

CHERRY HILL RD. AT MARYLAND FARMS IMPROVEMENTS

Cherry Hill Road at Maryland Farms



prince
George's
county

MARYLAND

Angela D. Alsobrooks
County Executive



Terry L. Bellamy
DPW&T Director



SIGNAL PLAN SHEET 1 OF 2



SIGNAL AND SIGN DISPLAY
ALL SIGNALS 12" LED

29-30, 31
NEW
W16-12(1) 12' x 4' (4' x 12')
136-111-1
136-111-2
W/4 FLAGS

NEMA PHASING
APPROVED PHASING SET

NOTE:
PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.
PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

EX. AERIAL CABLE DETAIL
NEUTRAL 39'-0"
SECONDARY 34'-0"
COMMUNICATIONS 21'-0"
GRADE

EX. AERIAL CABLE DETAIL
SECONDARY 33'-7"
NEUTRAL 31'-4"
COMMUNICATIONS 27'-0"
COMMUNICATIONS 21'-0"
GRADE

CONSTRUCTION DETAILS

- INSTALL CONCRETE FOUNDATION WITH A NEMA SIZE 5 NAZTEC BASE MOUNTED CABINET WITH MASTER CONTROLLER, UNINTERRUPTIBLE POWER SUPPLY, NAZTEC THERMIST TEMPERATURE PROBE ASSEMBLY #50222-2000 AND ALL NECESSARY EQUIPMENT FOR UNDERGROUND ELECTRICAL SERVICE (NOTE: TWO-4 IN. ONE-1 IN. AND TWO-2 IN. PVC SCHEDULE 80, 90-DEGREE CONDUIT BENDS TO COMCAST CABLE BOX AND 1 IN. CONDUIT TO BE PROVIDED BY COMCAST, AND NETWORK INTERFACE BOX) STA. 136+29.47' RT.
- INSTALL METERED SERVICE PEDESTAL AND ALL NECESSARY EQUIPMENT FOR A 100 AMP UNDERGROUND ELECTRICAL SERVICE PER T&E 3 AND T&E-14 SPECS. (NOTE: ONE-4 IN., THREE-2 IN. AND ONE-1 IN. PVC SCHEDULE 80, 90-DEGREE CONDUIT BENDS).
- INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A SINGLE 70 FT. MAST ARM WITH SIGNAL HEADS, SIGNALS, AND 20' LIGHTING ARM WITH 120W LED LUMINAIRE. (NOTE: TWO-3 IN. PVC SCHEDULE 80, 90-DEGREE CONDUIT BEND, STA. 137+16.49' LT.
- INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A SINGLE 38 FT. MAST ARM WITH SIGNAL HEADS, SIGNALS, AND 20' FT. LIGHTING ARM WITH 120W LED LUMINAIRE. (NOTE: TWO-3 IN. PVC SCHEDULE 80, 90-DEGREE CONDUIT BEND, STA. 136+29.32' RT.
- INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A SINGLE 38 FT. MAST ARM WITH SIGNAL HEADS, SIGNALS, AND OVERHEAD VIDEO DETECTION CAMERA. (NOTE: TWO-3 IN. PVC SCHEDULE 80, 90-DEGREE CONDUIT BEND, STA. 136+22.47' LT.
- INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A SINGLE 38 FT. MAST ARM WITH SIGNAL HEADS, SIGNALS, AND OVERHEAD VIDEO DETECTION CAMERA. (NOTE: TWO-3 IN. PVC SCHEDULE 80, 90-DEGREE CONDUIT BEND, STA. 137+00.30' RT.
- INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH ALUMINUM TRANSFORMER BASE, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE TACTILE PEDESTRIAN PUSHBUTTON STATION AND R10-3(e) SIGN. (NOTE: ONE-3 IN. PVC SCHEDULE 80, 90-DEGREE CONDUIT BEND, STA. 136+19.42' LT., STA. 130+35.52' LT., STA. 137+14.51' LT., STA. 136+36.37' RT., STA. 136+93.36' RT.
- INSTALL ONE (1) - 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- INSTALL ONE (1) - 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- SAM CUT AND INSTALL ONE-1 IN. FLEXIBLE STEEL CONDUIT.
- INSTALL HANDBOX (24x36x36).
- INSTALL HEAVY DUTY HANDBOX (30x48x36).
- INSTALL 24 IN. THERMOPLASTIC PAVEMENT MARKING - WHITE FOR STOPWALK - (ALIGN WITH THE CENTER OF THE HC RAMPS)
- INSTALL 24 IN. THERMOPLASTIC PAVEMENT MARKING - WHITE FOR STOP LINE.
- INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT FOR ELECTRICAL SERVICE - TRENCHED.
- INSTALL TWO (2) - 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUITS - SLOTTED IN ROADWAY.
- INSTALL TWO (2) - 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUITS - TRENCHED.
- INSTALL TWO (2) - 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUITS - TRENCHED.
- VIDEO DETECTION ZONE.
- INSTALL NAZTEC ETHERNET TEMPERATURE PROBE AND CABLE (100 FT).
- INSTALL GROUND MOUNTED SIGN.
- INSTALL 1 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED FOR COMCAST DROP.
- INSTALL ONE (1) - 1 IN. PVC SCHEDULE 80, 90 DEGREE CONDUIT BEND.
- INSTALL 2 IN. PVC SCHEDULE 80, 90 DEGREE CONDUIT BEND.

