Sequence of Operation Chart

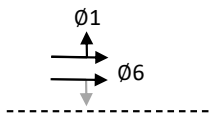
Delaware Department of Transportation
Transportation Management Center

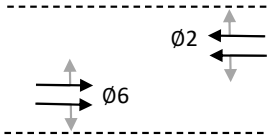
Permit No.: W771

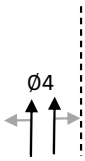
Timesheet Rev: B.1

Intersection: 4th Street & Church Street







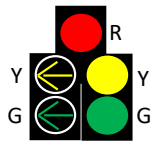
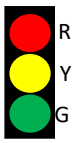
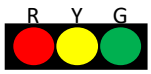


Phase	1+6				2+6					4														FLASH
Signal # \ Int	1	2	3		4	5	6	7	8	9	10	11	12	13										
1	G/<G-	G/<Y-	G		G	G	G	Y	R	R	R	R	R	R										Y
2	G	G	G		G	G	G	Y	R	R	R	R	R	R										Y
3	FY	FY	FY		FY	OFF	FY	FY	FY	FY	FY	FY	FY	FY										OFF
4	FY	FY	FY		FY	OFF	FY	FY	FY	FY	FY	FY	FY	FY										OFF
5	R	R	R		G	G	G	Y	R	R	R	R	R	R										Y
6	R	R	R		G	G	G	Y	R	R	R	R	R	R										Y
7	R	R	R		G	G	G	Y	R	R	R	R	R	R										Y
8	R	R	R		G	G	G	Y	R	R	R	R	R	R										Y
9	FY	FY	FY		FY	FY	FY	FY	FY	FY	OFF	FY	FY	FY										OFF
10	FY	FY	FY		FY	FY	FY	FY	FY	FY	OFF	FY	FY	FY										OFF
11	R	R	R		R	R	R	R	R	G	G	G	Y	R										R
12	R	R	R		R	R	R	R	R	G	G	G	Y	R										R
13	R	R	R		R	R	R	R	R	G	G	G	Y	R										R
14	R	R	R		R	R	R	R	R	G	G	G	Y	R										R
15	R	R	R		R	R	R	R	R	G	G	G	Y	R										R
16	W	W	W		W	W	FDW	DW	DW	DW	DW	DW	DW	DW										OFF
17	W	W	W		W	W	FDW	DW	DW	DW	DW	DW	DW	DW										OFF
18	DW	DW	DW		W	W	FDW	DW	DW	DW	DW	DW	DW	DW										OFF
19	DW	DW	DW		W	W	FDW	DW	DW	DW	DW	DW	DW	DW										OFF
20	DW	DW	DW		DW	DW	DW	DW	DW	W	W	FDW	DW	DW										OFF
21	DW	DW	DW		DW	DW	DW	DW	DW	W	W	FDW	DW	DW										OFF

Legend:	
R	RED
Y	YELLOW
G	GREEN
DW	DON'T WALK
W	WALK
F	FLASHING
←	ARROW

Notes:

Red signal ahead signs flash 7 seconds before signal display yellow and flashes until 10 seconds after signal display green
Signal displays 3 & 4 are located on westbound "red signal ahead when flashing" signs
Signal displays 9 & 10 are located on northbound "red signal ahead when flashing" signs

	SIGNAL HEAD INDICATIONS							
Signal No.:	1	2,5,8, 11,12,15		6,7,13,14	16,17,18, 19,20,21	3,4,9,10		
Total:	1	6		4	6	4		
Signal Head Type:								
Notes: Optically limited, tunnel visor, louvers, etc.								
Lens / Symbol:	12" Lenses	12" Lenses		12" Lenses	9" Symbol	12" Lenses		

PREPARED BY: _____ DATE: _____

CHECKED BY: _____ DATE: _____

EMERGENCY PREEMPTION	
PREEMPT 1	PHASE 2+6
PREEMPT 2	PHASE 2+6
PREEMPT 3	PHASE 4+8
PREEMPT 4	PHASE 4+8

CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
1*	1	1.5 IN	32 FT	-	<REMOVE EX. (1) 2/*8 U.F. W/ GROUND>
2*	1	1.5 IN	55 FT	-	<REMOVE EX. (1) 2/*8 U.F. W/ GROUND, EX. (1) 16/*14, EX. (1) 9/*14>
3*	1	1.5 IN	16 FT	-	<REMOVE EX. (1) 2/*8 U.F. W/ GROUND, EX. (1) 16/*14, EX. (1) 9/*14>
4*	1	2.5 IN	4 FT	-	<REMOVE EX. (1) 2/*8 U.F. W/ GROUND, EX. (2) 16/*14>
5*	2	1.5 IN	ON POLE	-	<REMOVE EX. (1) 4/*14>
		2.5 IN			<REMOVE EX. (1) 2/*8 U.F. W/ GROUND, EX. (1) 16/*14, (1) 9/*14, (1) COMM.-DISCONNECTED>
6*	1	4.0 IN	128 FT	-	<REMOVE EX. (1) 4/*14>
7*	1	1.5 IN	10 FT	-	<REMOVE EX. (1) 9/*14>
8*	1	1.5 IN	39 FT	-	<REMOVE EX. (1) 9/*14>
9*	1	1.5 IN	3 FT	-	<REMOVE EX. (1) 9/*14>
10*	1	1.5 IN	40 FT	-	<REMOVE EX. (1) 9/*14>
OH-11	-	AERIAL	73 FT	-	<REMOVE EX. (1) 16/*14, (1) COMM.-DISCONNECTED>
OH-12	-	AERIAL	63 FT	-	<REMOVE EX. (1) 16/*14, (1) COMM.-DISCONNECTED>
OH-13	-	AERIAL	81 FT	-	<REMOVE EX. (1) 9/*14, (1) 4/*14>
14**	1	2.0 IN	14 FT	T	[NEW (3) 1/*8 THHN - LINE SIDE]
15**	2	2.0 IN	6 FT	T	[NEW (3) 1/*8 THHN - LINE SIDE, (1) 2/*8 U.F. W/GROUND - LOAD SIDE]
16	1	2.0 IN	106 FT	B	[NEW (1) 2/*8 U.F. W/ GROUND - LOAD SIDE]
17**	1	2.0 IN	9 FT	T	[NEW (1) 2/*8 U.F. W/ GROUND - LOAD SIDE]

* DENOTES EXISTING CONDUIT
** GALVANIZED STEEL CONDUIT
B = BORE, T = TRENCH, O = OPEN CUT

CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
18	4	4.0 IN	5 FT	T	[NEW (3) 9/*14, (7) 5/*14, (7) 4/*14, (4) *6 GROUND, (1) CCTV CABLE]
19	1	3.0 IN	35 FT	T	[NEW (1) 9/*14, (1) 4/*14, (1) *6 GROUND]
20	1	4.0 IN	85 FT	B	[NEW (1) 9/*14, (2) 5/*14, (1) 4/*14, (1) *6 GROUND, (1) CCTV CABLE]
21	1	3.0 IN	8 FT	T	[NEW (1) 9/*14, (1) 4/*14, (1) *6 GROUND, (1) CCTV CABLE]
22	1	2.5 IN	14 FT	T	[NEW (1) 5/*14, (1) *6 GROUND]
23	1	2.5 IN	5 FT	T	[NEW (2) 5/*14, (1) *6 GROUND]
24	1	4.0 IN	78 FT	B	[NEW (1) 9/*14, (3) 5/*14, (3) 4/*14, (1) *6 GROUND]
25	1	2.5 IN	7 FT	O	[NEW (2) 5/*14, (1) *6 GROUND]
26	1	2.5 IN	21 FT	O	[NEW (1) 4/*14, (1) *6 GROUND]
27	1	4.0 IN	31 FT	B	[NEW (1) 9/*14, (1) 5/*14, (2) 4/*14, (1) *6 GROUND]
28	1	3.0 IN	21 FT	T	[NEW (1) 9/*14, (1) *6 GROUND]
29	1	2.5 IN	10 FT	T	[NEW (1) 5/*14, (1) 4/*14, (1) *6 GROUND]
30	1	4.0 IN	180 FT	B	[NEW (1) 4/*14, (1) *6 GROUND]

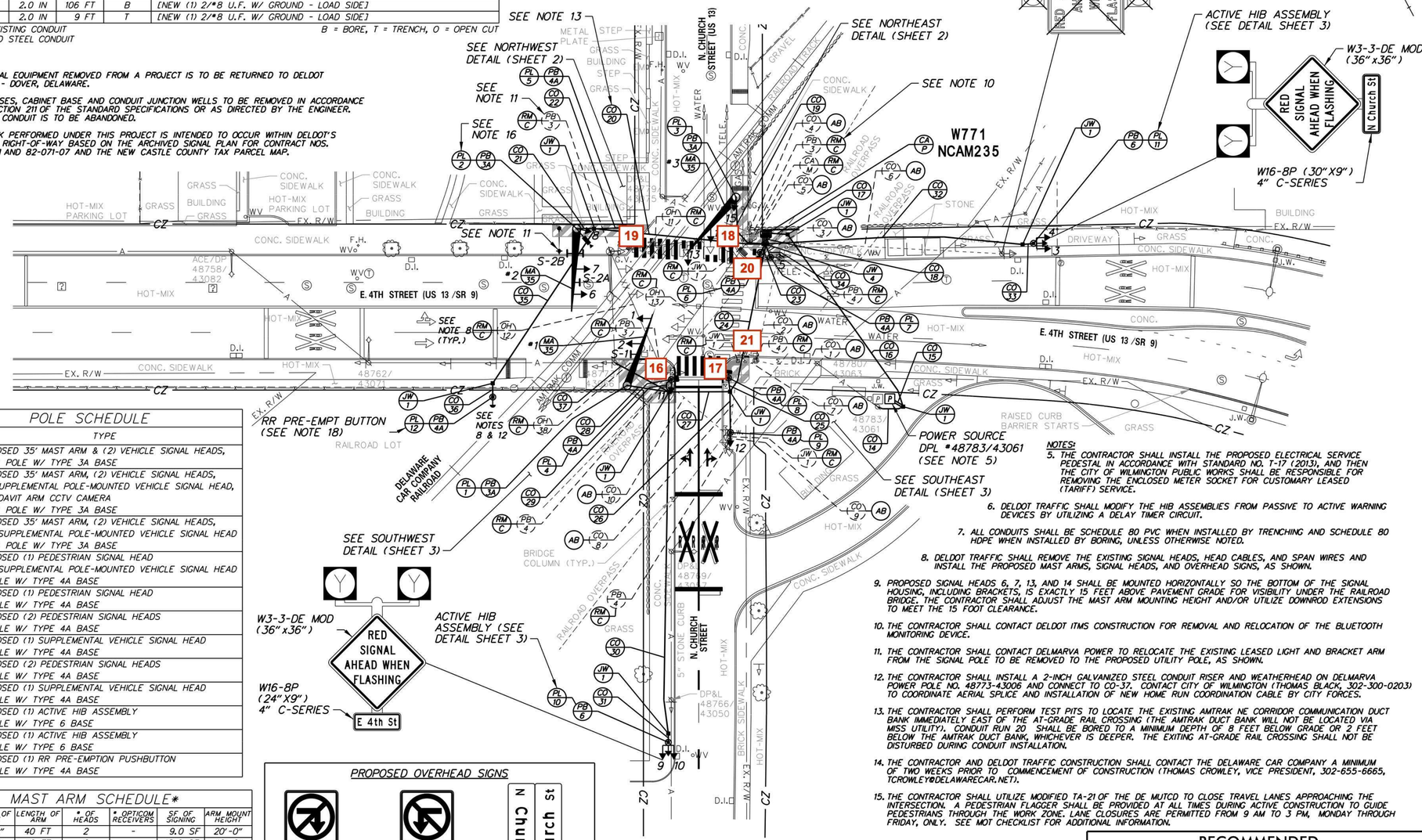
* DENOTES EXISTING CONDUIT
** GALVANIZED STEEL CONDUIT
B = BORE, T = TRENCH, O = OPEN CUT

CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
31	1	2.5 IN	5 FT	O	[NEW (1) 4/*14, (1) *6 GROUND]
32	1	4.0 IN	131 FT	B	[NEW (1) 4/*14, (1) *6 GROUND]
33	1	2.5 IN	6 FT	T	[NEW (1) 4/*14, (1) *6 GROUND]
34	1	2.5 IN	8 FT	T	[NEW (1) 4/*14, (1) *6 GROUND]
35	1	4.0 IN	95 FT	B	[NEW (1) 5/*14, (1) *6 GROUND]
36	1	2.5 IN	7 FT	O	[NEW (1) 5/*14, (1) *6 GROUND]
37**	1	2.0 IN	31 FT	T	EMPTY - FUTURE CoW COMM CABLE
OH-38	-	AERIAL	23 FT	-	<REMOVE EX. (1) COMM.-DISCONNECTED>

* DENOTES EXISTING CONDUIT
** GALVANIZED STEEL CONDUIT
B = BORE, T = TRENCH, O = OPEN CUT

NOTES:
1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON THE ARCHIVED SIGNAL PLAN FOR CONTRACT NOS. 71-10-001 AND 82-071-07 AND THE NEW CASTLE COUNTY TAX PARCEL MAP.



POLE SCHEDULE

NO.	TYPE
1	PROPOSED 35' MAST ARM & (2) VEHICLE SIGNAL HEADS, 21'-6" POLE W/ TYPE 3A BASE
2	PROPOSED 35' MAST ARM, (2) VEHICLE SIGNAL HEADS, (1) SUPPLEMENTAL POLE-MOUNTED VEHICLE SIGNAL HEAD, & (1) DAVIT ARM CCTV CAMERA 21'-6" POLE W/ TYPE 3A BASE
3	PROPOSED 35' MAST ARM, (2) VEHICLE SIGNAL HEADS, & (1) SUPPLEMENTAL POLE-MOUNTED VEHICLE SIGNAL HEAD 21'-6" POLE W/ TYPE 3A BASE
4	PROPOSED (1) PEDESTRIAN SIGNAL HEAD & (1) SUPPLEMENTAL POLE-MOUNTED VEHICLE SIGNAL HEAD 14' POLE W/ TYPE 4A BASE
5	PROPOSED (1) PEDESTRIAN SIGNAL HEAD 10' POLE W/ TYPE 4A BASE
6	PROPOSED (2) PEDESTRIAN SIGNAL HEADS 10' POLE W/ TYPE 4A BASE
7	PROPOSED (1) SUPPLEMENTAL VEHICLE SIGNAL HEAD 10' POLE W/ TYPE 4A BASE
8	PROPOSED (2) PEDESTRIAN SIGNAL HEADS 10' POLE W/ TYPE 4A BASE
9	PROPOSED (1) SUPPLEMENTAL VEHICLE SIGNAL HEAD 10' POLE W/ TYPE 4A BASE
10	PROPOSED (1) ACTIVE HIB ASSEMBLY 14' POLE W/ TYPE 6 BASE
11	PROPOSED (1) ACTIVE HIB ASSEMBLY 14' POLE W/ TYPE 6 BASE
12	PROPOSED (1) RR PRE-EMPTION PUSHBUTTON 10' POLE W/ TYPE 4A BASE

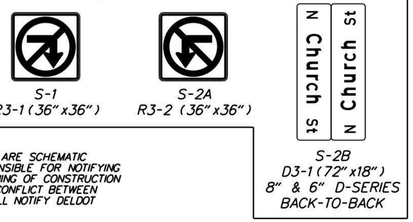
MAST ARM SCHEDULE*

MA*	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1	21'-6"	40 FT	2	-	9.0 SF	20'-0"
2	21'-6"	40 FT	2	-	18.0 SF	16'-0"
3	21'-6"	40 FT	2	-	-	16'-0"

*SEE NOTE 17

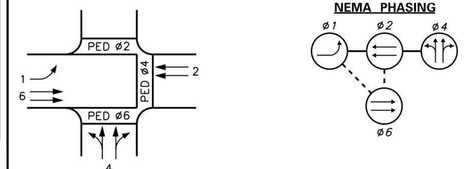
NOTES:
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PROPOSED OVERHEAD SIGNS



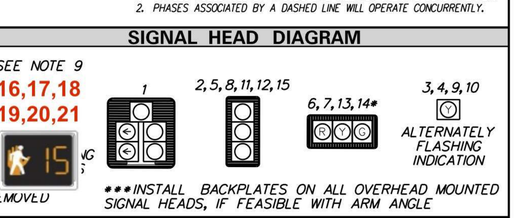
NOTES:
5. THE CONTRACTOR SHALL INSTALL THE PROPOSED ELECTRICAL SERVICE PEDESTAL IN ACCORDANCE WITH STANDARD NO. T-17 (2013), AND THEN THE CITY OF WILMINGTON PUBLIC WORKS SHALL BE RESPONSIBLE FOR REMOVING THE ENCLOSED METER SOCKET FOR CUSTOMARY LEASED (TARIFF) SERVICE.
6. DELDOT TRAFFIC SHALL MODIFY THE HIB ASSEMBLIES FROM PASSIVE TO ACTIVE WARNING DEVICES BY UTILIZING A DELAY TIMER CIRCUIT.
7. ALL CONDUITS SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING AND SCHEDULE 80 HDPE WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED.
8. DELDOT TRAFFIC SHALL REMOVE THE EXISTING SIGNAL HEADS, HEAD CABLES, AND SPAN WIRES AND INSTALL THE PROPOSED MAST ARMS, SIGNAL HEADS, AND OVERHEAD SIGNS, AS SHOWN.
9. PROPOSED SIGNAL HEADS 6, 7, 13, AND 14 SHALL BE MOUNTED HORIZONTALLY SO THE BOTTOM OF THE SIGNAL HOUSING, INCLUDING BRACKETS, IS EXACTLY 15 FEET ABOVE PAVEMENT GRADE FOR VISIBILITY UNDER THE RAILROAD BRIDGE. THE CONTRACTOR SHALL ADJUST THE MAST ARM MOUNTING HEIGHT AND/OR UTILIZE DOWNROD EXTENSIONS TO MEET THE 15 FOOT CLEARANCE.
10. THE CONTRACTOR SHALL CONTACT DELDOT ITMS CONSTRUCTION FOR REMOVAL AND RELOCATION OF THE BLUETOOTH MONITORING DEVICE.
11. THE CONTRACTOR SHALL CONTACT DELMARVA POWER TO RELOCATE THE EXISTING LEASED LIGHT AND BRACKET ARM FROM THE SIGNAL POLE TO BE REMOVED TO THE PROPOSED UTILITY POLE, AS SHOWN.
12. THE CONTRACTOR SHALL INSTALL A 2-INCH GALVANIZED STEEL CONDUIT RISER AND WEATHERHEAD ON DELMARVA POWER POLE NO. 48773-43006 AND CONNECT TO CO-37. CONTACT CITY OF WILMINGTON (THOMAS BLACK, 302-300-0203) TO COORDINATE AERIAL SPLICE AND INSTALLATION OF NEW HOME RUN COORDINATION CABLE BY CITY FORCES.
13. THE CONTRACTOR SHALL PERFORM TEST PITS TO LOCATE THE EXISTING AMTRAK NE CORRIDOR COMMUNICATION DUCT BANK IMMEDIATELY EAST OF THE AT-GRADE RAIL CROSSING (THE AMTRAK DUCT BANK WILL NOT BE LOCATED VIA MISS UTILITY). CONDUIT RUN 20 SHALL BE BORED TO A MINIMUM DEPTH OF 8 FEET BELOW GRADE OR 2 FEET BELOW THE AMTRAK DUCT BANK, WHICHEVER IS DEEPER. THE EXITING AT-GRADE RAIL CROSSING SHALL NOT BE DISTURBED DURING CONDUIT INSTALLATION.
14. THE CONTRACTOR AND DELDOT TRAFFIC CONSTRUCTION SHALL CONTACT THE DELAWARE CAR COMPANY A MINIMUM OF TWO WEEKS PRIOR TO COMMENCEMENT OF CONSTRUCTION (THOMAS CROWLEY, VICE PRESIDENT, 302-655-6665, TCROWLEY@DELAWARECAR.NET).
15. THE CONTRACTOR SHALL UTILIZE MODIFIED TA-21 OF THE DE MUTCD TO CLOSE TRAVEL LANES APPROACHING THE INTERSECTION. A PEDESTRIAN FLAGGER SHALL BE PROVIDED AT ALL TIMES DURING ACTIVE CONSTRUCTION TO GUIDE PEDESTRIANS THROUGH THE WORK ZONE. LANE CLOSURES ARE PERMITTED FROM 9 AM TO 3 PM, MONDAY THROUGH FRIDAY, ONLY. SEE MOT CHECKLIST FOR ADDITIONAL INFORMATION.
16. THE CONTRACTOR SHALL INSTALL A DAVIT ARM CCTV CAMERA ON POLE *2.
17. THE PROPOSED MAST ARMS SHALL BE INSTALLED TO PROVIDE A 15-FOOT MINIMUM HORIZONTAL CLEARANCE FROM THE CENTERLINE OF THE AT- GRADE RAILROAD CROSSING.
18. THE PROPOSED PUSHBUTTON SHALL BE LOCATED 20 FEET FROM THE ACTIVE RAILROAD TRACK CENTERLINE AND NO MORE THAN 4 FEET FROM THE FOURTH STREET FENCE LINE.

SIGNAL PHASING



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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH (•)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA (X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH (•)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA (X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB (X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (•)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB (X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (•)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL (X)	EXISTING POLE IDENTIFIER (* OF POLE)
JW (X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL (X)	PROPOSED POLE IDENTIFIER (* OF POLE)
JW (X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA (XX)	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA (XX)	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

RECOMMENDED
Thomas Black, via 10/18/2021 Field Meeting
CITY OF WILMINGTON, DEPT. OF PUBLIC WORKS — DATE

RECOMMENDED
Thomas Crowley, via email dated 9/20/2021
DELAWARE CAR COMPANY — DATE

PREPARED BY
Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915
10/13/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WRA" SECTION DESIGNATION. — DATE

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION
10/18/2021
CHIEF OF TRAFFIC ENGINEERING — DATE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

2016 HEP
SITE N

CONTRACT	T201800402
COUNTY	NEW CASTLE
PERMIT NO.	W771 & NCAM235
DESIGNED BY:	D. GUNYUZLU
CHECKED BY:	K. CLEVENGER

SIGNAL PLAN
E. 4TH STREET (SR 9 /US 13)
N. CHURCH STREET (US 13)

SECTION	WRA
SHEET NO.	1

N:\30957-025\CADD\SC01_4th St @ Church St.dgn
10/12/2021 11:57:44 PM

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/ WIRE
1A	1	2"	GALV	5'	T	NEW (1)2/#8 U.F. W/GROUND - LOAD SIDE
1B	1	2"	GALV	10'	T	NEW (3)1/#8 THHN SC - LINE SIDE
1C	1	2"	GALV	50'/30'	T/P	NEW (3)1/#8 THHN SC - LINE SIDE
2	4	4"	PVC	5'	T	NEW (2)16/#14 (4)5/#14 (8)2/#14 (4)4/#18 (4)#6 SC
3	1	4"	PVC	10'	T	NEW (2)2/#14 (1)#6 SC
4	1	2.5"	PVC	5'	T	NEW (1)5/#14 (1)#6 SC
5	1	4"	PVC	20'	T	NEW (2)2/#14 (1)#6 SC
6	1	4"	HDPE	75'	B	NEW (1)16/#14 (3)5/#14 (4)2/#14 (1)#6 SC
7	1	2.5"	PVC	10'	T	NEW (2)5/#14 (1)#6 SC
8	1	4"	HDPE	55'	B	NEW (1)16/#14 (1)5/#14 (2)2/#14 (1)#6 SC
9	1	2.5"	PVC	20'	T	NEW (1)5/#14 (1)#6 SC
XOH1	-	-	-	-	-	REMOVE AERIAL (1)2/#8 U.F. W/GROUND
X10	1	1.5"	-	5'	-	REMOVE (1)2/#8 U.F. W/GROUND - ABANDON CONDUIT
X11	2	2.5"	-	5'	-	REMOVE [(1)16/#14 (4)4/#18] NEW [(1)16/#14 (4)4/#18 (1)#6 SC]
X12	1	2.5"	-	5'	-	REMOVE (4)4/#18 - ABANDON CONDUIT
X13	1	2.5"	-	60'	-	REMOVE (1)16/#14] (3)9/#14 (2)4/#18 - AB CONDUIT
X14	1	2.5"	-	5'	-	REMOVE (2)9/#14 - ABANDON CONDUIT
X15	1	2.5"	-	75'	-	REMOVE [(1)16/#14 (1)9/#14 (1)4/#18] NEW [(1)16/#14 (1)#6 SC]

LEGEND
X- DENOTES EXISTING
SC- STRANDED COPPER

B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

MAST ARM SCHEDULE

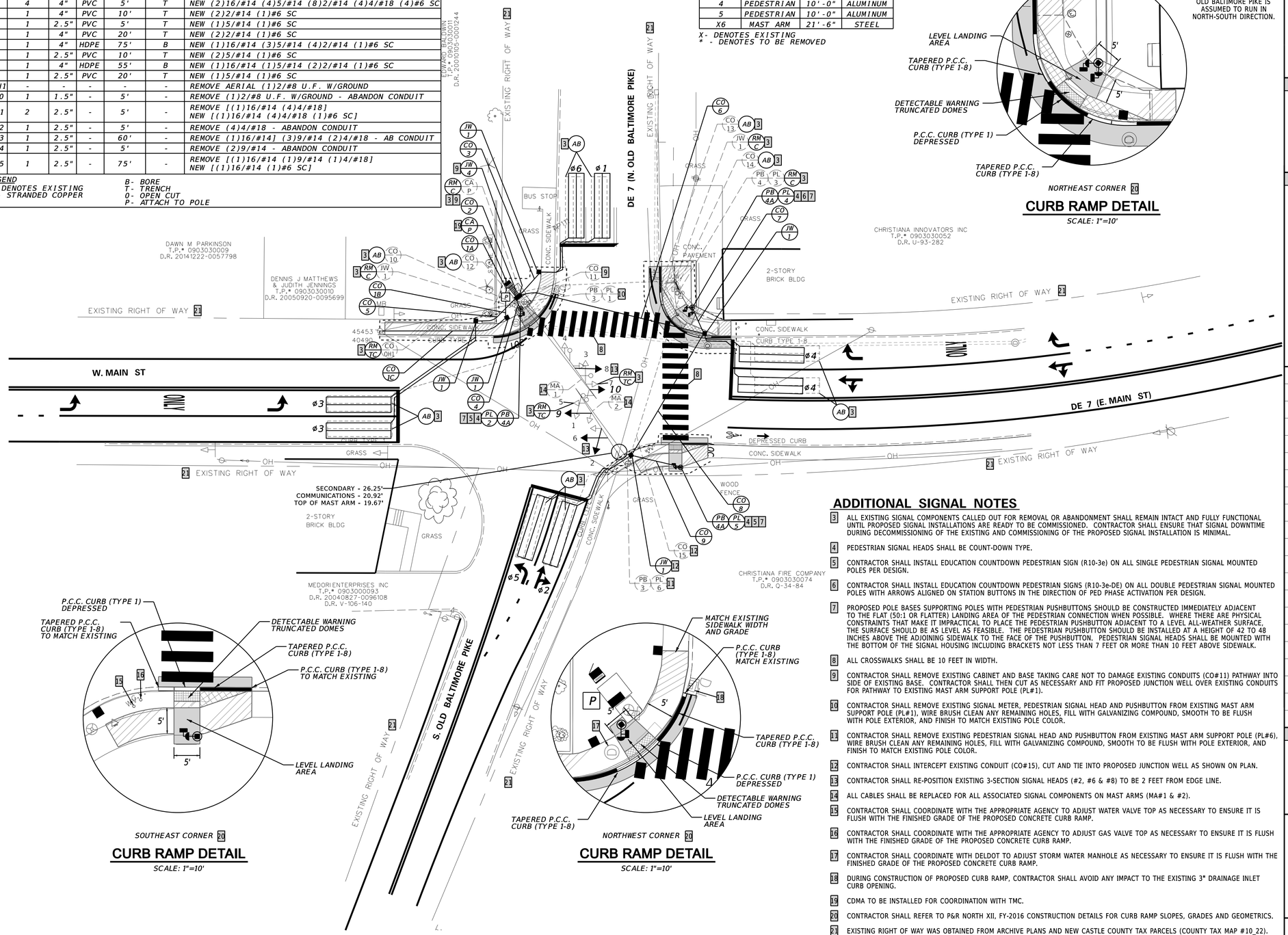
MA#	LENGTH OF ARM	# OF HEADS	# OF OPTICOM RECEIVERS	ARM MOUNT HEIGHT
X1	45'	4	4	17'
X2	35'	4	0	17'

X- DENOTES EXISTING

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
X1	MAST ARM	21'-6"	STEEL
2	PEDESTRIAN	10'-0"	ALUMINUM
*X3	PEDESTRIAN	10'-0"	ALUMINUM
4	PEDESTRIAN	10'-0"	ALUMINUM
5	PEDESTRIAN	10'-0"	ALUMINUM
X6	MAST ARM	21'-6"	STEEL

X- DENOTES EXISTING
* - DENOTES TO BE REMOVED



SOUTHEAST CORNER 20

CURB RAMP DETAIL

SCALE: 1"=10'

NORTHWEST CORNER 20

CURB RAMP DETAIL

SCALE: 1"=10'

NORTHEAST CORNER 20

CURB RAMP DETAIL

SCALE: 1"=10'

OLD BALTIMORE PIKE IS ASSUMED TO RUN IN NORTH-SOUTH DIRECTION.

ADDITIONAL SIGNAL NOTES

3 ALL EXISTING SIGNAL COMPONENTS CALLED OUT FOR REMOVAL OR ABANDONMENT SHALL REMAIN INTACT AND FULLY FUNCTIONAL UNTIL PROPOSED SIGNAL INSTALLATIONS ARE READY TO BE COMMISSIONED. CONTRACTOR SHALL ENSURE THAT SIGNAL DOWNTIME DURING DECOMMISSIONING OF THE EXISTING AND COMMISSIONING OF THE PROPOSED SIGNAL INSTALLATION IS MINIMAL.

4 PEDESTRIAN SIGNAL HEADS SHALL BE COUNT-DOWN TYPE.

5 CONTRACTOR SHALL INSTALL EDUCATION COUNTDOWN PEDESTRIAN SIGN (R10-3e) ON ALL SINGLE PEDESTRIAN SIGNAL MOUNTED POLES PER DESIGN.

6 CONTRACTOR SHALL INSTALL EDUCATION COUNTDOWN PEDESTRIAN SIGNS (R10-3e-DE) ON ALL DOUBLE PEDESTRIAN SIGNAL MOUNTED POLES WITH ARROWS ALIGNED ON STATION BUTTONS IN THE DIRECTION OF PED PHASE ACTIVATION PER DESIGN.

7 PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE PEDESTRIAN CONNECTION WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK.

8 ALL CROSSWALKS SHALL BE 10 FEET IN WIDTH.

9 CONTRACTOR SHALL REMOVE EXISTING CABINET AND BASE TAKING CARE NOT TO DAMAGE EXISTING CONDUITS (CO#11) PATHWAY INTO SIDE OF EXISTING BASE. CONTRACTOR SHALL THEN CUT AS NECESSARY AND FIT PROPOSED JUNCTION WELL OVER EXISTING CONDUITS FOR PATHWAY TO EXISTING MAST ARM SUPPORT POLE (PL#1).

10 CONTRACTOR SHALL REMOVE EXISTING SIGNAL METER, PEDESTRIAN SIGNAL HEAD AND PUSHBUTTON FROM EXISTING MAST ARM SUPPORT POLE (PL#1), WIRE BRUSH CLEAN ANY REMAINING HOLES, FILL WITH GALVANIZING COMPOUND, SMOOTH TO BE FLUSH WITH POLE EXTERIOR, AND FINISH TO MATCH EXISTING POLE COLOR.

11 CONTRACTOR SHALL REMOVE EXISTING PEDESTRIAN SIGNAL HEAD AND PUSHBUTTON FROM EXISTING MAST ARM SUPPORT POLE (PL#6), WIRE BRUSH CLEAN ANY REMAINING HOLES, FILL WITH GALVANIZING COMPOUND, SMOOTH TO BE FLUSH WITH POLE EXTERIOR, AND FINISH TO MATCH EXISTING POLE COLOR.

12 CONTRACTOR SHALL INTERCEPT EXISTING CONDUIT (CO#15), CUT AND TIE INTO PROPOSED JUNCTION WELL AS SHOWN ON PLAN.

13 CONTRACTOR SHALL RE-POSITION EXISTING 3-SECTION SIGNAL HEADS (#2, #6 & #8) TO BE 2 FEET FROM EDGE LINE.

14 ALL CABLES SHALL BE REPLACED FOR ALL ASSOCIATED SIGNAL COMPONENTS ON MAST ARMS (MA#1 & #2).

15 CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE AGENCY TO ADJUST WATER VALVE TOP AS NECESSARY TO ENSURE IT IS FLUSH WITH THE FINISHED GRADE OF THE PROPOSED CONCRETE CURB RAMP.

16 CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE AGENCY TO ADJUST GAS VALVE TOP AS NECESSARY TO ENSURE IT IS FLUSH WITH THE FINISHED GRADE OF THE PROPOSED CONCRETE CURB RAMP.

17 CONTRACTOR SHALL COORDINATE WITH DELDOT TO ADJUST STORM WATER MANHOLE AS NECESSARY TO ENSURE IT IS FLUSH WITH THE FINISHED GRADE OF THE PROPOSED CONCRETE CURB RAMP.

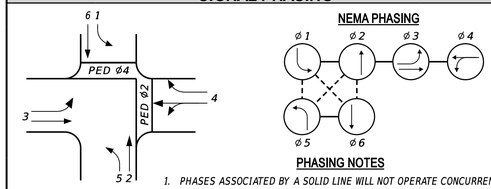
18 DURING CONSTRUCTION OF PROPOSED CURB RAMP, CONTRACTOR SHALL AVOID ANY IMPACT TO THE EXISTING 3" DRAINAGE INLET CURB OPENING.

19 CDMA TO BE INSTALLED FOR COORDINATION WITH TMC.

20 CONTRACTOR SHALL REFER TO P&R NORTH XII, FY-2016 CONSTRUCTION DETAILS FOR CURB RAMP SLOPES, GRADES AND GEOMETRICS.

21 EXISTING RIGHT OF WAY WAS OBTAINED FROM ARCHIVE PLANS AND NEW CASTLE COUNTY TAX PARCELS (COUNTY TAX MAP #10_22).

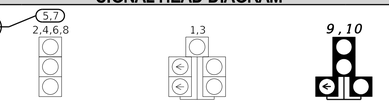
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	⬚	▭
LOOP DETECTOR, TYPE 2	⬚	▭
LUMINAIRE	—○	—●
MAST ARM	⊱	◣
VIDEO DETECTOR	◐	◐
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	⊣	⊣
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—▷	—▶
PEDESTRIAN SIGNAL HEAD	⊐	⊐
RIGHT-OF-WAY	— — —	— R/W —
SERVICE PEDESTAL	P	P
SIGNAL CABINET	▭	▮
SIGNAL HEAD	▷	→
SIGNAL POLE/BASE	⊗	⊙
CCTV CAMERA	CCTV	■◁
SPAN WIRE	— XX —	—◇—
UTILITY POLE	⊘	◣
VIDEO DETECTION ZONE		▭

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
550 Bay Road
DOVER, DELAWARE 19901
(302) 734-9188

BRET A. MARTINE — No. 11947 — PROFESSIONAL ENGINEER — DELAWARE

B. Martine 01/19/2021

THIS SEAL APPLIES TO THIS SHEET ONLY. DATE

SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — DATE 1/22/2021

ADDENDA / REVISIONS

SCALE 0 20 40 60 FEET

PAVEMENT & REHABILITATION NORTH XII, FY- 2016 MAIN STREET

CONTRACT	PERMIT NO.	N232	SECTION
T201606112	DESIGNED BY:	M. KUBOVCIK	CEI
COUNTY	CHECKED BY:	B. MARTINE	SHEET NO.
NEW CASTLE			61

SIGNAL PLAN
DE 7 (MAIN ST) @
OLD BALTIMORE PIKE

LAST REVISED: 9/11/2018
13-JAN-2021
13:36
G:\Projects\145002.00 (DelDOT Agmt 1679)\TS1 (T201606112) - Trfc-ADA Pleasant Valley Rd\CADD FILES\Sheets\SignalsSg_N232_Main St @ OBP.dgn

SIGNAL CONSTRUCTION NOTES (CONT'D)

3. DELMARVA POWER FORCES TO PROVIDE LINE CLEARANCE IN THE INTERSECTION SOUTHEAST CORNER. CONTACT DELMARVA POWER CUSTOMER SERVICE AT 1-800-375-7117 TO REQUEST SERVICE A MINIMUM OF 30 DAYS PRIOR TO THE START OF CONSTRUCTION.
4. DELDOT MAINTENANCE FORCES TO TRIM BACK EXISTING TREE LINE OVERHANGING THE SR 41 NORTHBOUND RIGHT-TURN LANE IN THE INTERSECTION SOUTHEAST CORNER. CONTACT THE ASSISTANT SUPERVISOR FOR AREA 11 AT 302-516-8204 A MINIMUM OF 10 DAYS PRIOR TO THE START OF CONSTRUCTION.
5. ALL EXISTING JUNCTION WELLS SHALL BE BONDED.
6. RESET, ADJUST, AND/OR REPAIR EXISTING TYPE 1 JUNCTION WELL FLUSH WITH THE FINISHED GRADE OF THE MEDIAN/SIDEWALK.
7. RESET, ADJUST, AND/OR REPAIR EXISTING TYPE 1 JUNCTION WELL FLUSH WITH THE FINISHED GRADE OF THE SIDEWALK AND REPLACE WITH NEW FRAME AND LID.
8. INSTALL FULL-CIRCLE VISORS AND BACKPLATES WITH TWO-INCH WIDE YELLOW RETROREFLECTIVE BORDER.
9. REMOVE EXISTING CABINET BASE.
10. REMOVE EXISTING TETHER WIRES, SIGNAL HEADS, CABLES, SPAN WIRES, POLES, AND POLE BASES.
11. REMOVE EXISTING CABLES/WIRES FROM ALL ABANDONED CONDUIT.
12. CARE SHALL BE TAKEN NOT TO DISTURB ANY TREE ROOTS WHEN INSTALLING CONDUITS.
13. ALL PROPOSED WORK UNDER THIS CONTRACT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY ON TAX MAP 8-20.3.

SR 41 (NEWPORT GAP PIKE) IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

AERIAL HEIGHTS (A)

STATIC/ TRANSMISSION	>40' -0
PRIMARY	36' -11" ~ 40' -0"
FIBER (DP&E)	31' -4"
SECONDARY	30' -8"
COMM. CABLE	21' -0" ~ 23' -5"
MAST ARM	20' -0"

AERIAL HEIGHTS (B)

STATIC/ TRANSMISSION	>33' -3"
NEUTRAL	27' -03"
MAST ARM	21' -1"
COMM. CABLES	18' -1" ~ 20' -6"

AERIAL HEIGHTS (C)

SPAN WIRE	23' -5"
MAST ARM	21' -3"
TETHER WIRE	19' -0"

AERIAL HEIGHTS (D)

SPAN WIRE	27' -6"
MAST ARM	21' -0"
TETHER WIRE	23' -1"

CONDUIT RUN SCHEDULE

CO #	#OF CO	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2"	GALV	25'	T	NEW [(1) #8/2 UF W/ GRND]
2	1	2"	GALV	5'	T	NEW [(1) #8/2 UF W/ GRND]
3	4	4"	PVC	5'	T	NEW [(4) #14/9 (4) #18/4 (10) #14/2 (2) #6]
4	1	4"	PVC	45'	T	NEW [(1) #14/9 (1) #18/4 (5) #14/2 (1) #6]
5	1	3"	PVC	20'	T	NEW [(1) #14/9 (1) #18/4 (1) #6]
6	1	3"	PVC	25'	T	NEW [(1) #14/9 (1) #18/4 (1) #6]
7	1	4"	PVC	100'	T	NEW [(5) #14/2 (1) #6]
8	1	4"	HDPE	45'	B	NEW [(4) #14/2 (1) #6]
9	1	4"	HDPE	40'	B	NEW [(2) #14/2 (1) #6]
10	1	4"	PVC	250'	T	NEW [(1) #14/2 (1) #6]
11	1	4"	HDPE	80'	B	NEW [(2) #14/9 (2) #18/4 (5) #14/2 (1) #6]
12	1	4"	HDPE	30'	B	NEW [(2) #14/9 (2) #18/4 (3) #14/2 (1) #6]
13	1	4"	HDPE	50'	B	NEW [(2) #14/9 (2) #18/4 (1) #14/2 (1) #6]
14	1	3"	PVC	65'	T	NEW [(1) #14/9 (1) #18/4 (1) #6]
15	1	3"	PVC	125'	T	NEW [(1) #14/9 (1) #18/4 (1) #6]
16	1	4"	PVC	250'	T	NEW [(1) #14/2 (1) #6]
*17	1	2"	GALV	65'	-	REMOVE [(2) #14/2] AND ABANDON
*18	1	2"	GALV	40'	-	REMOVE [(2) #14/2] AND ABANDON
*19	1	2"	GALV	80'	-	REMOVE [(2) #14/16] AND ABANDON
*20	1	2"	GALV	130'	-	REMOVE [(2) #14/2 (1) #8/2 UF W/ GRND] AND ABANDON
*21	1	2"	GALV	15'	-	REMOVE [(1) #8/2 UF W/ GRND] AND ABANDON
*22	1	2"	GALV	70'	-	REMOVE [(2) #14/2] AND ABANDON
*23	1	2"	GALV	30'	-	REMOVE [(1) #14/2] AND ABANDON
*24	1	2"	GALV	15'	-	EMPTY
*25	1	-	GALV	170'	-	REMOVE [(1) #14/2] AND ABANDON
*26	1	-	GALV	UNKNOWN	-	REMOVE [(1) #14/2] AND ABANDON
*27	1	-	GALV	UNKNOWN	-	REMOVE [(1) #14/2] AND ABANDON

* DENOTES EXISTING B-BORE T-TRENCH O-OPEN CUT P-ATTACHED TO POLE

MAST ARM SCHEDULE

MA NO.	LENGTH OF ARM	NO. OF HEADS	S.F. OF SIGNING
1	50'	2	13.5
2	50'	2	10.5
3	50'	2	13.5
4	50'	2	13.5

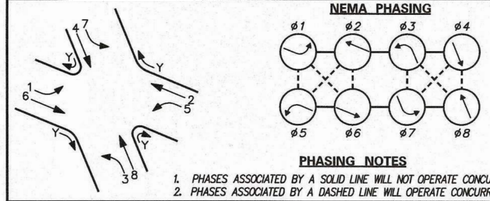
SIGNAL POLE SCHEDULE

POLE NO.	POLE TYPE	HEIGHT	MATERIAL
1	MAST ARM	21' -6"	STEEL
2	MAST ARM	21' -6"	STEEL
3	MAST ARM	21' -6"	STEEL
4	MAST ARM	21' -6"	STEEL
X5R	STRAIN	28' -0"	STEEL
X6R	STRAIN	28' -0"	STEEL
X7R	STRAIN	28' -0"	STEEL
X8R	STRAIN	28' -0"	STEEL

X-EXISTING R-REMOVAL

SIGNAL PHASING

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.

SIGNAL HEAD DIAGRAM

*SEE NOTE 8



LEGEND

AB	ABANDON	OH •	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
RUMMEL, KLEPPER & KAHL, LLP

BARRY L. BRANDT LICENSE No. 17066 DELAWARE PROFESSIONAL ENGINEER — SEAL

Barry L. Brandt — 2/15/2019 DATE

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "RKK" SECTION DESIGNATION.

APPROVED FOR INSTALLATION

CHIEF TRAFFIC ENGINEER — 2/21/19 DATE

ADDENDA / REVISIONS

SCALE 0 20 40 60 FEET

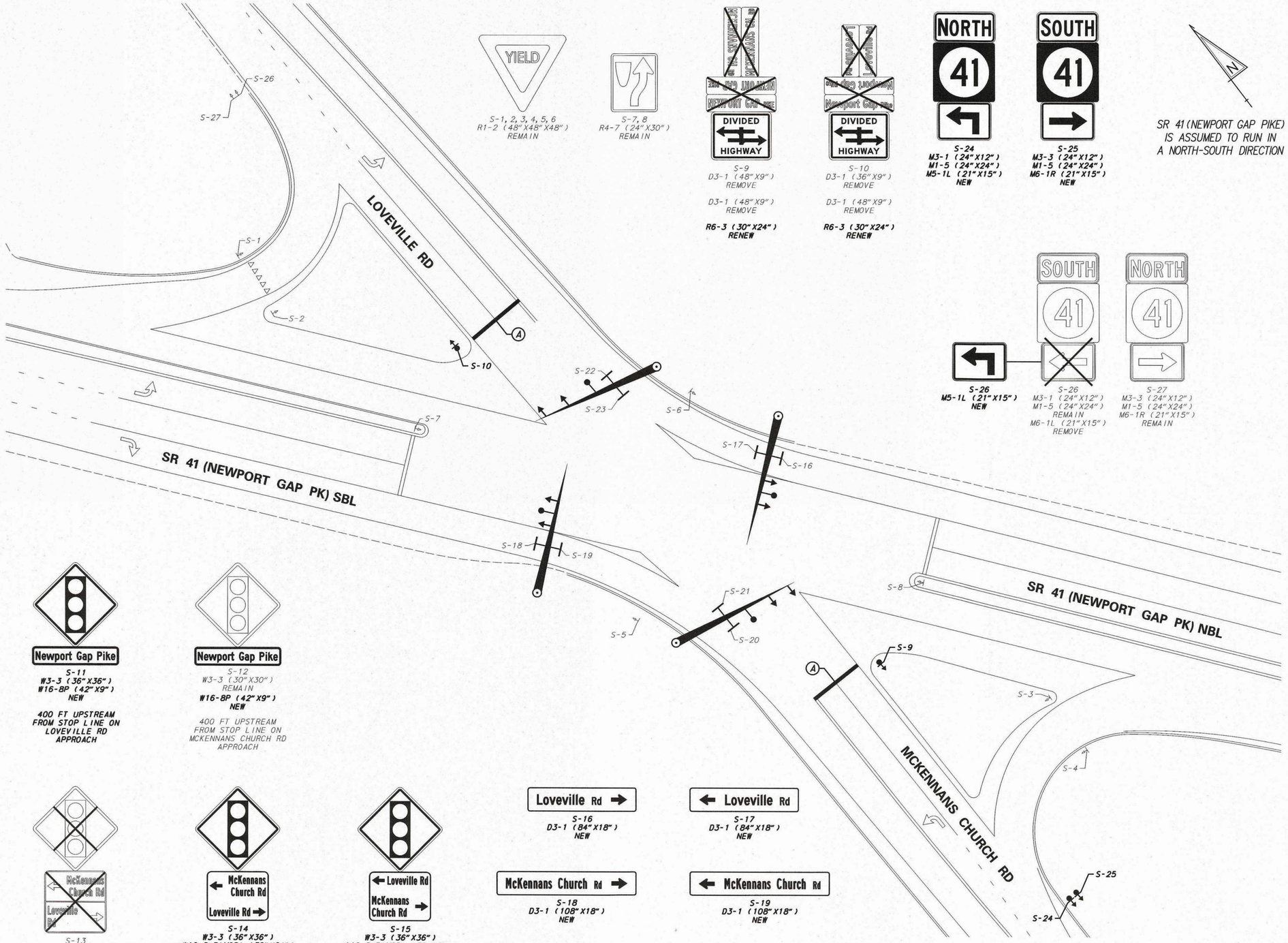
INTERSECTION IMPROVEMENTS

CONTRACT	T201904001	PERMIT NO.	N262
COUNTY	NEW CASTLE	DESIGNED BY: SH	
		CHECKED BY: JVB	

SIGNALIZATION PLAN SR 41 (NEWPORT GAP PIKE) AT LOVEVILLE RD / MCKENNANS CHURCH RD

SECTION RKK — SHEET NO. 1

LAST REVISED: 9/11/2018
2/21/2019
8:38:15 AM
\\Dedfs-vf03.v2015.2015\15063_DelDOT1742\Design\Task 16\N262\CADD\Plans\sg01_N262.dgn



YIELD

S-1, 2, 3, 4, 5, 6
R1-2 (48"X48"X48")
REMAIN

S-7, 8
R4-7 (24"X30")
REMAIN

DIVIDED HIGHWAY

S-9
D3-1 (48"X9")
REMOVE

D3-1 (48"X9")
REMOVE

R6-3 (30"X24")
RENEW

DIVIDED HIGHWAY

S-10
D3-1 (36"X9")
REMOVE

D3-1 (48"X9")
REMOVE

R6-3 (30"X24")
RENEW

NORTH 41

S-24
M3-1 (24"X12")
M1-5 (24"X24")
M5-1L (21"X15")
NEW

SOUTH 41

S-25
M3-3 (24"X12")
M1-5 (24"X24")
M6-1R (21"X15")
NEW

SR 41 (NEWPORT GAP PIKE)
IS ASSUMED TO RUN IN
A NORTH-SOUTH DIRECTION

SOUTH 41

S-26
M5-1L (21"X15")
NEW

SOUTH 41

S-26
M3-1 (24"X12")
M1-5 (24"X24")
REMAIN
M6-1L (21"X15")
REMOVE

NORTH 41

S-27
M3-3 (24"X12")
M1-5 (24"X24")
M6-1R (21"X15")
REMAIN

Newport Gap Pike

S-11
W3-3 (36"X36")
W16-8P (42"X9")
NEW

400 FT UPSTREAM FROM STOP LINE ON LOVEVILLE RD APPROACH

Newport Gap Pike

S-12
W3-3 (30"X30")
REMAIN
W16-8P (42"X9")
NEW

400 FT UPSTREAM
FROM STOP LINE ON
MCKENNANS CHURCH RD
APPROACH

McKennans Church Rd
Loveville Rd

S-13
W3-3 (30"X30")
W16-8aP(MOD) (30"X30")
REMOVE

775 FT
UPSTREAM FROM
NEWPORT GAP PIKE
STOP LINE NB APPROACH

McKennans Church Rd
Loveville Rd

S-14
W3-3 (36"X36")
W16-8aP(MOD) (30"X24")
NEW

INSTALL 475 FT UPSTREAM FROM NEWPORT GAP PIKE STOP LINE NB APPROACH

Loveville Rd
McKennans Church Rd

S-15
W3-3 (36"X36")
W16-8aP(MOD) (30"X24")
NEW

INSTALL 475 FT UPSTREAM FROM NEWPORT GAP PIKE STOP LINE SB APPROACH

Loveville Rd

S-16
D3-1 (84"X18")
NEW

Loveville Rd

S-17
D3-1 (84"X18")
NEW

McKennans Church Rd

S-18
D3-1 (108"X18")
NEW

McKennans Church Rd

S-19
D3-1 (108"X18")
NEW

41 Newport Gap Pike

S-20, 21, 22, 23
D3-1 (108"X18")
NEW

PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
A	16" SOLID WHITE ALKYD-THERMOPLASTIC (ITEM 817002)	60 SF

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH •	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		□
LOOP DETECTOR, TYPE 2		▭
LUMINAIRE	—○	—✦
MAST ARM		
MICROWAVE DETECTION	—◀	—◀
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING		—┤
PEDESTRIAN POLE/BASE	○	◉
PEDESTRIAN PUSHBUTTON	—▯	—▶
PEDESTRIAN SIGNAL HEAD	—▭	—▰
RIGHT-OF-WAY	———	——R/W——
SERVICE PEDESTAL		P
SIGNAL CABINET	▭	▰
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
CCTV CAMERA		
SPAN WIRE	—XX—	—◇—
UTILITY POLE	⊘	⊘
VIDEO DETECTION	◀	◀

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
RUMMEL, KLEPPER & KAHL, LLP

BARRY L. BRANDT LICENSE No. 17066 DELAWARE PROFESSIONAL ENGINEER

Barry L. Brandt — 2/15/2019
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "RKK" SECTION DESIGNATION. — DATE

SEAL

APPROVED FOR INSTALLATION

CHIEF TRAFFIC ENGINEER — 2/21/19 DATE

ADDENDA / REVISIONS

SCALE
0 20 40 60
FEET

INTERSECTION IMPROVEMENTS

CONTRACT	PERMIT NO.	N262
T201904001	DESIGNED BY: SH	
COUNTY	CHECKED BY: JVB	
NEW CASTLE		

SIGNALIZATION PLAN SR 41 (NEWPORT GAP PIKE) AT LOVEVILLE RD / MCKENNANS CHURCH RD

SECTION: RKK
SHEET NO.: 2

LAST REVISED: 9/11/2018
2/21/2019 8:33:04 AM
\\bsrv05\2015\2015\15063_DelDOT1742\Design\Task 16\N262\CADD\Plans\sg02_N262.dgn

ADDITIONAL GENERAL SIGNAL NOTES

3. POLE BASES, CABINET BASES, AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. EXISTING CONDUIT SHALL BE ABANDONED.

4. RECONSTRUCT EXISTING TYPE 1 JUNCTION WELLS ALONG NORTHBOUND AND SOUTHBOUND APPROACHES.

5. THE PROPOSED CABINET SHALL BE INSTALLED ON A 56"X58" CONCRETE PAD WITH BASE EXTENSION.

6. EXISTING RIGHT OF WAY LINES ARE BASED ON THE EXISTING SIGNAL PLANS AND OTHER AS-BUILT PLANS (CONTRACT NO. 1533) AND ARE SHOWN APPROXIMATELY FOR GRAPHICAL PURPOSES ONLY.

7.TRAFFIC CONTRACTOR SHALL REMOVE ALL EXISTING CABLES FROM EXISTING CONDUIT BEING ABANDONED.

8. MAINTAIN THE EXISTING SIGNAL CONTROLLER CABINET AND POWER SOURCE UNTIL THE PROPOSED SIGNAL CONTROLLER CABINET IS OPERATIONAL AND IS POWERED BY THE PROPOSED POWER SOURCE. THE SIGNAL SHALL BE OPERATIONAL DURING CONSTRUCTION.

9. REMOVE EXISTING SPAN WIRE, OVERHEAD SIGNAL AND OPTICOM CABLES, SIGNAL HEADS, AND OPTICOMS.

10. CONDUIT SHOULD BE INSTALLED AS TO AVOID ANY CONFLICT WITH EXISTING UNDERGROUND UTILITIES.

ADDITIONAL GENERAL SIGNAL NOTES

11. UTILITY INFORMATION IS FOR SCHEMATIC PURPOSES ONLY AND WILL NEED TO BE VERIFIED IN THE FIELD. THE LOCATIONS FOR THE EXISTING UTILITIES ARE BASED ON THE AS-BUILT PLANS AS WELL AS INFORMATION OBTAINED FROM THE FOLLOWING UTILITY COMPANIES: NEW CASTLE COUNTY DEPARTMENT OF PUBLIC WORKS, DELMARVA GAS, AND ARTESIAN WATER COMPANY.

12. INSTALL ALL SIGNAL HEADS SUCH THAT THE BOTTOM OF THE LOWEST SIGNAL HEAD IS AT LEAST 16' ABOVE ROADWAY SURFACE.

13. UTILIZE TA-47B FROM THE DELAWARE MUTCD AS NECESSARY TO CONSTRUCT THE TRAFFIC SIGNAL. NO LANE CLOSURES ARE ALLOWED MONDAY THROUGH FRIDAY BETWEEN THE HOURS OF 5:00 AM AND 9:00 AM AND 3:00 PM TO 8:00 PM.

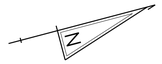
14. THE SIGNAL POLE MOUNTED CCTV CAMERA (NCAM236) SHALL BE INSTALLED ON MAST ARM POLE #1. EQUIPMENT FOR THE CAMERA SHALL BE INSTALLED IN THE N284 SIGNAL CABINET.

15. INSTALL CDMA IN THE TRAFFIC CONTROLLER CABINET.

OVERHEAD SIGN DETAILS

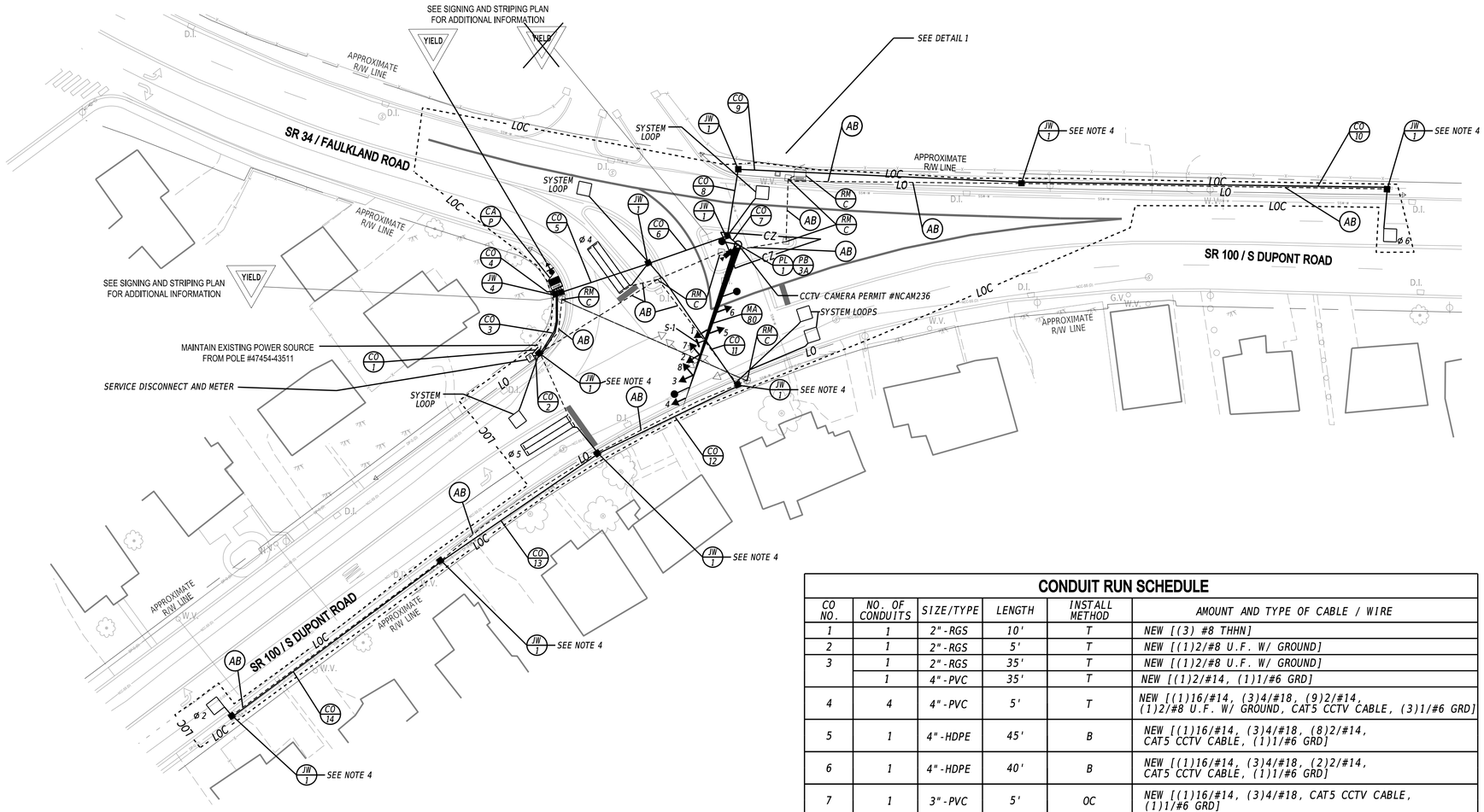
LEFT TURN YIELD ON FLASHING RED ARROW AFTER STOP

S-1
R10-27
30" x 36"



MAST ARM SCHEDULE

NO.	MOUNTING HEIGHT	LENGTH	NO. OF SIGNAL HEADS	NO. OF OPTICOMS	S.F. SIGNAGE
1	17'	80'	6 - 3 SECTION,2 - 4 SECTION	3	7.5 S.F.



CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2"-RGS	10'	T	NEW [(3) #8 THHN]
2	1	2"-RGS	5'	T	NEW [(1)2/#8 U.F. W/ GROUND]
3	1	2"-RGS	35'	T	NEW [(1)2/#8 U.F. W/ GROUND]
	1	4"-PVC	35'	T	NEW [(1)2/#14, (1)1/#6 GRD]
4	4	4"-PVC	5'	T	NEW [(1)16/#14, (3)4/#18, (9)2/#14, (1)2/#8 U.F. W/ GROUND, CAT5 CCTV CABLE, (3)1/#6 GRD]
5	1	4"-HDPE	45'	B	NEW [(1)16/#14, (3)4/#18, (8)2/#14, CAT5 CCTV CABLE, (1)1/#6 GRD]
6	1	4"-HDPE	40'	B	NEW [(1)16/#14, (3)4/#18, (2)2/#14, CAT5 CCTV CABLE, (1)1/#6 GRD]
7	1	3"-PVC	5'	OC	NEW [(1)16/#14, (3)4/#18, CAT5 CCTV CABLE, (1)1/#6 GRD]
8	1	4"-HDPE	35'	B	NEW [(1)2/#14, (1)1/#6 GRD]
9	1	4"-PVC	135'	T	NEW [(1)2/#14, (1)1/#6 GRD]
10	1	4"-PVC	170'	T	NEW [(1)2/#14, (1)1/#6 GRD]
11	1	4"-HDPE	70'	B	NEW [(4)2/#14, (1)1/#6 GRD]
12	1	4"-PVC	75'	T	NEW [(2)2/#14, (1)1/#6 GRD]
13	1	4"-PVC	90'	T	NEW [(1)2/#14, (1)1/#6 GRD]
14	1	4"-PVC	125'	T	NEW [(1)2/#14, (1)1/#6 GRD]

* DENOTES EXISTING CONDUIT RUN.
TYPES: HDPE, PVC, RGS, EX = EXISTING
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

POLE SCHEDULE

POLE NO.	TYPE	NORTHING	EASTING
1	80' MAST ARM W/ TYPE 3A POLE BASE	637129.2537	607500.0852

SIGNAL PHASING

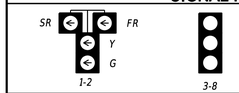
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
JMT

Mir A. Wahed

10/21/2021
DATE

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION.

MIR A. WAHED LICENSE No. 14810 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

10/21/21
CHIEF OF TRAFFIC ENGINEERING — DATE

ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

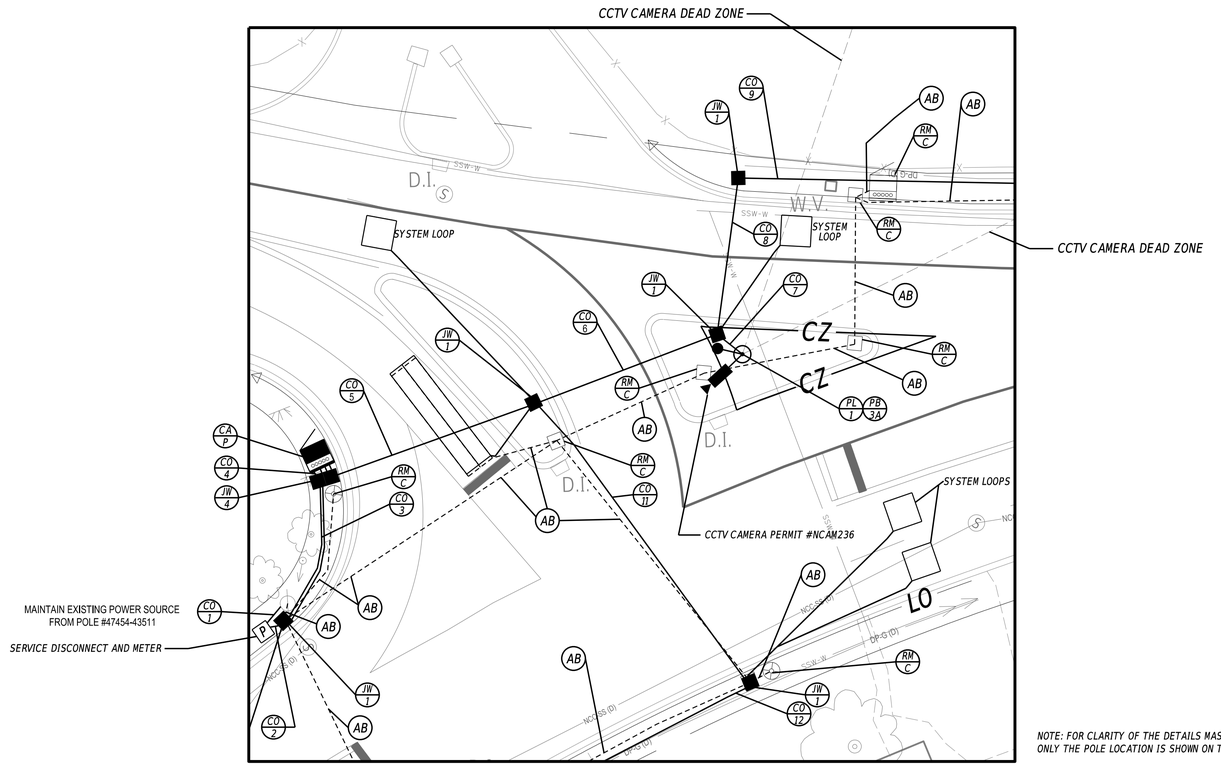
SIGNAL REBUILD AT SR 34 (FAULKLAND ROAD) AND SR 100 (DUPONT ROAD)

CONTRACT	PERMIT NO.	N284
T202204001	DESIGNED BY: J. SMITH	
COUNTY	CHECKED BY: M. WAHED	
NEW CASTLE		

SIGNAL PLAN SR 34 (FAULKLAND ROAD) AT SR 100 (DUPONT ROAD)

SECTION	
JMT	
SHEET NO.	
1	

LAST REVISED: 9/11/2018
10/21/2021
9:55:35 AM
Q:\2011\11713205_903_Signal_Rebuild_at_SR\CADD\SIG_SR 34 & SR 100.dgn

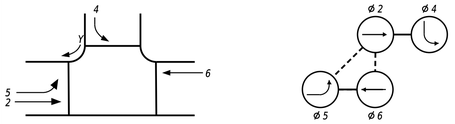


DETAIL 1 - INTERSECTION
SCALE: 1" = 15'

NOTE: FOR CLARITY OF THE DETAILS MAST ARMS ARE NOT SHOWN. ONLY THE POLE LOCATION IS SHOWN ON THE DETAIL.

SIGNAL PHASING

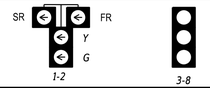
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	*ABANDON*	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	*OH #*	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	*PB X*	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	*PL X*	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	*PROPOSED SYMBOL*
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

JMT

Mir Ak Waked — 10/21/2021

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION.

DATE

MIR A. WAHED — LICENSE — No. 14810 — DELAWARE PROFESSIONAL ENGINEER

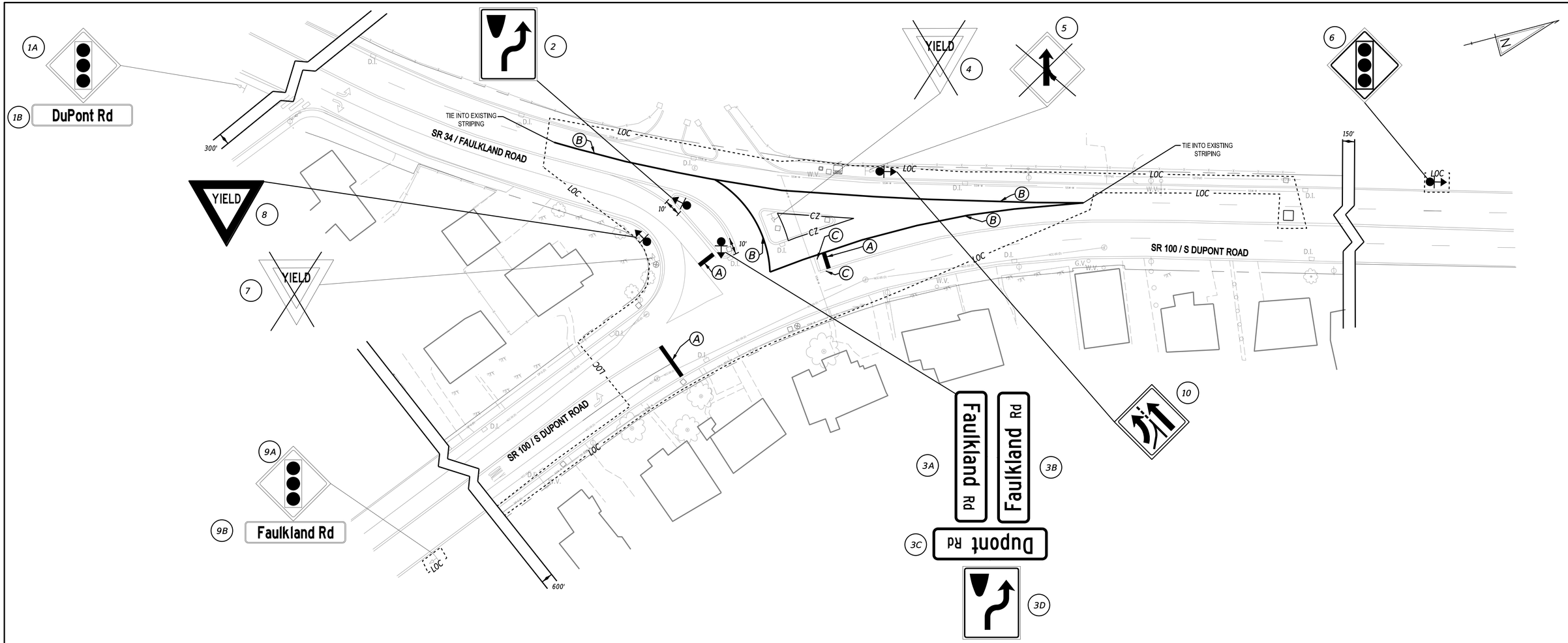
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — 10/21/21 — DATE

ADDENDA / REVISIONS		NOT TO SCALE	SIGNAL REBUILD AT SR 34 (FAULKLAND ROAD) AND SR 100 (DUPONT ROAD)	CONTRACT	PERMIT NO. N284	SIGNAL PLAN SR 34 (FAULKLAND ROAD) AT SR 100 (DUPONT ROAD)	SECTION
				T202204001	DESIGNED BY: J. SMITH		JMT
				COUNTY NEW CASTLE	CHECKED BY: M. WAHED		SHEET NO. 2

LAST REVISED: 9/11/2018
10/21/2021
9:32:18 AM
Q:\2017\1713205_903_Signal_Rebuild_at_SR\CADD\SG_SR 34 & SR 100.dgn



SIGNING AND STRIPING NOTES

1. CONTRACTOR SHALL MEASURE STRIPING LENGTHS FROM STRIPING PLANS.
2. EXISTING SIGNS IN THE PROJECT AREA NOT SHOWN ON THIS PLAN ARE NOT TO BE DISTURBED.
3. FURNISHING AND INSTALLATION OF PVC SLEEVE FOR SIGNS INSTALLED IN CONCRETE SHALL BE INCIDENTAL TO THE INSTALLATION OF THE SIGN.

PAVEMENT MARKINGS LEGEND

SYMBOL		QUANTITY
Ⓐ	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	70 SF
Ⓑ	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	650 LF
	EPOXY RESIN PAINT PAVEMENT STRIPING, BLACK 3" SOLID (ITEM 817018)	650 LF
Ⓒ	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	340 SF

PREPARED BY
JMT

Mir A. Wahed — 10/21/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION.
DATE

MIR A. WAHED LICENSE No. 14810 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — 10/21/21 DATE

ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

SIGNAL REBUILD AT SR 34 (FAULKLAND ROAD) AND SR 100 (DUPONT ROAD)

CONTRACT	T202204001
COUNTY	NEW CASTLE
PERMIT NO.	N284
DESIGNED BY: J. SMITH	
CHECKED BY: M. WAHED	

SIGNING AND STRIPING PLAN SR 34 (FAULKLAND ROAD) AT SR 100 (DUPONT ROAD)

SECTION	JMT
SHEET NO.	3

LAST REVISED: 9/11/2018
10/21/2021
9:34:59 AM
Q:\2017\17113205_903_Signal_Rebuild_at_SR\CADD\SG_SR 34 & SR 100.dgn

PERMANENT SIGN SCHEDULE

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	SIGN AREA (SF)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	Code X11 12' Post (W/ Basepost) (EACH)	Code X11A 15' Post (W/ Basepost) (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	REMARKS
								SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL						
3	1A	W3-3(36)	1	SIGNAL AHEAD (Symbol) - 36x36	36	36		REMAIN											
3	1B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	42	9		REMAIN											Dupont Rd
3	2	R4-7(24)	1	KEEP RIGHT (Symbol) - 24x30	24	30	5.0	NEW		1				EX. CONCRETE	1		1		PVC Sleeve
3	3A	D3-1(12)	1	STREET NAME (1 Line) Posted speed ≤ 40 MPH	48	12	4.0	NEW		1				EX. CONCRETE	1		1		Faulkland Rd
3	3B	D3-1(12)	1	STREET NAME (1 Line) Posted speed ≤ 40 MPH	48	12	4.0	NEW		1									Faulkland Rd
3	3C	D3-1(12)	1	STREET NAME (1 Line) Posted speed ≤ 40 MPH	42	12	3.5	NEW		1									Dupont Rd
3	3D	R4-7(24)	1	KEEP RIGHT (Symbol) - 24x30	24	30	5.0	NEW		1									PVC Sleeve
3	4	R1-2(36)	1	YIELD	36	36		REMOVE	1										
3	5	W4-1_R(36)	1	MERGE (Right) - 36x36	36	36		REMOVE	1										
3	6	W3-3(36)	1	SIGNAL AHEAD (Symbol) - 36x36	36	36	9.0	NEW		1				SOIL	1				
3	7	R1-2(36)	1	YIELD	36	36		REMOVE	1										Remove from signal pole
3	8	R1-2(36)	1	YIELD	36	36	3.9	NEW		1				SOIL	1				
3	9A	W3-3(36)	1	SIGNAL AHEAD (Symbol) - 36x36	36	36		REMAIN											
3	9B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	42	9	2.6	ADD TO ASSEMBLY		1									Faulkland Rd
3	10	W4-6_L(36)	1	ENTERING ROADWAY ADDED LANE (Left) - 36x36	36	36	9.0	NEW		1				SOIL	1				
PAGE TOTALS							46		3	9		0	0		5	0	2	0	

PREPARED BY
JMT

Mir A. Wahed — 10/21/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION. — DATE

MIR A. WAHED — LICENSE — No. 14810 — DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — 10/21/21 DATE

ADDENDA / REVISIONS		NOT TO SCALE	SIGNAL REBUILD AT SR 34 (FAULKLAND ROAD) AND SR 100 (DUPONT ROAD)	CONTRACT	PERMIT NO.	N284	SIGNING AND STRIPING PLAN SR 34 (FAULKLAND ROAD) AT SR 100 (DUPONT ROAD)	SECTION
				T202204001	DESIGNED BY: J. SMITH			JMT
				COUNTY				SHEET NO.
				NEW CASTLE	CHECKED BY: M. WAHED			4

LAST REVISED: 9/11/2018
10/21/2021
9:35:14 AM
Q:\2017\17113205_903_Signal_Rebuild_at_SR\CADD\SG_SR 34 & SR 100.dgn

PROPOSED OVERHEAD SIGNING

A — D3-1, 108" X 18" (HWY C-U8", L6") — ← 20 Pyle Center Rd

D — D3-1, 108" X 18" (HWY C-U8", L6") — 20 Zion Church Rd →

B — D3-1, 108" X 18" (HWY C-U8", L6") — 20 Pyle Center Rd →

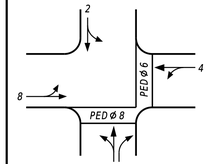
E — D3-1, 108" X 18" (HWY C-U8", L6") — ← 20 Zion Church Rd

C — D3-1, 70" X 18" (HWY C-U8", L6") — 17 Roxana Rd

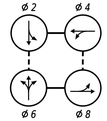
ADDITIONAL SIGNAL NOTES

3. ALL EXISTING SIGNAL COMPONENTS CALLED OUT FOR REMOVAL OR ABANDONMENT SHALL REMAIN INTACT AND FULLY FUNCTIONAL UNTIL ALL PROPOSED SIGNAL INSTALLATIONS ARE READY TO BE COMMISSIONED. CONTRACTOR SHALL ENSURE THAT SIGNAL DOWNTIME DURING DECOMMISSIONING OF THE EXISTING AND COMMISSIONING OF THE PROPOSED SIGNAL INSTALLATION IS MINIMAL.
4. CONTRACTOR SHALL RESET, ADJUST, AND/OR REPAIR EXISTING JUNCTION WELL AS NECESSARY FOR INTEGRATION OF PROPOSED CONDUIT AND/OR TO FINISH FLUSH WITH FINAL GRADES.
5. CDMA TO BE INSTALLED FOR COORDINATION WITH TMC.
6. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON ARCHIVED SIGNAL PLANS FOR ROXANA RD (CONTRACT # 88-092-01, DATED NOVEMBER 19, 1987)
7. FOR DURATION OF SIGNAL RE-BUILD, THE CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 47, FIGURE 6H-47B FOR TRAFFIC CONTROL OPERATIONS. ANY LANE CLOSURES SHALL BE LIMITED TO WEEKDAYS MONDAY-THURSDAY BETWEEN THE TIMES OF 9AM AND 3PM. CHANGEABLE MESSAGE BOARDS SHALL INCLUDE ANTICIPATED SIGNAL CONSTRUCTION AND NEW TRAFFIC PATTERN CHANGE NOTIFICATIONS.
8. PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE. CONTRACTOR SHALL INSTALL EDUCATION COUNTDOWN SIGNS (R10-3e) ON ALL SINGLE PEDESTRIAN SIGNAL MOUNTED POLES AND EDUCATION COUNTDOWN SIGNS (R10-3e-DE) ON ALL DOUBLE PEDESTRIAN SIGNAL MOUNTED POLES WITH ARROWS ALIGNED ON EACH STATION BUTTON IN THE DIRECTION OF PED PHASE ACTIVATION PER DESIGN.

SIGNAL PHASING



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.

SIGNAL HEAD DIAGRAM

1,2,3,4,5,6,7,8



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISH EYE)		
VIDEO DETECTION ZONE		

CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE (TYPE)	LENGTH (B/T/O/P)	AMOUNT AND TYPE OF CABLE / WIRE
1A	1	2"(GALV)	10'/30'(T/P)	NEW (3)#8 THHN SC - LINE SIDE
1B	1	2"(GALV)	75'(T)	NEW (1)2/#8 U.F.W/GROUND - LOAD SIDE
2	4	4"(PVC)	10'(T)	NEW (2)16/#14 (3)5/#14 (4)2/#14 (4)4/#18 (4)#6 SC
3	1	3"(PVC)	5'(T)	NEW (1)16/#14 (2)4/#18 (1)#6 SC
4	1	4"(HDPE)	70'(B)	NEW (1)16/#14 (3)2/#14 (2)4/#18 (1)#6 SC
5	1	4"(HDPE)	60'(B)	NEW (1)16/#14 (2)2/#14 (2)4/#18 (1)#6 SC
6	1	3"(PVC)	10'(T)	NEW (1)16/#14 (2)4/#18 (1)#6 SC
7	1	3"(PVC)	175'(T)	NEW (1)2/#14 (1)#6 SC
8	1	3"(PVC)	190'(T)	NEW (1)2/#14 (1)#6 SC
9	1	3"(PVC)	10'(T)	NEW (1)5/#14 (1)#6 SC
10	1	3"(PVC)	5'(T)	NEW (1)5/#14 (1)#6 SC
11	1	4"(HDPE)	90'(B)	NEW (1)5/#14 (1)#6 SC
12	1	3"(PVC)	20'(T)	NEW (1)5/#14 (1)#6 SC
13	1	3"(PVC)	25'(T)	NEW (1)5/#14 (1)#6 SC
X14	1	2.5"	12'	REMOVE (2)16/#14 (3)4/#18 (1)2/#8 U.F.W/GRND
X15	2	2.5"	8'	REMOVE [(6)4/#18 (1)2/#8]
X16	1	2.5"	55'	REMOVE [(3)4/#18 (1)2/#8]
X17	1	1.5"	135'	REMOVE (2)4/#18
X18	1	1.5"	165'	REMOVE (2)4/#18
X19	1	2.5"	70'	REMOVE [(1)4/#18 (1)2/#8]
X20	1	1.5"	5'	REMOVE (1)2/#8
X21	1	2.5"	55'	REMOVE (2)4/#18
X22	1	1.5"	221'	REMOVE (2)4/#18
X23	1	1.5"	70'	REMOVE (1)4/#18

LEGEND
X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN
B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE
SM- SINGLE MODE FIBER OPTICS
MM- MULTIMODE FIBER OPTICS

POLE SCHEDULE

POLE NO.	POLE TYPE	HEIGHT	MATERIAL
*X1	STRAIN	25'	STEEL
*X2	STRAIN	25'	STEEL
3	PEDESTAL	10'-0"	ALUMINUM
4	PEDESTAL	10'-0"	ALUMINUM
5	MAST	21'-6"	STEEL
6	PEDESTAL	10'-0"	ALUMINUM
7	MAST	21'-6"	STEEL

X- DENOTES EXISTING * - TO BE REMOVED

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, 24" SOLID WHITE SYMBOL/LEGEND, (ITEM 817002)	67 SF
J	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	12.5 SF

MAST ARM SCHEDULE

MA NO.	LENGTH OF ARM	NO. OF HEADS	NO. OF OPTICOMS	S.F. OF SIGNING	ARM MOUNT HEIGHT
1	35'	2	1	27 SF	20'-0"
2	60'	2	1	0 SF	17'-6"
3	35'	2	1	27 SF	20'-0"
4	45'	2	1	17.5 SF	17'-6"

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
CENTURY ENGINEERING
500 BAY ROAD
DOVER, DELAWARE 19901
(302) 734-9188

BRET A. MARTINE — No. 11947 — DELAWARE — PROFESSIONAL ENGINEER

THIS SEAL APPLIES TO THIS SHEET ONLY. 08/13/2020 DATE

SEAL

CONCURRENCE FOR INSTALLATION

CHIEF TRAFFIC ENGINEER 8/31/2020 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

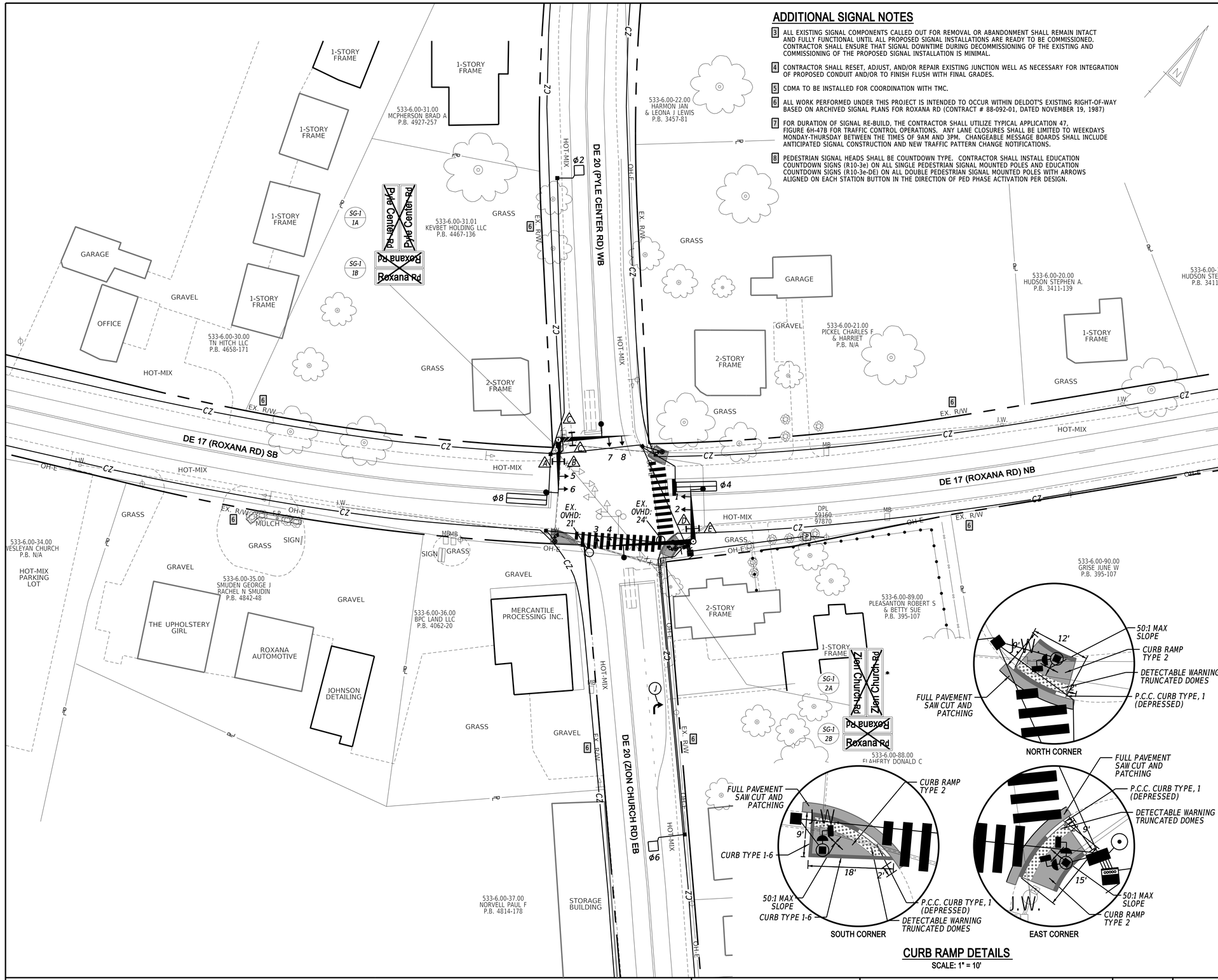
SIGNAL RE-BUILD PROGRAM

CONTRACT	T202104001	PERMIT NO.	S104
COUNTY	SUSSEX	DESIGNED BY:	B. A. MARTINE
		CHECKED BY:	B. MARTINE

SIGNAL PLAN
DE 17 (ROXANA RD) @
DE 20 (PYLE CENTER RD)

SECTION
TRAFFIC
SHEET NO.
1 OF 2

LAST REVISED: 9/11/2018
11:40:02-2020
1:240
G:\Projects\185033.00 TRAFFIC - 1883 - 2\185033.02 Traffic Signal Designs\CADD FILES\Sheets\sg_S104_DE17 and Rd382_1 of 2.dgn



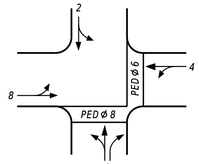
CURB RAMP DETAILS

SCALE: 1" = 10'

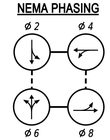
ADDITIONAL SIGNAL NOTES

3. ALL EXISTING SIGNAL COMPONENTS CALLED OUT FOR REMOVAL OR ABANDONMENT SHALL REMAIN INTACT AND FULLY FUNCTIONAL UNTIL ALL PROPOSED SIGNAL INSTALLATIONS ARE READY TO BE COMMISSIONED. CONTRACTOR SHALL ENSURE THAT SIGNAL DOWNTIME DURING DECOMMISSIONING OF THE EXISTING AND COMMISSIONING OF THE PROPOSED SIGNAL INSTALLATION IS MINIMAL.
4. CONTRACTOR SHALL RESET, ADJUST, AND/OR REPAIR EXISTING JUNCTION WELL AS NECESSARY FOR INTEGRATION OF PROPOSED CONDUIT AND/OR TO FINISH FLUSH WITH FINAL GRADES.
5. CDMA TO BE INSTALLED FOR COORDINATION WITH TMC.
6. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON ARCHIVED SIGNAL PLANS FOR ROXANA RD (CONTRACT # 88-092-01, DATED NOVEMBER 19, 1987)
7. FOR DURATION OF SIGNAL RE-BUILD, THE CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 47, FIGURE 6H-47B FOR TRAFFIC CONTROL OPERATIONS. ANY LANE CLOSURES SHALL BE LIMITED TO WEEKDAYS MONDAY-THURSDAY BETWEEN THE TIMES OF 9AM AND 3PM. CHANGEABLE MESSAGE BOARDS SHALL INCLUDE ANTICIPATED SIGNAL CONSTRUCTION AND NEW TRAFFIC PATTERN CHANGE NOTIFICATIONS.
8. PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE. CONTRACTOR SHALL INSTALL EDUCATION COUNTDOWN SIGNS (R10-3e) ON ALL SINGLE PEDESTRIAN SIGNAL MOUNTED POLES AND EDUCATION COUNTDOWN SIGNS (R10-3e-DE) ON ALL DOUBLE PEDESTRIAN SIGNAL MOUNTED POLES WITH ARROWS ALIGNED ON EACH STATION BUTTON IN THE DIRECTION OF PED PHASE ACTIVATION PER DESIGN.

SIGNAL PHASING



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.

SIGNAL HEAD DIAGRAM

1,2,3,4,5,6,7,8



LEGEND

AB	ABANDON
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)
OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
PL X	EXISTING POLE IDENTIFIER (# OF POLE)
PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
RM C	REMOVE BY CONTRACTOR
RM O	REMOVE BY OTHERS
RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISH EYE)		
VIDEO DETECTION ZONE		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

CENTURY ENGINEERING
500 BAY ROAD
DOVER, DELAWARE 19901
(302) 734-9188

BRET A. MARTINE — REGISTERED — No. 11947 — DELAWARE PROFESSIONAL ENGINEER

08/13/2020
THIS SEAL APPLIES TO THIS SHEET ONLY. — DATE — SEAL

CONCURRENCE FOR INSTALLATION

8/31/2020
CHIEF TRAFFIC ENGINEER — DATE

ADDENDA / REVISIONS

SCALE: 0 30 60 90 FEET

SIGNAL RE-BUILD PROGRAM

CONTRACT	T202104001
COUNTY	SUSSEX
PERMIT NO.	S104
DESIGNED BY:	B. A. MARTINE
CHECKED BY:	B. MARTINE

SIGNAL PLAN DE 17 (ROXANA RD) @ DE 20 (PYLE CENTER RD)

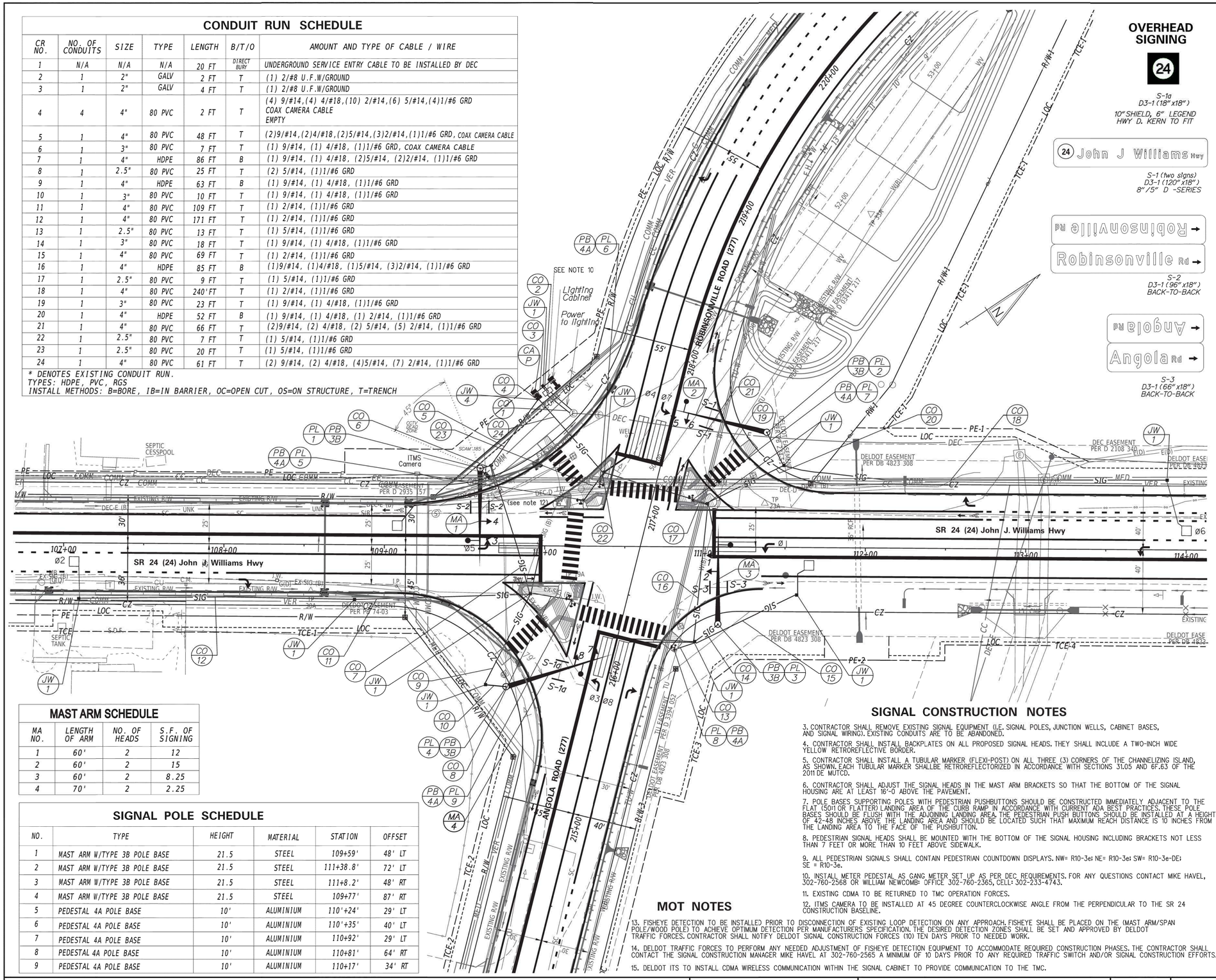
SECTION	
TRAFFIC	
SHEET NO.	2 OF 2

LAST REVISED: 9/11/2018
11:50:57 AM 08/07/2020
G:\Projects\185033.00 TRAFFIC - 1883 - 2\185033.02 Traffic Signal Designs\CADD FILES\Sheets\sg_S104_DE17 and Rd382_2 of 2.dgn

CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
1	N/A	N/A	N/A	20 FT	DIRECT BURY	UNDERGROUND SERVICE ENTRY CABLE TO BE INSTALLED BY DEC
2	1	2"	GALV	2 FT	T	(1) 2/#8 U.F.W/GROUND
3	1	2"	GALV	4 FT	T	(1) 2/#8 U.F.W/GROUND
4	4	4"	80 PVC	2 FT	T	(4) 9/#14,(4) 4/#18,(10) 2/#14,(6) 5/#14,(4)1/#6 GRD COAX CAMERA CABLE EMPTY
5	1	4"	80 PVC	48 FT	T	(2)9/#14,(2)4/#18,(2)5/#14,(3)2/#14,(1)1/#6 GRD, COAX CAMERA CABLE
6	1	3"	80 PVC	7 FT	T	(1) 9/#14, (1) 4/#18, (1)1/#6 GRD, COAX CAMERA CABLE
7	1	4"	HDPE	86 FT	B	(1) 9/#14, (1) 4/#18, (2)5/#14, (2)2/#14, (1)1/#6 GRD
8	1	2.5"	80 PVC	25 FT	T	(2) 5/#14, (1)1/#6 GRD
9	1	4"	HDPE	63 FT	B	(1) 9/#14, (1) 4/#18, (1)1/#6 GRD
10	1	3"	80 PVC	10 FT	T	(1) 9/#14, (1) 4/#18, (1)1/#6 GRD
11	1	4"	80 PVC	109 FT	T	(1) 2/#14, (1)1/#6 GRD
12	1	4"	80 PVC	171 FT	T	(1) 2/#14, (1)1/#6 GRD
13	1	2.5"	80 PVC	13 FT	T	(1) 5/#14, (1)1/#6 GRD
14	1	3"	80 PVC	18 FT	T	(1) 9/#14, (1) 4/#18, (1)1/#6 GRD
15	1	4"	80 PVC	69 FT	T	(1) 2/#14, (1)1/#6 GRD
16	1	4"	HDPE	85 FT	B	(1)9/#14, (1)4/#18, (1)5/#14, (3)2/#14, (1)1/#6 GRD
17	1	2.5"	80 PVC	9 FT	T	(1) 5/#14, (1)1/#6 GRD
18	1	4"	80 PVC	240'FT	T	(1) 2/#14, (1)1/#6 GRD
19	1	3"	80 PVC	23 FT	T	(1) 9/#14, (1) 4/#18, (1)1/#6 GRD
20	1	4"	HDPE	52 FT	B	(1) 9/#14, (1) 4/#18, (1) 2/#14, (1)1/#6 GRD
21	1	4"	80 PVC	66 FT	T	(2)9/#14, (2) 4/#18, (2) 5/#14, (5) 2/#14, (1)1/#6 GRD
22	1	2.5"	80 PVC	7 FT	T	(1) 5/#14, (1)1/#6 GRD
23	1	2.5"	80 PVC	20 FT	T	(1) 5/#14, (1)1/#6 GRD
24	1	4"	80 PVC	61 FT	T	(2) 9/#14, (2) 4/#18, (4)5/#14, (7) 2/#14, (1)1/#6 GRD

* DENOTES EXISTING CONDUIT RUN.
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH



MAST ARM SCHEDULE

MA NO.	LENGTH OF ARM	NO. OF HEADS	S.F. OF SIGNING
1	60'	2	12
2	60'	2	15
3	60'	2	8.25
4	70'	2	2.25

SIGNAL POLE SCHEDULE

NO.	TYPE	HEIGHT	MATERIAL	STATION	OFFSET
1	MAST ARM W/TYPE 3B POLE BASE	21.5	STEEL	109+59'	48' LT
2	MAST ARM W/TYPE 3B POLE BASE	21.5	STEEL	111+38.8'	72' LT
3	MAST ARM W/TYPE 3B POLE BASE	21.5	STEEL	111+8.2'	48' RT
4	MAST ARM W/TYPE 3B POLE BASE	21.5	STEEL	109+77'	87' RT
5	PEDESTAL 4A POLE BASE	10'	ALUMINIUM	110'+24'	29' LT
6	PEDESTAL 4A POLE BASE	10'	ALUMINIUM	110'+35'	40' LT
7	PEDESTAL 4A POLE BASE	10'	ALUMINIUM	110+92'	29' LT
8	PEDESTAL 4A POLE BASE	10'	ALUMINIUM	110+81'	64' RT
9	PEDESTAL 4A POLE BASE	10'	ALUMINIUM	110+17'	34' RT

OVERHEAD SIGNING

24

S-1a
D3-1 (18" x18")
10" SHIELD, 6" LEGEND
HWY D. KERN TO FIT

24 John J Williams Hwy

S-1 (two signs)
D3-1 (120" x18")
8"/5" D -SERIES

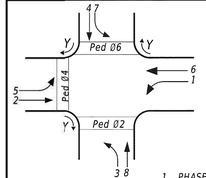
Robinsonville Rd →

S-2
D3-1 (96" x18")
BACK-TO-BACK

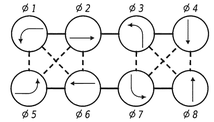
Angola Rd →

S-3
D3-1 (66" x18")
BACK-TO-BACK

SIGNAL PHASING



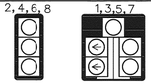
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



(SEE NOTE 4)

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

SIGNAL CONSTRUCTION NOTES

3. CONTRACTOR SHALL REMOVE EXISTING SIGNAL EQUIPMENT (I.E. SIGNAL POLES, JUNCTION WELLS, CABINET BASES, AND SIGNAL WIRING). EXISTING CONDUITS ARE TO BE ABANDONED.

