F. H. WA. REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MD.		2	2

PROJECT DESCRIPTION

I. General

This project involves the installation of a new traffic control signal at the intersection of Old Alexandria Ferry Rd and Coventry Way in Prince George's County. Old Alexandria Ferry Rd is assumed to run in a north - south direction.

II. Intersection Operation

An eight (8) phase, full-traffic-actuated, solid state digital controller with (4) two-channel loop detector amplifiers housed in a base mounted cabinet are to be installed at this location.

The intersection will operate in a NEMA, six (6) phase, full-traffic-actuated mode. There are to be exclusive/permissive left turns for the northbound movements of Old Alexandria Ferry Rd. The Old Alexandria Ferry Rd thru movements are to operate concurrently. The Coventry Way movements are to operate concurrently.

EQUIPMENT LIST 'A'

EQUIPMENT SUPPLIED BY S.H.A.

960022	12 INCH ONE WAY 3 SECTION (R,Y,G) SIGNAL HEAD (MAST ARM MOUNTED)	5 EACH	
960028	12 INCH ONE WAY 5 SECTION (R,Y,YA,G,GA) SIGNAL HEAD (MAST ARM MOUNTED)	1 EACH	
963007	TWO CHANNEL LOOP DETECTOR AMPLIFIER (DELAY OUTPUT)	4 EACH	
965001	PEDESTRIAN PUSHBUTTON WITH SIGN	4 EACH	
971017	EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT- SYSTEM READY	1 EACH	*
973023	SHEET ALUMINUM SIGNS	138 S.F.	**
900000	ONE WAY 1 SECTION PEDESTRIAN SIGNAL HEAD (PEDESTAL MOUNTED)	2 EACH	***
900000	ONE WAY 1 SECTION PEDESTRIAN SIGNAL HEAD (POLE MOUNTED)	2 EACH	***

* COUNTY SUPPLIED CONTROLLER
** COUNTY SUPPLIED STREET NAME SIGNS
*** MUST MEET P.G. COUNTY SPECIFICATIONS

EQUIPMENT LIST 'B'

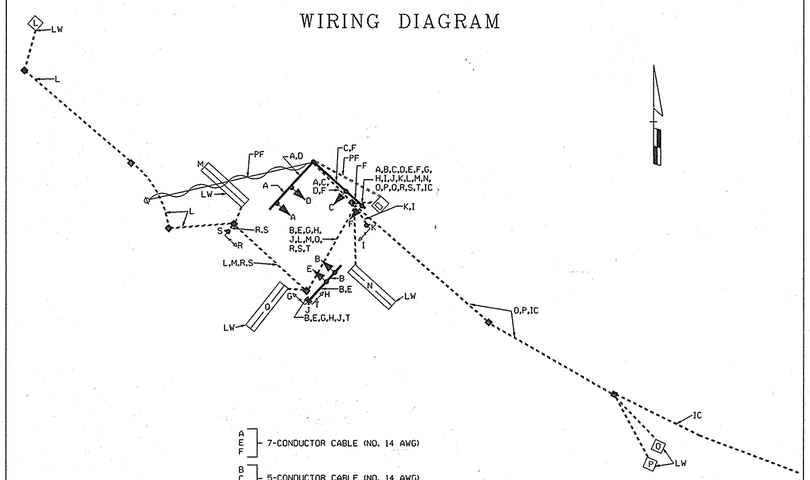
EQUIPMENT FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