GEOMETRIC LEGEND
EXISTING
PROPOSED

UTILITY LEGEND
S0 - STORM DRAIN
S1 - GAS MAIN
W - WATER MAIN
S - SEWER MAIN
E - ELECTRIC CABLES
R - AERIAL CABLES
T - TELEPHONE CABLES
F - FIBER-OPTIC

GENERAL NOTES

- ALL SIGNAL HEADS, LUMINAIRES, SIGNS AND CAMERA LOCATIONS/PLACEMENT SHALL BE VERIFIED OR CHANGED AS NECESSARY BY THE SIGNAL INSPECTOR.
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
- FOR FINAL PAVEMENT MARKINGS OTHER THAN THOSE DETAILED ON THIS PLAN, REFER TO THE PAVEMENT MARKING PLANS. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH PRINCE GEORGE'S COUNTY DP&T STANDARDS AND THE LATEST MD MUTCD. ALL CROSSWALKS SHALL BE CENTERED ON PARALLEL RAMPS, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL FIELD CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABELING EACH CABLE.
- THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS SHOULD ARISE, THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
- ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- THE SIGNAL CONTRACTOR IS REQUIRED TO CONTACT THE COUNTY SIGNAL SHOP (MR. GEORGE CHENOWETH AT 301-488-8616 OR 240-832-0087) AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION.
- STOP BARS SHALL BE A MINIMUM OF 4 FT. BEHIND CROSSWALKS.
- VIDEO CAMERA LOCATION/ALIGNMENT SHALL BE COORDINATED WITH THE DEPARTMENT'S SIGNAL INSPECTOR.
- THE CONTRACTOR SHALL SUBMIT CATALOG CUTS TO PRINCE GEORGE'S COUNTY DP&T FOR APPROVAL PRIOR TO PURCHASING THE EQUIPMENT.
- THE SIGNAL CONTRACTOR MUST BE MSA TRAFFIC SIGNAL LEVEL 1 CERTIFIED.

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
PRINCE GEORGE'S COUNTY, MARYLAND
CHERRY HILL ROAD
AT ACCESS POINTS TO TOWNLEY APTS./ MARYLAND FARMS COMMERCIAL CENTER
SIGNAL DESIGN

APPROVED [Signature]

SCALE: 1" = 20'

BYVISIONS: [Signature]

CONTRACT NO.: [Blank]

DATE: [Blank]

LOCATION: [Blank]

DATE: [Blank]

FILE NO.: [Blank]