4. CONTRACTOR SHALL INSTALL BACKPLATES ON ALL PROPOSED SIGNAL HEADS. THEY SHALL INCLUDE A TWO-INCH WIDE YELLOW RETROREFLECTIVE BORDER.

5. CONTRACTOR SHALL INSTALL A TUBULAR MARKER (FLEXI-POST) ON ALL THREE (3) CORNERS OF THE CHANNELIZING ISLAND, AS SHOWN. EACH TUBULAR MARKER SHALLBE RETROREFLECTORIZED IN ACCORDANCE WITH SECTIONS 31.05 AND 6F.63 OF THE 2011 DE MUTCD.

6. CONTRACTOR SHALL ADJUST THE SIGNAL HEADS IN THE MAST ARM BRACKETS SO THAT THE BOTTOM OF THE SIGNAL HOUSING ARE AT LEAST 16'-0 ABOVE THE PAVEMENT.

7. POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5O:1 OR FLATTER) LANDING AREA OF THE CURB RAMP IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHOULD BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSH BUTTONS SHOULD BE INSTALLED AT A HEIGHT OF 42-48 INCHES ABOVE THE LANDING AREA AND SHOULD BE LOCATED SUCH THAT MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON.

8. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK.

9. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS. NW= R10-3e; NE= R10-3e; SW= R10-3e-DE; SE = R10-3e.

10. INSTALL METER PEDESTAL AS GANG METER SET UP AS PER DEC REQUIREMENTS. FOR ANY QUESTIONS CONTACT MIKE HAVEL, 302-760-2568 OR WILLIAM NEWCOMB: OFFICE 302-760-2365, CELL: 302-233-4743.

11. EXISTING CDMA TO BE RETURNED TO TMC OPERATION FORCES.

12. ITMS CAMERA TO BE INSTALLED AT 45 DEGREE COUNTERCLOCKWISE ANGLE FROM THE PERPENDICULAR TO THE SR 24 CONSTRUCTION BASELINE.

MOT NOTES

13. FISHEYE DETECTION TO BE INSTALLED PRIOR TO DISCONNECTION OF EXISTING LOOP DETECTION ON ANY APPROACH. FISHEYE SHALL BE PLACED ON THE (MAST ARM/SPAN POLE/WOOD POLE) TO ACHIEVE OPTIMUM DETECTION PER MANUFACTURERS SPECIFICATION. THE DESIRED DETECTION ZONES SHALL BE SET AND APPROVED BY DELDOT TRAFFIC FORCES. CONTRACTOR SHALL NOTIFY DELDOT SIGNAL CONSTRUCTION FORCES (10) TEN DAYS PRIOR TO NEEDED WORK.

14. DELDOT TRAFFIC FORCES TO PERFORM ANY NEEDED ADJUSTMENT OF FISHEYE DETECTION EQUIPMENT TO ACCOMMODATE REQUIRED CONSTRUCTION PHASES. THE CONTRACTOR SHALL CONTACT THE SIGNAL CONSTRUCTION MANAGER MIKE HAVEL AT 302-760-2565 A MINIMUM OF 10 DAYS PRIOR TO ANY REQUIRED TRAFFIC SWITCH AND/OR SIGNAL CONSTRUCTION EFFORTS.

15. DELDOT ITS TO INSTALL CDMA WIRELESS COMMUNICATION WITHIN THE SIGNAL CABINET TO PROVIDE COMMUNICATION TO THE TMC.

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
DELDOT - TRANSPORTATION SOLUTIONS
TRAFFIC DESIGN

Nicholas Tetteh — 09/29/2021

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "TD" SECTION DESIGNATION.

DATE

NICHOLAS STEWEI TETTEH — LICENSE — No. 14933 — DELAWARE — PROFESSIONAL ENGINEER

SEAL

APPROVED FOR INSTALLATION

Chief of Traffic Engineering — 9/30/2021 — DATE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

HSIP SC, SR24 AT CAMP ARROW HEAD ROAD AND SR24 AT ANGOLA ROAD

CONTRACT	T201200902
COUNTY	SUSSEX
PERMIT NO.	S132
DESIGNED BY:	B. CUEVAS
CHECKED BY:	N. TETTEH

SIGNAL PLAN SR 24 @ ROBINSONVILLE RD/ ANGOLA RD

SECTION
TD
SHEET NO.
112

LAST REVISED: 9/1/2018
LAST SAVED: 14-SEP-2021 14:45:27
Y:\SUSSEX\024\road\T201200902\Plans\SG01_ANG.dgn
\SG01_ANG.DGN

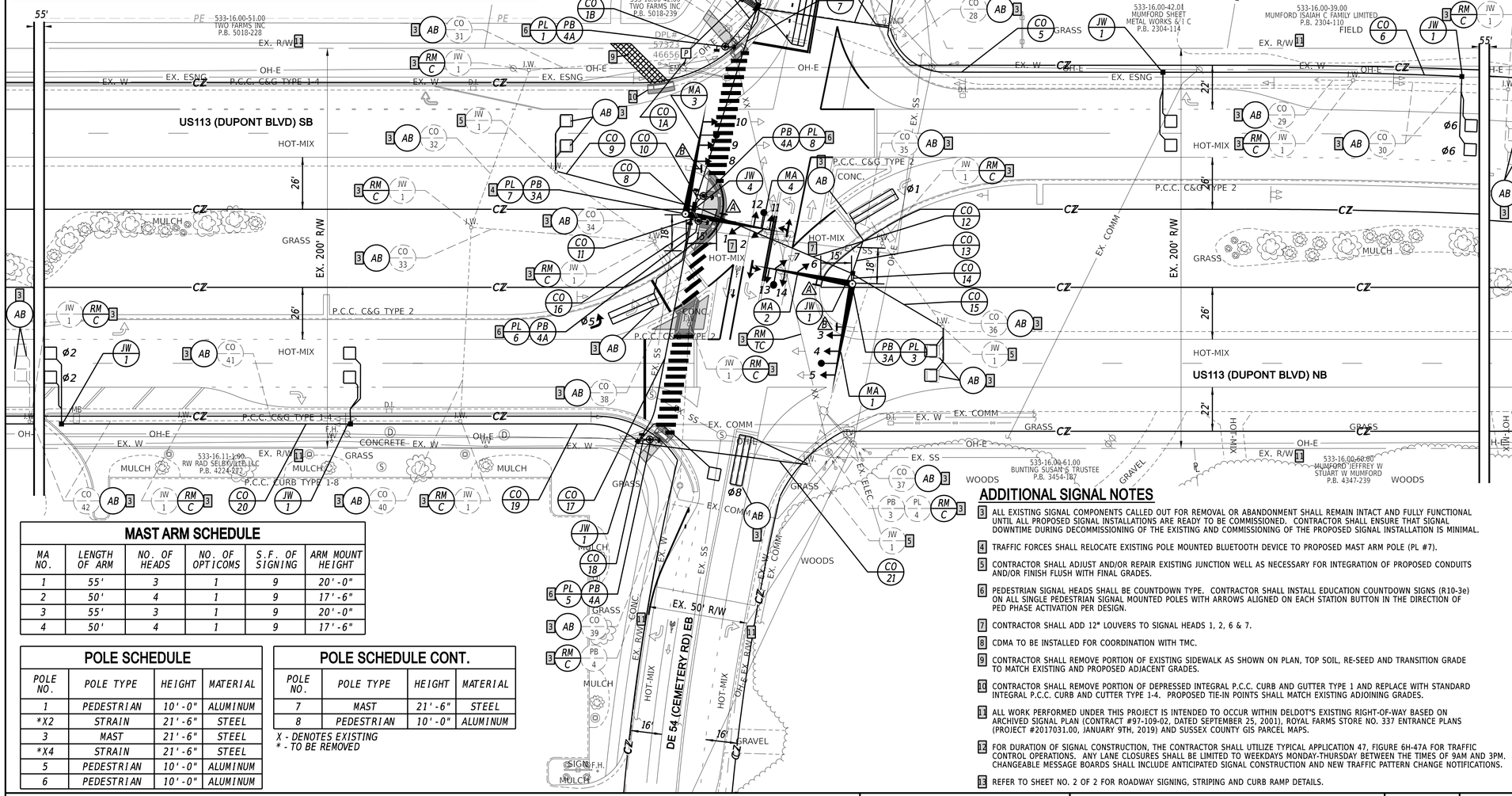
CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE (TYPE)	LENGTH (B/T/O/P)	AMOUNT AND TYPE OF CABLE / WIRE
1A	1	2"(GALV)	10'30'(T/P)	NEW (3)#8 THHN SC - LINE SIDE
1B	1	2"(GALV)	40'(T)	NEW (1)2/#8 U.F.W/GROUND - LOAD SIDE
2	4	4"(PVC)	10'(T)	NEW (2)16/#14 (2)9/#14 (4)5/#14 (4)4/#18 (18)2/#14 (3)#6 SC
3	1	3"(PVC)	25'(T)	NEW (1)5/#14 (1)#6 SC
4	1	4"(HDPE)	70'(B)	NEW (5)2/#14 (1)#6 SC
5	1	4"(PVC)	150'(T)	NEW (4)2/#14 (1)#6 SC
6	1	4"(PVC)	150'(T)	NEW (2)2/#14 (1)#6 SC
7	1	4"(HDPE)	105'(B)	NEW (2)16/#14 (2)9/#14 (3)5/#14 (4)4/#18 (12)2/#14 (1)#6 SC
8	1	3"(PVC)	5'(T)	NEW (1)16/#14 (1)9/#14 (2)4/#18 (1)#6 SC
9	1	4"(PVC)	70'(T)	NEW (2)2/#14 (1)#6 SC
10	1	3"(PVC)	5'(T)	NEW (1)5/#14 (1)#6 SC
11	1	3"(PVC)	5'(T)	NEW (1)5/#14 (1)#6 SC
12	1	4"(HDPE)	90'(B)	NEW (1)16/#14 (1)9/#14 (2)4/#18 (1)#6 SC
13	1	1.5"(GALV)	20'(T)	NEW (2)1/#14
14	1	3"(PVC)	5'(T)	NEW (1)16/#14 (1)9/#14 (2)4/#18 (1)#6 SC
15	1	4"(PVC)	50'(T)	NEW (2)2/#14 (1)#6 SC
16	1	1.5"(GALV)	20'(T)	NEW (2)1/#14
17	1	4"(HDPE)	120'(B)	NEW (1)5/#14 (6)2/#14 (1)#6 SC
18	1	3"(PVC)	5'(T)	NEW (1)5/#14 (1)#6 SC
19	1	4"(PVC)	145'(T)	NEW (4)2/#14 (1)#6 SC
20	1	4"(PVC)	145'(T)	NEW (2)2/#14 (1)#6 SC
21	1	4"(HDPE)	90'(B)	NEW (1)2/#14 (1)#6 SC
X22	1	1.5"	50'	REMOVE (1)2/#8 U.F.W/GRND - ABANDON CONDUIT

PROPOSED OVERHEAD SIGNING

A — D3-1 72" X 18" (HWY C-U8", L6") — 113 Dupont Blvd

B — D3-1 72" X 18" (HWY C-U8", L6") — 54 Cemetery Rd



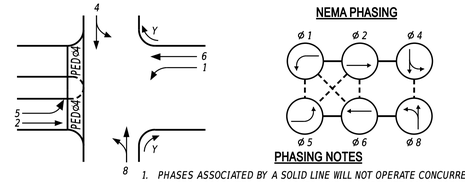
CONDUIT RUN SCHEDULE CONTINUED

CR NO.	NO. OF CONDUITS	SIZE (TYPE)	LENGTH (B/T/O/P)	AMOUNT AND TYPE OF CABLE / WIRE
X23	2	2.5"	6'	REMOVE [(1)16/#14 (1)4/#14 (14)4/#18] - ABANDON CONDUIT
X24	1	2.5"	18'	REMOVE [(1)16/#14 (1)4/#14 (3)4/#18 - ABANDON CONDUIT
X25	1	2.5"	68'	REMOVE (2)4/#18 - ABANDON CONDUIT
X26	1	2.5"	6'	EMPTY - ABANDON CONDUIT
X27	1	1.5"	-	REMOVE (2)4/#18 - ABANDON CONDUIT
X28	1	2.5"	300'	REMOVE (2)4/#18 - ABANDON CONDUIT
X29	1	1.5"	-	REMOVE (2)4/#18 - ABANDON CONDUIT
X30	1	1.5"	132'	REMOVE (1)4/#18 - ABANDON CONDUIT
X31	1	1.5"	125'	REMOVE (7)4/#18 - ABANDON CONDUIT
X32	1	2.5"	84'	REMOVE (7)4/#18 - ABANDON CONDUIT
X33	1	1.5"	91'	REMOVE (5)4/#18 - ABANDON CONDUIT
X34	1	2.5"	60'	REMOVE (1)4/#18 - ABANDON CONDUIT
X35	1	2.5"	120'	REMOVE (3)4/#18 - ABANDON CONDUIT
X36	1	2.5"	50'	REMOVE (1)4/#18 - ABANDON CONDUIT
X37	1	2.5"	117'	REMOVE (1)4/#18 - ABANDON CONDUIT
X38	1	2.5"	45'	EMPTY - ABANDON CONDUIT
X39	1	2.5"	80'	EMPTY - ABANDON CONDUIT
X40	1	2.5"	97'	REMOVE (2)4/#18 - ABANDON CONDUIT
X41	1	1.5"	138'	REMOVE (2)4/#18 - ABANDON CONDUIT
X42	1	1.5"	129'	REMOVE (1)4/#18 - ABANDON CONDUIT

LEGEND
X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN

B- BORE
T- TRENCH
O- OPEN CUT
R- ATTACH TO POLE

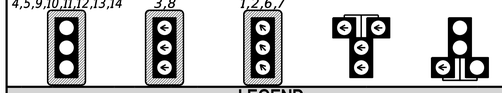
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISH EYE)		
VIDEO DETECTION ZONE		

MAST ARM SCHEDULE

MA NO.	LENGTH OF ARM	NO. OF HEADS	NO. OF OPTICOMS	S.F. OF SIGNING	ARM MOUNT HEIGHT
1	55'	3	1	9	20'-0"
2	50'	4	1	9	17'-6"
3	55'	3	1	9	20'-0"
4	50'	4	1	9	17'-6"

POLE SCHEDULE

POLE NO.	POLE TYPE	HEIGHT	MATERIAL
1	PEDESTRIAN	10'-0"	ALUMINUM
*X2	STRAIN	21'-6"	STEEL
3	MAST	21'-6"	STEEL
*X4	STRAIN	21'-6"	STEEL
5	PEDESTRIAN	10'-0"	ALUMINUM
6	PEDESTRIAN	10'-0"	ALUMINUM

POLE SCHEDULE CONT.

POLE NO.	POLE TYPE	HEIGHT	MATERIAL
7	MAST	21'-6"	STEEL
8	PEDESTRIAN	10'-0"	ALUMINUM

X - DENOTES EXISTING
* - TO BE REMOVED

ADDITIONAL SIGNAL NOTES

3. ALL EXISTING SIGNAL COMPONENTS CALLED OUT FOR REMOVAL OR ABANDONMENT SHALL REMAIN INTACT AND FULLY FUNCTIONAL UNTIL ALL PROPOSED SIGNAL INSTALLATIONS ARE READY TO BE COMMISSIONED. CONTRACTOR SHALL ENSURE THAT SIGNAL DOWNTIME DURING DECOMMISSIONING OF THE EXISTING AND COMMISSIONING OF THE PROPOSED SIGNAL INSTALLATION IS MINIMAL.
4. TRAFFIC FORCES SHALL RELOCATE EXISTING POLE MOUNTED BLUETOOTH DEVICE TO PROPOSED MAST ARM POLE (PL #7).
5. CONTRACTOR SHALL ADJUST AND/OR REPAIR EXISTING JUNCTION WELL AS NECESSARY FOR INTEGRATION OF PROPOSED CONDUITS AND/OR FINISH FLUSH WITH FINAL GRADES.
6. PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE. CONTRACTOR SHALL INSTALL EDUCATION COUNTDOWN SIGNS (R10-3e) ON ALL SINGLE PEDESTRIAN SIGNAL MOUNTED POLES WITH ARROWS ALIGNED ON EACH STATION BUTTON IN THE DIRECTION OF PED PHASE ACTIVATION PER DESIGN.
7. CONTRACTOR SHALL ADD 12" LOUVERS TO SIGNAL HEADS 1, 2, 6 & 7.
8. CDMA TO BE INSTALLED FOR COORDINATION WITH TMC.
9. CONTRACTOR SHALL REMOVE PORTION OF EXISTING SIDEWALK AS SHOWN ON PLAN, TOP SOIL, RE-SEED AND TRANSITION GRADE TO MATCH EXISTING AND PROPOSED ADJACENT GRADES.
10. CONTRACTOR SHALL REMOVE PORTION OF DEPRESSED INTEGRAL P.C.C. CURB AND GUTTER TYPE 1 AND REPLACE WITH STANDARD INTEGRAL P.C.C. CURB AND CUTTER TYPE 1-4. PROPOSED TIE-IN POINTS SHALL MATCH EXISTING ADJOINING GRADES.
11. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON ARCHIVED SIGNAL PLAN (CONTRACT #97-109-02, DATED SEPTEMBER 25, 2001), ROYAL FARMS STORE NO. 337 ENTRANCE PLANS (PROJECT #2017031.00, JANUARY 9TH, 2019) AND SUSSEX COUNTY GIS PARCEL MAPS.
12. FOR DURATION OF SIGNAL CONSTRUCTION, THE CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 47, FIGURE 6H-47A FOR TRAFFIC CONTROL OPERATIONS. ANY LANE CLOSURES SHALL BE LIMITED TO WEEKDAYS MONDAY-THURSDAY BETWEEN THE TIMES OF 9AM AND 3PM. CHANGEABLE MESSAGE BOARDS SHALL INCLUDE ANTICIPATED SIGNAL CONSTRUCTION AND NEW TRAFFIC PATTERN CHANGE NOTIFICATIONS.
13. REFER TO SHEET NO. 2 OF 2 FOR ROADWAY SIGNING, STRIPING AND CURB RAMP DETAILS.

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

CENTURY ENGINEERING
550 BAY ROAD
DOVER, DELAWARE 19901
(302) 734-9188

BRET A. MARTINE — REGISTERED — No. 11947 — DELAWARE PROFESSIONAL ENGINEER

08/13/2020
DATE

THIS SEAL APPLIES TO THIS SHEET ONLY.

SEAL

CONCURRENCE FOR INSTALLATION

CHIEF TRAFFIC ENGINEER

8/14/2020
DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

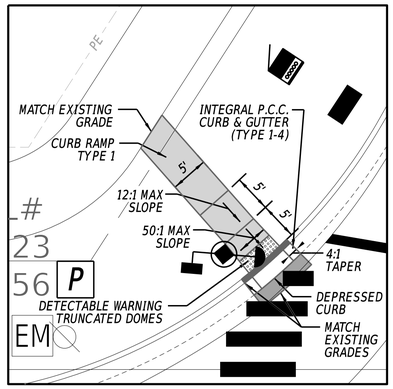
SIGNAL RE-BUILD PROGRAM

CONTRACT	T202104001
COUNTY	SUSSEX
PERMIT NO.	S160
DESIGNED BY:	MKUBOVCIK
CHECKED BY:	B. MARTINE

SIGNAL PLAN
US113 (DUPONT BLVD) @ DE 54 (CEMETERY RD)

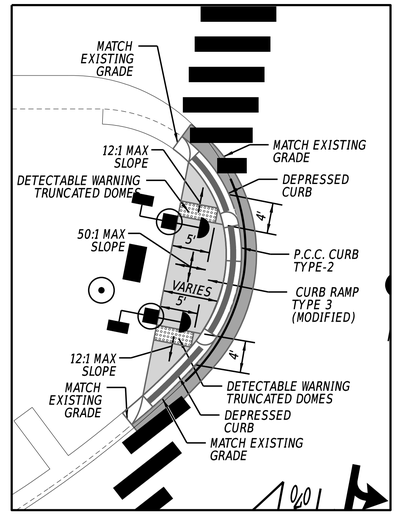
SECTION	TRAFFIC
SHEET NO.	1 OF 2

LAST REVISED: 9/11/2018
PLOT: 8/12-2020
11:19 AM
G:\PROJECTS\185033.00 TRAFFIC - 1883 - 2\185033.02 Trjtc Signal Designs\CADD FILES\Sheets\sg_S160_US113 and DE54_1 of 2.dgn



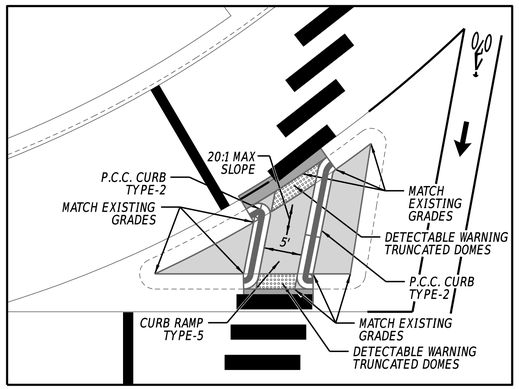
SW CORNER CURB RAMP DETAIL

SCALE: 1"=10'



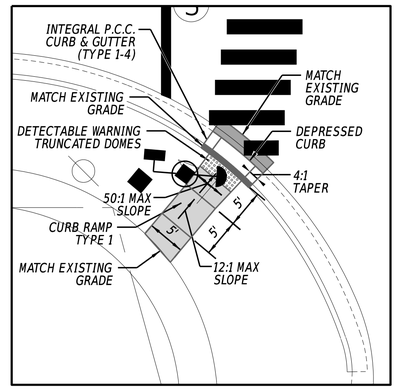
MEDIAN CURB RAMP DETAIL

SCALE: 1"=10'



ISLAND CURB RAMP DETAIL

SCALE: 1"=10'

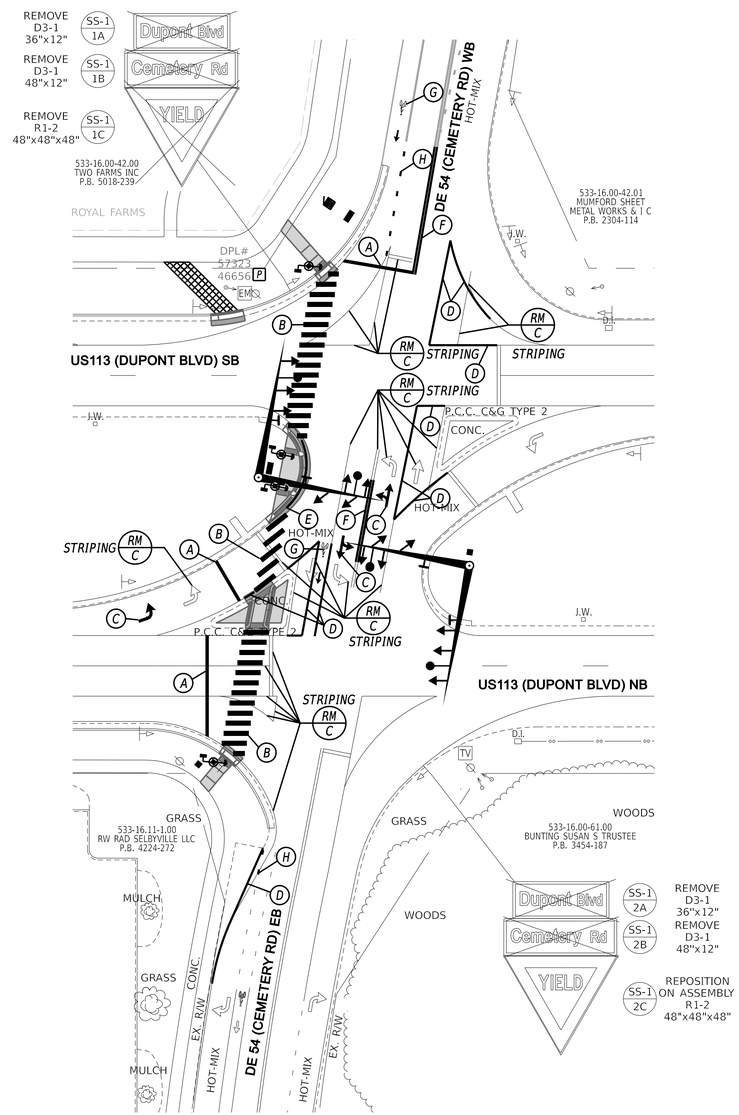


SE CORNER CURB RAMP DETAIL

SCALE: 1"=10'

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	120 SF
B	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 817002)	660 SF
C	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	60 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	360 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	30 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	170 LF
G	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL (ITEM 817015)	2 EA
H	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	16 LF



SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISH EYE)		
VIDEO DETECTION ZONE		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

CENTURY ENGINEERING
550 BAY ROAD
DOVER, DELAWARE 19901
(302) 734-9188

BRET A. MARTINE — No. 11947 — DELAWARE PROFESSIONAL ENGINEER

B. Martine — 08/13/2020

THIS SEAL APPLIES TO THIS SHEET ONLY. — DATE — SEAL

CONCURRENCE FOR INSTALLATION

CHIEF TRAFFIC ENGINEER — DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

SIGNAL RE-BUILD PROGRAM

CONTRACT	PERMIT NO.	S160
T202104001	DESIGNED BY:	MKUBOVCIK
COUNTY	CHECKED BY:	B. MARTINE
SUSSEX		

SIGNING, STRIPING AND CURB RAMP DETAILS US113 (DUPONT BLVD) @ DE 54 (CEMETERY RD)

SECTION
TRAFFIC
SHEET NO.
2 OF 2

LAST REVISED: 9/11/2018
2018-JUL-2020
11:22:
G:\Projects\185033.00 TRAFFIC - 1883 - 21\185033.02 Traffic Signal Designs\CADD FILES\Sheets\ssg_S160_US113 and DE54_2 of 2.dgn

CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
1	N/A	N/A	65 FT	DIRECT BURY	UNDERGROUND SERVICE ENTRY CABLE TO BE INSTALLED BY DEC
2	1	2"-GALV	2 FT	T	(1) 2/#8 U.F.W/GROUND
	1	2"-GALV	4 FT	T	(1) 2/#8 U.F.W/GROUND
4	4	4"-PVC	2 FT	T	(5)9/#14,(4)4/#18,(4)5/#14,(10)2/#14,(4)1/#6 GRD Coax Camera cable
5	1	4"-PVC	18 FT	T	(3)9/#14, (2)4/#18, (1)1/#6 GRD, (5)2/#14, (1)5/#14, (1)1/#6 GRD, Coax Camera cable
	1	3"-PVC	5 FT	T	(2)9/#14, (2) 4/#18, (1)1/#6 GRD, Coax Camera cable
7	1	2.5"-PVC	8 FT	T	(1)5/#14, (1)1/#6 GRD
8	1	4"-HDPE	99 FT	B	(1)9/#14, (1)2/#14, (1)1/#6 GRD
9	1	3"-PVC	6 FT	T	(1)9/#14, (1)4/#18, (1)1/#6 GRD
10	1	4"-HDPE	105 FT	B	(1)9/#14, (1)4/#18, (1)1/#6 GRD
11	1	3"-PVC	4 FT	T	(1)9/#14, (1)4/#18, (1)1/#6 GRD
12	1	4"-HDPE	37 FT	B	(2)9/#14, (2)4/#18, (1)1/#6 GRD
13	1	2.5"-PVC	11 FT	T	(1)5/#14, (1)1/#6 GRD
14	1	4"-HDPE	54 FT	B	(2)9/#14, (2)4/#18, (1)5/#14, (3)2/#14, 1/#6 GRD
15	1	2.5"-PVC	13 FT	T	(2)5/#14, (1)1/#6 GRD
16	1	4"-HDPE	39 FT	B	(2)9/#14, (2)4/#18, (3)5/#14, (4) 2/#14, 1/#6 GRD
17	1	4"-PVC	170 FT	T	(1)2/#14, (1)1/#6 GRD
18	1	4"-HDPE	104 FT	B	(2)9/#14, (2)4/#18, (3)5/#14, (5)2/#14, (1)1/#6 GRD
19	1	4"-PVC	167 FT	T	(1)9/#14, (1)2/#14, (1)1/#6 GRD

TYPES: HDPE, PVC, RGS. INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

SIGNAL POLE SCHEDULE

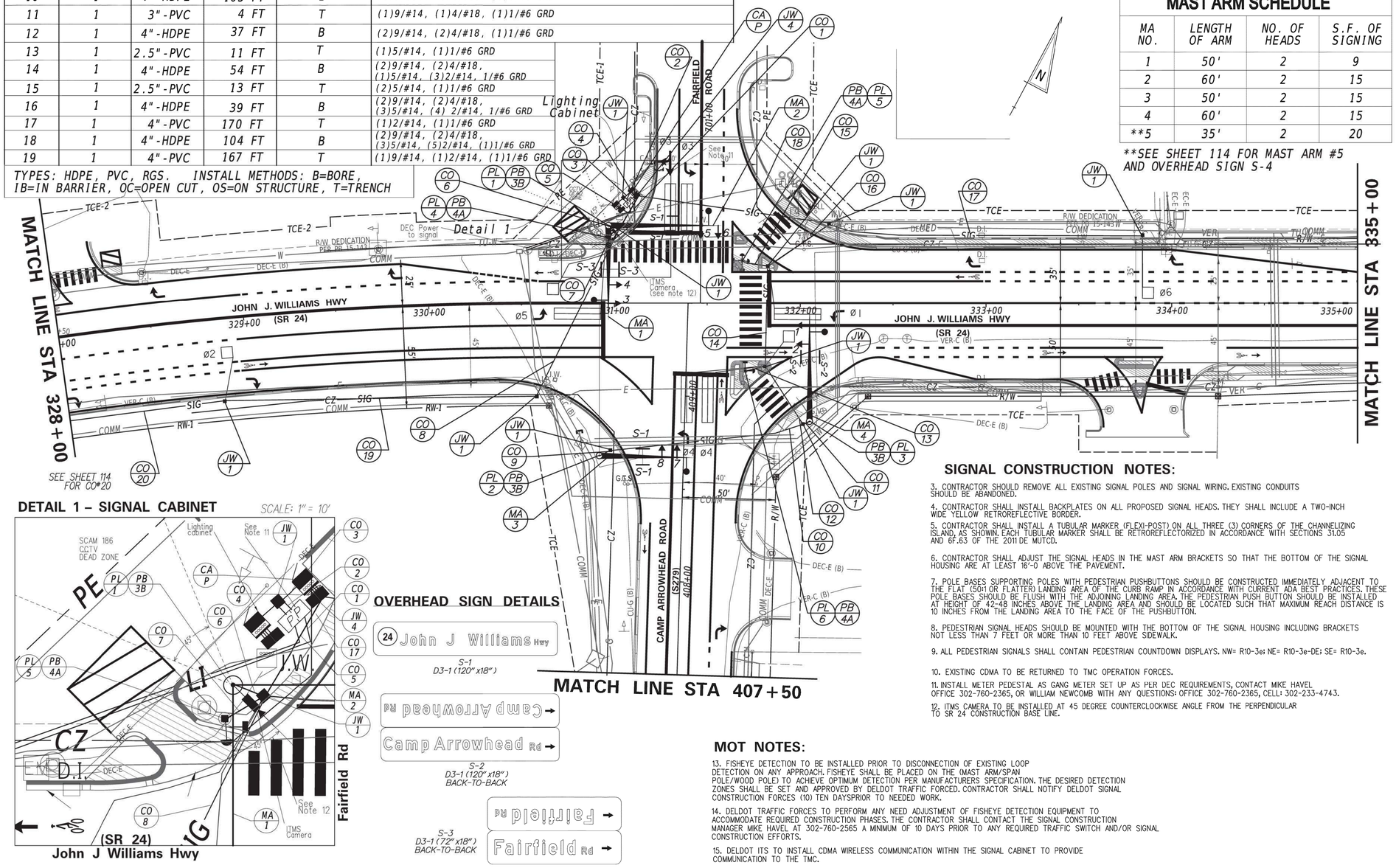
NO.	TYPE	HEIGHT	MATERIAL	STATION	OFFSET
1	MAST ARM W/TYPE 3B POLE BASE	21.5	STEEL	330+96.80	41.80' LT
2	MAST ARM W/TYPE 3B POLE BASE	21.5	STEEL	330+91.90	82.15' RT
3	MAST ARM W/TYPE 3B POLE BASE	21.5	STEEL	332+04.90	63.50' RT
4	PEDESTAL/TYPE 4A POLE BASE	10'	ALUMINIUM	330+95.20	36.40' LT
5	PEDESTAL/TYPE 4A POLE BASE	10'	ALUMINIUM	331+68.90	23.10' LT
6	PEDESTAL/TYPE 4A POLE BASE	10'	ALUMINIUM	331+70.40	36.40' RT
**7	MAST ARM W/TYPE 3A POLE BASE	21.5'	STEEL	320+52.14	42.82' RT

**SEE SHEET 114 FOR POLE #7

MAST ARM SCHEDULE

MA NO.	LENGTH OF ARM	NO. OF HEADS	S.F. OF SIGNING
1	50'	2	9
2	60'	2	15
3	50'	2	15
4	60'	2	15
**5	35'	2	20

**SEE SHEET 114 FOR MAST ARM #5 AND OVERHEAD SIGN S-4



DETAIL 1 – SIGNAL CABINET

SCALE: 1" = 10'

OVERHEAD SIGN DETAILS

SIGNAL CONSTRUCTION NOTES:

3. CONTRACTOR SHOULD REMOVE ALL EXISTING SIGNAL POLES AND SIGNAL WIRING. EXISTING CONDUITS SHOULD BE ABANDONED.

4. CONTRACTOR SHALL INSTALL BACKPLATES ON ALL PROPOSED SIGNAL HEADS. THEY SHALL INCLUDE A TWO-INCH WIDE YELLOW RETROREFLECTIVE BORDER.

5. CONTRACTOR SHALL INSTALL A TUBULAR MARKER (FLEXI-POST) ON ALL THREE (3) CORNERS OF THE CHANNELIZING ISLAND, AS SHOWN. EACH TUBULAR MARKER SHALL BE RETROREFLECTORIZED IN ACCORDANCE WITH SECTIONS 31.05 AND 6F.63 OF THE 2011 DE MUTCD.

6. CONTRACTOR SHALL ADJUST THE SIGNAL HEADS IN THE MAST ARM BRACKETS SO THAT THE BOTTOM OF THE SIGNAL HOUSING ARE AT LEAST 16'-0 ABOVE THE PAVEMENT.

7. POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50H OR FLATTER) LANDING AREA OF THE CURB RAMP IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHOULD BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSH BUTTON SHOULD BE INSTALLED AT HEIGHT OF 42-48 INCHES ABOVE THE LANDING AREA AND SHOULD BE LOCATED SUCH THAT MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON.

8. PEDESTRIAN SIGNAL HEADS SHOULD BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK.

9. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS. NW= R10-3e; NE= R10-3e-DE; SE= R10-3e.

10. EXISTING CDMA TO BE RETURNED TO TMC OPERATION FORCES.

11. INSTALL METER PEDESTAL AS GANG METER SET UP AS PER DEC REQUIREMENTS, CONTACT MIKE HAVEL OFFICE 302-760-2365, OR WILLIAM NEWCOMB WITH ANY QUESTIONS: OFFICE 302-760-2365, CELL: 302-233-4743.

12. ITMS CAMERA TO BE INSTALLED AT 45 DEGREE COUNTERCLOCKWISE ANGLE FROM THE PERPENDICULAR TO SR 24 CONSTRUCTION BASE LINE.

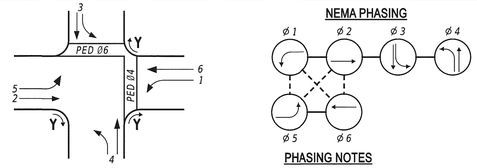
MOT NOTES:

13. FISHEYE DETECTION TO BE INSTALLED PRIOR TO DISCONNECTION OF EXISTING LOOP DETECTION ON ANY APPROACH. FISHEYE SHALL BE PLACED ON THE (MAST ARM/SPAN POLE/WOOD POLE) TO ACHIEVE OPTIMUM DETECTION PER MANUFACTURERS SPECIFICATION. THE DESIRED DETECTION ZONES SHALL BE SET AND APPROVED BY DELDOT TRAFFIC FORCED. CONTRACTOR SHALL NOTIFY DELDOT SIGNAL CONSTRUCTION FORCES (10) TEN DAYSPRIOR TO NEEDED WORK.

14. DELDOT TRAFFIC FORCES TO PERFORM ANY NEED ADJUSTMENT OF FISHEYE DETECTION EQUIPMENT TO ACCOMMODATE REQUIRED CONSTRUCTION PHASES. THE CONTRACTOR SHALL CONTACT THE SIGNAL CONSTRUCTION MANAGER MIKE HAVEL AT 302-760-2565 A MINIMUM OF 10 DAYS PRIOR TO ANY REQUIRED TRAFFIC SWITCH AND/OR SIGNAL CONSTRUCTION EFFORTS.

15. DELDOT ITS TO INSTALL CDMA WIRELESS COMMUNICATION WITHIN THE SIGNAL CABINET TO PROVIDE COMMUNICATION TO THE TMC.

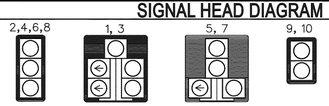
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.

2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
DELDOT - TRANSPORTATION SOLUTIONS
TRAFFIC DESIGN

Nii-Atswei Tetteh — 09/29/2021
DATE

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "TD" SECTION DESIGNATION.

NII-ATSWEI TETTEH LICENSE No. 14933 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

9/30/2021
Chief of Traffic Engineering — DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

HSIP SC, SR24 AT CAMP ARROW HEAD ROAD AND SR24 AT ANGOLA ROAD

CONTRACT	PERMIT NO.	S213
T201200902	DESIGNED BY:	B. CUEVAS
COUNTY	CHECKED BY:	N. TETTEH
SUSSEX		

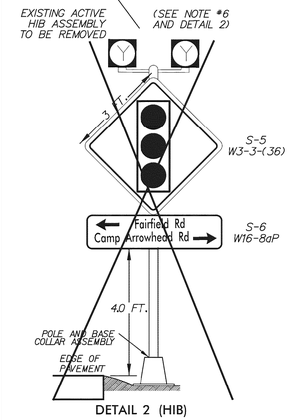
SIGNAL PLAN
SR24 @ CAMP ARROWHEAD RD /FAIRFIELD RD

SECTION: TD
SHEET NO.: 113

LAST REVISED: 9/11/2018
29-SEP-2021
15:50
V:\SUSSEX\024\road\T201200902\Plans\SG01_CA.dgn

OVERHEAD SIGN DETAILS





DETAIL 2 (HIB)

N.T.S.

SIGNAL CONSTRUCTION NOTES:

3. CONTRACTOR SHALL REMOVE ALL EXISTING SIGNAL EQUIPMENT (I.E. SIGNAL POLES, JUNCTION WELLS, CABINET BASES, AND SIGNAL WIRING). EXISTING CONDUITS SHOULD BE ABANDONED.

4. THE CONTRACTOR SHALL INSTALL BACKPLATES ON ALL PROPOSED SIGNAL HEADS. THEY SHALL INCLUDE A TWO-INCH WIDE YELLOW RETROREFLECTIVE BORDER.

5. CONTRACTOR SHALL ADJUST THE SIGNAL HEADS IN THE MAST ARM BRACKETS SO THAT THE BOTTOM OF THE SIGNAL HOUSING ARE AT LEAST 16'-0 ABOVE THE PAVEMENT.

6. EXISTING FLASHING BEACON INSTALLED ON A PEDESTAL POLE IS BEING REPLACED BY A OVERHEAD FLASHING BEACON. THE CONTRACTOR SHALL REMOVE THE EXISTING FLASHING BEACON AND PEDESTAL POLE AND INSTALL THE PROPOSED SIGNAL HEADS #9 AND #10, OVERHEAD SIGN S-4, POLE BASE AND MAST ARM, AS SHOWN.

7. CONTRACTOR SHALL REMOVE EXISTING SERVICE PEDESTAL LOCATED 250 FEET EAST OF THE EXISTING FLASHING BEACON.

SIGNAL POLE SCHEDULE

NO.	TYPE	HEIGHT	MATERIAL	STATION	OFFSET
** 1	MAST ARM W/TYPE 3B POLE BASE	21.5	STEEL	330+96.80	41.80' LT
** 2	MAST ARM W/TYPE 3B POLE BASE	21.5	STEEL	330+91.90	81.90' LT
** 3	MAST ARM W/TYPE 3B POLE BASE	21.5	STEEL	332+04.90	63.50' RT
** 4	PEDESTAL/TYPE 4A POLE BASE	10'	ALUMINIUM	330+95.20	36.40' LT
** 5	PEDESTAL/TYPE 4A POLE BASE	10'	ALUMINIUM	331+68.90	23.10' LT
** 6	PEDESTAL/TYPE 4A POLE BASE	10'	ALUMINIUM	331+70.40	36.40' RT
7	MAST ARM W/TYPE 3A POLE BASE	21.5'	STEEL	320+52.14	42.82' RT

** SEE SHEET 113 FOR POLES #1 THRU #6

MAST ARM SCHEDULE

MA NO.	LENGTH OF ARM	NO. OF HEADS	S.F. OF SIGNING
** 1	50'	2	9
** 2	60'	2	15
** 3	50'	2	15
** 4	60'	2	15
5	35'	2	20

** SEE SHEET 113 FOR MAST ARM #1 THRU #4, AND OVERHEAD SIGNS

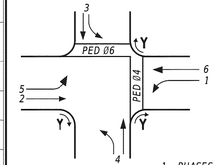
CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
20	1	4"-PVC	240 FT	T	(1) 9/#14, (1)1/#6 GRD
21	1	4"-PVC	235 FT	T	(1) 9/#14, (1)1/#6 GRD
22	1	4"-PVC	240 FT	T	(1) 9/#14, (1)1/#6 GRD
23	1	4"-PVC	88 FT	T	(1) 9/#14, (1)1/#6 GRD
24	1	3"-PVC	9 FT	T	(1) 9/#14, (1)1/#6 GRD

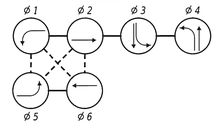
* DENOTES EXISTING CONDUIT RUN.
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

CONTINUATION C.R.S. FROM SHEET 113

SIGNAL PHASING



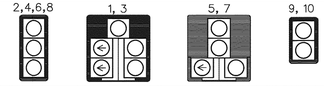
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



(SEE NOTE 4)

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICRONAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
DELDOT - TRANSPORTATION SOLUTIONS
TRAFFIC DESIGN

Naa-Atswei Tetteh — 09/29/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "TD" SECTION DESIGNATION. — DATE

NAA-ATSWEI TETTEH LICENSE No. 14933 DELAWARE PROFESSIONAL ENGINEER — SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — 9/30/2021 DATE

ADDENDA / REVISIONS	

SCALE 0 30 60 90 FEET

HSIP SC, SR24 AT CAMP ARROW HEAD ROAD AND SR24 AT ANGOLA ROAD

CONTRACT	T201200902
COUNTY	SUSSEX
PERMIT NO.	S213
DESIGNED BY:	B. CUEVAS
CHECKED BY:	N. TETTEH

SIGNAL PLAN SR24 @ CAMP ARROWHEAD RD /FAIRFIELD RD

SECTION	TD
SHEET NO.	114

LAST REVISED: 9/11/2018
28-SEP-2021
15:49
Y:\SUSSEX\024\roaa\T201200902\Plans\SG02_CA.dgn

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
1A	1	2"	GALV	10'	T	(3)#6 THHN SC - LINE SIDE
1B	1	2"	GALV	30'	T	(1)2/#8 U.F.W/GROUND - LOAD SIDE
1C	1	2"	GALV	160'	T	(1)2/#8 U.F.W/GROUND - LOAD SIDE
X1D	1	2"	GALV	40'	T	(1)2/#8 U.F.W/GROUND - LOAD SIDE
2	3	3"	PVC	15'	T	(4)9/#14 (4)4/#18 (4)2/#14 (1)#6 SC
3	1	4"	PVC	10'	T	(1)9/#14 (1)4/#18 (1)#6 SC
4	1	4"	PVC	140'	T	(1)2/#14 (1)#6 SC
5	1	4"	PVC	125'	T	(1)2/#14 (1)#6 SC
6	1	4"	PVC	105'	B	(2)9/#14 (2)4/#18 (2)2/#14 (1)#6 SC
7	1	4"	PVC	20'	T	(1)9/#14 (1)4/#18 (1)#6 SC
8	1	4"	PVC	115'	B	(1)9/#14 (1)4/#18 (1)2/#14 (1)#6 SC
9	1	4"	PVC	45'	T	(1)9/#14 (1)4/#18 (1)#6 SC
10	1	4"	PVC	245'	T	(1)2/#14 (1)#6 SC
11	1	4"	PVC	75'	B	(1)9/#14 (1)4/#18 (1)2/#14 (1)#6 SC
12	1	4"	PVC	25'	T	(1)9/#14 (1)4/#18 (1)#6 SC

LEGEND

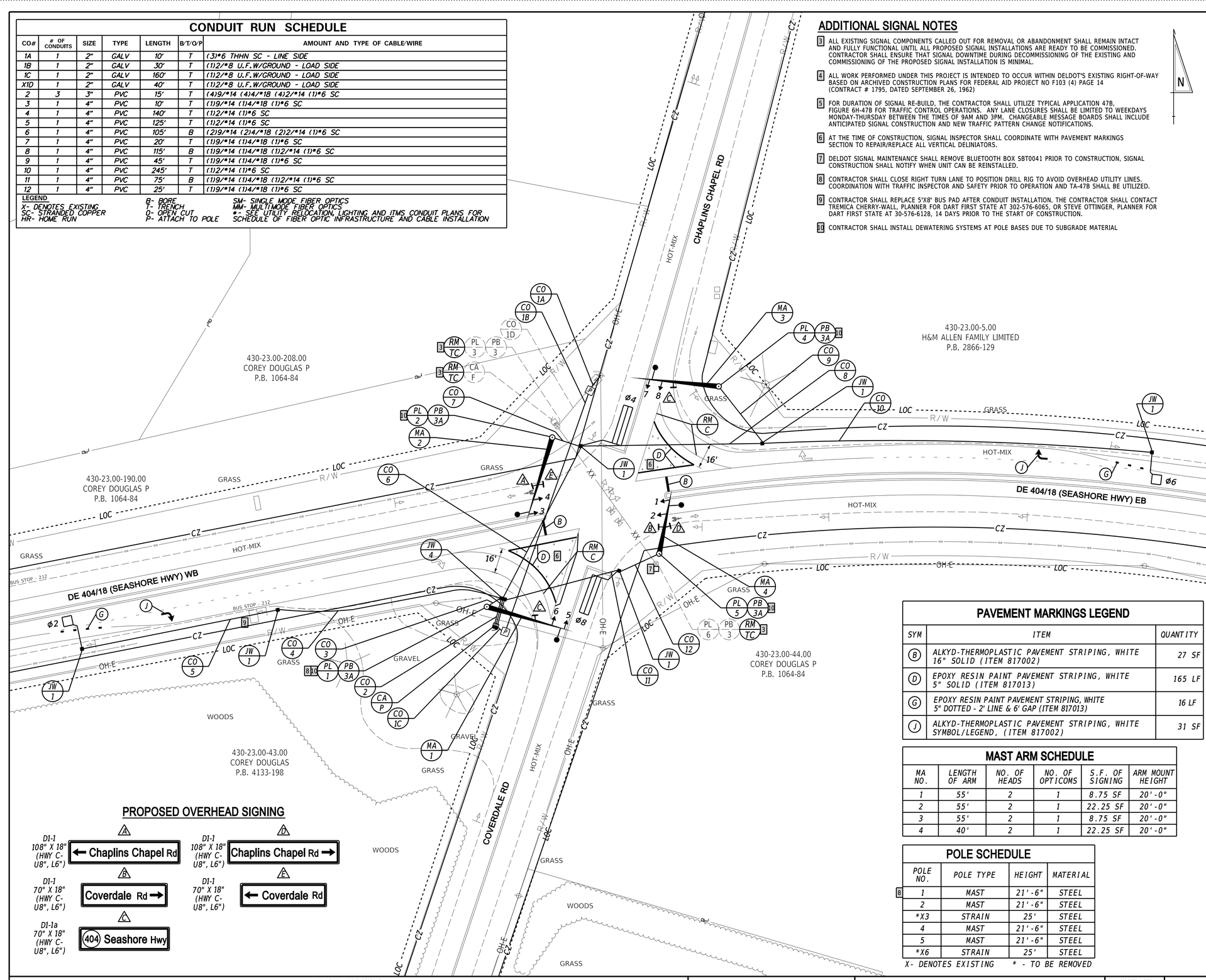
X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN

B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

SM- SINGLE MODE FIBER OPTICS
MM- MULTIMODE FIBER OPTICS
*- SEE UTILITY RELOCATION, LIGHTING, AND ITMS CONDUIT PLANS FOR SCHEDULE OF FIBER OPTIC INFRASTRUCTURE AND CABLE INSTALLATION

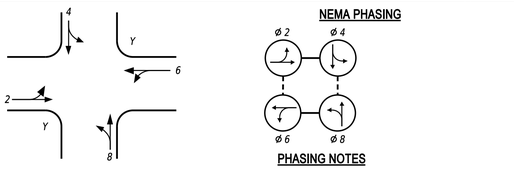
ADDITIONAL SIGNAL NOTES

3. ALL EXISTING SIGNAL COMPONENTS CALLED OUT FOR REMOVAL OR ABANDONMENT SHALL REMAIN INTACT AND FULLY FUNCTIONAL UNTIL ALL PROPOSED SIGNAL INSTALLATIONS ARE READY TO BE COMMISSIONED. CONTRACTOR SHALL ENSURE THAT SIGNAL DOWNTIME DURING DECOMMISSIONING OF THE EXISTING AND COMMISSIONING OF THE PROPOSED SIGNAL INSTALLATION IS MINIMAL.
4. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON ARCHIVED CONSTRUCTION PLANS FOR FEDERAL AID PROJECT NO F103 (4) PAGE 14 (CONTRACT # 1795, DATED SEPTEMBER 26, 1962)
5. FOR DURATION OF SIGNAL RE-BUILD, THE CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 47B, FIGURE 6H-47B FOR TRAFFIC CONTROL OPERATIONS. ANY LANE CLOSURES SHALL BE LIMITED TO WEEKDAYS MONDAY-THURSDAY BETWEEN THE TIMES OF 9AM AND 3PM. CHANGEABLE MESSAGE BOARDS SHALL INCLUDE ANTICIPATED SIGNAL CONSTRUCTION AND NEW TRAFFIC PATTERN CHANGE NOTIFICATIONS.
6. AT THE TIME OF CONSTRUCTION, SIGNAL INSPECTOR SHALL COORDINATE WITH PAVEMENT MARKINGS SECTION TO REPAIR/REPLACE ALL VERTICAL DELINIATORS.
7. DELDOT SIGNAL MAINTENANCE SHALL REMOVE BLUETOOTH BOX SBT0041 PRIOR TO CONSTRUCTION, SIGNAL CONSTRUCTION SHALL NOTIFY WHEN UNIT CAN BE REINSTALLED.
8. CONTRACTOR SHALL CLOSE RIGHT TURN LANE TO POSITION DRILL RIG TO AVOID OVERHEAD UTILITY LINES. COORDINATION WITH TRAFFIC INSPECTOR AND SAFETY PRIOR TO OPERATION AND TA-47B SHALL BE UTILIZED.
9. CONTRACTOR SHALL REPLACE 5'X8' BUS PAD AFTER CONDUIT INSTALLATION. THE CONTRACTOR SHALL CONTACT TREMICA CHERRY-WALL, PLANNER FOR DART FIRST STATE AT 302-576-6065, OR STEVE OTTINGER, PLANNER FOR DART FIRST STATE AT 30-576-6128, 14 DAYS PRIOR TO THE START OF CONSTRUCTION.
10. CONTRACTOR SHALL INSTALL DEWATERING SYSTEMS AT POLE BASES DUE TO SUBGRADE MATERIAL



PROPOSED OVERHEAD SIGNING

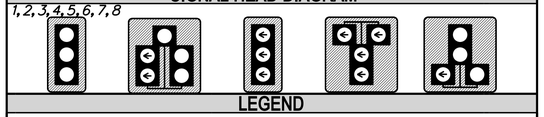
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISH EYE)		
VIDEO DETECTION ZONE		

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
B	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	27 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	165 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	16 LF
J	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	31 SF

MAST ARM SCHEDULE

MA NO.	LENGTH OF ARM	NO. OF HEADS	NO. OF OPTICOMS	S.F. OF SIGNING	ARM MOUNT HEIGHT
1	55'	2	1	8.75 SF	20'-0"
2	55'	2	1	22.25 SF	20'-0"
3	55'	2	1	8.75 SF	20'-0"
4	40'	2	1	22.25 SF	20'-0"

POLE SCHEDULE

POLE NO.	POLE TYPE	HEIGHT	MATERIAL
1	MAST	21'-6"	STEEL
2	MAST	21'-6"	STEEL
*X3	STRAIN	25'	STEEL
4	MAST	21'-6"	STEEL
5	MAST	21'-6"	STEEL
*X6	STRAIN	25'	STEEL

X- DENOTES EXISTING * - TO BE REMOVED

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
CENTURY ENGINEERING

THIS SEAL APPLIES TO THIS SHEET ONLY — DATE: 8/28/2020

BRET A. MARTINE — No. 11947 — DELAWARE PROFESSIONAL ENGINEER — SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — DATE: 8/31/2020

ADDENDA / REVISIONS			

SCALE 0 30 60 90 FEET

SIGNAL REBUILD PROGRAM

CONTRACT	PERMIT NO.	S226
T202104001	DESIGNED BY:	B. A. MARTINE
COUNTY	CHECKED BY:	B. MARTINE
SUSSEX		

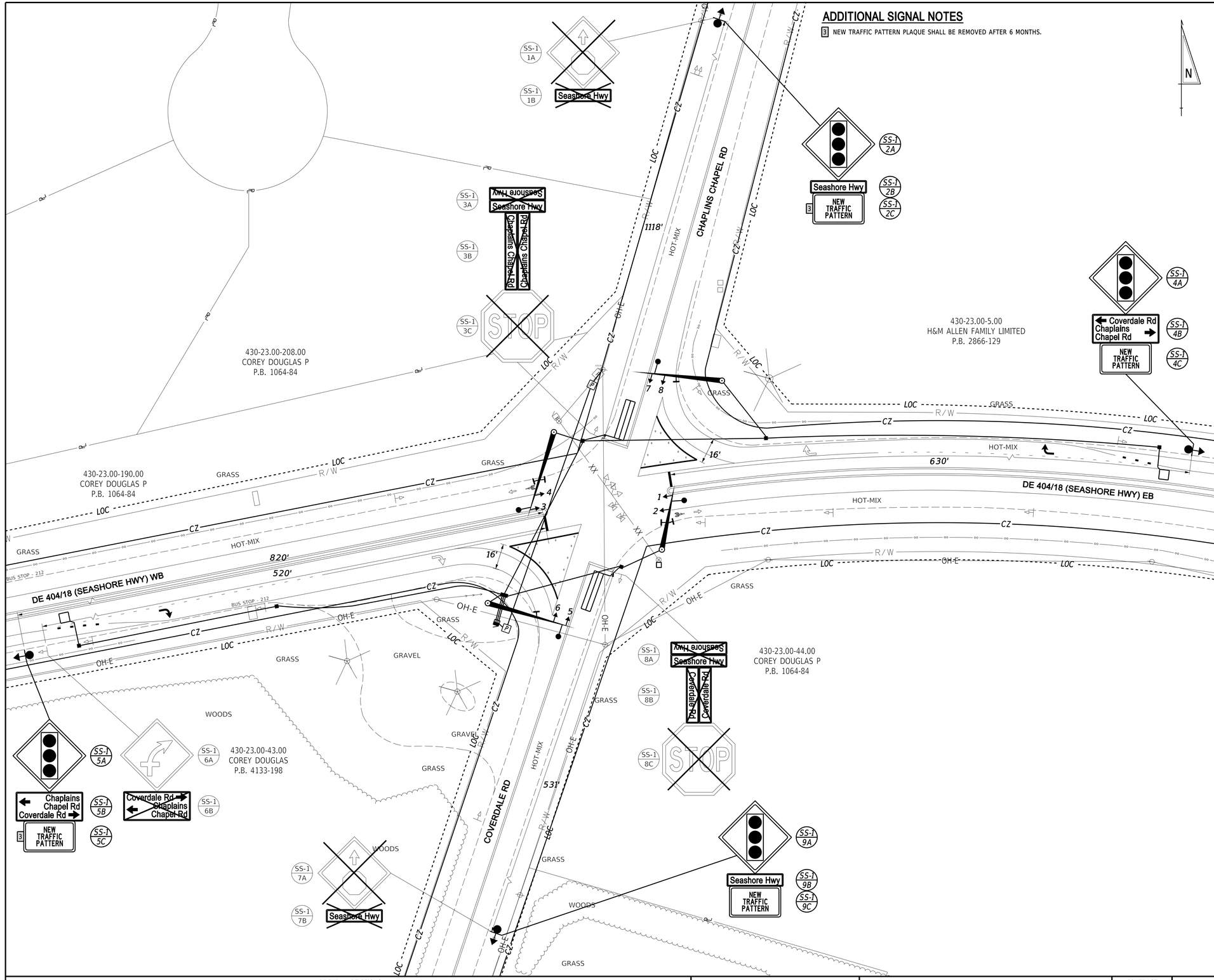
SIGNAL PLAN
DEL. RT. 18 & RD 42 -
COVERDALE CROSSROADS

SECTION	
TRAFFIC	
SHEET NO.	1 OF 3

LAST REVISED: 9/11/2018
12:27 AM 9-12-2020
13:26
G:\Projects\185033.00 TRAFFIC - 1883 - 21185033.04 SR404 and Coverdale\CADD FILES\Sheets\sg_S226_Coverdale&Seashore1of3.dgn

ADDITIONAL SIGNAL NOTES

3 NEW TRAFFIC PATTERN PLAQUE SHALL BE REMOVED AFTER 6 MONTHS.



SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB	*ABANDON*	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	*OH #*	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	*PB X*	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	*PL X*	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	*RM C*	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	*RM O*	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	*RM TC*	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	*PROPOSED SYMBOL*
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISH EYE)		
VIDEO DETECTION ZONE		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
CENTURY ENGINEERING

THIS SEAL APPLIES TO THIS SHEET ONLY — DATE: 8/28/2020

BRET A. MARTINE — No. 11947 — DELAWARE PROFESSIONAL ENGINEER — SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — DATE: 8/31/2020

ADDENDA / REVISIONS			

SCALE: 0 30 60 90 FEET

SIGNAL REBUILD PROGRAM

CONTRACT	T202104001	PERMIT NO.	S226
COUNTY	SUSSEX	DESIGNED BY:	B. A. MARTINE
		CHECKED BY:	B. MARTINE

SIGNING PLAN
DEL. RT. 18 & RD 42 -
COVERDALE CROSSROADS

SECTION	
TRAFFIC	
SHEET NO.	2 OF 3

LAST REVISED: 9/11/2018
12:27:40 PM
G:\Projects\185033.00 TRAFFIC - 1883 - 21185033.04 SR404 and Coverdale\CADD FILES\Sheets\sg_S226_Coverdale&Seashore2of3.dgn

PERMANENT SIGN SCHEDULE

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	SIGN AREA (SF)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	Code X11 12' Post (W/ Basepost) (EACH)	Code X11A 15' Post (W/ Basepost) (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	REMARKS
								SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL						
SG-1	A	D1-1	1	DESTINATION (1 Line)	108	18	13.5												"Chaplins Chapel Rd" U8"/L6", Hwy D - Install by TC
SG-1	B	D1-1	1	DESTINATION (1 Line)	70	18	8.8												"Coverdale Rd" U8"/L6", Hwy D - Install by TC
SG-1	C	D1-1	2	DESTINATION (1 Line)	108	18	27.0												"Chaplins Chapel Rd" U8"/L6", Hwy D - Install by TC
SG-1	D	D1-1	1	DESTINATION (1 Line)	70	18	8.8												"Coverdale Rd" U8"/L6", Hwy D - Install by TC
SG-1	E	D1-1a(18-B)	1	DESTINATION (1 Line)	70	18	8.8												"Seashore Hwy" U8"/L6", Hwy D - Install by TC
SS-1	1A	W3-1(36)	1	STOP AHEAD (Symbol) - 36x36	36	36		REMOVE	1										
SS-1	1B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	36	9		REMOVE	1										Seashore Hwy
SS-1	2A	W3-3(36)	1	SIGNAL AHEAD (Symbol) - 36x36	36	36	9.0	NEW		1				SOIL	1				
SS-1	2B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	36	9	2.3	ADD TO ASSEMBLY		1									"Seashore Hwy" 4", Hwy C Kern26%
SS-1	2C	W23-2P-DE(30)	1	NEW TRAFFIC PATTERN (plaque) - 30x24	30	24	5.0	ADD TO ASSEMBLY		1									
SS-1	3A	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	42	12		REMOVE	2										Seashore Hwy
SS-1	3B	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	48	12		REMOVE	2										Chaplains Chapel Rd
SS-1	3C	R1-1(36)	1	STOP	36	36		REMOVE	1										
SS-1	4A	W3-3(36)	1	SIGNAL AHEAD (Symbol) - 36x36	36	36	9.0	NEW		1				SOIL		1			
SS-1	4B	W16-8aP	1	ADVANCE STREET NAME (3 - line plaque)	42	18	5.3	ADD TO ASSEMBLY		1									<- Coverdale Rd Chaplains -> Chapel Rd 4", Hwy C Kern26%
SS-1	4C	W23-2P-DE(30)	1	NEW TRAFFIC PATTERN (plaque) - 30x24	30	24	5.0	ADD TO ASSEMBLY		1									
SS-1	5A	W3-3(36)	1	SIGNAL AHEAD (Symbol) - 36x36	36	36	9.0	NEW		1				SOIL		1			
SS-1	5B	W16-8aP	1	ADVANCE STREET NAME (3 - line plaque)	42	18	5.3	ADD TO ASSEMBLY		1									<- Chaplains Chapel Rd Coverdale Rd -> 4", Hwy C Kern26%
SS-1	5C	W23-2P-DE(30)	1	NEW TRAFFIC PATTERN (plaque) - 30x24	30	24	5.0	ADD TO ASSEMBLY		1									
SS-1	6A	W1-10a_L(36)	1	COMBINATION HORIZONTAL ALIGNMENT/INTERSECTION (Left) - 36x36	36	36		REMAIN											
SS-1	6B	W16-8aP	1	ADVANCE STREET NAME (3 - line plaque)	42	18		REMOVE	1										Coverdale Rd -> <- Chaplains Chapel Rd
SS-1	7A	W3-1(36)	1	STOP AHEAD (Symbol) - 36x36	36	36		REMOVE	1										
SS-1	7B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	36	9		REMOVE	1										Seashore Hwy
SS-1	8A	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	42	12		REMOVE	2										Seashore Hwy
SS-1	8B	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	42	12		REMOVE	2										Coverdale Rd
SS-1	8C	R1-1(36)	1	STOP	36	36		REMOVE	1										
SS-1	9A	W3-3(36)	1	SIGNAL AHEAD (Symbol) - 36x36	36	36	9.0	NEW		1				SOIL	1				
SS-1	9B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	36	9	2.3	ADD TO ASSEMBLY		1									"Seashore Hwy" 4", Hwy C Kern26%
SS-1	9C	W23-2P-DE(30)	1	NEW TRAFFIC PATTERN (plaque) - 30x24	30	24	5.0	ADD TO ASSEMBLY		1									
PAGE TOTALS							138		15	12		0	0		2	2	0	0	
JOB TOTALS							138		15	12		0	0		2	2	0	0	

LAST REVISED: 9/11/2018
12-AUG-2020
13:26
G:\Projects\185033.00 TRAFFIC - 1883 - 21\185033.04 SR404 and Coverdale\CADD FILES\Sheets\sg_S226_Coverdale&Seashore3of3.dgn

ADDENDA / REVISIONS							

SIGNAL REBUILD PROGRAM

CONTRACT	PERMIT NO.	S226
T202004001	DESIGNED BY:	B. A. MARTINE
COUNTY	CHECKED BY:	B. MARTINE
SUSSEX		

PERMANENT SIGN SCHEDULE DEL. RT. 18 & RD 42 - COVERDALE CROSSROADS

SECTION	
TRAFFIC	
SHEET NO.	
3 OF 3	

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/ WIRE
1A	1	2.0"	GALV.	5'/40'	T/P	NEW (3)#8 THHN SC - LINE SIDE
1B	1	2.0"	GALV.	15'	T	NEW (1) 2/#8 U.F. W/ GROUND - LOAD SIDE
1C	1	4.0"	HDPE	70'	B	NEW (1) 2/#8 U.F. W/ GROUND - LOAD SIDE
1D	1	2.0"	GALV.	35'	T	NEW (1) 2/#8 U.F. W/ GROUND - LOAD SIDE
1E	1	2.0"	GALV.	15'	T	NEW (1) 2/#8 U.F. W/ GROUND - LOAD SIDE
X1F	1	2.5"	GALV.	6'/40'	-	REMOVE (3)1/#8 - ABANDON CONDUIT
X1G	1	2.5"	GALV.	75'	-	REMOVE (3)1/#8 - ABANDON CONDUIT
X1H	1	2.5"	GALV.	65'	-	REMOVE (3)1/#8 - ABANDON CONDUIT
X1K	2	2.5"	GALV.	5'	-	REMOVE (3)1/#8 (1) 2/#8 U.F. W/ GROUND - AB CONDUIT
X1L	1	2.5"	GALV.	3'	-	REMOVE (1)2/#8 U.F. W/ GROUND NEW (1)2/#8 U.F. W/GROUND - LOAD SIDE
X2	1	2.5"	PVC	3'	-	REMOVE (4)4/#18 NEW [(5)2/#14 (4)5/#14 (1)#6 SC]
X3	1	2.5"	PVC	60'	-	REMOVE (2)4/#18 - ABANDON CONDUIT
X4	1	2.5"	PVC	130'	-	REMOVE (1)4/#18 - ABANDON CONDUIT

EXISTING OVERHEAD SIGNING

A — D3-1 (96"X16") — Savannah Rd

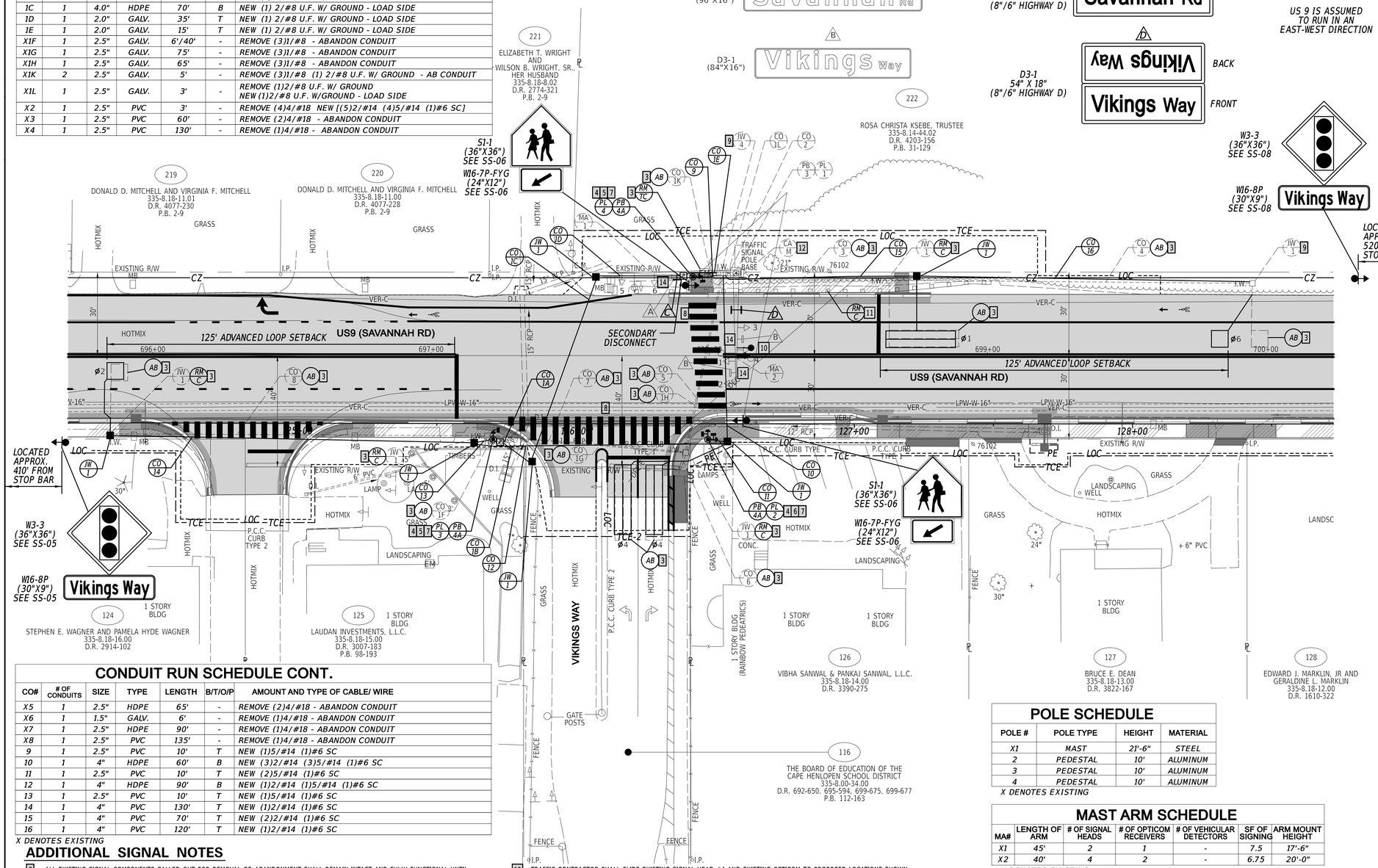
B — D3-1 (84"X16") — Vikings Way

PROPOSED OVERHEAD SIGNING

C — D3-1, 60" X 18", (8"/6" HIGHWAY D) — Savannah Rd

D — D3-1, 54" X 18", (8"/6" HIGHWAY D) — Vikings Way (BACK) / Vikings Way (FRONT)

US 9 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION



POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
X1	MAST	21'-6"	STEEL
2	PEDESTAL	10'	ALUMINUM
3	PEDESTAL	10'	ALUMINUM
4	PEDESTAL	10'	ALUMINUM

X DENOTES EXISTING

MAST ARM SCHEDULE

MA#	LENGTH OF ARM	# OF SIGNAL HEADS	# OF OPTICOM RECEIVERS	# OF VEHICULAR DETECTORS	SF OF SIGNING	ARM MOUNT HEIGHT
X1	45'	2	1	-	7.5	17'-6"
X2	40'	4	2	-	6.75	20'-0"

X DENOTES EXISTING

CONDUIT RUN SCHEDULE CONT.

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/ WIRE
X5	1	2.5"	HDPE	65'	-	REMOVE (2)4/#18 - ABANDON CONDUIT
X6	1	1.5"	GALV.	6'	-	REMOVE (1)4/#18 - ABANDON CONDUIT
X7	1	2.5"	HDPE	90'	-	REMOVE (1)4/#18 - ABANDON CONDUIT
X8	1	2.5"	PVC	135'	-	REMOVE (1)4/#18 - ABANDON CONDUIT
9	1	2.5"	PVC	10'	T	NEW (1)5/#14 (1)#6 SC
10	1	4"	HDPE	60'	B	NEW (3)2/#14 (3)5/#14 (1)#6 SC
11	1	2.5"	PVC	10'	T	NEW (2)5/#14 (1)#6 SC
12	1	4"	HDPE	90'	B	NEW (1)2/#14 (1)5/#14 (1)#6 SC
13	1	2.5"	PVC	10'	T	NEW (1)5/#14 (1)#6 SC
14	1	4"	PVC	130'	T	NEW (1)2/#14 (1)#6 SC
15	1	4"	PVC	70'	T	NEW (2)2/#14 (1)#6 SC
16	1	4"	PVC	120'	T	NEW (1)2/#14 (1)#6 SC

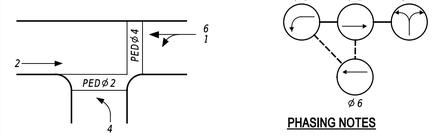
X DENOTES EXISTING

ADDITIONAL SIGNAL NOTES

3. ALL EXISTING SIGNAL COMPONENTS CALLED OUT FOR REMOVAL OR ABANDONMENT SHALL REMAIN INTACT AND FULLY FUNCTIONAL UNTIL ALL PROPOSED SIGNAL INSTALLATIONS ARE READY TO BE COMMISSIONED. CONTRACTOR SHALL ENSURE THAT SIGNAL DOWNTIME DURING DECOMMISSIONING OF THE EXISTING AND COMMISSIONING OF THE PROPOSED SIGNAL INSTALLATION IS MINIMAL.
4. PEDESTRIAN SIGNAL HEADS SHALL BE OF COUNT-DOWN TYPE AND PEDESTRIAN PUSHBUTTONS SHALL BE OF NON-LATCHING TYPE.
5. TRAFFIC CONTRACTOR SHALL INSTALL EDUCATION COUNTDOWN PEDESTRIAN SIGN (R10-3e) ON ALL SINGLE PEDESTRIAN SIGNAL MOUNTED POLES PER DESIGN.
6. TRAFFIC CONTRACTOR SHALL INSTALL EDUCATION COUNTDOWN PEDESTRIAN SIGNS (R10-3e-DE) ON ALL DOUBLE PEDESTRIAN SIGNAL MOUNTED POLES WITH ARROWS ALIGNED ON STATION BUTTONS IN THE DIRECTION OF PED PHASE ACTIVATION PER DESIGN.
7. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE PEDESTRIAN CONNECTION WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK.
8. ALL CROSSWALKS SHALL BE 10 FEET IN WIDTH.
9. CONSTRUCTION CONTRACTOR SHALL RESET, ADJUST AND/OR REPAIR EXISTING JUNCTION WELL AS NECESSARY FOR INTEGRATION OF PROPOSED CONDUIT AND/OR TO FINISH FLUSH WITH FINAL GRADES. BOND AND GROUND EXISTING JUNCTION WELL.
10. TRAFFIC CONTRACTOR SHALL SLIDE EXISTING SIGNAL HEAD #4 AND EXISTING OPTICOM TO PROPOSED LOCATIONS SHOWN.
11. CONSTRUCTION CONTRACTOR SHALL REMOVE GUARDRAIL UNDER ITEM 211000. BORROW TYPE F SHALL BE UTILIZED FOR BACKFILL.
12. TRAFFIC CONTRACTOR SHALL COORDINATE WITH DELDOT TMC AND CONSTRUCTION TO ROTATE EXISTING POLE MOUNTED SIGNAL CABINET 90 DEGREES TO BE LOCATED OUTSIDE OF PROPOSED SIDEWALK AREA AS SHOWN. THE EXISTING EXTERIOR GALVANIZED CABINET CONDUIT SHALL BE ADJUSTED AND EXTENDED TO PROPOSED POLE MOUNTED CABINET LOCATION.
13. TRAFFIC CONTRACTOR SHALL REPLACE EXISTING SIGNAL HEAD BACKPLATES WITH NEW SIGNAL HEAD BACKPLATES WITH 2" WIDE RETROREFLECTIVE YELLOW BORDER.
14. TRAFFIC CONTRACTOR SHALL REMOVE EXISTING OVERHEAD SIGNING AND REPLACE WITH PROPOSED OVERHEAD SIGNING AS SHOWN ON PLAN.
15. FOR DURATION OF SIGNAL CONSTRUCTION, THE CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 3, FIGURE 6H-3 FOR TRAFFIC CONTROL OPERATIONS. ANY LANE RESTRICTIONS SHALL UTILIZE TYPICAL APPLICATION 11B, FIGURE 6H-11B AND BE LIMITED TO WEEK NIGHTS MONDAY-THURSDAY BETWEEN THE TIMES OF 8PM AND 6AM. CHANGEABLE MESSAGE BOARDS SHALL INCLUDE ANTICIPATED SIGNAL CONSTRUCTION NOTIFICATIONS.
16. SURVEY DATA WAS GATHERED BY CENTURY ENGINEERING INC.
17. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT OF WAY, PROPOSED & TEMPORARY CONSTRUCTION EASEMENTS, AND PER TRAFFIC SIGNAL INSTALLATION AGREEMENT DATED APRIL 30TH, 2010.

SIGNAL PHASING

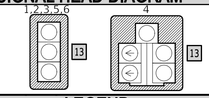
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
CENTURY ENGINEERING

6/28/2021
DATE

THIS SEAL APPLIES TO THIS SHEET ONLY.

BRET A. MARTINE — No. 11947 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING

6/29/2021
DATE

LAST REVISED: 9/11/2018
PLOT DATE: 10-JUL-2021
7:58:44
G:\Projects\185003.00 Agmt 1834 TAP\185003.01 (Task 1 - Savannah Road Final)\CADD\Sheets\SGlsg01_savannah.dgn

ADDENDA / REVISIONS

SCALE
0 20 40 60
FEET

SAVANNAH ROAD
SIDEWALK IMPROVEMENTS

CONTRACT	T201801302	PERMIT NO.	S319
COUNTY	SUSSEX	DESIGNED BY:	M.KUBOVCIK
		CHECKED BY:	B.MARTINE

SIGNAL PLAN
US 9 (SAVANNAH RD) @
VIKINGS WAY (CAPE HENLOPEN HS)

SECTION	CEI
SHEET NO.	65

CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE (TYPE)	LENGTH (B/T/O/P)	AMOUNT AND TYPE OF CABLE / WIRE
1A	1	2"(GALV)	10'/30'(T/P)	NEW (3)#8 THHN SC - LINE SIDE
1B	1	2"(GALV)	10'(T)	NEW (1)2/#8 U.F.W/GROUND - LOAD SIDE
1C	1	2"(GALV)	70'(B)	NEW (1)2/#8 U.F.W/GROUND - LOAD SIDE
1D	1	2"(GALV)	10'(T)	NEW (1)2/#8 U.F.W/GROUND - LOAD SIDE
1E	1	2"(GALV)	10'(T)	NEW (1)2/#8 U.F.W/GROUND - LOAD SIDE
2	4	4"(PVC)	10'(T)	NEW (2)16/#14 (4)5/#14 (11)2/#14 (4)4/#18 (4)#6 SC
3	1	3"(PVC)	10'(T)	NEW (1)16/#14 (2)4/#18 (1)#6 SC
4	1	3"(PVC)	15'(T)	NEW (1)5/#14 (1)#6 SC
5	1	4"(HDPE)	80'(B)	NEW (2)5/#14 (4)2/#14 (1)#6 SC
6	1	3"(PVC)	10'(T)	NEW (2)5/#14 (1)#6 SC
7	1	4"(PVC)	150'(T)	NEW (2)2/#14 (1)#6 SC
8	1	4"(PVC)	150'(T)	NEW (1)2/#14 (1)#6 SC
9	1	4"(HDPE)	75'(B)	NEW (1)16/#14 (1)5/#14 (4)2/#14 (2)4/#18 (1)#6 SC
10	1	4"(PVC)	140'(T)	NEW (2)2/#14 (1)#6 SC
11	1	4"(PVC)	140'(T)	NEW (1)2/#14 (1)#6 SC
12	1	4"(HDPE)	70'(B)	NEW (1)16/#14 (1)5/#14 (1)2/#14 (2)4/#18 (1)#6 SC
13	1	3"(PVC)	20'(T)	NEW (1)16/#14 (2)4/#18 (1)#6 SC
14	1	3"(PVC)	10'(T)	NEW (1)5/#14 (1)#6 SC

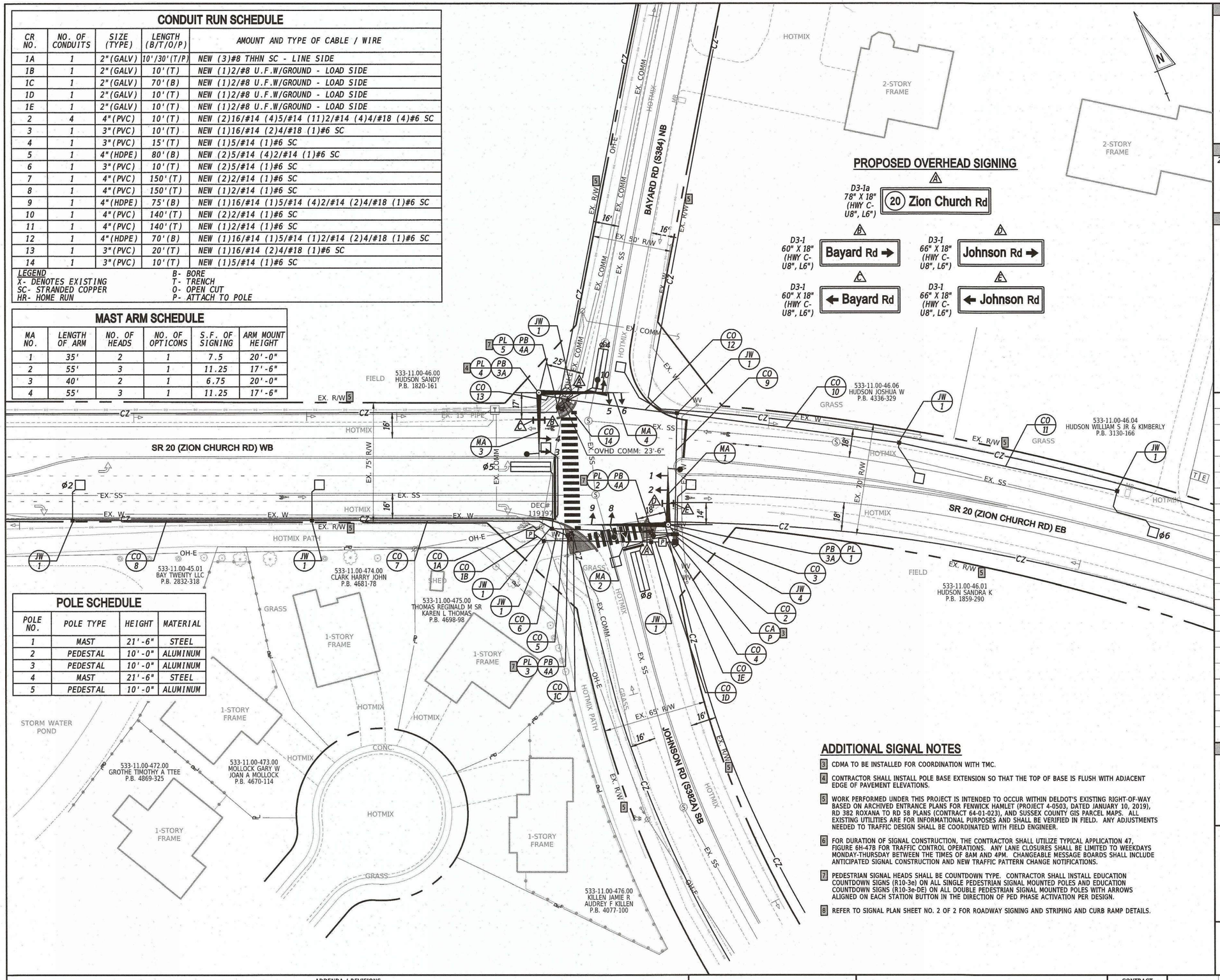
LEGEND
X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN
B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

MAST ARM SCHEDULE

MA NO.	LENGTH OF ARM	NO. OF HEADS	NO. OF OPTICOMS	S.F. OF SIGNING	ARM MOUNT HEIGHT
1	35'	2	1	7.5	20'-0"
2	55'	3	1	11.25	17'-6"
3	40'	2	1	6.75	20'-0"
4	55'	3	1	11.25	17'-6"

POLE SCHEDULE

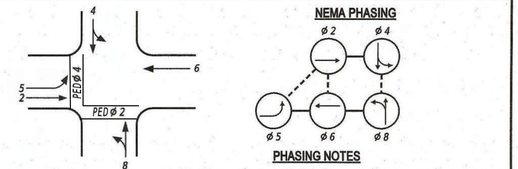
POLE NO.	POLE TYPE	HEIGHT	MATERIAL
1	MAST	21'-6"	STEEL
2	PEDESTAL	10'-0"	ALUMINUM
3	PEDESTAL	10'-0"	ALUMINUM
4	MAST	21'-6"	STEEL
5	PEDESTAL	10'-0"	ALUMINUM



ADDITIONAL SIGNAL NOTES

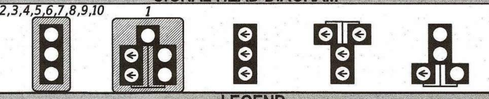
3. CDMA TO BE INSTALLED FOR COORDINATION WITH TMC.
4. CONTRACTOR SHALL INSTALL POLE BASE EXTENSION SO THAT THE TOP OF BASE IS FLUSH WITH ADJACENT EDGE OF PAVEMENT ELEVATIONS.
5. WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON ARCHIVED ENTRANCE PLANS FOR FENWICK HAMLET (PROJECT 4-0503, DATED JANUARY 10, 2019), RD 382 ROXANA TO RD 58 PLANS (CONTRACT 64-01-023), AND SUSSEX COUNTY GIS PARCEL MAPS. ALL EXISTING UTILITIES ARE FOR INFORMATIONAL PURPOSES AND SHALL BE VERIFIED IN FIELD. ANY ADJUSTMENTS NEEDED TO TRAFFIC DESIGN SHALL BE COORDINATED WITH FIELD ENGINEER.
6. FOR DURATION OF SIGNAL CONSTRUCTION, THE CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 47, FIGURE 6H-47B FOR TRAFFIC CONTROL OPERATIONS. ANY LANE CLOSURES SHALL BE LIMITED TO WEEKDAYS MONDAY-THURSDAY BETWEEN THE TIMES OF 8AM AND 4PM. CHANGEABLE MESSAGE BOARDS SHALL INCLUDE ANTICIPATED SIGNAL CONSTRUCTION AND NEW TRAFFIC PATTERN CHANGE NOTIFICATIONS.
7. PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE. CONTRACTOR SHALL INSTALL EDUCATION COUNTDOWN SIGNS (R10-3e) ON ALL SINGLE PEDESTRIAN SIGNAL MOUNTED POLES AND EDUCATION COUNTDOWN SIGNS (R10-3e-DE) ON ALL DOUBLE PEDESTRIAN SIGNAL MOUNTED POLES WITH ARROWS ALIGNED ON EACH STATION BUTTON IN THE DIRECTION OF PED PHASE ACTIVATION PER DESIGN.
8. REFER TO SIGNAL PLAN SHEET NO. 2 OF 2 FOR ROADWAY SIGNING AND STRIPING AND CURB RAMP DETAILS.

