIGN
[1]	8048	250 LF ~~220 LF~~	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT – BORED
[1]	8040	12 CY ~~10 CY~~	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
	8043	175 LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER WIRE
[1]	8062	4 EA ~~5 EA~~	FURNISH AND INSTALL ELECTRICAL HANDHOLE
[1]	8070	12 EA ~~10 EA~~	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH
[1]	8076	2100 LF ~~900 LF~~	FURNISH AND INSTALL ELECTRICAL CABLE 2–CONDUCTOR (NO. 14 A.W.G.)
[1]	8078	2100 LF ~~2500 LF~~	FURNISH AND INSTALL ELECTRICAL CABLE 5–CONDUCTOR (NO. 14 A.W.G.)

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787–7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

MRS. KIM TRAN
ASSISTANT DISTRICT ENGINEER – TRAFFIC
(410) 841–1003

MR. CHARLES GEORGE
ASSISTANT DISTRICT ENGINEER – MAINTENANCE
(410) 841–1002

MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER – UTILITIES
(410) 841–1005

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
(410) 787–7630

MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787–7676

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787–7631

MS. DARLENE EIDE
SUPPLY OFFICE
SIGNAL SHOP WAREHOUSE
(410) 787–7668

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
(410) 787–7652

PHASING CHART

MD 198 AND MARYLAND CITY PLAZA

	1	2	3	4	5	6	7	8	9	10	11	12	~~13~~	~~14~~	13 (~~15~~)	14 (~~16~~)	15 (~~17~~)	16 (~~18~~)
PHASE 1 & 5	←G−	←G−	R	R	←G−	←G−	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1 & 5 CHANGE	PHASE 1 & 5 MAY CHANGE TO PHASE 1 & 6, 2 & 5, OR 2 & 6																	
PHASE 1 & 6	←G−	←G−	G	G	←R−	←R−	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1 & 6 CHANGE	←Y−	←Y−	G	G	←R−	←R−	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 & 5	←R−	←R−	R	R	←G−	←G−	G	G	R	R	R	R	DW	DW	DW	DW	DW	DW
2 & 5 CHANGE	←R−	←R−	R	R	←Y−	←Y−	G	G	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 & 6	←R−	←R−	G	G	←R−	←R−	G	G	R	R	R	R	FL–WK	FL–WK	FL–WK	FL–WK	DW	DW
PED CLEAR	←R−	←R−	G	G	←R−	←R−	G	G	R	R	R	R	FL–DW	FL–DW	FL–DW	FL–DW	DW	DW
2 & 6 CHANGE	←R−	←R−	Y	Y	←R−	←R−	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 3	←R−	←R−	R	R	←R−	←R−	R	R	G ←G−	G	R	R	DW	DW	DW	DW	DW	DW
3 CHANGE	←R−	←R−	R	R	←R−	←R−	R	R	Y	Y	R	R	DW	DW	DW	DW	DW	DW
PHASE 4	←R−	←R−	R	R	←R−	←R−	R	R	R	R	G ←G−	G	DW	DW	DW	DW	DW	DW
4 CHANGE	←R−	←R−	R	R	←R−	←R−	R	R	R	R	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4 ALT	←R−	←R−	R	R	←R−	←R−	R	R	R	R	G ←G−	G	DW	DW	DW	DW	FL–WK	FL–WK
PED CLEAR	←R−	←R−	R	R	←R−	←R−	R	R	R	R	G ←G−	G	DW	DW	DW	DW	FL–DW	FL–DW
4 ALT CHANGE	←R−	←R−	R	R	←R−	←R−	R	R	R	R	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	←FLR−	←FLR−	FLY	FLY	←FLR−	←FLR−	FLY	FLY	FLR	FLR	FLR	FLR	DARK	DARK	DARK	DARK	DARK	DARK

PHASING CHART

MD 198 AND WHISKEY BOTTOM ROAD

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
PHASE 1 & 5	←G−	←G−	R	R	←G−	←G−	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1 & 5 CHANGE	PHASE 1 & 5 MAY CHANGE TO PHASE 1 & 6, 2 & 5, OR 2 & 6																		
PHASE 1 & 6	←G−	←G−	G	G	←R−	←R−	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1 & 6 CHANGE	←Y−	←Y−	G	G	←R−	←R−	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 & 5	←R−	←R−	R	R	←G−	←G−	G	G	R	R	R	R	R	DW	DW	DW	DW	DW	DW
2 & 5 CHANGE	←R−	←R−	R	R	←Y−	←Y−	G	G	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 & 6	←R−	←R−	G	G	←R−	←R−	G	G	R	R	R	R	R	FL–WK	FL–WK	FL–WK	FL–WK	DW	DW
PED CLEAR	←R−	←R−	G	G	←R−	←R−	G	G	R	R	R	R	R	FL–DW	FL–DW	FL–DW	FL–DW	DW	DW
2 & 6 CHANGE	←R−	←R−	Y	Y	←R−	←R−	Y	Y	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4 & 8	←R−	←R−	R	R	←R−	←R−	R	R	G	G	G	G	G	DW	DW	DW	DW	DW	DW
4 & 8 CHANGE	←R−	←R−	R	R	←R−	←R−	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4 ALT & 8	←R−	←R−	R	R	←R−	←R−	R	R	G	G	G	G	G	DW	DW	DW	DW	FL–WK	FL–WK
PED CLEAR	←R−	←R−	R	R	←R−	←R−	R	R	G	G	G	G	G	DW	DW	DW	DW	FL–DW	FL–DW
4 ALT & 8 CHANGE	←R−	←R−	R	R	←R−	←R−	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	←FLR−	←FLR−	FLY	FLY	←FLR−	←FLR−	FLY	FLY	FLR	FLR	FLR	FLR	FLR	DARK	DARK	DARK	DARK	DARK	DARK

[1] RED LINE 6–15–07
TEDD APPROVAL

TRAFFIC CONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923–7101
FAX (410) 923–6473
EMAIL TRAFFIC.CONCEPTS@COMCAST.NET

SHA
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN
MD 198 AND MARYLAND CITY PLAZA
MD 198 AND WHISKEY BOTTTOM ROAD /OLD ANNAPOLIS ROAD
MARYLAND CITY, MARYLAND

SCALE: NONE	DATE: 6–2006	CONTRACT NO.: AT 7825185	
DESIGNED BY	T. ZAYDEL	COUNTY	ANNE ARUNDEL
DRAWN BY	T. ZAYDEL	LOGMILE	N /A
CHECKED BY	K. SCHMID	T.I.M.S. NO.	H 412
F.A.P. NO.	N/A	TOD NO.	
DRAWING NO. TS–4411A GI & 1893E GI		SHEET NO. 3 OF 3	

DRILL HOLES
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