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SIGNAL PLAN SHEET 2 OF 2

Angela D. Alsobrooks
County Executive

Terry L. Bellamy
DPW&T Director

1. GENERAL

THIS PROJECT INVOLVES THE CONSTRUCTION OF A NEW TRAFFIC SIGNAL AT THE INTERSECTION OF CHERRY HILL ROAD AND TOWNLEY APARTMENTS AND FARM COMMERCIAL CENTER IN PRINCE GEORGES COUNTY, MARYLAND. APS/OPS, PLS, AND SIGNALS WILL BE INSTALLED ON THE SOUTH, EAST AND WEST INTERSECTION LEGS. OVERHEAD VIDEO DETECTION CAMERAS SHALL BE INSTALLED FOR STOP LINE DETECTION ON ALL LEGS AND CROSS ALONG CHERRY HILL ROAD. CHERRY HILL ROAD IS CONSIDERED TO RUN IN A NORTH-SOUTH DIRECTION.

11. INTERSECTION OPERATION

THIS INTERSECTION IS TO OPERATE IN A NEMA FOUR-PHASE FULLY-ACTUATED MODE. AN EIGHT-PHASE, FULLY-TRAFFIC-ACTUATED NEMA SOLID STATE DIGITAL CONTROLLER WITH INTERSECTION MONITOR-VIDEO CAMERA EQUIPMENT, HARNESS, AND BATTERY BACK-UP HOUSED IN A SIZE "6" BASE-MOUNTED CABINET IS TO BE INSTALLED AT THE INTERSECTION. THERE WILL BE EXCLUSIVE PERMISSIVE PHASING FOR BOTH NORTHBOUND AND SOUTHBOUND MOVEMENTS OF CHERRY HILL ROAD. THE CHERRY HILL ROAD THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY WITH ACTUATED PEDESTRIAN MOVEMENTS ACROSS THE EAST AND WEST LEGS OF THE INTERSECTION. THE SIDE STREET THROUGH MOVEMENTS WILL OPERATE WITH AN ACTUATED PEDESTRIAN MOVEMENT ACROSS THE SOUTH LEG OF THE INTERSECTION. ALL EQUIPMENT MUST BE APPROVED BY PRINCE GEORGE'S COUNTY PRIOR TO INSTALLATION.

111. SPECIAL NOTES

- ALL ROADWAY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PRINCE GEORGE'S COUNTY DEPT. OF PUBLIC WORKS & TRANSPORTATION (DPW&T) STANDARDS AND SPECIFICATIONS, THE PRINCE GEORGE'S COUNTY CODE, THE PRINCE GEORGE'S COUNTY ROAD ORDINANCE AND PRINCE GEORGE'S COUNTY POLICY AND SPECIFICATION FOR UTILITY INVESTIGATION AND MAINTENANCE PERMITS.
- ALL TRAFFIC SIGNAL EQUIPMENT SHALL BE LOCATED IN ANTICIPATION OF FUTURE ROADWAY WIDENING.
- MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE SIGNAL CONTRACTOR UTILIZING THE LATEST EDITION OF THE MANUAL FOR TRAFFIC CONTROL.
- PRIOR TO STARTING WORK SHOWN ON THIS PLAN, THE PERMITTEE SHALL ARRANGE FOR A PRE-CONSTRUCTION MEETING WITH THE DPW&T INSPECTOR BY CALLING 301-490-8618 OR 240-832-0081. ALTERS 301-304-2781 OR 301-304-2722 AT LEAST 12 HOURS IN ADVANCE OF ANY ON-SITE CONSTRUCTION.
- ALL SIGNAL MESSAGES, LUMINAIRES, SIGNS, AND CAMERA LOCATION/PLACEMENT SHALL BE VERIFIED OR CHANGED AS NECESSARY BY THE SIGNAL CONTRACTOR, UNLESS OTHERWISE SPECIFIED OR IF IT IS PART OF THE PLAN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING "MISS UTILITY" (1-800-257-7777) AT LEAST 48 HOURS PRIOR TO THE START OF THE PROJECT.
- ALL LANE LINES SHALL BE CONSTRUCTED WITH EXTRUDED THERMOPLASTIC MATERIAL AND BE APPLIED BY THERMO-MOUNTED THERMOPLASTIC HANDLING SUCH AS ARRINGS ONLY. OTHER WORKINGS, MAY BE OF PRE-CUT HEAT APPLIED THERMOPLASTIC MATERIAL. CROSSWALKS AND STOP BARS COULD BE EITHER EXTRUDED OR PRE-CUT.
- APS WILL LUNAR AS:
 - TO CROSS CHERRY HILL ROAD
 - WHEN PEDESTRIAN LOCATES AND PASSES PUSHBUTTON FOR AN EXTENDED TIME, THE MESSAGE WILL ANNOUNCE "WAIT TO CROSS CHERRY HILL AT MARYLAND FARMS AND TOWNLEY APTS. WAIT"
 - WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.
 - TO CROSS MARYLAND FARMS COMMERCIAL CENTER
 - WHEN PEDESTRIAN LOCATES AND PASSES PUSHBUTTON FOR AN EXTENDED TIME, THE MESSAGE WILL ANNOUNCE "WAIT TO CROSS MARYLAND FARMS AT CHERRY HILL, WAIT"
 - WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.
 - TO CROSS TOWNLEY APARTMENTS
 - WHEN PEDESTRIAN LOCATES AND PASSES PUSHBUTTON FOR AN EXTENDED TIME, THE MESSAGE WILL ANNOUNCE "WAIT TO CROSS TOWNLEY APARTMENTS AT CHERRY HILL, WAIT"
 - WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