SIGNAL PHASING



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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH (#)	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA (X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH (#)	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA (X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB (X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (#)	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB (X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (#)	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL (X)	EXISTING POLE IDENTIFIER (# OF POLE)
JW (X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL (X)	PROPOSED POLE IDENTIFIER (# OF POLE)
JW (X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM (C)	REMOVE BY CONTRACTOR
MA (XX)	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM (O)	REMOVE BY OTHERS
MA (XX)	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM (TC)	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISH EYE)		
VIDEO DETECTION ZONE		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
CENTURY ENGINEERING
550 BAY ROAD
DOVER, DELAWARE 19901
(302) 734-9188

STACEY A. MARTINE — No. 11647 — DELAWARE PROFESSIONAL ENGINEER

THIS SEAL APPLIES TO THIS SHEET ONLY. DATE 2/27/2020

SEAL

CONCURRENCE FOR INSTALLATION

CHIEF TRAFFIC ENGINEER DATE 2/28/2020

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

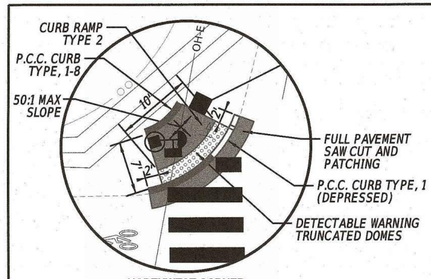
SIGNAL CONSTRUCTION PROGRAM

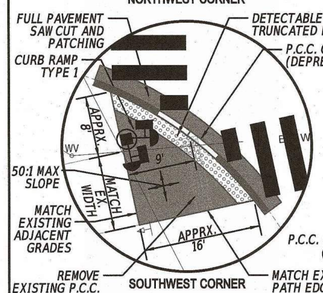
CONTRACT	T201909811	PERMIT NO.	S380
COUNTY	SUSSEX	DESIGNED BY:	MKUBOVCIK
		CHECKED BY:	BMARTINE

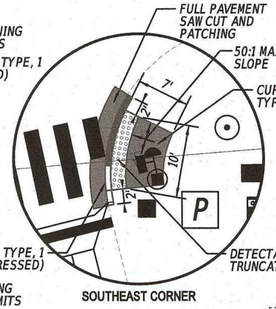
SIGNAL PLAN SR 20 (ZION CHURCH RD) @ BAYARD RD (S384)/ JOHNSON RD (S382A)

SECTION	
TRAFFIC	
SHEET NO.	1 OF 2

LAST REVISED: 9/11/2018
2/27/2020
2:39:24 PM
G:\PROJECTS\185033.00 TRAFFIC - 1883 - 21185033.02 Traffic Signal Designs\CADD FILES\Sheetsisg_S380_SR20 and Bayard Rd_1 of 2.dgn







CURB RAMP DETAILS

SCALE: 1" = 10'

REMOVE D3-1 30" X 12" (SS-1 1A)
REMOVE D3-1 42" X 12" (SS-1 1B)
REMOVE R1-1 36" X 36" (SS-1 1C)

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	640 SF
B	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	90 LF
C	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	10 LF

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB ABANDON	OH # EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH # PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO # EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO # PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X EXISTING POLE IDENTIFIER (# OF POLE)
JW X EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X PROPOSED POLE IDENTIFIER (# OF POLE)
JW X PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C REMOVE BY CONTRACTOR
MA XX EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O REMOVE BY OTHERS
MA XX PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		□
LOOP DETECTOR, TYPE 2		▭
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY	R/W	R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISH EYE)		
VIDEO DETECTION ZONE		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
CENTURY ENGINEERING
500 BAY ROAD
DOVER, DELAWARE 19901
(302) 734-9188

THIS SEAL APPLIES TO THIS SHEET ONLY. 2/27/2020 DATE

BRET A. MARTINE — No. 11947 — REGISTERED PROFESSIONAL ENGINEER — SEAL

CONCURRENCE FOR INSTALLATION

CHIEF TRAFFIC ENGINEER 2/28/2020 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

SIGNAL CONSTRUCTION PROGRAM

CONTRACT	T201909811	PERMIT NO.	S380
COUNTY	SUSSEX	DESIGNED BY:	MKUBOVCIK
		CHECKED BY:	BMARTINE

SIGNAL PLAN
SR 20 (ZION CHURCH RD) @ BAYARD RD (S384)/ JOHNSON RD (S382A)

SECTION: TRAFFIC
SHEET NO.: 2 OF 2

LAST REVISED: 9/11/2018
2/27/2020 2:40:04 PM
G:\PROJECTS\185033.00 TRAFFIC - 1883 - 2\185033.02 Traffic Signal Designs\CADD FILES\Sheets\sg_S380_SR20 and Bayard Rd_2 of 2.dgn

CONDUIT RUN SCHEDULE

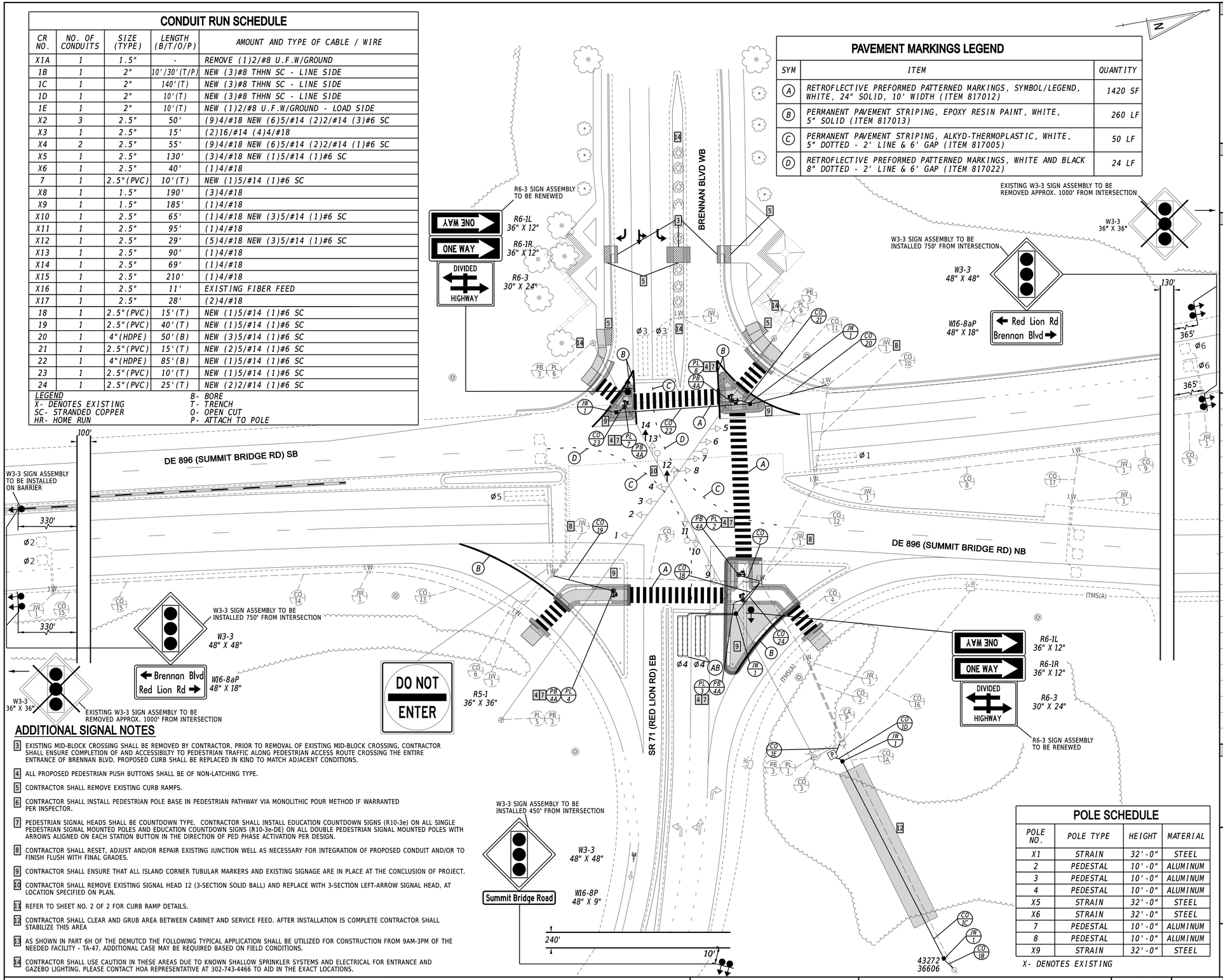
CR NO.	NO. OF CONDUITS	SIZE (TYPE)	LENGTH (B/T/O/P)	AMOUNT AND TYPE OF CABLE / WIRE
X1A	1	1.5"	-	REMOVE (1)2/#8 U.F.W/GROUND
1B	1	2"	10'/30'(T/P)	NEW (3)#8 THHN SC - LINE SIDE
1C	1	2"	140'(T)	NEW (3)#8 THHN SC - LINE SIDE
1D	1	2"	10'(T)	NEW (3)#8 THHN SC - LINE SIDE
1E	1	2"	10'(T)	NEW (1)2/#8 U.F.W/GROUND - LOAD SIDE
X2	3	2.5"	50'	(9)4/#18 NEW (6)5/#14 (2)2/#14 (3)#6 SC
X3	1	2.5"	15'	(2)16/#14 (4)4/#18
X4	2	2.5"	55'	(9)4/#18 NEW (6)5/#14 (2)2/#14 (1)#6 SC
X5	1	2.5"	130'	(3)4/#18 NEW (1)5/#14 (1)#6 SC
X6	1	2.5"	40'	(1)4/#18
7	1	2.5"(PVC)	10'(T)	NEW (1)5/#14 (1)#6 SC
X8	1	1.5"	190'	(3)4/#18
X9	1	1.5"	185'	(1)4/#18
X10	1	2.5"	65'	(1)4/#18 NEW (3)5/#14 (1)#6 SC
X11	1	2.5"	95'	(1)4/#18
X12	1	2.5"	29'	(5)4/#18 NEW (3)5/#14 (1)#6 SC
X13	1	2.5"	90'	(1)4/#18
X14	1	2.5"	69'	(1)4/#18
X15	1	2.5"	210'	(1)4/#18
X16	1	2.5"	11'	EXISTING FIBER FEED
X17	1	2.5"	28'	(2)4/#18
18	1	2.5"(PVC)	15'(T)	NEW (1)5/#14 (1)#6 SC
19	1	2.5"(PVC)	40'(T)	NEW (1)5/#14 (1)#6 SC
20	1	4"(HDPE)	50'(B)	NEW (3)5/#14 (1)#6 SC
21	1	2.5"(PVC)	15'(T)	NEW (2)5/#14 (1)#6 SC
22	1	4"(HDPE)	85'(B)	NEW (1)5/#14 (1)#6 SC
23	1	2.5"(PVC)	10'(T)	NEW (1)5/#14 (1)#6 SC
24	1	2.5"(PVC)	25'(T)	NEW (2)2/#14 (1)#6 SC

LEGEND
X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN

B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	RETROFLECTIVE PREFORMED PATTERNED MARKINGS, SYMBOL/LEGEND, WHITE, 24" SOLID, 10' WIDTH (ITEM 817012)	1420 SF
B	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE, 5" SOLID (ITEM 817013)	260 LF
C	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, WHITE, 5" DOTTED - 2' LINE & 6' GAP (ITEM 817005)	50 LF
D	RETROFLECTIVE PREFORMED PATTERNED MARKINGS, WHITE AND BLACK 8" DOTTED - 2' LINE & 6' GAP (ITEM 817022)	24 LF



ADDITIONAL SIGNAL NOTES

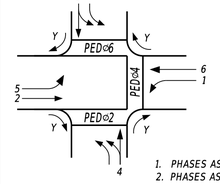
3. EXISTING MID-BLOCK CROSSING SHALL BE REMOVED BY CONTRACTOR. PRIOR TO REMOVAL OF EXISTING MID-BLOCK CROSSING, CONTRACTOR SHALL ENSURE COMPLETION OF AND ACCESSIBILTY TO PEDESTRIAN TRAFFIC ALONG PEDESTRIAN ACCESS ROUTE CROSSING THE ENTIRE ENTRANCE OF BRENNAN BLVD. PROPOSED CURB SHALL BE REPLACED IN KIND TO MATCH ADJACENT CONDITIONS.
4. ALL PROPOSED PEDESTRIAN PUSH BUTTONS SHALL BE OF NON-LATCHING TYPE.
5. CONTRACTOR SHALL REMOVE EXISTING CURB RAMPS.
6. CONTRACTOR SHALL INSTALL PEDESTRIAN POLE BASE IN PEDESTRIAN PATHWAY VIA MONOLITHIC POUR METHOD IF WARRANTED PER INSPECTOR.
7. PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE. CONTRACTOR SHALL INSTALL EDUCATION COUNTDOWN SIGNS (R10-3e) ON ALL SINGLE PEDESTRIAN SIGNAL MOUNTED POLES AND EDUCATION COUNTDOWN SIGNS (R10-3e-DE) ON ALL DOUBLE PEDESTRIAN SIGNAL MOUNTED POLES WITH ARROWS ALIGNED ON EACH STATION BUTTON IN THE DIRECTION OF PED PHASE ACTIVATION PER DESIGN.
8. CONTRACTOR SHALL RESET, ADJUST AND/OR REPAIR EXISTING JUNCTION WELL AS NECESSARY FOR INTEGRATION OF PROPOSED CONDUIT AND/OR TO FINISH FLUSH WITH FINAL GRADES.
9. CONTRACTOR SHALL ENSURE THAT ALL ISLAND CORNER TUBULAR MARKERS AND EXISTING SIGNAGE ARE IN PLACE AT THE CONCLUSION OF PROJECT.
10. CONTRACTOR SHALL REMOVE EXISTING SIGNAL HEAD 12 (3-SECTION SOLID BALL) AND REPLACE WITH 3-SECTION LEFT-ARROW SIGNAL HEAD, AT LOCATION SPECIFIED ON PLAN.
11. REFER TO SHEET NO. 2 OF 2 FOR CURB RAMP DETAILS.
12. CONTRACTOR SHALL CLEAR AND GRUB AREA BETWEEN CABINET AND SERVICE FEED. AFTER INSTALLATION IS COMPLETE CONTRACTOR SHALL STABILIZE THIS AREA
13. AS SHOWN IN PART 6H OF THE DEMUTCD THE FOLLOWING TYPICAL APPLICATION SHALL BE UTILIZED FOR CONSTRUCTION FROM 9AM-3PM OF THE NEEDED FACILITY - TA-47. ADDITIONAL CASE MAY BE REQUIRED BASED ON FIELD CONDITIONS.
14. CONTRACTOR SHALL USE CAUTION IN THESE AREAS DUE TO KNOWN SHALLOW SPRINKLER SYSTEMS AND ELECTRICAL FOR ENTRANCE AND GAZEBO LIGHTING. PLEASE CONTACT HOA REPRESENTATIVE AT 302-743-4466 TO AID IN THE EXACT LOCATIONS.

POLE SCHEDULE

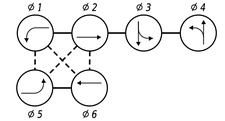
POLE NO.	POLE TYPE	HEIGHT	MATERIAL
X1	STRAIN	32'-0"	STEEL
2	PEDESTAL	10'-0"	ALUMINUM
3	PEDESTAL	10'-0"	ALUMINUM
4	PEDESTAL	10'-0"	ALUMINUM
X5	STRAIN	32'-0"	STEEL
X6	STRAIN	32'-0"	STEEL
7	PEDESTAL	10'-0"	ALUMINUM
8	PEDESTAL	10'-0"	ALUMINUM
X9	STRAIN	32'-0"	STEEL

X- DENOTES EXISTING

SIGNAL PHASING



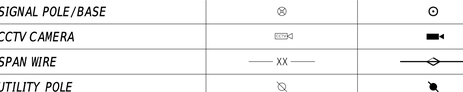
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISH EYE)		
VIDEO DETECTION ZONE		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

CENTURY ENGINEERING
550 BAY ROAD
DOVER, DELAWARE 19901
(302) 734-9188

BRET A. MARTINE
No. 11947
DELAWARE PROFESSIONAL ENGINEER

THIS SEAL APPLIES TO THIS SHEET ONLY. 8/26/2021 DATE

SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING 8/26/2021 DATE

LAST REVISED: 9/11/2018
PLOTTED: 10-AUG-2021
12:40
G:\Projects\185033.00 TRAFFIC - 1883 - 2\185033.03 SR896 and Brennan\CADD FILES\Sheets\sg_N216_SR896 and SR71 1 of 2.dgn

ADDENDA / REVISIONS

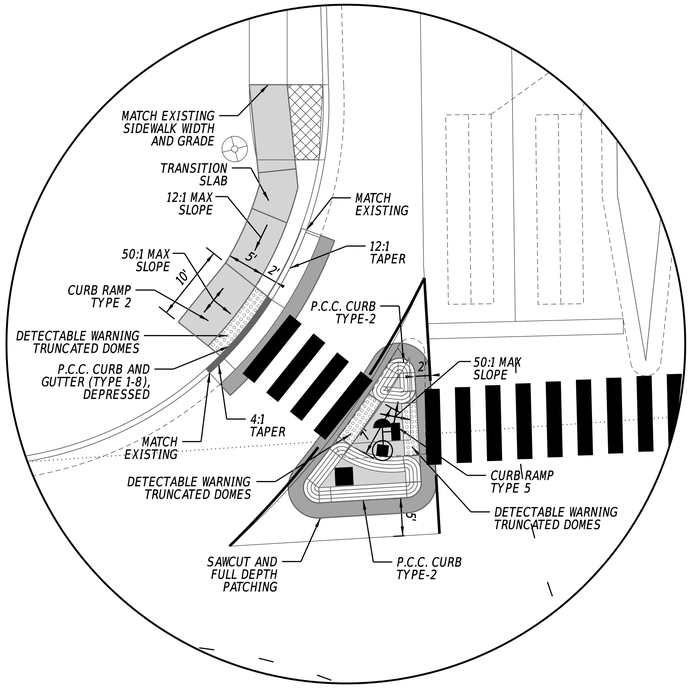
SCALE 0 30 60 90 FEET

SIGNAL PEDESTRIAN UPGRADES

CONTRACT	T202208306
COUNTY	NEW CASTLE
PERMIT NO.	N216
DESIGNED BY:	BRANDAN MARTINE
CHECKED BY:	BRET A. MARTINE

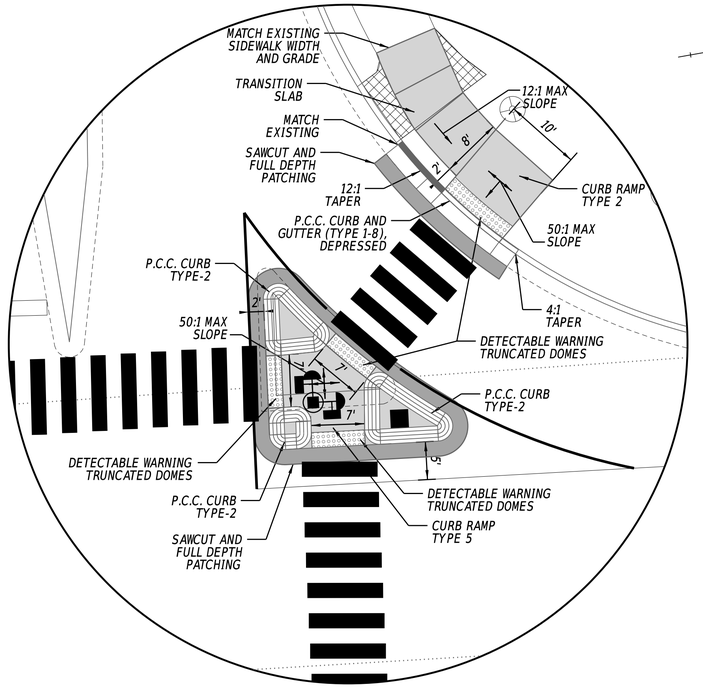
SIGNAL PLAN
DE 896 (SUMMIT BRIDGE RD) @
DE 71 (RED LION RD)

SECTION	CEI
SHEET NO.	1 OF 2



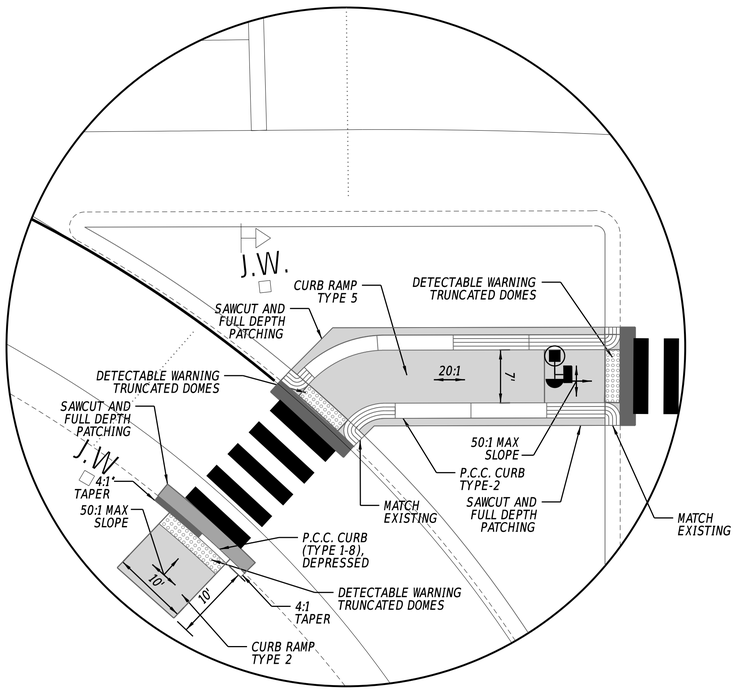
SW CORNER/ISLAND CURB RAMP DETAIL

SCALE: 1"=10'



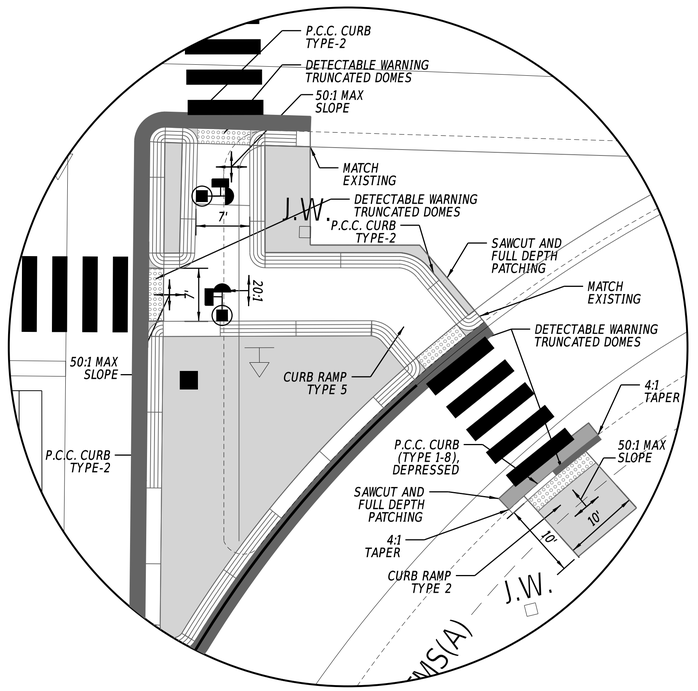
NW CORNER/ISLAND CURB RAMP DETAIL

SCALE: 1"=10'



SE CORNER/ISLAND CURB RAMP DETAIL

SCALE: 1"=10'



NE CORNER/ISLAND CURB RAMP DETAIL

SCALE: 1"=10'

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	*PROPOSED SYMBOL*
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISH EYE)		
VIDEO DETECTION ZONE		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

CENTURY ENGINEERING
550 BAY ROAD
DOVER, DELAWARE 19901
(302) 734-9188

BRET A. MARTINE — REGISTERED — No. 11947 — DELAWARE PROFESSIONAL ENGINEER

8/26/2021
DATE

THIS SEAL APPLIES TO THIS SHEET ONLY.

SEAL

CONCURRENCE FOR INSTALLATION

8/26/2021
DATE

CHIEF OF TRAFFIC ENGINEERING

ADDENDA / REVISIONS

SIGNAL PEDESTRIAN UPGRADES

CONTRACT	T202208306	PERMIT NO.	N216
COUNTY	NEW CASTLE	DESIGNED BY:	BRANDAN MARTINE
		CHECKED BY:	BRET A. MARTINE

SIGNAL PLAN
CURB RAMP DETAILS
DE 896 (SUMMIT BRIDGE RD) @ DE 71 (RED LION RD)

SECTION	
CEI	
SHEET NO.	
2 OF 2	

LAST REVISED: 9/11/2018
PLOT DATE: 26-AUG-2021
12:08
G:\Projects\185033.00 TRAFFIC - 1883 - 2\185033.03 SR896 and Brennan\CADD FILES\Sheets\sig_N216_SR896 and SR71 2 of 2.dgn

CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE (TYPE)	LENGTH (B/T/O/P)	AMOUNT AND TYPE OF CABLE / WIRE
X1	1	2"	4'	EXISTING (1)2/#8 U.F. W/GND
X2	1	2"	38'	EXISTING (1)2/#8 U.F. W/GND
X3	2	2.5"	8'	EXISTING [(2)5/#14 (18)2/#14 (2)FIBERS (2)#6 SC] REMOVE (2)5/#14 NEW (2)5/#14
X4	1	2.5"	7'	EXISTING (1)#6 SC REMOVE [(2)16/#14 (4)4/#18] NEW [(2)16/#14 (4)4/#18]
X5	1	2.5"	135'	EXISTING [(1)5/#14 (6)2/#14 (2)FIBERS (1)#6 SC] REMOVE (2)5/#14 NEW (2)5/#14
X6	1	1.5"	14'	EXISTING (1)5/#14 (1)#6 SC
X7	1	2.5"	180'	EXISTING (2)2/#14 (2)FIBERS (1)#6 SC
X8	1	2.5"	-	EXISTING (2)FIBERS
X9	1	2.5"	62'	EX.[(4)2/#14 (1)#6 SC] REMOVE (2)5/#14 NEW (2)5/#14
X10	1	2.5"	36'	REMOVE[(2)5/#14 (1)#6 SC] NEW[(2)5/#14 (1)#6 SC]
X11	1	2.5"	8'	REMOVE (1)5/#14 (1)#6 SC - ABANDON CONDUIT
X12	1	2.5"	16'	REMOVE (1)5/#14 (1)#6 SC - ABANDON CONDUIT
X13	1	2.5"	3'	EMPTY - ABANDON CONDUIT
X14	1	2.5"	110'	EXISTING (1)5/#14 (8)2/#14 (1)#6 SC
X15	1	1.5"	16'	EXISTING (1)5/#14 (1)#6 SC
X16	1	2.5"	12'	EXISTING (3)2/#14 (1)#6 SC
X17	1	1.5"	100'	EXISTING (2)2/#14 (1)#6 SC
X18	1	1.5"	85'	EXISTING (2)2/#14 (1)#6 SC
X19	1	2.5"	55'	EXISTING (5)2/#14 (1)#6 SC
X20	1	4"	33'	EXISTING (2)FIBERS
X21	1	4"	-	EXISTING (2)FIBERS
22	1	2.5"(GALV)	15'(T)	NEW (2)5/#14 (1)#6 SC
23	1	2.5"(PVC)	10'(T)	NEW (1)5/#14 (1)#6 SC
24	1	2.5"(PVC)	20'(T)	NEW (1)5/#14 (1)#6 SC
25	1	3"(PVC)	20'(T)	NEW (1)#6 SC

X- DENOTES EXISTING

POLE SCHEDULE

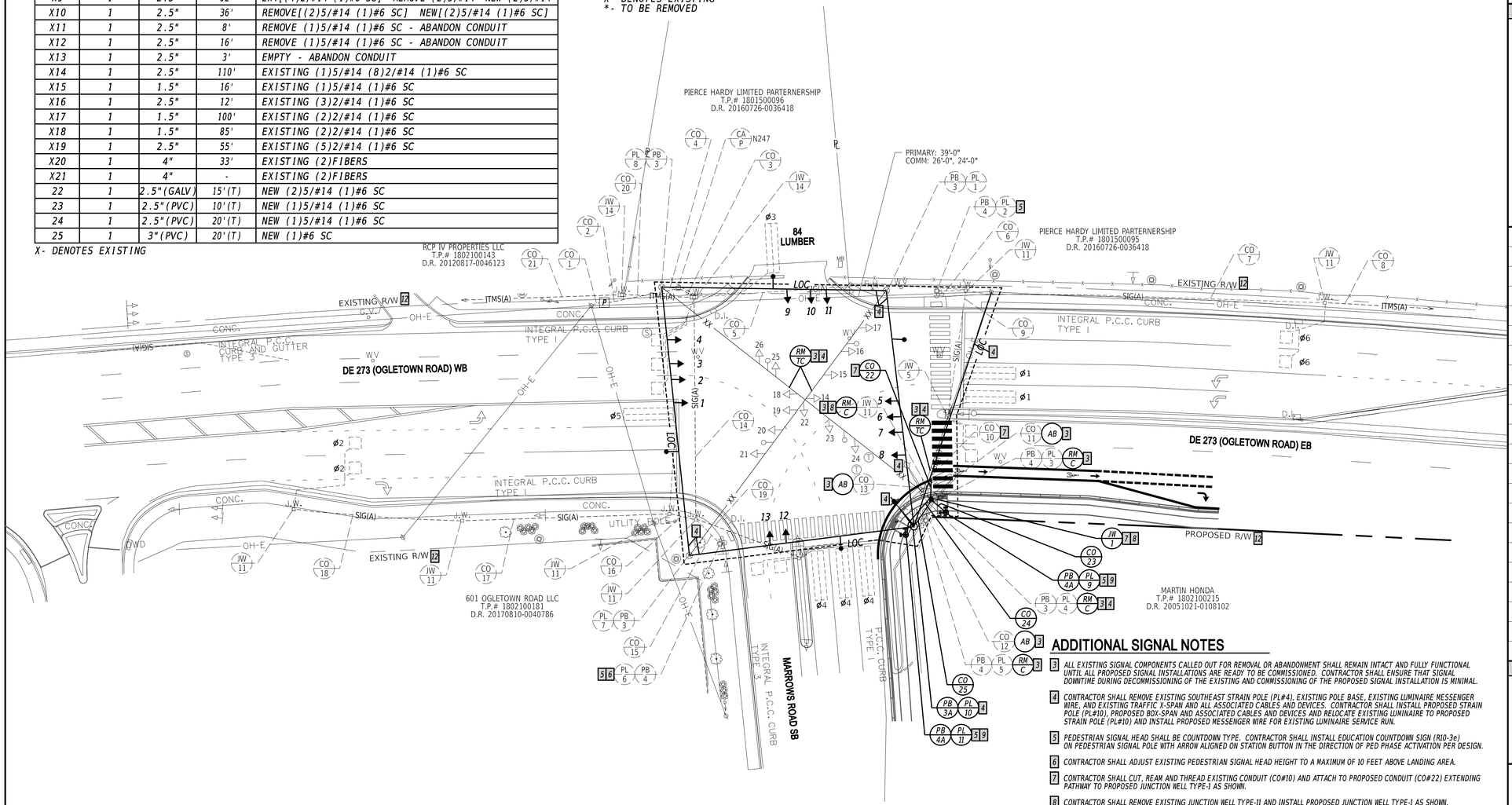
POLE NO.	POLE TYPE	HEIGHT	MATERIAL
X1	STRAIN	28'	STEEL
X2	PEDESTAL	10'	ALUMINUM
*X3	PEDESTAL	10'	ALUMINUM
*X4	STRAIN	28'	STEEL
*X5	PEDESTAL	10'	ALUMINUM
X6	PEDESTAL	10'	ALUMINUM
X7	STRAIN	28'	STEEL
X8	STRAIN	28'	STEEL
9	PEDESTAL	10'	ALUMINUM
10	STRAIN	28'	STEEL
11	PEDESTAL	10'	ALUMINUM

X- DENOTES EXISTING
**- TO BE REMOVED*

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	4% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
NORTH	113'	25.50'	4.52'	20.98'	16.98'
EAST	120'	25.00'	4.80'	20.20'	16.20'
SOUTH	114'	25.50'	4.56'	20.94'	16.94'
WEST	136'	25.35'	5.44'	19.91'	15.91'

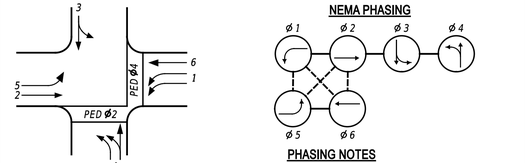
** FIELD ADJUSTMENTS AS REQUIRED*



ADDITIONAL SIGNAL NOTES

3. ALL EXISTING SIGNAL COMPONENTS CALLED OUT FOR REMOVAL OR ABANDONMENT SHALL REMAIN INTACT AND FULLY FUNCTIONAL UNTIL ALL PROPOSED SIGNAL INSTALLATIONS ARE READY TO BE COMMISSIONED. CONTRACTOR SHALL ENSURE THAT SIGNAL DOWNTIME DURING DECOMMISSIONING OF THE EXISTING AND COMMISSIONING OF THE PROPOSED SIGNAL INSTALLATION IS MINIMAL.
4. CONTRACTOR SHALL REMOVE EXISTING SOUTHEAST STRAIN POLE (PL#4), EXISTING POLE BASE, EXISTING LUMINAIRE MESSENGER WIRE, AND EXISTING TRAFFIC X-SPAN AND ALL ASSOCIATED CABLES AND DEVICES. CONTRACTOR SHALL INSTALL PROPOSED STRAIN POLE (PL#10), PROPOSED BOX-SPAN AND ASSOCIATED CABLES AND DEVICES AND RELOCATE EXISTING LUMINAIRE TO PROPOSED STRAIN POLE (PL#10) AND INSTALL PROPOSED MESSENGER WIRE FOR EXISTING LUMINAIRE SERVICE RUN.
5. PEDESTRIAN SIGNAL HEAD SHALL BE COUNTDOWN TYPE. CONTRACTOR SHALL INSTALL EDUCATION COUNTDOWN SIGN (R10-3e) ON PEDESTRIAN SIGNAL POLE WITH ARROW ALIGNED ON STATION BUTTON IN THE DIRECTION OF PED PHASE ACTIVATION PER DESIGN.
6. CONTRACTOR SHALL ADJUST EXISTING PEDESTRIAN SIGNAL HEAD HEIGHT TO A MAXIMUM OF 10 FEET ABOVE LANDING AREA.
7. CONTRACTOR SHALL CUT, REAM AND THREAD EXISTING CONDUIT (CO#10) AND ATTACH TO PROPOSED CONDUIT (CO#22) EXTENDING PATHWAY TO PROPOSED JUNCTION WELL TYPE-1 AS SHOWN.
8. CONTRACTOR SHALL REMOVE EXISTING JUNCTION WELL TYPE-11 AND INSTALL PROPOSED JUNCTION WELL TYPE-1 AS SHOWN. JUNCTION WELL SHALL BE INSTALLED FLUSH WITH ADJACENT GRADES.
9. CONTRACTOR SHALL INSTALL 18 INCHES OF SIDEWALK LANDING EXTENSION TO ENSURE PEDESTRIAN FACILITY ACCESSIBILITY.
10. TRAFFIC SIGNAL HEADS TO BE INSTALLED PER CURRENT TRAFFIC DESIGN MANUAL.
11. CONTRACTOR SHALL REFER TO DEVELOPER CIVIL PLANS FOR RIGHT OF WAY, SIGNING AND STRIPING, AND GRADING & GEOMETRICS INFORMATION, UNLESS NOTED OTHERWISE. PROPOSED TRAFFIC DESIGN IS BASED ON COORDINATION WITH DEVELOPER PLANS.
12. RIGHT-OF-WAY LINES SHOWN ON PLANS ARE REFERENCED FROM CONTRACT PLANS T201606114 - SIGNAL PLAN (DATED 3/25/2019), MCBRIDE & ZIEGLER, INC SIGNAL AGREEMENT PLAN (DATED 4/20/2020), AND 2019 DELAWARE STATE PLANE PARCELS.
13. FOR DURATION OF SIGNAL CONSTRUCTION, THE CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 47, FIGURE 6H-47A FOR TRAFFIC CONTROL OPERATIONS. ANY LANE CLOSURES SHALL BE LIMITED TO WEEK NIGHTS MONDAY-THURSDAY BETWEEN THE TIMES OF 8PM AND 6AM. CHANGEABLE MESSAGE BOARDS SHALL INCLUDE ANTICIPATED SIGNAL CONSTRUCTION NOTIFICATIONS.

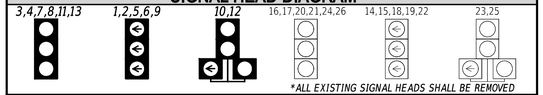
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



**ALL EXISTING SIGNAL HEADS SHALL BE REMOVED*

LEGEND

AB	ABANDON
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)
OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
PL X	EXISTING POLE IDENTIFIER (# OF POLE)
PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
RM C	REMOVE BY CONTRACTOR
RM O	REMOVE BY OTHERS
RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISH EYE)		
VIDEO DETECTION ZONE		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
CENTURY ENGINEERING
550 BAY ROAD
DOVER, DELAWARE 19901
(302) 734-9188

BRET A. MARTINE — No. 11947 — DELAWARE PROFESSIONAL ENGINEER

B. MARTINE — 12/18/2020 — DATE

THIS SEAL APPLIES TO THIS SHEET ONLY. SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — DATE 12/22/2020

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

SIGNALIZED INTERSECTION DEVELOPER IMPROVEMENTS

CONTRACT	T202109816	PERMIT NO.	N247
COUNTY	NEW CASTLE	DESIGNED BY:	M. KUBOVCIK
		CHECKED BY:	B. MARTINE

SIGNAL PLAN DE 273 (OGLETOWN ROAD) & MARROWS ROAD

SECTION: TRAFFIC
SHEET NO.: 1

LAST REVISED: 9/11/2018
PLOT DATE: 12-22-2020
11:28:38
G:\Projects\205031.00 (SR273 and Marrows Road Signal)\CADD FILES\Sheets\sig_N247_DE273& Marrows Rd.dgn

CONDUIT RUN SCHEDULE

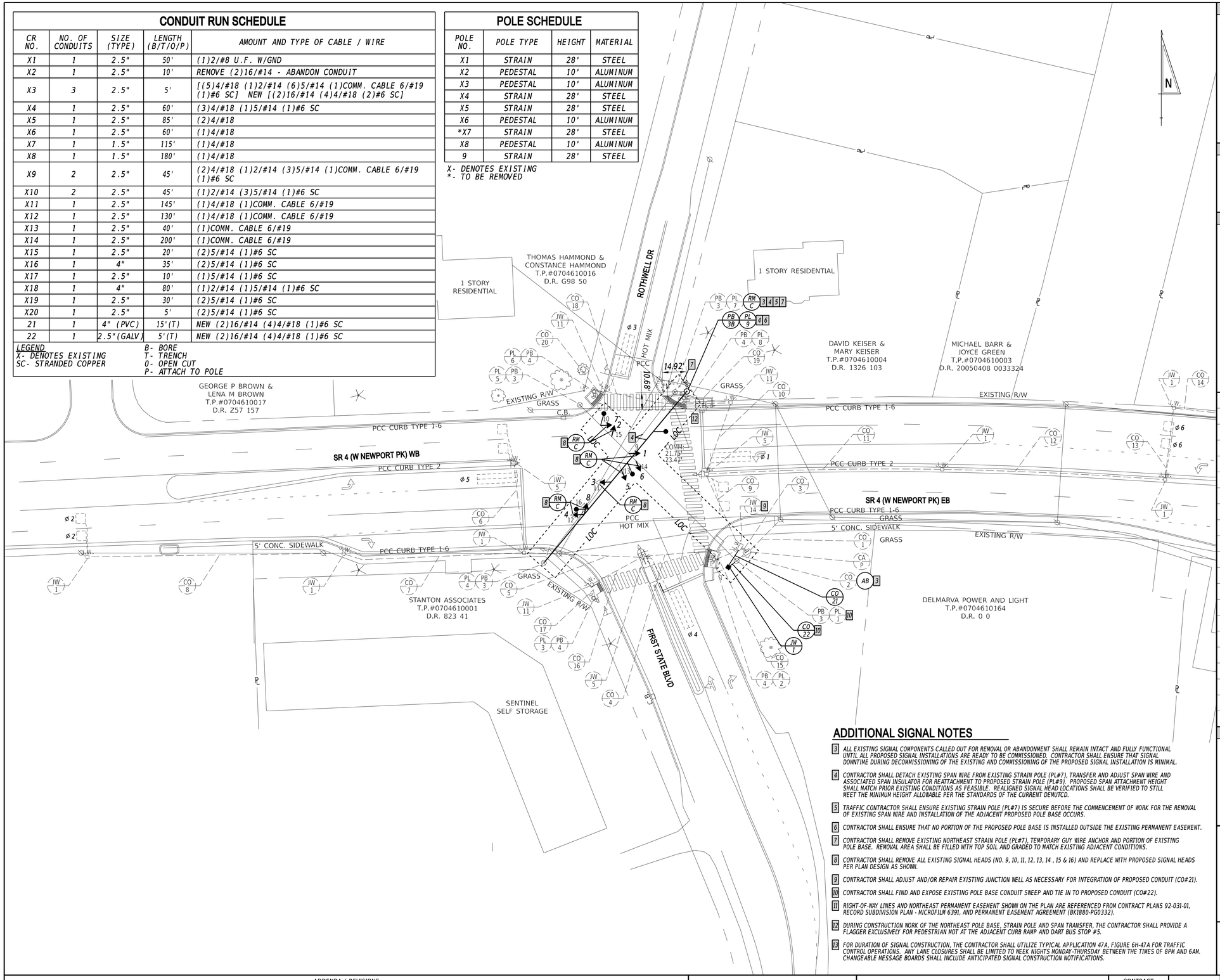
CR NO.	NO. OF CONDUITS	SIZE (TYPE)	LENGTH (B/T/O/P)	AMOUNT AND TYPE OF CABLE / WIRE
X1	1	2.5"	50'	(1)2/#8 U.F. W/GND
X2	1	2.5"	10'	REMOVE (2)16/#14 - ABANDON CONDUIT
X3	3	2.5"	5'	[(5)4/#18 (1)2/#14 (6)5/#14 (1)COMM. CABLE 6/#19 (1)#6 SC] NEW [(2)16/#14 (4)4/#18 (2)#6 SC]
X4	1	2.5"	60'	(3)4/#18 (1)5/#14 (1)#6 SC
X5	1	2.5"	85'	(2)4/#18
X6	1	2.5"	60'	(1)4/#18
X7	1	1.5"	115'	(1)4/#18
X8	1	1.5"	180'	(1)4/#18
X9	2	2.5"	45'	(2)4/#18 (1)2/#14 (3)5/#14 (1)COMM. CABLE 6/#19 (1)#6 SC
X10	2	2.5"	45'	(1)2/#14 (3)5/#14 (1)#6 SC
X11	1	2.5"	145'	(1)4/#18 (1)COMM. CABLE 6/#19
X12	1	2.5"	130'	(1)4/#18 (1)COMM. CABLE 6/#19
X13	1	2.5"	40'	(1)COMM. CABLE 6/#19
X14	1	2.5"	200'	(1)COMM. CABLE 6/#19
X15	1	2.5"	20'	(2)5/#14 (1)#6 SC
X16	1	4"	35'	(2)5/#14 (1)#6 SC
X17	1	2.5"	10'	(1)5/#14 (1)#6 SC
X18	1	4"	80'	(1)2/#14 (1)5/#14 (1)#6 SC
X19	1	2.5"	30'	(2)5/#14 (1)#6 SC
X20	1	2.5"	5'	(2)5/#14 (1)#6 SC
21	1	4" (PVC)	15'(T)	NEW (2)16/#14 (4)4/#18 (1)#6 SC
22	1	2.5"(GALV)	5'(T)	NEW (2)16/#14 (4)4/#18 (1)#6 SC

LEGEND
X- DENOTES EXISTING
SC- STRANDED COPPER
B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

POLE SCHEDULE

POLE NO.	POLE TYPE	HEIGHT	MATERIAL
X1	STRAIN	28'	STEEL
X2	PEDESTAL	10'	ALUMINUM
X3	PEDESTAL	10'	ALUMINUM
X4	STRAIN	28'	STEEL
X5	STRAIN	28'	STEEL
X6	PEDESTAL	10'	ALUMINUM
*X7	STRAIN	28'	STEEL
X8	PEDESTAL	10'	ALUMINUM
9	STRAIN	28'	STEEL

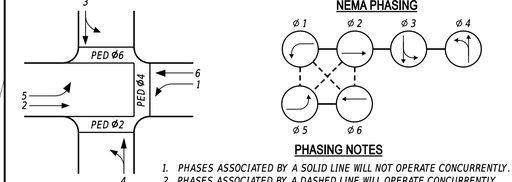
X- DENOTES EXISTING
**- TO BE REMOVED*



ADDITIONAL SIGNAL NOTES

3. *ALL EXISTING SIGNAL COMPONENTS CALLED OUT FOR REMOVAL OR ABANDONMENT SHALL REMAIN INTACT AND FULLY FUNCTIONAL UNTIL ALL PROPOSED SIGNAL INSTALLATIONS ARE READY TO BE COMMISSIONED. CONTRACTOR SHALL ENSURE THAT SIGNAL DOWNTIME DURING DECOMMISSIONING OF THE EXISTING AND COMMISSIONING OF THE PROPOSED SIGNAL INSTALLATION IS MINIMAL.*
4. *CONTRACTOR SHALL DETACH EXISTING SPAN WIRE FROM EXISTING STRAIN POLE (PL#7), TRANSFER AND ADJUST SPAN WIRE AND ASSOCIATED SPAN INSULATOR FOR REATTACHMENT TO PROPOSED STRAIN POLE (PL#9). PROPOSED SPAN ATTACHMENT HEIGHT SHALL MATCH PRIOR EXISTING CONDITIONS AS FEASIBLE. REALIGNED SIGNAL HEAD LOCATIONS SHALL BE VERIFIED TO STILL MEET THE MINIMUM HEIGHT ALLOWABLE PER THE STANDARDS OF THE CURRENT DEMUTCD.*
5. *TRAFFIC CONTRACTOR SHALL ENSURE EXISTING STRAIN POLE (PL#7) IS SECURE BEFORE THE COMMENCEMENT OF WORK FOR THE REMOVAL OF EXISTING SPAN WIRE AND INSTALLATION OF THE ADJACENT PROPOSED POLE BASE OCCURS.*
6. *CONTRACTOR SHALL ENSURE THAT NO PORTION OF THE PROPOSED POLE BASE IS INSTALLED OUTSIDE THE EXISTING PERMANENT EASEMENT.*
7. *CONTRACTOR SHALL REMOVE EXISTING NORTHEAST STRAIN POLE (PL#7), TEMPORARY GUY WIRE ANCHOR AND PORTION OF EXISTING POLE BASE. REMOVAL AREA SHALL BE FILLED WITH TOP SOIL AND GRADED TO MATCH EXISTING ADJACENT CONDITIONS.*
8. *CONTRACTOR SHALL REMOVE ALL EXISTING SIGNAL HEADS (NO. 9, 10, 11, 12, 13, 14 , 15 & 16) AND REPLACE WITH PROPOSED SIGNAL HEADS PER PLAN DESIGN AS SHOWN.*
9. *CONTRACTOR SHALL ADJUST AND/OR REPAIR EXISTING JUNCTION WELL AS NECESSARY FOR INTEGRATION OF PROPOSED CONDUIT (CO#21).*
10. *CONTRACTOR SHALL FIND AND EXPOSE EXISTING POLE BASE CONDUIT SWEEP AND TIE IN TO PROPOSED CONDUIT (CO#22).*
11. *RIGHT-OF-WAY LINES AND NORTHEAST PERMANENT EASEMENT SHOWN ON THE PLAN ARE REFERENCED FROM CONTRACT PLANS 92-031-01, RECORD SUBDIVISION PLAN - MICROFILM 6391, AND PERMANENT EASEMENT AGREEMENT (BK1880-PG0332).*
12. *DURING CONSTRUCTION WORK OF THE NORTHEAST POLE BASE, STRAIN POLE AND SPAN TRANSFER, THE CONTRACTOR SHALL PROVIDE A FLAGGER EXCLUSIVELY FOR PEDESTRIAN MOT AT THE ADJACENT CURB RAMP AND DART BUS STOP #5.*
13. *FOR DURATION OF SIGNAL CONSTRUCTION, THE CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 47A, FIGURE 6H-47A FOR TRAFFIC CONTROL OPERATIONS. ANY LANE CLOSURES SHALL BE LIMITED TO WEEK NIGHTS MONDAY-THURSDAY BETWEEN THE TIMES OF 8PM AND 6AM. CHANGEABLE MESSAGE BOARDS SHALL INCLUDE ANTICIPATED SIGNAL CONSTRUCTION NOTIFICATIONS.*

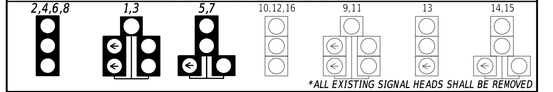
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



**ALL EXISTING SIGNAL HEADS SHALL BE REMOVED*

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	*OH #*	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	*PB X*	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	*PL X*	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	*PROPOSED SYMBOL*
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
CENTURY ENGINEERING
550 BAY ROAD
DOVER, DELAWARE 19901
(302) 734-9188

3/1/2021
DATE

BRET A. MARTINE — No. 11947 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — 3/1/2021 DATE

ADDENDA / REVISIONS			

SCALE
0 30 60 90
FEET

SIGNAL MODIFICATIONS

CONTRACT	T202104002	PERMIT NO.	N566
COUNTY	NEW CASTLE	DESIGNED BY:	M.KUBOVCIK
		CHECKED BY:	B.MARTINE

SIGNAL PLAN
SR 4 & ROTHWELL DR
(FIRST STATE BLVD)

SECTION	
CEI	
SHEET NO.	
1	

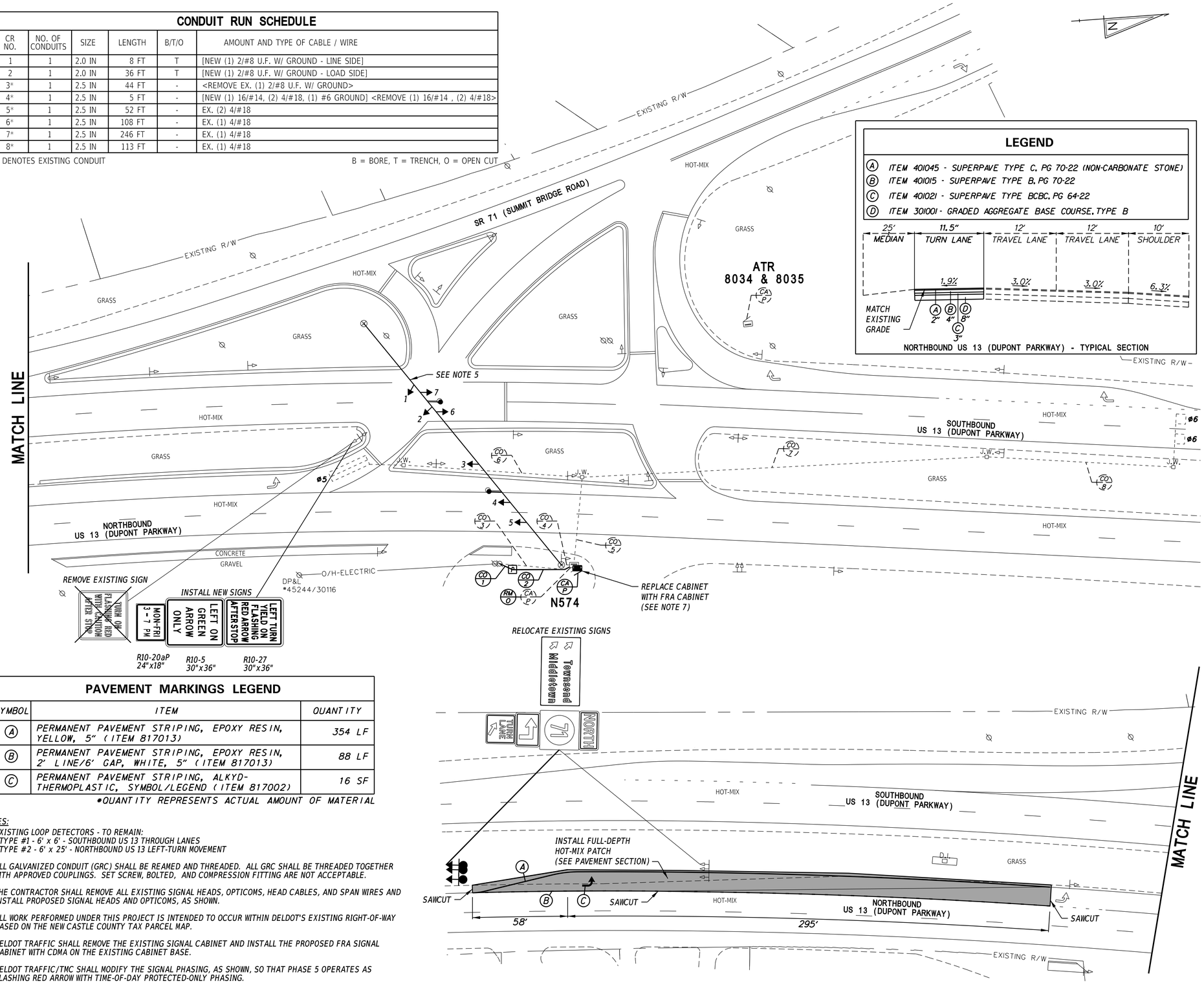
LAST REVISED: 9/11/2018
1-MAR-2021
11:40:
G:\Projects\1850033.00 TRAFFIC - 1883 - 21850033.05 SR4 and Rothwell\CADD\Sheets\sg_N566_SR4&Rothwell.dgn

CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2.0 IN	8 FT	T	[NEW (1) 2/#8 U.F. W/ GROUND - LINE SIDE]
2	1	2.0 IN	36 FT	T	[NEW (1) 2/#8 U.F. W/ GROUND - LOAD SIDE]
3*	1	2.5 IN	44 FT	-	<REMOVE EX. (1) 2/#8 U.F. W/ GROUND>
4*	1	2.5 IN	5 FT	-	[NEW (1) 16/#14, (2) 4/#18, (1) #6 GROUND] <REMOVE (1) 16/#14 , (2) 4/#18>
5*	1	2.5 IN	52 FT	-	EX. (2) 4/#18
6*	1	2.5 IN	108 FT	-	EX. (1) 4/#18
7*	1	2.5 IN	246 FT	-	EX. (1) 4/#18
8*	1	2.5 IN	113 FT	-	EX. (1) 4/#18

* DENOTES EXISTING CONDUIT

B = BORE, T = TRENCH, O = OPEN CUT



LEGEND

- (A) ITEM 401045 - SUPERPAVE TYPE C, PG 70-22 (NON-CARBONATE STONE)
- (B) ITEM 401015 - SUPERPAVE TYPE B, PG 70-22
- (C) ITEM 401021 - SUPERPAVE TYPE BCBC, PG 64-22
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B

NORTHBOUND US 13 (DUPONT PARKWAY) - TYPICAL SECTION

PAVEMENT MARKINGS LEGEND

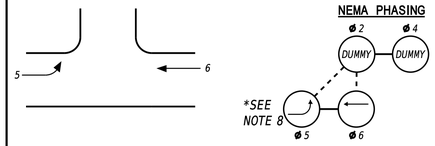
SYMBOL	ITEM	QUANTITY
(A)	PERMANENT PAVEMENT STRIPING, EPOXY RESIN, YELLOW, 5" (ITEM 817013)	354 LF
(B)	PERMANENT PAVEMENT STRIPING, EPOXY RESIN, 2' LINE/6' GAP, WHITE, 5" (ITEM 817013)	88 LF
(C)	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, SYMBOL/LEGEND (ITEM 817002)	16 SF

*QUANTITY REPRESENTS ACTUAL AMOUNT OF MATERIAL

NOTES:

3. EXISTING LOOP DETECTORS - TO REMAIN:
   TYPE #1 - 6' x 6' - SOUTHBOUND US 13 THROUGH LANES
   TYPE #2 - 6' x 25' - NORTHBOUND US 13 LEFT-TURN MOVEMENT
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
5. THE CONTRACTOR SHALL REMOVE ALL EXISTING SIGNAL HEADS, OPTICOMS, HEAD CABLES, AND SPAN WIRES AND INSTALL PROPOSED SIGNAL HEADS AND OPTICOMS, AS SHOWN.
6. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON THE NEW CASTLE COUNTY TAX PARCEL MAP.
7. DELDOT TRAFFIC SHALL REMOVE THE EXISTING SIGNAL CABINET AND INSTALL THE PROPOSED FRA SIGNAL CABINET WITH CDMA ON THE EXISTING CABINET BASE.
8. DELDOT TRAFFIC/TMC SHALL MODIFY THE SIGNAL PHASING, AS SHOWN, SO THAT PHASE 5 OPERATES AS FLASHING RED ARROW WITH TIME-OF-DAY PROTECTED-ONLY PHASING.

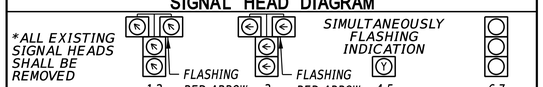
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WRA" SECTION DESIGNATION.

4/15/2020
DATE

CHRISTINA BUCKLEY — No. 16204 — PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF TRAFFIC ENGINEER

4/16/2020
DATE

ADDENDA / REVISIONS

1 EXTENDED NB LEFT-TURN LANE, CHANGED SIGNAL PHASING, AND CONVERTED NB LEFT-TURN PHASING TO MUTCD-COMPLIANT FLASHING RED ARROW
B.M.W. (WRA) 03-20 (CONTRACT #T201909202)

SCALE
0 30 60 90
FEET

CONTRACT	T201909202	PERMIT NO.	N574
COUNTY	NEW CASTLE	DESIGNED BY:	B.M.W. (WRA)
		CHECKED BY:	M.J.B. (WRA)

SIGNAL PLAN
US 13 (DUPONT PARKWAY) AT SR 71 (SUMMIT BRIDGE ROAD) (A.K.A., "H & H")

SECTION	
WRA	
SHEET NO.	
1	

LAST REVISED: 9/11/2018
4/7/2020
3:35:53 PM
N:\32128-001\CADD\SIG01_US 13 @ SR 71.dgn

CONDUIT RUN SCHEDULE

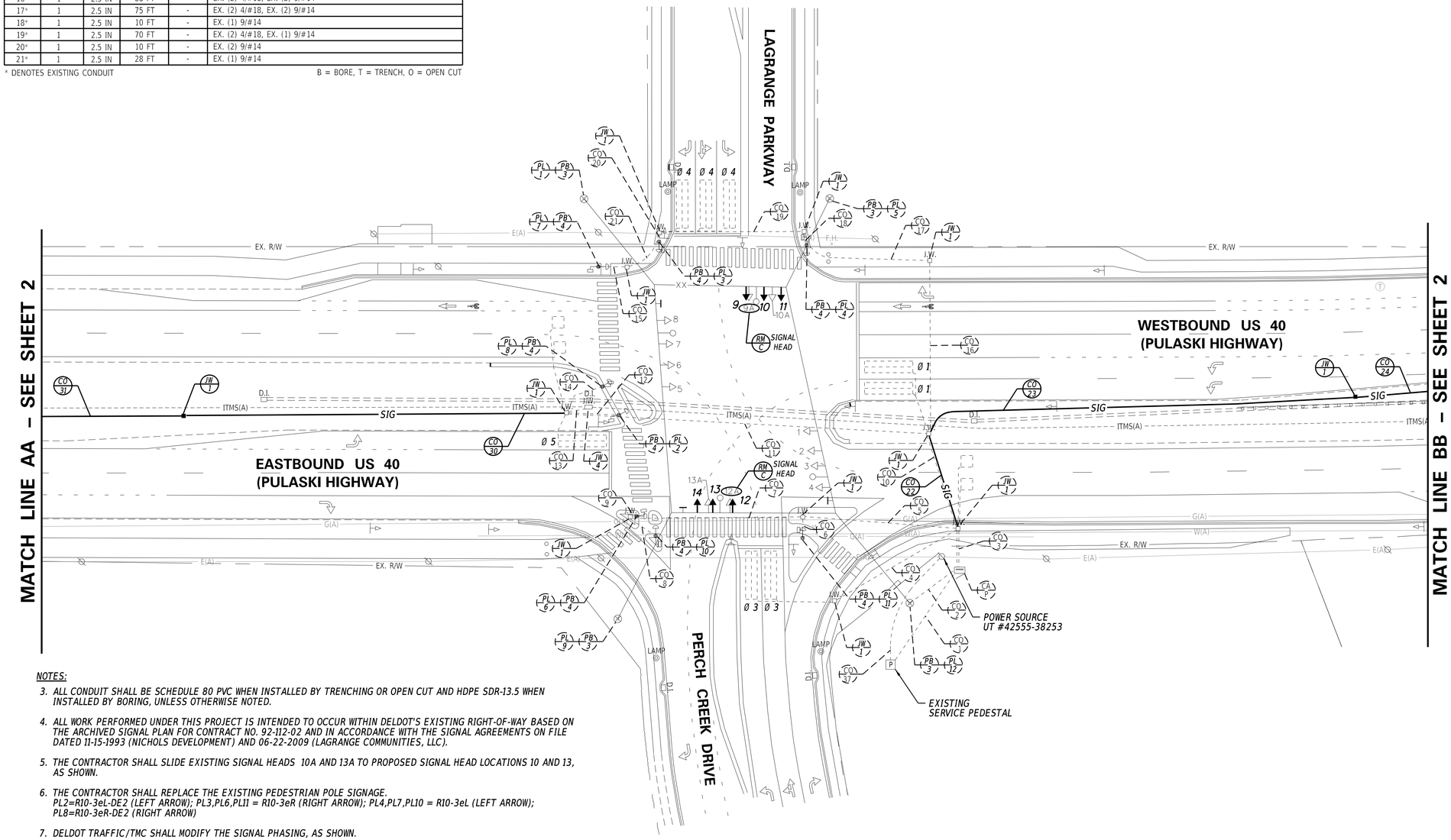
CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
1*	1	1.5 IN	-	-	EX. (1) 2/#8 U.F. W/GROUND - LOAD SIDE
2*	1	2.5 IN	35 FT	-	EX. (4) 4/#18, EX. (2) 16/#14
3*	2	2.5 IN	18 FT	- -	EX. (10) 4/#18, EX. (5) 9/#14, EX. (1) 12 CNT FIBER, [NEW (4) 4#14, (2) #6 GROUND]
4*	1	2.5 IN	71 FT	-	EX. (1) 4/#18
5*	1	2.5 IN	79 FT	-	EX. (2) 9/#14
6*	1	2.5 IN	12 FT	-	EX. (1) 9/#14
7*	1	2.5 IN	85 FT	-	EX. (1) 9/#14
8*	1	2.5 IN	17 FT	-	EX. (1) 9/#14
9*	1	2.5 IN	6 FT	-	EX. (1) 9/#14
10*	1	2.5 IN	50 FT		EX.(7) 4/#18, EX. (3) 9/#14, EX. (1) 12 CNT FIBER
11*	1	2.5 IN	186 FT	-	EX. (3) 4/#18, EX. (1) 9/#14, EX. (1) 12 CNT FIBER, [NEW (2) 4#14, (1) #6 GROUND]
12*	1	2.5 IN	30 FT	-	EX. (2) 9/#14
13*	1	4.0 IN	10 FT	-	EX. (1) 12 CNT FIBER
14*	1	2.5 IN	30 FT	-	EX. (1) 9/#14
15*	1	2.5 IN	15 FT	-	EX. (1) 9/#14
16*	1	2.5 IN	88 FT	-	EX. (2) 4/#18, EX. (2) 9/#14
17*	1	2.5 IN	75 FT	-	EX. (2) 4/#18, EX. (2) 9/#14
18*	1	2.5 IN	10 FT	-	EX. (1) 9/#14
19*	1	2.5 IN	70 FT	-	EX. (2) 4/#18, EX. (1) 9/#14
20*	1	2.5 IN	10 FT	-	EX. (2) 9/#14
21*	1	2.5 IN	28 FT	-	EX. (1) 9/#14

* DENOTES EXISTING CONDUIT — B = BORE, T = TRENCH, O = OPEN CUT

CONDUIT RUN SCHEDULE CONT.

CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
22	1	4.0 IN	50 FT	B	[NEW (4) 4/#14, (1) #6 GROUND]
23	1	4.0 IN	223 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
24	1	4.0 IN	230 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
25	1	4.0 IN	215 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
26	1	4.0 IN	48 FT	B	[NEW (1) 4/#14, (1) #6 GROUND]
27	1	4.0 IN	122 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]
28	1	3.0 IN	8 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]
29	1	3.0 IN	5 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]
30	1	4.0 IN	196 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
31	1	4.0 IN	205 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
32	1	4.0 IN	198 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
33	1	4.0 IN	198 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
34	1	4.0 IN	50 FT	B	[NEW (1) 4/#14, (1) #6 GROUND]
35	1	3.0 IN	10 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]
36	1	3.0 IN	10 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]
37*	1	1.5 IN	60 FT	-	EX. (1) 2/#8 U.F. W/GROUND - LINE SIDE

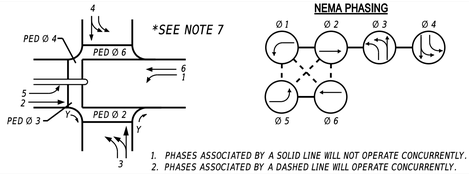
* DENOTES EXISTING CONDUIT — B = BORE, T = TRENCH, O = OPEN CUT



NOTES:

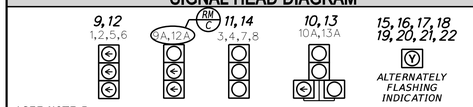
3. *ALL CONDUIT SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING OR OPEN CUT AND HDPE SDR-13.5 WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED.*
4. *ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON THE ARCHIVED SIGNAL PLAN FOR CONTRACT NO. 92-112-02 AND IN ACCORDANCE WITH THE SIGNAL AGREEMENTS ON FILE DATED 11-15-1993 (NICHOLS DEVELOPMENT) AND 06-22-2009 (LAGRANGE COMMUNITIES, LLC).*
5. *THE CONTRACTOR SHALL SLIDE EXISTING SIGNAL HEADS 10A AND 13A TO PROPOSED SIGNAL HEAD LOCATIONS 10 AND 13, AS SHOWN.*
6. *THE CONTRACTOR SHALL REPLACE THE EXISTING PEDESTRIAN POLE SIGNAGE.*
   PL2=R10-3eL-DE2 (LEFT ARROW); PL3,PL6,PL11 = R10-3eR (RIGHT ARROW); PL4,PL7,PL10 = R10-3eL (LEFT ARROW); PL8=R10-3eR-DE2 (RIGHT ARROW)
7. *DELDOT TRAFFIC/TMC SHALL MODIFY THE SIGNAL PHASING, AS SHOWN.*

SIGNAL PHASING



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

SIGNAL HEAD DIAGRAM



**SEE NOTE 5*

LEGEND

AB	*ABANDON*	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	*OH #*	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	*PB X*	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	*PL X*	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	*PROPOSED SYMBOL*
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		*R/W*
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

7/19/2021
DATE

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WRA" SECTION DESIGNATION.

MICHAEL J.A. BUCKLEY — No. 16224 — REGISTERED PROFESSIONAL ENGINEER

SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING

7/20/2021
DATE

ADDENDA / REVISIONS	
1	*INSTALLED NEW ACTIVE WARNING HIB ASSEMBLIES ON US 40. B. DONOWAY(WRA) 04-21 (CONTRACT #T202204001)*

SCALE
0 30 60 90
FEET

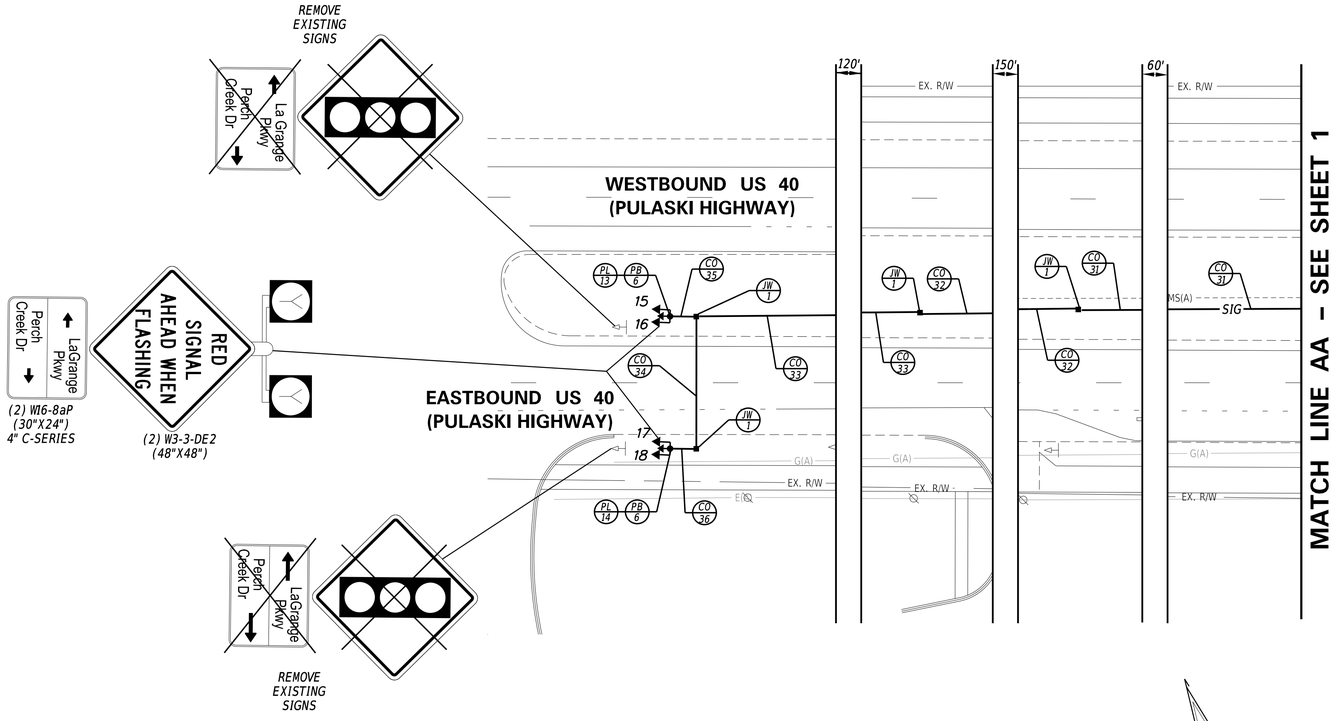
FY22 I.I. PROGRAM, FEDERAL

CONTRACT	T202204001	PERMIT NO.	N626
COUNTY	NEW CASTLE	DESIGNED BY:	B. DONOWAY
		CHECKED BY:	M. BUCKLEY

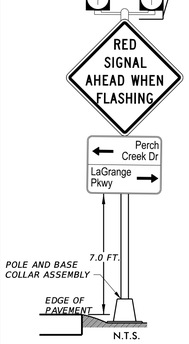
ACTIVE HIB PLAN
US 40 (PULASKI HIGHWAY)
@ LAGRANGE PARKWAY/
PERCH CREEK DRIVE

SECTION
WRA
SHEET NO.
1

LAST REVISED: 9/11/2018
7/21/2021
9:34:52 AM
N:\021255\03\CADD\SIG01_US40 @ Lagrange_Perch Creek.dgn

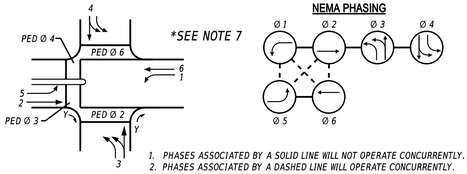


ACTIVE HIB ASSEMBLY



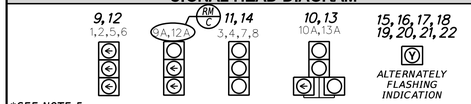
1. HAZARD IDENTIFICATION BEACON (HIB) ASSEMBLY SHALL CONSIST OF A PAIR OF ALTERNATELY FLASHING BEACONS AND A RED SIGNAL AHEAD WHEN FLASHING SIGN (W3-3-DE2, 48" x 48") WITH AN ADVANCE STREET NAME PLAQUE SIGN (W16-8aP, 30" x 24") MOUNTED ON A PEDESTAL POLE.
2. THE ACTIVE BEACONS SHALL BE 12-INCH YELLOW L.E.D. ONE-SECTION TRAFFIC SIGNAL HEADS.
3. THE ACTIVE BEACONS SHALL OPERATE 24 HOURS A DAY, 7 DAYS A WEEK USING A DELAY TIMER CIRCUIT.
4. THE FLASHING RATE SHALL NOT BE LESS THAN 50 NOR MORE THAN 60 TIMES PER MINUTE.
5. THE ILLUMINATED PERIOD OF EACH FLASH SHALL NOT BE LESS THAN 1 /2 NOR MORE THAN 2/3 OF THE FLASH CYCLE.
6. SIGNFIX (OR SIMILAR) SHALL BE INSTALLED ON THE BACK OF THE PROPOSED SIGNS FOR MOUNTING SUPPORT.
7. THE PEDESTAL POLE SHALL BE CONTINUOUS SPUN ALUMINUM, SCHEDULE 80. SPLICING POLE EXTENSIONS SHALL BE PROHIBITED.

SIGNAL PHASING



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

SIGNAL HEAD DIAGRAM



*SEE NOTE 5

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	*PROPOSED SYMBOL*
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

CONDUIT RUN SCHEDULE

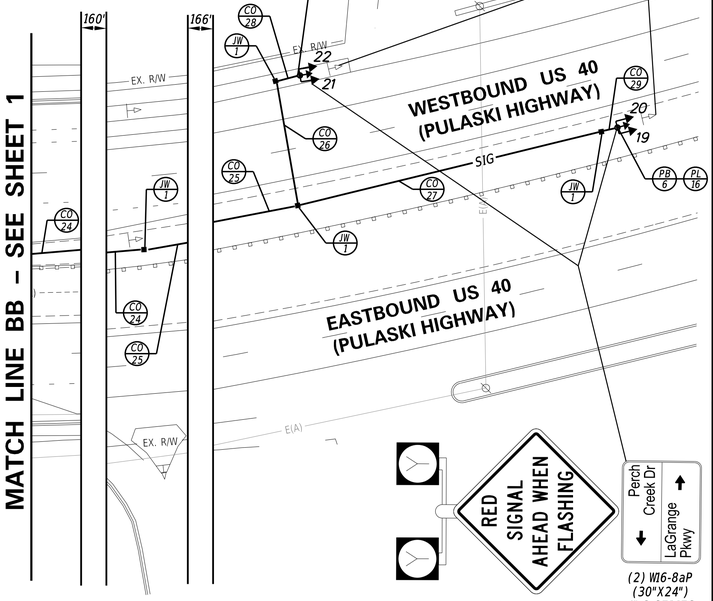
CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
1*	1	1.5 IN	-	-	EX. (1) 2/#8 U.F. W/GROUND - LOAD SIDE
2*	1	2.5 IN	35 FT	-	EX. (4) 4/#18, EX. (2) 16/#14
3*	2	2.5 IN	18 FT	- -	EX. (10) 4/#18, EX. (5) 9/#14, EX. (1) 12 CNT FIBER, [NEW (4) 4#14, (2) #6 GROUND]
4*	1	2.5 IN	71 FT	-	EX. (1) 4/#18
5*	1	2.5 IN	79 FT	-	EX. (2) 9/#14
6*	1	2.5 IN	12 FT	-	EX. (1) 9/#14
7*	1	2.5 IN	85 FT	-	EX. (1) 9/#14
8*	1	2.5 IN	17 FT	-	EX. (1) 9/#14
9*	1	2.5 IN	6 FT	-	EX. (1) 9/#14
10*	1	2.5 IN	50 FT		EX.(7) 4/#18, EX. (3) 9/#14, EX. (1) 12 CNT FIBER
11*	1	2.5 IN	186 FT	-	EX. (3) 4/#18, EX. (1) 9/#14, EX. (1) 12 CNT FIBER, [NEW (2) 4#14, (1) #6 GROUND]
12*	1	2.5 IN	30 FT	-	EX. (2) 9/#14
13*	1	4.0 IN	10 FT	-	EX. (1) 12 CNT FIBER
14*	1	2.5 IN	30 FT	-	EX. (1) 9/#14
15*	1	2.5 IN	15 FT	-	EX. (1) 9/#14
16*	1	2.5 IN	88 FT	-	EX. (2) 4/#18, EX. (2) 9/#14
17*	1	2.5 IN	75 FT	-	EX. (2) 4/#18, EX. (2) 9/#14
18*	1	2.5 IN	10 FT	-	EX. (1) 9/#14
19*	1	2.5 IN	70 FT	-	EX. (2) 4/#18, EX. (1) 9/#14
20*	1	2.5 IN	10 FT	-	EX. (2) 9/#14
21*	1	2.5 IN	28 FT	-	EX. (1) 9/#14

* DENOTES EXISTING CONDUIT — B = BORE, T = TRENCH, O = OPEN CUT

CONDUIT RUN SCHEDULE CONT.

CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
22	1	4.0 IN	50 FT	B	[NEW (4) 4/#14, (1) #6 GROUND]
23	1	4.0 IN	223 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
24	1	4.0 IN	230 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
25	1	4.0 IN	215 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
26	1	4.0 IN	48 FT	B	[NEW (1) 4/#14, (1) #6 GROUND]
27	1	4.0 IN	122 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]
28	1	3.0 IN	8 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]
29	1	3.0 IN	5 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]
30	1	4.0 IN	196 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
31	1	4.0 IN	205 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
32	1	4.0 IN	198 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
33	1	4.0 IN	198 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
34	1	4.0 IN	50 FT	B	[NEW (1) 4/#14, (1) #6 GROUND]
35	1	3.0 IN	10 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]
36	1	3.0 IN	10 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]
37*	1	1.5 IN	60 FT	-	EX. (1) 2/#8 U.F. W/GROUND - LINE SIDE

* DENOTES EXISTING CONDUIT — B = BORE, T = TRENCH, O = OPEN CUT



NOTES:

3. *ALL CONDUIT SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING OR OPEN CUT AND HDPE SDR-13.5 WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED.*
4. *ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON THE ARCHIVED SIGNAL PLAN FOR CONTRACT NO. 92-112-02 AND IN ACCORDANCE WITH THE SIGNAL AGREEMENTS ON FILE DATED 11-15-1993 (NICHOLS DEVELOPMENT) AND 06-22-2009 (LAGRANGE COMMUNITIES, LLC).*
5. *THE CONTRACTOR SHALL SLIDE EXISTING SIGNAL HEADS 10A AND 13A TO PROPOSED SIGNAL HEAD LOCATIONS 10 AND 13, AS SHOWN.*
6. *THE CONTRACTOR SHALL REPLACE THE EXISTING PEDESTRIAN POLE SIGNAGE. PL2=R10-3eL-DE2 (LEFT ARROW); PL3,PL6,PL11 = R10-3eR (RIGHT ARROW); PL4,PL7,PL10 = R10-3eL (LEFT ARROW); PL8=R10-3eR-DE2 (RIGHT ARROW)*
7. *DELDOT TRAFFIC/TMC SHALL MODIFY THE SIGNAL PHASING, AS SHOWN.*

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WRA" SECTION DESIGNATION.

7/19/2021
DATE

MICHAEL A. BUCKLEY — No. 19234 — REGISTERED PROFESSIONAL ENGINEER

SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING

7/20/2021
DATE

ADDENDA / REVISIONS

1 *INSTALLED NEW ACTIVE WARNING HIB ASSEMBLIES ON US 40. B. DONOWAY(WRA) 04-21 (CONTRACT #T202204001)*

SCALE 0 30 60 90 FEET

FY22 I.I. PROGRAM, FEDERAL

CONTRACT	PERMIT NO.	N626	SECTION
T202204001	DESIGNED BY:	B. DONOWAY	WRA
COUNTY	CHECKED BY:	M. BUCKLEY	SHEET NO.
NEW CASTLE			2

ACTIVE HIB PLAN US 40 (PULASKI HIGHWAY) @ LAGRANGE PARKWAY/ PERCH CREEK DRIVE

LAST REVISED: 9/11/2018
7/21/2021
9:33:35 AM
N:\3215\01\3\CADD\SIG02_US40 @ Lagrange_Perch Creek.dgn

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/ WIRE
X1A	1	2"	-	46'	-	REMOVE (1)2/#8 U.F. W/GROUND - ABANDON CONDUIT
1B	1	2"	GALV	40'	T	NEW (1)2/#8 U.F. W/GROUND - LOAD SIDE
1C	1	2"	GALV	10'/30'	T/P	NEW (3)1/#8 THHN SC - LINE SIDE
X2	3	2.5"	-	5'	-	(2)16/#14 (2)12 CNT MM REMOVE [(8)4/#18 (1)9/#14] NEW [(9)2/#14 (6)5/#14 (3)#6 SC]
X3	1	2.5"	-	30'	-	(4)4/#18 (1)9/#14 (2)16/#14 NEW (1)#6 SC
X4	1	2.5"	-	30'	-	REMOVE (1)9/#14 - ABANDON CONDUIT
X5	1	2.5"	-	165'	-	REMOVE (1)4/#18 NEW [(1)2/#14 (1)#6 SC]
X6	1	2.5"	-	180'	-	REMOVE (1)4/#18 - AB CONDUIT NEW[(1)2/#14 (1)#6 SC]
X7	1	1.5"	-	15'	-	REMOVE (2)4/#18 NEW (2)1/#14
X8	1	2.5"	-	105'	-	REMOVE [(4)4/#18 (1)9/#14] NEW [(3)2/#14 (2)5/#14 (1)#6 SC]
X9	1	2.5"	-	15'	-	REMOVE (1)9/#14 - ABANDON CONDUIT
X10	1	2.5"	-	130'	-	REMOVE (2)4/#18 - ABANDON CONDUIT
X11	1	1.5"	-	170'	-	REMOVE (1)4/#18 NEW [(1)2/#14 (1)#6 SC]
X12	1	1.5"	-	175'	-	REMOVE (1)4/#18 - AB CONDUIT NEW[(1)2/#14 (1)#6 SC]
X13	1	2.5"	-	75'	-	REMOVE (1)4/#18 - ABANDON CONDUIT
X14	1	2.5"	-	90'	-	REMOVE (1)4/#18 - ABANDON CONDUIT
15	1	2.5"	PVC	20'	T	NEW (2)5/#14 (1)#6 SC
16	1	2.5"	PVC	15'	T	NEW (2)5/#14 (1)#6 SC
17	1	4"	PVC	30'	T	NEW (2)2/#14 (1)#6 SC
18	1	2.5"	PVC	20'	T	NEW (1)5/#14 (1)#6 SC
19	1	4"	HDPE	90'	B	NEW (2)2/#14 (1)5/#14 (1)#6 SC
20	1	4"	HDPE	65'	B	NEW (3)2/#14 (1)5/#14 (1)#6 SC
21	1	2.5"	PVC	5'	T	NEW (1)5/#14 (1)#6 SC
22	1	4"	HDPE	100'	B	NEW (4)2/#14 (2)5/#14 (1)#6 SC
XF23	1	2.5"	-	95'	-	EXISTING (2)12 CNT MM
XF24	1	2.5"	-	350'	-	EXISTING (1)12 CNT MM (1)48 CNT SM
	1	2.5"	-	350'	-	EXISTING (2)12 CNT MM
XF25	1	2.5"	-	350'	-	EXISTING (1)12 CNT MM (1)48 CNT SM
XF26	1	2.5"	-	195'	-	EXISTING (1)12 CNT MM (1)48 CNT SM

LEGEND
X- DENOTES EXISTING
SC- STRANDED COPPER
B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE
MM- MULTI-MODE FIBER OPTIC CABLE
SM- SINGLE-MODE FIBER OPTIC CABLE

ADDITIONAL SIGNAL NOTES

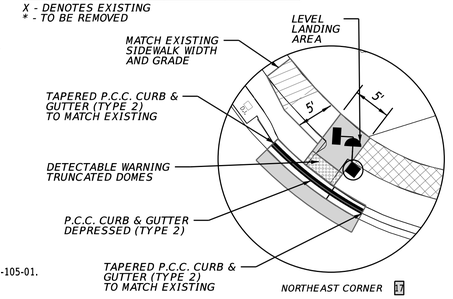
3. ALL EXISTING SIGNAL COMPONENTS CALLED OUT FOR REMOVAL OR ABANDONMENT SHALL REMAIN INTACT AND FULLY FUNCTIONAL UNTIL ALL PROPOSED SIGNAL INSTALLATIONS ARE READY TO BE COMMISSIONED. CONTRACTOR SHALL ENSURE THAT SIGNAL DOWNTIME DURING DECOMMISSIONING OF THE EXISTING AND COMMISSIONING OF THE PROPOSED SIGNAL INSTALLATION IS MINIMAL.
4. PEDESTRIAN SIGNAL HEADS SHALL BE COUNT-DOWN TYPE.
5. CONTRACTOR SHALL INSTALL EDUCATION COUNTDOWN PEDESTRIAN SIGN (R10-3e) ON ALL SINGLE PEDESTRIAN SIGNAL MOUNTED POLES PER DESIGN.
6. CONTRACTOR SHALL INSTALL EDUCATION COUNTDOWN PEDESTRIAN SIGNS (R10-3e-DE) ON ALL DOUBLE PEDESTRIAN SIGNAL MOUNTED POLES WITH ARROWS ALIGNED ON STATION BUTTONS IN THE DIRECTION OF PED PHASE ACTIVATION PER DESIGN.
7. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE PEDESTRIAN CONNECTION WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK.
8. ALL CROSSWALK PAVEMENT MARKINGS SHALL BE 10 FEET IN WIDTH.
9. CONTRACTOR SHALL RESET, ADJUST, AND/OR REPAIR EXISTING JUNCTION WELL AS NECESSARY FOR INTEGRATION OF PROPOSED CONDUIT, SAW CUT LOOPS AND/OR TO FINISH FLUSH WITH FINAL GRADES. BOND AND GROUND.
10. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY AGENCY FOR THE PROVISION OF ADA STANDARD SLIP RESISTANT MANHOLE LID AND FOR ANY ADJUSTMENTS TO TOP OF LID TO ENSURE IT IS FLUSH WITH PROPOSED CURB RAMP GRADES.
11. CONTRACTOR SHALL INTERCEPT EXISTING CONDUIT (CO-1A), CUT AND INSTALL PROPOSED CONDUIT (CO-1B) AS SHOWN ON PLAN.
12. CONTRACTOR SHALL INTERCEPT EXISTING CONDUIT (CO-11), CUT AND TIE INTO PROPOSED JUNCTION WELL AS SHOWN ON PLAN.
13. CONTRACTOR SHALL INTERCEPT EXISTING CONDUIT (CO-12), CUT AND TIE INTO PROPOSED JUNCTION WELL AS SHOWN ON PLAN.
14. CONTRACTOR SHALL INTERCEPT EXISTING CONDUIT (CO-6), CUT AND TIE INTO PROPOSED JUNCTION WELL AS SHOWN ON PLAN.
15. CONTRACTOR SHALL INSTALL CORNER TUBULAR MARKERS ON PROPOSED ISLAND.
16. DART BUS STOP PAD SHALL BE REMOVED AND RELOCATED TO DART COORDINATED LOCATION SHOWN ON PLAN.
17. CONTRACTOR SHALL REFER TO P&R NORTH XII, FY-2016 CONSTRUCTION DETAILS FOR CURB RAMP SLOPES, SIDEWALK GRADES AND GEOMETRICS.
18. EXISTING RIGHT OF WAY AND EXISTING PERMANENT EASEMENT WAS OBTAINED FROM RIGHT OF WAY PLANS DATED JULY 29, 1998 PER CONTRACT 79-105-01.

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
X1	STRAIN	32'	STEEL
*X2	PEDESTRIAN	10'	ALUMINUM
3	PEDESTRIAN	10'	ALUMINUM
X4	STRAIN	32'	STEEL
5	PEDESTRIAN	10'	ALUMINUM
X6	STRAIN	32'	STEEL
7	PEDESTRIAN	10'	ALUMINUM
8	PEDESTRIAN	10'	ALUMINUM
*X9	PEDESTRIAN	10'	ALUMINUM
X10	STRAIN	32'	STEEL

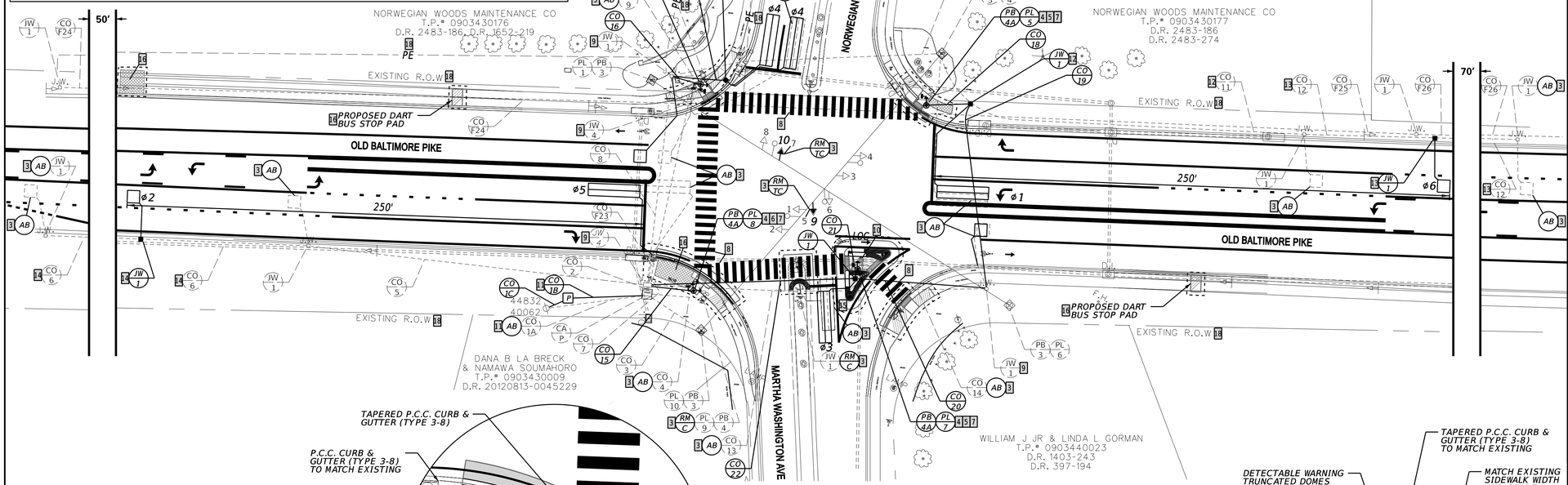
X - DENOTES EXISTING
* - TO BE REMOVED

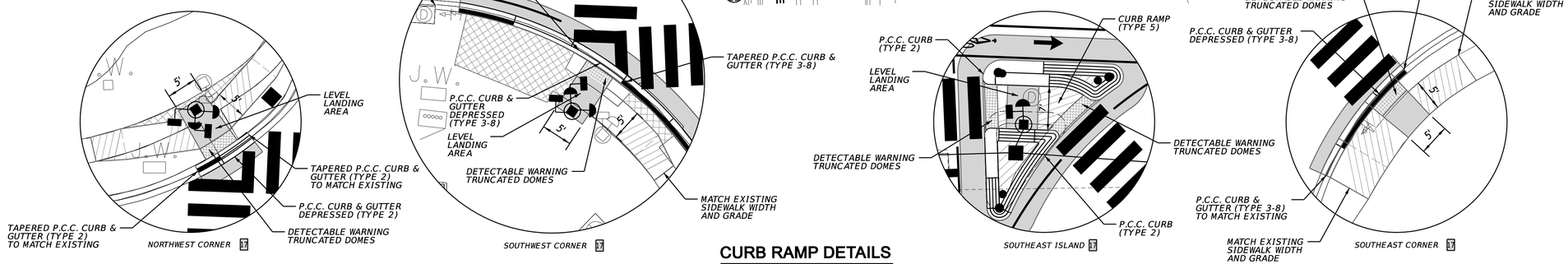
OLD BALTIMORE PIKE IS ASSUMED TO RUN IN EAST-WEST DIRECTION.



CURB RAMP DETAIL

SCALE: 1"=10'

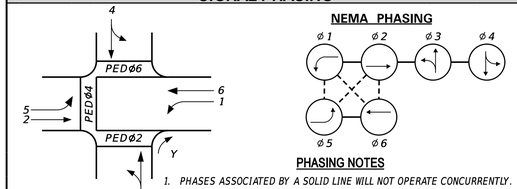




CURB RAMP DETAILS

SCALE: 1"=10'

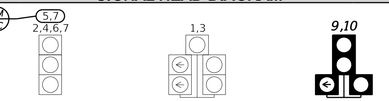
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
VIDEO DETECTOR		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION ZONE		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
550 Bay Road
DOVER, DELAWARE 19901
(302) 734-9188

BRET A. MARTINE — No. 11947 — DELAWARE PROFESSIONAL ENGINEER

01/19/2021
THIS SEAL APPLIES TO THIS SHEET ONLY. DATE

SEAL

CONCURRENCE FOR INSTALLATION

1/22/2021
CHIEF OF TRAFFIC ENGINEERING DATE

ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

PAVEMENT & REHABILITATION NORTH XII, FY- 2016 OLD BALTIMORE PIKE

CONTRACT	PERMIT NO.	N632
T201606112	DESIGNED BY:	M. KUBOVCIK
COUNTY	CHECKED BY:	B. MARTINE
NEW CASTLE		

SIGNAL PLAN OLD BALTIMORE PIKE @ MARTHA WASHINGTON AVE

SECTION	SHEET NO.
CEI	62

LAST REVISED: 9/11/2018
13-JAN-2021
13:33
G:\Projects\145002.00 (DelDOT Agmt 1679)\T51 (T201606112) - Trfc-ADA Pleasant Valley Rd\CADD FILES\Sheets\SignalsSg_N632_OBP @ Martha Washington Ave.dgn

ADDITIONAL SIGNAL NOTES

7. CONTRACTOR SHALL REMOVE EXISTING TYPE 11 JUNCTION WELL FRAME AND LID AND REPLACE WITH TYPE 1 FRAME AND LID TO PROPOSED SIDEWALK GRADE PER CONSTRUCTION DETAIL FOR CURB RAMP 16. DURING THE REMOVAL AND REPLACEMENT PROCESS CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING CONDUITS AND CABLES.
8. CONTRACTOR SHALL REMOVE EXISTING JUNCTION WELL FRAME AND LID AND RETROFIT WITH PROPOSED JUNCTION WELL FRAME AND LID. DURING THE REMOVAL AND REPLACEMENT PROCESS CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING CONDUITS AND CABLES.
9. CONTRACTOR SHALL REMOVE EXISTING PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS AND REPLACE WITH NEW COUNTDOWN TYPE PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS.
10. CONTRACTOR SHALL INSTALL COUNTDOWN PEDESTRIAN SIGNS (R10-3E) WITH ARROWS ALIGNED ON EACH STATION BUTTON PER PLANNING DESIGN.
11. DELDOT TRAFFIC SHALL CONTACT REESE BLAHUTA (CONDUENT PROJECT MANAGER) AT 971-221-2690 IF THE EXISTING RED LIGHT CAMERA CABLES ARE AFFECTED DURING CONSTRUCTION. RL-1
12. ALL CROSSWALKS SHALL BE 10 FEET IN WIDTH. PINCH POINT ON THE SOUTH CROSSING SHALL BE MINIMUM OF 6 FEET WIDE.
13. CONTRACTOR SHALL REMOVE EXISTING TYPE 1 JUNCTION WELL AND INSTALL PROPOSED TYPE 1 JUNCTION WELL ADJACENT TO EXISTING PEDESTRIAN CURB RAMP AS SHOWN. CONDUIT RUN NO 39 SHALL INTERCEPT CONDUIT RUN NO 33. TRAFFIC CONTRACTOR SHALL RELOCATE EXISTING SIGNAL CABLES TO RUN THROUGH PROPOSED CONDUITS AND JUNCTION WELL.
14. A FIELD SURVEY WAS COMPLETED BY CENTURY ENGINEERING DURING THE MONTH OF AUGUST, 2016.
15. RIGHT-OF-WAY LINES SHOWN WERE OBTAINED FROM SIGNAL PLAN DATED APRIL 10TH 2008.
16. TRAFFIC CONTRACTOR SHALL REMOVE EXISTING 3-SECTION (TYPE C) SIGNAL HEAD NUMBERS 2 AND 6 FROM 2-WAY SPAN WIRE BRACKET. TRAFFIC CONTRACTOR SHALL RELOCATE EXISTING 3-SECTION (TYPE C) SIGNAL HEADS ON ONE-WAY SPAN WIRE BRACKETS AT PROPOSED LOCATIONS AS SHOWN.
17. ~~TRAFFIC FORCES SHALL DETERMINE WHICH COMPONENTS TO BE REPLACED IN SIGNAL CABINET.~~ RL-1
18. CONTRACTOR SHALL REFER TO P&R NORTH XIX, FY 2016 CONSTRUCTION DETAILS FOR CURB RAMP SLOPES AND GRADES.
19. CONTRACTOR SHALL REMOVE EXISTING TYPE 1 JUNCTION WELL AND INSTALL PROPOSED TYPE 1 JUNCTION WELL ADJACENT TO EXISTING PEDESTRIAN CURB RAMP AS SHOWN. CONDUIT RUN NO 43 AND 44 SHALL INTERCEPT CONDUIT RUN NO 25 AND NO 22, RESPECTIVELY. TRAFFIC CONTRACTOR SHALL RELOCATE EXISTING SIGNAL CABLES TO RUN THROUGH PROPOSED CONDUITS AND JUNCTION WELL.

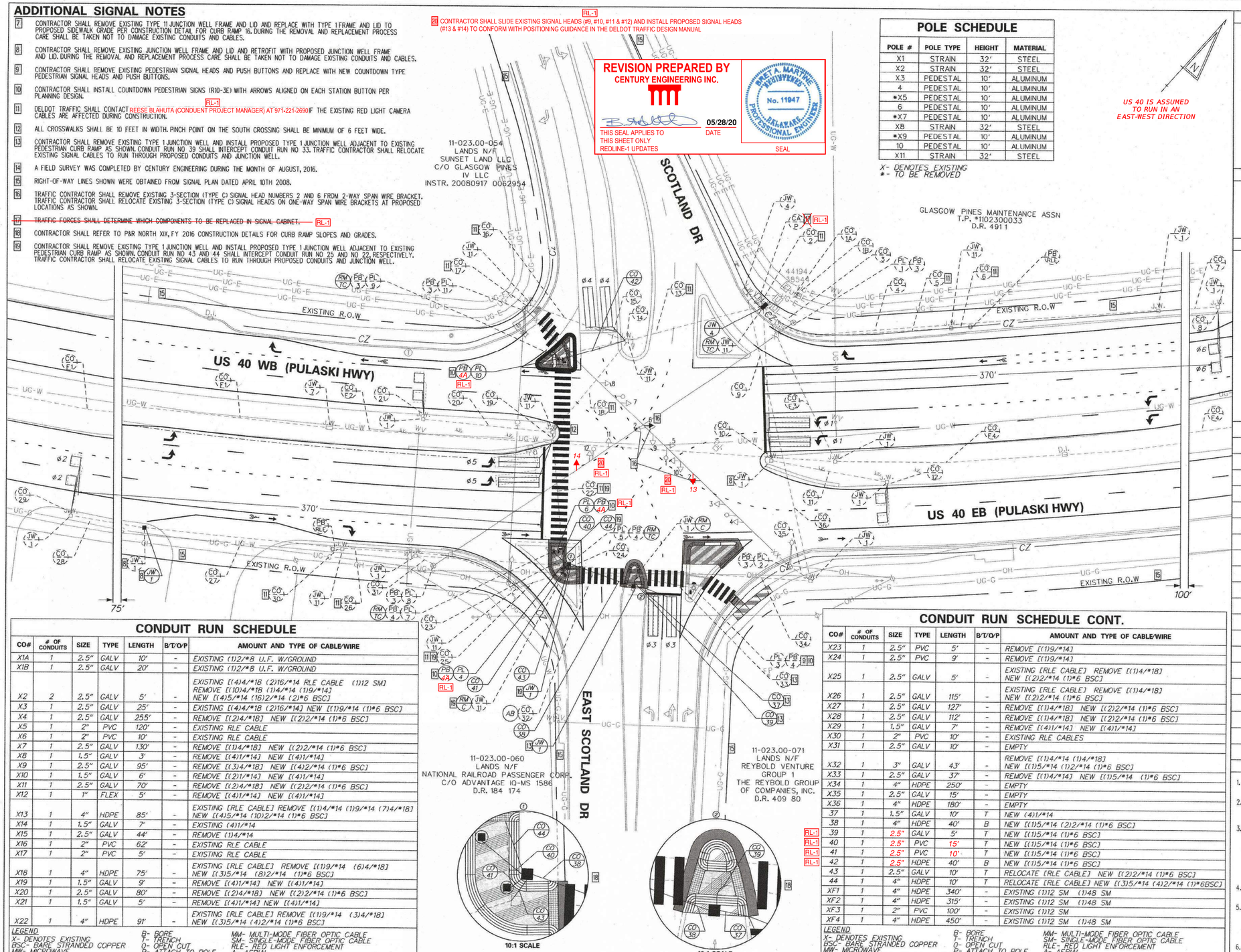
20 CONTRACTOR SHALL SLIDE EXISTING SIGNAL HEADS (#9, #10, #11 & #12) AND INSTALL PROPOSED SIGNAL HEADS (#13 & #14) TO CONFORM WITH POSITIONING GUIDANCE IN THE DELDOT TRAFFIC DESIGN MANUAL RL-1

REVISION PREPARED BY
CENTURY ENGINEERING INC.