120500	MAINTENANCE OF TRAFFIC	LUMP SUM
120610	ARROW PANEL	5 U.D.
120625	TEMPORARY TRAFFIC SIGNS HIGH PERFORMANCE WIDE ANGLE RETROREFLECTIVE	48 S.F.
130850	MOBILIZATION	LUMP SUM
230030	TEST PIT EXCAVATION	1 C.Y.
585445	24 INCH WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE	50 L.F.
801004	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION	9 C.Y.
801106	FURNISH AND INSTALL WOOD SUPPORTS 4 INCH x 6 INCH	96 L.F.
802501	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE	120 L.F.
805115	FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED	60 L.F.
805125	FURNISH AND INSTALL 2 INCH SCHEDULE 40 RIGID PVC CONDUIT - TRENCHED	700 L.F.
805135	FURNISH AND INSTALL 3 INCH SCHEDULE 40 RIGID PVC CONDUIT - TRENCHED	30 L.F.
805150	FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	120 L.F.
805160	FURNISH AND INSTALL 1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE	150 L.F.
807205	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (B-7)	1 EACH
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	8 EACH
812002	FURNISH AND INSTALL WOOD SIGN SUPPORT (6"x6")	66 L.F.
813014	INSTALL GROUND MOUNTED SIGN	48 S.F.
813015	INSTALL OVERHEAD SIGN	36 S.F.
822500	AS-BUILT FOR TRAFFIC SIGNAL	1 EACH
837001	FURNISH AND INSTALL GROUND ROD - 3/4 INCH DIA. X 10 FEET LENGTH	4 EACH
860022	INSTALL 12 INCH ONE WAY 3 SECTION (R,Y,G) SIGNAL HEAD	5 EACH
860028	INSTALL 12 INCH ONE WAY 5 SECTION (R,Y,YA,G,GA) SIGNAL HEAD	1 EACH
861104	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (ALUM. SHIELDED)	1100 L.F.
861105	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (NO. 14 A.W.G.)	400 L.F.
861106	FURNISH AND INSTALL ELECTRICAL CABLE 3-CONDUCTOR (NO. 14 A.W.G.)	450 L.F.
861107	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 A.W.G.)	310 L.F.
861108	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 A.W.G.)	325 L.F.
861117	FURNISH AND INSTALL ELECTRICAL CABLE 3-WIRE (NO. 4 A.W.G.)	115 L.F.
862101	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEX. TUBING (NO. 14 A.W.G.)	1300 L.F.
862102	FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)	600 L.F.
865201	INSTALL PEDESTRIAN PUSHBUTTON WITH SIGN	4 EACH
868003	FURNISH AND INSTALL 10 FOOT BREAKAWAY PEDESTAL POLE	2 EACH
871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT	1 EACH
800000	FURNISH AND INSTALL 21' STEEL POLE WITH 38' MAST ARM	1 EACH
800000	FURNISH AND INSTALL 21' STEEL POLE WITH 50'x50' TWIN MAST ARM	1 EACH
800000	FURNISH AND INSTALL 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	40 L.F.
800000	FURNISH AND INSTALL 3-PAIR COMMUNICATION CABLE, (MEET IMSA SPEC 40-2-1984)	600 L.F.
800000	INSTALL ONE WAY 1 SECTION PEDESTRIAN SIGNAL HEAD	4 EACH

PHASE CHART

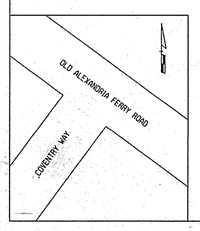
	1	2	3	4	5	6	7	8	9	10	
	12"	12"	12"	12"	12"	12"					
PHASE 2 & 5	G / G	G	R	R	R	R	DW	DW	DW	DW	
5 CHANGE	Y / G	G	R	R	R	R	DW	DW	DW	DW	
PHASE 2 & 6	G	G	G	G	R	R	DW	DW	DW	DW	
2 & 6 CHANGE	Y	Y	Y	Y	R	R	DW	DW	DW	DW	
PHASE 8	R	R	R	R	G	G	DW	DW	DW	DW	
8 CHANGE	R	R	R	R	Y	Y	DW	DW	DW	DW	
PHASE 2 & 6 ALT.	G	G	G	G	R	R	W	DW	DW	W	
PEDESTRIAN CLEAR	G	G	G	G	R	R	FL / DW	DW	DW	FL / DW	
2 & 6 ALT. CHANGE	Y	Y	Y	Y	R	R	DW	DW	DW	DW	
PHASE 8 ALT.	R	R	R	R	G	G	DW	W	W	DW	
PEDESTRIAN CLEAR	R	R	R	R	G	G	DW	FL / DW	FL / DW	DW	
8 ALT. CHANGE	R	R	R	R	Y	Y	DW	DW	DW	DW	
FLASHING OPERATION	FL / Y	FL / Y	FL / Y	FL / Y	FL / R	FL / R	DARK	DARK	DARK	DARK	

WIRING DIAGRAM



A, E, F — 7-CONDUCTOR CABLE (NO. 14 AWG)
B, C, D — 5-CONDUCTOR CABLE (NO. 14 AWG)
G, H, I, R — 3-CONDUCTOR CABLE (NO. 14 AWG)
J, K, S, T — 2-CONDUCTOR CABLE (NO. 14 AWG)
L, M, N, O, P, Q — 2-CONDUCTOR CABLE ALUMINUM SHIELDED (NO. 14 AWG)

IC - 3 PAIR INTERCONNECT CABLE
LW - LOOP WIRE
PF - POWER FEED



KCI TECHNOLOGIES

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REVISIONS

TS-5 OF TS-16

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
PRINCE GEORGE'S COUNTY, MARYLAND

OLD ALEXANDRIA FERRY RD @ COVENTRY WAY

SCALE: 1"=20'
DWG. 327 OF 395
APPROVED 11/6/96 DATE FOR BETTY WAGER FRANCIS DIRECTOR
DESIGNED: TCC / GWC
DRAWN: TCC
CHECKED: STB 11-6-96
APPROVED: 11-6-96 DATE
CONTRACTOR NO.
LOCATION NO. JOB NO.
FILE NO.

M:\0194007\SP02ALEX.DGN