10. THE INSPECTOR SHALL MAIL IFP INCOM AT 101-883-5640 4 WEEKS IN ADVANCE OR AS SOON AS POSSIBLE TO TURNING ON THE SIGNAL.

EQUIPMENT LIST

EQUIPMENT TO BE FURNISHED BY PRINCE GEORGE'S COUNTY AND INSTALLED BY THE CONTRACTOR:

QUANTITY	UNITS	ITEM
32	SF	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGNS CONSISTING OF:
2	EA	D-5111 VAR-224" MAST ARM MOUNT
2	EA	D-5111 VAR-416" MAST ARM MOUNT

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR:

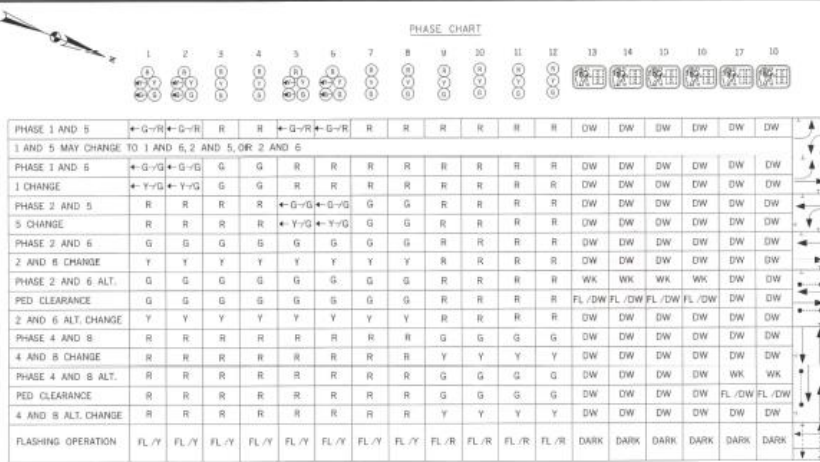
QUANTITY	UNITS	ITEM
1	EA	NATZEC NEMA SIZE "6" BASE MOUNTED CABINET WITH EIGHT PHASE ETHERNET SIGNAL CONTROLLER (MODEL# 10008-PROV-40) WITH INTERSECTION MONITOR, VIDEO DETECTION INTERFACE MODULES, AND ALL ASSOCIATED HARNESSSES.
1	EA	UNINTERRUPTIBLE POWER SUPPLY (UPS) BY CLARY CORPORATION MODEL# SP120LX-4 WITH POWER INTERFACE MODULE (PFI-300) BATTERIES (4) 51 AH (PART# OF-720), AND BATTERY CONNECTOR HARNESS (SINGLE STRING 72 VDC BATTERY CABLE, MODEL# SP-10N1)
8	EA	12 IN., ONE-WAY, FIVE SECTION (R-V-G-G-A-Y) BLACK SIGNAL HEAD - WITH MAST ARM FASTENING HARDWARE (NATZEC BRAND WITH DIAL LIGHT S.L.C. 2XL SERIES) LENSES)
4	EA	12 IN., ONE-WAY, FIVE SECTION (R-V-G-G-A-Y) BLACK SIGNAL HEAD WITH MAST ARM FASTENING HARDWARE (NATZEC BRAND WITH DIAL LIGHT S.L.C. 1XL SERIES FOR R-V-G AND X SERIES FOR G-A-Y) LENSES)
6	EA	16 IN., ONE-WAY, ONE SECTION COUNTDOWN PEDESTRIAN BLACK SIGNAL HEAD WITH LED INDICATORS (DIAL LIGHT, NO. 430-847-9001X) FOR POST TOP MOUNTED USING 4 IN. ONE-WAY (BLACK) SLIP FITTER WITH STAINLESS STEEL HARDWARE
6	EA	ADJUSTABLE PEDESTRIAN PUSHBUTTON ON ASSEMBLY & PEDESTRIAN PUSHBUTTON SIGN R 10-30 (9 IN. X 15 IN.) POLE MOUNTED (APS BY CAMPBELL# APB 915)
1	EA	ADJUSTABLE PEDESTRIAN PUSHBUTTON CONTROL UNIT BY CAMPBELL (APS BY CAMPBELL# APS 915)
1	EA	ELECTRICAL UTILITY SERVICE EQUIPMENT (120/240V, THREE WIRE SYSTEM) FOR AN ISOLATED PEDESTAL PER PRINCE GEORGE'S COUNTY STANDARD TS-13 AND TS-14 (MIDWEST# RIGORP0004)
135	LF	24 IN. WHITE HEAT APPR 150 PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