THIS SEAL APPLIES TO THIS SHEET ONLY
REDLINE-1 UPDATES

05/28/20
DATE

BRET A. MARTIN — No. 11947 — DELAWARE — PROFESSIONAL ENGINEER
SEAL



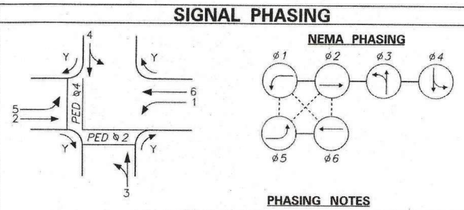
US 40 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
X1	STRAIN	32'	STEEL
X2	STRAIN	32'	STEEL
X3	PEDESTAL	10'	ALUMINUM
4	PEDESTAL	10'	ALUMINUM
*X5	PEDESTAL	10'	ALUMINUM
6	PEDESTAL	10'	ALUMINUM
*X7	PEDESTAL	10'	ALUMINUM
X8	STRAIN	32'	STEEL
*X9	PEDESTAL	10'	ALUMINUM
10	PEDESTAL	10'	ALUMINUM
X11	STRAIN	32'	STEEL

X- DENOTES EXISTING
*- TO BE REMOVED

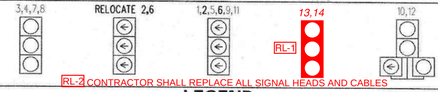
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



RL-2 CONTRACTOR SHALL REPLACE ALL SIGNAL HEADS AND CABLES

LEGEND

AB	ABANDON	OH*	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH*	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO *	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO *	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY	R/W	R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE	XX	X
UTILITY POLE		
VIDEO DETECTION		

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
X1A	1	2.5"	GALV	10'	-	EXISTING (1)2/*8 U.F. W/GROUND
X1B	1	2.5"	GALV	20'	-	EXISTING (1)2/*8 U.F. W/GROUND
X2	2	2.5"	GALV	5'	-	EXISTING [(4)4/*18 (2)16/*14 RLE CABLE (1)12 SM] REMOVE [(10)4/*18 (1)4/*14 (1)9/*14] NEW [(4)5/*14 (16)2/*14 (2)*6 BSC]
X3	1	2.5"	GALV	25'	-	EXISTING [(4)4/*18 (2)16/*14] NEW [(1)9/*14 (1)*6 BSC]
X4	1	2.5"	GALV	255'	-	REMOVE [(2)4/*18] NEW [(2)2/*14 (1)*6 BSC]
X5	1	2"	PVC	120'	-	EXISTING RLE CABLE
X6	1	2"	PVC	10'	-	EXISTING RLE CABLE
X7	1	2.5"	GALV	130'	-	REMOVE [(1)4/*18] NEW [(2)2/*14 (1)*6 BSC]
X8	1	1.5"	GALV	3'	-	REMOVE [(4)1/*14] NEW [(4)1/*14]
X9	1	2.5"	GALV	95'	-	REMOVE [(3)4/*18] NEW [(4)2/*14 (1)*6 BSC]
X10	1	1.5"	GALV	6'	-	REMOVE [(2)1/*14] NEW [(4)1/*14]
X11	1	2.5"	GALV	70'	-	REMOVE [(2)4/*18] NEW [(2)2/*14 (1)*6 BSC]
X12	1	1"	FLEX	5'	-	REMOVE [(4)1/*14] NEW [(4)1/*14]
X13	1	4"	HDPE	85'	-	EXISTING [RLE CABLE] REMOVE [(1)4/*14 (1)9/*14 (7)4/*18] NEW [(4)5/*14 (10)2/*14 (1)*6 BSC]
X14	1	1.5"	GALV	7'	-	EXISTING (4)1/*14
X15	1	2.5"	GALV	44'	-	REMOVE (1)4/*14
X16	1	2"	PVC	62'	-	EXISTING RLE CABLE
X17	1	2"	PVC	5'	-	EXISTING RLE CABLE
X18	1	4"	HDPE	75'	-	EXISTING [RLE CABLE] REMOVE [(1)9/*14 (6)4/*18] NEW [(3)5/*14 (8)2/*14 (1)*6 BSC]
X19	1	1.5"	GALV	9'	-	REMOVE [(4)1/*14] NEW [(4)1/*14]
X20	1	2.5"	GALV	80'	-	REMOVE [(2)4/*18] NEW [(2)2/*14 (1)*6 BSC]
X21	1	1.5"	GALV	5'	-	REMOVE [(4)1/*14] NEW [(4)1/*14]
X22	1	4"	HDPE	91'	-	EXISTING [RLE CABLE] REMOVE [(1)9/*14 (3)4/*18] NEW [(3)5/*14 (4)2/*14 (1)*6 BSC]

LEGEND
X- DENOTES EXISTING
BSC- BARE STRANDED COPPER
MW- MICROWAVE
B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE
MM- MULTI-MODE FIBER OPTIC CABLE
SM- SINGLE-MODE FIBER OPTIC CABLE
RLE- RED LIGHT ENFORCEMENT
A- AERIAL

CONDUIT RUN SCHEDULE CONT.

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
X23	1	2.5"	PVC	5'	-	REMOVE [(1)9/*14]
X24	1	2.5"	PVC	9'	-	REMOVE [(1)9/*14]
X25	1	2.5"	GALV	5'	-	EXISTING [RLE CABLE] REMOVE [(1)4/*18] NEW [(2)2/*14 (1)*6 BSC]
X26	1	2.5"	GALV	115'	-	EXISTING [RLE CABLE] REMOVE [(1)4/*18] NEW [(2)2/*14 (1)*6 BSC]
X27	1	2.5"	GALV	127'	-	REMOVE [(1)4/*18] NEW [(2)2/*14 (1)*6 BSC]
X28	1	2.5"	GALV	112'	-	REMOVE [(1)4/*18] NEW [(2)2/*14 (1)*6 BSC]
X29	1	1.5"	GALV	7'	-	REMOVE [(4)1/*14] NEW [(4)1/*14]
X30	1	2"	PVC	10'	-	EXISTING RLE CABLES
X31	1	2.5"	GALV	10'	-	EMPTY
X32	1	3"	GALV	43'	-	REMOVE [(1)4/*14 (1)4/*18] NEW [(1)5/*14 (1)2/*14 (1)*6 BSC]
X33	1	2.5"	GALV	37'	-	REMOVE [(1)4/*14] NEW [(1)5/*14 (1)*6 BSC]
X34	1	4"	HDPE	250'	-	EMPTY
X35	1	2.5"	GALV	15'	-	EMPTY
X36	1	4"	HDPE	180'	-	EMPTY
37	1	1.5"	GALV	10'	T	NEW (4)1/*14
38	1	4"	HDPE	40'	B	NEW [(1)5/*14 (2)2/*14 (1)*6 BSC]
RL-1 39	1	2.5"	GALV	5'	T	NEW [(1)5/*14 (1)*6 BSC]
RL-1 40	1	2.5"	PVC	15'	T	NEW [(1)5/*14 (1)*6 BSC]
RL-1 41	1	2.5"	PVC	10'	T	NEW [(1)5/*14 (1)*6 BSC]
RL-1 42	1	2.5"	HDPE	40'	B	NEW [(1)5/*14 (1)*6 BSC]
43	1	2.5"	GALV	10'	T	RELOCATE [RLE CABLE] NEW [(2)2/*14 (1)*6 BSC]
44	1	4"	HDPE	10'	T	RELOCATE [RLE CABLE] NEW [(3)5/*14 (4)2/*14 (1)*6BSC]
XF1	1	4"	HDPE	340'	-	EXISTING (1)12 SM (1)48 SM
XF2	1	4"	HDPE	315'	-	EXISTING (1)12 SM (1)48 SM
XF3	1	2"	PVC	100'	-	EXISTING (1)12 SM
XF4	1	4"	HDPE	450'	-	EXISTING (1)12 SM (1)48 SM

LEGEND
X- DENOTES EXISTING
BSC- BARE STRANDED COPPER
MW- MICROWAVE
B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE
MM- MULTI-MODE FIBER OPTIC CABLE
SM- SINGLE-MODE FIBER OPTIC CABLE
RLE- RED LIGHT ENFORCEMENT
A- AERIAL

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201, 202, AND 746 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED Scott Peterson DATE: 4/27/18

RECOMMENDED [illegible] DATE: 4/25/18

APPROVED TRAFFIC ENGINEER [illegible] SAINTZ DATE: 04/30/2018

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER [illegible] DATE: 5/1/18

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

RL-1 UPDATED PROPOSED POLE BASE TYPES, ADDITIONAL NOTES, CONDUIT SCHEDULE AND ADDED SIGNAL HEADS. M. KUBOVCIK (CEI) 5/28 (CONTRACT T201606119)

RL-2 CONTRACTOR SHALL REPLACE ALL SIGNAL HEADS AND CABLES PER SIGNAL MAINTENANCE REQUEST. M. KUBOVCIK (CEI) 10/15 (CONTRACT T201606119)

SCALE
0 30 60 90
FEET

PAVEMENT AND REHABILITATION
NORTH XIX, 2016
US 40 (PULASKI HWY)

CONTRACT	PERMIT NO.	N332
T201606119	DESIGNED BY: EBS (CEI)	
COUNTY	CHECKED BY: BAM (CEI)	
NEW CASTLE		

SIGNAL PLAN
US 40 & SCOTLAND DR

SHEET NO.	TOTAL SHTS.
84	88

4/20/2018
\\192.168.0.52\snap\PROJECTS\145002.00 (DelDOT Agmt 1679)\T52 (T201606119) - Traffic-ADA Pulaski Hwy\CADD FILES\Signals\sg_N332_20180322_to11.dgn
8:07:49 AM

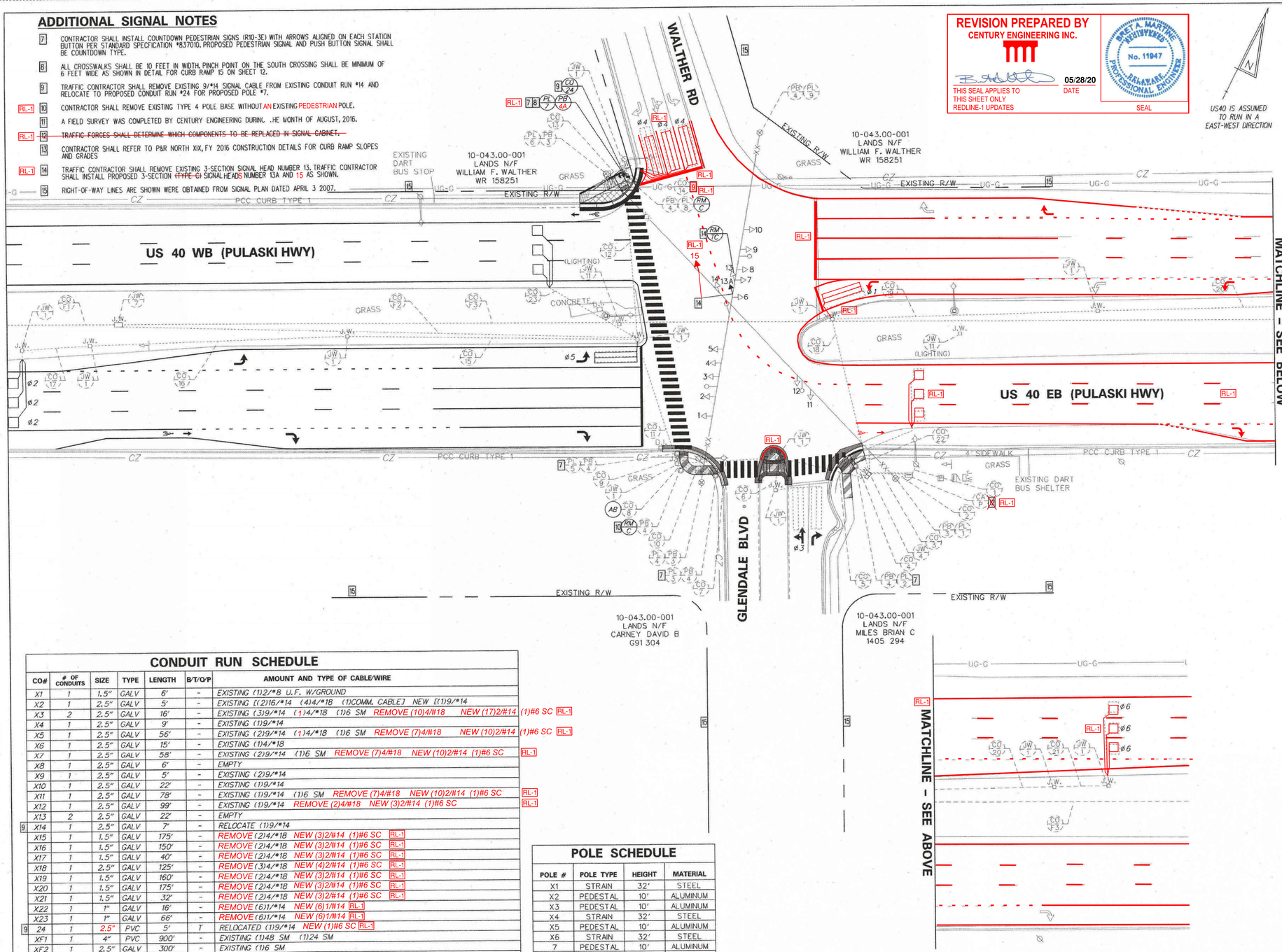
ADDITIONAL SIGNAL NOTES

7. CONTRACTOR SHALL INSTALL COUNTDOWN PEDESTRIAN SIGNS (R10-3E) WITH ARROWS ALIGNED ON EACH STATION BUTTON PER STANDARD SPECIFICATION #837010. PROPOSED PEDESTRIAN SIGNAL AND PUSH BUTTON SIGNAL SHALL BE COUNTDOWN TYPE.
8. ALL CROSSWALKS SHALL BE 10 FEET IN WIDTH. PINCH POINT ON THE SOUTH CROSSING SHALL BE MINIMUM OF 6 FEET WIDE AS SHOWN IN DETAIL FOR CURB RAMP 15 ON SHEET 12.
9. TRAFFIC CONTRACTOR SHALL REMOVE EXISTING 9/#14 SIGNAL CABLE FROM EXISTING CONDUIT RUN #14 AND RELOCATE TO PROPOSED CONDUIT RUN #24 FOR PROPOSED POLE #7.
RL-1 10. CONTRACTOR SHALL REMOVE EXISTING TYPE 4 POLE BASE WITHOUT AN EXISTING PEDESTRIAN POLE.
11. A FIELD SURVEY WAS COMPLETED BY CENTURY ENGINEERING DURING THE MONTH OF AUGUST, 2016.
RL-1 12. ~~TRAFFIC FORCES SHALL DETERMINE WHICH COMPONENTS TO BE REPLACED IN SIGNAL CABINET.~~
13. CONTRACTOR SHALL REFER TO P&R NORTH XIX, FY 2016 CONSTRUCTION DETAILS FOR CURB RAMP SLOPES AND GRADES
RL-1 14. TRAFFIC CONTRACTOR SHALL REMOVE EXISTING 3-SECTION SIGNAL HEAD NUMBER 13. TRAFFIC CONTRACTOR SHALL INSTALL PROPOSED 3-SECTION ~~TYPE C~~ SIGNAL HEADS NUMBER 13A AND 15 AS SHOWN.
15. RIGHT-OF-WAY LINES ARE SHOWN WERE OBTAINED FROM SIGNAL PLAN DATED APRIL 3 2007.

REVISION PREPARED BY
CENTURY ENGINEERING INC.
THIS SEAL APPLIES TO THIS SHEET ONLY
REDLINE-1 UPDATES
05/28/20 DATE

BRET A. MARTINE No. 11947 PROFESSIONAL ENGINEER DELAWARE SEAL

US40 IS ASSUMED TO RUN IN A EAST-WEST DIRECTION



CONDUIT RUN SCHEDULE

	CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
	X1	1	1.5"	GALV	6'	-	EXISTING (1)2/*8 U.F. W/GROUND
	X2	1	2.5"	GALV	5'	-	EXISTING (1)2/16/*14 (4)4/*18 (1)COMM. CABLE) NEW (1)9/*14
	X3	2	2.5"	GALV	16'	-	EXISTING (3)9/*14 (1)4/*18 (1)6 SM REMOVE (10)4/#18 NEW (17)2/#14 (1)#6 SC RL-1
	X4	1	2.5"	GALV	9'	-	EXISTING (1)9/*14
	X5	1	2.5"	GALV	56'	-	EXISTING (2)9/*14 (1)4/*18 (1)6 SM REMOVE (7)4/#18 NEW (10)2/#14 (1)#6 SC RL-1
	X6	1	2.5"	GALV	15'	-	EXISTING (1)4/*18
	X7	1	2.5"	GALV	58'	-	EXISTING (2)9/*14 (1)6 SM REMOVE (7)4/#18 NEW (10)2/#14 (1)#6 SC RL-1
	X8	1	2.5"	GALV	6'	-	EMPTY
	X9	1	2.5"	GALV	5'	-	EXISTING (2)9/*14
	X10	1	2.5"	GALV	22'	-	EXISTING (1)9/*14
	X11	1	2.5"	GALV	78'	-	EXISTING (1)9/*14 (1)6 SM REMOVE (7)4/#18 NEW (10)2/#14 (1)#6 SC RL-1
	X12	1	2.5"	GALV	99'	-	EXISTING (1)9/*14 REMOVE (2)4/#18 NEW (3)2/#14 (1)#6 SC RL-1
	X13	2	2.5"	GALV	22'	-	EMPTY
9	X14	1	2.5"	GALV	7'	-	RELOCATE (1)9/*14
	X15	1	1.5"	GALV	175'	-	REMOVE (2)4/*18 NEW (3)2/#14 (1)#6 SC RL-1
	X16	1	1.5"	GALV	150'	-	REMOVE (2)4/*18 NEW (3)2/#14 (1)#6 SC RL-1
	X17	1	1.5"	GALV	40'	-	REMOVE (2)4/*18 NEW (3)2/#14 (1)#6 SC RL-1
	X18	1	2.5"	GALV	125'	-	REMOVE (3)4/*18 NEW (4)2/#14 (1)#6 SC RL-1
	X19	1	1.5"	GALV	160'	-	REMOVE (2)4/*18 NEW (3)2/#14 (1)#6 SC RL-1
	X20	1	1.5"	GALV	175'	-	REMOVE (2)4/*18 NEW (3)2/#14 (1)#6 SC RL-1
	X21	1	1.5"	GALV	32'	-	REMOVE (2)4/*18 NEW (3)2/#14 (1)#6 SC RL-1
	X22	1	1"	GALV	16'	-	REMOVE (6)1/*14 NEW (6)1/#14 RL-1
	X23	1	1"	GALV	66'	-	REMOVE (6)1/*14 NEW (6)1/#14 RL-1
9	24	1	2.5"	PVC	5'	T	RELOCATED (1)9/*14 NEW (1)#6 SC RL-1
	XF1	1	4"	PVC	900'	-	EXISTING (1)48 SM (1)24 SM
	XF2	1	2.5"	GALV	300'	-	EXISTING (1)6 SM
	XF1	1	4"	PVC	1000'	-	EXISTING (1)48 SM (1)24 SM

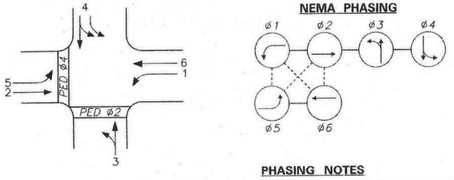
LEGEND
X- DENOTES EXISTING
BSC- BARE STRANDED COPPER
MW- MICROWAVE
B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE
MM- MULTI-MODE FIBER OPTIC CABLE
SM- SINGLE-MODE FIBER OPTIC CABLE
RLE- RED LIGHT ENFORCEMENT
A- AERIAL

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
X1	STRAIN	32'	STEEL
X2	PEDESTAL	10'	ALUMINUM
X3	PEDESTAL	10'	ALUMINUM
X4	STRAIN	32'	STEEL
X5	PEDESTAL	10'	ALUMINUM
X6	STRAIN	32'	STEEL
7	PEDESTAL	10'	ALUMINUM
*X8	PEDESTAL	10'	ALUMINUM
X9	STRAIN	32'	STEEL

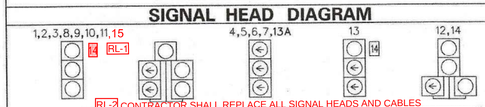
X- DENOTES EXISTING
*- TO BE REMOVED

SIGNAL PHASING



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

SIGNAL HEAD DIAGRAM



RL-2 CONTRACTOR SHALL REPLACE ALL SIGNAL HEADS AND CABLES

LEGEND

AB	ABANDON	OH-*	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA-X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH-*	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA-X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB-X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO-*	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB-X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO-*	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL-X	EXISTING POLE IDENTIFIER (* OF POLE)
JW-X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL-X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW-X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM-C	REMOVE BY CONTRACTOR
MA-XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM-O	REMOVE BY OTHERS
MA-XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM-TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	□	□
LOOP DETECTOR, TYPE 2	▭	▭
LUMINAIRE	—◇	—●
MAST ARM	▷	▶
MICROWAVE DETECTION	—◀	—◀
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	—⊣	—⊣
PEDESTRIAN POLE/BASE	○	◉
PEDESTRIAN PUSHBUTTON	—◗	—▶
PEDESTRIAN SIGNAL HEAD	—▭	—▬
RIGHT-OF-WAY	———	——R/W———
SERVICE PEDESTAL	P	P
SIGNAL CABINET	▯	▮
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
SPAN INSULATOR	—◇—	—◆—
SPAN WIRE	—XX—	—X—
UTILITY POLE	⊘	●
VIDEO DETECTION	◐	◐

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201, 202, AND 746 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED Jesse Pickett DATE: 4/27/18

RECOMMENDED B Martine DATE: 4/25/18

APPROVED TRAFFIC ENGINEER Mark Saintil DATE: 05/01/2018

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER Mark Luft DATE: 5/1/18

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

RL-1 UPDATED PROPOSED POLE BASE TYPE, ADDITIONAL NOTES, CONDUIT SCHEDULE, AND ADDED SIGNAL HEAD. INCLUDED P&R STRIPING UPDATES AND PROPOSED LOOPS. M. KUBOVCIK (CEI) 5/28 (CONTRACT T201606119)

RL-2 CONTRACTOR SHALL REPLACE ALL SIGNAL HEADS AND CABLES PER SIGNAL MAINTENANCE REQUEST. M. KUBOVCIK (CEI) 10/15 (CONTRACT T201606119)

SCALE 0 30 60 90 FEET

PAVEMENT AND REHABILITATION NORTH XIX, 2016 US 40 (PULASKI HWY)

CONTRACT T201606119
COUNTY NEW CASTLE
PERMIT NO. N517
DESIGNED BY: EBS (CEI)
CHECKED BY: BAM (CEI)

SIGNAL PLAN
US 40 & WALTHER RD

SHEET NO. 85
TOTAL SHTS. 88

4/20/2018
\\192.168.3.52\snap\PROJECTS\145002.00 (DelDOT Agmt 16-79)\T52 (T201606119) - Traffic-ADA Pulaski Hwy\CADD FILES\Signals\sg_N517_20180322_1of1.dgn
8:10:14 AM

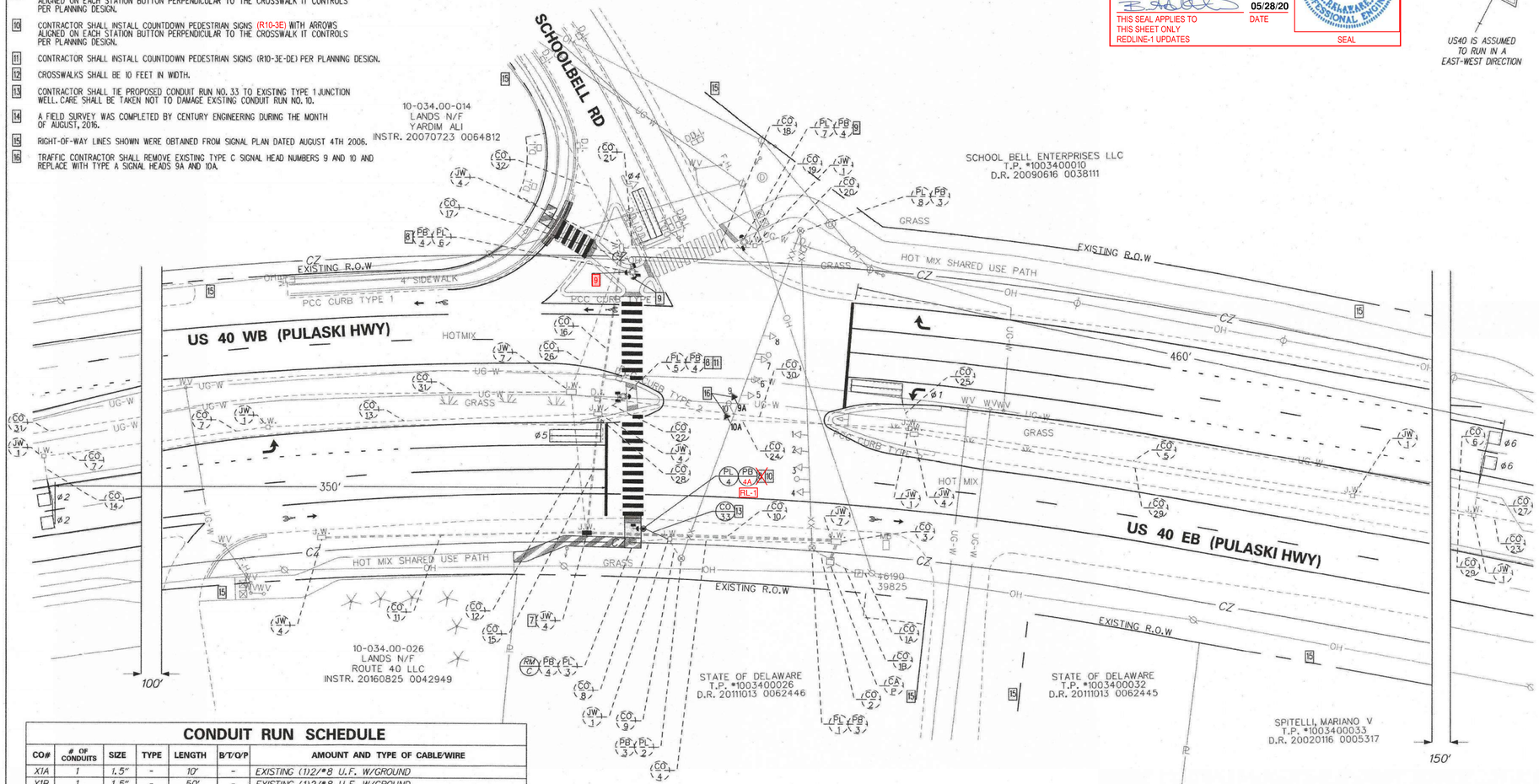
ADDITIONAL SIGNAL NOTES

7. CONTRACTOR SHALL ADJUST EXISTING JUNCTION WELL TYPE-4 METAL FRAME TO MATCH GRADE OF PROPOSED SIDEWALK. DURING THE ADJUSTMENT PROCESS CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING CONDUITS AND CABLES.
8. CONTRACTOR SHALL REMOVE EXISTING PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS AND REPLACE WITH NEW COUNTDOWN TYPE PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS.
9. CONTRACTOR SHALL INSTALL COUNTDOWN PEDESTRIAN SIGNS (R10-3E-DE) WITH ARROWS ALIGNED ON EACH STATION BUTTON PERPENDICULAR TO THE CROSSWALK IT CONTROLS PER PLANNING DESIGN.
10. CONTRACTOR SHALL INSTALL COUNTDOWN PEDESTRIAN SIGNS (R10-3E) WITH ARROWS ALIGNED ON EACH STATION BUTTON PERPENDICULAR TO THE CROSSWALK IT CONTROLS PER PLANNING DESIGN.
11. CONTRACTOR SHALL INSTALL COUNTDOWN PEDESTRIAN SIGNS (R10-3E-DE) PER PLANNING DESIGN.
12. CROSSWALKS SHALL BE 10 FEET IN WIDTH.
13. CONTRACTOR SHALL TIE PROPOSED CONDUIT RUN NO. 33 TO EXISTING TYPE 1 JUNCTION WELL. CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING CONDUIT RUN NO. 10.
14. A FIELD SURVEY WAS COMPLETED BY CENTURY ENGINEERING DURING THE MONTH OF AUGUST, 2016.
15. RIGHT-OF-WAY LINES SHOWN WERE OBTAINED FROM SIGNAL PLAN DATED AUGUST 4TH 2006.
16. TRAFFIC CONTRACTOR SHALL REMOVE EXISTING TYPE C SIGNAL HEAD NUMBERS 9 AND 10 AND REPLACE WITH TYPE A SIGNAL HEADS 9A AND 10A.

REVISION PREPARED BY
CENTURY ENGINEERING INC.
05/28/20 DATE
THIS SEAL APPLIES TO THIS SHEET ONLY
REDLINE-1 UPDATES

BRET A. MARTINE — No. 11947 — PROFESSIONAL ENGINEER — SEAL

US40 IS ASSUMED TO RUN IN A EAST-WEST DIRECTION



CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
X1A	1	1.5"	-	10'	-	EXISTING (1)2/#8 U.F. W/GROUND
X1B	1	1.5"	-	50'	-	EXISTING (1)2/#8 U.F. W/GROUND
X2	1	2.5"	-	10'	-	EXISTING (1)16/#14 (1)4/#18
X3	2	2.5"	-	5'	-	EXISTING [(2)4/#18 (1)16/#14 FIBER OPTIC CABLE] REMOVE [(10)4/#18 (1)4/#14 (3)9/#14] NEW [(7)2/#14 (5)5/#14 (3)#6 BSC] RL-1
X4	1	2.5"	-	79'	-	EXISTING [(2)4/#18 (1)16/#14 (1)6/#19] REMOVE [(1)9/#14] NEW [(1)5/#14 (1)#6 BSC]
X5	1	1.5"	-	215'	-	REMOVE (2)4/#18 NEW [(2)2/#14 (1)#6 BSC]
X6	1	1.5"	-	200'	-	REMOVE (2)4/#18 NEW [(2)2/#14 (1)#6 BSC]
X7	1	1.5"	-	200'	-	REMOVE (1)4/#18 NEW [(2)2/#14 (1)#6 BSC]
X8	1	2.5"	-	28'	-	REMOVE [(1)9/#14]
X9	1	2.5"	-	11'	-	EXISTING (1)16/#14 (2)4/#18
X10	3	2.5"/4"	-	117'	-	EXISTING [FIBER OPTIC CABLE] REMOVE [(5)4/#18 (1)4/#14 (2)9/#14] NEW [(7)2/#14 (4)5/#14 (3)#6 BSC] RL-1
X11	2	2.5"	-	126'	-	EMPTY
X12	1	4"	-	67'	-	EXISTING FIBER OPTIC CABLE
X13	1	2.5"	-	159'	-	REMOVE (1)4/#18 NEW [(2)2/#14 (1)#6 BSC]
X14	1	1.5"	-	12'	-	REMOVE (4)1/#14 NEW (4)1/#14
X15	2	2.5"	-	61'	-	REMOVE [(5)4/#18 (1)4/#14 (2)9/#14] NEW [(7)2/#14 (4)5/#14 (1)#6 BSC] RL-1
X16	2	2.5"	-	80'	-	REMOVE [(1)4/#18 (2)9/#14] NEW [(1)2/#14 (3)5/#14 (1)#6 BSC]
X17	1	2.5"	-	9'	-	REMOVE (1)9/#14 NEW [(2)5/#14 (1)#6 BSC]
X18	1	2.5"	-	65'	-	REMOVE (1)9/#14 NEW [(1)5/#14 (1)#6 BSC]
X19	1	2.5"	-	5'	-	REMOVE (1)9/#14 NEW [(1)5/#14 (1)#6 BSC]
X20	1	2.5"	-	26'	-	EMPTY

CONDUIT RUN SCHEDULE CONT.

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
X21	1	1.5"	-	10'	-	REMOVE (2)1/#14 NEW (2)1/#14
X22	1	2.5"	-	13'	-	REMOVE [(1)9/#14] NEW [(1)5/#14 (1)#6 BSC] RL-1
X23	1	4"	-	--	-	EXISTING FIBER OPTIC CABLE
X24	1	2.5"	-	150'	-	REMOVE (2)4/#18 NEW [(3)2/#14 (1)#6 BSC]
X25	1	1.5"	-	9'	-	REMOVE (2)1/#14 NEW [(2)1/#14 (1)#6 BSC]
X26	1	4"	-	80'	-	EMPTY
X27	1	1.5"	-	10'	-	REMOVE (4)1/#14 NEW (4)1/#14
X28	1	1.5"	-	6'	-	REMOVE (2)1/#14 NEW (2)1/#14
X29	1	4"	-	412'	-	EXISTING FIBER OPTIC CABLE
X30	1	4"	-	165'	-	EXISTING FIBER OPTIC CABLE
X31	1	4"	-	--	-	EXISTING FIBER OPTIC CABLE
X32	1	4"	-	--	-	EMPTY
33	1	2.5"	PVC	15'	T	NEW [(1)5/#14 (1)#6 BSC] RL-1

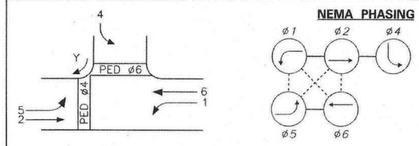
LEGEND
X- DENOTES EXISTING
BSC- BARE STRANDED COPPER
MW- MICROWAVE
B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE
A- AERIAL

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
X1	STRAIN	32'	STEEL
X2	STRAIN	32'	STEEL
*X3	PEDESTAL	10'	ALUMINUM
4	PEDESTAL	10'	ALUMINUM
X5	PEDESTAL	10'	ALUMINUM
X6	PEDESTAL	10'	ALUMINUM
X7	PEDESTAL	10'	ALUMINUM
X8	STRAIN	32'	STEEL

X- DENOTES EXISTING
*- TO BE REMOVED

SIGNAL PHASING



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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH *	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO *	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO *	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	⬚	□
LOOP DETECTOR, TYPE 2	▭	▭
LUMINAIRE	—○	—●
MAST ARM	▷	▶
MICROWAVE DETECTION	◁	◁
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	⊣	⊣
PEDESTRIAN POLE/BASE	○	◉
PEDESTRIAN PUSHBUTTON	—▷	—▶
PEDESTRIAN SIGNAL HEAD	▭	▬
RIGHT-OF-WAY	———	——R/W——
SERVICE PEDESTAL	P	P
SIGNAL CABINET	▭	■
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
SPAN INSULATOR	◇	◆
SPAN WIRE	—XX—	—X—
UTILITY POLE	⊘	●
VIDEO DETECTION	◁	◁

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201.202, AND 746 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: 4/27/18

RECOMMENDED _____ DATE: 1/25/18

APPROVED TRAFFIC ENGINEER _____ DATE: 05/01/2018

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 5/1/18

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS
RL-1 UPDATED PROPOSED POLE BASE TYPE, ADDITIONAL NOTES, AND CONDUIT SCHEDULE. M. KUBOVCIK (CEI) 5/28 (CONTRACT T201606119)

SCALE 0 30 60 90 FEET

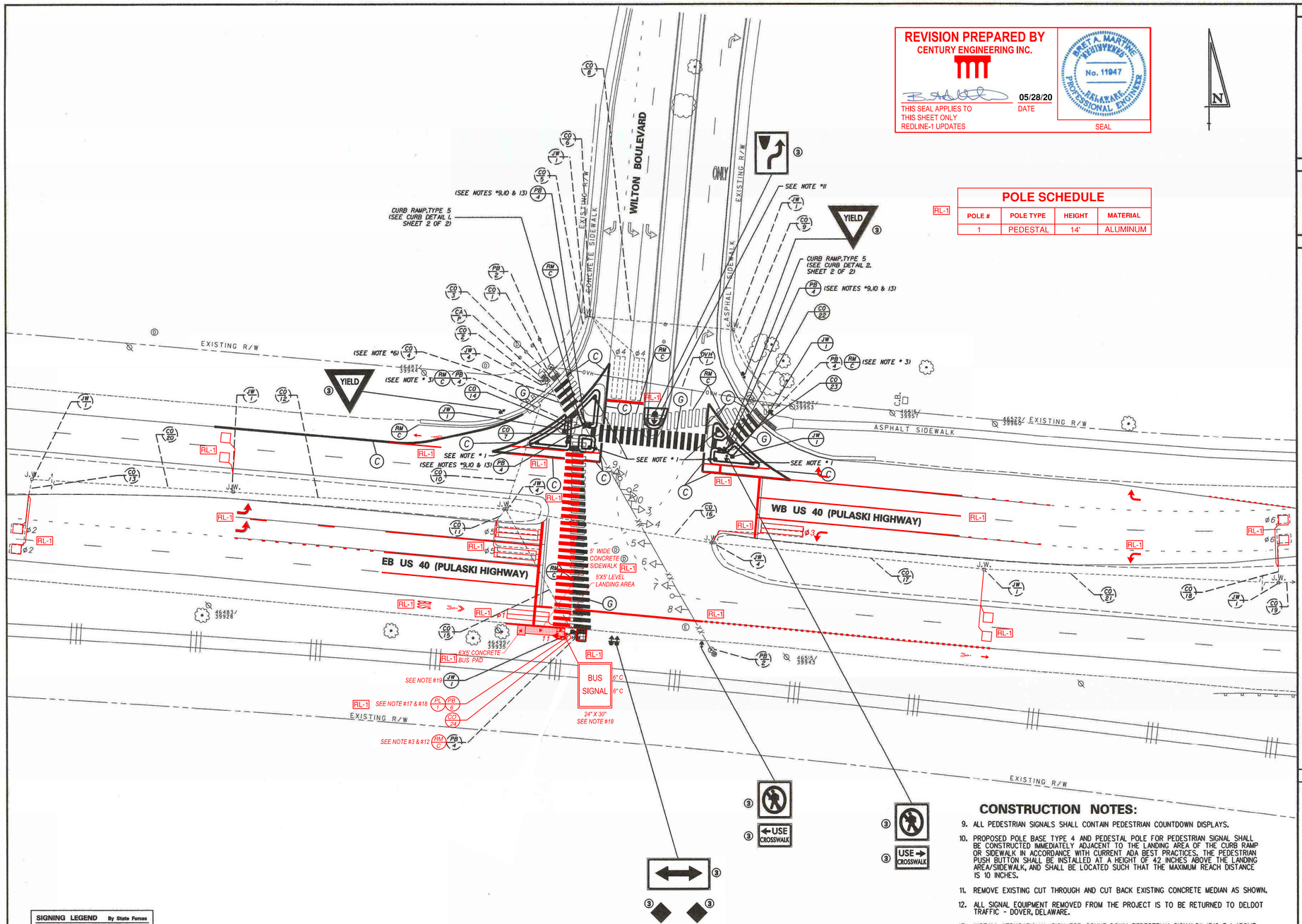
PAVEMENT AND REHABILITATION NORTH XIX, 2016
US 40 (PULASKI HWY)

CONTRACT	T201606119
COUNTY	NEW CASTLE
PERMIT NO.	N601
DESIGNED BY: EBS (CEI)	
CHECKED BY: BAM (CEI)	

SIGNAL PLAN
US 40 & SCHOOLBELL RD

SHEET NO.	86
TOTAL SHTS.	88

4/20/2018 8:14:42 AM \\192.165.0.52\snap\PROJECTS\145002.00 (DelDOT Agmt 1679)\T52 (T201606119) - Traffic-ADA Pulaski Hwy\CADD FILES\Signals\sg_N601_20180322_1of1.dgn



REVISION PREPARED BY
CENTURY ENGINEERING INC.

05/28/20
DATE

THIS SEAL APPLIES TO THIS SHEET ONLY
REDLINE-1 UPDATES

BRET A. MARTINE — No. 11947 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

POLE SCHEDULE

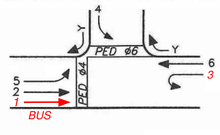
POLE #	POLE TYPE	HEIGHT	MATERIAL
1	PEDESTAL	14'	ALUMINUM

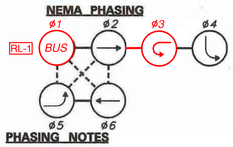
CONSTRUCTION NOTES:

9. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
10. PROPOSED POLE BASE TYPE 4 AND PEDESTAL POLE FOR PEDESTRIAN SIGNAL SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THE PEDESTRIAN PUSH BUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES.
11. REMOVE EXISTING CUT THROUGH AND CUT BACK EXISTING CONCRETE MEDIAN AS SHOWN.
12. ALL SIGNAL EQUIPMENT REMOVED FROM THE PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
13. INSTALL "EDUCATIONAL SIGN FOR COUNT-DOWN PEDESTRIAN SIGNALS" (R10-3e) ABOVE EACH PUSH BUTTON.
14. REMOVE EXISTING PEDESTRIAN SIGNAL HEAD AND REPLACE WITH PEDESTRIAN COUNTDOWN DISPLAY. ROTATE EXISTING PUSH BUTTON TO BE 42 INCHES ABOVE PROPOSED LANDING AREA AND HAVE A MAXIMUM REACH DISTANCE OF 10 INCHES.
15. PROPOSED JUNCTION WELL TO STRADDLE CONDUIT RUN *15.
16. LOCATION OF PROPOSED LANDING AREA AND ADJACENT GRASS AREA WILL REQUIRE FILL TO RAISE TO LEVEL OF PAVEMENT.
17. PROPOSED POLE BASE TYPE 6 AND 14' PEDESTAL POLE (PL #1) FOR PEDESTRIAN SIGNAL SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE LEVEL LANDING AREA OF THE CURB RAMP IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THE PEDESTRIAN PUSH BUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 INCHES ABOVE THE LANDING AREA AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS WITHIN 10 INCHES.
18. CONTRACTOR SHALL INSTALL TOP MOUNTED VEHICULAR SIGNAL HEAD #11 ON 14' PEDESTAL POLE WITH 24"X 30" "BUS SIGNAL" REGULATORY SIGN BANDED BELOW.
19. CONTRACTOR SHALL RESET, ADJUST, AND/OR REPAIR EXISTING JUNCTION WELL AS NECESSARY FOR INTEGRATION OF PROPOSED CONDUIT AND TO FINISH FLUSH WITH FINAL FINISH GRADE. BOND AND GROUND.

SIGNING LEGEND By State Forces
1. REMOVE EXISTING SIGN
2. EXISTING SIGN TO REMAIN
3. PLACE NEW SIGN
4. RENEW EXISTING SIGN
5. REPOSITION EXISTING SIGN

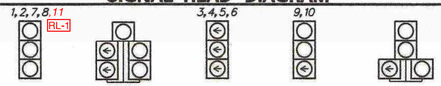
SIGNAL PHASING





PHASING NOTES
1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.
3. OVERLAP A = 1 + 2
   OVERLAP C = 3 + 6

SIGNAL HEAD DIAGRAM



LEGEND

- PROPOSED SIGNAL CABINET
- EXISTING SIGNAL CABINET
- PROPOSED SIGNAL POLE BASE
- EXISTING SIGNAL POLE BASE
- PROPOSED PEDESTRIAN POLE BASE
- EXISTING PEDESTRIAN POLE BASE
- PROPOSED WOOD POLE
- EXISTING UTILITY POLE
- PROPOSED JUNCTION WELL
- EXISTING JUNCTION WELL
- PROPOSED SIGNAL HEAD
- EXISTING SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSHBUTTON
- EXISTING PEDESTRIAN PUSHBUTTON
- PROPOSED VIDEO DETECTION
- EXISTING VIDEO DETECTION
- PROPOSED MICROWAVE DETECTION
- EXISTING MICROWAVE DETECTION
- OVERHEAD SIGNING
- PROPOSED OPTICOM RECEIVER
- EXISTING OPTICOM RECEIVER
- PROPOSED MAST ARM
- EXISTING MAST ARM
- PROPOSED LUMINAIRE
- EXISTING LUMINAIRE
- PROPOSED LOOP DETECTOR (TYPE 1 OR 2)
- EXISTING LOOP DETECTOR (TYPE 1 OR 2)
- REMOVE BY CONTRACTOR
- REMOVE BY OTHERS
- ABANDON
- PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)
- EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)
- PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
- EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
- PROPOSED SPAN WIRE
- EXISTING SPAN WIRE
- RIGHT-OF-WAY OR PROPERTY LINE
- EXISTING OVERHEAD RUN
- PROPOSED SPAN INSULATOR
- EXISTING SPAN INSULATOR
- SERVICE PEDESTAL
- EXISTING HIGHWAY SIGN
- PROPOSED HIGHWAY SIGN
- TUBULAR MARKER (FLEXI-POST)

GENERAL SIGNAL NOTES

1. THE CONTRACTOR SHALL INSTALL A TUBULAR MARKER (FLEXI-POST) ON ALL THREE (3) CORNERS OF THE CHANNELIZING ISLAND, AS SHOWN. EACH TUBULAR MARKER SHALL BE RETROREFLECTORIZED IN ACCORDANCE WITH SECTION 6F.60 OF THE DE MUTCD.
2. R/W INFORMATION SHOWN ON THIS PLAN IS SCHEMATIC ONLY.
3. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REMOVED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS.SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLAN ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
6. EXTEND AND REDIRECT EXISTING CONDUIT RUN *4 INTO PROPOSED JUNCTION WELL AT NW ISLAND.
7. CONSTRUCT 5' X 7' CONCRETE LANDING AREA AND INSTALL TRUNCATED DOMES. LANDING AREA TO BE IMMEDIATLEY ADJACENT TO EXISTING POLE BASE TYPE 4 AND PEDESTAL POLE IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES.
8. EXISTING PEDESTRIAN CROSSWALK MARKINGS TO BE REMOVED.

RECOMMENDED Lisa Delyaur DATE: 9/14/2010

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 9/16/10

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 9/16/10

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS
RL-1 UPDATED SOUTH PEDESTRIAN FACILITY TO INCLUDE BUS RAPID TRANSIT SIGNAL WITH PROPOSED LEVEL LANDING, SIDEWALK AND BUS PAD. INCLUDED P&R STRIPING UPDATES AND PROPOSED LOOPS. M. KUBOVCIK (CEI) 5/28. (CONTRACT T201606119)

SCALE
0 30 60 90
FEET

INTERSECTION IMPROVEMENTS PROJECT

CONTRACT	PERMIT NO.	N514
Spencer Fines	DESIGNED BY: SJE	
COUNTY	CHECKED BY: LYD	
NEW CASTLE		

SIGNAL PLAN
US 40 (PULASKI HWY)
@ WILTON BLVD

SHEET NO.
87 RL-1
TOTAL SHTS.
88 RL-1

PAVEMENT MARKINGS LEGEND

SYMBOL	QUANTITY	ITEM
(A)		4" SOLID YELLOW EPOXY RESIN PAINT PAVEMENT STRIPING
(B)		4" SOLID DOUBLE YELLOW EPOXY RESIN PAINT PAVEMENT STRIPING
(C)	450 L.F.	4" SOLID WHITE EPOXY RESIN PAINT PAVEMENT STRIPING
(D)		4" DASHED WHITE EPOXY RESIN PAINT (10' LINE, 30' GAP) PAVEMENT STRIPING
(E)		4" DASHED WHITE EPOXY RESIN PAINT (2' LINE, 6' GAP) PAVEMENT STRIPING
(F)		12" SOLID YELLOW ALKYD-THERMOPLASTIC PAVEMENT STRIPING
(G)	1000 S.F.	SYMBOL/LEGEND ALKYD-THERMOPLASTIC PAVEMENT STRIPING
(H)		12" SOLID WHITE ALKYD-THERMOPLASTIC PAVEMENT STRIPING
(I)		PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, SYMBOL/LEGEND

OVERHEAD RUN SCHEDULE

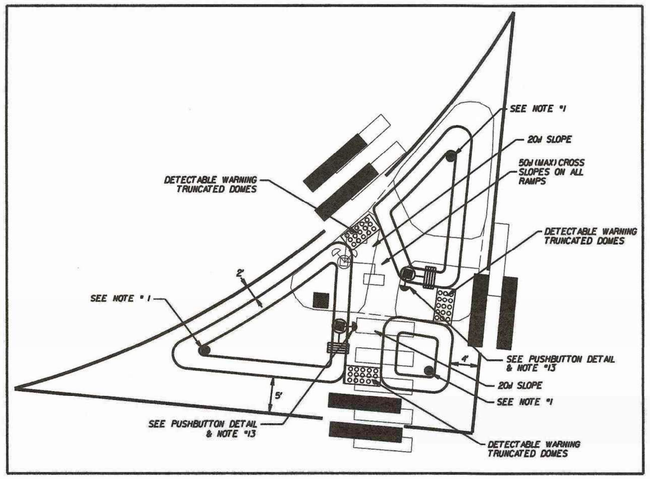
CO*	LENGTH	AMOUNT AND TYPE OF CABLE/ WIRE
*1	145'	(1)2/#8 U.F. W/GROUND

* INDICATES EXISTING RUN

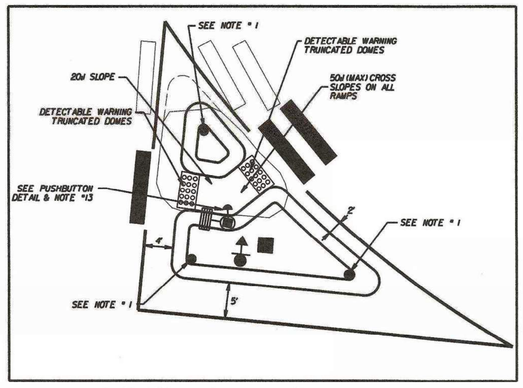
CONDUIT RUN SCHEDULE

CO*	#OF CON	SIZE	LENGTH	AMOUNT AND TYPE OF CABLE/ WIRE TO REMAIN	REMOVE	INSTALL	
*1	1	2.0"	7'	(1)2/#8 U.F. W/GROUND			
*2	2	2.5"	5'	(2)16/#14 (3)9/#14 (4)4/#18 (1) 12 PAIR/#19 COMM. CABLE	(1)9/#14 (4)4/#18	(2)5/#14 (12)2/#14 (2)#6 SC	RL-1
*3	1	2.5"	9'	(2)16/#14 (3)4/#18			
*4	1	2.5"	27'	(2)9/#14			
*5	1	2.5"	45'	(1)4/#18 (1)9/#14			
*6	1	1.5"	4'	(1)4/#18			
7	1	2.5"	5'	(1)9/#14			
*8	1	2.5"	87'	(1)9/#14			
*9	1	2.5"	53'	(1)9/#14			
*10	1	2.5"	79'	(1) 12 PAIR/#19 COMM. CABLE	(1)9/#14 (4)4/#18	(2)5/#14 (12)2/#14 (1)#6 SC	RL-1
*11	1	1.5"	9'		(1)4/#18	(4)1/#14	RL-1
*12	1	2.5"	160'		(1)4/#18	(4)2/#14 (1)#6 SC	RL-1
*13	1	1.5"	9'		(1)4/#18	(4)1/#14	RL-1
14	1	2.5"	13'	(1)9/#14			
*15	1	2.5"	86'		(1)9/#14	(2)5/#14 (1)2/#14 (1)#6 SC	RL-1
*16	1	2.5"	123'	(1) 12 PAIR/#19 COMM. CABLE	(2)4/#18	(5)2/#14 (1)#6 SC	RL-1
*17	1	2.5"	160'	(1) 12 PAIR/#19 COMM. CABLE	(1)4/#18	(4)2/#14 (1)#6 SC	RL-1
*18	1	1.5"	10'		(1)4/#18	(4)1/#14	RL-1
*19	1	UNK	UNK	(1) 12 PAIR/#19 COMM. CABLE			
*20	1	2.5"	166'		(1)4/#18	(2)2/#14 (1)#6 SC	RL-1
*21	1	2.5"	216'	(1) 12 PAIR/#19 COMM. CABLE	(1)4/#18	(2)2/#14 (1)#6 SC	RL-1
22	1	2.5"	6'	(1)9/#14			
23	1	2.5"	35'	(1)9/#14			
24	1	3"	5'			(2)5/#14 (1)2/#14 (1)#6 SC	RL-1

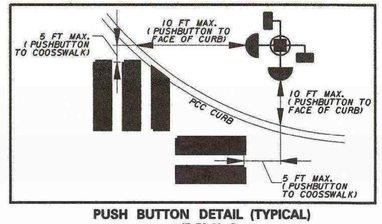
* INDICATES EXISTING CONDUIT
SC - STRANDED COPPER



CURB DETAIL 1 (FIELD ADJUSTMENTS AS REQUIRED)
(SCALE 1" = 10')

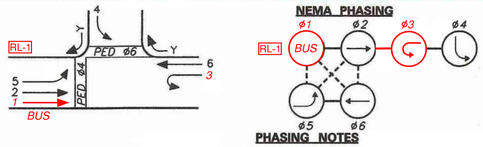


CURB DETAIL 2 (FIELD ADJUSTMENTS AS REQUIRED)
(SCALE 1" = 10')



PUSH BUTTON DETAIL (TYPICAL)
(NOT TO SCALE)

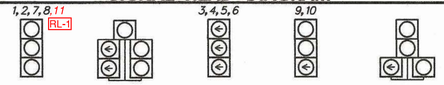
SIGNAL PHASING



PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.
3. OVERLAP A = 1 + 2
   OVERLAP C = 3 + 6

SIGNAL HEAD DIAGRAM



LEGEND

- PROPOSED SIGNAL CABINET
- EXISTING SIGNAL CABINET
- PROPOSED SIGNAL POLE BASE
- EXISTING SIGNAL POLE BASE
- PROPOSED PEDESTRIAN POLE BASE
- EXISTING PEDESTRIAN POLE BASE
- PROPOSED WOOD POLE
- EXISTING UTILITY POLE
- PROPOSED JUNCTION WELL
- EXISTING JUNCTION WELL
- PROPOSED SIGNAL HEAD
- EXISTING SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSHBUTTON
- EXISTING PEDESTRIAN PUSHBUTTON
- PROPOSED VIDEO DETECTION
- EXISTING VIDEO DETECTION
- PROPOSED MICROWAVE DETECTION
- EXISTING MICROWAVE DETECTION
- OVERHEAD SIGNING
- PROPOSED OPTICOM RECEIVER
- EXISTING OPTICOM RECEIVER
- PROPOSED MAST ARM
- EXISTING MAST ARM
- PROPOSED LUMINAIRE
- EXISTING LUMINAIRE
- PROPOSED LOOP DETECTOR (TYPE 1 OR 2)
- EXISTING LOOP DETECTOR (TYPE 1 OR 2)
- REMOVE BY CONTRACTOR (RM/C)
- REMOVE BY OTHERS (RM/O)
- ABANDON (AB)
- PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE) (PB/X)
- EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE) (PB/X)
- PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL) (JW/X)
- EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL) (JW/X)
- PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN) (CO/#)
- EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN) (CO/#)
- PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN) (OH/#)
- EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN) (OH/#)
- PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM) (MA/XX)
- EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM) (MA/XX)
- PROPOSED CABINET IDENTIFIER (TYPE OF CABINET) (CA/X)
- EXISTING CABINET IDENTIFIER (TYPE OF CABINET) (CA/X)
- PROPOSED SPAN WIRE
- XX EXISTING SPAN WIRE
- RIGHT-OF-WAY OR PROPERTY LINE
- OVH EXISTING OVERHEAD RUN
- PROPOSED SPAN INSULATOR
- EXISTING SPAN INSULATOR
- (P) SERVICE PEDESTAL
- EXISTING HIGHWAY SIGN
- PROPOSED HIGHWAY SIGN
- TUBULAR MARKER (FLEXI-POST)

GENERAL SIGNAL NOTES

REVISION PREPARED BY
CENTURY ENGINEERING INC.

05/28/20 DATE

THIS SEAL APPLIES TO THIS SHEET ONLY
REDLINE-1 UPDATES

BRET A. MARTINE — REGISTERED — No. 11947 — PROFESSIONAL ENGINEER — DELAWARE

SEAL

RECOMMENDED Lisa Delyaur DATE: 9/14/2010

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 9/16/10

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 9/16/10

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

RL-1 UPDATED SOUTH PEDESTRIAN FACILITY TO INCLUDE BUS RAPID TRANSIT SIGNAL WITH PROPOSED LEVEL LANDING, SIDEWALK AND BUS PAD. INCLUDED P&R STRIPING UPDATES AND PROPOSED LOOPS. M. KUBOVCIK (CEI) 5/28. (CONTRACT T201606119)

SCALE
0 30 60 90
FEET

INTERSECTION IMPROVEMENTS PROJECT

CONTRACT
COUNTY: NEW CASTLE
PERMIT NO.: N514
DESIGNED BY: SJE
CHECKED BY: LYD

SIGNAL PLAN
US 40 (PULASKI HWY)
@ WILTON BLVD

SHEET NO.: 88 RL-1
TOTAL SHTS.: 88 RL-1

ADDITIONAL GENERAL SIGNAL NOTES

3. POLE BASES, CABINET BASES, AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.

4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.

5. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE CURB RAMP WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE ADJOINING SIDEWALK, AND SHOULD BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE.

6. THE FISHEYE CAMERA SYSTEM WILL PROVIDE DETECTION FOR BOTH VEHICLES AND BICYCLES, AS WELL AS PROVIDE INTERSECTION BIKE COUNTS.

7. THE FISHEYE DETECTOR SHALL BE PLACED ON THE MAST ARM TO ACHIEVE OPTIMUM DETECTION PER MANUFACTURER'S SPECIFICATION. THE DESIRED DETECTION ZONES SHALL BE SET AND APPROVED BY DELDOT.

8. THE EXISTING CONTROLLER CABINET SHALL BE MAINTAINED UNTIL THE PROPOSED CONTROLLER CABINET IS OPERATIONAL.

9. REMOVAL OF POLE BASES SHALL BE PAID BY ITEM *211000.

10. R10-3E SIGNS SHALL BE INSTALLED ON POLES WITH ONE PEDESTRIAN SIGNAL HEAD. R10-3E-DE SIGNS SHALL BE INSTALLED ON POLES WITH TWO PEDESTRIAN SIGNAL HEADS.

11. BACKPLATES WILL BE INSTALLED FOR ALL SIGNAL HEADS. A 2" REFLECTIVE YELLOW STRIPING WILL BE INSTALLED ON THE BORDER OF THE BACKPLATES.

12. ALL PEDESTAL POLES WITH PEDESTRIAN SIGNALS ARE 10', AND ALL PEDESTAL POLES WITH BICYCLE SIGNALS ARE 14', UNLESS OTHERWISE NOTED. SEE DETAIL SHEETS FOR BICYCLE SIGNAL MOUNTING DETAIL.

13. THE APS SIGNAL SHALL BE MAINTAINED DURING CONSTRUCTION. THE CONTRACTOR SHALL INSTALL APS STATION WITH THE PUSHBUTTONS ON POLE *4, *5, *6 AND *7, ROTATED SO THAT THE FACE OF THE PUSHBUTTON IS PARALLEL WITH THE CROSSING.

14. DUE TO THE DEPTH OF THE WALL ALONG THE SIDEWALK ALONG SOUTH COLLEGE AVENUE, CONDUIT *1 WILL NEED TO BE HAND TRENCHED IN THE SPACE BETWEEN THE SIDEWALK AND THE WALL. ELBOW CONNECTORS WILL NEED TO BE USED TO BEND THE CONDUIT AT THE POWER SOURCE AND AROUND THE NORTHERN END OF THE WALL TO THE SERVICE DISCONNECT PEDESTAL.

15. INSTALL TYPE 4 ANCHOR BOLTS ON TYPE 6 POLE BASE FOUNDATIONS.

16. INSTALL THE TYPE P CABINET ON A 58"X58" TYPE M FOUNDATION.

17. CONTACT NICK MOGLE (302-760-2589) BEFORE POURING THE CABINET BASE TO DETERMINE THE CONDUIT SIZE NEEDED TO CONNECT INTO THE CABINET.

18. PLACE PEDESTRIAN SIGNAL HEAD FOR PEDESTRIAN SCRAMBLE PHASE ABOVE THE OTHER PEDESTRIAN SIGNAL HEADS.

19. THE ENGINEER SHALL NOTIFY DELDOT TRAFFIC/TMC AT LEAST 10 DAYS PRIOR TO ANY CHANGES TO THE TRAFFIC SIGNAL OPERATION. THE CONTRACTOR SHALL HAVE CORRESPONDING SIGNAL TIMESHEET ISSUED VIA DELDOT TRAFFIC/TMC PRIOR TO MODIFYING THE TRAFFIC SIGNAL OPERATION.

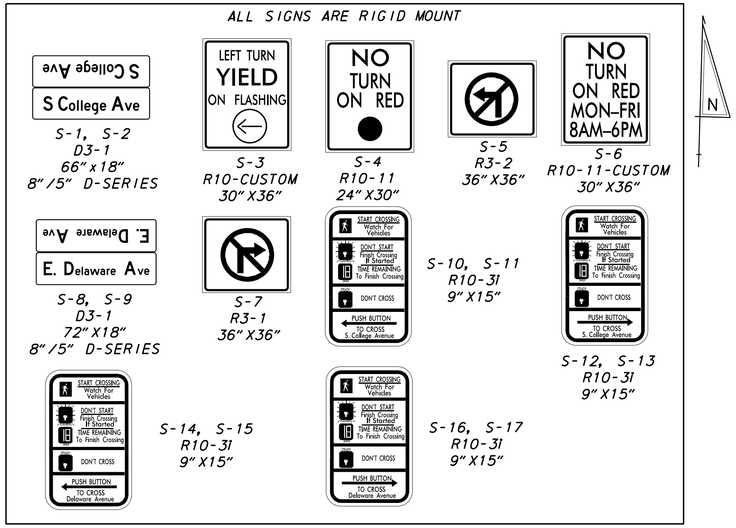
20. COORDINATE WITH BHADRESH PATEL (302-366-7000) AT THE CITY OF NEWARK TO ADJUST THE SECONDARY ELECTRICAL CABLES PRIOR TO INSTSTALLING MAST ARM *1.

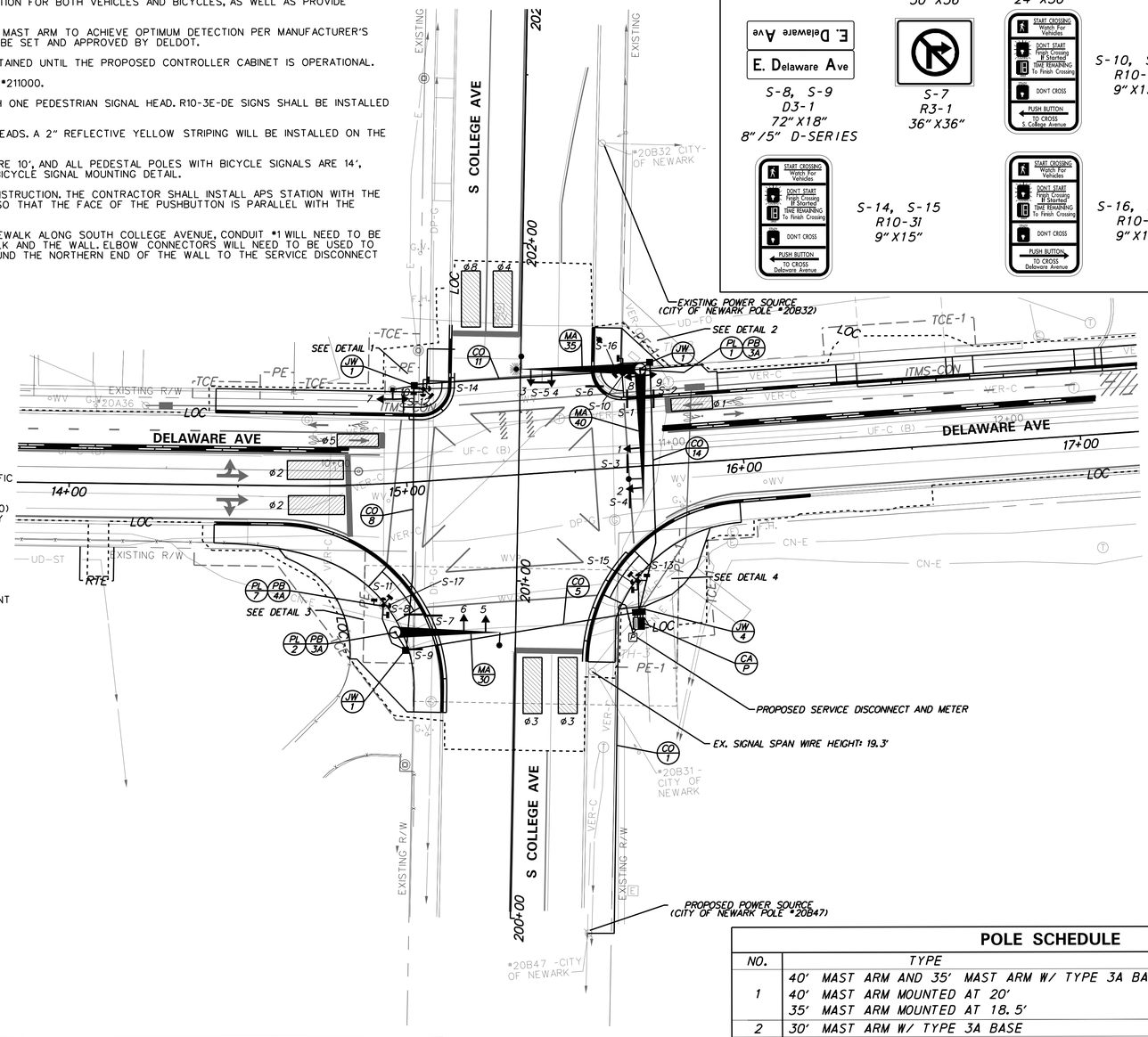
21. THE FURNISHING AND INSTALLATION OF THE 8" BICYCLE SIGNAL HEADS SHALL BE PAID UNDER ITEM *837001 - FURNISH AND INSTALL 8" SIGNAL HEAD RIDIGID MOUNT. THE SIGNAL HEAD SHALL HAVE BICYCLE SYMBOL LENS INSTALLED AS PER REQUIREMENT OF THE PLANS.

SIGN DETAILS

ULTIMATE

ALL SIGNS ARE RIGID MOUNT





ADDITIONAL LEGEND

- MINIMUM DETECTION ZONE
- FISHEYE VIDEO DETECTION

MAST ARM SCHEDULE

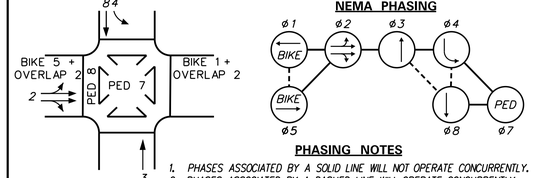
NO.	LENGTH	NO. OF SIGNAL HEADS	S.F. OF SIGNAGE
1	40' MAST ARM	1 - 3 SECTION, 1 - 5 SECTION	23.25 SF
2	35' MAST ARM	2 - 3 SECTION	15.75 SF
3	30' MAST ARM	1 - 3 SECTION, 1 - 5 SECTION	17.25 SF

POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
1	40' MAST ARM AND 35' MAST ARM W/ TYPE 3A BASE 40' MAST ARM MOUNTED AT 20' 35' MAST ARM MOUNTED AT 18.5'	15+71	29' LT
2	30' MAST ARM W/ TYPE 3A BASE	14+93	44' RT
3	14' PEDESTAL POLE W/ TYPE 6 BASE	14+98	28' LT
4	14' PEDESTAL POLE W/ TYPE 4A BASE	15+07	27' LT
5	14' PEDESTAL POLE W/ TYPE 4A BASE	15+66	29' LT
6	14' PEDESTAL POLE W/ TYPE 4A BASE	15+66	35' RT
7	14' PEDESTAL POLE W/ TYPE 4A BASE	14+91	36' RT

THE 14' PEDESTAL POLES SHALL BE SPUN ALUMINUM, SCHEDULE 80.
MAST ARM MOUNTING HEIGHTS ARE APPROXIMATE AND SHOULD BE FIELD ADJUSTED.

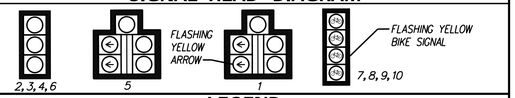
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	⬚	□
LOOP DETECTOR, TYPE 2	⬚	▭
LUMINAIRE	—○	—◆
MAST ARM	➢	➤
MICROWAVE DETECTION	◂	◂
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING		—⊣
PEDESTRIAN POLE/BASE	○	◉
PEDESTRIAN PUSHBUTTON	—▷	—▶
PEDESTRIAN SIGNAL HEAD	▱	▰
RIGHT-OF-WAY	— — —	—R/W—
SERVICE PEDESTAL		Ⓟ
SIGNAL CABINET	▯	▮
SIGNAL HEAD	—▷	→
SIGNAL POLE/BASE	⊗	⊙
CCTV CAMERA	CCTV	■◂
SPAN WIRE	—XX—	—◇—
UTILITY POLE	⊘	◥
VIDEO DETECTION	◧	◧

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
JMT

Mir Wahed — 07/20/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION. — DATE

MIR A. WAHED LICENSE No. 14810 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF TRAFFIC ENGINEER — 7/28/2021 DATE

ADDENDA / REVISIONS

SCALE 0 20 40 60 FEET

DELAWARE AVENUE SEPARATED BIKEWAY- ORCHARD ROAD TO LIBRARY AVENUE

CONTRACT	PERMIT NO.	N428T
T201801501	DESIGNED BY: J.SMITH	
COUNTY	CHECKED BY: M.WAHED	
NEW CASTLE		

SIGNAL PLAN DELAWARE AVE AND S. COLLEGE AVE

SECTION	JMT
SHEET NO.	175

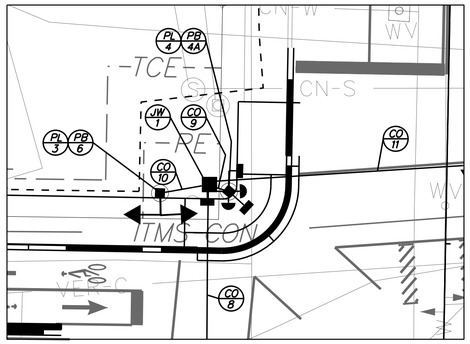
PLOTTED BY: JDSMITH DATE: 7/13/2021
FILE LOCATION: Q:\NDE\140659_032_DELAWARE_AVENUE_SEPARATED_BIKEWAY_DESIGN\CADD\SG_S COLLEGE AVE.DGN [SHEET: SG11]

ULTIMATE

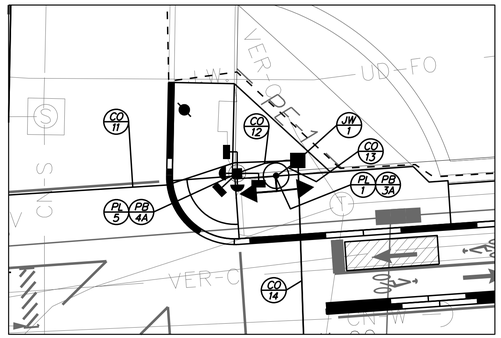
CONDUIT RUN SCHEDULE

CR#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
1	1 (GALV. STEEL)	2"	115'	*T	(1)#8 THHN
2	1 (GALV. STEEL)	2"	10'	T	(1)2/#8 U.F. W/GROUND
3	4	4"	5'	T	(12)5/#14, (5)9/#14, (1)16/#14, (3)4/#18, GRIDSMART CAT5E CABLE, (4)1/#6 GRD
4	1	2.5"	10'	T	(3)5/#14, (1)1/#6 GRD
5	1 (SCH 80 HDPE)	4"	70'	B	(6)5/#14, (3)9/#14, (1)4/#18, (1)1/#6 GRD
6	1	3"	10'	O	(1)9/#14, (1)4/#18. (1)1/#6 GRD
7	1	2.5"	20'	O	(3)5/#14, (1)1/#6 GRD
8	1 (SCH 80 HDPE)	4"	80'	B	(3)5/#14, (2)9/#14, (1)1/#6 GRD
9	1	2.5"	5'	O	(5)5/#14, (1)1/#6 GRD
10	1	2.5"	10'	O	(2)9/#14, (1)1/#6 GRD
11	1 (SCH 80 HDPE)	4"	75'	B	EMPTY
12	1	2.5"	10'	O	(3)5/#14, (1)1/#6 GRD
13	1	3"	5'	O	(2)9/#14, (1)16/#14, (2)4/#18, GRIDSMART CAT5E CABLE, (1)1/#6 GRD
14	1 (SCH 80 HDPE)	4"	75'	B	(3)5/#14, (2)9/#14, (1)16/#14, (2)4/#18, GRIDSMART CAT5E CABLE, (1)1/#6 GRD

NOTE: ALL CONDUIT SHALL BE SCHEDULE 80 PVC UNLESS OTHERWISE NOTED.
B=BORE, T=TRENCH, O=OPEN CUT
* - HAND TRENCHED

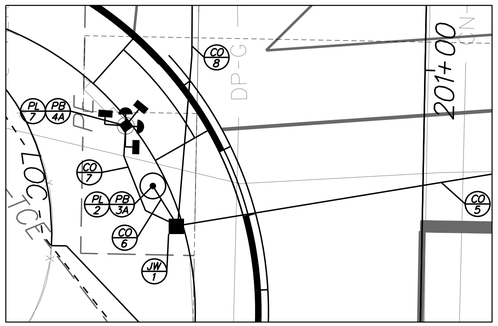


DETAIL 1 – NORTHWEST CORNER
SCALE: 1" = 10'



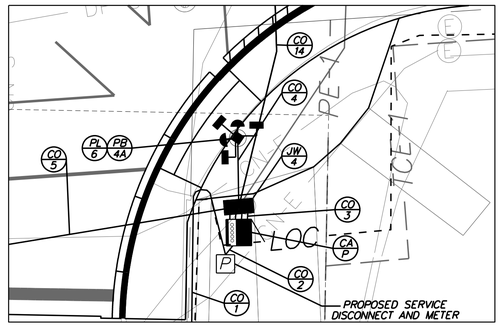
DETAIL 2 – NORTHEAST CORNER
SCALE: 1" = 10'

NOTE: FOR CLARITY OF THE DETAILS, MAST ARMS ARE NOT SHOWN.
ONLY THE POLE BASE LOCATION IS SHOWN ON THE DETAIL.



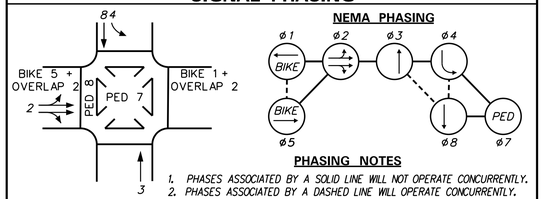
DETAIL 3 – SOUTHWEST CORNER
SCALE: 1" = 10'

NOTE: FOR CLARITY OF THE DETAILS, MAST ARMS ARE NOT SHOWN.
ONLY THE POLE BASE LOCATION IS SHOWN ON THE DETAIL.



DETAIL 4 – SOUTHEAST CORNER
SCALE: 1" = 10'

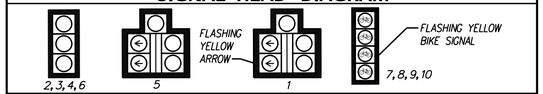
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH •	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (TYPE OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
JMT

Mir Wahed — 07/20/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION. — DATE

MIR A. WAHED — LICENSE — No. 14810 — DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF TRAFFIC ENGINEER — 7/28/2021 DATE

ADDENDA / REVISIONS							

N.T.S.

DELAWARE AVENUE SEPARATED BIKEWAY– ORCHARD ROAD TO LIBRARY AVENUE

CONTRACT	PERMIT NO.	N428T
T201801501	DESIGNED BY: J.SMITH	
COUNTY	CHECKED BY: M.WAHED	
NEW CASTLE		

SIGNAL PLAN
DELAWARE AVE AND S. COLLEGE AVE

SECTION	SHEET NO.
JMT	176

PLOTTED BY: JDSMITH DATE: 7/13/2021
FILE LOCATION: Q:\NDE\1140659_032_DELAWARE_AVENUE_SEPARATED_BIKEWAY_DESIGN\CADD\SG_S COLLEGE AVE.DGN [SHEET: SG12]

6 NEW SHEET

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
XIA	1	2"	GALV	25'/30'	-	REMOVE (1)12/#8 U.F.W/GRND NEW (1)12/#8 U.F.W/GRND
XIB	1	2"	GALV	30'	-	REMOVE (1)12/#8 U.F.W/GRND
IC	1	2"	GALV	15'	T	NEW (1)12/#8 U.F.W/GRND
2	3	4"	PVC	5'	T	NEW (3)14/#18 (2)16/#14 (1)VIDEO DETECTION HOME-RUN CABLE (2)#6 BSC)
3	1	4"	HDPE	90'	B	NEW (12)14/#18 (1)16/#14 (1)VIDEO DETECTION HOME-RUN CABLE (1)#6 BSC)
4	1	3"	PVC	20'	T	NEW (12)14/#18 (1)16/#14 (1)VIDEO DETECTION HOME-RUN CABLE (1)#6 BSC)
5	1	4"	HDPE	95'	B	NEW (1)14/#18 (1)16/#14 (1)#6 BSC)
6	1	3"	PVC	10'	T	NEW (1)14/#18 (1)16/#14 (1)#6 BSC)
X7	1	2.5"	PVC	45'	-	EMPTY
X8	1	2.5"	PVC	8'	-	EMPTY
X9	1	2.5"	PVC	21'	-	EMPTY

LEGEND
X- DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

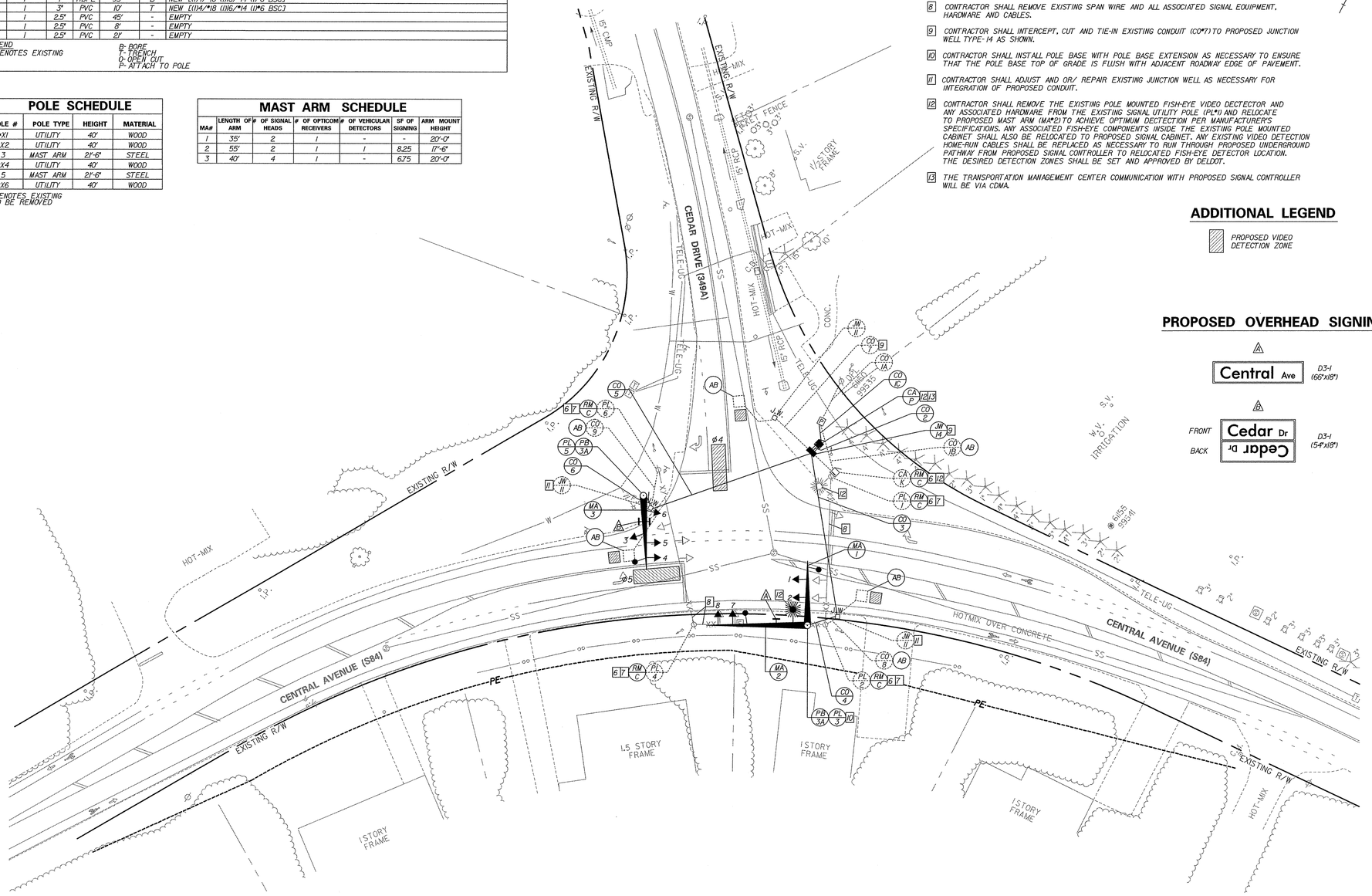
POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
*X1	UTILITY	40'	WOOD
*X2	UTILITY	40'	WOOD
3	MAST ARM	21'-6"	STEEL
*X4	UTILITY	40'	WOOD
5	MAST ARM	21'-6"	STEEL
*X6	UTILITY	40'	WOOD

X- DENOTES EXISTING
* TO BE REMOVED

MAST ARM SCHEDULE

MA#	LENGTH OF ARM	# OF SIGNAL HEADS	# OF OPTICOM RECEIVERS	# OF VEHICULAR DETECTORS	SF OF SIGNING	ARM MOUNT HEIGHT
1	35'	2	1	-	-	20'-0"
2	55'	2	1	1	8.25	17'-6"
3	40'	4	1	-	6.75	20'-0"



ADDITIONAL SIGNAL NOTES

6 ALL EXISTING VEHICULAR SIGNAL COMPONENTS CALLED OUT FOR REMOVAL OR ABANDONMENT SHALL REMAIN INTACT AND FULLY FUNCTIONAL UNTIL ALL PROPOSED VEHICULAR SIGNAL COMPONENTS INSTALLATIONS ARE READY TO BE COMMISSIONED. CONTRACTOR SHALL ENSURE THAT SIGNAL DOWNTIME DURING DECOMMISSIONING OF THE EXISTING AND COMMISSIONING OF THE PROPOSED SIGNAL INSTALLATION IS MINIMAL.

7 CONTRACTOR SHALL REMOVE EXISTING SIGNAL UTILITY WOOD POLE. AFTER REMOVAL, THE AREA SHALL BE RESTORED TO MATCH EXISTING ADJACENT CONDITIONS.

8 CONTRACTOR SHALL REMOVE EXISTING SPAN WIRE AND ALL ASSOCIATED SIGNAL EQUIPMENT, HARDWARE AND CABLES.

9 CONTRACTOR SHALL INTERCEPT, CUT AND TIE-IN EXISTING CONDUIT (CO*7) TO PROPOSED JUNCTION WELL TYPE-14 AS SHOWN.

10 CONTRACTOR SHALL INSTALL POLE BASE WITH POLE BASE EXTENSION AS NECESSARY TO ENSURE THAT THE POLE BASE TOP OF GRADE IS FLUSH WITH ADJACENT ROADWAY EDGE OF PAVEMENT.

11 CONTRACTOR SHALL ADJUST AND OR/ REPAIR EXISTING JUNCTION WELL AS NECESSARY FOR INTEGRATION OF PROPOSED CONDUIT.

12 CONTRACTOR SHALL REMOVE THE EXISTING POLE MOUNTED FISH-EYE VIDEO DECTECTOR AND ANY ASSOCIATED HARDWARE FROM THE EXISTING SIGNAL UTILITY POLE (PL*1) AND RELOCATE TO PROPOSED MAST ARM (MA*2) TO ACHIEVE OPTIMUM DECTECTION PER MANUFACTURER'S SPECIFICATIONS. ANY ASSOCIATED FISH-EYE COMPONENTS INSIDE THE EXISTING POLE MOUNTED CABINET SHALL ALSO BE RELOCATED TO PROPOSED SIGNAL CABINET. ANY EXISTING VIDEO DETECTION HOME-RUN CABLES SHALL BE REPLACED AS NECESSARY TO RUN THROUGH PROPOSED UNDERGROUND PATHWAY FROM PROPOSED SIGNAL CONTROLLER TO RELOCATED FISH-EYE DETECTOR LOCATION. THE DESIRED DETECTION ZONES SHALL BE SET AND APPROVED BY DELDOT.

13 THE TRANSPORTATION MANAGEMENT CENTER COMMUNICATION WITH PROPOSED SIGNAL CONTROLLER WILL BE VIA CDMA.

ADDITIONAL LEGEND

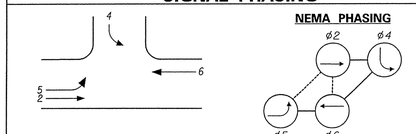
PROPOSED VIDEO DETECTION ZONE

PROPOSED OVERHEAD SIGNING

A — Central Ave — D3-1 (66"x18")

B — FRONT Cedar Dr / BACK Cedar Dr — D3-1 (54"x18")

SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

PROPOSED SIGNAL CABINET	(RM C) REMOVE BY CONTRACTOR
EXISTING SIGNAL CABINET	(RM O) REMOVE BY OTHERS
PROPOSED SIGNAL POLE BASE	(AB) ABANDON
EXISTING SIGNAL POLE BASE	(PB X) PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
PROPOSED PEDESTRIAN POLE BASE	(PB X) EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
EXISTING PEDESTRIAN POLE BASE	(PL X) PROPOSED POLE IDENTIFIER (* OF POLE)
PROPOSED WOOD POLE	(PL X) EXISTING POLE IDENTIFIER (* OF POLE)
EXISTING WOOD POLE	(JW X) PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
PROPOSED JUNCTION WELL	(JW X) EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
EXISTING JUNCTION WELL	(CO •) PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
PROPOSED SIGNAL HEAD	(CO •) EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
EXISTING SIGNAL HEAD	(OH •) PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
PROPOSED PEDESTRIAN SIGNAL HEAD	(OH •) EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
EXISTING PEDESTRIAN SIGNAL HEAD	(MA XX) PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
PROPOSED PEDESTRIAN PUSHBUTTON	(MA XX) EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
EXISTING PEDESTRIAN PUSHBUTTON	(CA X) PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
PROPOSED VIDEO DETECTION	(CA X) EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
EXISTING VIDEO DETECTION	PROPOSED SPAN WIRE
PROPOSED MICROWAVE DETECTION	XX EXISTING SPAN WIRE
EXISTING MICROWAVE DETECTION	RIGHT-OF-WAY OR PROPERTY LINE
OVERHEAD SIGNING	PROPOSED SPAN INSULATOR
PROPOSED OPTICOM RECEIVER	EXISTING SPAN INSULATOR
EXISTING OPTICOM RECEIVER	P SERVICE PEDESTAL
PROPOSED MAST ARM	PROPOSED CCTV
EXISTING MAST ARM	EXISTING CCTV
PROPOSED LUMINAIRE	PROPOSED PLASTIC DRUMS
EXISTING LUMINAIRE	EXISTING PLASTIC DRUMS
PROPOSED LOOP DETECTOR (TYPE 1 OR 2)	
EXISTING LOOP DETECTOR (TYPE 1 OR 2)	

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: _____

RECOMMENDED [signature] DATE: 4/11/16

APPROVED TRAFFIC ENGINEER [signature] DATE: 4/13/16

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER [signature] DATE: 4/13/16

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

6 ADDED PERMANENT TRAFFIC SIGNAL 4/12/16 TMB	

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210
COUNTY	SUSSEX
PERMIT NO.	S329
DESIGNED BY:	MSK
CHECKED BY:	BAM

SIGNAL PLAN
RD S84 (CENTRAL AVENUE)
& RD 349A (CEDAR DRIVE)

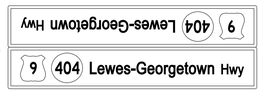
SHEET NO.	547A
TOTAL SHTS.	589

4/7/2016
I:\PROJECTS\sr26malnline\Survey\signal_cedar centralnew.dgn
8:32:46 AM

EXISTING OVERHEAD SIGNING

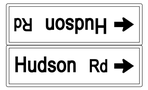
A

D3-1
108" X 18"



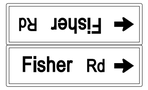
B

D3-1
72" X 18"



C

D3-1
72" X 18"



POLE SCHEDULE

POLE NO.	POLE TYPE	HEIGHT	MATERIAL
X1	STRAIN	32'	STEEL
2	PEDESTAL	10'-0"	ALUMINUM
3	PEDESTAL	10'-0"	ALUMINUM
X4	STRAIN	32'	STEEL
X5	STRAIN	32'	STEEL
6	PEDESTAL	10'-0"	ALUMINUM
X7	STRAIN	32'	STEEL

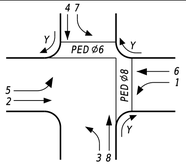
X - DENOTES EXISTING

CONDUIT RUN SCHEDULE

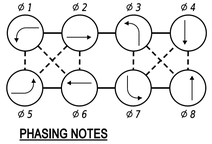
CR NO.	NO. OF CONDUITS	SIZE (TYPE)	LENGTH (B/T/O/P)	AMOUNT AND TYPE OF CABLE / WIRE
X1A	1	2"	6'/40'	EXISTING (1)2/#8 U.F.W/GROUND - LINE SIDE
X1B	1	2"	142'	EXISTING (1)2/#8 U.F.W/GROUND - LOAD SIDE
X2	4	4"	4'	EXISTING (2)16/#14 (4)4/#18 (4)#6 SC REMOVE (10)2/#14 NEW [(4)5/#14 (10)2/#14] ₸ (1)CAT5E VID DET HR CABLE
X3	1	3"	8'	EXISTING [(2)16/#14 (4)4/#18 (1)#6 SC] NEW ₸ (1)CAT5E VID DET HR CABLE
X4	4	4"	60'	REMOVE (10)2/#14 (1)#6 SC - ABANDON CONDUIT
X5	1	4"	88'	REMOVE (5)2/#14 (1)#6 SC - ABANDON CONDUIT
X6	1	3"	22'	EMPTY
X7	1	4"	89'	REMOVE (1)2/#14 (1)#6 SC - ABANDON CONDUIT
X8	1	4"	225'	REMOVE (1)2/#14 (1)#6 SC - ABANDON CONDUIT
X9	1	4"	88'	REMOVE (3)2/#14 (1)#6 SC - ABANDON CONDUIT
X10	1	3"	53'	EMPTY
X11	1	4"	90'	EMPTY
X12	1	3"	17'	EMPTY
X13	1	4"	76'	REMOVE (2)2/#14 (1)#6 SC - ABANDON CONDUIT
X14	1	4"	88'	REMOVE [(1)2/#14 (1)#6 SC] NEW [(1)2/#14 (1)#6 SC]
X15	1	4"	197'	REMOVE [(1)2/#14 (1)#6 SC] NEW [(1)2/#14 (1)#6 SC]
16	1	4"(HDPE)	50'(B)	NEW (4)5/#14 (10)2/#14 (1)#6 SC
17	1	2.5"(PVC)	5'(T)	NEW (1)5/#14 (1)#6 SC
18	1	4"(PVC)	30'(T)	NEW (2)2/#14 (1)#6 SC
19	1	4"(HDPE)	85'(B)	NEW (3)5/#14 (5)2/#14 (1)#6 SC
20	1	2.5"(PVC)	15'(T)	NEW (2)5/#14 (1)#6 SC
21	1	4"(HDPE)	35'(B)	NEW (1)5/#14 (5)2/#14 (1)#6 SC
22	1	4"(PVC)	130'(T)	NEW (1)2/#14 (1)#6 SC
23	1	4"(PVC)	200'(T)	NEW (1)2/#14 (1)#6 SC
24	1	4"(HDPE)	65'(B)	NEW (1)5/#14 (3)2/#14 (1)#6 SC
25	1	2.5"(PVC)	20'(T)	NEW (1)5/#14 (1)#6 SC
26	1	4"(PVC)	25'(T)	NEW (2)2/#14 (1)#6 SC
27	1	4"(HDPE)	70'(B)	NEW (2)2/#14 (1)#6 SC

X DENOTES EXISTING CONDUIT RUN. ₸ DENOTES TEMPORARY SIGNAL USAGE
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

SIGNAL PHASING



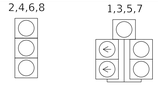
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

ADDITIONAL SIGNAL NOTES

3 ALL EXISTING SIGNAL COMPONENTS CALLED OUT FOR REMOVAL OR ABANDONMENT SHALL REMAIN INTACT AND FULLY FUNCTIONAL UNTIL ALL PROPOSED SIGNAL INSTALLATIONS ARE READY TO BE COMMISSIONED. CONTRACTOR SHALL ENSURE THAT SIGNAL DOWNTIME DURING DECOMMISSIONING OF THE EXISTING AND COMMISSIONING OF THE PROPOSED SIGNAL INSTALLATION IS MINIMAL.

4 PEDESTRIAN SIGNAL HEADS SHALL BE OF COUNT-DOWN TYPE AND PEDESTRIAN PUSH BUTTONS SHALL BE OF NON-LATCHING TYPE.

5 TRAFFIC CONTRACTOR SHALL INSTALL EDUCATION COUNTDOWN PEDESTRIAN SIGN (R10-3e) ON ALL SINGLE PEDESTRIAN SIGNAL MOUNTED POLES PER DESIGN.

6 TRAFFIC CONTRACTOR SHALL INSTALL EDUCATION COUNTDOWN PEDESTRIAN SIGNS (R10-3e-DE) ON ALL DOUBLE PEDESTRIAN SIGNAL MOUNTED POLES WITH ARROWS ALIGNED ON STATION BUTTONS IN THE DIRECTION OF PED PHASE ACTIVATION PER DESIGN.

7 PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE PEDESTRIAN CONNECTION WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK.

8 CONTRACTOR SHALL ADJUST AND/OR REPAIR EXISTING JUNCTION WELL AS NECESSARY FOR INTEGRATION OF PROPOSED CONDUITS AND/OR FINISH FLUSH WITH FINAL GRADES.

9 CONTRACTOR SHALL REMOVE EXISTING JUNCTION WELL COMPOSITE FRAME AND LID AND REPLACE WITH CAST IRON FRAME AND LID.

10 CONTRACTOR SHALL CUT EXISTING LOOP WIRES AND SPLICE TO PROPOSED HOME-RUN LOOP CABLE.

11 CONTRACTOR SHALL INTERCEPT EXISTING CONDUIT (CO#6) WITH PROPOSED JUNCTION WELL AS SHOWN FOR PATHWAY TO EXISTING POLE BASE AND POLE (PL#4).