400	LF	12 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
1	EA	ALDIS GRID SMART VIDEO DETECTION SYSTEM WITH PED MODULE (J.O. HERBERT INC., PART# PGC-652CCP)
1	EA	ALDIS GRID SMART VIDEO DETECTION SYSTEM SET-UP KIT WITH 10 IN. COLOR MONITOR AND TRACK BALL (PART# PGC-652CPM)
340	LF	CATS OUTDOOR VIDEO DETECTION RATED CABLE WITH 2RJ-45 CONNECTOR (PART# PGC-650C)
75	LF	1 CONDUCTOR (NO. 6 AWG) BARE STRANDED COPPER GROUND WIRE
20	LF	ONE(1) - 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED
145	LF	ONE(1) - 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED
75	LF	ONE(1) - 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT FOR ELECTRICAL SERVICE - TRENCHED
25	LF	TWO(2) - 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED
10	LF	TWO(2) - 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED
340	LF	TWO(2) - 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - SLOTTED IN ROADWAY
5	EA	10 FT. CAT. 6 SHAGLESS SHIELDED (STP) NETWORK PATCH CABLE - BLUE
5	EA	6 FT. CAT. 6 SHAGLESS SHIELDED (STP) NETWORK PATCH CABLE - BLUE
10	EA	3 FT. CAT. 6 SHAGLESS SHIELDED (STP) NETWORK PATCH CABLE - BLUE
1	EA	CISCO SECURITY ROUTER (1892-K9) WITH SFPC CATALO
1	EA	CISCO CATALYST 3560C SWITCH 80E POE 2X DUAL UPLINK IP BASE
1	EA	CISCO ETHERNET SWITCH CAT3650 24, PORT POE, 10, 100, 1000 45FF
1	EA	CISCO 601E (E-SEP-4-COM-H) CONNECTOR FOR CISCO ETHERNET
1	EA	CORNING OPTI TAP FAST ACCESS TECHNOLOGY ROD DROP ASSEMBLY, IF, OPTI TAP TO STUB AND BULK PACK DIELECTRIC SINGLE MODE (CS2) 100 FT, 1GRAYBAR PART# W06318FR90D AND CORNING PART# W06318FR90D
1	EA	CORNING OPTI TAP FAST ACCESS, SEALED TERMINAL, UCA-SERIES, 6 OPTI-TAP CONNECTOR ADAPTER 5 PIGTAIL, 2 MEDIUM, 2 PARTS WALL BRACKET PART# UCA-080CP-8-05
10	EA	FIBER OPTIC JUMPER, 1M-CST 15 DUAL DUPLEX, SINGLE MODE, PVC FIBER OPTIC CABLE-YELLOW
1	EA	LID (LIGHT INTERFERENCE) STRIP, SYSTEM BOX/MATERIAL STEEL COLOR WHITE DIMS: 4"X9"X1/2"
1	EA	SMARTNET 8X5XND CISCO SECURITY ROUTER (1892-K9) PART #40N-SMT-C550892P-K9

EQUIPMENT LIST (CONTINUED)

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR:

QUANTITY	UNITS	ITEM
1	EA	SMARTNET 8X5XND CATALYST 3560C SWITCH 8 0E POE 2 X DUAL PART #40N-SMT-C550892P
1	EA	SMARTNET 8X5XND CISCO CATALYST 3550 24 PORT POE 4X10 UPL PART #40N-SMT-W5C3625
6	CY	TEST PIT EXCAVATION
1	EA	27 FOOT STEEL POLE WITH 70 FOOT MAST ARM
1	EA	27 FOOT STEEL POLE WITH 90 FOOT MAST ARM
2	EA	12 FOOT STEEL POLE WITH 38 FOOT MAST ARM
4	EA	10 FOOT BREAKAWAY PEDESTAL POLE WITH ALUMINUM T-BASE
98	SF	INSTALL OVERHEAD SIGN
1	EA	HEAVY DUTY HANDBOOK (30X48X56)
3	EA	HANDBOOK (24X36X36)
3	EA	120 WATT LED LUMINAIRE (DIALIGHT MODEL #SL3CSHLOH)
3	EA	20 FT. LUMINAIRE ARM
13	EA	GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
1020	LF	7 CONDUCTOR CABLE (NO. 14 AWG) (MSA 20-1)
960	LF	5 CONDUCTOR CABLE (NO. 14 AWG) (MSA 20-1)
586	LF	3 CONDUCTOR CABLE (NO. 14 AWG) (MSA 20-1)
540	LF	CONDUIT/CABLE (NO. 14 AWG) (MSA 20-1)
470	LF	3 CONDUCTOR TRAY CABLE (NO. 12 AWG)
30	LF	1 CONDUCTOR CABLE (NO. 8 AWG)
1	EA	NATZEC ETHERNET TEMPERATURE PROBE SENSOR AND CABLE
4	EA	R3-5111 30"X36" SIGN WITH MAST ARM FASTENING HARDWARE
2	EA	R3-61R1 30"X36" SIGN WITH MAST ARM FASTENING HARDWARE
3	EA	"NEW" SIGN - GROUND MOUNT (10) INCLUDE GALVANIZED STEEL U-SHAPED SIGN POSTS)
1	EA	COHU CAMERA CABLE WITH MS. CONNECTOR PREMADE AT FACTORY 300 FEET LENGTH AND RJ45 CONNECTOR POWER CONNECTOR - 300 LENGTH
1	EA	COHU POSITIONER BRACKET FOR 3960 3D
1	EA	CCTV CAMERA COHU 3960 3D
1	EA	TRIPP-LITE SUPERFUSION PROTECTOR STRIP 120V 7 OUTLET 7 FEET CORO 2160 JOULES
1	EA	NETWORK INTERFACE BOX (NIB) IN-1000 PART #N20-027-20
20	LF	1 INCH DIAMETER HELIXIBLE STEEL CONDUIT
20	LF	SAW CUT FOR TEMPERATURE PROBE CABLE
175	LF	DIELECTRIC SINGLE MODE 6 COUNT FIBER OPTIC CABLE
90	LF	DIELECTRIC SINGLE MODE 24 COUNT FIBER OPTIC CABLE