12 CONTRACTOR SHALL INTERCEPT EXISTING CONDUIT (CO#1B) AND INSTALL A SECONDARY DISCONNECT SWITCH.

13 CONTRACTOR SHALL INSTALL CORNER TUBULAR MARKERS ON PROPOSED ISLAND (TYPICAL).

14 REFER TO M.O.T. PLANS FOR TRAFFIC CONTROL AND LANE RESTRICTIONS DURING SIGNAL CONSTRUCTION.

15 SURVEY DATA WAS OBTAINED BY CENTURY ENGINEERING INC.

TEMPORARY SIGNAL NOTES

16 PROPOSED VIDEO DETECTOR, APPROVED BY DELDOT SIGNAL MAINTENANCE, SHALL BE LOCATED, MOUNTED AND ORIENTED TO ACHIEVE OPTIMUM VEHICULAR DETECTION FOR PHASES 1, 3, 4, 7 & 8 PER MANUFACTURER'S SPECIFICATIONS. VIDEO DETECTOR MOUNTED ON EXISTING STRAIN POLE (PL#4) SHALL HAVE THE CAT5E VIDEO DETECTOR HOMERUN CABLE RUN ALONG THE EXISTING SPAN WIRE WITH MESSENGER CABLE, THEN THE CAT5E VIDEO DETECTOR HOMERUN CABLE SHALL RUN DOWN EXISTING STRAIN POLE (PL#1), THROUGH EXISTING CONDUIT (CO#3) AND THROUGH EXISTING CONDUIT (CO#2) TO EXISTING CABINET.

17 PROPOSED VIDEO DETECTION SHALL BECOME OPERATIONAL PRIOR TO COMMENCEMENT OF INTERSECTION CONSTRUCTION. VIDEO DETECTION SHALL REMAIN IN PLACE AND ADJUSTED AS NECESSARY DURING CONSTRUCTION. ONCE CONSTRUCTION HAS COMPLETED AND SAW CUT LOOP DETECTORS HAVE BEEN FULLY IMPLEMENTED, THE CONTRACTOR SHALL REMOVE VIDEO DETECTOR SYSTEM INCLUDING CAT5E VIDEO DETECTOR HOMERUN CABLE FROM THE CONDUITS AND SPAN WIRE.

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
CENTURY ENGINEERING

B.A. MARTINE — No. 11947 — PROFESSIONAL ENGINEER — SEAL

7/14/2021
THIS SEAL APPLIES TO THIS SHEET ONLY. — DATE

CONCURRENCE FOR INSTALLATION

8/4/2021
CHIEF OF TRAFFIC ENGINEERING — DATE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

GEORGETOWN TO LEWES TRAIL, COOL SPRING ROAD TO FISHER ROAD

CONTRACT	T202030001	PERMIT NO.	S338
COUNTY	SUSSEX	DESIGNED BY:	M.KUBOVCIK
		CHECKED BY:	B.MARTINE

SIGNAL PLAN
US 9 (LEWES-GEORGETOWN HWY) @ HUDSON ROAD (S258)/ FISHER ROAD (S262)

SECTION: CEI
SHEET NO.: 121

LAST REVISED: 9/11/2018
LAST PLOT: 8/4/2021 15:58
\\solomon.centuryeng.com\global-ceiDO-ProjectData\Projects\185003.00 Agmt 1834 TAP\185003.13 (Task 13 - GL Log Cabin)\CADD FILES\Sheets\SGlog_S338_US9 & Hudson Rd .dgn

NEW CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T	AMOUNT AND TYPE OF CABLE / WIRE	
1	1	2"	4'	T	NEW (1) 2/#8 UF W/GROUND	
2	2	2.5"	52'	T	NEW (3) 9/#14, (1) #6 GROUND	SCHEDULE 80 CPV
3	1	2.5"	24'	T	NEW (2) 9/#14, (1) #6 GROUND	SCHEDULE 80 CPV
4	1	4"	52'	B	NEW (2) 9/#14, (1) #6 GROUND	HDPE SDR-13.5 SCH 80 CPV
5	1	4"	38'	B	NEW (1) 9/#14, (1) #6 GROUND	HDPE SDR-13.5 SCH 80 CPV
6	1	2.5"	20'	T	NEW (1) 9/#14, (1) #6 GROUND	SCHEDULE 80 CPV
7	1	2.5"	18'	T	NEW (1) 9/#14, (1) #6 GROUND	
8	1	2.5"	4'	T	NEW (1) 9/#14, (1) #6 GROUND	

B = BORE, T = TRENCH

GENERAL SIGNAL NOTES (CONT.)

3. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.

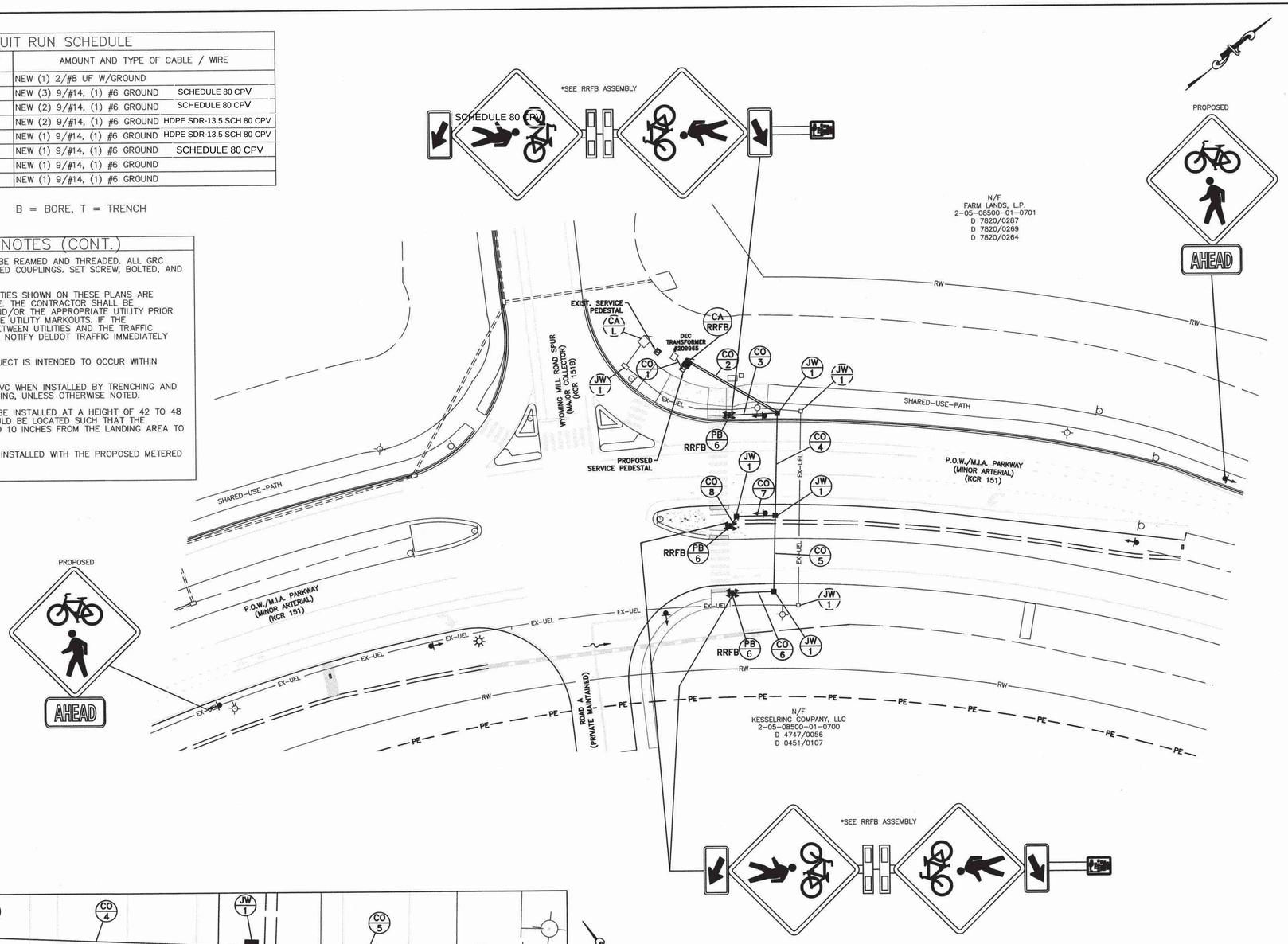
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

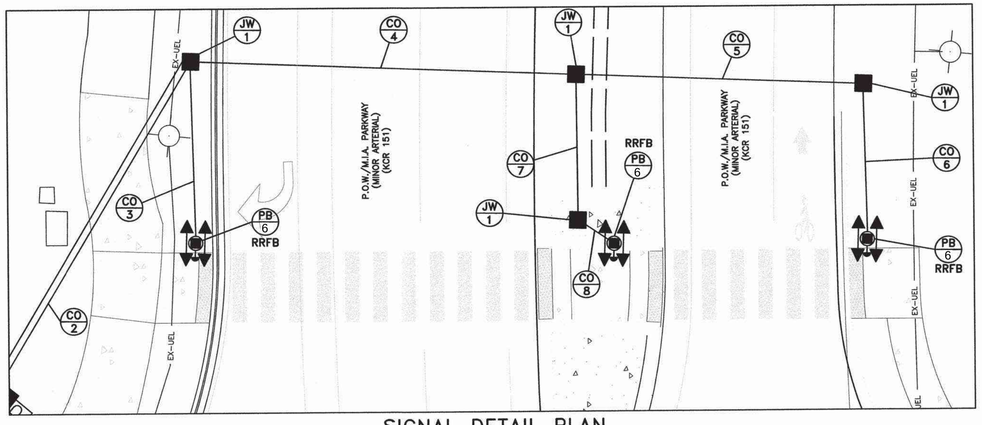
5. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY.

6. ALL CONDUIT SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING AND SCHEDULE 80 HDPE WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED.

7. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA AND SHOULD BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON.

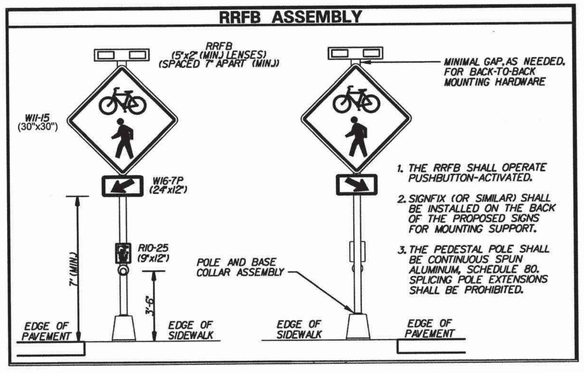
8. PROPOSED FLASHER CABINET SHALL BE INSTALLED WITH THE PROPOSED METERED SERVICE PEDESTAL.





SIGNAL DETAIL PLAN

SCALE: 1"=10'



RRFB TIMESHEET PARAMETERS

89-FOOT PEDESTRIAN CLEARANCE

33-SECOND WARNING/FLASH TIME

1-6

ALTERNATELY FLASHING (WW+S PATTERN YELLOW RRFB BEACONS

LEGEND

AB	ABANDON	OH/#	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA/X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH/#	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA/X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB/X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO/#	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB/X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO/#	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL/X	EXISTING POLE IDENTIFIER (# OF POLE)
JW/X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL/X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW/X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM/C	REMOVE BY CONTRACTOR
MA/XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM/O	REMOVE BY OTHERS
MA/XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM/TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	▫	■
LOOP DETECTOR, TYPE 1	□	□
LOOP DETECTOR, TYPE 2	⊟	▭
LUMINAIRE	—○	—●
MAST ARM	▷	➤
MICROWAVE DETECTION	—▯	—■
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	⊓	⊢●
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—▷	—➤
PEDESTRIAN SIGNAL HEAD	—▭	—■
RIGHT-OF-WAY	———	—R/W—
SERVICE PEDESTAL		P
SIGNAL CABINET	▯	■
SIGNAL HEAD	—▷	—➤
SIGNAL POLE/BASE	⊗	⊙
CCTV CAMERA	▭	▬◂
SPAN WIRE	—XX—	—◇—
UTILITY POLE	⊘	●
VIDEO DETECTION	◁	◀

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.

2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS, ENGINEERS & SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

WENDY J CARPENTER — LICENSED — No. 21708 — DELAWARE — PROFESSIONAL ENGINEER

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "DBF" SECTION DESIGNATION.

4/30/2020 DATE

SEAL

APPROVED FOR INSTALLATION

Peter Haag DelDOT — 5/5/2020

CHIEF TRAFFIC ENGINEER — DATE

ADDENDA / REVISIONS

SCALE: 0 30 60 90 FEET

CONTRACT	PERMIT NO.	K330	SECTION
N/A	DESIGNED BY: DJR (DBF)		DBF
COUNTY	CHECKED BY: WJC (DBF)		SHEET NO.
KENT			1

RRFB SIGNAL PLAN
POW/MIA PARKWAY & WYOMING MILL SPUR ROAD

CONDUIT RUN SCHEDULE

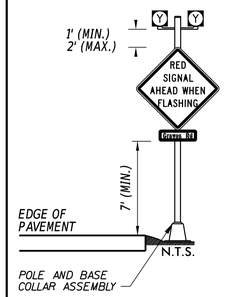
CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
1*	1	2.0 IN	25 FT	-	<REMOVE EX. (1) 2/#8 U.F. W/GROUND>
2*	1	2.5 IN	3 FT	-	[NEW (2) 16/#14, (4) 4/#18, (1) #6 GROUND], <REMOVE EX. (2) 16/#14>
3*	2	2.5 IN	3 FT	-	[NEW (2) 2/#14, (2) 4/#14, (1) 2/#8 U.F. W/GROUND - LOAD SIDE, (2) #6 GROUND], (6) 4/#18 - TO REMAIN
4*	1	2.5 IN	86 FT	-	(2) 4/#18 - TO REMAIN
5*	1	2.5 IN	135 FT	-	(1) 4/#18 - TO REMAIN
6*	1	2.5 IN	66 FT	-	[NEW (1) 2/#14, (1) #6 GROUND], (3) 4/#18 - TO REMAIN
7*	1	2.5 IN	85 FT	-	[NEW (1) 2/#14, (1) #6 GROUND], (1) 4/#18 - TO REMAIN
8*	1	2.5 IN	157 FT	-	(1) 4/#18 - TO REMAIN
9	1	4.0 IN	76 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
10	1	4.0 IN	30 FT	B	[NEW (2) 4/#14, (1) #6 GROUND]
11	1	4.0 IN	150 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
12	1	4.0 IN	95 FT	B	[NEW (2) 4/#14, (1) #6 GROUND]
13	1	4.0 IN	225 FT	T	[NEW (2) 4/#14, (1) #6 GROUND]
14	1	3.0 IN	4 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]
15	1	4.0 IN	54 FT	B	[NEW (1) 4/#14, (1) #6 GROUND]
16	1	3.0 IN	15 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]
17*	1	2.0 IN	5 FT	-	<REMOVE EX. (1) 2/#8 U.F. W/GROUND>
18*	1	2.0 IN	42 FT	-	<REMOVE EX. (1) 2/#8 U.F. W/GROUND>
19**	1	2.0 IN	23 FT	T	[NEW (1) 2/#8 U.F. W/GROUND - LOAD SIDE]
20**	1	2.0 IN	6 FT	T	[NEW (3) 1/#8 THHN - LINE SIDE]

* DENOTES EXISTING CONDUIT

B = BORE, T = TRENCH, O = OPEN CUT

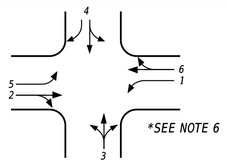
** RIGID GALVANIZED STEEL CONDUIT

H.I.B. ASSEMBLY

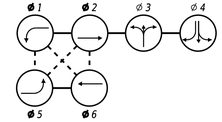


1. HAZARD IDENTIFICATION BEACON (H.I.B.) ASSEMBLIES SHALL CONSIST OF DUAL FLASHING YELLOW BEACONS, RED SIGNAL AHEAD WHEN FLASHING SIGN (W3-3-DE2, 48" x 48", WITH AN ADVANCE STREET NAME PLAQUE SIGN (W16-8P, 30" x 9") MOUNTED ON A PEDESTAL POLE.
2. THE BEACONS SHALL BE DUAL 12-INCH YELLOW L.E.D. ONE-SECTION TRAFFIC SIGNAL HEADS.
3. THE BEACONS SHALL OPERATE 24 HOURS A DAY, 7 DAYS A WEEK.
4. THE FLASHING RATE SHALL NOT BE LESS THAN 50 NOR MORE THAN 60 TIMES PER MINUTE.
5. THE ILLUMINATED PERIOD OF EACH FLASH SHALL NOT BE LESS THAN 1/2 NOR MORE THAN 2/3 OF THE FLASH CYCLE.
6. SIGNFIX (OR SIMILAR) SHALL BE INSTALLED ON THE BACK OF THE PROPOSED SIGNS FOR MOUNTING SUPPORT.
7. THE PEDESTAL POLES SHALL BE CONTINUOUS SPUN ALUMINUM. SCHEDULE 80. SPLICING POLE EXTENSIONS SHALL BE PROHIBITED.

SIGNAL PHASING



NEMA PHASING

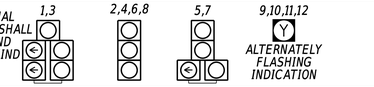


PHASING NOTES

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

SIGNAL HEAD DIAGRAM

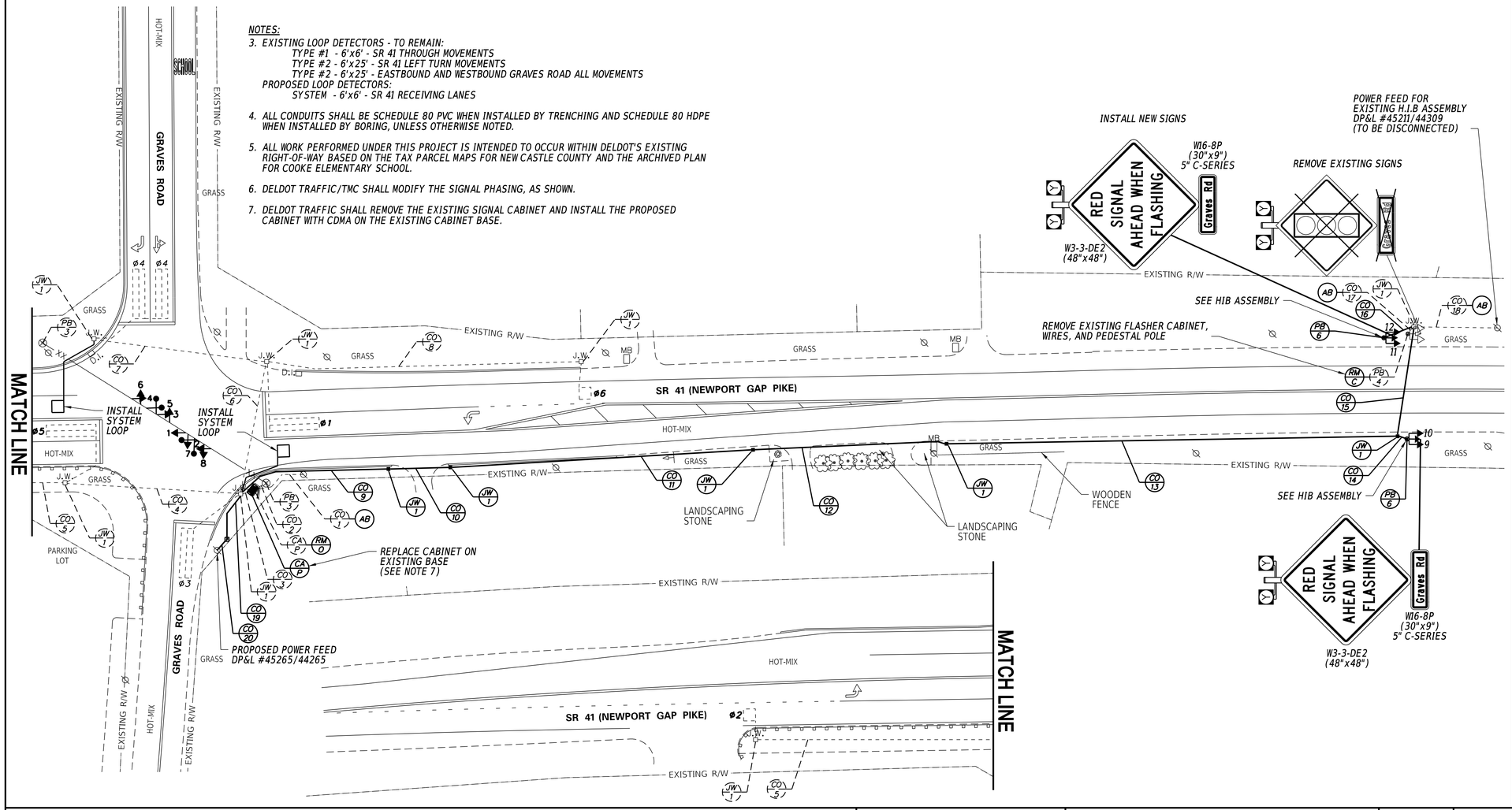
*EXISTING SIGNAL HEAD NOS. 1-8 SHALL BE REMOVED AND REPLACED IN KIND



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	*PROPOSED SYMBOL*
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		



GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

4/5/2021
DATE

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WRA" SECTION DESIGNATION.

MATTHEW J. BUCKLEY — No. 16224 — PROFESSIONAL ENGINEER

SEAL

CONCURRENCE FOR INSTALLATION

4/5/2021
DATE

CHIEF OF TRAFFIC ENGINEERING

ADDENDA / REVISIONS

1 MODIFIED EXISTING HIB ASSEMBLY TO ACTIVE WARNING HIB ASSEMBLY, INSTALLED NEW ACTIVE WARNING HIB ASSEMBLY ON SB SR 41, INSTALLED OPTICOMS FOR ALL DIRECTIONS, INSTALLED SYSTEM LOOPS FOR SR 41 RECEIVING LANES, AND REPLACED HEADS AND CABLES. B.M.W. (WRA) 03-21 (CONTRACT #T200308302)

SCALE
0 30 60 90
FEET

RED LIGHT RUNNING, STATEWIDE

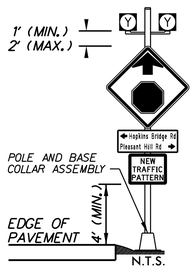
CONTRACT	T200308302
COUNTY	NEW CASTLE
PERMIT NO.	N491
DESIGNED BY:	B. WALKER
CHECKED BY:	M. BUCKLEY

SIGNAL PLAN
SR 41 (NEWPORT GAP PIKE)
@ GRAVES ROAD

SECTION	WRA
SHEET NO.	1

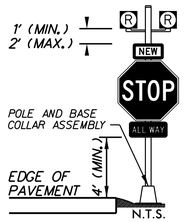
LAST REVISED: 9/11/2018
4/2/2021
8:43:33 AM
N:\3212\04\01\CADD\SIG01_SR 41 at Graves.dgn

H.I.B. ASSEMBLY



1. HAZARD IDENTIFICATION BEACON (H.I.B.) ASSEMBLY SHALL CONSIST OF TWO ALTERNATELY FLASHING YELLOW BEACONS, A STOP AHEAD SIGN (W3-1, 48"x48"), AN ADVANCED STREET NAME PLAQUE (W16-8aP, 48"X18"), AND A NEW TRAFFIC PATTERN PLAQUE (W23-2P-DE, 30"x24") MOUNTED ON A PEDESTAL POLE.
2. THE BEACON SHALL BE A 12-INCH YELLOW L.E.D. TWO-SECTION TRAFFIC SIGNAL HEAD.
3. THE BEACON SHALL OPERATE 24 HOURS A DAY, 7 DAYS A WEEK.
4. THE FLASHING RATE SHALL NOT BE LESS THAN 50 NOR MORE THAN 60 TIMES PER MINUTE.
5. THE ILLUMINATED PERIOD OF EACH FLASH SHALL NOT BE LESS THAN 1/2 NOR MORE THAN 2/3 OF THE FLASH CYCLE.
6. SIGNFIX (OR SIMILAR) SHALL BE INSTALLED ON THE BACK OF THE PROPOSED SIGNS FOR MOUNTING SUPPORT.
7. THE PEDESTAL POLE SHALL BE CONTINUOUS SPUN ALUMINUM, SCHEDULE 80. SPLICING POLE EXTENSIONS SHALL BE PROHIBITED.

I.C.B. ASSEMBLY



1. INTERSECTION CONTROL BEACON (I.C.B.) ASSEMBLY SHALL CONSIST OF TWO SIMULTANEOUSLY FLASHING RED BEACONS, A "NEW" PLAQUE (W16-15P, 24"x12"), A STOP SIGN (R1-1, 48"x48"), AND AN ALL WAY PLAQUE (R1-3P, 30"x12"), MOUNTED ON A PEDESTAL POLE.
2. THE BEACON SHALL BE A 12-INCH RED L.E.D. TWO-SECTION TRAFFIC SIGNAL HEAD.
3. THE BEACON SHALL OPERATE 24 HOURS A DAY, 7 DAYS A WEEK.
4. THE FLASHING RATE SHALL NOT BE LESS THAN 50 NOR MORE THAN 60 TIMES PER MINUTE.
5. THE ILLUMINATED PERIOD OF EACH FLASH SHALL NOT BE LESS THAN 1/2 NOR MORE THAN 2/3 OF THE FLASH CYCLE.
6. SIGNFIX (OR SIMILAR) SHALL BE INSTALLED ON THE BACK OF THE PROPOSED SIGNS FOR MOUNTING SUPPORT.
7. THE PEDESTAL POLE SHALL BE CONTINUOUS SPUN ALUMINUM, SCHEDULE 80. SPLICING POLE EXTENSIONS SHALL BE PROHIBITED.

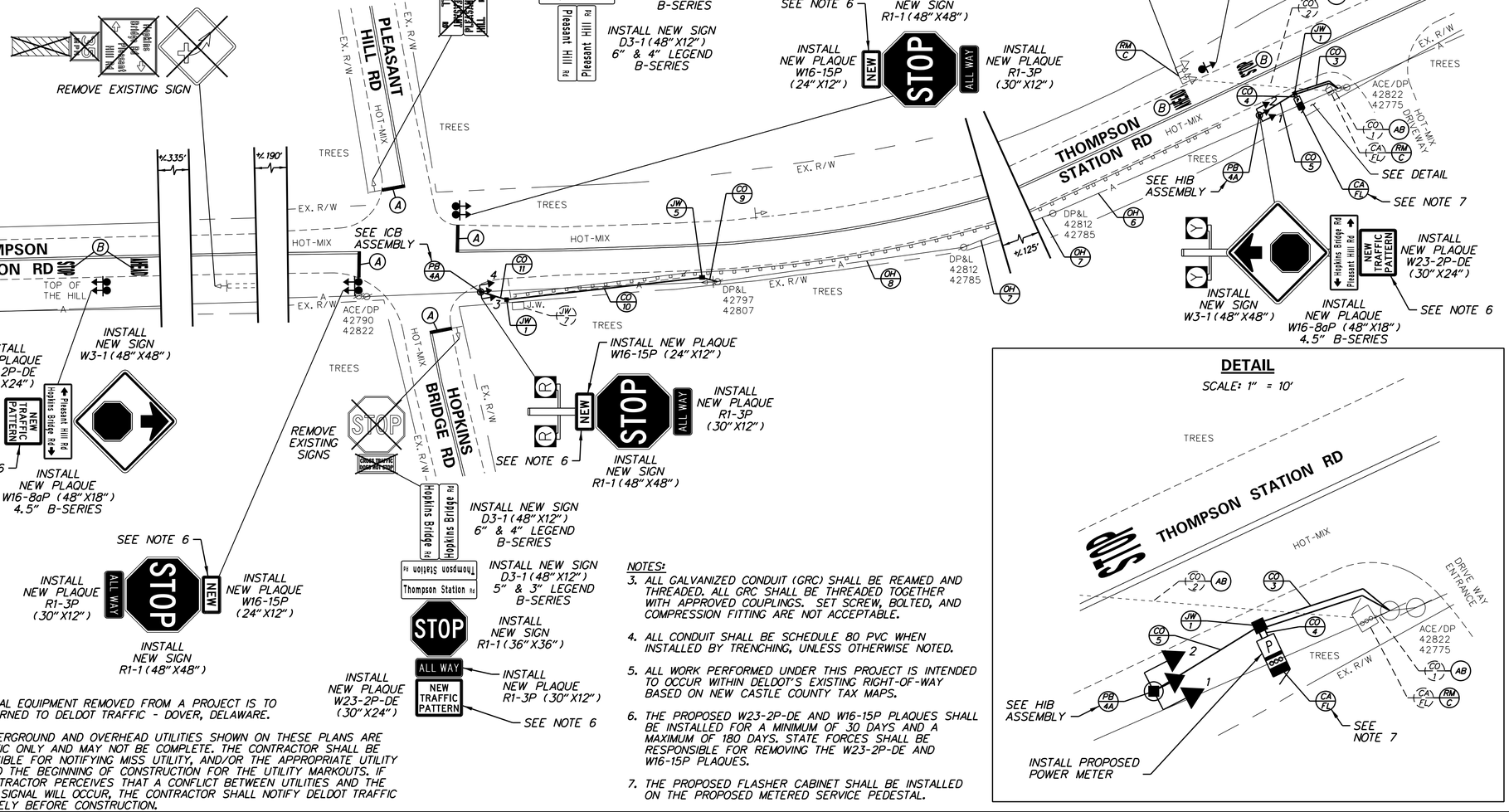
CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
1*	1	2.0 IN	2 FT	-	<REMOVE EX. (1) 2/*8 U.F. W/GROUND>
2*	1	2.5 IN	70 FT	-	<REMOVE EX. (1) 4/*14>
3**	2	2.0 IN	23 FT	T	[NEW (1) 2/*8 U.F. W/GROUND]
					[NEW (1) 4/*14, (1) *6 GROUND]
4**	2	2.0 IN	2 FT	T	[NEW (1) 2/*8 U.F. W/GROUND]
					[NEW (2) 4/*14, (1) *6 GROUND]
5	1	2.5 IN	20 FT	T	[NEW (1) 4/*14, (1) *6 GROUND]
OH6	AERIAL	-	149 FT	AERIAL	[NEW (1) 4/*14]
OH7	AERIAL	-	156 FT	AERIAL	[NEW (1) 4/*14]
OH8	AERIAL	-	119 FT	AERIAL	[NEW (1) 4/*14]
9**	1	2.0 IN	8 FT	T	[NEW (1) 4/*14, (1) *6 GROUND]
10	1	4.0 IN	94 FT	T	[NEW (1) 4/*14, (1) *6 GROUND]
11	1	2.5 IN	13 FT	T	[NEW (1) 4/*14, (1) *6 GROUND]

* DENOTES EXISTING CONDUIT
B = BORE, T = TRENCH, O = OPEN CUT
** RIGID GALVANIZED STEEL

PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
(A)	16" PERMANENT PAVEMENT STRIPING, SYMBOL, ALKYD-THERMOPLASTIC, WHITE (ITEM# 817002)	62.5 SF
(B)	PERMANENT PAVEMENT STRIPING, LEGEND, ALKYD-THERMOPLASTIC, WHITE (ITEM# 817002)	52 SF



NOTES:
1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
3. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
4. ALL CONDUIT SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING, UNLESS OTHERWISE NOTED.
5. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON NEW CASTLE COUNTY TAX MAPS.
6. THE PROPOSED W23-2P-DE AND W16-15P PLAQUES SHALL BE INSTALLED FOR A MINIMUM OF 30 DAYS AND A MAXIMUM OF 180 DAYS. STATE FORCES SHALL BE RESPONSIBLE FOR REMOVING THE W23-2P-DE AND W16-15P PLAQUES.
7. THE PROPOSED FLASHER CABINET SHALL BE INSTALLED ON THE PROPOSED METERED SERVICE PEDESTAL.

DETAIL

SCALE: 1" = 10'

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

ALTERNATELY FLASHING YELLOW — 1,2 (Y)
3,4 (R) — SIMULTANEOUSLY FLASHING RED

LEGEND

AB	ABANDON	OH (•/)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA (X/)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH (•)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA (X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB (X/)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (•/)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB (X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (•)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL (X/)	EXISTING POLE IDENTIFIER (* OF POLE)
JW (X/)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL (X)	PROPOSED POLE IDENTIFIER (* OF POLE)
JW (X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM (C)	REMOVE BY CONTRACTOR
MA (XX/)	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM (O)	REMOVE BY OTHERS
MA (XX)	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM (TC)	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		□
LOOP DETECTOR, TYPE 2		▭
LUMINAIRE	—○	—◆
MAST ARM	▷	▶
MICROWAVE DETECTION	—◀	—◀
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING		—⊣
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—▷	—▶
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY	——	—R/W—
SERVICE PEDESTAL		P
SIGNAL CABINET		■
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
CCTV CAMERA		■
SPAN WIRE	—XX—	—◇—
UTILITY POLE	⊘	◥
VIDEO DETECTION		◥

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

11/6/18
DATE

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WRA" SECTION DESIGNATION.

MATTHEW J.A. BUCKLEY — LICENSE — No. 15224 — PROFESSIONAL ENGINEER — SEAL

APPROVED FOR INSTALLATION

CHIEF TRAFFIC ENGINEER

11/9/18
DATE

ADDENDA / REVISIONS

1 REPLACED CURVE / INTERSECTION HIB WITH HIB / ICB FOR AWSC CONVERSION - D.C.G. (WRA) 9/18 (T201904103)

SCALE
0 30 60 90
FEET

CONTRACT	PERMIT NO.	N622
T201904103	DESIGNED BY: D.C.G. (WRA)	
COUNTY	CHECKED BY: M.J.B. (WRA)	
NEW CASTLE		

ICB /HIB PLAN THOMPSON STATION ROAD @ HOPKINS BRIDGE ROAD /PLEASANT HILL ROAD

SECTION: WRA
SHEET NO.: 1

N:\32028-007\CADD\SC01_Thompson Rd.dgn
6/4/2019 3:53:05 PM

FINAL PLANS

ADDITIONAL GENERAL SIGNAL NOTES

4. THE PROPOSED FLASHER CABINET SHALL BE INSTALLED ON THE PROPOSED METER SERVICE PEDESTAL. AN ENCLOSED DISCONNECT FUSE IN AN IN-LINE CONDULET BODY SHALL BE UTILIZED IN LIEU OF DISCONNECT SWITCH/LEVER.

5. REFER TO THE SIGNING AND STRIPING PLAN SHEETS FOR ADDITIONAL INFORMATION REGARDING THE SIGNS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL UNDERGROUND SIGNAL EQUIPMENT SUCH AS JUNCTION WELLS, CABINET AND POLE BASES, LOOP DETECTORS, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT SUCH AS MAST ARMS, POLES, CABINET, SERVICE PEDESTAL, AND SIGNAL HEADS.

5. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5O:1 OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THE PEDSTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON.

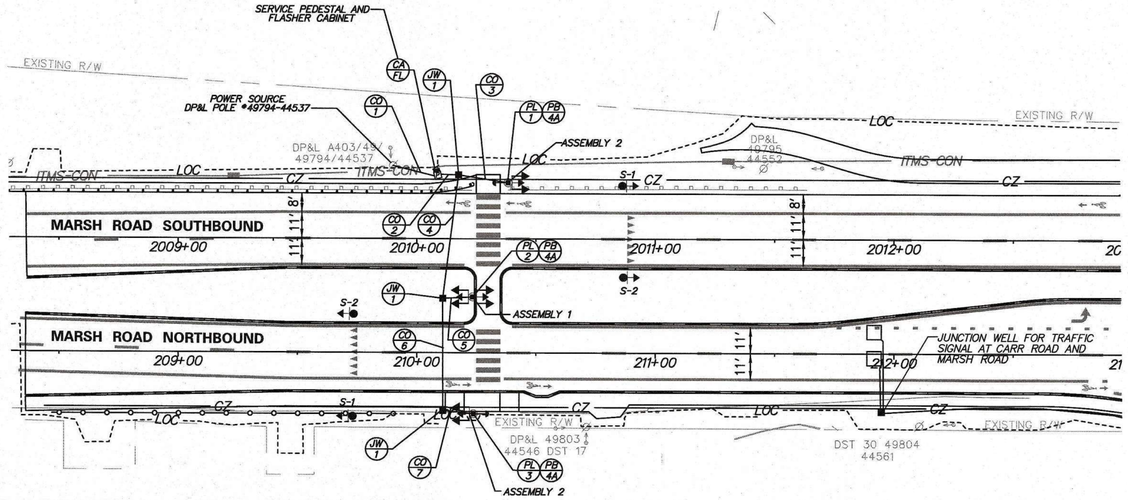
CONDUIT RUN SCHEDULE

CR#	# OF CONDUITS	B/T/O	SIZE	LENGTH	AMOUNT AND TYPE OF CABLE / WIRE
1	1 (GALV. STEEL)	T	2"	20'	(1)2/#8 U.F. W/GROUND
2	1	T	4"	10'	(1)9/#14, (2)5/#14, (1)1/#6 GRD
3	1	T	2.5"	25'	(1)5/#14, (1)1/#6 GRD
4	1 (SCHD 80 HDPE)	B	4"	55'	(1)9/#14, (1)5/#14, (1)1/#6 GRD
5	1	T	2.5"	15'	(1)9/#14, (1)1/#6 GRD
6	1 (SCHD 80 HDPE)	B	4"	50'	(1)5/#14, (1)1/#6 GRD
7	1	T	2.5"	15'	(1)5/#14, (1)1/#6 GRD

NOTE: ALL CONDUITS TO BE SCHEDULE 80 UNLESS OTHERWISE NOTED
B=BORE, T=TRENCH, O=OPEN CUT

N

ULTIMATE



SIGN DETAILS

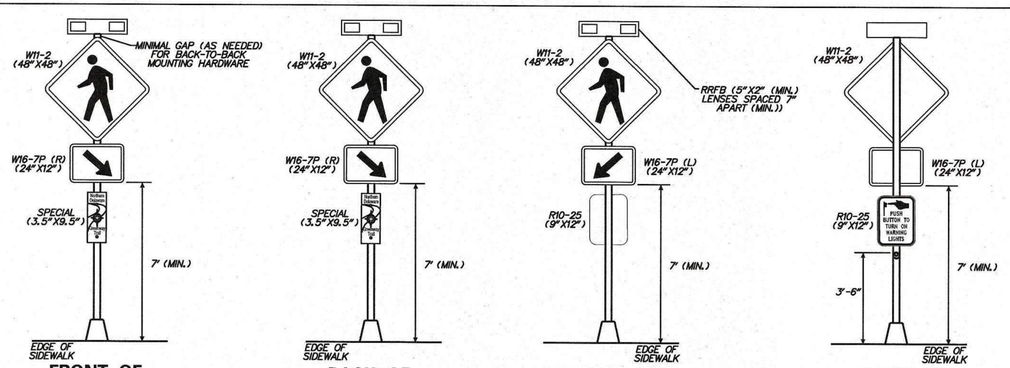


S-1
R1-5L
36"x36"



S-2
R1-5R
36"x36"

RRFB ASSEMBLIES



1. THE RRFB SHALL OPERATE PUSHBUTTON-ACTIVATED.
2. SIGNFIX (OR SIMILAR) SHALL BE INSTALLED ON THE BACK OF THE PROPOSED SIGNS FOR MOUNTING SUPPORT.
3. THE PEDESTAL POLE SHALL BE CONTINUOUS SPUN ALUMINUM, SCHEDULE 80. SPLICING POLE EXTENSIONS SHALL BE PROHIBITED.

JUNCTION WELL AND CABINET SCHEDULE

NO.	STATION	OFFSET
JW1	2010+17	27' LT
JW1	2010+11	25' RT
JW1	210+11	24' RT
CA	2010+09	27' LT

POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
1	PEDESTRIAN POLE W/ TYPE 4A BASE	2010+38	24' LT
2	PEDESTRIAN POLE W/ TYPE 4A BASE	2010+23	24' RT
3	PEDESTRIAN POLE W/ TYPE 4A BASE	210+24	23' RT

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

ALTERNATELY FLASHING
(WW+S PATTERN)
YELLOW RRFB BEACONS



LEGEND

AB	ABANDON
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
CO •	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)
OH •	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
OH •	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
PL X	EXISTING POLE IDENTIFIER (# OF POLE)
PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
RM C	REMOVE BY CONTRACTOR
RM O	REMOVE BY OTHERS
RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.

2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5O:1 OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BETS PRACTICES.

RECOMMENDED Mir Wakad DATE: 2/1/18

RECOMMENDED [signature] DATE: 2/6/18

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER [signature] DATE: 02/07/2018

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER [signature] DATE: 2/8/18

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

HSIP NCC, I-95, N213 CARR ROAD AND SR 3 MARSH ROAD, INTERCHANGE IMPROVEMENTS

CONTRACT	PERMIT NO.	N829
T200809001	DESIGNED BY: JDS (JMT)	
COUNTY	CHECKED BY: MAW (JMT)	
NEW CASTLE		

SR 3 MARSH ROAD @ NORTHERN DELAWARE GREENWAY TRAIL

SHEET NO. 207
TOTAL SHTS. 208

PLOTTED BY: KBLAKE DATE: 2/2/2018
FILE LOCATION: Q:\NDE\110500_018_I-95_CARR_ROAD_MARSH\CADD\SG_RRFB AND RAMP A.DGN [SHEET: RRFB_1]

CONDUIT RUN SCHEDULE

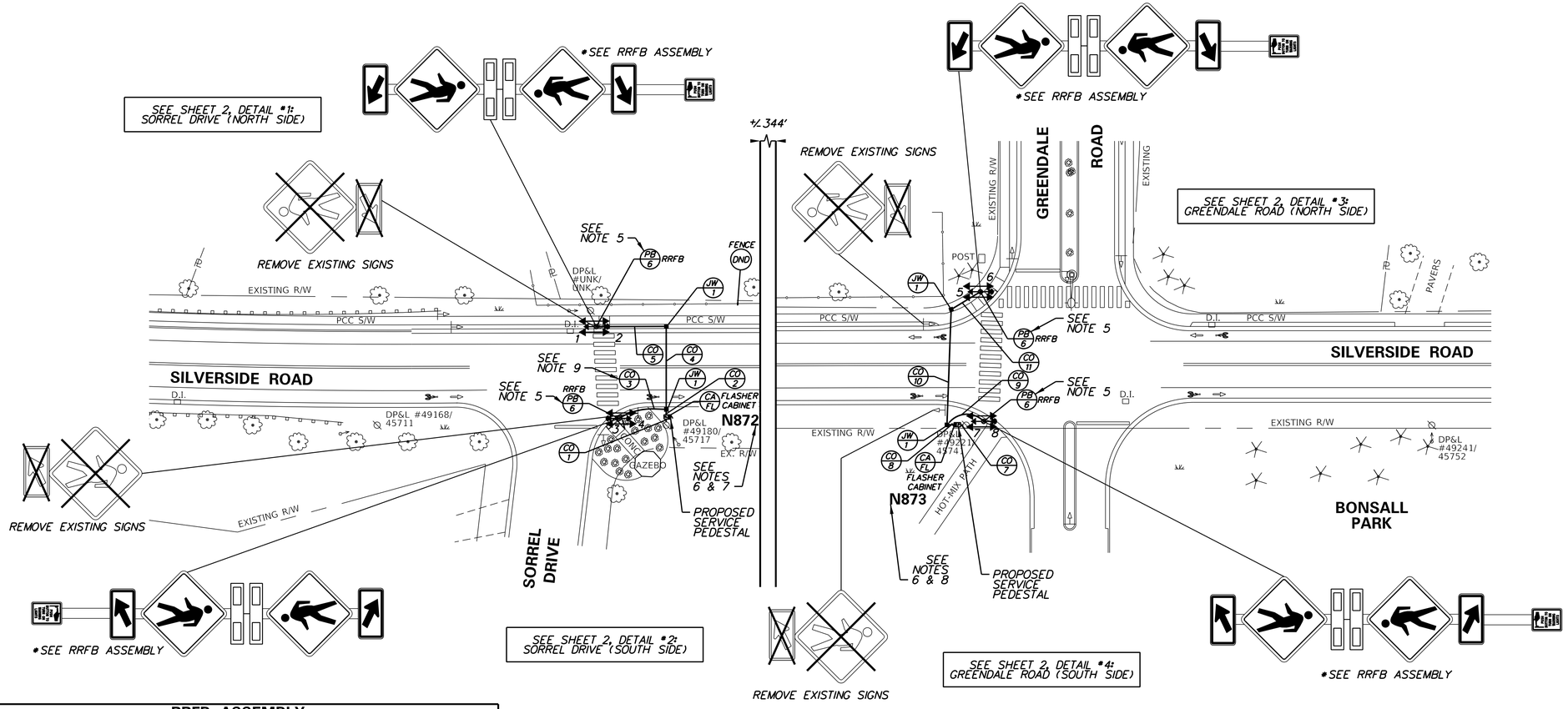
CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
1*	1	2.0 IN	10 FT	T	[NEW (3) #8 THHN - LINE SIDE]
2*	1	2.0 IN	10 FT	T	[NEW (2) 9/#14, (1) #6 GROUND]
3**	1	3.0 IN	25 FT	T	[NEW (1) 9/#14, (1) #6 GROUND]
4	1	4.0 IN	40 FT	B	[NEW (1) 9/#14, (1) #6 GROUND]
5	1	3.0 IN	35 FT	T/O	[NEW (1) 9/#14, (1) #6 GROUND]
-	-	-	-	-	THIS SPACE INTENTIONALLY LEFT BLANK
7*	1	2.0 IN	10 FT	T	[NEW (3) #8 THHN - LINE SIDE]
8*	1	2.0 IN	10 FT	T	[NEW (2) 9/#14, (1) #6 GROUND]
9	1	3.0 IN	20 FT	T	[NEW (1) 9/#14, (1) #6 GROUND]
10	1	4.0 IN	55 FT	B	[NEW (1) 9/#14, (1) #6 GROUND]
11	1	3.0 IN	10 FT	T	[NEW (1) 9/#14, (1) #6 GROUND]

* PROPOSED RIGID GALVANIZED STEEL CONDUIT — B = BORE, T = TRENCH, O = OPEN CUT

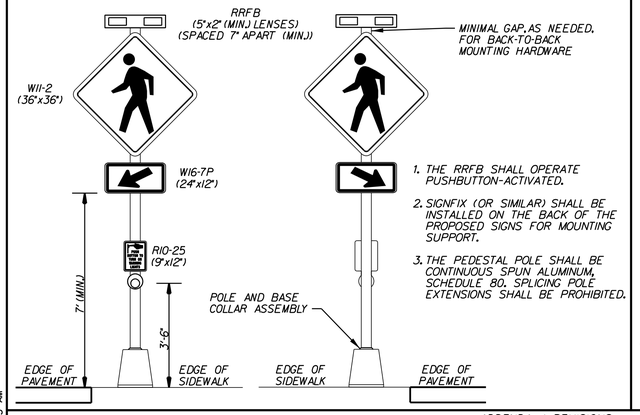
** SEE NOTE 9

NOTES:

1. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
3. ALL CONDUIT SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING/OPEN CUT AND HDPE SDR-13.5 WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED.
4. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON THE NEW CASTLE COUNTY TAX PARCEL MAP.
5. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA AND SHOULD BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON.
6. THE PROPOSED FLASHER CABINETS SHALL BE INSTALLED ON THE PROPOSED SERVICE PEDESTALS.



RRFB ASSEMBLY



1. THE RRFB SHALL OPERATE PUSHBUTTON-ACTIVATED.
2. SIGNFIX (OR SIMILAR) SHALL BE INSTALLED ON THE BACK OF THE PROPOSED SIGNS FOR MOUNTING SUPPORT.
3. THE PEDESTAL POLE SHALL BE CONTINUOUS SPUN ALUMINUM, SCHEDULE 80. SPLICING POLE EXTENSIONS SHALL BE PROHIBITED.

NOTES (CONTINUED):

7. N872 POWER SOURCE - DELMARVA POLE #49180/45717
8. N873 POWER SOURCE - DELMARVA POLE #49221/45741
9. CAREFULLY TRENCH PROPOSED CONDUIT RUN #3 DIRECTLY BEHIND CURB TO MINIMIZE IMPACTS TO LANDSCAPED AREAS, PLANTS AND DECOR.

RRFB TIMESHEET PARAMETERS

40-FOOT PEDESTRIAN CLEARANCE

19-SECOND WARNING/FLASH TIME

SIGNAL HEAD DIAGRAM

1-8

ALTERNATELY FLASHING (WW+S PATTERN) YELLOW RRFB BEACONS

LEGEND

AB	ABANDON	OH	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH *	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO *	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO *	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers Architects Environmental Planners Est. 1915

9/10/2021
DATE

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WRA" SECTION DESIGNATION.

MATTHEW J.A. BUCKLEY — No. 16224 — PROFESSIONAL ENGINEER

SEAL

CONCURRENCE FOR INSTALLATION

9/10/2021
DATE

CHIEF OF TRAFFIC ENGINEERING

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

CONTRACT T202204001	PERMIT NO. N872, N873	RRFB SIGNAL PLAN SILVERSIDE ROAD AT SORREL DRIVE / GREENDALE ROAD
COUNTY NEW CASTLE	DESIGNED BY: D HEHMAN	SECTION WRA
	CHECKED BY: M BUCKLEY	SHEET NO. 1

N:\32155-005\CADD\Traffic\Silverside Rd RRFBs\SG01b_Silverside Rd RRFBs.dgn
9/10/2021 7:03:25 AM

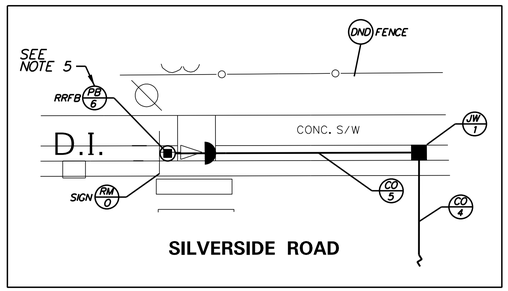
CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
1*	1	2.0 IN	10 FT	T	(NEW (3) #8 THHN - LINE SIDE)
2*	1	2.0 IN	10 FT	T	(NEW (2) 9/#14, (1) #6 GROUND)
3**	1	3.0 IN	25 FT	T	(NEW (1) 9/#14, (1) #6 GROUND)
4	1	4.0 IN	40 FT	B	(NEW (1) 9/#14, (1) #6 GROUND)
5	1	3.0 IN	35 FT	T/O	(NEW (1) 9/#14, (1) #6 GROUND)
-	-	-	-	-	THIS SPACE INTENTIONALLY LEFT BLANK
7*	1	2.0 IN	10 FT	T	(NEW (3) #8 THHN - LINE SIDE)
8*	1	2.0 IN	10 FT	T	(NEW (2) 9/#14, (1) #6 GROUND)
9	1	3.0 IN	20 FT	T	(NEW (1) 9/#14, (1) #6 GROUND)
10	1	4.0 IN	55 FT	B	(NEW (1) 9/#14, (1) #6 GROUND)
11	1	3.0 IN	10 FT	T	(NEW (1) 9/#14, (1) #6 GROUND)

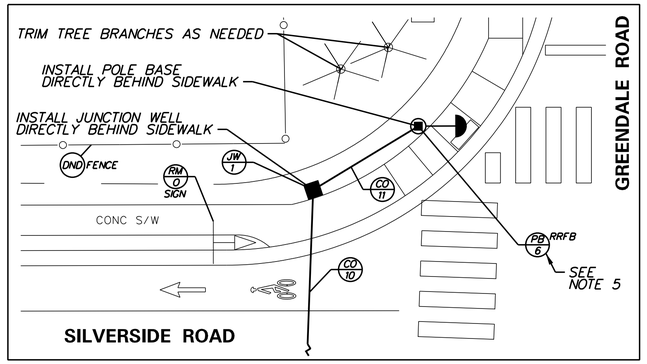
* PROPOSED RIGID GALVANIZED STEEL CONDUIT B = BORE, T = TRENCH, O = OPEN CUT
** SEE NOTE 9

NOTES:

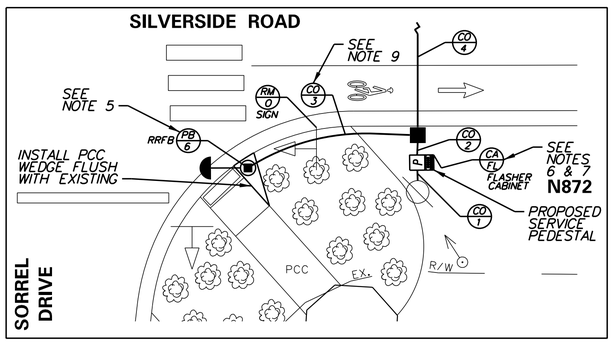
1. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
3. ALL CONDUIT SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING/OPEN CUT AND HDPE SDR-13.5 WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED.
4. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON THE NEW CASTLE COUNTY TAX PARCEL MAP.
5. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA AND SHOULD BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON.
6. THE PROPOSED FLASHER CABINETS SHALL BE INSTALLED ON THE PROPOSED SERVICE PEDESTALS.



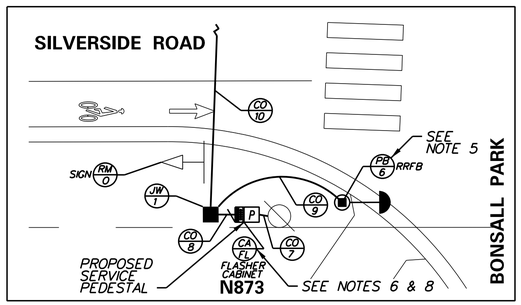
DETAIL 1: SORREL DRIVE (NORTH SIDE)
SCALE: 1" = 10'



DETAIL 3: GREENDALE ROAD (NORTH SIDE)
SCALE: 1" = 10'



DETAIL 2: SORREL DRIVE (SOUTH SIDE)
SCALE: 1" = 10'



DETAIL 4: GREENDALE ROAD (SOUTH SIDE)
SCALE: 1" = 10'

NOTES (CONTINUED):

7. N872 POWER SOURCE - DELMARVA POLE #49180/45717
8. N873 POWER SOURCE - DELMARVA POLE #49221/45741
9. CAREFULLY TRENCH PROPOSED CONDUIT RUN #3 DIRECTLY BEHIND CURB TO MINIMIZE IMPACTS TO LANDSCAPED AREAS, PLANTS AND DECOR.

RRFB TIMESHEET PARAMETERS

40-FOOT PEDESTRIAN CLEARANCE
19-SECOND WARNING/FLASH TIME

SIGNAL HEAD DIAGRAM

1-8

ALTERNATELY FLASHING
(WW+S PATTERN)
YELLOW RRFB BEACONS

LEGEND

AB	ABANDON	OH	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH *	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO *	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO *	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	⬚	▭
LOOP DETECTOR, TYPE 2	⬚⬚	▭▭
LUMINAIRE	—○—	—●—
MAST ARM	➢	➤
MICROWAVE DETECTION	—◂	—◂
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	—⊣	—⊣
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—▷	—▶
PEDESTRIAN SIGNAL HEAD	⊐	⊐
RIGHT-OF-WAY	———	——R/W——
SERVICE PEDESTAL	P	P
SIGNAL CABINET	▯	▮
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
CCTV CAMERA	CCTV◁	■◂
SPAN WIRE	—XX—	—◇—
UTILITY POLE	⊘	●
VIDEO DETECTION	◁	◀

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers Architects Environmental Planners Est. 1915

9/10/2021
DATE

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WRA" SECTION DESIGNATION.

MATTHEW J.A. BUCKLEY — No. 16224 — PROFESSIONAL ENGINEER

SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING

9/10/2021
DATE

ADDENDA / REVISIONS	

SCALE
0 10 20 30
FEET

CONTRACT	PERMIT NO.	N872, N873	RRFB DETAILS SILVERSIDE ROAD AT SORREL DRIVE / GREENDALE ROAD
T202204001	DESIGNED BY: D HEHMAN		
COUNTY	CHECKED BY: M BUCKLEY		
NEW CASTLE			

SECTION: WRA
SHEET NO.: 2

N:\32155-005\CADD\Traffic\Silverside Rd RRFBs\SC02B_Silverside Rd RRFBs.dgn
9/10/2021 7:12:58 AM

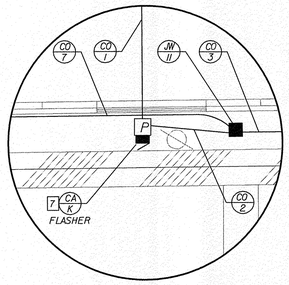
CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
1	1	2"	GALV	60'/30'	B/P	NEW (1)12/#8 U.F.W/GRND
2	1	2"	GALV	15'	T	NEW (2)3/#8 U.F.W/GRND
3	1	2"	GALV	265'	T	NEW (1)3/#8 U.F.W/GRND
4	1	2"	GALV	50'	B	NEW (1)3/#8 U.F.W/GRND
5	1	2"	GALV	255'	B	NEW (1)3/#8 U.F.W/GRND
6	1	2.5"	GALV	10'	T	NEW (1)3/#8 U.F.W/GRND
7	1	2"	GALV	205'	T	NEW (1)3/#8 U.F.W/GRND
8	1	2"	GALV	255'	B	NEW (1)3/#8 U.F.W/GRND
9	1	2.5"	GALV	10'	T	NEW (1)3/#8 U.F.W/GRND

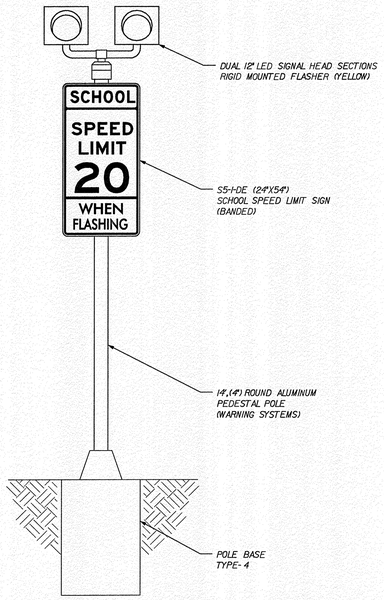
LEGEND
B- BORE O- OPEN CUT
T- TRENCH P- ATTACH TO POLE

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
1	PEDESTAL	14'	ALUMINUM
2	PEDESTAL	14'	ALUMINUM



SERVICE PEDESTAL ENLARGEMENT
SCALE: 1" = 10'



PERMANENT SCHOOL SPEED LIMIT SIGN BEACON DETAIL
N.T.S.

ADDITIONAL SIGNAL NOTES

6 NEW SHEET

5 TRAFFIC CONTRACTOR SHALL RELOCATE EXISTING S5-1-DE "SCHOOL SPEED LIMIT 20 WHEN FLASHING" SIGN, ~~EXISTING 12" LED SIGNAL HEAD SECTIONS, AND EXISTING POLE MOUNTED FLASHER CABINET~~ TO PROPOSED WARNING POLE LOCATION (PL#1) AS SHOWN ON PLAN.

6 CONTRACTOR SHALL ENSURE THAT PROPOSED POLE BASES ARE FLUSH WITH ADJACENT SIDEWALK GRADES.

7 COMPACT FLASHER CABINET (18"W X 12.5"H X 16.25"D) SHALL BE ATTACHED TO THE BACK SIDE OF THE SERVICE PEDESTAL RISER FACING THE SCHOOL SIDE. LOCATION OF THE SERVICE PEDESTAL RISER SHALL BE INSTALLED SUCH THAT THE EXISTING SIDEWALK IS CLEAR FROM THE ATTACHED FLASHER CABINET.

EXISTING SIGNING TO BE RELOCATED

A

SCHOOL
SPEED
LIMIT
20
WHEN
FLASHING

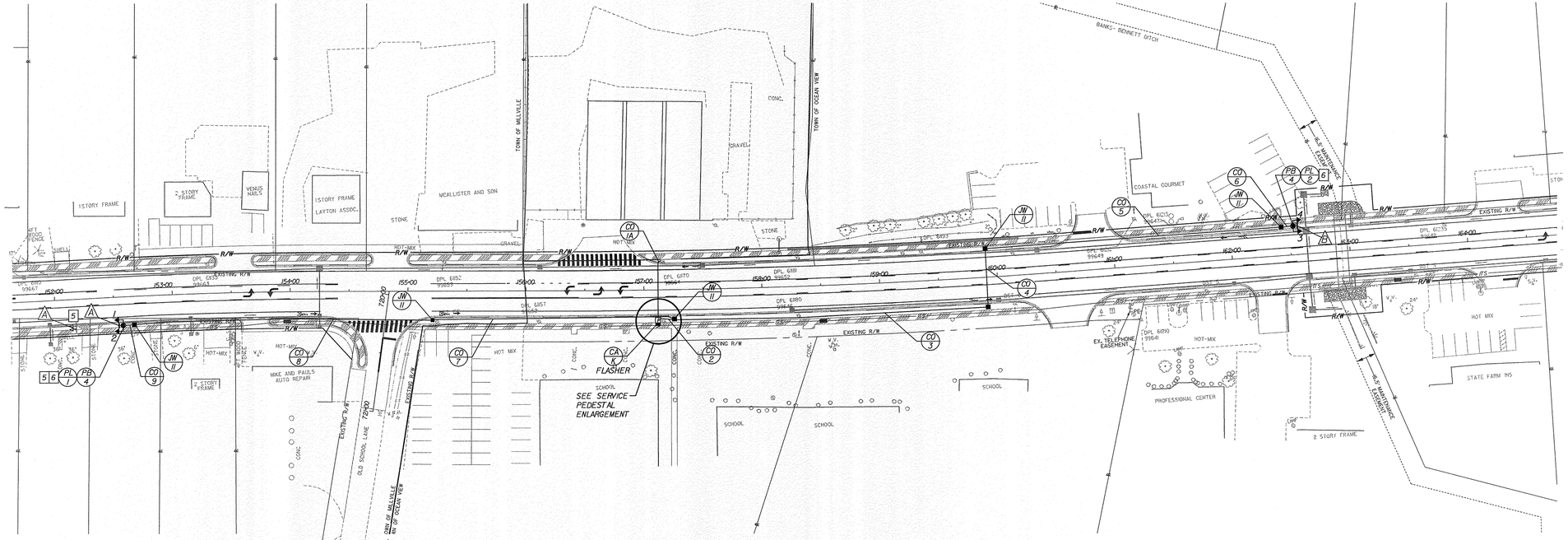
S5-1-DE
24"X54"

PROPOSED SIGNING

B

SCHOOL
SPEED
LIMIT
20
WHEN
FLASHING

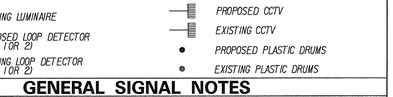
S5-1-DE
24"X54"



SIGNAL PHASING

THE TWO SIGNAL INDICATIONS FOR EACH SIGN SHALL FLASH YELLOW ALTERNATELY DURING TIMES THE SCHOOL SPEED IS IN EFFECT. THE INDICATIONS SHALL REMAIN DARK AT ALL OTHER TIMES.

SIGNAL HEAD DIAGRAM



LEGEND

	PROPOSED SIGNAL CABINET	RM C	REMOVE BY CONTRACTOR
	EXISTING SIGNAL CABINET	RM O	REMOVE BY OTHERS
	PROPOSED SIGNAL POLE BASE	AB	ABANDON
	EXISTING SIGNAL POLE BASE	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED PEDESTRIAN POLE BASE	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING PEDESTRIAN POLE BASE	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
	PROPOSED WOOD POLE	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
	EXISTING WOOD POLE	JM X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	PROPOSED JUNCTION WELL	JM X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	EXISTING JUNCTION WELL	CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
	PROPOSED SIGNAL HEAD	CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
	EXISTING SIGNAL HEAD	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
	PROPOSED PEDESTRIAN SIGNAL HEAD	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
	EXISTING PEDESTRIAN SIGNAL HEAD	MA XX	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	PROPOSED PEDESTRIAN PUSHBUTTON	MA XX	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	EXISTING PEDESTRIAN PUSHBUTTON	CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
	PROPOSED VIDEO DETECTION	CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
	PROPOSED MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
	OVERHEAD SIGNING		PROPOSED SPAN INSULATOR
	PROPOSED OPTICOM RECEIVER		EXISTING SPAN INSULATOR
	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
	PROPOSED MAST ARM		PROPOSED CCTV
	EXISTING MAST ARM		EXISTING CCTV
	PROPOSED LUMINAIRE		PROPOSED PLASTIC DRUMS
	EXISTING LUMINAIRE		EXISTING PLASTIC DRUMS
	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE
2. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
3. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
4. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: _____

RECOMMENDED [signature] DATE: 4/15/16

APPROVED TRAFFIC ENGINEER _____ DATE: _____

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER [signature] DATE: 4/15/16

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

6 ADDED PERMANENT SCHOOL FLASHERS 4/12/16 TMB	
REVISED NOTE #5 PER CONSTRUCTION COMMENTS 5/9/16 MSK	

SCALE
0 50 100 150
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210
COUNTY	SUSSEX
PERMIT NO.	S152
DESIGNED BY:	MSK
CHECKED BY:	BAM

SIGNAL PLAN
SR 26 @
LORD BALTIMORE SCHOOL

SHEET NO.	547B
TOTAL SHTS.	589

4/15/2016
I:\PROJECTS\sr26mainline\Survey\tp_signal_lord baltimore_permanent.dgn
mssavit AM

CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
1**	1	2.0 IN	6 FT	T	(3) #8 THHN
2**	1	2.0 IN	45 FT	T	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
3*	1	4.0 IN	23 FT	-	(1) 2/#8 U.F. W/GROUND - LOAD SIDE, (1) 9/#14, (1) 4/#14, (1) #6 GROUND
4	1	3.0 IN	5 FT	T	(1) 9/#14, (1) #6 GROUND
5	1	3.0 IN	4 FT	T	(1) 4/#14, (1) #6 GROUND
6	1	3.0 IN	9 FT	T	(1) 2/#8 U.F. W/GROUND - LOAD SIDE, (2) 9/#14, (2) 4/#14, (1) #6 GROUND
7*	1	4.0 IN	24 FT	-	(1) 9/#14, (1) 4/#14, (1) #6 GROUND
8*	1	4.0 IN	23 FT	-	(1) 9/#14, (1) 4/#14, (1) #6 GROUND
9	1	3.0 IN	5 FT	T	(1) 9/#14, (1) #6 GROUND
10	1	3.0 IN	5 FT	T	(1) 4/#14, (1) #6 GROUND

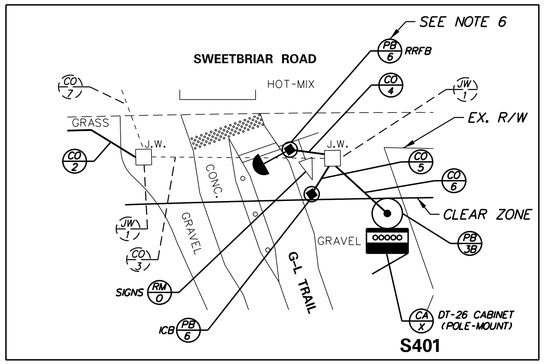
ALL CABLES ARE NEW — B = BORE, T = TRENCH, O = OPEN CUT

* DENOTES EXISTING CONDUIT

** PROPOSED RIGID GALVANIZED STEEL

NOTES:

3. PROPOSED FISHEYE DETECTION ZONES:
   TYPE #2 - 10' x 25' - TO BE INSTALLED ON EASTBOUND AND WESTBOUND GEORGETOWN-LEWES TRAIL 100' UPSTREAM, AS SHOWN.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
5. ALL CONDUIT SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING/OPEN CUT AND HDPE SDR-13.5 WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED.
6. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA AND SHOULD BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON.
7. THE CONTRACTOR SHALL INSTALL A FISHEYE DETECTOR WITH AN 8-FOOT BRACKET ARM MOUNT ON MAST ARM NO. 1.
8. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON THE SUSSEX COUNTY TAX PARCEL MAP.

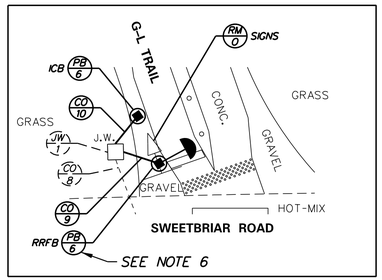


DETAIL 1 – WEST LEG
SCALE: 1" = 10'

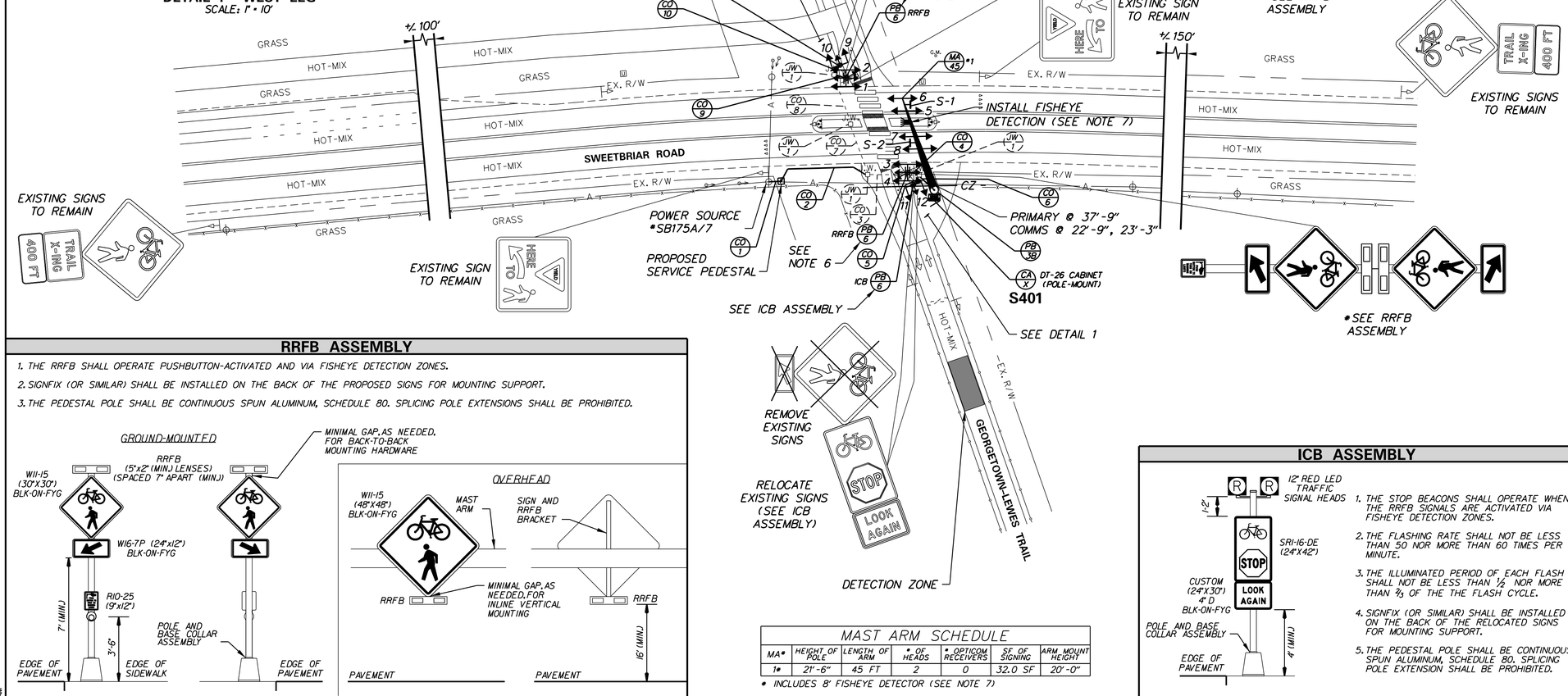
PROPOSED OVERHEAD SIGNS



S-1, S-2
W11-15 (48"x48")
BLK-ON-FYG



DETAIL 2 – EAST LEG
SCALE: 1" = 10'



MAST ARM SCHEDULE

MA*	HEIGHT OF POLE	LENGTH OF ARM	* OF HEADS	* OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1*	21'-6"	45 FT	2	0	32.0 SF	20'-0"

* INCLUDES 8' FISHEYE DETECTOR (SEE NOTE 7)

RRFB ASSEMBLY

1. THE RRFB SHALL OPERATE PUSHBUTTON-ACTIVATED AND VIA FISHEYE DETECTION ZONES.
2. SIGNFIX (OR SIMILAR) SHALL BE INSTALLED ON THE BACK OF THE PROPOSED SIGNS FOR MOUNTING SUPPORT.
3. THE PEDESTAL POLE SHALL BE CONTINUOUS SPUN ALUMINUM, SCHEDULE 80. SPLICING POLE EXTENSIONS SHALL BE PROHIBITED.

ICB ASSEMBLY

1. THE STOP BEACONS SHALL OPERATE WHEN THE RRFB SIGNALS ARE ACTIVATED VIA FISHEYE DETECTION ZONES.
2. THE FLASHING RATE SHALL NOT BE LESS THAN 50 NOR MORE THAN 60 TIMES PER MINUTE.
3. THE ILLUMINATED PERIOD OF EACH FLASH SHALL NOT BE LESS THAN ½ NOR MORE THAN ⅔ OF THE THE FLASH CYCLE.
4. SIGNFIX (OR SIMILAR) SHALL BE INSTALLED ON THE BACK OF THE RELOCATED SIGNS FOR MOUNTING SUPPORT.
5. THE PEDESTAL POLE SHALL BE CONTINUOUS SPUN ALUMINUM, SCHEDULE 80. SPLICING POLE EXTENSION SHALL BE PROHIBITED.

RRFB TIMESHEET PARAMETERS

39-FOOT PEDESTRIAN CLEARANCE

18-SECOND WARNING/FLASH TIME

*ACTIVATED VIA FISHEYE DETECTION ZONES & PUSHBUTTONS

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH •	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISHEYE)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers Architects Environmental Planners Est. 1915

7/8/2021
DATE

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WRA" SECTION DESIGNATION.

SEAL

CONCURRENCE FOR INSTALLATION

7/12/2021
DATE

CHIEF OF TRAFFIC ENGINEERING

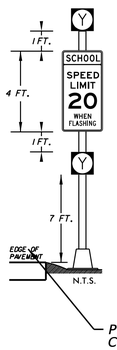
ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

CONTRACT	PERMIT NO.	S401	RRFB/ICB SIGNAL PLAN SWEETBRIAR ROAD AT GEORGETOWN–LEWES TRAIL	SECTION
T202204001	DESIGNED BY: A. DOELP			WRA
COUNTY	CHECKED BY: M. BUCKLEY			SHEET NO.
SUSSEX				1

N:\32155-005\C400\S001_LGT @ Sweetbriar Rd_RRFB.dgn
7/8/2021 11:31:56 AM

BEACON ASSEMBLY



1. SCHOOL SPEED LIMIT BEACON ASSEMBLY SHALL CONSIST OF A PAIR OF ALTERNATELY FLASHING BEACONS AND A SCHOOL SPEED LIMIT 20 WHEN FLASHING SIGN (S5-1 24"x48") MOUNTED ON A PEDESTAL POLE.
2. THE BEACONS SHALL BE 12-INCH YELLOW LE.D.ONE-SECTION TRAFFIC SIGNAL HEADS.
3. THE BEACONS SHALL OPERATE ONLY DURING ACTIVE SCHOOL HOURS WHEN ACTIVATED BY A CROSSING GUARD.
4. THE FLASHING RATE SHALL NOT BE LESS THAN 50 NOR MORE THAN 60 TIMES PER MINUTE.
5. THE ILLUMINATED PERIOD OF EACH FLASH SHALL NOT BE LESS THAN 1/2 NOR MORE THAN 2/3 OF THE FLASH CYCLE.
6. SIGNFIX (OR SIMILAR) SHALL BE INSTALLED ON THE BACK OF THE PROPOSED SIGN FOR MOUNTING SUPPORT.
7. THE PEDESTAL POLE SHALL BE CONTINUOUS SPUN ALUMINUM, SCHEDULE 80. SPLICING POLE EXTENSIONS SHALL BE PROHIBITED.

NOTES:

1. *ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.*
2. *ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON THE SUSSEX COUNTY TAX PARCEL MAP AND DEVELOPMENT PLAN.*
3. *ALL CONDUIT SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING/OPEN CUT AND HDPE SDR-13.5 WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED.*
4. *DELDOT TRAFFIC SHALL INSTALL THE PROPOSED CABINET, TYPE G, ON THE PROPOSED DISCONNECT SWITCH PEDESTAL.*

PAVEMENT MARKINGS LEGEND

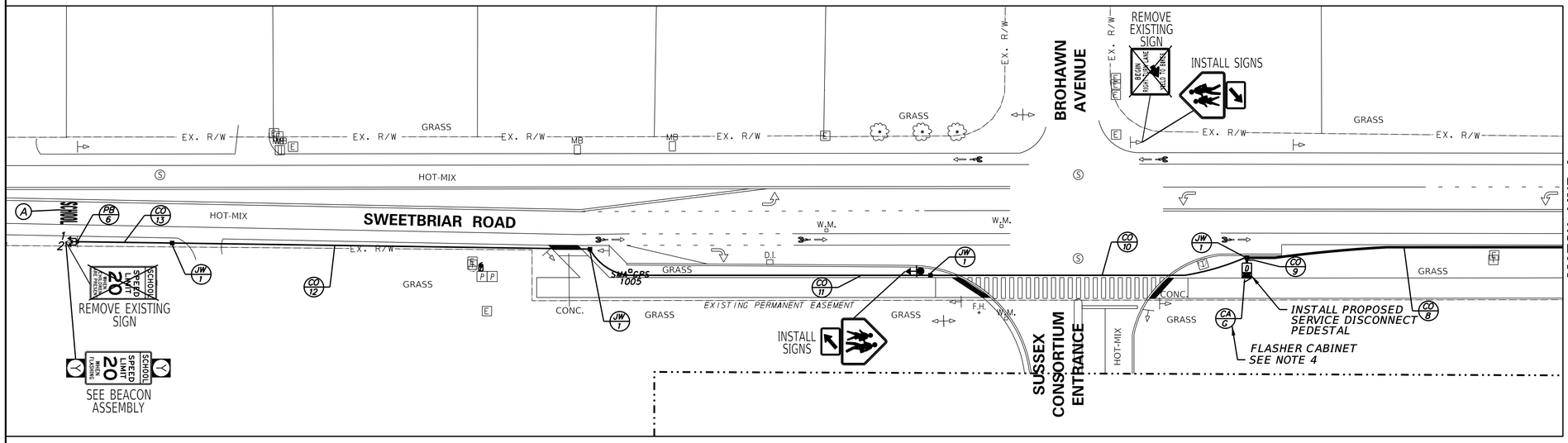
SYMBOL	ITEM	QUANTITY
(A)	PERMANENT PAVEMENT STRIPING, 8' TALL SCHOOL PAVEMENT MARKINGS, ALKYD-THERMOPLASTIC, WHITE, (ITEM 817002)	54 SF

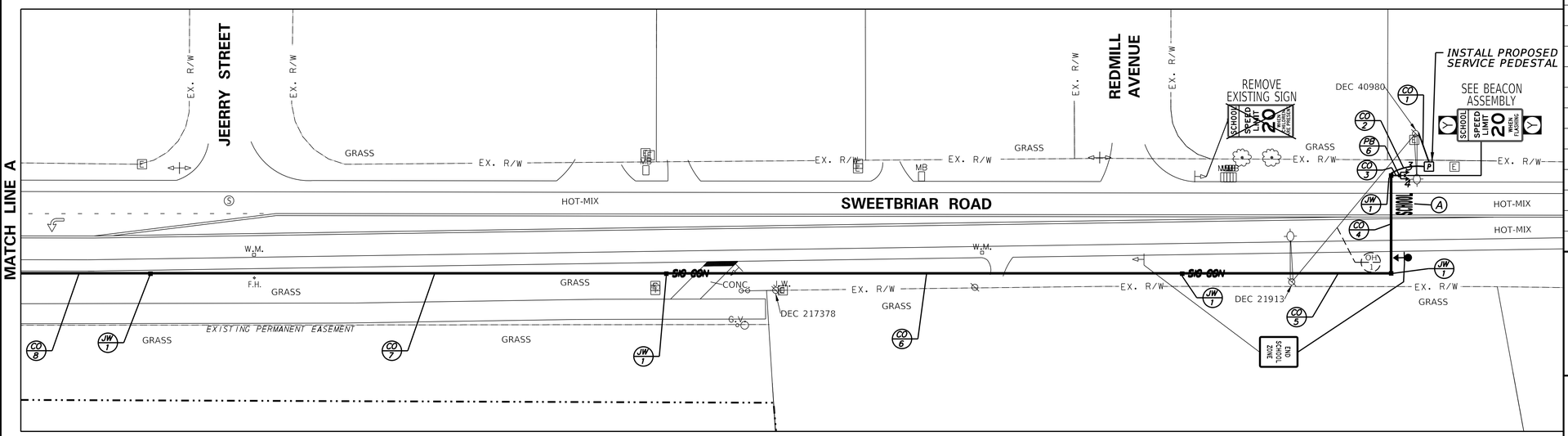
** QUANTITY REFLECTS TOTAL AMOUNT USED*

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2.0 IN	15 FT	T	[NEW (3) #8 THHN] - LINE SIDE
*2	1	2.0 IN	17 FT	T	[NEW (1) 2/#8 U.F. W/ GRD] - LOAD SIDE
3	1	3.0 IN	5 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]
4	2	4.0 IN	48 FT	B	[NEW (1) 2/#8 U.F. W/ GRD - LOAD SIDE, NEW (1) 4/#14, (1) #6 GROUND]
5	2	4.0 IN	102 FT	T	[NEW (1) 2/#8 U.F. W/ GRD - LOAD SIDE, NEW (1) 4/#14, (1) #6 GROUND]
6	2	4.0 IN	250 FT	B	[NEW (1) 2/#8 U.F. W/ GRD - LOAD SIDE, NEW (1) 4/#14, (1) #6 GROUND]
7	2	4.0 IN	250 FT	T	[NEW (1) 2/#8 U.F. W/ GRD - LOAD SIDE, NEW (1) 4/#14, (1) #6 GROUND]
8	2	4.0 IN	191 FT	T	[NEW (1) 2/#8 U.F. W/ GRD - LOAD SIDE, NEW (1) 4/#14, (1) #6 GROUND]
*9	2	2.0 IN	3 FT	T	[NEW (1) 2/#8 U.F. W/ GRD - LOAD SIDE, NEW (2) 4/#14, (1) #6 GROUND]
10	1	4.0 IN	153 FT	B	[NEW (1) 4/#14, (1) #6 GROUND]
11	1	4.0 IN	167 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]
12	1	4.0 IN	201 FT	B	[NEW (1) 4/#14, (1) #6 GROUND]
13	1	3.0 IN	46 FT	T	[NEW (1) 4/#14, (1) #6 GROUND]

** RIGID GALVANIZED STEEL CONDUIT* *B = BORE, T = TRENCH, O = OPEN CUT*





SIGNAL PHASING

SIGNAL HEAD DIAGRAM

1-4

ALTERNATELY FLASHING BEACONS

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE DISCONNECT PEDESTAL	D	D
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

8/19/2021
DATE

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WRA" SECTION DESIGNATION.

MATTHEW JA BUCKLEY No. 16234 PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

8/25/21
DATE

CHIEF OF TRAFFIC ENGINEERING

ADDENDA / REVISIONS

1 REPLACED STATIC SCHOOL SPEED LIMIT SIGNS WITH SCHOOL SPEED LIMIT FLASHING BEACONS.
A.J.W. (WRA) 04-21 (CONTRACT T202204304)

SCALE 0 30 60 90 FEET

CTF (SENATOR LOPEZ)

CONTRACT	T202204304	PERMIT NO.	S412
COUNTY	SUSSEX	DESIGNED BY: A. WITHERS	
		CHECKED BY: M. BUCKLEY	

SCHOOL SPEED LIMIT BEACON PLAN SWEETBRIAR ROAD @ SUSSEX CONSORTIUM

SECTION: WRA
SHEET NO.: 1

8/19/2021
2:59:58 PM
N:\3957-02A\CADD\Traffic\Sussex Consortium - Sweet Briar Rd\SG01_Sussex Consortium.dgn

ITMS NOTES:

1. H.I.B. ASSEMBLY, SOLAR PANELS AND FIBER BY DELDOT FORCES. H.I.B. ASSEMBLY SHOWN ON SIGN DETAIL SHEET.
2. SOLAR PANELS TO BE INSTALLED ON 40-FOOT POLE TO FACE SOUTH, BY DELDOT FORCES.
3. CONSTRUCT JUNCTION WELL TYPE 7 ON TOP OF THE EXISTING DIRECT BURIED INNER DUCTS.

CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE [1]
1	1	2.5"-PVC	(5')	T	(1) 4/#14, (1) #6 GROUND
2	1	4"-HDPE	72'	B	(1) 4/#14, (1) #6 GROUND
3	1	3"-PVC	(5')	T	(1) 4/#14, (1) #6 GROUND
4	1	3"-PVC	115'	T	BRANCH FIBER BY DELDOT FORCES

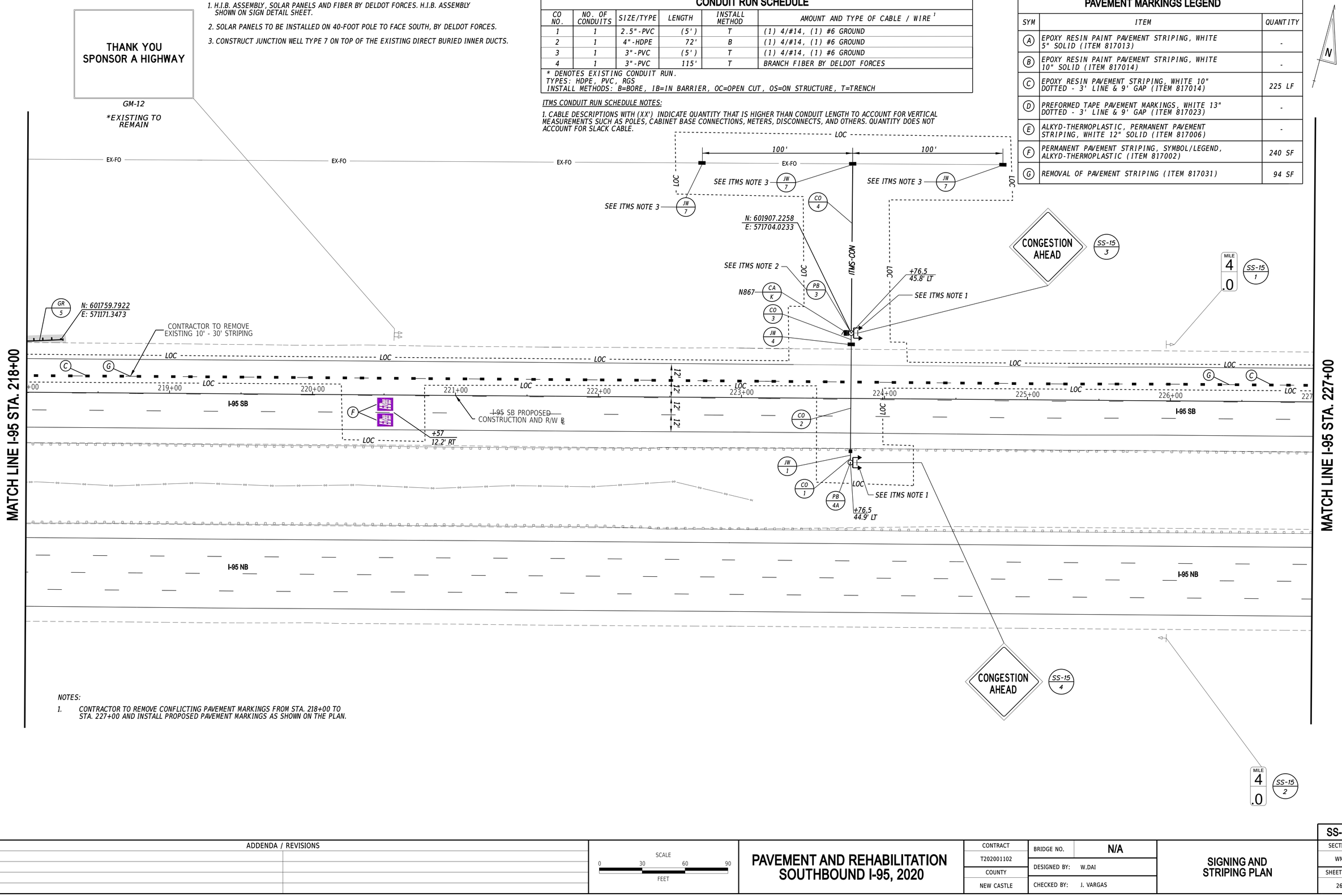
* DENOTES EXISTING CONDUIT RUN.
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

ITMS CONDUIT RUN SCHEDULE NOTES:

1. CABLE DESCRIPTIONS WITH (XX') INDICATE QUANTITY THAT IS HIGHER THAN CONDUIT LENGTH TO ACCOUNT FOR VERTICAL MEASUREMENTS SUCH AS POLES, CABINET BASE CONNECTIONS, METERS, DISCONNECTS, AND OTHERS. QUANTITY DOES NOT ACCOUNT FOR SLACK CABLE.

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	-
B	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" SOLID (ITEM 817014)	-
C	EPOXY RESIN PAVEMENT STRIPING, WHITE 10" DOTTED - 3' LINE & 9' GAP (ITEM 817014)	225 LF
D	PREFORMED TAPE PAVEMENT MARKINGS, WHITE 13" DOTTED - 3' LINE & 9' GAP (ITEM 817023)	-
E	ALKYD-THERMOPLASTIC, PERMANENT PAVEMENT STRIPING, WHITE 12" SOLID (ITEM 817006)	-
F	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC (ITEM 817002)	240 SF
G	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	94 SF



NOTES:

1. CONTRACTOR TO REMOVE CONFLICTING PAVEMENT MARKINGS FROM STA. 218+00 TO STA. 227+00 AND INSTALL PROPOSED PAVEMENT MARKINGS AS SHOWN ON THE PLAN.

25-APR-2021
15:53
\\deldotpw01ics01\ICS_pdf_work_dir\8147126595_177124 SS15_TRSF_T201609002_WM_Final.dgn

ADDENDA / REVISIONS

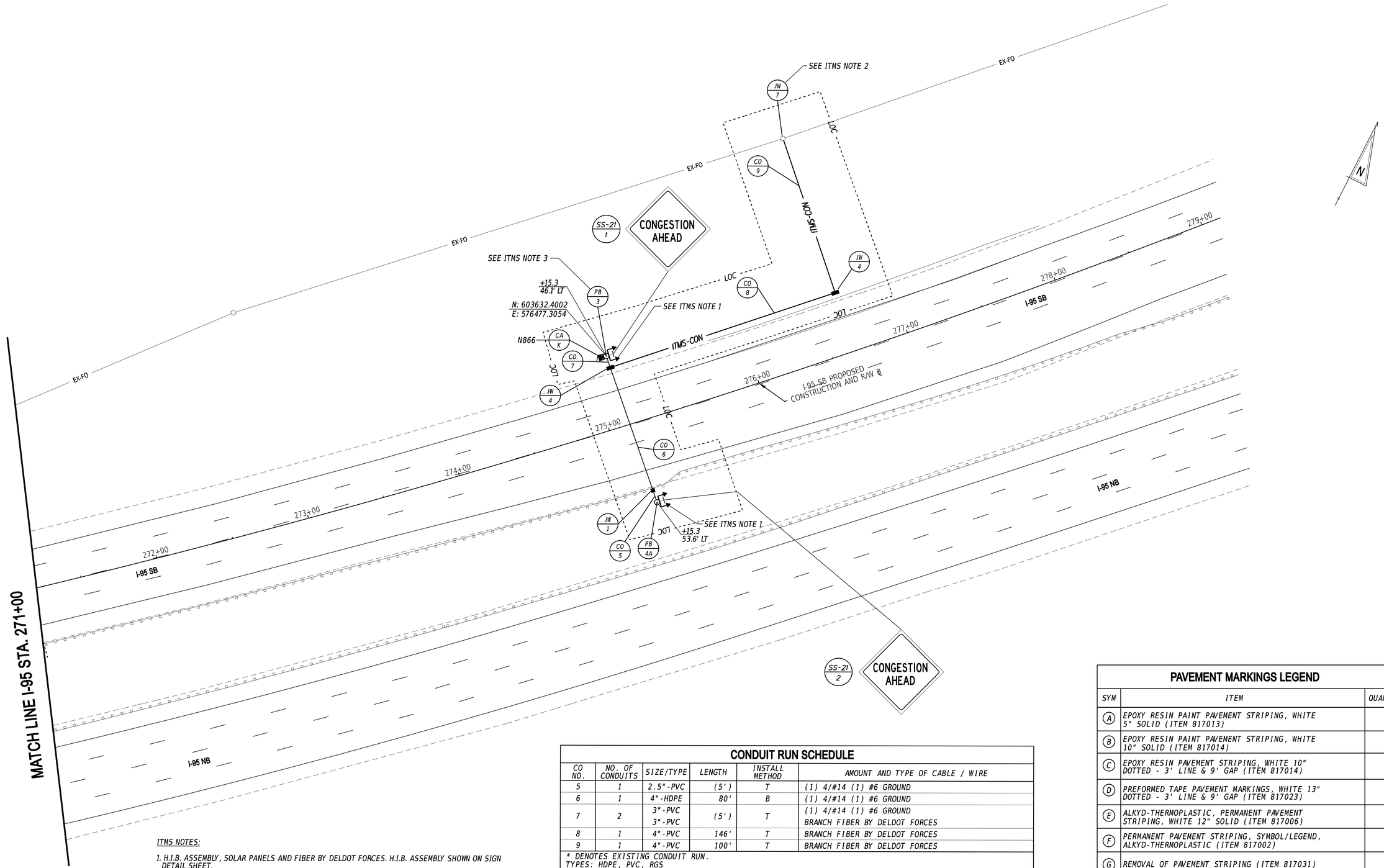
SCALE
0 30 60 90
FEET

PAVEMENT AND REHABILITATION SOUTHBOUND I-95, 2020

CONTRACT	T202001102	BRIDGE NO.	N/A
COUNTY	NEW CASTLE	DESIGNED BY:	W.DAI
		CHECKED BY:	J. VARGAS

SIGNING AND STRIPING PLAN

SECTION	SS-15
SHEET NO.	WM
	26



CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
5	1	2.5"-PVC	(5')	T	(1) 4/#14 (1) #6 GROUND
6	1	4"-HDPE	80'	B	(1) 4/#14 (1) #6 GROUND
7	2	3"-PVC 3"-PVC	(5')	T	(1) 4/#14 (1) #6 GROUND BRANCH FIBER BY DELDOT FORCES
8	1	4"-PVC	146'	T	BRANCH FIBER BY DELDOT FORCES
9	1	4"-PVC	100'	T	BRANCH FIBER BY DELDOT FORCES

* DENOTES EXISTING CONDUIT RUN.
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

ITMS CONDUIT RUN SCHEDULE NOTES:

1. CABLE DESCRIPTIONS WITH (XX') INDICATE QUANTITY THAT IS HIGHER THAN CONDUIT LENGTH TO ACCOUNT FOR VERTICAL MEASUREMENTS SUCH AS POLES, CABINET BASE CONNECTIONS, METERS, DISCONNECTS, AND OTHERS. QUANTITY DOES NOT ACCOUNT FOR SLACK CABLE.

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	-
B	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" SOLID (ITEM 817014)	-
C	EPOXY RESIN PAVEMENT STRIPING, WHITE 10" DOTTED - 3' LINE & 9' GAP (ITEM 817014)	-
D	PREFORMED TAPE PAVEMENT MARKINGS, WHITE 13" DOTTED - 3' LINE & 9' GAP (ITEM 817023)	-
E	ALKYD-THERMOPLASTIC, PERMANENT PAVEMENT STRIPING, WHITE 12" SOLID (ITEM 817006)	-
F	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC (ITEM 817002)	-
G	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	-

ITMS NOTES:

1. H.I.B. ASSEMBLY, SOLAR PANELS AND FIBER BY DELDOT FORCES. H.I.B. ASSEMBLY SHOWN ON SIGN DETAIL SHEET.
2. MODIFY EXISTING JUNCTION WELL TYPE-7 TO ACCEPT PROPOSED CONDUIT. PAY UNDER ITEM 830008.
3. SOLAR PANELS TO BE INSTALLED ON 40-FOOT POLE TO FACE SOUTH, BY DELDOT FORCES.