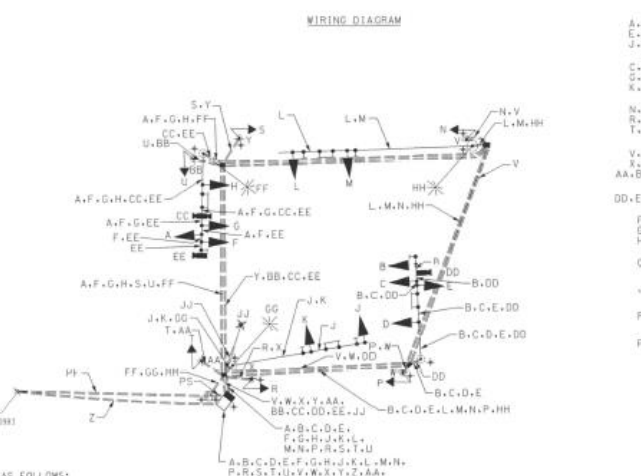
PHASE CHART



KEY

- A-B, J-L: 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- C-D, G-H, K-M: 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- N-P, R-S, T-U: 3 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- V-W, X-Y, AA-BB: 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- DD-EE: VIDEO DETECTION CABLE (CAT 5 OUTDOOR)
- FF, GG, HH: 3 CONDUCTOR TRAY CABLE (NO. 12 AWG)
- CC: DIELECTRIC SINGLE MODE 6 COUNT FIBER OPTIC CABLE, PIGTAIL
- JJ: NATZEC ETHERNET TEMPERATURE PROBE
- PP: POWER FEED UNDERGROUND (FINAL CONNECTION TO BE MADE BY PEPCO)
- PS: 1 CONDUCTOR (NO. 8 AWG) (3 PIECES) FOR ELECTRICAL SERVICE
- GROUND ROD PROPOSED IN ALL POLE BASES, POWER PEDestal, AND CONTROLLER CABINET. USE BARE COPPER STRANDED GROUND WIRE (NO. 6 AWG)
- Z: COMCAST DROP - DIELECTRIC SINGLE MODE 24 COUNT FIBER OPTIC CABLE

WIRING DIAGRAM



NOTE: GROUND WIRE SHALL RUN AS FOLLOWS:
 -NO. 6 AWG FROM THE SIGNAL POLE TO GROUND ROD
 -NO. 6 AWG FROM THE METERED SERVICE PEDESTAL TO GROUND ROD
 -NO. 6 AWG FROM THE CABINET TO THE NEAREST GROUND ROD.
 THE GROUND WIRE SHALL BE CONNECTED TO THE GROUND NUT IN THE SIGNAL POLES. FOR THE CABINET AND METERED SERVICE PEDESTAL, THE GROUND WIRE SHALL BE CONNECTED THROUGH THE GROUNDING LUG ON THE GROUND ROD IN THE CABINET AND THEN TO THE BUS BAR.

Prince Georges County Maryland
Department of Public Works and Transportation
APPROVED PERMIT SET

Use Name: Maryland From: 2/16/2016
Case Type: SCD
Address: 14356 Cherry Hill Rd, Beltsville, MD
Contact: (301) 278-1100 and (301) 278-1100
M. Alsobrooks 2/1/17

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

CHERRY HILL ROAD
AT ACCESS POINTS TO TOWNLEY APTS./MARYLAND FARMS COMMERCIAL CENTER
GENERAL INFORMATION SHEET

REVISIONS: _____ DATE: _____

APPROVED: _____ DATE: _____

CONTRACT NO. _____ DATE: _____

ISSUED: _____ DATE: _____

DATE: _____

POINTS OF CONTACTS DURING DESIGN:

Erv Beckert, P.E.

Chief, Highway and Bridge Design Division

Mobile: 240.508.9610

Email: ETBeckert@co.pg.md.us

POINT OF CONTACT DURING CONSTRUCTION:

Dwight Joseph

Chief, Construction Division

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