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

PAVEMENT AND REHABILITATION SOUTHBOUND I-95, 2020

CONTRACT	BRIDGE NO.	N/A
T202001102	DESIGNED BY:	W.DAI
COUNTY	CHECKED BY:	J. VARGAS
NEW CASTLE		

SIGNING AND STRIPING PLAN

SS-21
SECTION
WM
SHEET NO.
32

25-APR-2021
15:52
\\deldotpw01ics01\ICS_pdf_work_dir\8147\26595_20030 SS21_TR5F_T201609002_WM_Final.dgn

CONDUIT RUN SCHEDULE CONT.

CO*	* OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
1	1	2"	GALV	10'/30'	T/P	(1)12/#8 U.F.W./GROUND *(SEE UTILITY & ITMS PLANS)
1A	1	2"	GALV	45'	T	(1)12/#8 U.F.W./GROUND *(SEE UTILITY & ITMS PLANS)
1B	1	2"	GALV	80'	T	*(SEE UTILITY & ITMS PLANS)
2	3	4"	PVC	10'	T	(3)4/#18 (1)4/#14 (1)9/#14 #12 CNT SM (1)#6 BSC
3	1	2.5"	PVC	15'	T	(1)9/#14 (1)#6 BSC
3A	1	2"	-	10'	-	*(SEE UTILITY & ITMS PLANS)
3B	1	2"	-	320'	-	*(SEE UTILITY & ITMS PLANS)
3C	1	2"	-	325'	-	*(SEE UTILITY & ITMS PLANS)
4	1	2.5"	PVC	30'	T	(1)4/#14 (1)#6 BSC
5	1	2.5"	PVC	30'	T	(1)4/#18 (1)#6 BSC
6	1	2.5"	PVC	25'	T	(2)4/#18 (1)#6 BSC
F5	1	xx4"	-	495'	-	*(SEE UTILITY AND ITMS PLANS)
F6	1	xx4"	-	190'	-	*(SEE UTILITY AND ITMS PLANS)
F7	1	xx4"	-	295'	-	*(SEE UTILITY AND ITMS PLANS)
F40	1	xx3"	-	6'	-	*(SEE UTILITY AND ITMS PLANS)
F40A	1	xx3"	-	6'	-	*(SEE UTILITY AND ITMS PLANS)
F40B	1	xx3"	-	10'	-	*(SEE UTILITY AND ITMS PLANS)
F41	1	xx4"	-	45'	-	*(SEE UTILITY AND ITMS PLANS)
F58	1	xx4"	-	322'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND

x DENOTES EXISTING

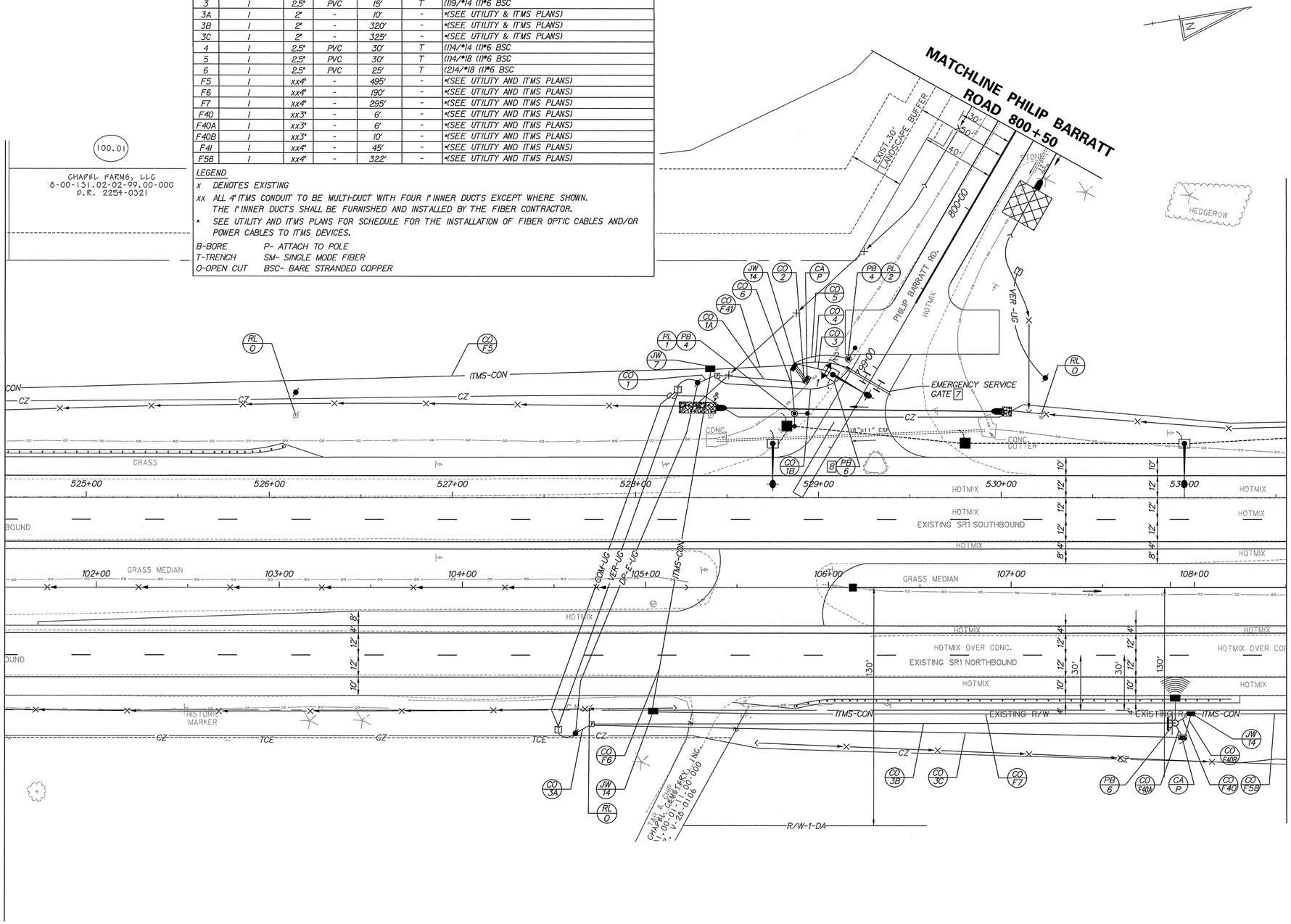
xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

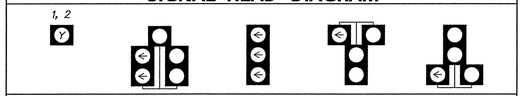
POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
1	PEDESTAL	14'	ALUMINUM
2	PEDESTAL	14'	ALUMINUM



SIGNAL PHASING

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH (*)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH (*)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (*)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (*)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE	XX	
UTILITY POLE		
CAMERA (CCTV)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5%1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

ADDITIONAL SIGNAL NOTES

[7] SIGNAL INSTALLATION TO BE DONE BY DELDOT TRAFFIC CONTRACTOR.

[8] THE EMERGENCY SERVICE GATE SIGNAL HEADS SHALL BE MOUNTED ON THE PROPOSED LIGHTING POLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED Mark SAINTIL DATE: 12/5/14

RECOMMENDED BSchuette DATE: 12/2/14

APPROVED TRAFFIC ENGINEER Marvin C. Howard, II DATE: 12/5/14

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER Neil Fegley DATE: 12/9/14

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

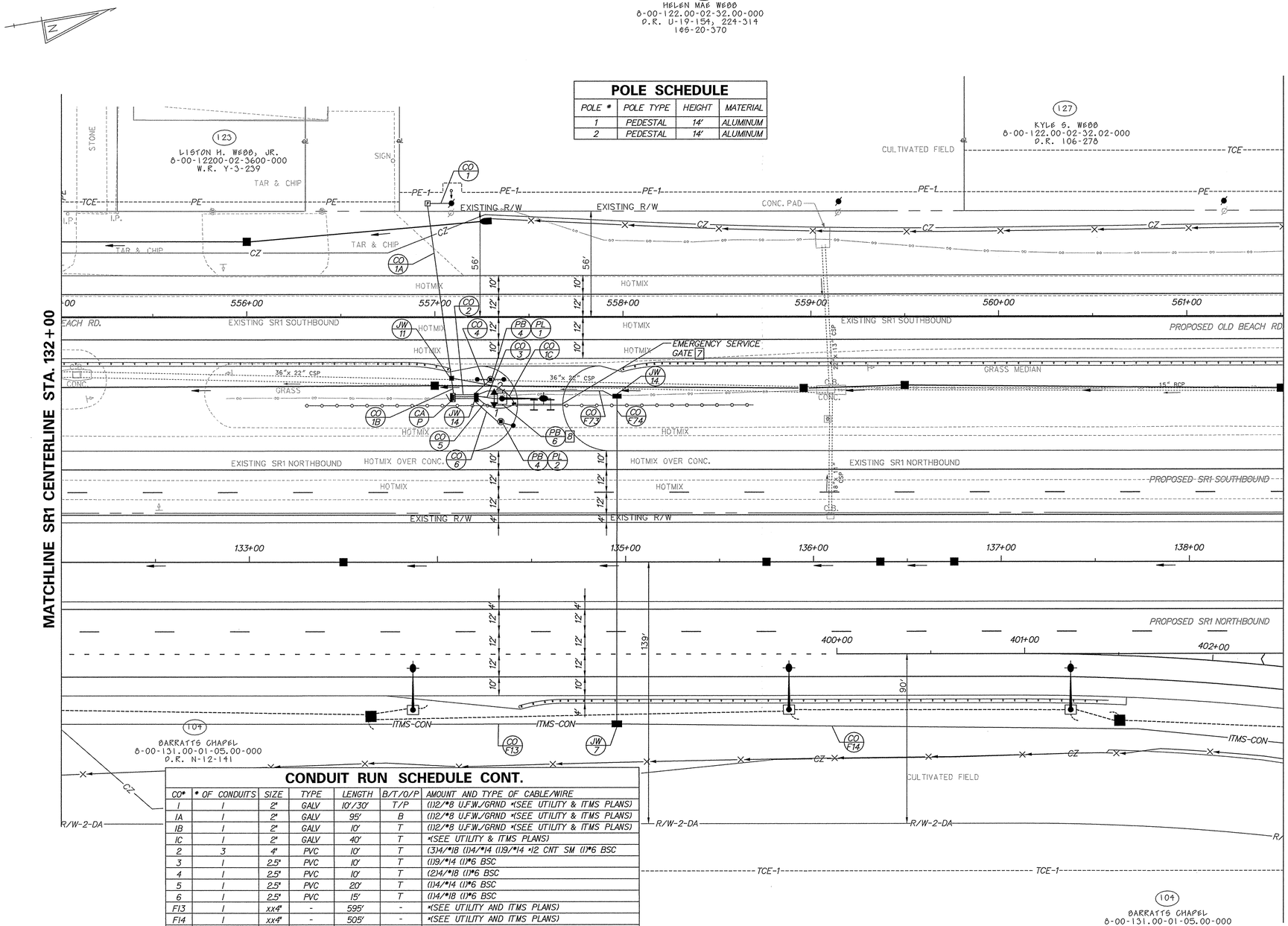
CONTRACT	T200412202	PERMIT NO.	K298
COUNTY	KENT	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN

SR1 EMERGENCY EXIT @ OLD BARRATTS CHAPEL RD

SHEET NO.	614
TOTAL SHTS.	641

12/2/2014
C:\PROJECTS\03517.00 (DELDOT ADMT 1223 DOTS Open End)\03517.16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_contlevergate01.dgn
SMSIG PM



POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
1	PEDESTAL	14'	ALUMINUM
2	PEDESTAL	14'	ALUMINUM

CONDUIT RUN SCHEDULE CONT.

CO*	* OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
1	1	2"	GALV	10'/30'	T/P	(1)12/*8 U.F.W./GRND *(SEE UTILITY & ITMS PLANS)
1A	1	2"	GALV	95'	B	(1)12/*8 U.F.W./GRND *(SEE UTILITY & ITMS PLANS)
1B	1	2"	GALV	10'	T	(1)12/*8 U.F.W./GRND *(SEE UTILITY & ITMS PLANS)
1C	1	2"	GALV	40'	T	*(SEE UTILITY & ITMS PLANS)
2	3	4"	PVC	10'	T	(3)4/*18 (1)4/*14 (1)9/*14 +12 CNT SM (1)*6 BSC
3	1	2.5"	PVC	10'	T	(1)9/*14 (1)*6 BSC
4	1	2.5"	PVC	10'	T	(2)4/*18 (1)*6 BSC
5	1	2.5"	PVC	20'	T	(1)4/*14 (1)*6 BSC
6	1	2.5"	PVC	15'	T	(1)4/*18 (1)*6 BSC
F13	1	xx4"	-	595'	-	*(SEE UTILITY AND ITMS PLANS)
F14	1	xx4"	-	505'	-	*(SEE UTILITY AND ITMS PLANS)
F73	1	xx4"	-	75'	-	*(SEE UTILITY AND ITMS PLANS)
F74	1	xx4"	-	175'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND

x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE

T-TRENCH SM- SINGLE MODE FIBER

O-OPEN CUT BSC- BARE STRANDED COPPER

ADDITIONAL SIGNAL NOTES

7 SIGNAL INSTALLATION TO BE DONE BY DELDOT TRAFFIC CONTRACTOR.

8 THE EMERGENCY SERVICE GATE SIGNAL HEADS SHALL BE MOUNTED ON THE PROPOSED LIGHTING POLE.

SIGNAL PHASING

PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH *	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH *	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO *	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO *	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE	XX	
UTILITY POLE		
CAMERA (CCTV)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK,AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED Max Saintil DATE: 12/5/14

RECOMMENDED B.C.A. DATE: 12/2/14

APPROVED TRAFFIC ENGINEER William C. Hall DATE: 12/5/14

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER Mark Luszcz DATE: 12/9/14

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	T200412202	PERMIT NO.	K299
COUNTY	KENT	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN

SR1 SB EMERGENCY EXIT @ OLD BEACH RD

SHEET NO. 615

TOTAL SHTS. 641

12/2/2014
2:47:09 PM
3:18:13 PM

C:\DOTS\03517.00 (DELDOT AGMT 1223 DOTS Open End)\03517.16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_cantilevergate02.dgn

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
1	PEDESTAL	14'	ALUMINUM
2	PEDESTAL	14'	ALUMINUM

CONDUIT RUN SCHEDULE CONT.

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	
1	1	2"	GALV	10'/30'	T/P	(1)12/#8 U.F.W./GRND *(SEE UTILITY & ITMS PLANS)
1A	1	2"	GALV	70'	T	(1)12/#8 U.F.W./GRND *(SEE UTILITY & ITMS PLANS)
1B	1	2"	GALV	75'	T	(1)12/#8 U.F.W./GRND *(SEE UTILITY & ITMS PLANS)
1C	1	2"	GALV	100'	T	(1)12/#8 U.F.W./GRND *(SEE UTILITY & ITMS PLANS)
1D	1	2"	GALV	150'	T	*(SEE UTILITY & ITMS PLANS)
1E	1	2"	GALV	305'	T	*(SEE UTILITY & ITMS PLANS)
2	3	4"	PVC	10'	T	(3)4/#18 (1)4/#14 (1)9/#14 #12 CNT SM (1)#6 BSC
3	1	2.5"	PVC	25'	T	(1)9/#14 (1)#6 BSC
4	1	2.5"	PVC	40'	T	(1)4/#14 (1)#6 BSC
5	1	2.5"	PVC	45'	T	(1)4/#18 (1)#6 BSC
6	1	2.5"	PVC	20'	T	(2)4/#18 (1)#6 BSC
F26	1	xx4"	-	5'	-	*(SEE UTILITY AND ITMS PLANS)
F27	1	xx4"	-	360'	-	*(SEE UTILITY AND ITMS PLANS)
F60	1	xx3"	-	160'	-	*(SEE UTILITY AND ITMS PLANS)
F60A	1	xx3"	-	10'	-	*(SEE UTILITY AND ITMS PLANS)
F68	1	xx4"	-	35'	-	*(SEE UTILITY AND ITMS PLANS)
F69	1	xx4"	-	190'	-	*(SEE UTILITY AND ITMS PLANS)

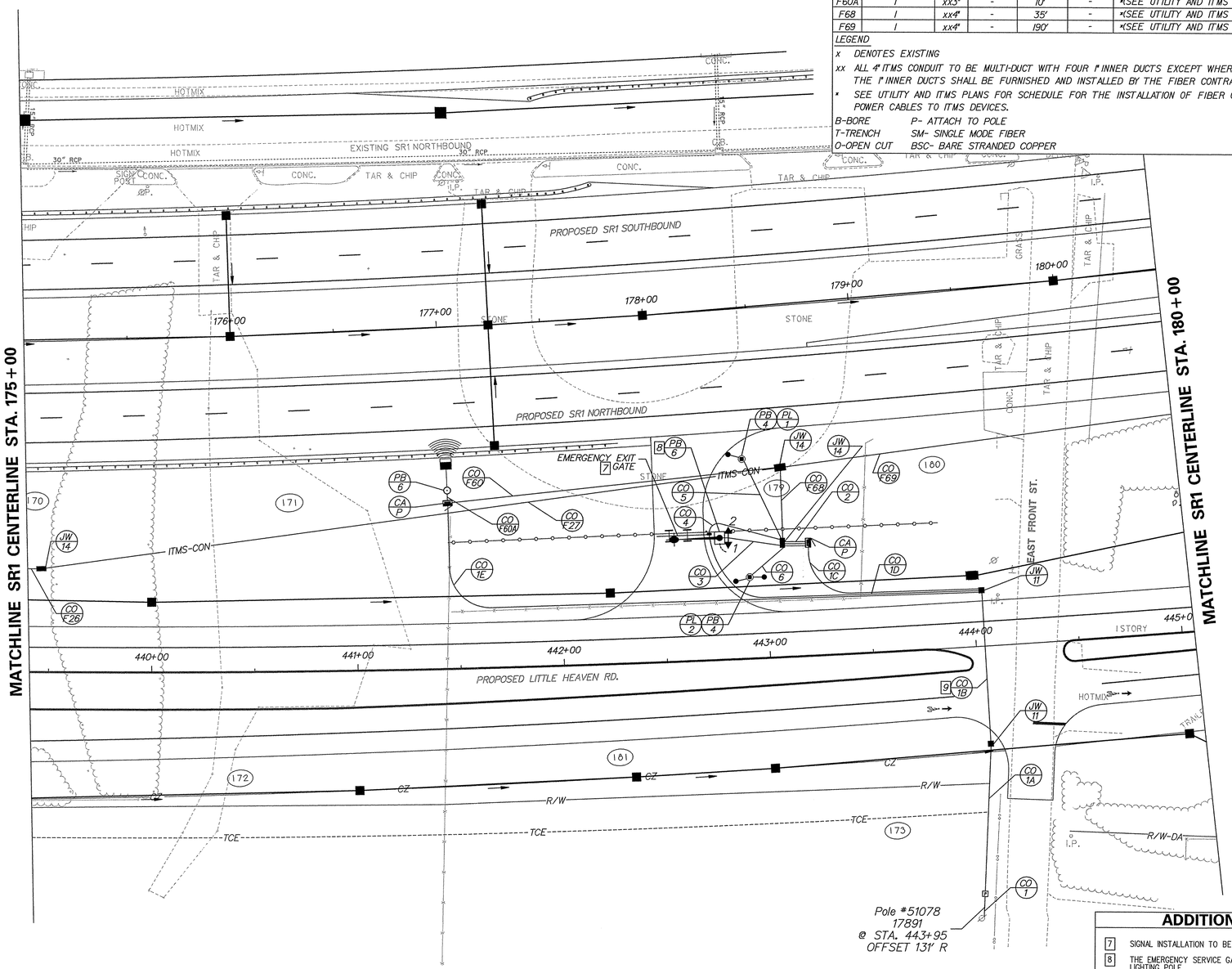
LEGEND

x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

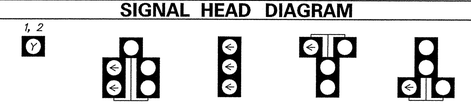


SIGNAL PHASING

PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH#	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH#	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE	XX	
UTILITY POLE		
CAMERA (CCTV)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5% FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK,AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

ADDITIONAL SIGNAL NOTES

7 SIGNAL INSTALLATION TO BE DONE BY DELDOT TRAFFIC CONTRACTOR.

8 THE EMERGENCY SERVICE GATE SIGNAL HEADS SHALL BE MOUNTED ON THE PROPOSED LIGHTING POLE.

9 CONTRACTOR SHALL TRENCH AS DEEP AS REQUIRED TO PREVENT CRUSHING OF CONDUIT DURING CONSTRUCTION OF PROPOSED LITTLE HEAVEN ROAD.

RECOMMENDED _____ DATE: _____

RECOMMENDED Jack SAINTIL DATE: 12/5/14

RECOMMENDED [illegible] DATE: 12/2/14

APPROVED TRAFFIC ENGINEER Thomas C. Fruehe DATE: 12/5/14

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER [illegible] DATE: 12/9/14

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K300
T200412202	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
KENT		

SIGNAL PLAN

SR1 NB EMERGENCY EXIT @ LITTLE HEAVEN RD

SHEET NO.	TOTAL SHTS.
616	641

12/2/2014
G:\PROJECTS\03517.00 (DELDOT ACMT 1223 DOTS Open End)\03517.16 SR1, LITTLE HEAVEN FINAL DESIGN\OGN Files\signal_contl\evergate03.dgn
3:17:49 PM

CONDUIT RUN SCHEDULE

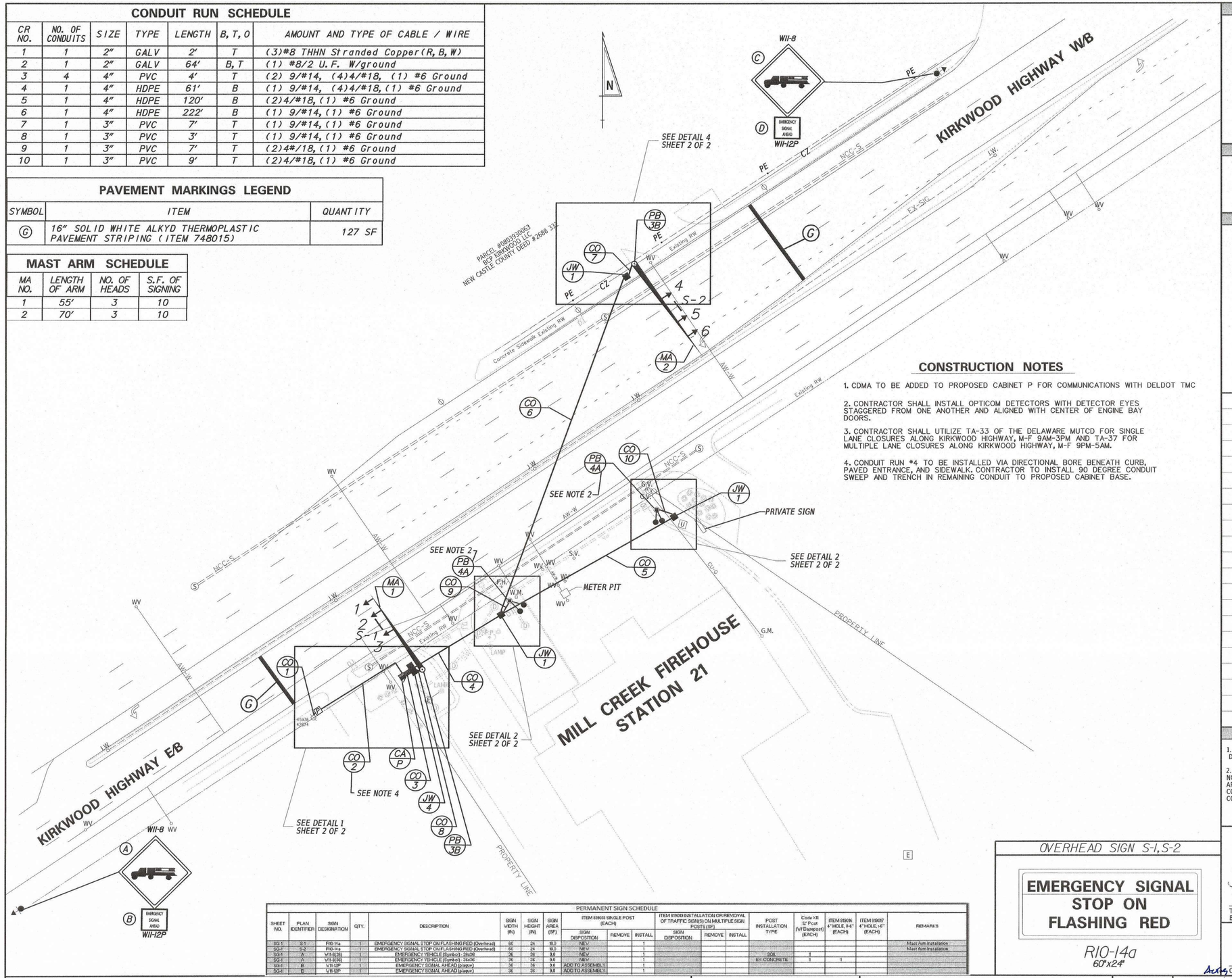
CR NO.	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B, T, O	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2"	GALV	2'	T	(3)#8 THHN Stranded Copper(R, B, W)
2	1	2"	GALV	64'	B, T	(1) #8/2 U.F. W/ground
3	4	4"	PVC	4'	T	(2) 9/#14, (4)4/#18, (1) #6 Ground
4	1	4"	HDPE	61'	B	(1) 9/#14, (4)4/#18, (1) #6 Ground
5	1	4"	HDPE	120'	B	(2)4/#18, (1) #6 Ground
6	1	4"	HDPE	222'	B	(1) 9/#14, (1) #6 Ground
7	1	3"	PVC	7'	T	(1) 9/#14, (1) #6 Ground
8	1	3"	PVC	3'	T	(1) 9/#14, (1) #6 Ground
9	1	3"	PVC	7'	T	(2)4#/18, (1) #6 Ground
10	1	3"	PVC	9'	T	(2)4/#18, (1) #6 Ground

PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
G	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 748015)	127 SF

MAST ARM SCHEDULE

MA NO.	LENGTH OF ARM	NO. OF HEADS	S.F. OF SIGNING
1	55'	3	10
2	70'	3	10



CONSTRUCTION NOTES

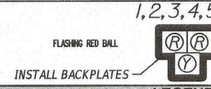
1. CDMA TO BE ADDED TO PROPOSED CABINET P FOR COMMUNICATIONS WITH DELDOT TMC
2. CONTRACTOR SHALL INSTALL OPTICOM DETECTORS WITH DETECTOR EYES STAGGERED FROM ONE ANOTHER AND ALIGNED WITH CENTER OF ENGINE BAY DOORS.
3. CONTRACTOR SHALL UTILIZE TA-33 OF THE DELAWARE MUTCD FOR SINGLE LANE CLOSURES ALONG KIRKWOOD HIGHWAY, M-F 9AM-3PM AND TA-37 FOR MULTIPLE LANE CLOSURES ALONG KIRKWOOD HIGHWAY, M-F 9PM-5AM.
4. CONDUIT RUN #4 TO BE INSTALLED VIA DIRECTIONAL BORE BENEATH CURB, PAVED ENTRANCE, AND SIDEWALK. CONTRACTOR TO INSTALL 90 DEGREE CONDUIT SWEEP AND TRENCH IN REMAINING CONDUIT TO PROPOSED CABINET BASE.

SIGNAL PHASING

IN NON PREEMPT MODE SIGNALS 1, 2, 3, 4, 5 AND 6 SHALL DISPLAY DARK. WHEN PREEMPTED A FLASHING YELLOW IS DISPLAYED FOLLOWED BY A STEADY YELLOW DURING THE CHANGE INTERVAL.
THEN TWO FLASHING RED INDICATIONS DISPLAY UNTIL THE PREEMPTION IS OVER.

SIGNAL HEAD DIAGRAM

1, 2, 3, 4, 5, 6



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. RIGHT OF WAY & PERMANENT EASEMENTS DERIVED FROM R.O.W. PLANS, CONTRACT #85-099-29, DATED 7/10/1986.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PERMANENT SIGN SCHEDULE

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	SIGN AREA (SF)	ITEM 619018 SINGLE POST (EACH) SIGN DISPOSITION	REMOVE	INSTALL	ITEM 619018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF) SIGN DISPOSITION	REMOVE	INSTALL	POST INSTALLATION TYPE	Code XII 12' Post (W Baseport) (EACH)	ITEM 619016 4" HOLE, 0-6' (EACH)	ITEM 619017 4" HOLE, >6' (EACH)	REMARKS
SG-1	S-1	R10-14a	1	EMERGENCY SIGNAL STOP ON FLASHING RED (Overhead)	60	24	10.0	NEW		1								Mast Arm Installation
SG-1	S-2	R10-14a	1	EMERGENCY SIGNAL STOP ON FLASHING RED (Overhead)	60	24	10.0	NEW		1								Mast Arm Installation
SG-1	A	W11-8(36)	1	EMERGENCY VEHICLE (Symbol) - 36x36	36	36	9.0	NEW		1				SOIL		1		
SG-1	A	W11-8(36)	1	EMERGENCY VEHICLE (Symbol) - 36x36	36	36	9.0	NEW		1				EX. CONCRETE	1		1	
SG-1	B	W11-12P	1	EMERGENCY SIGNAL AHEAD (plaque)	36	36	9.0	ADD TO ASSEMBLY		1								
SG-1	B	W11-12P	1	EMERGENCY SIGNAL AHEAD (plaque)	36	36	9.0	ADD TO ASSEMBLY		1								

OVERHEAD SIGN S-1, S-2

EMERGENCY SIGNAL STOP ON FLASHING RED

R10-14a
60"x24"

PREPARED BY
DELDOT - TRANSPORTATION SOLUTIONS
TRAFFIC DESIGN

Nana-Atsewi Tetteh — 10/08/2019
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "TD" SECTION DESIGNATION. — DATE

NANA-ATSEWI TETTEH LICENSE No. 14933 DELAWARE PROFESSIONAL ENGINEER — SEAL

CONCURRENCE FOR INSTALLATION

ACTING CHIEF TRAFFIC ENGINEER — 10/10/19 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

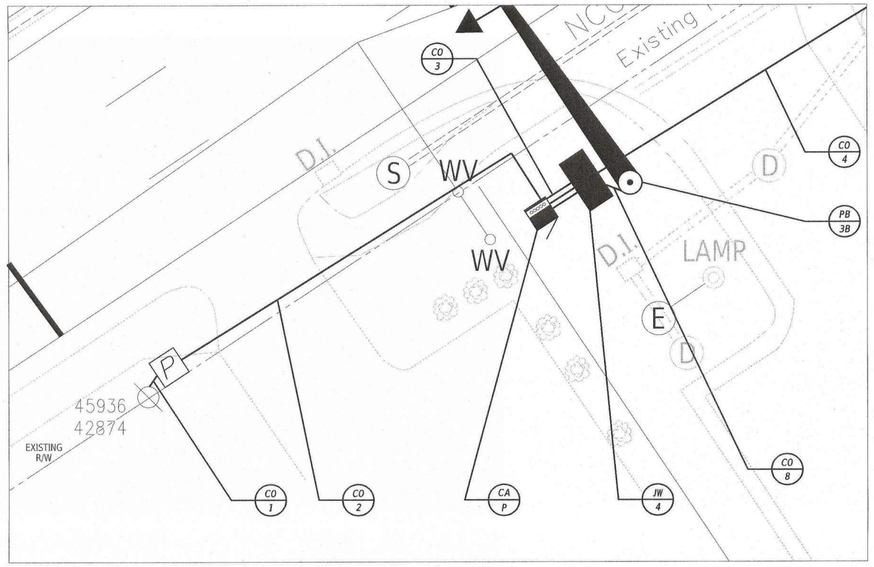
MILL CREEK FIRE STATION SIGNAL IMPOVEMENTS

CONTRACT	T201909906
COUNTY	New Castle
PERMIT NO.	N837
DESIGNED BY:	MF/KLR
CHECKED BY:	NT

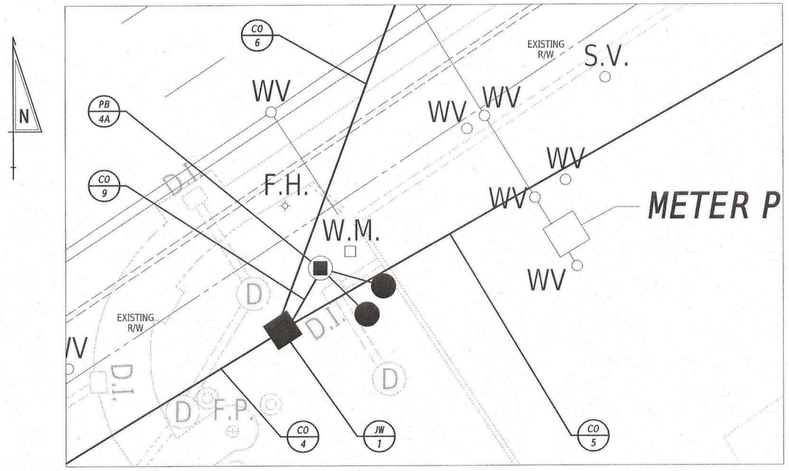
MILL CREEK FIRE STATION 21
3808 KIRKWOOD HWY
MARSHALLTON, DE 19808

SECTION	TD
SHEET NO.	1 OF 2

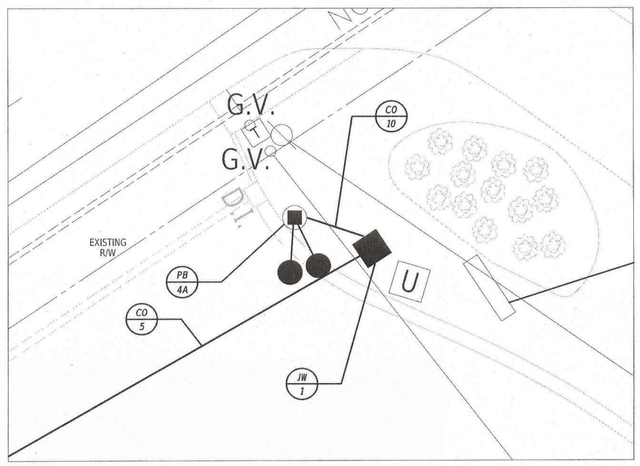
LAST REVISED: 9/11/2018
DATE: 10-07-2019
15:01
Y:\traffic\Signals\New Castle\N837\Design\CADD_DGN\S601_Mill_Creek.dgn



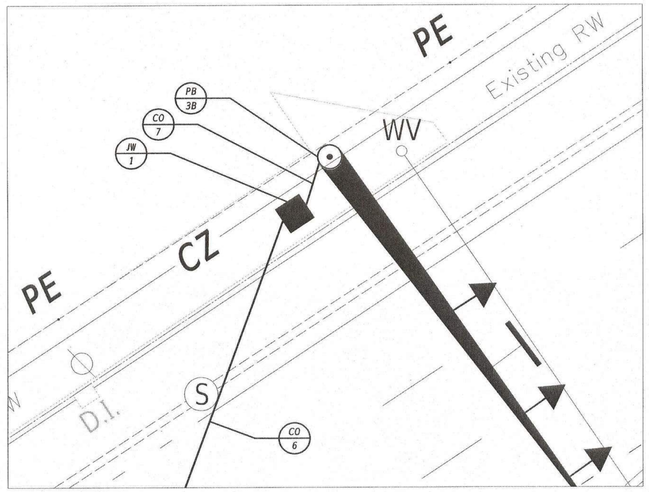
DETAIL 1



DETAIL 2



DETAIL 3



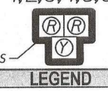
DETAIL 4

SIGNAL PHASING

IN NON PREEMPT MODE SIGNALS 1, 2, 3, 4, 5 AND 6 SHALL DISPLAY DARK. WHEN PREEMPTED A FLASHING YELLOW IS DISPLAYED FOLLOWED BY A STEADY YELLOW DURING THE CHANGE INTERVAL.
THEN TWO FLASHING RED INDICATIONS DISPLAY UNTIL THE PREEMPTION IS OVER.

SIGNAL HEAD DIAGRAM

1, 2, 3, 4, 5, 6



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICON RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. RIGHT OF WAY & PERMANENT EASEMENTS DERIVED FROM R.O.W. PLANS, CONTRACT #85-099-29, DATED 7/10/1986.

2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
DELDOT - TRANSPORTATION SOLUTIONS
TRAFFIC DESIGN

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "TD" SECTION DESIGNATION.

DATE

SEAL

CONCURRENCE FOR INSTALLATION

CHIEF TRAFFIC ENGINEER

10/8/19
DATE

LAST REVISED: 9/11/2018
07-OCT-2019
14:44
Y:\Traffic\Signals\New Castle\N837\Design\CADD_DGN\SG02_Mill_Creek.dgn

ADDENDA / REVISIONS

SCALE
0 10 20 30
FEET

MILL CREEK FIRE STATION SIGNAL IMPOVEMENTS

CONTRACT	T201909906	PERMIT NO.	N837
COUNTY	New Castle	DESIGNED BY: MF/KLR	
		CHECKED BY: NT	

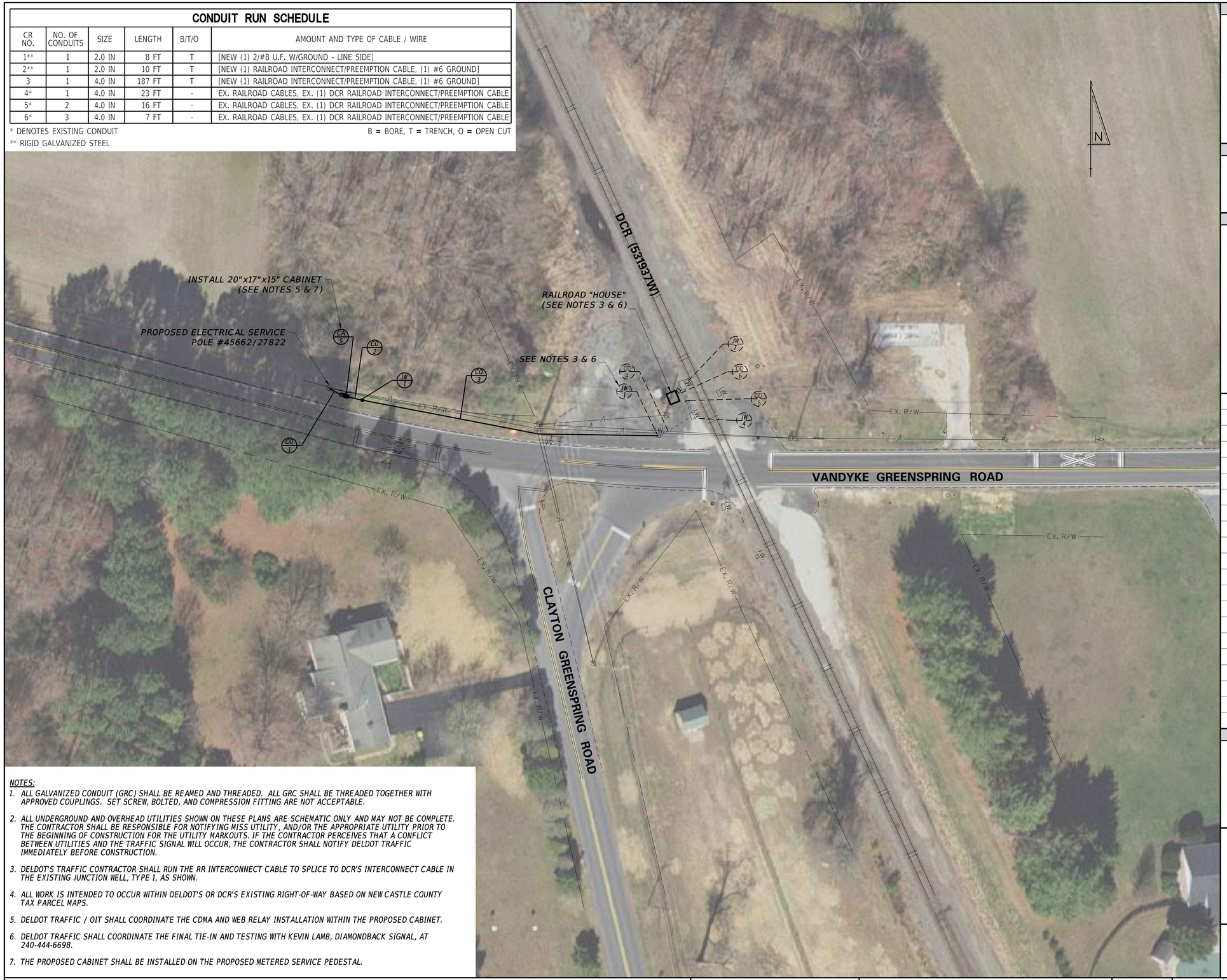
MILL CREEK FIRE STATION 21
3808 KIRKWOOD HWY
MARSHALLTON, DE 19808

SECTION TD
SHEET NO. 2 OF 2

CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
1**	1	2.0 IN	8 FT	T	[NEW (1) 2/#8 U.F. W/GROUND - LINE SIDE]
2**	1	2.0 IN	10 FT	T	[NEW (1) RAILROAD INTERCONNECT/PREEMPTION CABLE, (1) #6 GROUND]
3	1	4.0 IN	187 FT	T	[NEW (1) RAILROAD INTERCONNECT/PREEMPTION CABLE, (1) #6 GROUND]
4*	1	4.0 IN	23 FT	-	EX. RAILROAD CABLES, EX. (1) DCR RAILROAD INTERCONNECT/PREEMPTION CABLE
5*	2	4.0 IN	16 FT	-	EX. RAILROAD CABLES, EX. (1) DCR RAILROAD INTERCONNECT/PREEMPTION CABLE
6*	3	4.0 IN	7 FT	-	EX. RAILROAD CABLES, EX. (1) DCR RAILROAD INTERCONNECT/PREEMPTION CABLE

* DENOTES EXISTING CONDUIT
B = BORE, T = TRENCH, O = OPEN CUT
** RIGID GALVANIZED STEEL



SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB	*ABANDON*	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	*OH #*	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	*PB X*	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	*PL X*	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	*RM C*	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	*RM O*	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	*RM TC*	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	*PROPOSED SYMBOL*
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

NOTES:

1. *ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.*
2. *ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.*
3. *DELDOT'S TRAFFIC CONTRACTOR SHALL RUN THE RR INTERCONNECT CABLE TO SPLICE TO DCR'S INTERCONNECT CABLE IN THE EXISTING JUNCTION WELL, TYPE 1, AS SHOWN.*
4. *ALL WORK IS INTENDED TO OCCUR WITHIN DELDOT'S OR DCR'S EXISTING RIGHT-OF-WAY BASED ON NEW CASTLE COUNTY TAX PARCEL MAPS.*
5. *DELDOT TRAFFIC / OIT SHALL COORDINATE THE CDMA AND WEB RELAY INSTALLATION WITHIN THE PROPOSED CABINET.*
6. *DELDOT TRAFFIC SHALL COORDINATE THE FINAL TIE-IN AND TESTING WITH KEVIN LAMB, DIAMONDBACK SIGNAL, AT 240-444-6698.*
7. *THE PROPOSED CABINET SHALL BE INSTALLED ON THE PROPOSED METERED SERVICE PEDESTAL.*

PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

7/23/2021
DATE

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WRA" SECTION DESIGNATION.

MATTHEW A. BUCKLEY No. 16224 PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING

7/23/2021
DATE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

VANDYKE GREENSPRING ROAD RAILROAD CROSSING SAFETY IMPROVEMENTS

CONTRACT	T202000506
COUNTY	NEW CASTLE
PERMIT NO.	N871
DESIGNED BY:	A. PHILLIPPI
CHECKED BY:	M. BUCKLEY

RAILROAD GRADE CROSSING MONITORING PLAN
VANDYKE GREENSPRING ROAD @ DCR RR(CROSSING 531937W)

SECTION	WRA
SHEET NO.	1

LAST REVISED: 9/11/2018
6/28/2021
11:51:22 AM
N:\32128-002\CADD\SG01_VanDyke Greenspring RR.dgn

CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
1*	1	1.5 IN	32 FT	-	<REMOVE EX. (1) 2/*8 U.F. W/ GROUND>
2*	1	1.5 IN	55 FT	-	<REMOVE EX. (1) 2/*8 U.F. W/ GROUND, EX. (1) 16/*14, EX. (1) 9/*14>
3*	1	1.5 IN	16 FT	-	<REMOVE EX. (1) 2/*8 U.F. W/ GROUND, EX. (1) 16/*14, EX. (1) 9/*14>
4*	1	2.5 IN	4 FT	-	<REMOVE EX. (1) 2/*8 U.F. W/ GROUND, EX. (2) 16/*14>
5*	2	1.5 IN	ON POLE	-	<REMOVE EX. (1) 4/*14>
		2.5 IN			<REMOVE EX. (1) 2/*8 U.F. W/ GROUND, EX. (1) 16/*14, (1) 9/*14, (1) COMM.-DISCONNECTED>
6*	1	4.0 IN	128 FT	-	<REMOVE EX. (1) 4/*14>
7*	1	1.5 IN	10 FT	-	<REMOVE EX. (1) 9/*14>
8*	1	1.5 IN	39 FT	-	<REMOVE EX. (1) 9/*14>
9*	1	1.5 IN	3 FT	-	<REMOVE EX. (1) 9/*14>
10*	1	1.5 IN	40 FT	-	<REMOVE EX. (1) 9/*14>
OH-11	-	AERIAL	73 FT	-	<REMOVE EX. (1) 16/*14, (1) COMM.-DISCONNECTED>
OH-12	-	AERIAL	63 FT	-	<REMOVE EX. (1) 16/*14, (1) COMM.-DISCONNECTED>
OH-13	-	AERIAL	81 FT	-	<REMOVE EX. (1) 9/*14, (1) 4/*14>
14**	1	2.0 IN	14 FT	T	[NEW (3) 1/*8 THHN - LINE SIDE]
15**	2	2.0 IN	6 FT	T	[NEW (3) 1/*8 THHN - LINE SIDE, (1) 2/*8 U.F. W/GROUND - LOAD SIDE]
16	1	2.0 IN	106 FT	B	[NEW (1) 2/*8 U.F. W/ GROUND - LOAD SIDE]
17**	1	2.0 IN	9 FT	T	[NEW (1) 2/*8 U.F. W/ GROUND - LOAD SIDE]

* DENOTES EXISTING CONDUIT
** GALVANIZED STEEL CONDUIT
B = BORE, T = TRENCH, O = OPEN CUT

CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
18	4	4.0 IN	5 FT	T	[NEW (3) 9/*14, (7) 5/*14, (7) 4/*14, (4) *6 GROUND, (1) CCTV CABLE]
19	1	3.0 IN	35 FT	T	[NEW (1) 9/*14, (1) 4/*14, (1) *6 GROUND]
20	1	4.0 IN	85 FT	B	[NEW (1) 9/*14, (2) 5/*14, (1) 4/*14, (1) *6 GROUND, (1) CCTV CABLE]
21	1	3.0 IN	8 FT	T	[NEW (1) 9/*14, (1) 4/*14, (1) *6 GROUND, (1) CCTV CABLE]
22	1	2.5 IN	14 FT	T	[NEW (1) 5/*14, (1) *6 GROUND]
23	1	2.5 IN	5 FT	T	[NEW (2) 5/*14, (1) *6 GROUND]
24	1	4.0 IN	78 FT	B	[NEW (1) 9/*14, (3) 5/*14, (3) 4/*14, (1) *6 GROUND]
25	1	2.5 IN	7 FT	O	[NEW (2) 5/*14, (1) *6 GROUND]
26	1	2.5 IN	21 FT	O	[NEW (1) 4/*14, (1) *6 GROUND]
27	1	4.0 IN	31 FT	B	[NEW (1) 9/*14, (1) 5/*14, (2) 4/*14, (1) *6 GROUND]
28	1	3.0 IN	21 FT	T	[NEW (1) 9/*14, (1) *6 GROUND]
29	1	2.5 IN	10 FT	T	[NEW (1) 5/*14, (1) 4/*14, (1) *6 GROUND]
30	1	4.0 IN	180 FT	B	[NEW (1) 4/*14, (1) *6 GROUND]

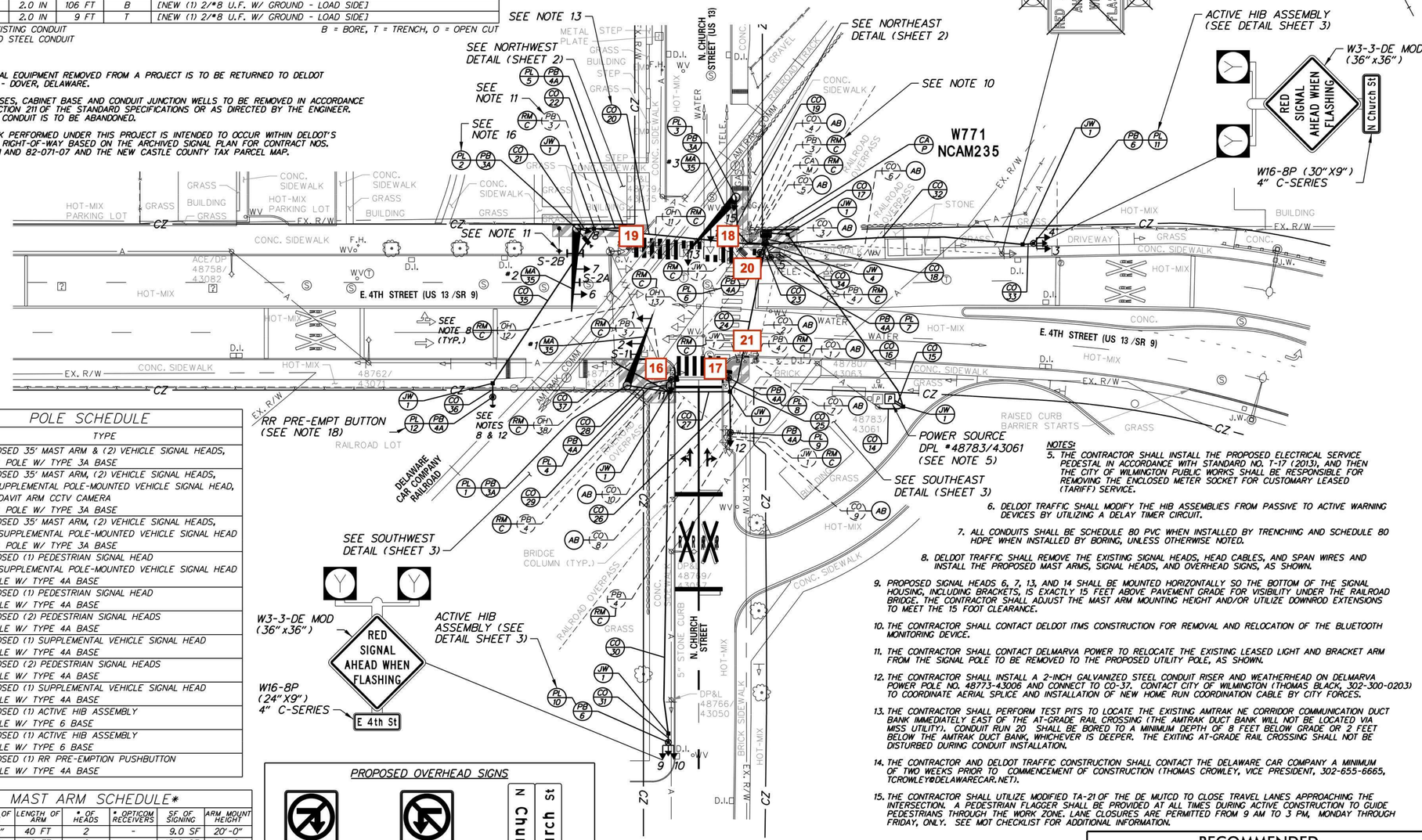
* DENOTES EXISTING CONDUIT
** GALVANIZED STEEL CONDUIT
B = BORE, T = TRENCH, O = OPEN CUT

CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
31	1	2.5 IN	5 FT	O	[NEW (1) 4/*14, (1) *6 GROUND]
32	1	4.0 IN	131 FT	B	[NEW (1) 4/*14, (1) *6 GROUND]
33	1	2.5 IN	6 FT	T	[NEW (1) 4/*14, (1) *6 GROUND]
34	1	2.5 IN	8 FT	T	[NEW (1) 4/*14, (1) *6 GROUND]
35	1	4.0 IN	95 FT	B	[NEW (1) 5/*14, (1) *6 GROUND]
36	1	2.5 IN	7 FT	O	[NEW (1) 5/*14, (1) *6 GROUND]
37**	1	2.0 IN	31 FT	T	EMPTY - FUTURE CoW COMM CABLE
OH-38	-	AERIAL	23 FT	-	<REMOVE EX. (1) COMM.-DISCONNECTED>

* DENOTES EXISTING CONDUIT
** GALVANIZED STEEL CONDUIT
B = BORE, T = TRENCH, O = OPEN CUT

NOTES:
1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON THE ARCHIVED SIGNAL PLAN FOR CONTRACT NOS. 71-10-001 AND 82-071-07 AND THE NEW CASTLE COUNTY TAX PARCEL MAP.



POLE SCHEDULE

NO.	TYPE
1	PROPOSED 35' MAST ARM & (2) VEHICLE SIGNAL HEADS, 21'-6" POLE W/ TYPE 3A BASE
2	PROPOSED 35' MAST ARM, (2) VEHICLE SIGNAL HEADS, (1) SUPPLEMENTAL POLE-MOUNTED VEHICLE SIGNAL HEAD, & (1) DAVIT ARM CCTV CAMERA 21'-6" POLE W/ TYPE 3A BASE
3	PROPOSED 35' MAST ARM, (2) VEHICLE SIGNAL HEADS, & (1) SUPPLEMENTAL POLE-MOUNTED VEHICLE SIGNAL HEAD 21'-6" POLE W/ TYPE 3A BASE
4	PROPOSED (1) PEDESTRIAN SIGNAL HEAD & (1) SUPPLEMENTAL POLE-MOUNTED VEHICLE SIGNAL HEAD 14' POLE W/ TYPE 4A BASE
5	PROPOSED (1) PEDESTRIAN SIGNAL HEAD 10' POLE W/ TYPE 4A BASE
6	PROPOSED (2) PEDESTRIAN SIGNAL HEADS 10' POLE W/ TYPE 4A BASE
7	PROPOSED (1) SUPPLEMENTAL VEHICLE SIGNAL HEAD 10' POLE W/ TYPE 4A BASE
8	PROPOSED (2) PEDESTRIAN SIGNAL HEADS 10' POLE W/ TYPE 4A BASE
9	PROPOSED (1) SUPPLEMENTAL VEHICLE SIGNAL HEAD 10' POLE W/ TYPE 4A BASE
10	PROPOSED (1) ACTIVE HIB ASSEMBLY 14' POLE W/ TYPE 6 BASE
11	PROPOSED (1) ACTIVE HIB ASSEMBLY 14' POLE W/ TYPE 6 BASE
12	PROPOSED (1) RR PRE-EMPTION PUSHBUTTON 10' POLE W/ TYPE 4A BASE

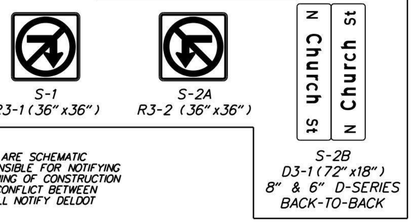
MAST ARM SCHEDULE*

MA*	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1	21'-6"	40 FT	2	-	9.0 SF	20'-0"
2	21'-6"	40 FT	2	-	18.0 SF	16'-0"
3	21'-6"	40 FT	2	-	-	16'-0"

*SEE NOTE 17

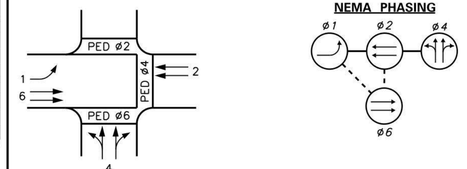
NOTES:
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PROPOSED OVERHEAD SIGNS



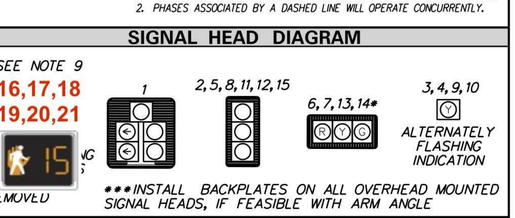
NOTES:
5. THE CONTRACTOR SHALL INSTALL THE PROPOSED ELECTRICAL SERVICE PEDESTAL IN ACCORDANCE WITH STANDARD NO. T-17 (2013), AND THEN THE CITY OF WILMINGTON PUBLIC WORKS SHALL BE RESPONSIBLE FOR REMOVING THE ENCLOSED METER SOCKET FOR CUSTOMARY LEASED (TARIFF) SERVICE.
6. DELDOT TRAFFIC SHALL MODIFY THE HIB ASSEMBLIES FROM PASSIVE TO ACTIVE WARNING DEVICES BY UTILIZING A DELAY TIMER CIRCUIT.
7. ALL CONDUITS SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING AND SCHEDULE 80 HDPE WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED.
8. DELDOT TRAFFIC SHALL REMOVE THE EXISTING SIGNAL HEADS, HEAD CABLES, AND SPAN WIRES AND INSTALL THE PROPOSED MAST ARMS, SIGNAL HEADS, AND OVERHEAD SIGNS, AS SHOWN.
9. PROPOSED SIGNAL HEADS 6, 7, 13, AND 14 SHALL BE MOUNTED HORIZONTALLY SO THE BOTTOM OF THE SIGNAL HOUSING, INCLUDING BRACKETS, IS EXACTLY 15 FEET ABOVE PAVEMENT GRADE FOR VISIBILITY UNDER THE RAILROAD BRIDGE. THE CONTRACTOR SHALL ADJUST THE MAST ARM MOUNTING HEIGHT AND/OR UTILIZE DOWNROD EXTENSIONS TO MEET THE 15 FOOT CLEARANCE.
10. THE CONTRACTOR SHALL CONTACT DELDOT ITMS CONSTRUCTION FOR REMOVAL AND RELOCATION OF THE BLUETOOTH MONITORING DEVICE.
11. THE CONTRACTOR SHALL CONTACT DELMARVA POWER TO RELOCATE THE EXISTING LEASED LIGHT AND BRACKET ARM FROM THE SIGNAL POLE TO BE REMOVED TO THE PROPOSED UTILITY POLE, AS SHOWN.
12. THE CONTRACTOR SHALL INSTALL A 2-INCH GALVANIZED STEEL CONDUIT RISER AND WEATHERHEAD ON DELMARVA POWER POLE NO. 48773-43006 AND CONNECT TO CO-37. CONTACT CITY OF WILMINGTON (THOMAS BLACK, 302-300-0203) TO COORDINATE AERIAL SPLICE AND INSTALLATION OF NEW HOME RUN COORDINATION CABLE BY CITY FORCES.
13. THE CONTRACTOR SHALL PERFORM TEST PITS TO LOCATE THE EXISTING AMTRAK NE CORRIDOR COMMUNICATION DUCT BANK IMMEDIATELY EAST OF THE AT-GRADE RAIL CROSSING (THE AMTRAK DUCT BANK WILL NOT BE LOCATED VIA MISS UTILITY). CONDUIT RUN 20 SHALL BE BORED TO A MINIMUM DEPTH OF 8 FEET BELOW GRADE OR 2 FEET BELOW THE AMTRAK DUCT BANK, WHICHEVER IS DEEPER. THE EXITING AT-GRADE RAIL CROSSING SHALL NOT BE DISTURBED DURING CONDUIT INSTALLATION.
14. THE CONTRACTOR AND DELDOT TRAFFIC CONSTRUCTION SHALL CONTACT THE DELAWARE CAR COMPANY A MINIMUM OF TWO WEEKS PRIOR TO COMMENCEMENT OF CONSTRUCTION (THOMAS CROWLEY, VICE PRESIDENT, 302-655-6665, TCROWLEY@DELAWARECAR.NET).
15. THE CONTRACTOR SHALL UTILIZE MODIFIED TA-21 OF THE DE MUTCD TO CLOSE TRAVEL LANES APPROACHING THE INTERSECTION. A PEDESTRIAN FLAGGER SHALL BE PROVIDED AT ALL TIMES DURING ACTIVE CONSTRUCTION TO GUIDE PEDESTRIANS THROUGH THE WORK ZONE. LANE CLOSURES ARE PERMITTED FROM 9 AM TO 3 PM, MONDAY THROUGH FRIDAY, ONLY. SEE MOT CHECKLIST FOR ADDITIONAL INFORMATION.
16. THE CONTRACTOR SHALL INSTALL A DAVIT ARM CCTV CAMERA ON POLE *2.
17. THE PROPOSED MAST ARMS SHALL BE INSTALLED TO PROVIDE A 15-FOOT MINIMUM HORIZONTAL CLEARANCE FROM THE CENTERLINE OF THE AT- GRADE RAILROAD CROSSING.
18. THE PROPOSED PUSHBUTTON SHALL BE LOCATED 20 FEET FROM THE ACTIVE RAILROAD TRACK CENTERLINE AND NO MORE THAN 4 FEET FROM THE FOURTH STREET FENCE LINE.

SIGNAL PHASING



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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH (•)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA (X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH (•)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA (X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB (X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (•)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB (X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (•)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL (X)	EXISTING POLE IDENTIFIER (* OF POLE)
JW (X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL (X)	PROPOSED POLE IDENTIFIER (* OF POLE)
JW (X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA (XX)	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA (XX)	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

RECOMMENDED
Thomas Black, via 10/18/2021 Field Meeting
CITY OF WILMINGTON, DEPT. OF PUBLIC WORKS — DATE

RECOMMENDED
Thomas Crowley, via email dated 9/20/2021
DELAWARE CAR COMPANY — DATE

PREPARED BY
Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915
10/13/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WRA" SECTION DESIGNATION. — DATE

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION
10/18/2021
CHIEF OF TRAFFIC ENGINEERING — DATE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

2016 HEP
SITE N

CONTRACT	T201800402
COUNTY	NEW CASTLE
PERMIT NO.	W771 & NCAM235
DESIGNED BY:	D. GUNYUZLU
CHECKED BY:	K. CLEVENGER

SIGNAL PLAN
E. 4TH STREET (SR 9 /US 13)
N. CHURCH STREET (US 13)

SECTION	WRA
SHEET NO.	1

N:\30957-025\CADD\SC01_4th St @ Church St.dgn
10/12/2021 11:57:44 PM

ADDITIONAL GENERAL SIGNAL NOTES

3. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.

4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.

5. POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (SO=1 OR FLATTER) LANDING AREA OF THE PEDESTRIAN CONNECTION OR SIDEWALK IN ACCORDANCE WITH ADA BEST PRACTICES. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A MINIMUM HEIGHT OF 15 INCHES AND A MAXIMUM HEIGHT OF 48 INCHES ABOVE THE LEVEL LANDING AREA/SIDEWALK, BUT SHOULD BE INSTALLED AT A HEIGHT OF 42 INCHES TO 48 INCHES. THE PEDESTRIAN PUSHBUTTON SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE LEVEL LANDING AREA TO THE FACE OF THE PUSH BUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING, INCLUDING BRACKETS, NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE THE GROUND.

6. THE COMPANY WHICH OWNS THE RED LIGHT CAMERA EQUIPMENT WILL BE RESPONSIBLE TO REINSTALL RED LIGHT RUNNING CAMERA ON THE SOUTHBOUND ELKTON ROAD APPROACH.

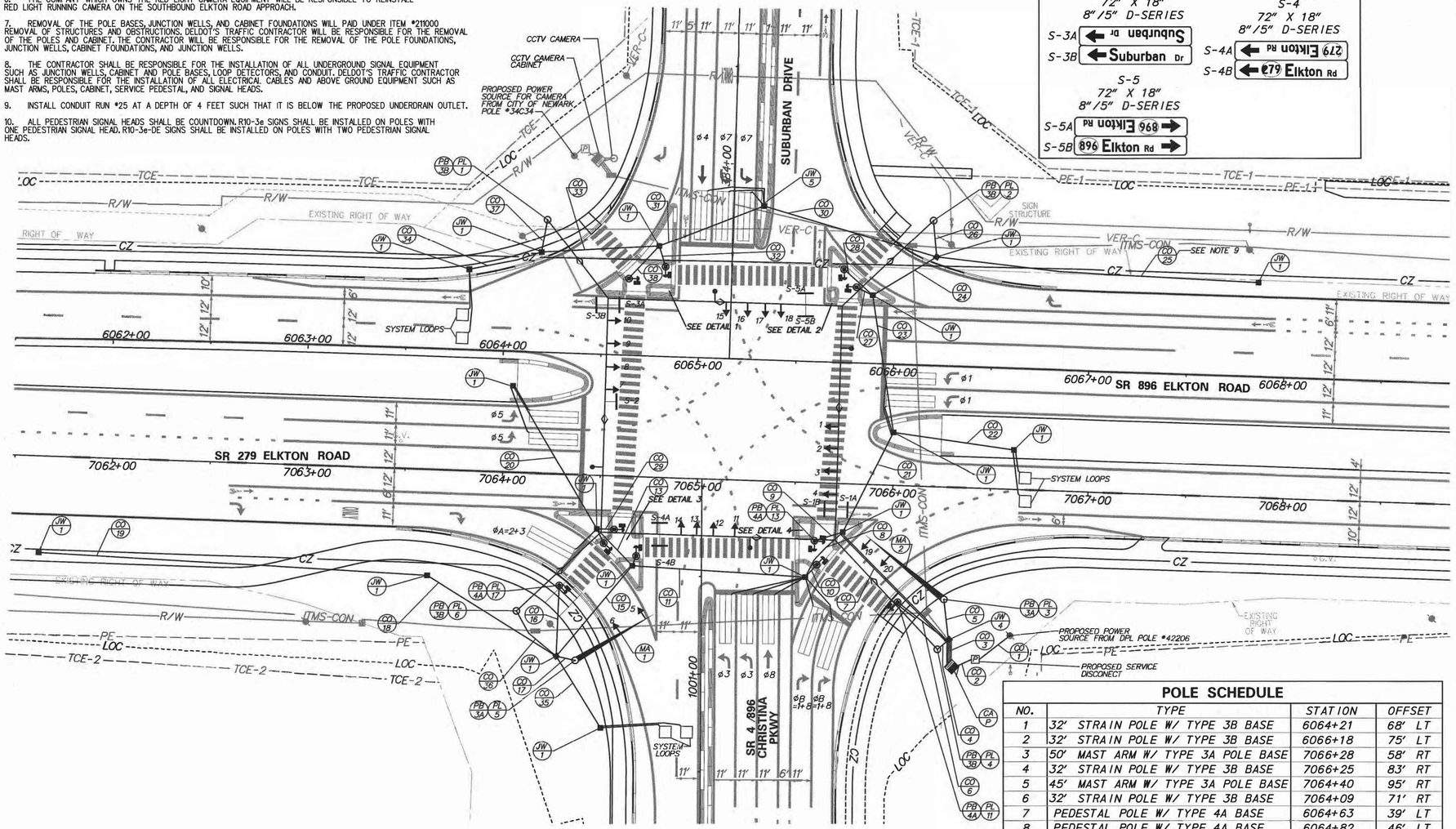
7. REMOVAL OF THE POLE BASES, JUNCTION WELLS, AND CABINET FOUNDATIONS WILL PAID UNDER ITEM *211000 REMOVAL OF STRUCTURES AND OBSTRUCTIONS. DELDOT'S TRAFFIC CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF THE POLES AND CABINET. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF THE POLE FOUNDATIONS, JUNCTION WELLS, CABINET FOUNDATIONS, AND JUNCTION WELLS.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL UNDERGROUND SIGNAL EQUIPMENT SUCH AS JUNCTION WELLS, CABINET AND POLE BASES, LOOP DETECTORS, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL ELECTRICAL CABLES AND ABOVE GROUND EQUIPMENT SUCH AS MAST ARMS, POLES, CABINET, SERVICE PEDESTAL, AND SIGNAL HEADS.

9. INSTALL CONDUIT RUN *25 AT A DEPTH OF 4 FEET SUCH THAT IT IS BELOW THE PROPOSED UNDERDRAIN OUTLET.

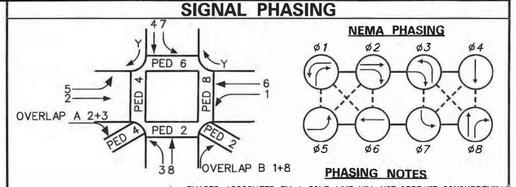
10. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN. R10-3e SIGNS SHALL BE INSTALLED ON POLES WITH ONE PEDESTRIAN SIGNAL HEAD. R10-3e-DE SIGNS SHALL BE INSTALLED ON POLES WITH TWO PEDESTRIAN SIGNAL HEADS.

ULTIMATE



OVERHEAD SIGN DETAILS

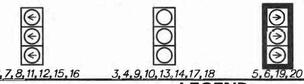
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH *	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO *	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO *	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	JW	■
LOOP DETECTOR, TYPE 1		□
LOOP DETECTOR, TYPE 2		▭
LUMINAIRE		—●—
MAST ARM		➤
MICROWAVE DETECTION	—◀	—◀
OPTICOM RECEIVER	—●	—●
OVERHEAD SIGNING		—|
PEDESTRIAN POLE/BASE	○	◉
PEDESTRIAN PUSHBUTTON	—D	—➤
PEDESTRIAN SIGNAL HEAD		—■
RIGHT-OF-WAY	R/W	—R/W—
SERVICE PEDESTAL		P
SIGNAL CABINET		■
SIGNAL HEAD	—▷	—➤
SIGNAL POLE/BASE		⊙
CCTV CAMERA		—■
SPAN WIRE	—XX—	—◇—
UTILITY POLE		●
VIDEO DETECTION		◀

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

MAST ARM SCHEDULE

NO.	LENGTH	NO. OF SIGNAL HEADS	S.F. OF SIGNAGE
1	45' MAST ARM	2 - 3 SECTION	0 SF
2	50' MAST ARM	2 - 3 SECTION	0 SF

POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
1	32' STRAIN POLE W/ TYPE 3B BASE	6064+21	68' LT
2	32' STRAIN POLE W/ TYPE 3B BASE	6066+18	75' LT
3	50' MAST ARM W/ TYPE 3A POLE BASE	7066+28	58' RT
4	32' STRAIN POLE W/ TYPE 3B BASE	7066+25	83' RT
5	45' MAST ARM W/ TYPE 3A POLE BASE	7064+40	95' RT
6	32' STRAIN POLE W/ TYPE 3B BASE	7064+09	71' RT
7	PEDESTAL POLE W/ TYPE 4A BASE	6064+63	39' LT
8	PEDESTAL POLE W/ TYPE 4A BASE	6064+82	46' LT
9	PEDESTAL POLE W/ TYPE 4A BASE	6065+73	48' LT
10	PEDESTAL POLE W/ TYPE 4A BASE	6065+80	39' LT
11	PEDESTAL POLE W/ TYPE 4A BASE	7066+04	60' RT
12	PEDESTAL POLE W/ TYPE 4A BASE	7065+62	42' RT
13	PEDESTAL POLE W/ TYPE 4A BASE	7065+61	30' RT
14	PEDESTAL POLE W/ TYPE 4A BASE	7064+70	41' RT
15	PEDESTAL POLE W/ TYPE 4A BASE	7064+58	27' RT
16	PEDESTAL POLE W/ TYPE 4A BASE	7064+53	35' RT
17	PEDESTAL POLE W/ TYPE 4A BASE	7064+31	57' RT

PREPARED BY
JOHNSON, MIRMIRAN & THOMPSON

MIR A. WAHED LICENSE No. 14810 DELAWARE PROFESSIONAL ENGINEER

Mir Abe Waked — 12/17/2018 (DATE)

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION. — SEAL

APPROVED FOR INSTALLATION

CHIEF TRAFFIC ENGINEER — 12/19/18 DATE

ADDENDA / REVISIONS		SCALE	ELKTON ROAD, MD LINE TO CASHO MILL ROAD	CONTRACT T201504401	PERMIT NO. N153	SIGNAL PLAN SR 279/896 (ELKTON ROAD) @ SR 4896 (CHRISTINA PKWY)	SECTION JMT
		0 30 60 90 FEET		COUNTY NEW CASTLE	DESIGNED BY: JDS (JMT)		SHEET NO. 426
					CHECKED BY: MAW (JMT)		

PLOTTED BY: JDSMITH DATE: 12/17/2018
FILE LOCATION: Q:\NDE\140659_007_ELKTON_RD_CASHO_MILL\CADD\SG _ROUTE 4_PRINT FILES\DGN [SHEET: SG39]

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% DROP	BULL RING HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
NORTHEAST	64 FT	29.2 FT	3.2 FT	26.0 FT	-	-	-
SOUTHEAST	77 FT	29.9 FT	3.9 FT	26.0 FT	-	-	-
NORTHWEST	51 FT	28.6 FT	2.6 FT	26.0 FT	-	-	-
SOUTHWEST	59 FT	29.0 FT	3.0 FT	26.0 FT	-	-	-
NORTH	120 FT	-	-	26.0 FT	6.0 FT	20.0 FT	16.0 FT
SOUTH	120 FT	-	-	26.0 FT	6.0 FT	20.0 FT	16.0 FT
EAST	120 FT	-	-	26.0 FT	6.0 FT	20.0 FT	16.0 FT
WEST	120 FT	-	-	26.0 FT	6.0 FT	20.0 FT	16.0 FT

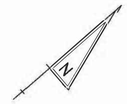
NOTE: FIELD ADJUSTMENTS AS REQUIRED

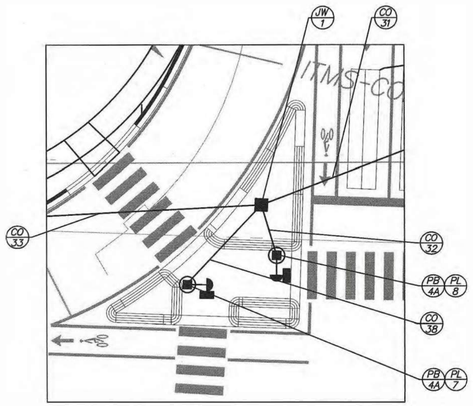
CONDUIT RUN SCHEDULE

CR#	# OF CONDUITS	B/T/O	SIZE	LENGTH	AMOUNT AND TYPE OF CABLE / WIRE
1	1 (GALV. STEEL)	T	2"	20'	(1)2/#8 U.F. W/GROUND
2	1 (GALV. STEEL)	T	2"	15'	(1)2/#8 U.F. W/GROUND
3	4	T	4"	15'	(19)2/#14, (4)4/#18, (2)16/#14, (2)9/#14, (12)5/#14, (4)1/#6 GRD
4	1	T	3"	10'	(2)16/#14, (4)4/#18, (1)1/#6 GRD
5	1	T	3"	25'	(1)9/#14, (1)1/#6 GRD
6	1	T	3"	35'	(1)5/#14, (1)1/#6 GRD
7	2	O	4"	80'	(19)2/#14, (1)9/#14, (11)5/#14, (1)1/#6 GRD
8	1	O	4"	35'	(10)2/#14, (5)5/#14, (1)9/#14, (1)1/#6 GRD
9	1	T	3"	10'	(2)5/#14, (1)1/#6 GRD
10	1	T	3"	5'	(1)5/#14, (1)1/#6 GRD
11	1 (SCHD 80 HDPE)	B	4"	90'	(5)2/#14, (1)9/#14, (4)5/#14, (1)1/#6 GRD
12	1	O	3"	10'	(1)5/#14, (1)1/#6 GRD
13	1	O	4"	30'	(3)2/#14, (2)5/#14, (1)1/#6 GRD
14	1	O	3"	10'	(1)5/#14, (1)1/#6 GRD
15	1 (SCHD 80 HDPE)	B	4"	65'	(2)2/#14, (1)9/#14, (1)5/#14, (1)1/#6 GRD
16	1	T	3"	40'	(1)5/#14, (1)1/#6 GRD
17	1	T	3"	10'	(1)9/#14, (1)1/#6 GRD
18	1	T	4"	80'	EMPTY
19	1	T	4"	200'	EMPTY
20	1 (SCHD 80 HDPE)	B	4"	85'	(2)2/#14, (1)1/#6 GRD
21	1 (SCHD 80 HDPE)	B	4"	60'	(9)2/#14, (4)5/#14, (1)1/#6 GRD
22	1	T	4"	65'	(2)2/#14, (1)1/#6 GRD
23	1 (SCHD 80 HDPE)	B	4"	75'	(5)2/#14, (4)5/#14, (1)1/#6 GRD
24	1	O	4"	40'	(5)2/#14, (2)5/#14, (1)1/#6 GRD
25	1	T	4"	170'	EMPTY
26	1	T	3"	20'	EMPTY
27	1	T	3"	10'	(1)5/#14, (1)1/#6 GRD
28	1	T	3"	20'	(1)5/#14, (1)1/#6 GRD
29	1	O	3"	10'	(1)5/#14, (1)1/#6 GRD
30	1 (SCHD 80 HDPE)	B	4"	95'	(5)2/#14, (2)5/#14, (1)1/#6 GRD
31	1 (SCHD 80 HDPE)	B	4"	60'	(2)2/#14, (2)5/#14, (1)1/#6 GRD
32	1	O	3"	15'	(1)5/#14, (1)1/#6 GRD
33	1	O	4"	65'	(2)2/#14, (1)1/#6 GRD
34	1	T	4"	40'	(2)2/#14, (1)1/#6 GRD
35	1	T	4"	45'	(2)2/#14, (1)1/#6 GRD
36	1	T	3"	35'	EMPTY
37	1	T	3"	20'	EMPTY
38	1	O	3"	25'	(1)5/#14, (1)1/#6 GRD

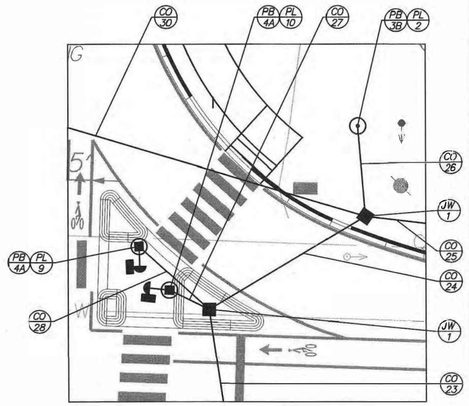
NOTE: ALL CONDUITS SHALL BE SCHEUDLE 80 PVC UNLESS OTHERWISE NOTED
B=BORE, T=TRENCH, O=OPEN CUT

ULTIMATE

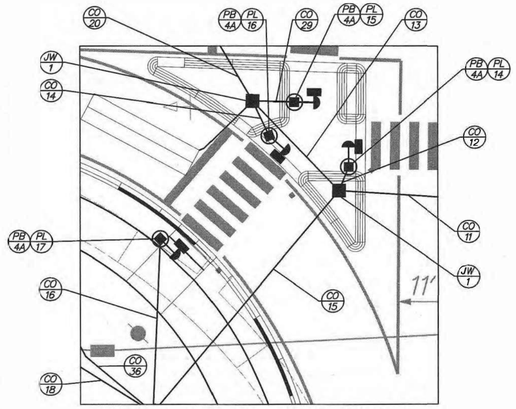




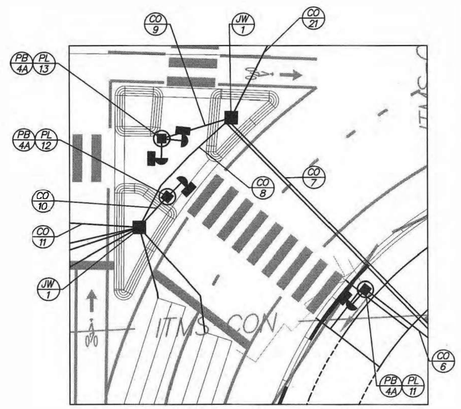
DETAIL 1 – NORTHWEST CORNER
SCALE: 1" = 15'



DETAIL 2 – NORTHEAST CORNER
SCALE: 1" = 15'

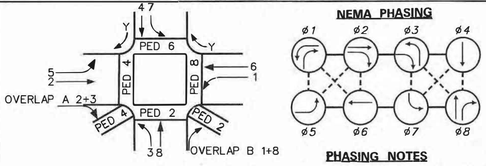


DETAIL 3 – SOUTHWEST CORNER
SCALE: 1" = 15'



DETAIL 4 – SOUTHEAST CORNER
SCALE: 1" = 15'

SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



1,2,7,8,11,12,15,16 — 3,4,9,10,13,14,17,18 — 5,6,19,20

LEGEND

AB	ABANDON	OH (*)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH (*)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (*)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (*)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		□
LOOP DETECTOR, TYPE 2		▭
LUMINAIRE		—•—
MAST ARM		➤
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		◉
PEDESTRIAN PUSHBUTTON		⟶
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		⊙
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
JOHNSON, MIRMIRAN & THOMPSON

Mir Ata Waked — 12/17/2018
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION. — DATE

MIR A. WAHED — LICENSE — No. 14810 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

APPROVED FOR INSTALLATION

Mark Luft — 12/19/18
CHIEF TRAFFIC ENGINEER — DATE

ADDENDA / REVISIONS

NOT TO SCALE

ELKTON ROAD,
MD LINE TO
CASHO MILL ROAD

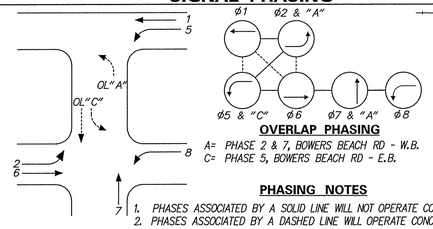
CONTRACT	T201504401	PERMIT NO.	N153
COUNTY	NEW CASTLE	DESIGNED BY:	JDS (JMT)
		CHECKED BY:	MAW (JMT)

SIGNAL PLAN
SR 279/896 (ELKTON ROAD)
@ SR 4/896 (CHRISTINA PKWY)

SECTION: JMT
SHEET NO.: 427

PLOTTED BY: JDSMITH DATE: 12/17/2018
FILE LOCATION: Q:\NDE\140659_007_ELKTON_RD_CASHO_MILL\CADD\SG_ROUTE 4_PRINT FILES\DGN [SHEET: SG40]

SIGNAL PHASING



OVERLAP PHASING

A= PHASE 2 & 7, BOWERS BEACH RD - W.B.
C= PHASE 5, BOWERS BEACH RD - E.B.

PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

(AB)	ABANDON	(OH/•)	EXISTING OVERHEAD RUN IDENTIFIER (• OF OVERHEAD RUN)
(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	(OH/•)	PROPOSED OVERHEAD RUN IDENTIFIER (• OF OVERHEAD RUN)
(CA/X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
(CO/•)	EXISTING CONDUIT RUN IDENTIFIER (• OF CONDUIT RUN)	(PB/X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
(CO/•)	PROPOSED CONDUIT RUN IDENTIFIER (• OF CONDUIT RUN)	(PL/X)	EXISTING POLE IDENTIFIER (• OF POLE)
(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	(PL/X)	PROPOSED POLE IDENTIFIER (• OF POLE)
(JW/X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	(RM/C)	REMOVE BY CONTRACTOR
(MA/X)	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	(RM/O)	REMOVE BY OTHERS
(MA/X)	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	(RM/TC)	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W. □	■
LOOP DETECTOR, TYPE 1	⬚	□
LOOP DETECTOR, TYPE 2	▭	▬
LUMINAIRE	——○	——●
MAST ARM	▷	▶
MICROWAVE DETECTION	—◂	—◂
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	—⊣	—⊣
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—▷	—▶
PEDESTRIAN SIGNAL HEAD	—▭	—▪
RIGHT-OF-WAY	———	———
SERVICE PEDESTAL	P	P
SIGNAL CABINET	▭	▬
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
SPAN INSULATOR	◇	◆
SPAN WIRE	—XX—	———
UTILITY POLE	⊘	●
CAMERA (CCTV)	—▪	—▪

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

MAST ARM SCHEDULE

MA#	LENGTH OF ARM	# OF SIGNAL HEADS	# OF OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
x1	80'	4	2	16	20'-0"
x2	70'	2	1	16	20'-0"
x3	70'	2	-	4	20'-0"
x4	70'	4	1	-	20'-0"
x5	70'	4	1	-	20'-0"
x6	70'	2	1	-	20'-0"
x7	70'	-	1	-	20'-0"

x- DENOTES EXISTING

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
x1	MAST ARM	21'-6"	STEEL
x4	CAMERA	75'	STEEL
x6	MAST ARM	21'-6"	STEEL
x7	MAST ARM	21'-6"	STEEL
x8	RWIS	30'	ALUMINUM
x10	MAST ARM	21'-6"	STEEL
x13	MAST ARM	21'-6"	STEEL
x14	MAST ARM	21'-6"	STEEL
x15	MAST ARM	21'-6"	STEEL
x18	REPEATER	30'	ALUMINUM

x- DENOTES EXISTING

ADDITIONAL LEGEND

- PROPOSED PAVEMENT
- PROPOSED WORK AREA
- PROPOSED WORK AREA REMOVAL
- PROPOSED PUCK SENSOR
- EXISTING PUCK SENSOR

NOTE: CONDUIT SCHEDULE FURTHER IN PLAN SET

PHASE V, STAGE 4

PHASE V, STAGE 4 SIGNAL NOTES

1. SLIDE SIGNAL HEADS #13,#14,#15 AND #16 TO NEW POSITIONS SHOWN.
2. PEDESTRIAN SIGNAL POLES, HEADS AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE. CONTRACTOR SHALL PLUG EXPOSED CONDUIT.
3. EXISTING 4"x4"x6" DECKING JUNCTION WELL.
4. EXISTING 9"x9"x6" HAND HOLE IN PARAPET WALL.

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: 12/5/14

RECOMMENDED _____ DATE: 12/2/14

APPROVED TRAFFIC ENGINEER _____ DATE: 12/5/14

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 12/9/14

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

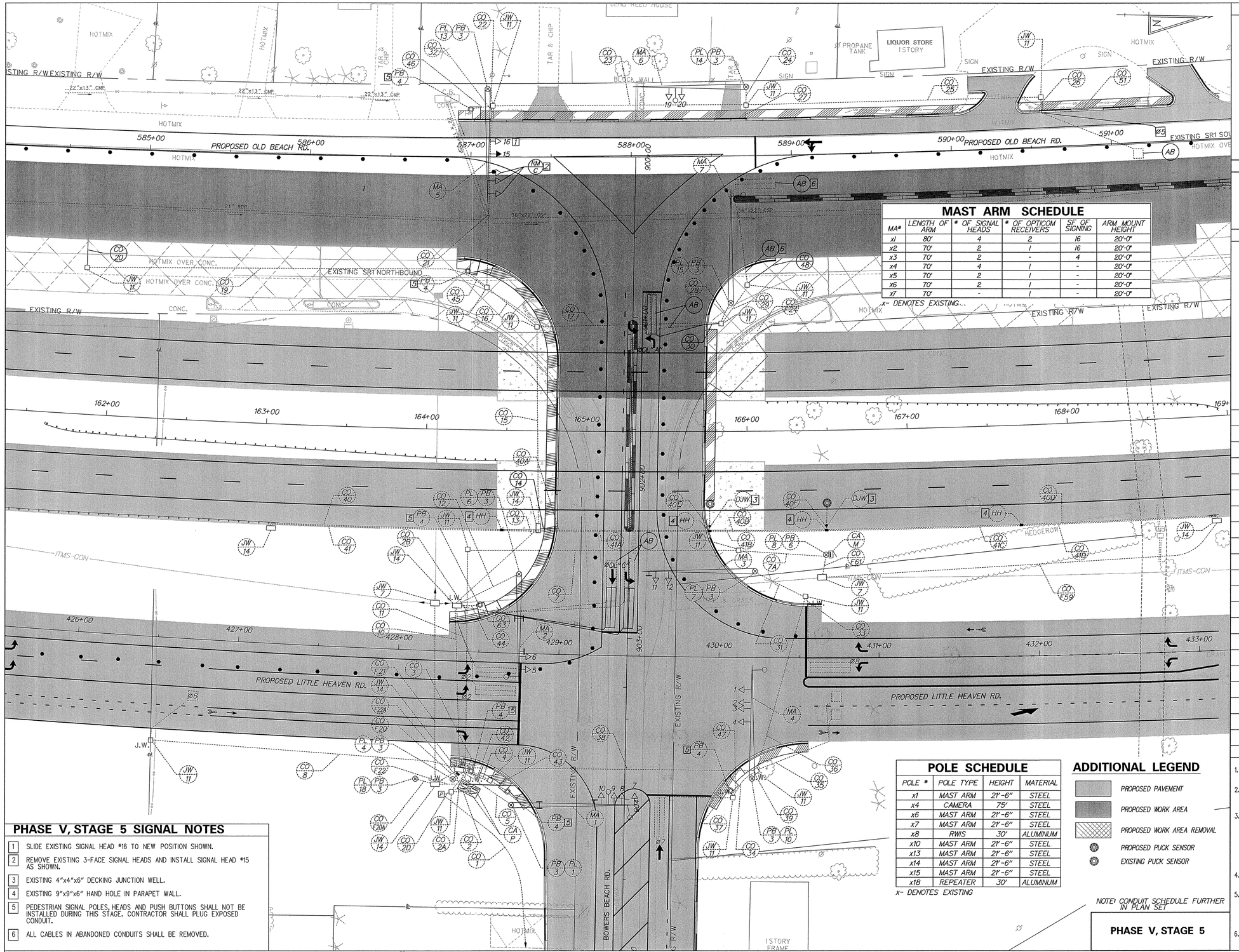
SCALE 0 30 60 90 FEET

SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K145	SIGNAL PLAN
T200412202	DESIGNED BY:	MSK	SR1 @ BOWERS BEACH RD
COUNTY	CHECKED BY:	BAM	
KENT			

SHEET NO. 600 — TOTAL SHTS. 641

12/2/2014
O:\DESIGN\PROJECTS\03517.00 (DELDOT AGMT 1223 DOT'S Open End)\03517.16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_bowers06.dgn
3:24:06 PM



MAST ARM SCHEDULE

MA#	LENGTH OF ARM	# OF SIGNAL HEADS	# OF OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
x1	80'	4	2	16	20'-0"
x2	70'	2	1	16	20'-0"
x3	70'	2	-	4	20'-0"
x4	70'	4	1	-	20'-0"
x5	70'	2	1	-	20'-0"
x6	70'	2	1	-	20'-0"
x7	70'	-	1	-	20'-0"

x- DENOTES EXISTING

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
x1	MAST ARM	21'-6"	STEEL
x4	CAMERA	75'	STEEL
x6	MAST ARM	21'-6"	STEEL
x7	MAST ARM	21'-6"	STEEL
x8	RWIS	30'	ALUMINUM
x10	MAST ARM	21'-6"	STEEL
x13	MAST ARM	21'-6"	STEEL
x14	MAST ARM	21'-6"	STEEL
x15	MAST ARM	21'-6"	STEEL
x18	REPEATER	30'	ALUMINUM

x- DENOTES EXISTING

ADDITIONAL LEGEND

- PROPOSED PAVEMENT
- PROPOSED WORK AREA
- PROPOSED WORK AREA REMOVAL
- PROPOSED PUCK SENSOR
- EXISTING PUCK SENSOR

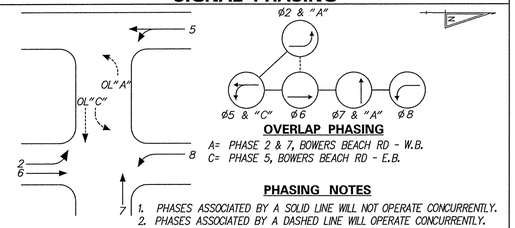
NOTE: CONDUIT SCHEDULE FURTHER IN PLAN SET

PHASE V, STAGE 5

PHASE V, STAGE 5 SIGNAL NOTES

1. SLIDE EXISTING SIGNAL HEAD #16 TO NEW POSITION SHOWN.
2. REMOVE EXISTING 3-FACE SIGNAL HEADS AND INSTALL SIGNAL HEAD #15 AS SHOWN.
3. EXISTING 4"x4"x6" DECKING JUNCTION WELL.
4. EXISTING 9"x9"x6" HAND HOLE IN PARAPET WALL.
5. PEDESTRIAN SIGNAL POLES, HEADS AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE. CONTRACTOR SHALL PLUG EXPOSED CONDUIT.
6. ALL CABLES IN ABANDONED CONDUITS SHALL BE REMOVED.

SIGNAL PHASING



OVERLAP PHASING

A= PHASE 2 & 7, BOWERS BEACH RD - W.B.
C= PHASE 5, BOWERS BEACH RD - E.B.

PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH*	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH*	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO *	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO *	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W. □	■
LOOP DETECTOR, TYPE 1	⬚	□
LOOP DETECTOR, TYPE 2	⬚	▭
LUMINAIRE	—○	—●
MAST ARM	▷	➤
MICROWAVE DETECTION	—◖	—◖
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	—⊣	—⊣
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—◗	—◗
PEDESTRIAN SIGNAL HEAD	—◘	—■
RIGHT-OF-WAY	———	———
SERVICE PEDESTAL	P	P
SIGNAL CABINET	▭	■
SIGNAL HEAD	—▷	—➤
SIGNAL POLE/BASE	⊗	⊙
SPAN INSULATOR	◇	◆
SPAN WIRE	—XX—	———
UTILITY POLE	⊘	●
CAMERA (CCTV)	—◖	—◖

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (SO=1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: 12/5/14

RECOMMENDED _____ DATE: 12/2/14

APPROVED TRAFFIC ENGINEER _____ DATE: 12/5/14

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 12/9/14

DELAWARE DEPARTMENT OF TRANSPORTATION

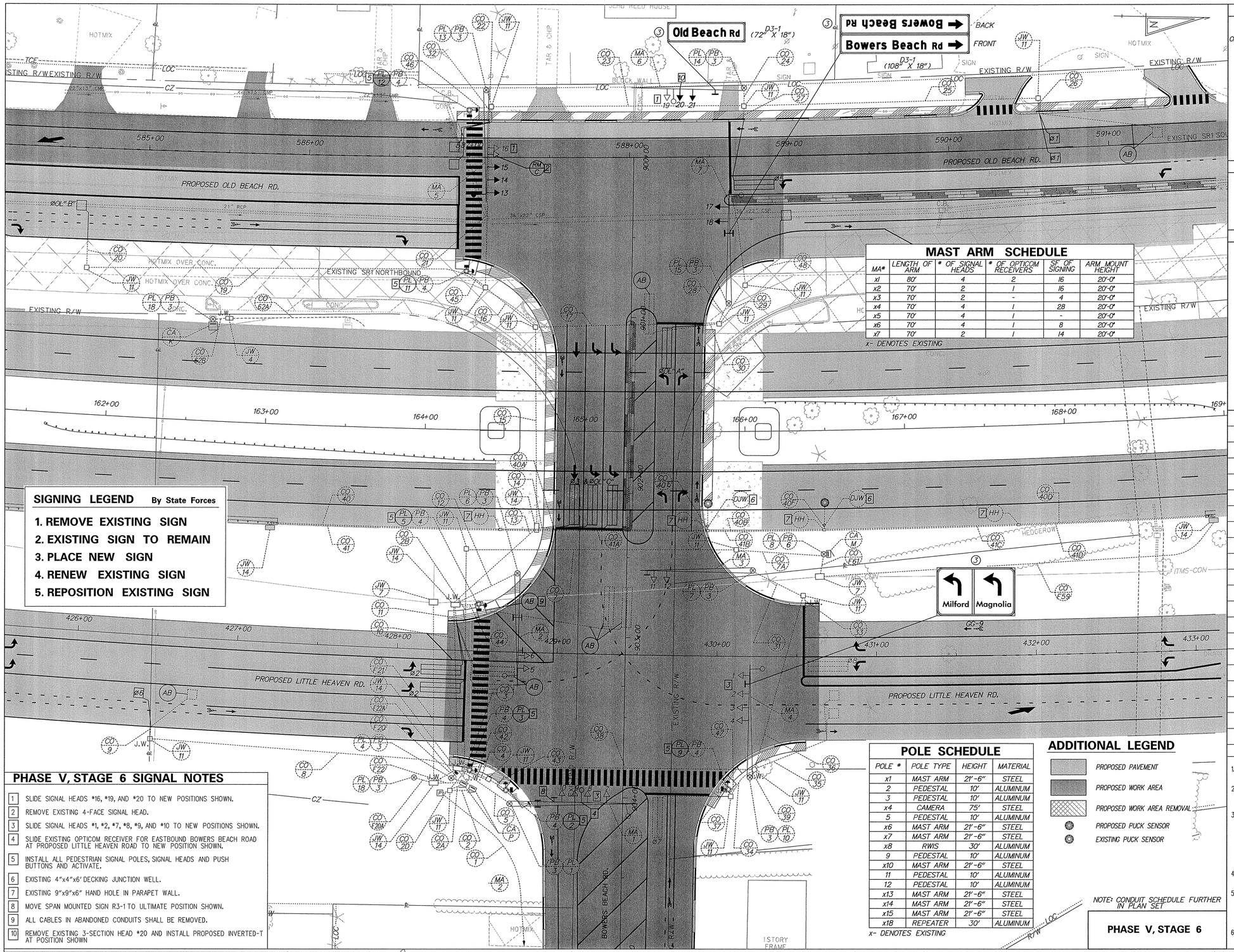
ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

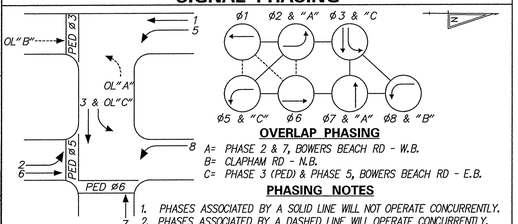
SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K145	SIGNAL PLAN	SHEET NO.
T200412202	DESIGNED BY: MSK		SR1 @ BOWERS BEACH RD	601
COUNTY	CHECKED BY: BAM			TOTAL SHTS.
KENT				641

12/2/2014
G:\PROJECTS\D3517.00 (DELDOT AGMT 1223 DOTS Open End\D3517.16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_bowers07.dgn
3:23:42 PM



SIGNAL PHASING



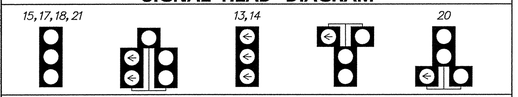
OVERLAP PHASING

A= PHASE 2 & 7, BOWERS BEACH RD - W.B.
B= CLAPHAM RD - N.B.
C= PHASE 3 (PED) & PHASE 5, BOWERS BEACH RD - E.B.

PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH/*	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA/X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH/*	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA/X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB/X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO/*	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB/X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO/*	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL/X	EXISTING POLE IDENTIFIER (* OF POLE)
JW/X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL/X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW/X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM/C	REMOVE BY CONTRACTOR
MA/X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM/O	REMOVE BY OTHERS
MA/X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM/TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	□	□
LOOP DETECTOR, TYPE 2	▭	▭
LUMINAIRE	—○	—●
MAST ARM	▷	▶
MICROWAVE DETECTION	◀	◀
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	⊣	⊣
PEDESTRIAN POLE/BASE	○	◉
PEDESTRIAN PUSHBUTTON	—▷	—▶
PEDESTRIAN SIGNAL HEAD	⊐	⊐
RIGHT-OF-WAY	———	———
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
SPAN INSULATOR	◇	◆
SPAN WIRE	—XX—	———
UTILITY POLE	⊘	●
CAMERA (CCTV)	—▮	—▮

MAST ARM SCHEDULE

MA*	LENGTH OF ARM	* OF SIGNAL HEADS	* OF OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
x1	80'	4	2	16	20'-0"
x2	70'	2	1	16	20'-0"
x3	70'	2	-	4	20'-0"
x4	70'	4	1	28	20'-0"
x5	70'	4	1	-	20'-0"
x6	70'	4	1	8	20'-0"
x7	70'	2	1	14	20'-0"

x- DENOTES EXISTING

SIGNING LEGEND By State Forces

1. REMOVE EXISTING SIGN
2. EXISTING SIGN TO REMAIN
3. PLACE NEW SIGN
4. RENEW EXISTING SIGN
5. REPOSITION EXISTING SIGN

PHASE V, STAGE 6 SIGNAL NOTES

1. SLIDE SIGNAL HEADS *16, *19, AND *20 TO NEW POSITIONS SHOWN.
2. REMOVE EXISTING 4-FACE SIGNAL HEAD.
3. SLIDE SIGNAL HEADS *1, *2, *7, *8, *9, AND *10 TO NEW POSITIONS SHOWN.
4. SLIDE EXISTING OPTICOM RECEIVER FOR EASTBOUND BOWERS BEACH ROAD AT PROPOSED LITTLE HEAVEN ROAD TO NEW POSITION SHOWN.
5. INSTALL ALL PEDESTRIAN SIGNAL POLES, SIGNAL HEADS AND PUSH BUTTONS AND ACTIVATE.
6. EXISTING 4"x4"x6' DECKING JUNCTION WELL.
7. EXISTING 9"x9"x6" HAND HOLE IN PARAPET WALL.
8. MOVE SPAN MOUNTED SIGN R3-1 TO ULTIMATE POSITION SHOWN.
9. ALL CABLES IN ABANDONED CONDUITS SHALL BE REMOVED.
10. REMOVE EXISTING 3-SECTION HEAD *20 AND INSTALL PROPOSED INVERTED-T AT POSITION SHOWN

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
x1	MAST ARM	21'-6"	STEEL
2	PEDESTAL	10'	ALUMINUM
3	PEDESTAL	10'	ALUMINUM
x4	CAMERA	75'	STEEL
5	PEDESTAL	10'	ALUMINUM
x6	MAST ARM	21'-6"	STEEL
x7	MAST ARM	21'-6"	STEEL
x8	RWIS	30'	ALUMINUM
9	PEDESTAL	10'	ALUMINUM
x10	MAST ARM	21'-6"	STEEL
11	PEDESTAL	10'	ALUMINUM
12	PEDESTAL	10'	ALUMINUM
x13	MAST ARM	21'-6"	STEEL
x14	MAST ARM	21'-6"	STEEL
x15	MAST ARM	21'-6"	STEEL
x18	REPEATER	30'	ALUMINUM

x- DENOTES EXISTING

ADDITIONAL LEGEND

- PROPOSED PAVEMENT
- PROPOSED WORK AREA
- PROPOSED WORK AREA REMOVAL
- PROPOSED PUCK SENSOR
- EXISTING PUCK SENSOR

NOTE: CONDUIT SCHEDULE FURTHER IN PLAN SET

PHASE V, STAGE 6

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: 12/5/14

RECOMMENDED _____ DATE: 12/2/14

APPROVED TRAFFIC ENGINEER _____ DATE: 12/5/14

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 12/9/14

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

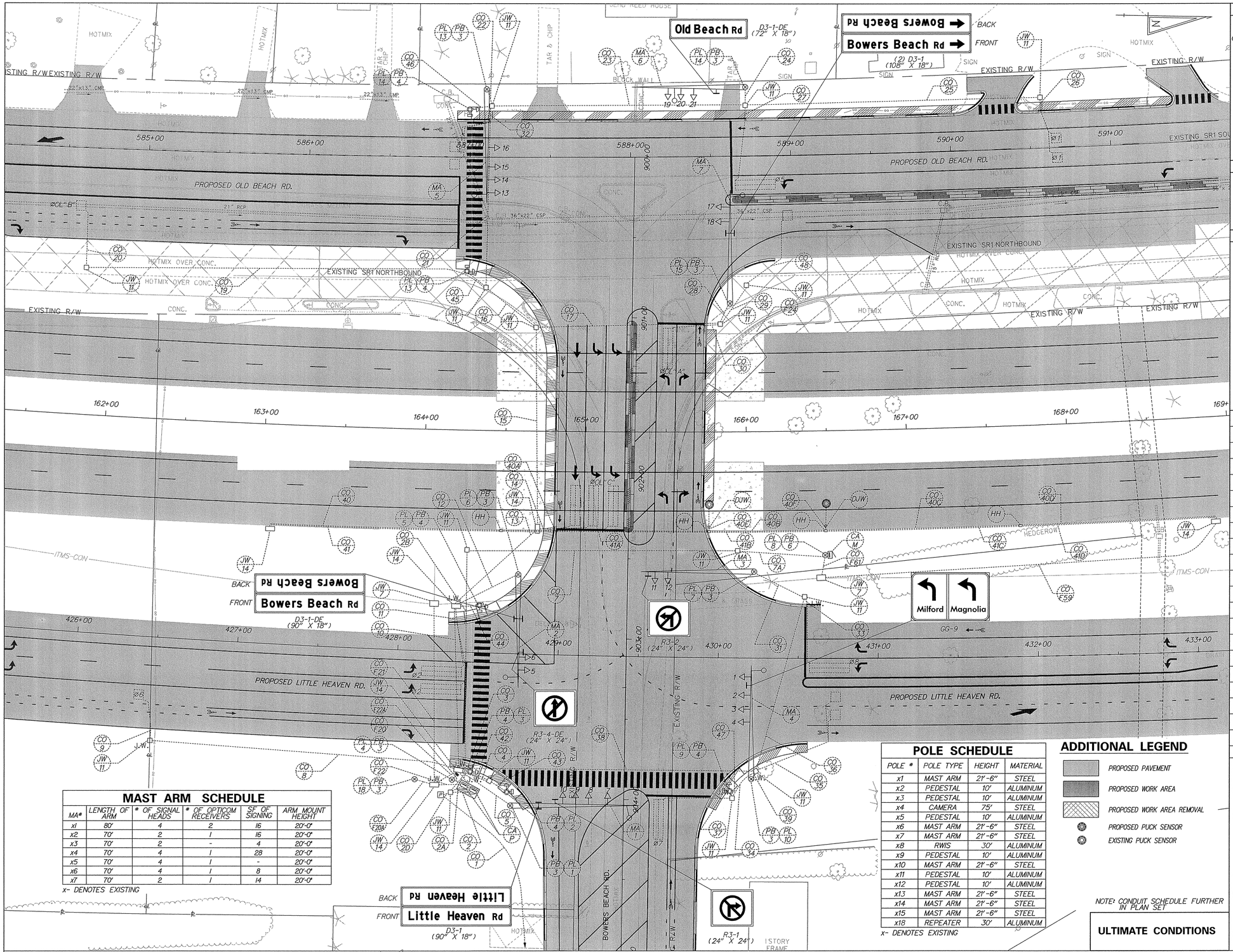
SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K145
T200412202	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
KENT		

SIGNAL PLAN
SR1 @ BOWERS BEACH RD

SHEET NO.	602
TOTAL SHTS.	641

12/2/2014
G:\PROJECTS\03517.00 \DELDOT AGMT 1223 DOTS Open End\03517-16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_bowers08.dgn
3:23:18 PM



MAST ARM SCHEDULE

MA#	LENGTH OF ARM	# OF SIGNAL HEADS	# OF OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
x1	80'	4	2	16	20'-0"
x2	70'	2	1	16	20'-0"
x3	70'	2	-	4	20'-0"
x4	70'	4	1	28	20'-0"
x5	70'	4	1	-	20'-0"
x6	70'	4	1	8	20'-0"
x7	70'	2	1	14	20'-0"

x- DENOTES EXISTING

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
x1	MAST ARM	21'-6"	STEEL
x2	PEDESTAL	10'	ALUMINUM
x3	PEDESTAL	10'	ALUMINUM
x4	CAMERA	75'	STEEL
x5	PEDESTAL	10'	ALUMINUM
x6	MAST ARM	21'-6"	STEEL
x7	MAST ARM	21'-6"	STEEL
x8	RWIS	30'	ALUMINUM
x9	PEDESTAL	10'	ALUMINUM
x10	MAST ARM	21'-6"	STEEL
x11	PEDESTAL	10'	ALUMINUM
x12	PEDESTAL	10'	ALUMINUM
x13	MAST ARM	21'-6"	STEEL
x14	MAST ARM	21'-6"	STEEL
x15	MAST ARM	21'-6"	STEEL
x18	REPEATER	30'	ALUMINUM

x- DENOTES EXISTING

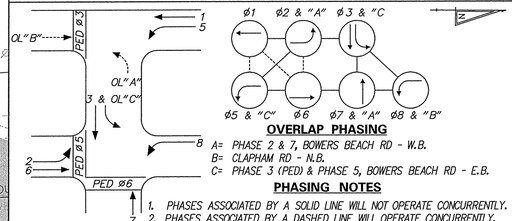
ADDITIONAL LEGEND

- PROPOSED PAVEMENT
- PROPOSED WORK AREA
- PROPOSED WORK AREA REMOVAL
- PROPOSED PUCK SENSOR
- EXISTING PUCK SENSOR

NOTE: CONDUIT SCHEDULE FURTHER IN PLAN SET

ULTIMATE CONDITIONS

SIGNAL PHASING



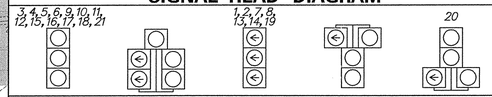
OVERLAP PHASING

A= PHASE 2 & 7, BOWERS BEACH RD - W.B.
B= CLAPHAM RD - N.B.
C= PHASE 3 (PED) & PHASE 5, BOWERS BEACH RD - E.B.

PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH#	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH#	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #'	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X'	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA X'	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W. □	■
LOOP DETECTOR, TYPE 1	⬚	□
LOOP DETECTOR, TYPE 2	▭	▭
LUMINAIRE	—○	—●
MAST ARM	▷	▶
MICROWAVE DETECTION	—◂	—◂
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	—⊣	—⊣
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—▯	—▮
PEDESTRIAN SIGNAL HEAD	—▭	—▬
RIGHT-OF-WAY	———	———
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	—⊗	—⊙
SPAN INSULATOR	—◇	—◆
SPAN WIRE	—XX—	———
UTILITY POLE	—Ø	—Ø
CAMERA (CCTV)	—▪	—▪

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED Jack SAINTIL DATE: 12/5/14

RECOMMENDED [illegible] DATE: 12/2/14

APPROVED TRAFFIC ENGINEER [illegible] DATE: 12/5/14

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER [illegible] DATE: 12/9/14

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	T200412202	PERMIT NO.	K145
COUNTY	KENT	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN

SR1 @ BOWERS BEACH RD

SHEET NO.	603
TOTAL SHTS.	641

12/2/2014
G:\PROJECTS\03517.00 (DELDOT AGMT 1223 DOTS Open End)\03517.16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_bowers09.dgn
3122951.PM

PHASE III, STAGE 4 CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
1	1	2"	GALV	190'/30'	T/P	(1) 2/*8 UFW/GROUND
2	1	2"	GALV	15'	T	(1) 2/*8 UFW/GROUND
2A	1	2"	GALV	10'	T	*(SEE UTILITY & ITMS PLANS)
2B	1	2"	GALV	115'	T	*(SEE UTILITY & ITMS PLANS)
2D	1	3"	GALV	5'	T	(1)2/*8 UFW/GROUND *(SEE UTILITY & ITMS PLANS)
3	3	4"	PVC	15'	T	(10) 2/*14 (1)*6 BSC
4	1	4"	PVC	20'	T	EMPTY
5	1	3"	PVC	40'	T	EMPTY
7	1	2"	GALV	125'	B	*(SEE UTILITY & ITMS PLANS)
8	1	4"	PVC	190'	T	(2) 2/*14 (20' COILED IN JW), (1)*6 BSC
9	1	1.5"	GALV	10'	T	EMPTY
10	1	4"	PVC	105'	T	(4) 2/*14 (20' OF (1) 2/*14COILED IN JW), (1)*6 BSC
12	1	3"	PVC	45'	T	EMPTY
31	1	3"	PVC	35'	T	EMPTY
34	1	4"	PVC	25'	T	(1) 2/*14 (20' COILED IN JW), (1)*6 BSC
35	1	1.5"	GALV	50'	T	EMPTY
36	1	4"	PVC	115'	T	(1) 2/*14 (20' COILED IN JW), (1)*6 BSC
37	1	1.5"	GALV	15'	T	EMPTY
38	1	4"	HDPE	185'	B	(4)2/*14 (20' EACH OF (2)2/*14 COILED IN JW), (1)*6 BSC
39	1	3"	PVC	10'	T	EMPTY
42	1	2.5"	PVC	15'	T	EMPTY
43	1	2.5"	PVC	15'	T	EMPTY
44	1	2.5"	PVC	15'	T	EMPTY
47	1	2.5"	PVC	5'	T	EMPTY
49	1	4"	HDPE	215'	B	EMPTY
x50	1	1.5"	-	10'	-	EXISTING (4)4/*18
x51	1	1.5"	-	10'	-	EXISTING (4)4/*18
x52	1	2.5"	-	235'	-	EXISTING (2) 4/*18
x53	1	1.5"	-	20'	-	EXISTING (2) 4/*18
x54	1	2.5"	-	65'	-	EXISTING (2) 4/*18
x55	1	2.5"	-	290'	-	EXISTING (3) 4/*18
x56	1	2.5"	-	15'	-	EXISTING [(3) 4/*18 (2) 16/*14]
x57	1	2.5"	-	50'	-	EXISTING (6) 4/*18 REMOVE (1) 4/*18 NEW (2) 2/*14
x58	1	1.5"	-	15'	-	EXISTING (2) 4/*18
x59	2	2.5"	-	85'	-	EXISTING [(2)2/*8 UFW/GRND (2) 6/*22] REMOVE [(1)2/*8 (1)6/*22]
x60	2	2.5"	-	70'	-	EXISTING [(2)2/*8 UFW/GRND (2) 6/*22] REMOVE [(1)2/*8 (1)6/*22]
x61	2	2.5"	-	180'	-	EXISTING [(2)2/*8 UFW/GRND (2) 6/*22] REMOVE [(1)2/*8 (1)6/*22]
x62	1	2.5"	-	15'	-	EXISTING [(1)2/*8 UFW/GRND (1) 6/*22]
x62A	1	2.5"	-	90'	-	EXISTING [(1)2/*8 UFW/GRND (1) 6/*22] REMOVE [(1)2/*8 (1)6/*22]
x62B	1	2.5"	-	15'	-	EXISTING [(1)2/*8 UFW/GRND (1) 6/*22] REMOVE [(1)2/*8 (1)6/*22]
x64	1	2.5"	-	75'	-	EXISTING (1)2/*8 UFW/GROUND
x65	1	2.5"	-	75'	-	EXISTING (3) 4/*18 REMOVE (1) 4/*18 NEW (2) 2/*14
x66	1	2.5"	-	125'	-	EXISTING (2)4/*18 REMOVE (1) 4/*18 NEW (2) 2/*14
x67	1	2.5"	-	370'	-	EXISTING (2)4/*18 REMOVE (1)4/*18 NEW (2) 2/*14
x68	1	1.5"	-	15'	-	EXISTING (4)4/*18 REMOVE (4)4/*18 NEW (4) 1/*14
x69	1	1.5"	-	15'	-	EXISTING (4) 4/*18
F20	1	xx4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
F20A	1	3"	-	15'	-	*(SEE UTILITY AND ITMS PLANS)
F21	1	xx4"	-	115'	-	*(SEE UTILITY AND ITMS PLANS)
F22	1	4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
F22A	1	3"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND

x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

PHASE III, STAGE 5 CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
x1	1	2"	GALV	190'/30'	-	EXISTING (1) 2/*8 UFW/GROUND
x2	1	2"	GALV	15'	-	EXISTING (1) 2/*8 UFW/GROUND
x2A	1	2"	GALV	10'	-	*(SEE UTILITY & ITMS PLANS)
x2B	1	2"	GALV	115'	-	*(SEE UTILITY & ITMS PLANS)
x2C	1	2"	GALV	25'	-	*(SEE UTILITY & ITMS PLANS)
x2D	1	3"	GALV	5'	-	EXISTING (1)2/*8 UFW/GROUND *(SEE UTILITY & ITMS PLANS)
x3	3	4"	PVC	15'	-	EXISTING [(10) 2/*14 (1) *6 BSC] NEW [(6) 4/*18 (4) 2/*14 (3) 9/*14 (2) 16/*14]
x4	1	4"	PVC	20'	-	EMPTY
x5	1	3"	PVC	40'	-	NEW (2)4/*18 (1)9/*14 (1)*6 BSC
x7	1	2"	GALV	125'	-	*(SEE UTILITY & ITMS PLANS)
x8	1	4"	PVC	190'	-	EXISTING (2) 2/*14 (1)*6 BSC
x9	1	1.5"	GALV	10'	-	(4) 1/*14
x10	1	4"	PVC	105'	-	EX.[(4) 2/*14 (20' OF (1)2/*14 COILED IN JW), (1)*6 BSC] NEW (1)4/*18
11	1	1.5"	GALV	15'	T	(2) 1/*14
x12	1	3"	PVC	45'	-	NEW (1)4/*18 (1)*6 BSC
22	1	3"	PVC	15'	T	EMPTY
23	1	4"	HDPE	160'	B	EMPTY
24	1	3"	PVC	15'	T	EMPTY
25	1	4"	HDPE	185'	B	EMPTY
27	1	1.5"	GALV	10'	T	EMPTY
x31	1	3"	PVC	35'	-	NEW (1)9/*14 (1)*6 BSC
x34	1	4"	PVC	25'	-	EXISTING (1) 2/*14 (1)*6 BSC
x35	1	1.5"	GALV	50'	-	EMPTY
x36	1	4"	PVC	115'	-	EXISTING [(1) 2/*14 (20' COILED IN JW), (1)*6 BSC] NEW [(3)4/*18 (4)2/*14 (1)9/*14 (2)16/*14]
x37	1	1.5"	GALV	15'	-	NEW (2) 1/*14
x38	1	4"	HDPE	185'	-	EXISTING [(4) 2/*14 (20' EACH OF (2)2/*14 COILED IN JW), (1)*6 BSC] NEW [(3)4/*18 (4)2/*14 (2)9/*14 (2)16/*14]
x39	1	3"	PVC	10'	-	NEW (1)9/*14 (1)*6 BSC
x42	1	2.5"	PVC	15'	-	EMPTY
x43	1	2.5"	PVC	15'	-	EMPTY
x44	1	2.5"	PVC	15'	-	EMPTY
46	1	2.5"	PVC	10'	T	EMPTY
x47	1	2.5"	PVC	5'	-	EMPTY
x49	1	4"	HDPE	215'	-	NEW [(3) 4/*18 (4) 2/*14 (2) 16/*14]
x51	1	1.5"	-	10'	-	EXISTING (4) 4/*18 REMOVE (4)4/*18 NEW (4)1/*14
x52	1	2.5"	-	235'	-	EXISTING (2)4/*18 REMOVE (1)4/*18 NEW (2)2/*14
x53	1	1.5"	-	20'	-	EXISTING (2)4/*18 REMOVE (2)4/*18 NEW (2)1/*14
x54	1	2.5"	-	65'	-	EXISTING (2)4/*18 REMOVE (1)4/*18 NEW (2)2/*14
x55	1	2.5"	-	290'	-	EXISTING (3) 4/*18
x56	1	2.5"	-	15'	-	EXISTING [(3) 4/*18 (2) 16/*14] REMOVE [(3) 4/*18 (2) 16/*14] NEW [(3)4/*18 (2)16/*14]
x57	1	2.5"	-	50'	-	EXISTING [(5)4/*18 (2)2/*14] REMOVE [(5)4/*18 (2)2/*14] NEW [(3)4/*18 (2)16/*14]
63	1	1.5"	GALV	30'	T	(4) 1/*14
x64	1	4"	-	75'	-	EXISTING (1) 2/*8 UFW/GROUND
x65	1	2.5"	-	75'	-	EXISTING [(2)4/*18 (2)2/*14] REMOVE [(2)4/*18 (2)2/*14] NEW (3)2/*14
xF20	1	xx4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF20A	1	3"	-	15'	-	*(SEE UTILITY AND ITMS PLANS)
xF21	1	xx4"	-	115'	-	*(SEE UTILITY AND ITMS PLANS)
xF22	1	4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF22A	1	3"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND

x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH (*)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA (X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH (*)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA (X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB (X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (*)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB (X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (*)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL (X)	EXISTING POLE IDENTIFIER (* OF POLE)
JW (X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL (X)	PROPOSED POLE IDENTIFIER (* OF POLE)
JW (X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM (C)	REMOVE BY CONTRACTOR
MA (X)	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM (O)	REMOVE BY OTHERS
MA (X)	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM (TC)	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE	XX	
UTILITY POLE		
CAMERA (CCTV)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED [signature] DATE: 12/5/14

RECOMMENDED [signature] DATE: 12/2/14

APPROVED TRAFFIC ENGINEER [signature] DATE: 12/5/14

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER [signature] DATE: 12/9/14

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K145	SIGNAL PLAN	SHEET NO.
T200412202	DESIGNED BY:	MSK	SR1 @ BOWERS BEACH RD	604
COUNTY	CHECKED BY:	BAM		TOTAL SHTS.
KENT				641

12/2/2014
G:\PROJECTS\03517.00 (DELDOT AGMT 1223 DOTS Open End)\03517-16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_bowers10.dgn
3:22:22 PM

PHASE IV, STAGE 4A CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
x1	1	2"	GALV	190'/30'	-	EXISTING (1) 2/*8 UFW/GROUND
x2	1	2"	GALV	15'	-	EXISTING (1) 2/*8 UFW/GROUND
x2A	1	2"	GALV	10'	-	*(SEE UTILITY & ITMS PLANS)
x2B	1	2"	GALV	115'	-	*(SEE UTILITY & ITMS PLANS)
x2C	1	2"	GALV	25'	-	*(SEE UTILITY & ITMS PLANS)
x2D	1	3"	GALV	5'	-	EXISTING (1)2/*8 UFW/GROUND *(SEE UTILITY & ITMS PLANS)
x3	3	4"	PVC	15'	-	EXISTING [(14)2/*14 (6)4/*18 (3)9/*14 (2)16/*14 (1)*6 BSC]
x4	1	4"	PVC	20'	-	EMPTY
x5	1	3"	PVC	40'	-	EXISTING [(2)4/*18 (1)9/*14 (1)*6 BSC]
x7	1	2"	GALV	125'	-	*(SEE UTILITY & ITMS PLANS)
x8	1	4"	PVC	190'	-	EXISTING [(2) 2/*14 (1)*6 BSC]
x9	1	1.5"	GALV	10'	-	EXISTING (4) 1/*14
x10	1	4"	PVC	105'	-	EX. [(1)4/*18 (4) 2/*14 (20' EA.OF (1)2/*14 COILED IN JW), (1)*6 BSC]
x11	1	1.5"	GALV	15'	-	EXISTING (2) 1/*14
x12	1	3"	PVC	45'	-	EXISTING [(1)4/*18 (1)*6 BSC]
x22	1	3"	PVC	15'	-	EMPTY
x23	1	4"	HDPE	160'	-	EMPTY
x24	1	3"	PVC	15'	-	EMPTY
x25	1	4"	HDPE	185'	-	EMPTY
x27	1	1.5"	GALV	10'	-	EMPTY
x31	1	3"	PVC	35'	-	EXISTING [(1)9/*14 (1)*6 BSC]
x34	1	4"	PVC	25'	-	EXISTING [(1) 2/*14 (1)*6 BSC]
x35	1	1.5"	GALV	50'	-	EMPTY
x36	1	4"	PVC	115'	-	EXISTING [(3)4/*18 (5)2/*14 (20' OF (1)2/*14 COILED IN JW) (1)9/*14 (2)16/*14 (1)*6 BSC]
x37	1	1.5"	GALV	15'	-	EXISTING (2) 1/*14
x38	1	4"	HDPE	185'	-	EXISTING [(3)4/*18 (8) 2/*14 (20' EACH OF (4)2/*14 COILED IN JW) (2)9/*14 (2)16/*14 (1)*6 BSC]
x39	1	3"	PVC	10'	-	EXISTING (1)9/*14 (1)*6 BSC
x42	1	2.5"	PVC	15'	-	EMPTY
x43	1	2.5"	PVC	15'	-	EMPTY
x44	1	2.5"	PVC	15'	-	EMPTY
x46	1	2.5"	PVC	10'	-	EMPTY
x47	1	2.5"	PVC	5'	-	EMPTY
x49	1	4"	HDPE	215'	-	EXISTING [(3)4/*18 (4)2/*14 (2)16/*14]
x51	1	1.5"	-	10'	-	EXISTING (4) 1/*14 REMOVE (4)1/*14 NEW (4)1/*14
x52	1	2.5"	-	235'	-	EXISTING [(1) 4/*18 (2)2/*14]
x53	1	1.5"	-	20'	-	EXISTING (2) 1/*14
x54	1	2.5"	-	65'	-	EXISTING [(1) 4/*18 (2)2/*14]
x55	1	2.5"	-	290'	-	EXISTING (3) 4/*18
x56	1	2.5"	-	15'	-	EXISTING [(3) 4/*18 (2) 16/*14]
x57	1	2.5"	-	50'	-	EXISTING [(3)4/*18 (2)16/*14]
x63	1	1.5"	GALV	30'	-	EXISTING (4) 1/*14
x64	1	4"	-	75'	-	EXISTING (1) 2/*8 UFW/GROUND
x65	1	2.5"	-	75'	-	EXISTING (3)2/*14
xF20	1	xx4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF20A	1	3"	-	15'	-	*(SEE UTILITY AND ITMS PLANS)
xF21	1	xx4"	-	115'	-	*(SEE UTILITY AND ITMS PLANS)
xF22	1	4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF22A	1	3"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND

x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

PHASE IV, STAGE 4B CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
x1	1	2"	GALV	190'/30'	-	EXISTING (1) 2/*8 UFW/GROUND
x2	1	2"	GALV	15'	-	EXISTING (1) 2/*8 UFW/GROUND
x2A	1	2"	GALV	10'	-	*(SEE UTILITY & ITMS PLANS)
x2B	1	2"	GALV	115'	-	*(SEE UTILITY & ITMS PLANS)
x2C	1	2"	GALV	25'	-	*(SEE UTILITY & ITMS PLANS)
x2D	1	3"	GALV	5'	-	EXISTING (1)2/*8 UFW/GROUND *(SEE UTILITY & ITMS PLANS)
x3	3	4"	PVC	15'	-	EXISTING [(14)2/*14 (6)4/*18 (3)9/*14 (2)16/*14 (1)*6 BSC] REMOVE [(3)4/*18 (4)2/*14 (2)16/*14] NEW [(2)4/*18 (8)2/*14 (2)9/*14]
x4	1	4"	PVC	20'	-	EMPTY
x5	1	3"	PVC	40'	-	EXISTING (2)4/*18 (1)9/*14 (1)*6 BSC
x7	1	2"	GALV	125'	-	*(SEE UTILITY & ITMS PLANS)
x8	1	4"	PVC	190'	-	EXISTING (2) 2/*14 (1)*6 BSC
x9	1	1.5"	GALV	10'	-	EXISTING (4) 1/*14
x10	1	4"	PVC	105'	-	EX. [(1)4/*18 (4)2/*14 (20' EA.OF (1)2/*14 COILED IN JW), (1)*6 BSC] NEW [(2)4/*18 (8)2/*14 (2)9/*14]
x11	1	1.5"	GALV	15'	-	EXISTING (2) 1/*14
x12	1	3"	PVC	45'	-	EXISTING (1)4/*18 (1)*6 BSC
13	1	4"	PVC	70'	T	(2)4/*18 (8)2/*14 (2)9/*14 (1)*6 BSC
15	1	4"	PVC	125'	T	(2)4/*18 (8)2/*14 (2)9/*14 (1)*6 BSC
16	1	4"	PVC	40'	T	(1)4/*18 (6)2/*14 (2)9/*14 (1)*6 BSC
17	1	4"	HDPE	115'	B	(1)4/*18 (2)2/*14 (1)*6 BSC
18	1	1.5"	GALV	40'	T	(2)1/*14
19	1	4"	PVC	255'	T	(1)2/*14 (20' COILED IN JW), (1)*6 BSC
21	1	4"	HDPE	115'	B	(1)4/*18 (5)2/*14 (20' EA.OF (2)2/*14 COILED IN JW), (2)9/*14 (1)*6 BSC
x22	1	3"	PVC	15'	-	NEW (1)9/*14 (1)*6 BSC
x23	1	4"	HDPE	160'	-	NEW (1)4/*18 (3)2/*14 (20' OF (1)2/*14 COILED IN JW), (1)9/*14 (1)*6 BSC
x24	1	3"	PVC	15'	-	NEW (1)4/*18 (1)9/*14 (1)*6 BSC
x25	1	4"	HDPE	185'	-	NEW (2)2/*14 (1)*6 BSC
26	1	1.5"	GALV	10'	T	(4)1/*14
x27	1	1.5"	GALV	10'	-	EMPTY
28	1	3"	PVC	10'	T	(1)4/*18 (1)*6 BSC
29	1	4"	PVC	30'	T	(1)2/*14 (1)*6 BSC
x31	1	3"	PVC	35'	-	EXISTING (1)9/*14 (1)*6 BSC
x34	1	4"	PVC	25'	-	EXISTING (1) 2/*14 (1)*6 BSC
x35	1	1.5"	GALV	50'	-	EMPTY
x36	1	4"	PVC	115'	-	EXISTING [(3)4/*18 (5)2/*14 (20' OF (1)2/*14 COILED IN JW) (1)9/*14 (2)16/*14 (1)*6 BSC] REMOVE [(3)4/*18 (4)2/*14 (2)16/*14]
x37	1	1.5"	GALV	15'	-	EXISTING (2) 1/*14
x38	1	4"	HDPE	185'	-	EXISTING [(3)4/*18 (8) 2/*14 (20' EACH OF (4)2/*14 COILED IN JW) (2)9/*14 (2)16/*14 (1)*6 BSC] REMOVE [(3)4/*18 (4)2/*14 (2)16/*14]
x39	1	3"	PVC	10'	-	EXISTING (1)9/*14 (1)*6 BSC
40	1	2.5"	-	145'	-	*(SEE UTILITY AND ITMS PLANS)
40A	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
40B	1	2.5"	-	75'	-	*(SEE UTILITY AND ITMS PLANS)
40C	1	2.5"	-	125'	-	*(SEE UTILITY AND ITMS PLANS)
40D	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
41	1	2.5"	-	145'	-	*(SEE UTILITY AND ITMS PLANS)
41A	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
41B	1	2.5"	-	75'	-	*(SEE UTILITY AND ITMS PLANS)
41C	1	2.5"	-	125'	-	*(SEE UTILITY AND ITMS PLANS)
41D	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x42	1	2.5"	PVC	15'	-	EMPTY
x43	1	2.5"	PVC	15'	-	EMPTY
x44	1	2.5"	PVC	15'	-	EMPTY
45	1	2.5"	PVC	15'	T	EMPTY
x46	1	2.5"	PVC	10'	-	EMPTY
x47	1	2.5"	PVC	5'	-	EMPTY
53	1	1.5"	GALV	55'	T	(2)1/*14
58	1	1.5"	GALV	40'	T	(2)1/*14
x63	1	1.5"	GALV	30'	-	EXISTING (4) 1/*14
xF20	1	xx4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF20A	1	3"	-	15'	-	*(SEE UTILITY AND ITMS PLANS)
xF21	1	xx4"	-	115'	-	*(SEE UTILITY AND ITMS PLANS)
xF22	1	4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF22A	1	3"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND

x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH#	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH#	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE	XX	
UTILITY POLE		
CAMERA (CCTV)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0% FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED Jason SAINDON DATE: 12/5/14

RECOMMENDED [signature] DATE: 12/2/14

APPROVED TRAFFIC ENGINEER [signature] DATE: 12/8/14

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER [signature] DATE: 12/9/14

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS	

SR1, LITTLE HEAVEN
GRADE SEPARATED
INTERSECTION

CONTRACT	PERMIT NO.	K145	SHEET NO.
T200412202	DESIGNED BY: MSK	SIGNAL PLAN	605
COUNTY	CHECKED BY: BAM	SR1 @ BOWERS BEACH RD	TOTAL SHTS.
KENT			641

12/2/2014
G:\PROJECTS\03517.00 (DELDOT AGMT 1223 DOTS Open End\03517.16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_bowers11.dgn
SZZEQUTNA

PHASE IV, STAGE 6 CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
x1	1	2"	GALV	190'/30'	-	EXISTING (1) 2/*8 UFW/GROUND
x2	1	2"	GALV	15'	-	EXISTING (1) 2/*8 UFW/GROUND
x2A	1	2"	GALV	10'	-	*(SEE UTILITY & ITMS PLANS)
x2B	1	2"	GALV	115'	-	*(SEE UTILITY & ITMS PLANS)
2B[E]	1	2"	GALV	40'	T	*(SEE UTILITY & ITMS PLANS)
x2C	1	2"	GALV	25'	-	*(SEE UTILITY & ITMS PLANS)
x2D	1	3"	GALV	5'	-	EXISTING (1)2/*8 UFW/GROUND *(SEE UTILITY & ITMS PLANS)
x3	3	4"	PVC	15'	-	EXISTING [(1B) 2/*14 (5)4/*18 (5)9/*14 (1)*6 BSC] REMOVE (1)2/*14 NEW [(1)4/*18 (1)9/*14]
x4	1	4"	PVC	20'	-	EMPTY
x5	1	3"	PVC	40'	-	EXISTING (2)4/*18 (1)9/*14 (1)*6 BSC
x7	1	2"	GALV	125'	-	*(SEE UTILITY & ITMS PLANS)
7E	1	2"	GALV	45'	T	*(SEE UTILITY & ITMS PLANS)
7A	1	3"	GALV	55'	T	*(SEE UTILITY & ITMS PLANS)
x8	1	4"	PVC	190'	-	EXISTING [(2) 2/*14 (1)*6 BSC] REMOVE (1)2/*14
x9	1	1.5"	GALV	10'	-	EXISTING (4) 1/*14
x10	1	4"	PVC	105'	-	EX. [(3)4/*18 (12)2/*14 (20' OF (1)2/*14 COILED JW), (2)9/*14 (1)*6 BSC] NEW (1)9/*14
x11	1	1.5"	GALV	15'	-	EXISTING (2)1/*14 REMOVE (2)1/*14 NEW (4)1/*14
x12	1	3"	PVC	45'	-	EXISTING [(1)4/*18 (1)*6 BSC] NEW (1)9/*14
x13	1	4"	PVC	70'	-	EXISTING (2)4/*18 (8)2/*14 (2)9/*14 (1)*6 BSC
x15	1	4"	PVC	125'	-	EXISTING (2)4/*18 (8)2/*14 (2)9/*14 (1)*6 BSC
x16	1	4"	PVC	40'	-	EXISTING (1)4/*18 (6)2/*14 (2)9/*14 (1)*6 BSC
x17	1	4"	HDPE	115'	-	EXISTING (1)4/*18 (2)2/*14 (1)*6 BSC
x18	1	1.5"	GALV	40'	-	EXISTING (2)1/*14
x19	1	4"	PVC	255'	-	EXISTING (1)2/*14 (20' COILED IN JW), (1)*6 BSC
x21	1	4"	HDPE	115'	-	EX.(1)4/*18 (5)2/*14 (20' EA.OF (2)2/*14 COILED IN JW), (2)9/*14 (1)*6 BSC
x22	1	3"	PVC	15'	-	EXISTING (1)9/*14 (1)*6 BSC
x23	1	4"	HDPE	160'	-	EX.(1)4/*18 (3)2/*14 (20' OF (1)2/*14 COILED IN JW), (1)9/*14 (1)*6 BSC
x24	1	3"	PVC	15'	-	EXISTING (1)4/*18 (1)9/*14 (1)*6 BSC
x25	1	4"	HDPE	185'	-	EXISTING (2)2/*14 (1)*6 BSC
x26	1	1.5"	GALV	10'	-	EXISTING (4)1/*14
x27	1	1.5"	GALV	10'	-	EMPTY
x28	1	3"	PVC	10'	-	EXISTING (1)4/*18 (1)*6 BSC
x29	1	4"	PVC	30'	-	EXISTING (1)2/*14 (1)*6 BSC
x31	1	3"	PVC	35'	-	EXISTING (1)9/*14 (1)*6 BSC
33	1	1.5"	GALV	10'	T	(2)1/*14
x34	1	4"	PVC	25'	-	EXISTING (1) 2/*14 (1)*6 BSC
x35	1	1.5"	GALV	50'	-	NEW (4)1/*14
x36	1	4"	PVC	115'	-	EXISTING (1)2/*14 (1)9/*14 (1)*6 BSC
x37	1	1.5"	GALV	15'	-	EXISTING (2) 1/*14
x38	1	4"	HDPE	185'	-	EXISTING [(4) 2/*14 (2)9/*14 (1)*6 BSC] NEW (1)4/*18
x39	1	3"	PVC	10'	-	EXISTING [(1)9/*14 (1)*6 BSC] NEW (1)4/*18
x40	1	2.5"	-	145'	-	*(SEE UTILITY AND ITMS PLANS)
x40A	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x40B	1	2.5"	-	75'	-	*(SEE UTILITY AND ITMS PLANS)
x40C	1	2.5"	-	125'	-	*(SEE UTILITY AND ITMS PLANS)
x40D	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x41	1	2.5"	-	145'	-	*(SEE UTILITY AND ITMS PLANS)
x41A	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x41B	1	2.5"	-	75'	-	*(SEE UTILITY AND ITMS PLANS)
x41C	1	2.5"	-	125'	-	*(SEE UTILITY AND ITMS PLANS)
x41D	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x42	1	2.5"	PVC	15'	-	EMPTY
x43	1	2.5"	PVC	15'	-	EMPTY
x44	1	2.5"	PVC	15'	-	EMPTY
x45	1	2.5"	PVC	15'	-	EMPTY
x46	1	2.5"	PVC	10'	-	EMPTY
x47	1	2.5"	PVC	5'	-	EMPTY
x53	1	1.5"	GALV	55'	-	EXISTING (2)1/*14
x58	1	1.5"	GALV	40'	-	EXISTING (2)1/*14
x63	1	1.5"	GALV	30'	-	EXISTING (4)1/*14
xF20	1	xx4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF20A	1	3"	-	15'	-	*(SEE UTILITY AND ITMS PLANS)
xF21	1	xx4"	-	115'	-	*(SEE UTILITY AND ITMS PLANS)
xF22	1	4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF22A	1	3"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
F59	1	4"	-	260'	-	*(SEE UTILITY AND ITMS PLANS)
F61	1	3"	-	15'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND

x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

PHASE V, STAGE 4 CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
x1	1	2"	GALV	190'/30'	-	EXISTING (1) 2/*8 UFW/GROUND
x2	1	2"	GALV	15'	-	EXISTING (1) 2/*8 UFW/GROUND
x2A	1	2"	GALV	10'	-	*(SEE UTILITY & ITMS PLANS)
x2B	1	2"	GALV	155'	-	*(SEE UTILITY & ITMS PLANS)
x2C	1	2"	GALV	25'	-	*(SEE UTILITY & ITMS PLANS)
x2D	1	3"	GALV	5'	-	EXISTING (1)2/*8 UFW/GROUND *(SEE UTILITY & ITMS PLANS)
x3	3	4"	PVC	15'	-	EXISTING (1)4/*18 (7') 2/*14 (5)4/*18 (6)9/*14 (1)*6 BSC
x4	1	4"	PVC	20'	-	EMPTY
x5	1	3"	PVC	40'	-	EXISTING (2)4/*18 (1)9/*14 (1)*6 BSC
x7	1	2"	GALV	170'	-	*(SEE UTILITY & ITMS PLANS)
x7A	1	3"	GALV	55'	-	*(SEE UTILITY & ITMS PLANS)
x8	1	4"	PVC	190'	-	EXISTING (1) 2/*14 (1)*6 BSC
x9	1	1.5"	GALV	10'	-	EXISTING (4) 1/*14
x10	1	4"	PVC	105'	-	EX.[(3)4/*18 (12)2/*14 (20' OF (1)2/*14 COILED IN JW), (3)9/*14 (1)*6 BSC]
x11	1	1.5"	GALV	15'	-	EXISTING (4)1/*14
x12	1	3"	PVC	45'	-	EXISTING (1)4/*18 (1)9/*14 (1)*6 BSC
x13	1	4"	PVC	70'	-	EXISTING (2)4/*18 (8)2/*14 (2)9/*14 (1)*6 BSC
x15	1	4"	PVC	125'	-	EXISTING (2)4/*18 (8)2/*14 (2)9/*14 (1)*6 BSC
x16	1	4"	PVC	40'	-	EXISTING (1)4/*18 (6)2/*14 (2)9/*14 (1)*6 BSC
x17	1	4"	HDPE	115'	-	EXISTING (1)4/*18 (2)2/*14 (1)*6 BSC
x18	1	1.5"	GALV	40'	-	EXISTING (2)1/*14
x19	1	4"	PVC	255'	-	EXISTING (1)2/*14 (20' COILED IN JW), (1)*6 BSC
x21	1	4"	HDPE	115'	-	EX.(1)4/*18 (5)2/*14 (20' EA.OF (2)2/*14 COILED IN JW), (2)9/*14 (1)*6 BSC
x22	1	3"	PVC	15'	-	EXISTING (1)9/*14 (1)*6 BSC
x23	1	4"	HDPE	160'	-	EX.(1)4/*18 (3)2/*14 (20' OF (1)2/*14 COILED IN JW), (1)9/*14 (1)*6 BSC
x24	1	3"	PVC	15'	-	EXISTING (1)4/*18 (1)9/*14 (1)*6 BSC
x25	1	4"	HDPE	185'	-	EXISTING (2)2/*14 (1)*6 BSC
x26	1	1.5"	GALV	10'	-	EXISTING (4)1/*14
x27	1	1.5"	GALV	10'	-	EMPTY
x28	1	3"	PVC	10'	-	EXISTING (1)4/*18 (1)*6 BSC
x29	1	4"	PVC	30'	-	EXISTING (1)2/*14 (1)*6 BSC
x31	1	3"	PVC	35'	-	EXISTING (1)9/*14 (1)*6 BSC
32	1	1.5"	GALV	5'	T	EMPTY
x33	1	1.5"	GALV	10'	-	EXISTING (2)1/*14
x34	1	4"	PVC	25'	-	EXISTING (1) 2/*14 (1)*6 BSC
x35	1	1.5"	GALV	50'	-	EXISTING (4)1/*14
x36	1	4"	PVC	115'	-	EXISTING (1)2/*14 (1)9/*14 (1)*6 BSC
x37	1	1.5"	GALV	15'	-	EXISTING (2) 1/*14
x38	1	4"	HDPE	185'	-	EXISTING (1)4/*18 (4) 2/*14 (2)9/*14 (1)*6 BSC
x39	1	3"	PVC	10'	-	EXISTING (1)4/*18 (1)9/*14 (1)*6 BSC
x40	1	2.5"	-	145'	-	*(SEE UTILITY AND ITMS PLANS)
x40A	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x40B	1	2.5"	-	75'	-	*(SEE UTILITY AND ITMS PLANS)
x40C	1	2.5"	-	125'	-	*(SEE UTILITY AND ITMS PLANS)
x40D	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x41	1	2.5"	-	145'	-	*(SEE UTILITY AND ITMS PLANS)
x41A	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x41B	1	2.5"	-	75'	-	*(SEE UTILITY AND ITMS PLANS)
x41C	1	2.5"	-	125'	-	*(SEE UTILITY AND ITMS PLANS)
x41D	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x42	1	2.5"	PVC	15'	-	EMPTY
x43	1	2.5"	PVC	15'	-	EMPTY
x44	1	2.5"	PVC	15'	-	EMPTY
x45	1	2.5"	PVC	15'	-	EMPTY
x46	1	2.5"	PVC	10'	-	EMPTY
x47	1	2.5"	PVC	5'	-	EMPTY
x53	1	1.5"	GALV	55'	-	EXISTING (2)1/*14 REMOVE (2)1/*14 NEW (2)1/*14
x58	1	1.5"	GALV	40'	-	EXISTING (2)1/*14 REMOVE (2)1/*14 NEW (2)1/*14
x63	1	1.5"	GALV	30'	-	EXISTING (4)1/*14
xF20	1	xx4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF20A	1	3"	-	15'	-	*(SEE UTILITY AND ITMS PLANS)
xF21	1	xx4"	-	115'	-	*(SEE UTILITY AND ITMS PLANS)
xF22	1	4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF22A	1	3"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF59	1	4"	-	260'	-	*(SEE UTILITY AND ITMS PLANS)
xF61	1	3"	-	15'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND

x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH •	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W. □	■
LOOP DETECTOR, TYPE 1	⬚	□
LOOP DETECTOR, TYPE 2	▭	▭
LUMINAIRE	—○—	—●—
MAST ARM	⊱	➤
MICROWAVE DETECTION	—◂	—◂
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	—|	—|
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—D	—➤
PEDESTRIAN SIGNAL HEAD	⊐	⊐
RIGHT-OF-WAY	— - - —	— - - —
SERVICE PEDESTAL	P	P
SIGNAL CABINET	▱	▰
SIGNAL HEAD	—▷	—➤
SIGNAL POLE/BASE	⊗	⊙
SPAN INSULATOR	◇	◆
SPAN WIRE	— XX —	———
UTILITY POLE	⊘	●
CAMERA (CCTV)	—■	—■

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5%1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED [signature] DATE: 12/5/14

RECOMMENDED [signature] DATE: 12/2/14

APPROVED TRAFFIC ENGINEER [signature] DATE: 12/5/14

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER [signature] DATE: 12/9/14

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SR1, LITTLE HEAVEN
GRADE SEPARATED
INTERSECTION

CONTRACT T200412202	PERMIT NO.	K145	SIGNAL PLAN
COUNTY KENT	DESIGNED BY:	MSK	SR1 @ BOWERS BEACH RD
	CHECKED BY:	BAM	

SHEET NO. 606
TOTAL SHTS. 641

12/2/2014
G:\PROJECTS\03517.00 DELDOT AGMT 1223 DOTS Open End\03517.16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_bowers12.dgn
2:21:37 PM

PHASE V, STAGE 5 CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
x1	1	2"	GALV	190'/30'	-	EXISTING (1) 2/#8 UFW/GROUND
x2	1	2"	GALV	15'	-	EXISTING (1) 2/#8 UFW/GROUND
x2A	1	2"	GALV	10'	-	*(SEE UTILITY & ITMS PLANS)
x2B	1	2"	GALV	155'	-	*(SEE UTILITY & ITMS PLANS)
x2C	1	2"	GALV	25'	-	*(SEE UTILITY & ITMS PLANS)
x2D	1	3"	GALV	5'	-	EXISTING (1)2/#8 UFW/GROUND *(SEE UTILITY & ITMS PLANS)
x3	3	4"	PVC	15'	-	EXISTING (1)4/#18 (17) 2/#14 (5)4/#18 (6)9/#14 (1)#6 BSC
x4	1	4"	PVC	20'	-	EMPTY
x5	1	3"	PVC	40'	-	EXISTING (2)4/#18 (1)9/#14 (1)#6 BSC
x7	1	2"	GALV	170'	-	*(SEE UTILITY & ITMS PLANS)
x7A	1	3"	GALV	55'	-	*(SEE UTILITY & ITMS PLANS)
x8	1	4"	PVC	190'	-	EXISTING (1) 2/#14 (1)#6 BSC
x9	1	1.5"	GALV	10'	-	EXISTING (4) 1/#14
x10	1	4"	PVC	105'	-	EX.(3)4/#18 (12)2/#14 (20' OF (1)2/#14 COILED IN JW), (3)9/#14 (1)#6 BSC
x11	1	1.5"	GALV	15'	-	EXISTING (4)1/#14
x12	1	3"	PVC	45'	-	EXISTING (1)4/#18 (1)9/#14 (1)#6 BSC
x13	1	4"	PVC	70'	-	EXISTING (2)4/#18 (8)2/#14 (2)9/#14 (1)#6 BSC
14	1	1.5"	GALV	5'	T	EMPTY
x15	1	4"	PVC	125'	-	EXISTING (2)4/#18 (8)2/#14 (2)9/#14 (1)#6 BSC
x16	1	4"	PVC	40'	-	EXISTING (1)4/#18 (6)2/#14 (2)9/#14 (1)#6 BSC
x17	1	4"	HDPE	115'	-	EXISTING (1)4/#18 (2)2/#14 (1)#6 BSC
x18	1	1.5"	GALV	40'	-	EXISTING (2)1/#14
x19	1	4"	PVC	255'	-	EXISTING (1)2/#14 (20' COILED IN JW), (1)#6 BSC
20	1	1.5"	GALV	20'	T	EMPTY
x21	1	4"	HDPE	115'	-	EX.(1)4/#18 (5)2/#14 (20' EA.OF (2)2/#14 COILED IN JW), (2)9/#14 (1)#6 BSC
x22	1	3"	PVC	15'	-	EXISTING (1)9/#14 (1)#6 BSC
x23	1	4"	HDPE	160'	-	EX.(1)4/#18 (3)2/#14 (20' OF (1)2/#14 COILED IN JW), (1)9/#14 (1)#6 BSC
x24	1	3"	PVC	15'	-	EXISTING (1)4/#18 (1)9/#14 (1)#6 BSC
x25	1	4"	HDPE	185'	-	EXISTING (2)2/#14 (1)#6 BSC
x26	1	1.5"	GALV	10'	-	EXISTING (4)1/#14
x27	1	1.5"	GALV	10'	-	EMPTY
x28	1	3"	PVC	10'	-	EXISTING (1)4/#18 (1)#6 BSC
x29	1	4"	PVC	30'	-	EXISTING (1)2/#14 (1)#6 BSC
30	1	1.5"	GALV	10'	T	(2)1/#14
x31	1	3"	PVC	35'	-	EXISTING (1)9/#14 (1)#6 BSC
x32	1	1.5"	GALV	5'	-	EMPTY
x33	1	1.5"	GALV	10'	-	EXISTING (2)1/#14
x34	1	4"	PVC	25'	-	EXISTING (1) 2/#14 (1)#6 BSC
x35	1	1.5"	GALV	50'	-	EXISTING (4)1/#14
x36	1	4"	PVC	115'	-	EXISTING (1)2/#14 (1)9/#14 (1)#6 BSC
x37	1	1.5"	GALV	15'	-	EXISTING (2) 1/#14
x38	1	4"	HDPE	185'	-	EXISTING (1)4/#18 (4) 2/#14 (2)9/#14 (1)#6 BSC
x39	1	3"	PVC	10'	-	EXISTING (1)4/#18 (1)9/#14 (1)#6 BSC
x40	1	2.5"	-	145'	-	*(SEE UTILITY AND ITMS PLANS)
x40A	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x40B	1	2.5"	-	75'	-	*(SEE UTILITY AND ITMS PLANS)
x40C	1	2.5"	-	125'	-	*(SEE UTILITY AND ITMS PLANS)
x40D	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x41	1	2.5"	-	145'	-	*(SEE UTILITY AND ITMS PLANS)
x41A	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x41B	1	2.5"	-	75'	-	*(SEE UTILITY AND ITMS PLANS)
x41C	1	2.5"	-	125'	-	*(SEE UTILITY AND ITMS PLANS)
x41D	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x42	1	2.5"	PVC	15'	-	EMPTY
x43	1	2.5"	PVC	15'	-	EMPTY
x44	1	2.5"	PVC	15'	-	EMPTY
x45	1	2.5"	PVC	15'	-	EMPTY
x46	1	2.5"	PVC	10'	-	EMPTY
x47	1	2.5"	PVC	5'	-	EMPTY
48	1	1.5"	GALV	30'	T	EMPTY
x63	1	1.5"	GALV	30'	-	EXISTING (4)1/#14
xF20	1	xx4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF20A	1	3"	-	15'	-	*(SEE UTILITY AND ITMS PLANS)
xF21	1	xx4"	-	115'	-	*(SEE UTILITY AND ITMS PLANS)
xF22	1	4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF22A	1	3"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF59	1	4"	-	260'	-	*(SEE UTILITY AND ITMS PLANS)
xF61	1	3"	-	15'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND
x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

PHASE V, STAGE 6 CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
x1	1	2"	GALV	190'/30'	-	EXISTING (1) 2/#8 UFW/GROUND
x2	1	2"	GALV	15'	-	EXISTING (1) 2/#8 UFW/GROUND
x2A	1	2"	GALV	10'	-	*(SEE UTILITY & ITMS PLANS)
x2B	1	2"	GALV	155'	-	*(SEE UTILITY & ITMS PLANS)
x2C	1	2"	GALV	25'	-	*(SEE UTILITY & ITMS PLANS)
x2D	1	3"	GALV	5'	-	EXISTING (1)2/#8 UFW/GROUND *(SEE UTILITY & ITMS PLANS)
x3	3	4"	PVC	15'	-	EXISTING (1)5\4/#18 (17) 2/#14 (6)9/#14 (1)#6 BSC] REMOVE (2)2/#14 NEW [(1)4/#18 (3)2/#14 (6)5/#14 (1)9/#14
x4	1	4"	PVC	20'	-	NEW (2)5/#14 (1)#6 BSC
x5	1	3"	PVC	40'	-	EXISTING (2)4/#18 (1)9/#14 (1)#6 BSC
x7	1	2"	GALV	170'	-	*(SEE UTILITY & ITMS PLANS)
x7A	1	3"	GALV	55'	-	*(SEE UTILITY & ITMS PLANS)
x8	1	4"	PVC	190'	-	EXISTING (1) 2/#14 (1)#6 BSC
x9	1	1.5"	GALV	10'	-	EXISTING (4) 1/#14
x10	1	4"	PVC	105'	-	EXISTING [(3)4/#18 (12)2/#14 (3)9/#14 (1)#6 BSC] REMOVE (2)2/#14 NEW [(3)2/#14 (3)5/#14 (1)9/#14]
x11	1	1.5"	GALV	15'	-	EXISTING (4)1/#14
x12	1	3"	PVC	45'	-	EXISTING (1)4/#18 (1)9/#14 (1)#6 BSC
x13	1	4"	PVC	70'	-	EX.[(2)4/#18 (8)2/#14 (2)9/#14 (1)#6 BSC] NEW[(3)2/#14 (2)5/#14 (1)9/#14]
x14	1	1.5"	GALV	5'	-	NEW (6)1/#14
x15	1	4"	PVC	125'	-	EX.[(2)4/#18 (8)2/#14 (2)9/#14 (1)#6 BSC] NEW[(1)4/#18 (2)5/#14 (1)9/#14]
x16	1	4"	PVC	40'	-	EXISTING [(1)4/#18 (6)2/#14 (2)9/#14 (1)#6 BSC] NEW [(1)4/#18 (2)5/#14]
x17	1	4"	HDPE	115'	-	EXISTING [(1)4/#18 (2)2/#14 (1)#6 BSC] NEW (1)9/#14
x18	1	1.5"	GALV	40'	-	EXISTING (2)1/#14
x19	1	4"	PVC	255'	-	EXISTING (1)2/#14 (1)#6 BSC
x20	1	1.5"	GALV	20'	-	NEW (2)1/#14
x21	1	4"	HDPE	115'	-	EXISTING [(1)4/#18 (5)2/#14 (2)9/#14 (1)#6 BSC] NEW [(1)4/#18 (1)5/#14]
x22	1	3"	PVC	15'	-	EXISTING [(1)9/#14 (1)#6 BSC] NEW (1)4/#18
x23	1	4"	HDPE	160'	-	EXISTING (1)4/#18 (3)2/#14 (1)9/#14 (1)#6 BSC
x24	1	3"	PVC	15'	-	EXISTING (1)4/#18 (1)9/#14 (1)#6 BSC
x25	1	4"	HDPE	185'	-	EXISTING (2)2/#14 (1)#6 BSC
x26	1	1.5"	GALV	10'	-	EXISTING (4)1/#14
x27	1	1.5"	GALV	10'	-	NEW (2)1/#14
x28	1	3"	PVC	10'	-	EXISTING [(1)4/#18 (1)#6 BSC] NEW (1)9/#14
x29	1	4"	PVC	30'	-	EXISTING (1)2/#14 (1)#6 BSC
x30	1	1.5"	GALV	10'	-	EXISTING (2)1/#14 REMOVE (2)1/#14 NEW (2)1/#14
x31	1	3"	PVC	35'	-	EXISTING (1)9/#14 (1)#6 BSC
x32	1	1.5"	GALV	5'	-	NEW (4)1/#14
x33	1	1.5"	GALV	10'	-	EXISTING (2)1/#14
x34	1	4"	PVC	25'	-	EXISTING [(1) 2/#14 (1)#6 BSC] NEW (1)5/#14
x35	1	1.5"	GALV	50'	-	EXISTING (4)1/#14
x36	1	4"	PVC	115'	-	EXISTING (1)2/#14 (1)9/#14 (1)#6 BSC
x37	1	1.5"	GALV	15'	-	EXISTING (2)1/#14
x38	1	4"	HDPE	185'	-	EXISTING [(1)4/#18 (4) 2/#14 (2)9/#14 (1)#6 BSC] NEW (1)5/#14
x39	1	3"	PVC	10'	-	EXISTING (1)4/#18 (1)9/#14 (1)#6 BSC
x40	1	2.5"	-	145'	-	*(SEE UTILITY AND ITMS PLANS)
x40A	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x40B	1	2.5"	-	75'	-	*(SEE UTILITY AND ITMS PLANS)
x40C	1	2.5"	-	125'	-	*(SEE UTILITY AND ITMS PLANS)
x40D	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x41	1	2.5"	-	145'	-	*(SEE UTILITY AND ITMS PLANS)
x41A	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x41B	1	2.5"	-	75'	-	*(SEE UTILITY AND ITMS PLANS)
x41C	1	2.5"	-	125'	-	*(SEE UTILITY AND ITMS PLANS)
x41D	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x42	1	2.5"	PVC	15'	-	NEW (1)5/#14 (1)#6 BSC
x43	1	2.5"	PVC	15'	-	NEW (1)5/#14 (1)#6 BSC
x44	1	2.5"	PVC	15'	-	NEW (1)5/#14 (1)#6 BSC
x45	1	2.5"	PVC	15'	-	NEW (1)5/#14 (1)#6 BSC
x46	1	2.5"	PVC	10'	-	NEW (1)5/#14 (1)#6 BSC
x47	1	2.5"	PVC	5'	-	NEW (1)5/#14 (1)#6 BSC
x48	1	1.5"	GALV	30'	-	NEW (2)1/#14
x63	1	1.5"	GALV	30'	-	EXISTING (4)1/#14
xF20	1	xx4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF20A	1	3"	-	15'	-	*(SEE UTILITY AND ITMS PLANS)
xF21	1	xx4"	-	115'	-	*(SEE UTILITY AND ITMS PLANS)
xF22	1	4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF22A	1	3"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF59	1	4"	-	260'	-	*(SEE UTILITY AND ITMS PLANS)
xF61	1	3"	-	15'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND
x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH/*	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA/X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH/*	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA/X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB/X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO/*	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB/X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO/*	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL/X	EXISTING POLE IDENTIFIER (* OF POLE)
JW/X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL/X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW/X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM/C	REMOVE BY CONTRACTOR
MA/X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM/O	REMOVE BY OTHERS
MA/X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM/TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W. □	■
LOOP DETECTOR, TYPE 1	⬚	□
LOOP DETECTOR, TYPE 2	▭	▭
LUMINAIRE	—○	—●
MAST ARM	▷	▶
MICROWAVE DETECTION	◁	◀
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	⊣	⊣
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—▷	—▶
PEDESTRIAN SIGNAL HEAD	⊐	⊐
RIGHT-OF-WAY	— - - - —	— - - - —
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
SPAN INSULATOR	◇	◆
SPAN WIRE	—— XX ——	————
UTILITY POLE	⊘	●
CAMERA (CCTV)	—▮	—▮

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (SLOPE FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE:_____

RECOMMENDED Max SAINTIL DATE: 12/5/14

RECOMMENDED [illegible] DATE: 12/2/14

APPROVED TRAFFIC ENGINEER [illegible] DATE: 12/5/14

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER [illegible] DATE: 12/9/14

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K145	SIGNAL PLAN
T200412202	DESIGNED BY:	MSK	SHEET NO. 607
COUNTY	CHECKED BY:	BAM	TOTAL SHTS. 641
KENT			SR1 @ BOWERS BEACH RD

12/2/2014
G:\PROJECTS\03517.00 (DELDOT AGMT 1223 DOTS Open End\03517.16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_bowers13.dgn
3:33:23 PM

ULTIMATE CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
x1	1	2"	GALV	190'/30'	-	EXISTING (1) 2/#8 UFW/GROUND
x2	1	2"	GALV	15'	-	EXISTING (1) 2/#8 UFW/GROUND
x2A	1	2"	GALV	10'	-	*(SEE UTILITY & ITMS PLANS)
x2B	1	2"	GALV	155'	-	*(SEE UTILITY & ITMS PLANS)
x2C	1	2"	GALV	25'	-	*(SEE UTILITY & ITMS PLANS)
x2D	1	3"	GALV	5'	-	EXISTING (1)2/#8 UFW/GROUND *(SEE UTILITY & ITMS PLANS)
x3	3	4"	PVC	15'	-	EXISTING (6)4/#18 (18) 2/#14 (6)5/#14 (7)9/#14 (1)#6 BSC
x4	1	4"	PVC	20'	-	EXISTING (2)5/#14 (1)#6 BSC
x5	1	3"	PVC	40'	-	EXISTING (2)4/#18 (1)9/#14 (1)#6 BSC
x7	1	2"	GALV	170'	-	*(SEE UTILITY & ITMS PLANS)
x7A	1	3"	GALV	55'	-	*(SEE UTILITY & ITMS PLANS)
x8	1	4"	PVC	190'	-	EXISTING (1) 2/#14 (1)#6 BSC
x9	1	1.5"	GALV	10'	-	EXISTING (4) 1/#14
x10	1	4"	PVC	105'	-	EXISTING (3)4/#18 (13)2/#14 (3)5/#14 (4)9/#14 (1)#6 BSC
x11	1	1.5"	GALV	15'	-	EXISTING (4)1/#14
x12	1	3"	PVC	45'	-	EXISTING (1)4/#18 (1)9/#14 (1)#6 BSC
x13	1	4"	PVC	70'	-	EXISTING (2)4/#18 (11)2/#14 (2)5/#14 (3)9/#14 (1)#6 BSC
x14	1	1.5"	GALV	5'	-	EXISTING (6)1/#14
x15	1	4"	PVC	125'	-	EXISTING (3)4/#18 (8)2/#14 (2)5/#14 (3)9/#14 (1)#6 BSC
x16	1	4"	PVC	40'	-	EXISTING (2)4/#18 (6)2/#14 (2)5/#14 (2)9/#14 (1)#6 BSC
x17	1	4"	HDPE	115'	-	EXISTING (1)4/#18 (2)2/#14 (1)9/#14 (1)#6 BSC
x18	1	1.5"	GALV	40'	-	EXISTING (2)1/#14
x19	1	4"	PVC	255'	-	EXISTING (1)2/#14 (1)#6 BSC
x20	1	1.5"	GALV	20'	-	EXISTING (2)1/#14
x21	1	4"	HDPE	115'	-	EXISTING (2)4/#18 (5)2/#14 (1)5/#14 (2)9/#14 (1)#6 BSC
x22	1	3"	PVC	15'	-	EXISTING (1)4/#18 (1)9/#14 (1)#6 BSC
x23	1	4"	HDPE	160'	-	EXISTING (1)4/#18 (3)2/#14 (1)9/#14 (1)#6 BSC
x24	1	3"	PVC	15'	-	EXISTING (1)4/#18 (1)9/#14 (1)#6 BSC
x25	1	4"	HDPE	185'	-	EXISTING (2)2/#14 (1)#6 BSC
x26	1	1.5"	GALV	10'	-	EXISTING (4)1/#14
x27	1	1.5"	GALV	10'	-	EXISTING (2)1/#14
x28	1	3"	PVC	10'	-	EXISTING (1)4/#18 (1)9/#14 (1)#6 BSC
x29	1	4"	PVC	30'	-	EXISTING (1)2/#14 (1)#6 BSC
x30	1	1.5"	GALV	10'	-	EXISTING (2)1/#14
x31	1	3"	PVC	35'	-	EXISTING (1)9/#14 (1)#6 BSC
x32	1	1.5"	GALV	5'	-	EXISTING (4)1/#14
x33	1	1.5"	GALV	10'	-	EXISTING (2)1/#14
x34	1	4"	PVC	25'	-	EXISTING (1) 2/#14 (1)5/#14 (1)#6 BSC
x35	1	1.5"	GALV	50'	-	EXISTING (4)1/#14
x36	1	4"	PVC	115'	-	EXISTING (1)2/#14 (1)9/#14 (1)#6 BSC
x37	1	1.5"	GALV	15'	-	EXISTING (2) 1/#14
x38	1	4"	HDPE	185'	-	EXISTING (1)4/#18 (4) 2/#14 (1)5/#14 (2)9/#14 (1)#6 BSC
x39	1	3"	PVC	10'	-	EXISTING (1)4/#18 (1)9/#14 (1)#6 BSC
x40	1	2.5"	-	145'	-	*(SEE UTILITY AND ITMS PLANS)
x40A	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x40B	1	2.5"	-	75'	-	*(SEE UTILITY AND ITMS PLANS)
x40C	1	2.5"	-	125'	-	*(SEE UTILITY AND ITMS PLANS)
x40D	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x41	1	2.5"	-	145'	-	*(SEE UTILITY AND ITMS PLANS)
x41A	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x41B	1	2.5"	-	75'	-	*(SEE UTILITY AND ITMS PLANS)
x41C	1	2.5"	-	125'	-	*(SEE UTILITY AND ITMS PLANS)
x41D	1	2.5"	-	130'	-	*(SEE UTILITY AND ITMS PLANS)
x42	1	2.5"	PVC	15'	-	EXISTING (1)5/#14 (1)#6 BSC
x43	1	2.5"	PVC	15'	-	EXISTING (1)5/#14 (1)#6 BSC
x44	1	2.5"	PVC	15'	-	EXISTING (1)5/#14 (1)#6 BSC
x45	1	2.5"	PVC	15'	-	EXISTING (1)5/#14 (1)#6 BSC
x46	1	2.5"	PVC	10'	-	EXISTING (1)5/#14 (1)#6 BSC
x47	1	2.5"	PVC	5'	-	EXISTING (1)5/#14 (1)#6 BSC
x48	1	1.5"	GALV	30'	-	EXISTING (2)1/#14
x63	1	1.5"	GALV	30'	-	EXISTING (4) 1/#14
xF20	1	xx4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF20A	1	3"	-	15'	-	*(SEE UTILITY AND ITMS PLANS)
xF21	1	xx4"	-	115'	-	*(SEE UTILITY AND ITMS PLANS)
xF22	1	4"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF22A	1	3"	-	20'	-	*(SEE UTILITY AND ITMS PLANS)
xF59	1	4"	-	260'	-	*(SEE UTILITY AND ITMS PLANS)
xF61	1	3"	-	15'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND

x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH-X	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA-X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH-#	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA-X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB-X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO-#	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB-X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO-#	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL-X	EXISTING POLE IDENTIFIER (# OF POLE)
JW-X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL-X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW-X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM-C	REMOVE BY CONTRACTOR
MA-X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM-O	REMOVE BY OTHERS
MA-X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM-TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE	XX	
UTILITY POLE		
CAMERA (CCTV)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED Max SAINTIL DATE: 12/5/14

RECOMMENDED B. Schuette DATE: 12/2/14

APPROVED TRAFFIC ENGINEER Marvin C. Howard DATE: 12/5/14

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER Neil Lowe DATE: 12/9/14

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT T200412202	PERMIT NO.	K145	SHEET NO. 608
COUNTY KENT	DESIGNED BY: MSK	SIGNAL PLAN: SR1 @ BOWERS BEACH RD	TOTAL SHTS. 641
	CHECKED BY: BAM		

12/2/2014
I:\DGN\SIGNALS\03517.00 (DELDOT AGMT 1223 DOTS Open End)\03517.16 SR1, LITTLE HEAVEN FINAL DESIGN\SIGN Files\signal_bowers14.dgn
3:33:57 PM

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
4	MAST ARM	21'-6"	STEEL
7	MAST ARM	21'-6"	STEEL

ADDITIONAL LEGEND

- PROPOSED PAVEMENT
- PROPOSED WORK AREA
- PROPOSED WORK AREA REMOVAL

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
5	1	4"	HDPE	115'	B	EMPTY
8	1	1.5"	GALV	10'	T	EMPTY
9	1	3"	PVC	20'	T	EMPTY
10	1	4"	PVC	60'	T	EMPTY
11	1	1.5"	GALV	10'	T	EMPTY
12	1	4"	HDPE	90'	B	EMPTY
13	1	3"	PVC	15'	T	EMPTY
14	1	4"	PVC	40'	T	EMPTY
15	1	4"	PVC	205'	T	EMPTY
21	1	2.5"	PVC	15'	T	EMPTY
22	1	2.5"	PVC	10'	T	EMPTY
23	1	2.5"	PVC	15'	T	EMPTY

LEGEND

x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

PHASE I, STAGE 9 SIGNAL NOTES

1. PEDESTRIAN SIGNAL POLES, HEADS AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE. CONTRACTOR SHALL PLUG PROPOSED CONDUIT.
2. PLUG ALL EXPOSED ENDS OF PROPOSED CONDUITS.

PHASE I, STAGE 9

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH-X	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUNS)
CA-X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH-#	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUNS)
CA-X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB-X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO-*	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUNS)	PB-X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO-#	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUNS)	PL-X	EXISTING POLE IDENTIFIER (# OF POLE)
JW-X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL-X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW-X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM-C	REMOVE BY CONTRACTOR
MA-X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM-O	REMOVE BY OTHERS
MA-X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM-TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W. □	■
LOOP DETECTOR, TYPE 1	⬚	□
LOOP DETECTOR, TYPE 2	▭	▭
LUMINAIRE	—○	—●
MAST ARM	⊢	⊢
MICROWAVE DETECTION	—◖	—◖
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	⊣	⊣
PEDESTRIAN POLE/BASE	⊕	◉
PEDESTRIAN PUSHBUTTON	—D	—●
PEDESTRIAN SIGNAL HEAD	⊐	⊐
RIGHT-OF-WAY	———	———
SERVICE PEDESTAL	P	P
SIGNAL CABINET	▱	▰
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
SPAN INSULATOR	◇	◆
SPAN WIRE	—— XX ——	——
UTILITY POLE	⊘	◔
CAMERA (CCTV)	—▪	—▪

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: 12/5/14

RECOMMENDED _____ DATE: 12/2/14

APPROVED TRAFFIC ENGINEER _____ DATE: 12/6/14

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 12/9/14

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	T200412202	PERMIT NO.	K303
COUNTY	KENT	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN

CLAPHAM ROAD @ BUFFALO RD

SHEET NO. 609

TOTAL SHTS. 641

12/2/2014
C:\PROJECTS\03517.00 (DELDOT AGMT 1223 DOTS Open End)\03517.16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_buffalo01.dgn
12:01:17 PM

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
IB	1	2"	GALV	275'	T	*(SEE UTILITY AND ITMS PLANS)
IE	1	2"	GALV	20'	T	EMPTY
2	2	4"	PVC	15'	T	EMPTY
3	1	3"	PVC	10'	T	EMPTY
4	1	4"	PVC	20'	T	EMPTY

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
1	MAST ARM	21'-6"	STEEL
x4	MAST ARM	21'-6"	STEEL
x7	MAST ARM	21'-6"	STEEL
8	MAST ARM	21'-6"	STEEL

x- DENOTES EXISTING

ADDITIONAL LEGEND

- PROPOSED PAVEMENT
- PROPOSED WORK AREA
- PROPOSED WORK AREA REMOVAL

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH-#	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA-X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH-#	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA-X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB-X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO-#	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB-X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO-#	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL-X	EXISTING POLE IDENTIFIER (# OF POLE)
JW-X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL-X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW-X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM-C	REMOVE BY CONTRACTOR
MA-X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM-O	REMOVE BY OTHERS
MA-X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM-TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	□	□
LOOP DETECTOR, TYPE 2	▭	▭
LUMINAIRE	—○—	—●—
MAST ARM	▷	▶
MICROWAVE DETECTION	—◀	—◀
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	—|	—|
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—▯	—▮
PEDESTRIAN SIGNAL HEAD	⊐	⊐
RIGHT-OF-WAY	— — —	———
SERVICE PEDESTAL	P	P
SIGNAL CABINET	XXXX	XXXX
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
SPAN INSULATOR	◇	◆
SPAN WIRE	—XX—	———
UTILITY POLE	⊘	●
CAMERA (CCTV)	—◨	—◨

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (SO1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

CONDUIT RUN SCHEDULE CONT.

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
x5	1	4"	HDPE	115'	-	EMPTY
x8	1	1.5"	GALV	10'	-	EMPTY
x9	1	3"	PVC	20'	-	EMPTY
x10	1	4"	PVC	60'	-	EMPTY
x11	1	1.5"	GALV	10'	-	EMPTY
x12	1	4"	HDPE	90'	-	EMPTY
x13	1	3"	PVC	15'	-	EMPTY
x14	1	4"	PVC	40'	-	EMPTY
x15	1	4"	PVC	205'	-	EMPTY
17	1	1.5"	GALV	10'	T	EMPTY
18	1	3"	PVC	10'	T	EMPTY
19	1	4"	PVC	130'	T	EMPTY
20	1	2.5"	PVC	10'	T	EMPTY
x21	1	2.5"	PVC	15'	-	EMPTY
x22	1	2.5"	PVC	10'	-	EMPTY
x23	1	2.5"	PVC	15'	-	EMPTY
24	1	4"	PVC	30'	T	EMPTY
F35	1	xx4"	-	220'	-	*(SEE UTILITY AND ITMS PLANS)
F39	1	xx4"	-	5'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND

x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

PHASE I, STAGE 10 SIGNAL NOTES

1. PEDESTRIAN SIGNAL POLES, HEADS AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE. CONTRACTOR SHALL PLUG PROPOSED CONDUIT.
2. PLUG ALL EXPOSED ENDS OF PROPOSED CONDUITS.
3. COMMUNICATION WITH DELDOT TMC SHALL BE VIA CDMA UNTIL ITMS FIBER COMMUNICATION IS ESTABLISHED.

PHASE I, STAGE 10

RECOMMENDED _____ DATE: _____

RECOMMENDED Mark SAINDON DATE: 12/5/14

RECOMMENDED _____ DATE: 12/2/14

APPROVED TRAFFIC ENGINEER _____ DATE: 12/5/14

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 12/9/14

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K303	SIGNAL PLAN	SHEET NO.
T200412202	DESIGNED BY:	MSK	CLAPHAM ROAD @ BUFFALO RD	610
COUNTY	CHECKED BY:	BAM		TOTAL SHTS.
KENT				641

12/2/2014
G:\PROJECTS\03517.00 (DELDOT AGMT 1223 DOTS Open End)\03517.16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_buffalo02.dgn
S120177 PM

CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
1	1	2"	GALV	15'	T	(1)#2/*8 U.F.W./GROUND
1A	1	2"	GALV	235'	T	(1)#2/*8 U.F.W./GROUND
x1B	1	2"	GALV	275'	-	*(SEE UTILITY & ITMS PLANS)
x1E	1	2"	GALV	20'	-	NEW (1)#2/*8 U.F.W./GROUND
x2	2	4"	PVC	15'	-	NEW (8)#2/*14 (3)#4/*18 (3)9/*14 (1)*6 BSC
x3	1	3"	PVC	10'	-	NEW (1)#4/*18 (1)9/*14 (1)*6 BSC
x4	1	4"	PVC	20'	-	NEW (4)#2/*14 (1)#4/*18 (2)9/*14 (1)*6 BSC

MAST ARM SCHEDULE

MA*	LENGTH OF ARM	* OF SIGNAL HEADS	* OF OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1	60'	2	1	-	20'-0"
2	60'	4	-	-	20'-0"
3	60'	3	1	-	20'-0"
4	60'	-	1	-	20'-0"

POLE SCHEDULE

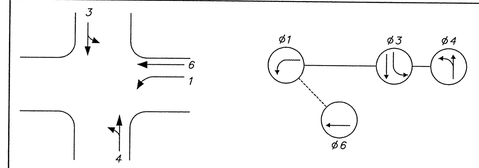
POLE #	POLE TYPE	HEIGHT	MATERIAL
x1	MAST ARM	21'-6"	STEEL
x4	MAST ARM	21'-6"	STEEL
x7	MAST ARM	21'-6"	STEEL
x8	MAST ARM	21'-6"	STEEL

x- DENOTES EXISTING

ADDITIONAL LEGEND

- PROPOSED PAVEMENT
- PROPOSED WORK AREA
- PROPOSED WORK AREA REMOVAL

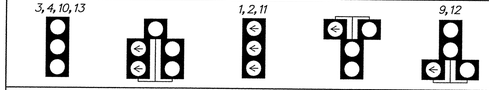
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH-*	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA-X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH-*	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA-X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB-X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO-*	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB-X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO-*	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL-X	EXISTING POLE IDENTIFIER (* OF POLE)
JW-X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL-X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW-X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM-C	REMOVE BY CONTRACTOR
MA-X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM-O	REMOVE BY OTHERS
MA-X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM-TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	⬚	□
LOOP DETECTOR, TYPE 2	▭	▭
LUMINAIRE	—○—	—●—
MAST ARM	➤	➤
MICROWAVE DETECTION	—◀	—◀
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	—⊣	—⊣
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—▷	—▶
PEDESTRIAN SIGNAL HEAD	—▭	—▰
RIGHT-OF-WAY	———	———
SERVICE PEDESTAL	P	P
SIGNAL CABINET	SIGNAL	SIGNAL
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
SPAN INSULATOR	◇	◆
SPAN WIRE	—XX—	———
UTILITY POLE	⊘	●
CAMERA (CCTV)	—▮	—▮

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (SO=1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

CONDUIT RUN SCHEDULE CONT.

CO*	* OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
x5	1	4"	HDPE	115'	-	EXISTING (4)#2/*14 (1)#4/*18 (2)9/*14] NEW ([3)#2/*14 (1)#4/*18 (3)5/*14 (1)*6 BSC]
6	1	4"	PVC	190'	T	EMPTY
7	1	1.5"	GALV	15'	T	EMPTY
x8	1	1.5"	GALV	10'	-	EMPTY
x9	1	3"	PVC	20'	-	NEW (1)9/*14 (1)*6 BSC
x10	1	4"	PVC	60'	-	NEW (4)#2/*14 (1)#4/*18 (1)9/*14 (1)*6 BSC
x11	1	1.5"	GALV	10'	-	NEW (2)1/*14
x12	1	4"	HDPE	90'	-	NEW (3)#2/*14 (1)#4/*18 (1)9/*14 (1)*6 BSC
x13	1	3"	PVC	15'	-	NEW (1)#4/*18 (1)9/*14 (1)*6 BSC
x14	1	4"	PVC	40'	-	NEW (3)#2/*14 (1)*6 BSC
x15	1	4"	PVC	205'	-	NEW (1)#2/*14 (1)*6 BSC
16	1	1.5"	GALV	10'	T	NEW (2)1/*14
x17	1	1.5"	GALV	10'	-	NEW (4)1/*14
x18	1	3"	PVC	10'	-	NEW (1)#4/*18
x19	1	4'	PVC	130'	-	NEW (4)#2/*14 (1)#4/*18 (1)*6 BSC
x20	1	2.5"	PVC	10'	-	EMPTY
x21	1	2.5"	PVC	15'	-	EMPTY
x22	1	2.5"	PVC	10'	-	EMPTY
x23	1	2.5"	PVC	15'	-	EMPTY
x24	1	4"	PVC	30'	-	NEW (4)1/*14
xF35	1	xx4"	-	220'	-	*(SEE UTILITY AND ITMS PLANS)
xF39	1	4"	-	5'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND

x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

PHASE I, STAGE 13 SIGNAL NOTES

1. PEDESTRIAN SIGNAL POLES, HEADS AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE. CONTRACTOR SHALL PLUG PROPOSED CONDUIT.
2. EXISTING INTERSECTION OF CLAPHAM ROAD AT SR1 SHALL BE CLOSED DURING THIS STAGE. SOUTHBOUND CLAPHAM ROAD LANE SOUTH OF ITS INTERSECTION WITH BUFFALO ROAD IS OPEN TO LOCAL TRAFFIC ONLY. THERE IS NO ACCESS TO SR1 SOUTH OF THIS INTERSECTION FOR THROUGH TRAFFIC. SOUTHBOUND TRAFFIC TO SR1 AT THIS INTERSECTION MUST USE THE NEW PROPOSED RAMP
3. PLUG ALL EXPOSED ENDS OF PROPOSED CONDUITS.
4. SIGNAL HEAD #11 SHALL BE NON-OPERATIONAL AND COVERED DURING PHASE I, STAGE 13.
5. COMMUNICATION WITH DELDOT TMC SHALL BE VIA CDMA UNTIL ITMS FIBER COMMUNICATION IS ESTABLISHED

PHASE I, STAGE 13

RECOMMENDED _____ DATE: _____

RECOMMENDED Mark Saintil DATE: 12/5/14

RECOMMENDED [signature] DATE: 12/2/14

APPROVED TRAFFIC ENGINEER Marvin C. Howard DATE: 12/5/14

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER [signature] DATE: 12/9/14

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K303
T200412202	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
KENT		

SIGNAL PLAN

CLAPHAM ROAD @ BUFFALO RD

SHEET NO.
611
TOTAL SHTS.
641

12/2/2014
G:\PROJECTS\03517.00 (DELDOT AGMT 1223 DOTS Open End)\03517.16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_buf.dgn
3:19:53 PM

CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
x1	1	2"	GALV	15'	-	EXISTING (1)2/*8 U.F.W./GROUND
x1A	1	2"	GALV	235'	-	EXISTING (1)2/*8 U.F.W./GROUND
x1B	1	2"	GALV	275'	-	*(SEE UTILITY & ITMS PLANS)
x1E	1	2"	GALV	20'	-	EXISTING (1)2/*8 U.F.W./GROUND
x2	2	4"	PVC	15'	-	EXISTING [(8)2/*14 (3)4/*18 (3)9/*14 (1)*6 BSC] NEW [(5)2/*14 (1)4/*18 (4)5/*14 (1)9/*14]
x3	1	3"	PVC	10'	-	EXISTING (1)4/*18 (1)9/*14 (1)*6 BSC
x4	1	4"	PVC	20'	-	EXISTING [(41)2/*14 (1)4/*18 (2)9/*14 (1)*6 BSC] NEW [(5)2/*14 (1)4/*18 (4)5/*14]

MAST ARM SCHEDULE

MA*	LENGTH OF ARM	* OF SIGNAL HEADS	* OF OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1	60'	2	1	12	20'-0"
2	60'	4	1	9	20'-0"
3	60'	3	1	10	20'-0"
4	60'	4	1	18	20'-0"

SIGNING LEGEND By State Forces

1. REMOVE EXISTING SIGN
2. EXISTING SIGN TO REMAIN
3. PLACE NEW SIGN
4. RENEW EXISTING SIGN
5. REPOSITION EXISTING SIDE

POLE SCHEDULE

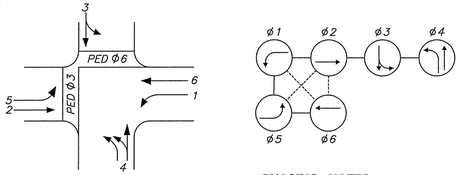
POLE #	POLE TYPE	HEIGHT	MATERIAL
x1	MAST ARM	21'-6"	STEEL
2	PEDESTAL	10'	ALUMINUM
3	PEDESTAL	10'	ALUMINUM
x4	MAST ARM	21'-6"	STEEL
5	PEDESTAL	10'	ALUMINUM
6	PEDESTAL	10'	ALUMINUM
x7	MAST ARM	21'-6"	STEEL
x8	MAST ARM	21'-6"	STEEL

x- DENOTES EXISTING

ADDITIONAL LEGEND

- PROPOSED PAVEMENT
- PROPOSED WORK AREA
- PROPOSED WORK AREA REMOVAL

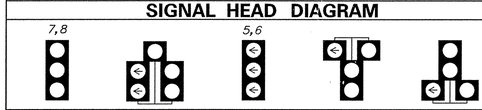
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH (*)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH (*)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (*)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO (*)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE	XX	
UTILITY POLE		
CAMERA (CCTV)		

PHASE I, STAGE 15 SIGNAL NOTES

1. SLIDE SIGNAL HEADS *3 & *4 TO NEW POSITIONS SHOWN.
2. SIGNAL HEAD *11 SHALL BE UNCOVERED AND MADE OPERATIONAL DURING PHASE I, STAGE 15.
3. INSTALL ALL PEDESTRIAN SIGNAL POLES, HEADS AND PUSH BUTTONS AND ACTIVATE PEDESTRIAN SIGNALS.

CONDUIT RUN SCHEDULE CONT.

CO*	* OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
x5	1	4"	HDPE	115'	-	EXISTING [(41)2/*14 (1)4/*18 (2)9/*14] NEW [(3)2/*14 (1)4/*18 (3)5/*14 (1)*6 BSC]
x6	1	4"	PVC	190'	-	NEW (2)2/*14 (1)*6 BSC
x7	1	1.5"	GALV	15'	-	NEW (4)1/*14
x8	1	1.5"	GALV	10'	-	NEW (6)1/*14
x9	1	3"	PVC	20'	-	EXISTING (1)9/*14 NEW [(1)4/*18 (1)*6 BSC]
x10	1	4"	PVC	60'	-	EXISTING [(41)2/*14 (1)4/*18 (1)9/*14 (1)*6 BSC] NEW (2)5/*14
x11	1	1.5"	GALV	10'	-	EXISTING (2)1/*14
x12	1	4"	HDPE	90'	-	EXISTING [(3)2/*14 (1)4/*18 (1)9/*14 (1)*6 BSC] NEW (1)5/*14
x13	1	3"	PVC	15'	-	EXISTING (1)4/*18 (1)9/*14 (1)*6 BSC
x14	1	4"	PVC	40'	-	EXISTING (3)2/*14 (1)*6 BSC
x15	1	4"	PVC	205'	-	EXISTING (1)2/*14 (1)*6 BSC
x16	1	1.5"	GALV	10'	-	EXISTING (2)2/*14 (1)*6 BSC
x17	1	1.5"	GALV	10'	-	EXISTING (4)1/*14
x18	1	3"	PVC	10'	-	EXISTING [(1)4/*18 (1)*6 BSC] NEW (1)9/*14
x19	1	4"	PVC	130'	-	EXISTING [(41)2/*14 (1)4/*18 (1)*6 BSC] NEW (1)9/*14
x20	1	2.5"	PVC	10'	-	NEW (1)5/*14 (1)*6 BSC
x21	1	2.5"	PVC	15'	-	NEW (1)5/*14 (1)*6 BSC
x22	1	2.5"	PVC	10'	-	NEW (1)5/*14 (1)*6 BSC
x23	1	2.5"	PVC	15'	-	NEW (1)5/*14 (1)*6 BSC
x24	1	4"	PVC	30'	-	EXISTING (4)1/*14
xF35	1	xx4"	-	220'	-	*(SEE UTILITY AND ITMS PLANS)
xF39	1	4"	-	5'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND

x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

PHASE I, STAGE 15

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: 12/5/14

RECOMMENDED _____ DATE: 12/2/14

APPROVED TRAFFIC ENGINEER _____ DATE: 12/5/14

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 12/9/14

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K303	SIGNAL PLAN	SHEET NO.
T200412202	DESIGNED BY: MSK		CLAPHAM ROAD @ BUFFALO RD	612
COUNTY KENT	CHECKED BY: BAM			TOTAL SHTS. 641

12/2/2014
10:30:00 AM
SHEIRON
C:\DOTS\DOTS\03517.00 (DELDOT AGMT 1223 DOTS Open End)\03517.16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_buffalo04.dgn

CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
x1	1	2"	GALV	15'	-	EXISTING (11)2/*8 U.F.W./GROUND
x1A	1	2"	GALV	235'	-	EXISTING (11)2/*8 U.F.W./GROUND
x1B	1	2"	GALV	275'	-	*(SEE UTILITY AND ITMS PLANS)
x1E	1	2"	GALV	20'	-	EXISTING (11)2/*8 U.F.W./GROUND
x2	2	4"	PVC	15'	-	EXISTING (13)2/*14 (4)4/*18 (4)9/*14 (1)*6 BSC
x3	1	3"	PVC	10'	-	EXISTING (11)4/*18 (11)9/*14 (1)*6 BSC
x4	1	4"	PVC	20'	-	EXISTING (9)2/*14 (2)4/*18 (4)5/*14 (2)9/*14 (1)*6 BSC

MAST ARM SCHEDULE

MA*	LENGTH OF ARM	* OF SIGNAL HEADS	* OF OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
x1	60'	2	1	12	20'-0"
x2	60'	4	1	9	20'-0"
x3	60'	3	1	10	20'-0"
x4	60'	4	1	18	20'-0"

x- DENOTES EXISTING

POLE SCHEDULE

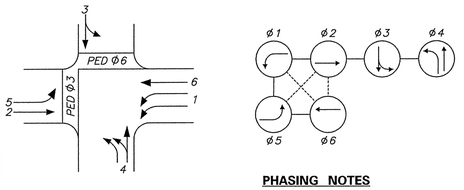
POLE #	POLE TYPE	HEIGHT	MATERIAL
x1	MAST ARM	21'-6"	STEEL
x2	PEDESTAL	10'	ALUMINUM
x3	PEDESTAL	10'	ALUMINUM
x4	MAST ARM	21'-6"	STEEL
x5	PEDESTAL	10'	ALUMINUM
x6	PEDESTAL	10'	ALUMINUM
x7	MAST ARM	21'-6"	STEEL
x8	MAST ARM	21'-6"	STEEL

x- DENOTES EXISTING

ADDITIONAL LEGEND

- PROPOSED PAVEMENT
- PROPOSED WORK AREA
- PROPOSED WORK AREA REMOVAL

SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE	XX	
UTILITY POLE		
CAMERA (CCTV)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5O:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK,AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

CONDUIT RUN SCHEDULE CONT.

CO*	* OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
x5	1	4"	HDPE	115'	-	EXISTING (7)2/*14 (1)4/*18 (3)5/*14 (2)9/*14 (1)*6 BSC
x6	1	4"	PVC	190'	-	EXISTING (2)2/*14 (1)*6 BSC
x7	1	1.5"	GALV	15'	-	EXISTING (4)1/*14
x8	1	1.5"	GALV	10'	-	EXISTING (6)1/*14
x9	1	3"	PVC	20'	-	EXISTING (1)4/*18 (1)9/*14 (1)*6 BSC
x10	1	4"	PVC	60'	-	EXISTING (4)2/*14 (1)4/*18 (2)5/*14 (1)9/*14 (1)*6 BSC
x11	1	1.5"	GALV	10'	-	EXISTING (2)1/*14
x12	1	4"	HDPE	90'	-	EXISTING (3)2/*14 (1)4/*18 (1)5/*14 (1)9/*14 (1)*6 BSC
x13	1	3"	PVC	15'	-	EXISTING (1)4/*18 (1)9/*14 (1)*6 BSC
x14	1	4"	PVC	40'	-	EXISTING (3)2/*14 (1)*6 BSC
x15	1	4"	PVC	205'	-	EXISTING (1)2/*14 (1)*6 BSC
x16	1	1.5"	GALV	10'	-	EXISTING (2)2/*14 (1)*6 BSC
x17	1	1.5"	GALV	10'	-	EXISTING (4)1/*14
x18	1	3"	PVC	10'	-	EXISTING (1)4/*18 (1)9/*14 (1)*6 BSC
x19	1	4"	PVC	130'	-	EXISTING (4)2/*14 (1)4/*18 (1)9/*14 (1)*6 BSC
x20	1	2.5"	PVC	10'	-	EXISTING (1)5/*14 (1)*6 BSC
x21	1	2.5"	PVC	15'	-	EXISTING (1)5/*14 (1)*6 BSC
x22	1	2.5"	PVC	10'	-	EXISTING (1)5/*14 (1)*6 BSC
x23	1	2.5"	PVC	15'	-	EXISTING (1)5/*14 (1)*6 BSC
x24	1	4"	PVC	30'	-	EXISTING (4)1/*14
xF35	1	xx4"	-	220'	-	*(SEE UTILITY AND ITMS PLANS)
xF39	1	4"	-	5'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND

x DENOTES EXISTING

xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.

* SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES AND/OR POWER CABLES TO ITMS DEVICES.

B-BORE P- ATTACH TO POLE
T-TRENCH SM- SINGLE MODE FIBER
O-OPEN CUT BSC- BARE STRANDED COPPER

ULTIMATE CONDITIONS

RECOMMENDED _____ DATE: _____

RECOMMENDED Max SAINTIL DATE: 12/5/14

RECOMMENDED [signature] DATE: 12/5/14

APPROVED TRAFFIC ENGINEER [signature] DATE: 12/5/14

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER [signature] DATE: 12/9/14

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

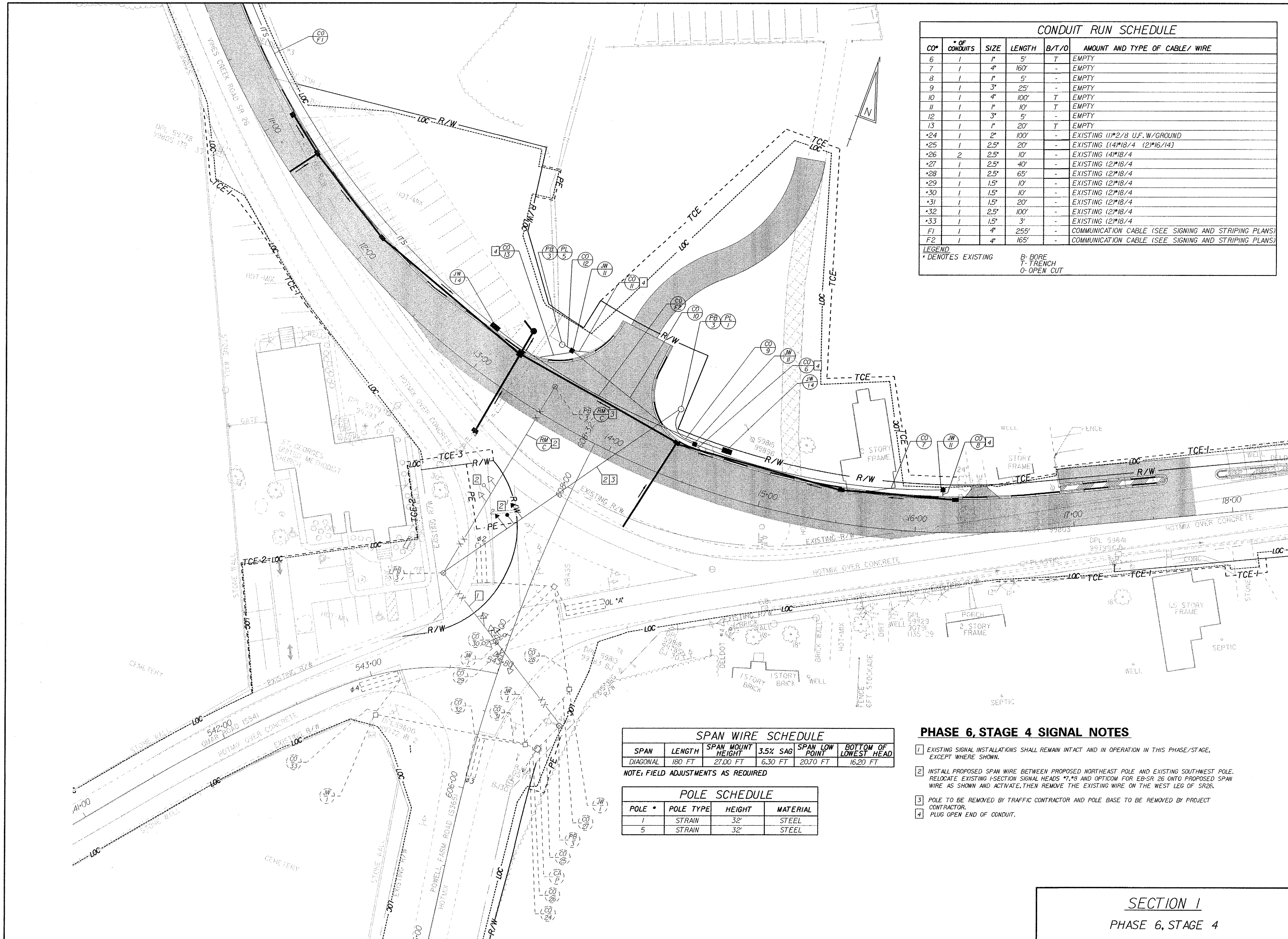
CONTRACT	PERMIT NO.	K303
T200412202	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
KENT		

SIGNAL PLAN

CLAPHAM ROAD @ BUFFALO RD

SHEET NO. 613
TOTAL SHTS. 641

12/2/2014
C:\PROJECTS\03517.00 (DELDOT AGMT 1223 DOTS Open End)\03517.18 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_buffalo05.dgn
3:09:22 PM



CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
6	1	1"	5'	T	EMPTY
7	1	4"	160'	-	EMPTY
8	1	1"	5'	-	EMPTY
9	1	3"	25'	-	EMPTY
10	1	4"	100'	T	EMPTY
11	1	1"	10'	T	EMPTY
12	1	3"	5'	-	EMPTY
13	1	1"	20'	T	EMPTY
*24	1	2"	100'	-	EXISTING (1)*2/8 U.F. W/GROUND
*25	1	2.5"	20'	-	EXISTING [(4)*18/4 (2)*16/14]
*26	2	2.5"	10'	-	EXISTING (4)*18/4
*27	1	2.5"	40'	-	EXISTING (2)*18/4
*28	1	2.5"	65'	-	EXISTING (2)*18/4
*29	1	1.5"	10'	-	EXISTING (2)*18/4
*30	1	1.5"	10'	-	EXISTING (2)*18/4
*31	1	1.5"	20'	-	EXISTING (2)*18/4
*32	1	2.5"	100'	-	EXISTING (2)*18/4
*33	1	1.5"	3'	-	EXISTING (2)*18/4
F1	1	4"	255'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F2	1	4"	165'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	3.5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
DIAGONAL	180 FT	27.00 FT	6.30 FT	20.70 FT	16.20 FT

NOTE: FIELD ADJUSTMENTS AS REQUIRED

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
1	STRAIN	32'	STEEL
5	STRAIN	32'	STEEL

PHASE 6, STAGE 4 SIGNAL NOTES

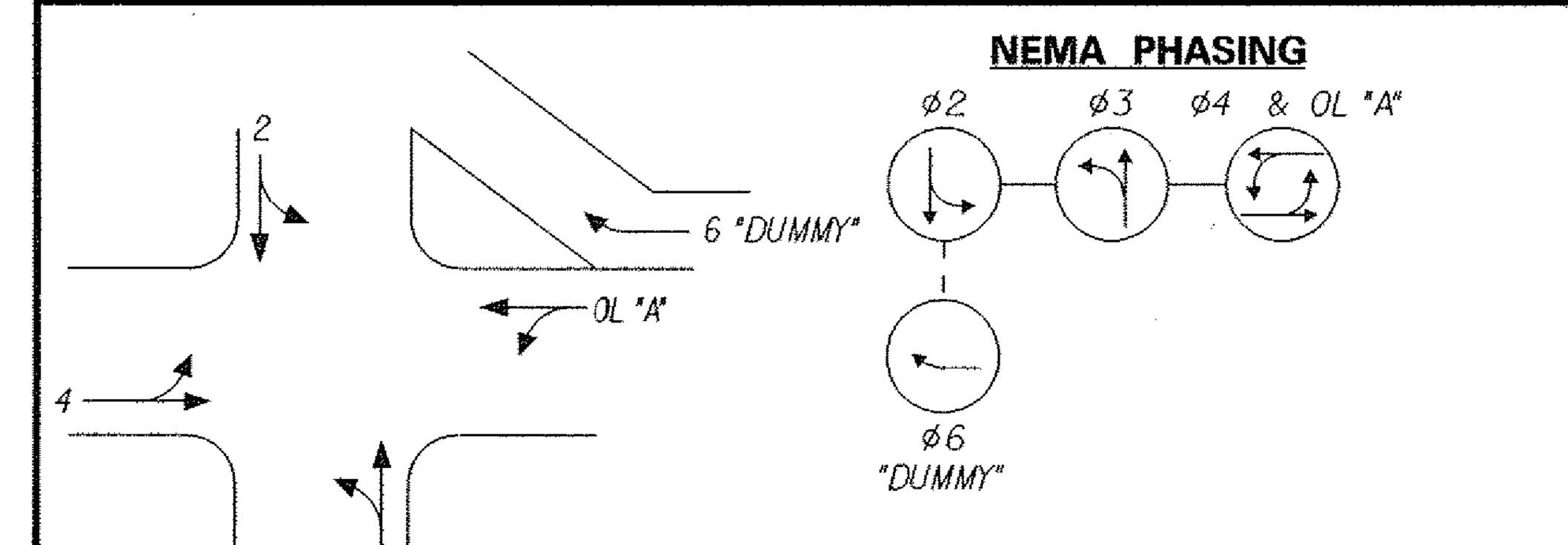
[1] EXISTING SIGNAL INSTALLATIONS SHALL REMAIN INTACT AND IN OPERATION IN THIS PHASE/STAGE, EXCEPT WHERE SHOWN.

[2] INSTALL PROPOSED SPAN WIRE BETWEEN PROPOSED NORTHEAST POLE AND EXISTING SOUTHWEST POLE. RELOCATE EXISTING I-SECTION SIGNAL HEADS *7,*8 AND OPTICOM FOR EB-SR 26 ONTO PROPOSED SPAN WIRE AS SHOWN AND ACTIVATE. THEN REMOVE THE EXISTING WIRE ON THE WEST LEG OF SR26.

[3] POLE TO BE REMOVED BY TRAFFIC CONTRACTOR AND POLE BASE TO BE REMOVED BY PROJECT CONTRACTOR.

[4] PLUG OPEN END OF CONDUIT.

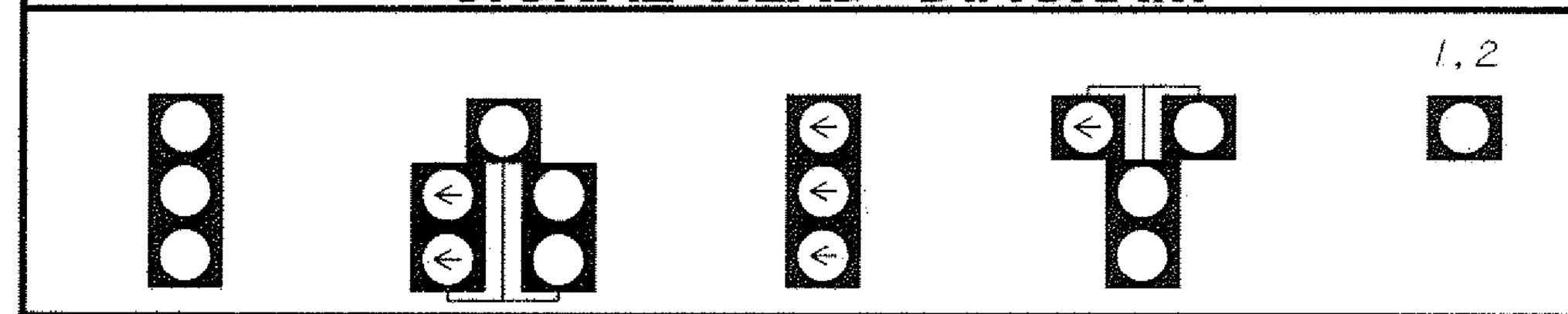
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

PROPOSED SIGNAL CABINET	REMOVE BY CONTRACTOR (RM/C)
EXISTING SIGNAL CABINET	REMOVE BY OTHERS (RM/O)
PROPOSED SIGNAL POLE BASE	ABANDON (AB)
EXISTING SIGNAL POLE BASE	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE) (PB/X)
PROPOSED PEDESTRIAN POLE BASE	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
EXISTING PEDESTRIAN POLE BASE	PROPOSED POLE IDENTIFIER (# OF POLE) (PL/X)
PROPOSED WOOD POLE	EXISTING POLE IDENTIFIER (# OF POLE)
EXISTING WOOD POLE	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL) (JW/X)
PROPOSED JUNCTION WELL	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
EXISTING JUNCTION WELL	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN) (CO/#)
PROPOSED SIGNAL HEAD	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
EXISTING SIGNAL HEAD	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN) (OH/#)
PROPOSED PEDESTRIAN SIGNAL HEAD	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
EXISTING PEDESTRIAN SIGNAL HEAD	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE) (MA/XX)
PROPOSED PEDESTRIAN PUSHBUTTON	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
EXISTING PEDESTRIAN PUSHBUTTON	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET) (CA/X)
PROPOSED VIDEO DETECTION	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
EXISTING VIDEO DETECTION	PROPOSED SPAN WIRE
PROPOSED MICROWAVE DETECTION	EXISTING SPAN WIRE
EXISTING MICROWAVE DETECTION	RIGHT-OF-WAY OR PROPERTY LINE
OVERHEAD SIGNING	PROPOSED SPAN INSULATOR
PROPOSED OPTICOM RECEIVER	EXISTING SPAN INSULATOR
EXISTING OPTICOM RECEIVER	SERVICE PEDESTAL
PROPOSED MAST ARM	PROPOSED CCTV
EXISTING MAST ARM	EXISTING CCTV
PROPOSED LUMINAIRE	PROPOSED PLASTIC DRUMS
EXISTING LUMINAIRE	EXISTING PLASTIC DRUMS
PROPOSED LOOP DETECTOR (TYPE 1 OR 2)	
EXISTING LOOP DETECTOR (TYPE 1 OR 2)	

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

SECTION 1

PHASE 6, STAGE 4

RECOMMENDED (signature) DATE: 05/15/13

RECOMMENDED Chetna Dal DATE: 7/12/13

RECOMMENDED ______ DATE: ______

APPROVED TRAFFIC ENGINEER (signature) DATE: 7/12/13

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER (signature) DATE: 7/12/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

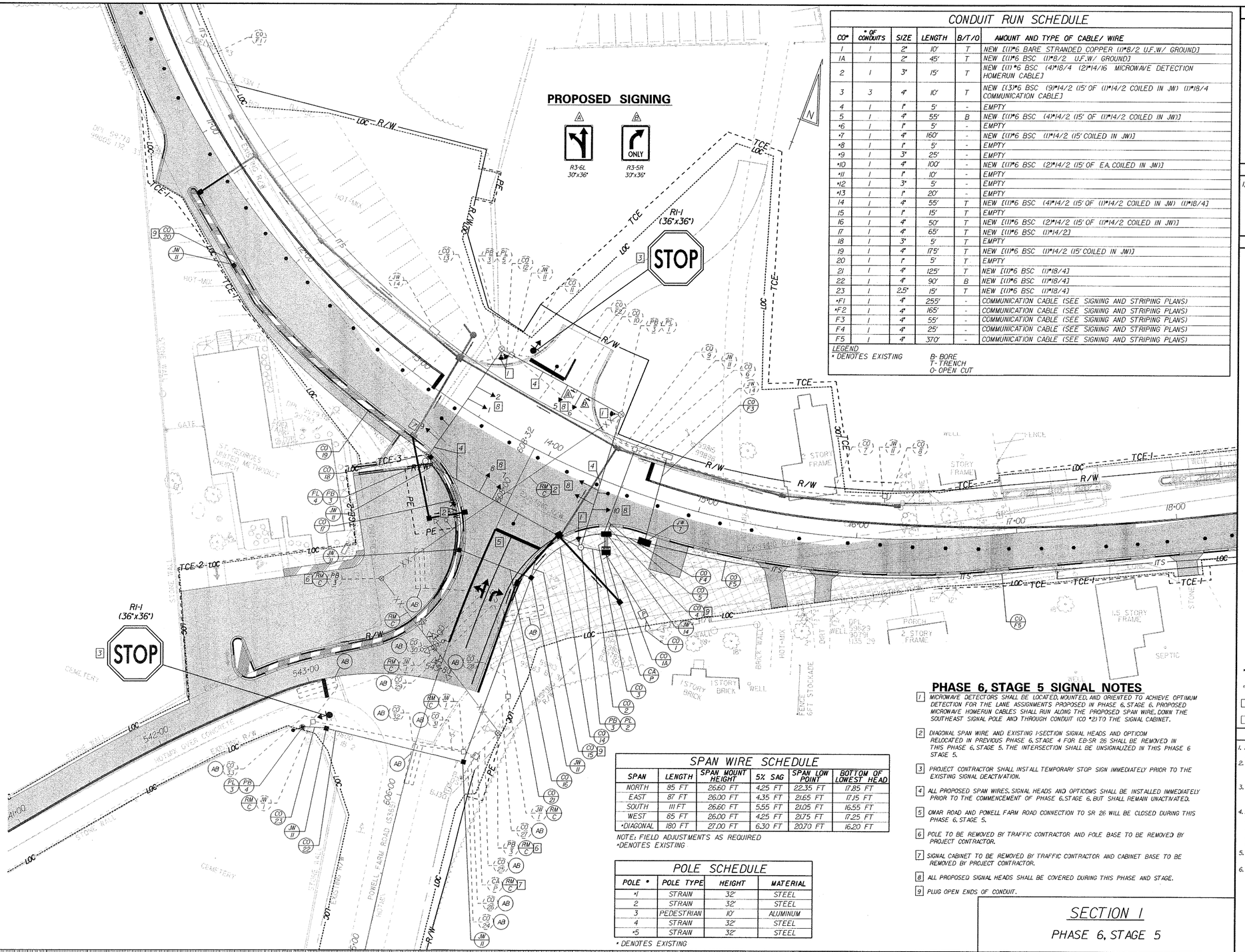
CONTRACT	T200411210	PERMIT NO.	S196
COUNTY	SUSSEX	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN SR 26 @ POWELL FARM ROAD

SHEET NO. 513

TOTAL SHTS. 589

7/10/2013
J:\PROJECTS\sr26mainline\Survey\tp_1-6-4_signal_clarksville.dgn
15:44:32



CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
1	1	2"	10'	T	NEW [(1)#6 BARE STRANDED COPPER (1)#8/2 U.F.W/ GROUND]
1A	1	2"	45'	T	NEW [(1)#6 BSC (1)#8/2 U.F.W/ GROUND]
2	1	3"	15'	T	NEW [(1) #6 BSC (4)#18/4 (2)#14/16 MICROWAVE DETECTION HOMERUN CABLE]
3	3	4"	10'	T	NEW [(3)#6 BSC (9)#14/2 (15' OF (1)#14/2 COILED IN JW) (1)#18/4 COMMUNICATION CABLE]
4	1	1"	5'	-	EMPTY
5	1	4"	55'	B	NEW [(1)#6 BSC (4)#14/2 (15' OF (1)#14/2 COILED IN JW)]
*6	1	1"	5'	-	EMPTY
*7	1	4"	160'	-	NEW [(1)#6 BSC (1)#14/2 (15' COILED IN JW)]
*8	1	1"	5'	-	EMPTY
*9	1	3"	25'	-	EMPTY
*10	1	4"	100'	-	NEW [(1)#6 BSC (2)#14/2 (15' OF EA. COILED IN JW)]
*11	1	1"	10'	-	EMPTY
*12	1	3"	5'	-	EMPTY
*13	1	1"	20'	-	EMPTY
14	1	4"	55'	T	NEW [(1)#6 BSC (4)#14/2 (15' OF (1)#14/2 COILED IN JW) (1)#18/4]
15	1	1"	15'	T	EMPTY
16	1	4"	50'	T	NEW [(1)#6 BSC (2)#14/2 (15' OF (1)#14/2 COILED IN JW)]
17	1	4"	65'	T	NEW [(1)#6 BSC (1)#14/2]
18	1	3"	5'	T	EMPTY
19	1	4"	175'	T	NEW [(1)#6 BSC (1)#14/2 (15' COILED IN JW)]
20	1	1"	5'	T	EMPTY
21	1	4"	125'	T	NEW [(1)#6 BSC (1)#18/4]
22	1	4"	90'	B	NEW [(1)#6 BSC (1)#18/4]
23	1	2.5"	15'	T	NEW [(1)#6 BSC (1)#18/4]
*F1	1	4"	255'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F2	1	4"	165'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F3	1	4"	55'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F4	1	4"	25'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F5	1	4"	370'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
NORTH	85 FT	26.60 FT	4.25 FT	22.35 FT	17.85 FT
EAST	87 FT	26.00 FT	4.35 FT	21.65 FT	17.15 FT
SOUTH	111 FT	26.60 FT	5.55 FT	21.05 FT	16.55 FT
WEST	85 FT	26.00 FT	4.25 FT	21.75 FT	17.25 FT
*DIAGONAL	180 FT	27.00 FT	6.30 FT	20.70 FT	16.20 FT

NOTE: FIELD ADJUSTMENTS AS REQUIRED
*DENOTES EXISTING

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	STRAIN	32'	STEEL
2	STRAIN	32'	STEEL
3	PEDESTRIAN	10'	ALUMINUM
4	STRAIN	32'	STEEL
*5	STRAIN	32'	STEEL

* DENOTES EXISTING

PHASE 6, STAGE 5 SIGNAL NOTES

1. MICROWAVE DETECTORS SHALL BE LOCATED, MOUNTED, AND ORIENTED TO ACHIEVE OPTIMUM DETECTION FOR THE LANE ASSIGNMENTS PROPOSED IN PHASE 6, STAGE 6. PROPOSED MICROWAVE HOMERUN CABLES SHALL RUN ALONG THE PROPOSED SPAN WIRE, DOWN THE SOUTHEAST SIGNAL POLE AND THROUGH CONDUIT (CO *2) TO THE SIGNAL CABINET.
2. DIAGONAL SPAN WIRE AND EXISTING I-SECTION SIGNAL HEADS AND OPTICOM RELOCATED IN PREVIOUS PHASE 6, STAGE 4 FOR EB-SR 26 SHALL BE REMOVED IN THIS PHASE 6, STAGE 5. THE INTERSECTION SHALL BE UNSIGNALIZED IN THIS PHASE 6 STAGE 5.
3. PROJECT CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGN IMMEDIATELY PRIOR TO THE EXISTING SIGNAL DEACTIVATION.
4. ALL PROPOSED SPAN WIRES, SIGNAL HEADS AND OPTICOMS SHALL BE INSTALLED IMMEDIATELY PRIOR TO THE COMMENCEMENT OF PHASE 6, STAGE 6, BUT SHALL REMAIN UNACTIVATED.
5. OMAR ROAD AND POWELL FARM ROAD CONNECTION TO SR 26 WILL BE CLOSED DURING THIS PHASE 6, STAGE 5.
6. POLE TO BE REMOVED BY TRAFFIC CONTRACTOR AND FOLE BASE TO BE REMOVED BY PROJECT CONTRACTOR.
7. SIGNAL CABINET TO BE REMOVED BY TRAFFIC CONTRACTOR AND CABINET BASE TO BE REMOVED BY PROJECT CONTRACTOR.
8. ALL PROPOSED SIGNAL HEADS SHALL BE COVERED DURING THIS PHASE AND STAGE.
9. PLUG OPEN ENDS OF CONDUIT.

SECTION 1
PHASE 6, STAGE 5

SIGNAL PHASING

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.

SIGNAL HEAD DIAGRAM

1, 2, 3, 4, 6, 8, 9, 10 — 5, 7



LEGEND

PROPOSED SIGNAL CABINET	REMOVE BY CONTRACTOR (RM/C)
EXISTING SIGNAL CABINET	REMOVE BY OTHERS (RM/O)
PROPOSED SIGNAL POLE BASE	ABANDON (AB)
EXISTING SIGNAL POLE BASE	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE) (PB/X)
PROPOSED PEDESTRIAN POLE BASE	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE) (PB/X)
EXISTING PEDESTRIAN POLE BASE	PROPOSED POLE IDENTIFIER (* OF POLE) (PL/X)
PROPOSED WOOD POLE	EXISTING POLE IDENTIFIER (* OF POLE) (PL/X)
EXISTING WOOD POLE	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL) (JW/X)
PROPOSED JUNCTION WELL	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL) (JW/X)
EXISTING JUNCTION WELL	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN) (CO/*)
PROPOSED SIGNAL HEAD	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN) (CO/*)
EXISTING SIGNAL HEAD	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN) (OH/*)
PROPOSED PEDESTRIAN SIGNAL HEAD	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN) (OH/*)
EXISTING PEDESTRIAN SIGNAL HEAD	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE) (MA/XX)
PROPOSED PEDESTRIAN PUSHBUTTON	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE) (MA/XX)
EXISTING PEDESTRIAN PUSHBUTTON	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET) (CA/X)
PROPOSED VIDEO DETECTION	EXISTING CABINET IDENTIFIER (TYPE OF CABINET) (CA/X)
EXISTING VIDEO DETECTION	PROPOSED SPAN WIRE
PROPOSED MICROWAVE DETECTION	XX EXISTING SPAN WIRE
EXISTING MICROWAVE DETECTION	RIGHT-OF-WAY OR PROPERTY LINE
OVERHEAD SIGNING	PROPOSED SPAN INSULATOR
PROPOSED OPTICOM RECEIVER	EXISTING SPAN INSULATOR
EXISTING OPTICOM RECEIVER	SERVICE PEDESTAL (P)
PROPOSED MAST ARM	PROPOSED CCTV
EXISTING MAST ARM	EXISTING CCTV
PROPOSED LUMINAIRE	PROPOSED PLASTIC DRUMS
EXISTING LUMINAIRE	EXISTING PLASTIC DRUMS
PROPOSED LOOP DETECTOR (TYPE 1 OR 2)	
EXISTING LOOP DETECTOR (TYPE 1 OR 2)	

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED [signature] DATE: 05/15/13	RECOMMENDED Chitra Dave DATE: 7/12/13	RECOMMENDED ____ DATE: ____	APPROVED FOR INSTALLATION TRAFFIC ENGINEER [signature] DATE: 7/12/13 — CHIEF TRAFFIC ENGINEER [signature] DATE: 7/12/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

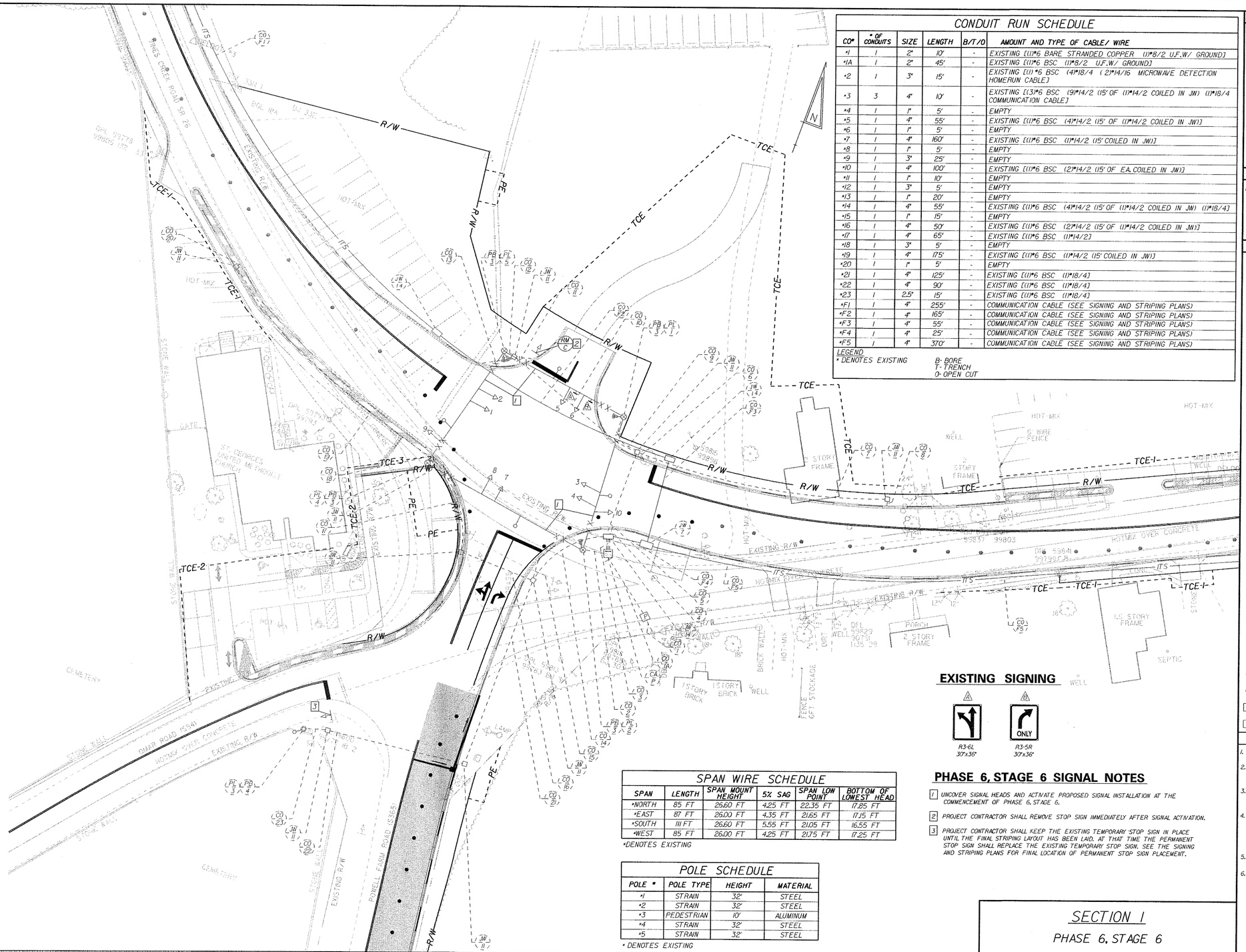
SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210	PERMIT NO.	S196
COUNTY	SUSSEX	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN SR 26 @ POWELL FARM ROAD

SHEET NO.	514
TOTAL SHTS.	589

7/10/2013
K:\PROJECTS\sr26mainline\Survey\tp_I-65_signal_clarksville.dgn



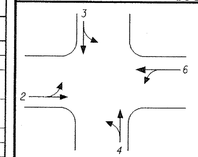
CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	10'	-	EXISTING [(1)#6 BARE STRANDED COPPER (1)#8/2 U.F.W/ GROUND]
*1A	1	2"	45'	-	EXISTING [(1)#6 BSC (1)#8/2 U.F.W/ GROUND]
*2	1	3"	15'	-	EXISTING [(1) #6 BSC (4)#18/4 (2)#14/16 MICROWAVE DETECTION HOMERUN CABLE]
*3	3	4"	10'	-	EXISTING [(3)#6 BSC (9)#14/2 (15' OF (1)#14/2 COILED IN JW) (1)#18/4 COMMUNICATION CABLE]
*4	1	1"	5'	-	EMPTY
*5	1	4"	55'	-	EXISTING [(1)#6 BSC (4)#14/2 (15' OF (1)#14/2 COILED IN JW)]
*6	1	1"	5'	-	EMPTY
*7	1	4"	160'	-	EXISTING [(1)#6 BSC (1)#14/2 (15' COILED IN JW)]
*8	1	1"	5'	-	EMPTY
*9	1	3"	25'	-	EMPTY
*10	1	4"	100'	-	EXISTING [(1)#6 BSC (2)#14/2 (15' OF EA.COILED IN JW)]
*11	1	1"	10'	-	EMPTY
*12	1	3"	5'	-	EMPTY
*13	1	1"	20'	-	EMPTY
*14	1	4"	55'	-	EXISTING [(1)#6 BSC (4)#14/2 (15' OF (1)#14/2 COILED IN JW) (1)#18/4]
*15	1	1"	15'	-	EMPTY
*16	1	4"	50'	-	EXISTING [(1)#6 BSC (2)#14/2 (15' OF (1)#14/2 COILED IN JW)]
*17	1	4"	65'	-	EXISTING [(1)#6 BSC (1)#14/2]
*18	1	3"	5'	-	EMPTY
*19	1	4"	175'	-	EXISTING [(1)#6 BSC (1)#14/2 (15' COILED IN JW)]
*20	1	1"	5'	-	EMPTY
*21	1	4"	125'	-	EXISTING [(1)#6 BSC (1)#18/4]
*22	1	4"	90'	-	EXISTING [(1)#6 BSC (1)#18/4]
*23	1	2.5"	15'	-	EXISTING [(1)#6 BSC (1)#18/4]
*F1	1	4"	255'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F2	1	4"	165'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F3	1	4"	55'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F4	1	4"	25'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F5	1	4"	370'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

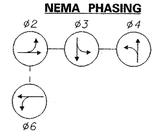
LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT

SIGNAL PHASING



NEMA PHASING

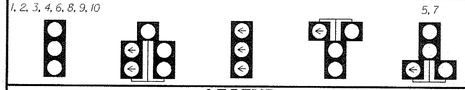


PHASING NOTES

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

SIGNAL HEAD DIAGRAM

1, 2, 3, 4, 6, 8, 9, 10 — 5, 7



LEGEND

- PROPOSED SIGNAL CABINET
- EXISTING SIGNAL CABINET
- PROPOSED SIGNAL POLE BASE
- EXISTING SIGNAL POLE BASE
- PROPOSED PEDESTRIAN POLE BASE
- EXISTING PEDESTRIAN POLE BASE
- PROPOSED WOOD POLE
- EXISTING WOOD POLE
- PROPOSED JUNCTION WELL
- EXISTING JUNCTION WELL
- PROPOSED SIGNAL HEAD
- EXISTING SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSHBUTTON
- EXISTING PEDESTRIAN PUSHBUTTON
- PROPOSED VIDEO DETECTION
- EXISTING VIDEO DETECTION
- PROPOSED MICROWAVE DETECTION
- EXISTING MICROWAVE DETECTION
- OVERHEAD SIGNING
- PROPOSED OPTICOM RECEIVER
- EXISTING OPTICOM RECEIVER
- PROPOSED MAST ARM
- EXISTING MAST ARM
- PROPOSED LUMINAIRE
- EXISTING LUMINAIRE
- PROPOSED LOOP DETECTOR (TYPE 1 OR 2)
- EXISTING LOOP DETECTOR (TYPE 1 OR 2)
- REMOVE BY CONTRACTOR
- REMOVE BY OTHERS
- ABANDON
- PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- PROPOSED POLE IDENTIFIER (# OF POLE)
- EXISTING POLE IDENTIFIER (# OF POLE)
- PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
- EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
- PROPOSED SPAN WIRE
- EXISTING SPAN WIRE
- RIGHT-OF-WAY OR PROPERTY LINE
- PROPOSED SPAN INSULATOR
- EXISTING SPAN INSULATOR
- SERVICE PEDESTAL
- PROPOSED CCTV
- EXISTING CCTV
- PROPOSED PLASTIC DRUMS
- EXISTING PLASTIC DRUMS

EXISTING SIGNING

R3-6L 30"x36" — R3-5R 30"x36"

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
*NORTH	85 FT	26.50 FT	4.25 FT	22.35 FT	17.85 FT
*EAST	87 FT	26.00 FT	4.35 FT	21.65 FT	17.15 FT
*SOUTH	111 FT	26.60 FT	5.55 FT	21.05 FT	16.55 FT
*WEST	85 FT	26.00 FT	4.25 FT	21.75 FT	17.25 FT

*DENOTES EXISTING

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	STRAIN	32'	STEEL
*2	STRAIN	32'	STEEL
*3	PEDESTRIAN	10'	ALUMINUM
*4	STRAIN	32'	STEEL
*5	STRAIN	32'	STEEL

* DENOTES EXISTING

PHASE 6, STAGE 6 SIGNAL NOTES

1. UNCOVER SIGNAL HEADS AND ACTIVATE PROPOSED SIGNAL INSTALLATION AT THE COMMENCEMENT OF PHASE 6, STAGE 6.
2. PROJECT CONTRACTOR SHALL REMOVE STOP SIGN IMMEDIATELY AFTER SIGNAL ACTIVATION.
3. PROJECT CONTRACTOR SHALL KEEP THE EXISTING TEMPORARY STOP SIGN IN PLACE UNTIL THE FINAL STRIPING LAYOUT HAS BEEN LAID. AT THAT TIME THE PERMANENT STOP SIGN SHALL REPLACE THE EXISTING TEMPORARY STOP SIGN. SEE THE SIGNING AND STRIPING PLANS FOR FINAL LOCATION OF PERMANENT STOP SIGN PLACEMENT.

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

SECTION 1

PHASE 6, STAGE 6

RECOMMENDED B. Stadler DATE: 05/15/13

RECOMMENDED Christine Dorr DATE: 7/12/13

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER Marvin L. Howard III DATE: 7/11/13

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER Neil J. Kopper DATE: 7/12/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	PERMIT NO.	S196
T200411210	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
SUSSEX		

SIGNAL PLAN
SR 26 @
POWELL FARM ROAD

SHEET NO.
515
TOTAL SHTS.
589

7/10/2013
I:\PROJECTS\sr26molnline\Survey\tp_ph6-6_signal_clarksville.dgn
15:45:43

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	10'	-	EXISTING [(1)#6 BARE STRANDED COPPER (1)#8/2 U.F.W/ GROUND]
*1A	1	2"	45'	-	EXISTING [(1)#6 BSC (1)#8/2 U.F.W/ GROUND]
*2	1	4"	15'	-	EXISTING [(1)#6 BSC (4)#18/4 (2)#14/16 (4)MW DETECTION HR CABLE]. REMOVE (4)MICROWAVE DETECTION HOMERUN CABLE
*3	3	4"	10'	-	EXISTING (3)#6 BSC (9)#14/2 (1)#18/4 COMMUNICATION CABLE]
*4	1	1"	5'	-	NEW (2)#14/1
*5	1	4"	55'	-	EXISTING [(1)#6 BSC (4)#14/2]
*6	1	1"	5'	-	NEW (2)#14/1
*7	1	4"	160'	-	EXISTING [(1)#6 BSC (1)#14/2]
*8	1	1"	5'	-	NEW (2)#14/1
*9	1	3"	25'	-	EMPTY
*10	1	4"	100'	-	EXISTING [(1)#6 BSC (2)#14/2]
*11	1	1"	10'	-	NEW (2)#14/1
*12	1	3"	5'	-	EMPTY
*13	1	1"	20'	-	NEW (2)#14/1
*14	1	4"	55'	-	EXISTING [(1)#6 BSC (4)#14/2 (1)#18/4]
*15	1	1"	15'	-	NEW (2)#14/1
*16	1	4"	50'	-	EXISTING [(1)#6 BSC (2)#14/2]
*17	1	4"	65'	-	EXISTING [(1)#6 BSC (1)#14/2]
*18	1	3"	5'	-	EMPTY
*19	1	4"	175'	-	EXISTING [(1)#6 BSC (1)#14/2]
*20	1	1"	5'	-	NEW (2)#14/1
*21	1	4"	125'	-	EXISTING [(1)#6 BSC (1)#18/4]
*22	1	4"	90'	-	EXISTING [(1)#6 BSC (1)#18/4]
*23	1	2.5"	15'	-	EXISTING [(1)#6 BSC (1)#18/4]
*F1	1	4"	255'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F2	1	4"	165'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F3	1	4"	55'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F4	1	4"	25'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F5	1	4"	370'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
*NORTH	85 FT	26.60 FT	4.25 FT	22.35 FT	17.85 FT
*EAST	87 FT	26.00 FT	4.35 FT	21.65 FT	17.15 FT
*SOUTH	111 FT	26.60 FT	5.55 FT	21.05 FT	16.55 FT
*WEST	85 FT	26.00 FT	4.25 FT	21.75 FT	17.25 FT

*DENOTES EXISTING

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	STRAIN	32'	STEEL
*2	STRAIN	32'	STEEL
*3	PEDESTRIAN	10'	ALUMINUM
*4	STRAIN	32'	STEEL
*5	STRAIN	32'	STEEL

* DENOTES EXISTING

EXISTING SIGNING

A — R3-6L 30"x36"

B — R3-5R 30"x36"

PROPOSED SIGNING

A — ← Powell Farm Rd — D3-1 138"x24"

A — Powell Farm Rd → — D3-1 138"x24"

A — Atlantic Ave — D3-1 90"x24"

PHASE 7, STAGE 1 SIGNAL NOTES

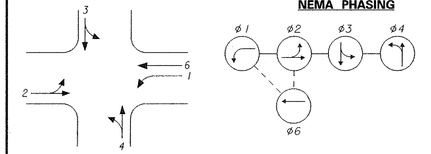
1. INSTALL PROPOSED LOOP DETECTORS.
2. REMOVE EXISTING MICROWAVE DETECTION SIGNAL INSTALLATION. ACTIVATION OF THE PROPOSED LOOP DETECTOR SIGNAL INSTALLATION AND DEACTIVATION OF THE EXISTING MICROWAVE DETECTORS SHALL BE COORDINATED TO ALLOW FOR A SMOOTH SIGNAL TRANSITION.
3. REMOVE EXISTING 3-SECTION SIGNAL HEAD *1 AND REPLACE WITH PROPOSED 5-SECTION SIGNAL HEAD *1 AS SHOWN.

SECTION 4

PHASE 7, STAGE 1

SIGNAL PHASING

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.

SIGNAL HEAD DIAGRAM



LEGEND

	PROPOSED SIGNAL CABINET	(RM/C)	REMOVE BY CONTRACTOR
	EXISTING SIGNAL CABINET	(RM/O)	REMOVE BY OTHERS
	PROPOSED SIGNAL POLE BASE	(AB)	ABANDON
	EXISTING SIGNAL POLE BASE	(PB/X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED PEDESTRIAN POLE BASE	(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING PEDESTRIAN POLE BASE	(PL/X)	PROPOSED POLE IDENTIFIER (* OF POLE)
	PROPOSED WOOD POLE	(PL/X)	EXISTING POLE IDENTIFIER (* OF POLE)
	EXISTING WOOD POLE	(JW/X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	PROPOSED JUNCTION WELL	(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	EXISTING JUNCTION WELL	(CO/*)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	PROPOSED SIGNAL HEAD	(CO/*)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	EXISTING SIGNAL HEAD	(OH/*)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH/*)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	EXISTING PEDESTRIAN SIGNAL HEAD	(MA/XX)	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	PROPOSED PEDESTRIAN PUSHBUTTON	(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	EXISTING PEDESTRIAN PUSHBUTTON	(CA/X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
	PROPOSED VIDEO DETECTION	(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
	PROPOSED MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
	OVERHEAD SIGNING		PROPOSED SPAN INSULATOR
	PROPOSED OPTICOM RECEIVER		EXISTING SPAN INSULATOR
	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
	PROPOSED MAST ARM		PROPOSED CCTV
	EXISTING MAST ARM		EXISTING CCTV
	PROPOSED LUMINAIRE		PROPOSED PLASTIC DRUMS
	EXISTING LUMINAIRE		EXISTING PLASTIC DRUMS
	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED B. Adolf	DATE: 05/15/13	RECOMMENDED Chtne Dave	DATE: 7/12/13
RECOMMENDED _____	DATE: _____	APPROVED TRAFFIC ENGINEER M. Finney	DATE: 7/12/13
APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER M. Lagos	DATE: 7/12/13		

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

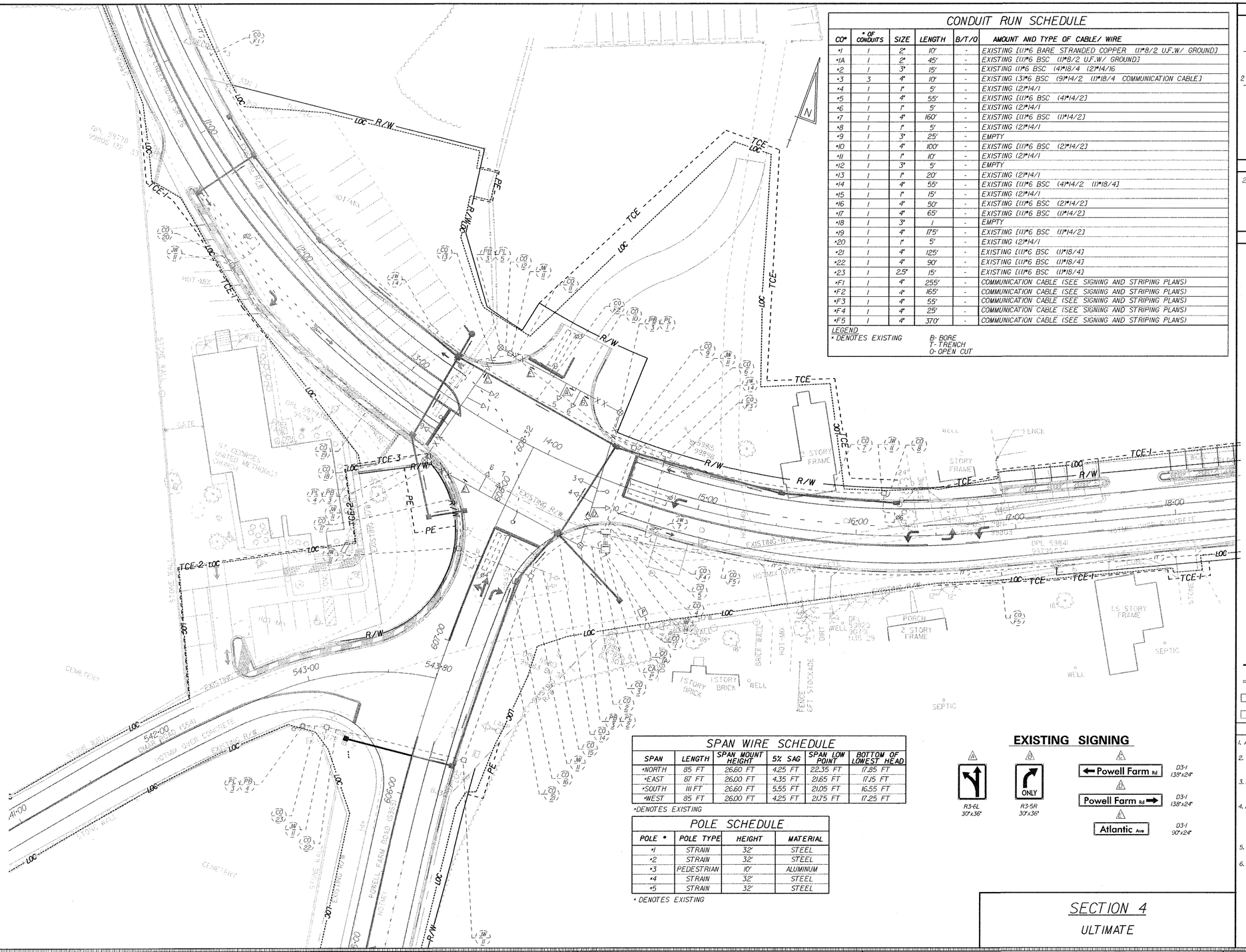
SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT T200411210	PERMIT NO.	S196	SHEET NO. 516
COUNTY SUSSEX	DESIGNED BY:	MSK	TOTAL SHTS. 589
	CHECKED BY:	BAM	

SIGNAL PLAN SR 26 @ POWELL FARM ROAD

7/10/2013
J:\PROJECTS\sr-26mainline\Survey\tp-4-7-1_signal_clarksville.dgn
15:46:29



CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	10'	-	EXISTING [(1)#6 BARE STRANDED COPPER (1)#8/2 U.F.W/ GROUND]
*1A	1	2"	45'	-	EXISTING [(1)#6 BSC (1)#8/2 U.F.W/ GROUND]
*2	1	3"	15'	-	EXISTING (1)#6 BSC (4)#18/4 (2)#14/16
*3	3	4"	10'	-	EXISTING (3)#6 BSC (9)#14/2 (1)#18/4 COMMUNICATION CABLE]
*4	1	1"	5'	-	EXISTING (2)#14/1
*5	1	4"	55'	-	EXISTING [(1)#6 BSC (4)#14/2]
*6	1	1"	5'	-	EXISTING (2)#14/1
*7	1	4"	160'	-	EXISTING [(1)#6 BSC (1)#14/2]
*8	1	1"	5'	-	EXISTING (2)#14/1
*9	1	3"	25'	-	EMPTY
*10	1	4"	100'	-	EXISTING [(1)#6 BSC (2)#14/2]
*11	1	1"	10'	-	EXISTING (2)#14/1
*12	1	3"	5'	-	EMPTY
*13	1	1"	20'	-	EXISTING (2)#14/1
*14	1	4"	55'	-	EXISTING [(1)#6 BSC (4)#14/2 (1)#18/4]
*15	1	1"	15'	-	EXISTING (2)#14/1
*16	1	4"	50'	-	EXISTING [(1)#6 BSC (2)#14/2]
*17	1	4"	65'	-	EXISTING [(1)#6 BSC (1)#14/2]
*18	1	3"	1	-	EMPTY
*19	1	4"	175'	-	EXISTING [(1)#6 BSC (1)#14/2]
*20	1	1"	5'	-	EXISTING (2)#14/1
*21	1	4"	125'	-	EXISTING [(1)#6 BSC (1)#18/4]
*22	1	4"	90'	-	EXISTING [(1)#6 BSC (1)#18/4]
*23	1	2.5"	15'	-	EXISTING [(1)#6 BSC (1)#18/4]
*F1	1	4"	255'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F2	1	4"	165'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F3	1	4"	55'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F4	1	4"	25'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F5	1	4"	370'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
*NORTH	85 FT	26.60 FT	4.25 FT	22.35 FT	17.85 FT
*EAST	87 FT	26.00 FT	4.35 FT	21.65 FT	17.15 FT
*SOUTH	111 FT	26.60 FT	5.55 FT	21.05 FT	16.55 FT
*WEST	85 FT	26.00 FT	4.25 FT	21.75 FT	17.25 FT

*DENOTES EXISTING

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	STRAIN	32'	STEEL
*2	STRAIN	32'	STEEL
*3	PEDESTRIAN	10'	ALUMINUM
*4	STRAIN	32'	STEEL
*5	STRAIN	32'	STEEL

* DENOTES EXISTING

EXISTING SIGNING

R3-6L 30"x36"

R3-5R 30"x36"

D3-1 139"x24"

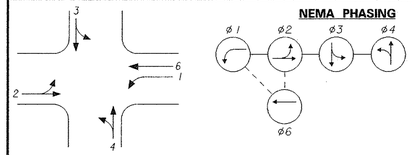
D3-1 138"x24"

D3-1 90"x24"

SECTION 4

ULTIMATE

SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

	PROPOSED SIGNAL CABINET	RM/C	REMOVE BY CONTRACTOR
	EXISTING SIGNAL CABINET	RM/O	REMOVE BY OTHERS
	PROPOSED SIGNAL POLE BASE	AB	ABANDON
	EXISTING SIGNAL POLE BASE	FB/X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED PEDESTRIAN POLE BASE	PB/X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING PEDESTRIAN POLE BASE	PL/X	PROPOSED POLE IDENTIFIER (* OF POLE)
	PROPOSED WOOD POLE	PL/X	EXISTING POLE IDENTIFIER (* OF POLE)
	EXISTING WOOD POLE	JW/X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	PROPOSED JUNCTION WELL	JW/X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	EXISTING JUNCTION WELL	CO/*	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	PROPOSED SIGNAL HEAD	CO/*	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	EXISTING SIGNAL HEAD	OH/*	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	PROPOSED PEDESTRIAN SIGNAL HEAD	OH/*	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	EXISTING PEDESTRIAN SIGNAL HEAD	MA/XX	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	PROPOSED PEDESTRIAN PUSHBUTTON	MA/XX	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	EXISTING PEDESTRIAN PUSHBUTTON	CA/X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
	PROPOSED VIDEO DETECTION	CA/X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
	PROPOSED MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
	OVERHEAD SIGNING		PROPOSED SPAN INSULATOR
	PROPOSED OPTICOM RECEIVER		EXISTING SPAN INSULATOR
	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
	PROPOSED MAST ARM		PROPOSED CCTV
	EXISTING MAST ARM		EXISTING CCTV
	PROPOSED LUMINAIRE		PROPOSED PLASTIC DRUMS
	EXISTING LUMINAIRE		EXISTING PLASTIC DRUMS
	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED B. A. M. DATE: 05/15/13

RECOMMENDED Chris Dane DATE: 7/12/13

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER Mark C. Alt DATE: 7/12/13

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210	PERMIT NO.	S196
COUNTY	SUSSEX	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN SR 26 @ POWELL FARM ROAD (ULTIMATE)

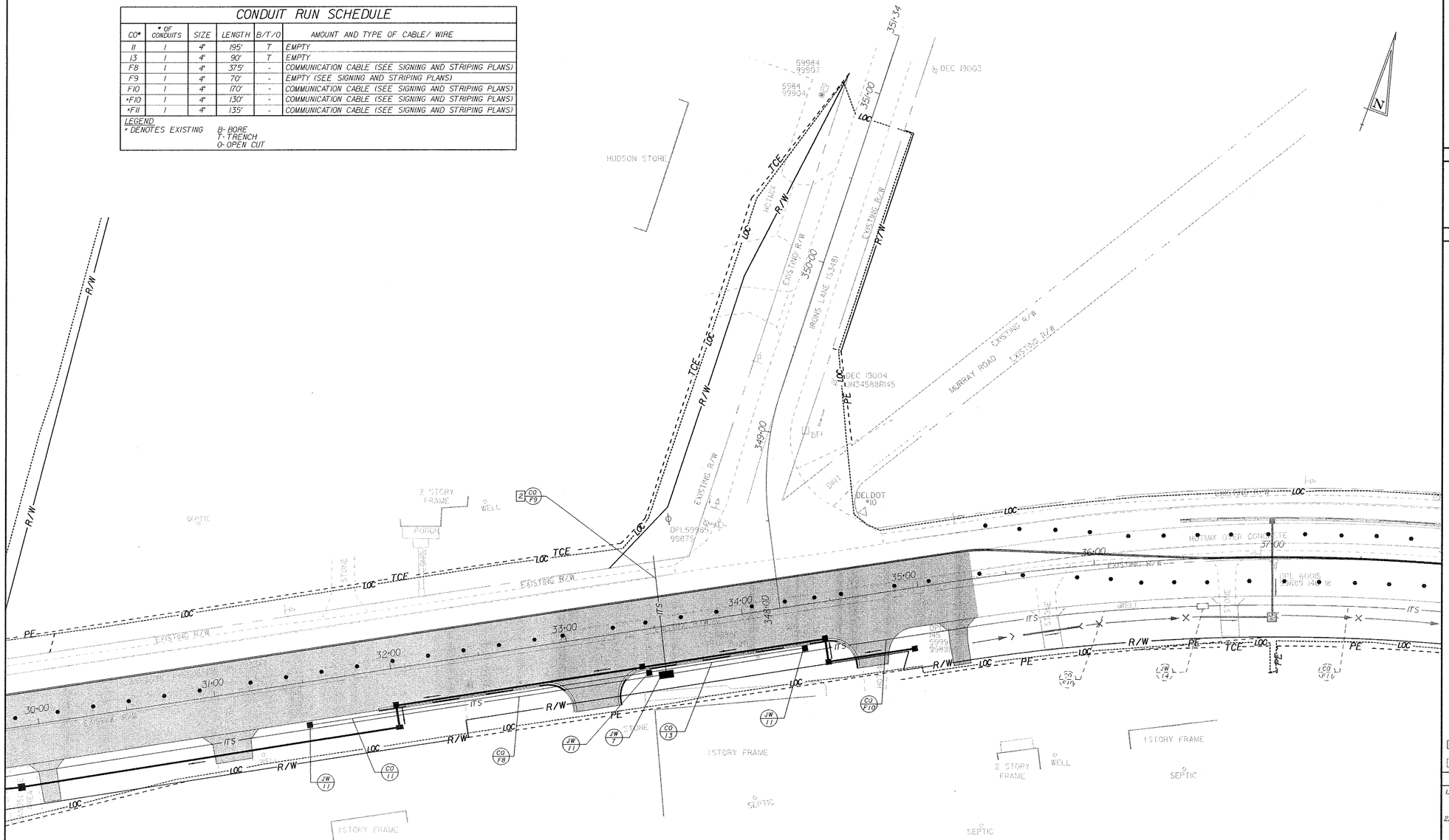
SHEET NO.	517
TOTAL SHTS.	589

7/10/2013
K:\PROJECTS\sr26malnline\Survey\Tp.4-ultimate_signal_clarksville.dgn

CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
I1	1	4"	195'	T	EMPTY
I3	1	4"	90'	T	EMPTY
F8	1	4"	375'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F9	1	4"	70'	-	EMPTY (SEE SIGNING AND STRIPING PLANS)
F10	1	4"	170'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F10	1	4"	130'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F11	1	4"	135'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING B- BORE, T- TRENCH, O- OPEN CUT



UNDERGROUND ONLY

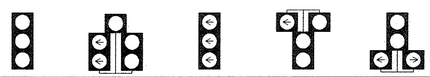
PHASE 5, STAGE 2 SIGNAL NOTES

1. SIGNAL INSTALLATION AT THIS INTERSECTION IS UNDERGROUND ONLY. ONLY CONDUITS AND JUNCTION WELLS WILL BE INSTALLED.
2. PLUG OPEN END OF CONDUIT.

SECTION 4
PHASE 5, STAGE 2

SIGNAL PHASING

SIGNAL HEAD DIAGRAM



LEGEND

- PROPOSED SIGNAL CABINET
- EXISTING SIGNAL CABINET
- PROPOSED SIGNAL POLE BASE
- EXISTING SIGNAL POLE BASE
- PROPOSED PEDESTRIAN POLE BASE
- EXISTING PEDESTRIAN POLE BASE
- PROPOSED WOOD POLE
- EXISTING WOOD POLE
- PROPOSED JUNCTION WELL
- EXISTING JUNCTION WELL
- PROPOSED SIGNAL HEAD
- EXISTING SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSHBUTTON
- EXISTING PEDESTRIAN PUSHBUTTON
- PROPOSED VIDEO DETECTION
- EXISTING VIDEO DETECTION
- PROPOSED MICROWAVE DETECTION
- EXISTING MICROWAVE DETECTION
- OVERHEAD SIGNING
- PROPOSED OPTICOM RECEIVER
- EXISTING OPTICOM RECEIVER
- PROPOSED MAST ARM
- EXISTING MAST ARM
- PROPOSED LUMINAIRE
- EXISTING LUMINAIRE
- PROPOSED LOOP DETECTOR (TYPE 1 OR 2)
- EXISTING LOOP DETECTOR (TYPE 1 OR 2)
- (RM/C) REMOVE BY CONTRACTOR
- (RM/O) REMOVE BY OTHERS
- (AB) ABANDON
- (PB/X) PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- (PB/X) EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- (PL/X) PROPOSED POLE IDENTIFIER (* OF POLE)
- (PL/X) EXISTING POLE IDENTIFIER (* OF POLE)
- (JW/X) PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- (JW/X) EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- (CO/*) PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
- (CO/*) EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
- (OH/*) PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
- (OH/*) EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
- (MA/XX) PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- (MA/XX) EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- (CA/X) PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
- (CA/X) EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
- PROPOSED SPAN WIRE
- XX EXISTING SPAN WIRE
- RIGHT-OF-WAY OR PROPERTY LINE
- PROPOSED SPAN INSULATOR
- EXISTING SPAN INSULATOR
- P SERVICE PEDESTAL
- PROPOSED CCTV
- EXISTING CCTV
- PROPOSED PLASTIC DRUMS
- EXISTING PLASTIC DRUMS

GENERAL SIGNAL NOTES

1. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
3. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED B. Shadle DATE: 05/15/13
RECOMMENDED Christine Dane DATE: 7/12/13
RECOMMENDED _____ DATE: _____
APPROVED TRAFFIC ENGINEER Marie C. Walker DATE: 7/12/13
APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER Neil Lyons DATE: 7/12/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	PERMIT NO.	S327
T200411210	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
SUSSEX		

SIGNAL PLAN SR 26 @ IRONS LANE

SHEET NO.	TOTAL SHTS.
518	589

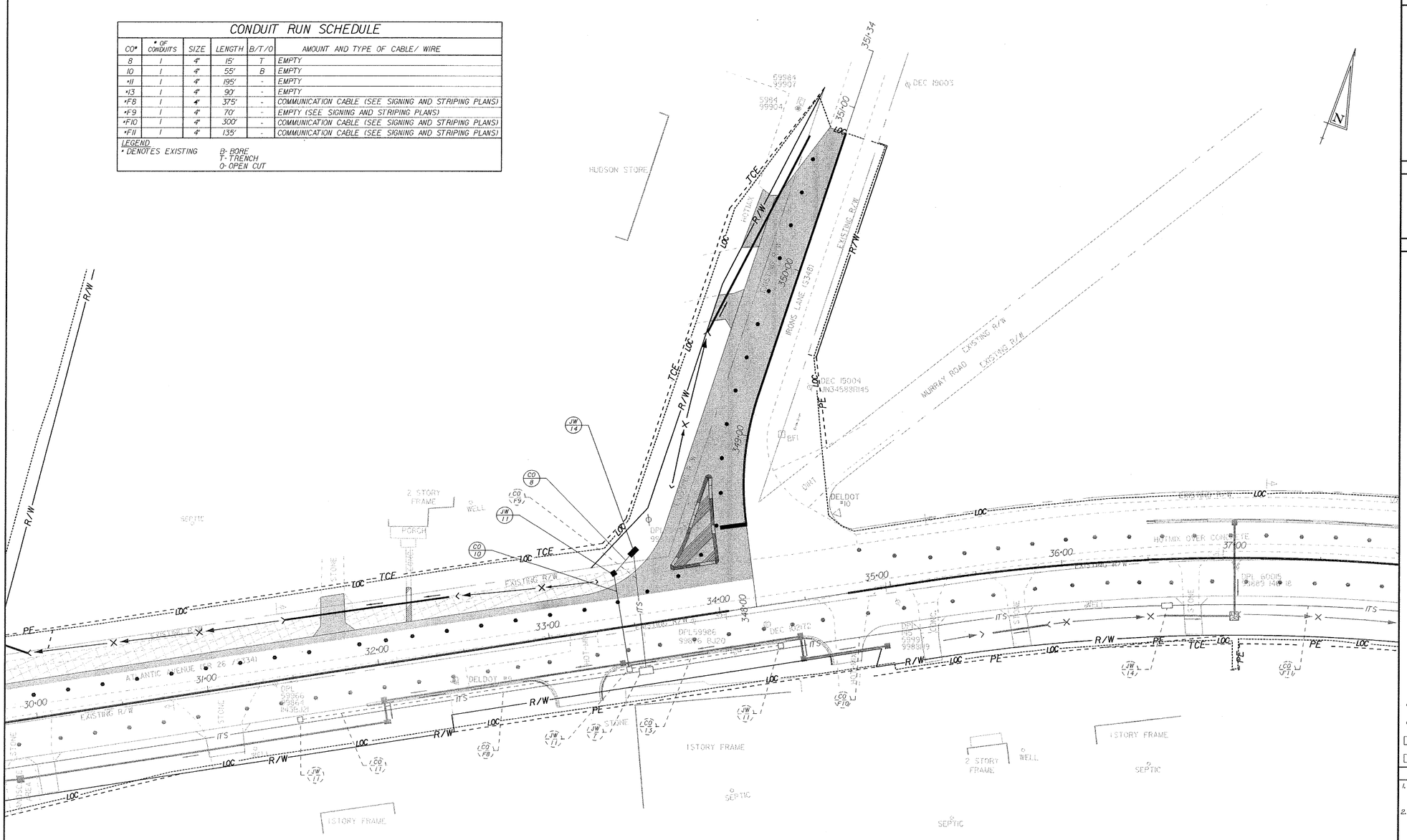
7/10/2013
M:\SIGNAL\PROJECTS\sr26mainline\Survey\tp_4-5-2-signalirons.dgn

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
8	1	4"	15'	T	EMPTY
10	1	4"	55'	B	EMPTY
*11	1	4"	195'	-	EMPTY
*13	1	4"	90'	-	EMPTY
*F8	1	4"	375'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F9	1	4"	70'	-	EMPTY (SEE SIGNING AND STRIPING PLANS)
*F10	1	4"	300'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F11	1	4"	135'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT



UNDERGROUND ONLY

PHASE 5, STAGE 5 SIGNAL NOTES

1. SIGNAL INSTALLATION AT THIS INTERSECTION IS UNDERGROUND ONLY. ONLY CONDUITS AND JUNCTION WELLS WILL BE INSTALLED.

SECTION 4
PHASE 5, STAGE 5

SIGNAL PHASING

SIGNAL HEAD DIAGRAM



LEGEND

	PROPOSED SIGNAL CABINET	RM/C	REMOVE BY CONTRACTOR
	EXISTING SIGNAL CABINET	RM/O	REMOVE BY OTHERS
	PROPOSED SIGNAL POLE BASE	AB	ABANDON
	EXISTING SIGNAL POLE BASE	PB/X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED PEDESTRIAN POLE BASE	(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING PEDESTRIAN POLE BASE	PL/X	PROPOSED POLE IDENTIFIER (# OF POLE)
	PROPOSED WOOD POLE	(PL/X)	EXISTING POLE IDENTIFIER (# OF POLE)
	EXISTING WOOD POLE	JW/X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	PROPOSED JUNCTION WELL	(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	EXISTING JUNCTION WELL	CO/#	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
	PROPOSED SIGNAL HEAD	(CO/#)	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
	EXISTING SIGNAL HEAD	OH/#	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH/#)	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
	EXISTING PEDESTRIAN SIGNAL HEAD	MA/XX	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	PROPOSED PEDESTRIAN PUSHBUTTON	(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	EXISTING PEDESTRIAN PUSHBUTTON	CA/X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
	PROPOSED VIDEO DETECTION	(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
	PROPOSED MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
	OVERHEAD SIGNING		PROPOSED SPAN INSULATOR
	PROPOSED OPTICOM RECEIVER		EXISTING SPAN INSULATOR
	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
	PROPOSED MAST ARM		PROPOSED CCTV
	EXISTING MAST ARM		EXISTING CCTV
	PROPOSED LUMINAIRE		PROPOSED PLASTIC DRUMS
	EXISTING LUMINAIRE		EXISTING PLASTIC DRUMS
	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
3. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED [signature]	DATE: 05/15/13	RECOMMENDED Chelsea Dow	DATE: 7/12/13	RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER [signature] DATE: 7/12/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER [signature] DATE: 7/12/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210	PERMIT NO.	S327
COUNTY	SUSSEX	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN
SR 26 @ IRONS LANE

SHEET NO.	519
TOTAL SHTS.	589

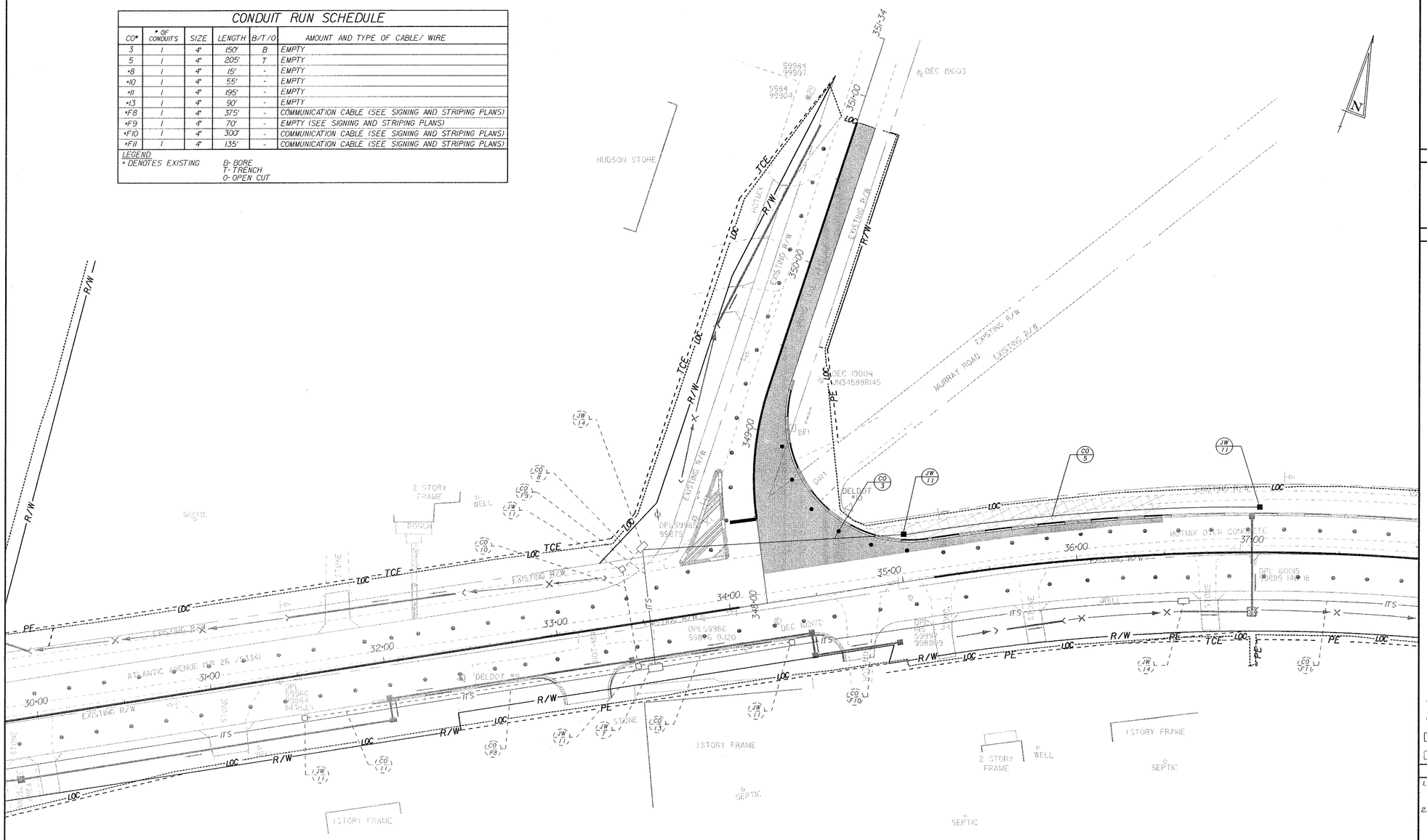
7/10/2013
E:\PROJECTS\sr26emainline\Survey\tp_4-5-5-signalirons.dgn

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
3	1	4"	150'	B	EMPTY
5	1	4"	205'	T	EMPTY
*8	1	4"	15'	-	EMPTY
*10	1	4"	55'	-	EMPTY
*11	1	4"	195'	-	EMPTY
*13	1	4"	90'	-	EMPTY
*F8	1	4"	375'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F9	1	4"	70'	-	EMPTY (SEE SIGNING AND STRIPING PLANS)
*F10	1	4"	300'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F11	1	4"	135'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT



UNDERGROUND ONLY

PHASE 5, STAGE 6 SIGNAL NOTES

1. SIGNAL INSTALLATION AT THIS INTERSECTION IS UNDERGROUND ONLY. ONLY CONDUITS AND JUNCTION WELLS WILL BE INSTALLED.

SECTION 4
PHASE 5, STAGE 6

SIGNAL PHASING

SIGNAL HEAD DIAGRAM



LEGEND

	PROPOSED SIGNAL CABINET	(RM/C)	REMOVE BY CONTRACTOR
	EXISTING SIGNAL CABINET	(RM/O)	REMOVE BY OTHERS
	PROPOSED SIGNAL POLE BASE	(AB)	ABANDON
	EXISTING SIGNAL POLE BASE	(PB/X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED PEDESTRIAN POLE BASE	(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING PEDESTRIAN POLE BASE	(PL/X)	PROPOSED POLE IDENTIFIER (# OF POLE)
	PROPOSED WOOD POLE	(PL/X)	EXISTING POLE IDENTIFIER (# OF POLE)
	EXISTING WOOD POLE	(JW/X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	PROPOSED JUNCTION WELL	(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	EXISTING JUNCTION WELL	(CO/#)	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
	PROPOSED SIGNAL HEAD	(CO/#)	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
	EXISTING SIGNAL HEAD	(OH/#)	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH/#)	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
	EXISTING PEDESTRIAN SIGNAL HEAD	(MA/XX)	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	PROPOSED PEDESTRIAN PUSHBUTTON	(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	EXISTING PEDESTRIAN PUSHBUTTON	(CA/X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
	PROPOSED VIDEO DETECTION	(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
	PROPOSED MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
	OVERHEAD SIGNING		PROPOSED SPAN INSULATOR
	PROPOSED OPTICOM RECEIVER		EXISTING SPAN INSULATOR
	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
	PROPOSED MAST ARM		PROPOSED CCTV
	EXISTING MAST ARM		EXISTING CCTV
	PROPOSED LUMINAIRE		PROPOSED PLASTIC DRUMS
	EXISTING LUMINAIRE		EXISTING PLASTIC DRUMS
	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
3. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED _____ DATE: 05/15/13

RECOMMENDED Chelsea Dare DATE: 7/12/13

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 7/12/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210
COUNTY	SUSSEX
PERMIT NO.	S327
DESIGNED BY:	MSK
CHECKED BY:	BAM

SIGNAL PLAN
SR 26 @ IRONS LANE

SHEET NO.	520
TOTAL SHTS.	589

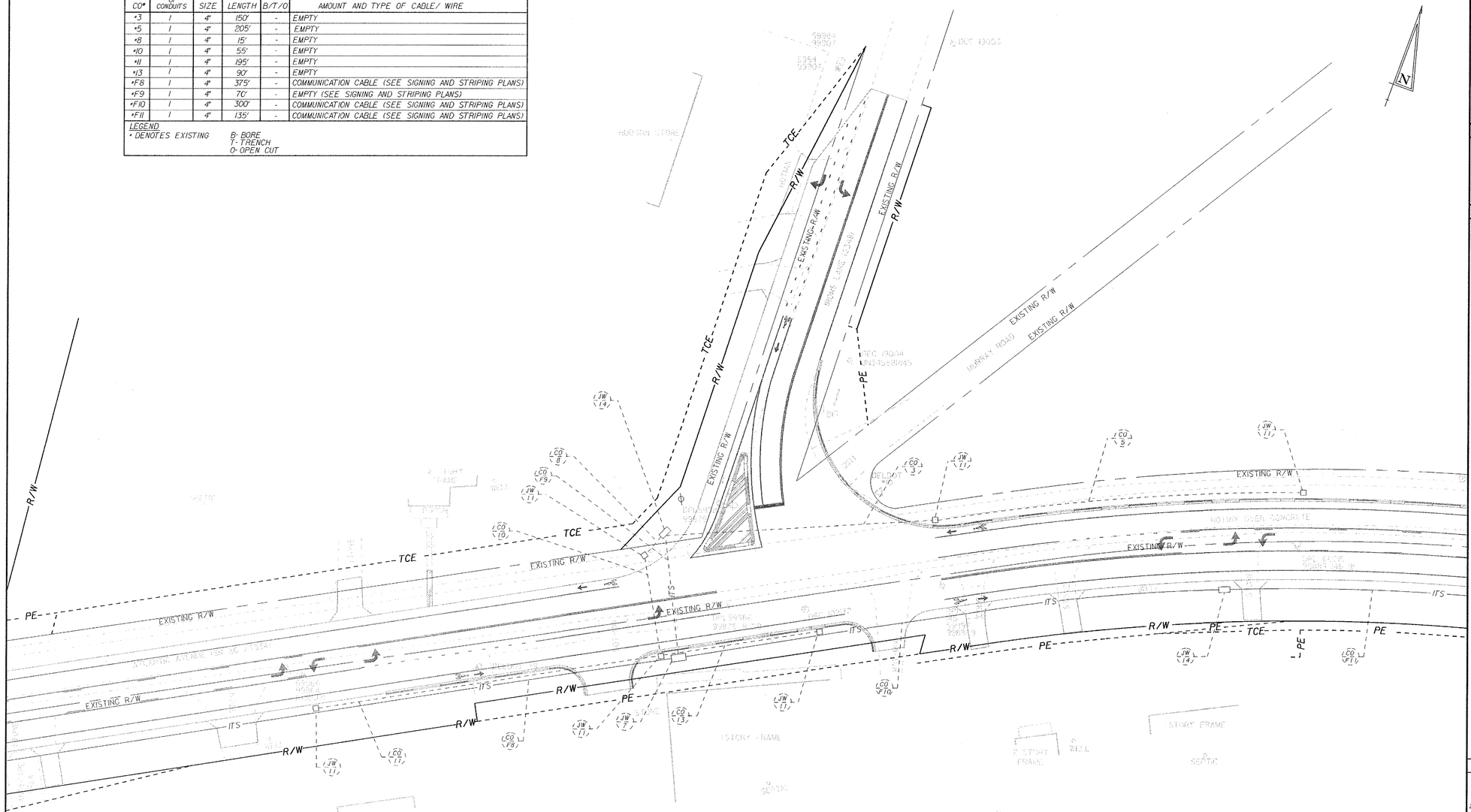
7/9/2013
I:\PROJECTS\sr26matline\Survey\tp-4-5-6-signalirons.dgn
B-148359

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*3	1	4"	150'	-	EMPTY
*5	1	4"	205'	-	EMPTY
*8	1	4"	15'	-	EMPTY
*10	1	4"	55'	-	EMPTY
*11	1	4"	195'	-	EMPTY
*13	1	4"	90'	-	EMPTY
*F8	1	4"	375'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F9	1	4"	70'	-	EMPTY (SEE SIGNING AND STRIPING PLANS)
*F10	1	4"	300'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F11	1	4"	135'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT



UNDERGROUND ONLY

PHASE 5, STAGE 2 SIGNAL NOTES

1. SIGNAL INSTALLATION AT THIS INTERSECTION IS UNDERGROUND ONLY. ONLY CONDUITS AND JUNCTION WELLS WILL BE INSTALLED.

SECTION 4
ULTIMATE

SIGNAL PHASING

SIGNAL HEAD DIAGRAM



LEGEND

- PROPOSED SIGNAL CABINET
- EXISTING SIGNAL CABINET
- PROPOSED SIGNAL POLE BASE
- EXISTING SIGNAL POLE BASE
- PROPOSED PEDESTRIAN POLE BASE
- EXISTING PEDESTRIAN POLE BASE
- PROPOSED WOOD POLE
- EXISTING WOOD POLE
- PROPOSED JUNCTION WELL
- EXISTING JUNCTION WELL
- PROPOSED SIGNAL HEAD
- EXISTING SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSHBUTTON
- EXISTING PEDESTRIAN PUSHBUTTON
- PROPOSED VIDEO DETECTION
- EXISTING VIDEO DETECTION
- PROPOSED MICROWAVE DETECTION
- EXISTING MICROWAVE DETECTION
- OVERHEAD SIGNING
- PROPOSED OPTICOM RECEIVER
- EXISTING OPTICOM RECEIVER
- PROPOSED MAST ARM
- EXISTING MAST ARM
- PROPOSED LUMINAIRE
- EXISTING LUMINAIRE
- PROPOSED LOOP DETECTOR (TYPE 1 OR 2)
- EXISTING LOOP DETECTOR (TYPE 1 OR 2)
- REMOVE BY CONTRACTOR
- REMOVE BY OTHERS
- ABANDON
- PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- PROPOSED POLE IDENTIFIER (# OF POLE)
- EXISTING POLE IDENTIFIER (# OF POLE)
- PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
- EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
- PROPOSED SPAN WIRE
- EXISTING SPAN WIRE
- RIGHT-OF-WAY OR PROPERTY LINE
- PROPOSED SPAN INSULATOR
- EXISTING SPAN INSULATOR
- SERVICE PEDESTAL
- PROPOSED CCTV
- EXISTING CCTV
- PROPOSED PLASTIC DRUMS
- EXISTING PLASTIC DRUMS

GENERAL SIGNAL NOTES

1. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
3. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED _____ DATE: 05/15/13

RECOMMENDED Chelna Daw DATE: 7/12/2013

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 7/12/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	PERMIT NO.	S327
T200411210	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
SUSSEX		

SIGNAL PLAN
SR 26 @ IRONS LANE
(ULTIMATE)

SHEET NO.	TOTAL SHTS.
521	589

7/10/2013
I:\PROJECTS\sr26mainline\Survey\tp_4-ultimate_signal_irons.dgn
15:49:37

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
NORTH	108 FT	26.60 FT	5.40 FT	21.20 FT	16.70 FT
EAST	85 FT	26.00 FT	4.25 FT	21.75 FT	17.25 FT
SOUTH	122 FT	27.10 FT	6.10 FT	21.00 FT	16.50 FT
WEST	88 FT	26.00 FT	4.40 FT	21.60 FT	17.10 FT

NOTE: FIELD ADJUSTMENTS AS REQUIRED

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
1	STRAIN	32'	STEEL
2	CAMERA	75'	STEEL
3	STRAIN	32'	STEEL
4	STRAIN	32'	STEEL
5	STRAIN	32'	STEEL

PHASE 3, STAGE 2 SIGNAL NOTES

1. EXISTING SIGNAL SYSTEM SHALL NOT BE REMOVED OR ABANDONED BUT SHALL BE LEFT OPERATIONAL UNTIL PROPOSED MICROWAVE DETECTION SIGNAL INSTALLATION IS COMPLETED AND ACTIVATED IN THIS PHASE AND STAGE.
2. MICROWAVE DETECTORS SHALL BE LOCATED, MOUNTED, AND ORIENTED TO ACHIEVE OPTIMUM DETECTION. PROPOSED MICROWAVE HOMERUN CABLES SHALL RUN ALONG THE PROPOSED SPAN WIRE, DOWN THE SOUTHEAST SIGNAL POLE AND THROUGH CONDUIT (CO #2) TO THE SIGNAL CABINET.
3. PLUG OPEN ENDS OF CONDUIT.
4. POLE TO BE REMOVED BY TRAFFIC CONTRACTOR AND POLE BASE TO BE REMOVED BY PROJECT CONTRACTOR.
5. SIGNAL CABINET TO BE REMOVED BY TRAFFIC CONTRACTOR AND CABINET BASE TO BE REMOVED BY PROJECT CONTRACTOR.
6. REMOVE EXISTING JUNCTION WELL TYPE I AND REPLACE WITH PROPOSED JUNCTION WELL TYPE II. CARE SHALL BE TAKEN DURING REMOVAL AND INSTALLATION PROCESS NOT TO DAMAGE EXISTING CONDUITS AND CABLES.
7. TRAFFIC CONTRACTOR SHALL LIAISE WITH DeDOT TO CONDUCT SITE VISIT TO BEST ESTABLISH THE DEAD ZONE/PRIVACY MASKS FOR THE PROPOSED CCTV CAMERA TO GUARANTEE PRIVACY FOR AREAS THAT SHOULD NOT BE COVERED BY THE CAMERA.

CONDUIT RUN SCHEDULE

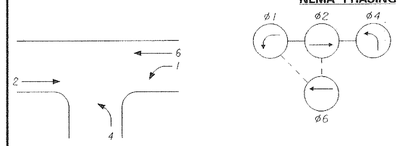
CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
1	1	2"	10'	T	NEW [(1)#6 BARE STRANDED COPPER (1)#8/2 U.F.W./ GROUND]
1A	2	2"	15'	T	NEW [(2)#6 BSC (2)#8/2 U.F.W./ GROUND]
1B	2	2"	70'	B	NEW [(2)#6 BSC (2)#8/2 U.F.W./ GROUND]
1C	1	2"	15'	T	NEW [(1)#6 BSC (1)#8/2 U.F.W./ GROUND]
1D	1	2"	35'	T	NEW [(1)#6 BSC (1)#8/2 U.F.W./ GROUND]
1E	1	2"	10'	T	NEW [(1)#6 BSC (1)#8/2 U.F.W./ GROUND]
2	1	3"	5'	T	NEW [(1)#6 BSC (3)#18/4 (2)#14/16 (3)MICROWAVE DETECTION HOMERUN CABLES]
3	3	4"	5'	T	NEW COMMUNICATION CABLE
4	1	1"	5'	T	EMPTY
5	1	4"	65'	B	EMPTY
6	1	4"	205'	T	EMPTY
7	1	1"	10'	T	EMPTY
8	1	3"	15'	T	EMPTY
9	1	4"	130'	T	EMPTY
10	1	4"	25'	T	EMPTY
11	1	3"	10'	T	EMPTY
12	1	1"	10'	T	EMPTY
16	1	3"	25'	T	EMPTY
17	1	4"	40'	T	EMPTY
18	1	4"	235'	T	EMPTY
19	1	1"	5'	T	EMPTY
*20	1	2"	15'	-	EXISTING (1)#8/2 U.F.W/GROUND
*21	3	2.5"	5'	-	EXISTING [(7)#18/4 (3)#14/9]
*22	1	2.5"	12'	-	EXISTING [(1)#18/4 (1)#14/9]
*23	1	1.5"	6'	-	EXISTING (2)#18/4
*24	1	2.5"	78'	-	EXISTING (1)#18/4
*25	1	2.5"	225'	-	EXISTING (1)#18/4
*26	1	1.5"	8'	-	EXISTING (2)#18/4
*27	1	2.5"	72'	-	EXISTING [(3)#18/4 (2)#14/9]
*28	1	1.5"	5'	-	EXISTING (2)#18/4
*29	1	2.5"	40'	-	EXISTING [(2)#18/4 (2)#14/9]
*30	1	2.5"	200'	-	EXISTING (1)#18/4
*31	1	1.5"	5'	-	EXISTING (2)#18/4
F16	1	4"	385'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F17	1	4"	175'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F18	1	4"	10'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F19	1	4"	10'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F19A	1	3"	5'	-	CAMERA CABLE (SEE SIGNING AND STRIPING PLANS)
F20	1	4"	260'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

PROPOSED DELDOT TRAFFIC CAMERA 7

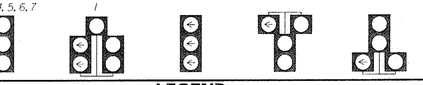
SIGNAL PHASING

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.

SIGNAL HEAD DIAGRAM



LEGEND

	PROPOSED SIGNAL CABINET	RM C	REMOVE BY CONTRACTOR
	EXISTING SIGNAL CABINET	RM O	REMOVE BY OTHERS
	PROPOSED SIGNAL POLE BASE	AB	ABANDON
	EXISTING SIGNAL POLE BASE	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED PEDESTRIAN POLE BASE	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING PEDESTRIAN POLE BASE	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
	PROPOSED WOOD POLE	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
	EXISTING WOOD POLE	JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	PROPOSED JUNCTION WELL	JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	EXISTING JUNCTION WELL	CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
	PROPOSED SIGNAL HEAD	CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
	EXISTING SIGNAL HEAD	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
	PROPOSED PEDESTRIAN SIGNAL HEAD	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
	EXISTING PEDESTRIAN SIGNAL HEAD	MA XX	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	PROPOSED PEDESTRIAN PUSHBUTTON	MA XX	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	EXISTING PEDESTRIAN PUSHBUTTON	CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
	PROPOSED VIDEO DETECTION	CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
	PROPOSED MICROWAVE DETECTION		EXISTING SPAN WIRE
	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
	OVERHEAD SIGNING		PROPOSED SPAN INSULATOR
	PROPOSED OPTICOM RECEIVER		EXISTING SPAN INSULATOR
	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
	PROPOSED MAST ARM		PROPOSED CCTV
	EXISTING MAST ARM		EXISTING CCTV
	PROPOSED LUMINAIRE		PROPOSED PLASTIC DRUMS
	EXISTING LUMINAIRE		EXISTING PLASTIC DRUMS
	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 209 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

SECTION 4
PHASE 3, STAGE 2

RECOMMENDED _____ DATE: 05/15/13
RECOMMENDED _____ DATE: 2/12/13
RECOMMENDED _____ DATE:
APPROVED TRAFFIC ENGINEER _____ DATE: 7/12/13
APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210
COUNTY	SUSSEX

PERMIT NO.	S169
DESIGNED BY:	MSK
CHECKED BY:	BAM

SIGNAL PLAN
SR 26 @ ROXANA ROAD

SHEET NO.	522
TOTAL SHTS	589

7/11/2013 03:36:56 PM
S:\Projects\SR26mainline\Survey\to_4-5-2_signal_roxana.dgn

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
*NORTH	108 FT	26.60 FT	5.40 FT	21.20 FT	16.70 FT
*EAST	85 FT	26.00 FT	4.25 FT	21.75 FT	17.25 FT
*SOUTH	122 FT	27.10 FT	6.10 FT	21.00 FT	16.50 FT
*WEST	88 FT	26.00 FT	4.40 FT	21.60 FT	17.10 FT

* DENOTES EXISTING

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	STRAIN	32'	STEEL
*2	CAMERA	75'	STEEL
*3	STRAIN	32'	STEEL
*4	STRAIN	32'	STEEL
*5	STRAIN	32'	STEEL

PHASE 3, STAGE 3 SIGNAL NOTES

1. EXISTING MICROWAVE DETECTORS SHALL BE ADJUSTED/REALIGNED AS NECESSARY TO ENSURE OPTIMUM DETECTION FOR LANE ASSIGNMENTS IN THIS STAGE.
2. AT THE COMMENCEMENT OF THIS STAGE, WHILE THE INTERSECTION IS UNDER FLAGGER OPERATION DURING CONSTRUCTION WORK HOURS, THE EXISTING CONCRETE ISLAND SHOULD BE REMOVED AND THE REMOVAL AREA PATCHED UP TO MATCH THE TEMPORARY WORK AREA GRADE ON ROXANA ROAD BEFORE THE INTERSECTION CONTROL IS SWITCHED TO SIGNAL CONTROL FOR NON-WORK HOURS.
3. PLUG OPEN ENDS OF CONDUIT.

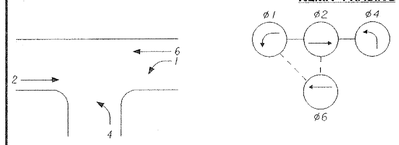
CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	10'	-	EXISTING [(1)#6 BARE STRANDED COPPER (1)#8/2 U.F.W./ GROUND]
*1A	2	2"	15'	-	EXISTING [(2)#6 BSC (2)#8/2 U.F.W./ GROUND]
*1B	2	2"	70'	-	EXISTING [(2)#6 BSC (2)#8/2 U.F.W./ GROUND]
*1C	1	2"	15'	-	EXISTING [(1)#6 BSC (1)#8/2 U.F.W./ GROUND]
*1D	1	2"	35'	-	EXISTING [(1)#6 BSC (1)#8/2 U.F.W./ GROUND]
*1E	1	2"	10'	-	EXISTING [(1)#6 BSC (1)#8/2 U.F.W./ GROUND]
*2	1	3"	5'	-	EXISTING [(1)#6 BSC (3)#18/4 (2)#14/16 (3)MICROWAVE DETECTION HOMERUN CABLES]
*3	3	4"	5'	-	EXISTING COMM. CABLE NEW [(3)#6 BSC (8)#14/2 (15' OF (2)#14/2 COILED IN JW)]
*4	1	1"	5'	-	EMPTY
*5	1	4"	65'	-	NEW [(1)#6 BSC (2)#14/2]
*6	1	4"	205'	-	NEW [(1)#6 BSC (1)#14/2 (15' COILED IN JW)]
*7	1	1"	10'	-	EMPTY
*8	1	3"	15'	-	EMPTY
*9	1	4"	130'	-	NEW [(1)#6 BSC (1)#14/2 (15' COILED IN JW)]
*10	1	4"	25'	-	EMPTY
*11	1	3"	10'	-	EMPTY
*12	1	1"	10'	-	EMPTY
13	1	4"	20'	T	NEW [(1)#6 BSC (4)#14/2 (15' OF (3)#14/2 COILED IN JW)]
14	1	1"	10'	T	EMPTY
15	1	4"	85'	B	NEW [(1)#6 BSC (1)#14/2]
*16	1	3"	25'	-	EMPTY
*17	1	4"	40'	-	NEW [(1)#6 BSC (1)#14/2]
*18	1	4"	235'	-	NEW [(1)#6 BSC (1)#14/2 (15' COILED IN JW)]
*19	1	1"	5'	-	EMPTY
*F16	1	4"	385'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F17	1	4"	175'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F18	1	4"	10'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F19	1	4"	10'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F19A	1	3"	5'	-	CAMERA CABLE (SEE SIGNING AND STRIPING PLANS)
*F20	1	4"	260'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

SIGNAL PHASING

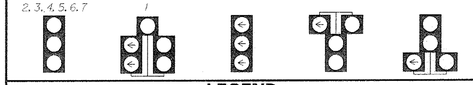
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

	PROPOSED SIGNAL CABINET	RM/C	REMOVE BY CONTRACTOR
	EXISTING SIGNAL CABINET	RM/O	REMOVE BY OTHERS
	PROPOSED SIGNAL POLE BASE	AB	ABANDON
	EXISTING SIGNAL POLE BASE	PB/X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED PEDESTRIAN POLE BASE	(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING PEDESTRIAN POLE BASE	PL/X	PROPOSED POLE IDENTIFIER (* OF POLE)
	PROPOSED WOOD POLE	(PL/X)	EXISTING POLE IDENTIFIER (* OF POLE)
	EXISTING WOOD POLE	JW/X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	PROPOSED JUNCTION WELL	(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	EXISTING JUNCTION WELL	CO/*	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	PROPOSED SIGNAL HEAD	(CO/*)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	EXISTING SIGNAL HEAD	OH/*	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH/*)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	EXISTING PEDESTRIAN SIGNAL HEAD	MA/XX	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	PROPOSED PEDESTRIAN PUSHBUTTON	(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	EXISTING PEDESTRIAN PUSHBUTTON	CA/X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
	PROPOSED VIDEO DETECTION	(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
	PROPOSED MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
	OVERHEAD SIGNING		PROPOSED SPAN INSULATOR
	PROPOSED OPTICOM RECEIVER		EXISTING SPAN INSULATOR
	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
	PROPOSED MAST ARM		PROPOSED CCTV
	EXISTING MAST ARM		EXISTING CCTV
	PROPOSED LUMINAIRE		PROPOSED PLASTIC DRUMS
	EXISTING LUMINAIRE		EXISTING PLASTIC DRUMS
	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

SECTION 4
PHASE 3, STAGE 3

RECOMMENDED _____ DATE: 05/15/13

RECOMMENDED _____ DATE: 7/12/13

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 7/12/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	PERMIT NO.	S169
T200411210	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
SUSSEX		

SIGNAL PLAN

SR 26 @ ROXANA ROAD

SHEET NO.	
523	
TOTAL SHTS.	
589	

7/11/2013
G:\PROJECTS\sr26widenline_Survey\sr26widenline_Survey_top_4-5-3_signal_nox.dgn

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
*NORTH	108 FT	26.60 FT	5.40 FT	21.20 FT	16.70 FT
*EAST	85 FT	26.00 FT	4.25 FT	21.75 FT	17.25 FT
*SOUTH	122 FT	27.10 FT	6.10 FT	21.00 FT	16.50 FT
*WEST	88 FT	26.00 FT	4.40 FT	21.60 FT	17.10 FT

* DENOTES EXISTING

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	STRAIN	32'	STEEL
*2	CAMERA	75'	STEEL
*3	STRAIN	32'	STEEL
*4	STRAIN	32'	STEEL
*5	STRAIN	32'	STEEL

PHASE 7, STAGE 1 SIGNAL NOTES

1. SLIDE EXISTING SIGNAL HEAD TO ULTIMATE POSITION SHOWN.
2. ACTIVATE PROPOSED ULTIMATE SIGNAL INSTALLATION AND DEACTIVATE MICROWAVE DETECTION SIGNAL INSTALLATION. ACTIVATION AND DEACTIVATION SHOULD BE COORDINATED TO ALLOW FOR A SMOOTH SIGNAL TRANSITION.
3. REMOVE MICROWAVE DETECTORS AND ASSOCIATED CABLES.

PROPOSED SIGNING

A — Roxana Rd → — D3-1 102"x24"

A — ← Roxana Rd — D3-1 102"x24"

A — Atlantic Ave — D3-1 90"x24"

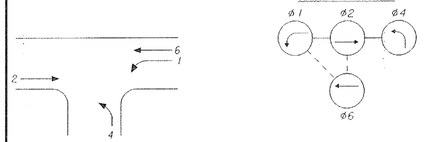
CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	10'	-	EXISTING ((1)#6 BARE STRANDED COPPER ((1)#8/2 U.F.W./ GROUND)
*1A	2	2"	15'	-	EXISTING ((2)#6 BSC (2)#8/2 U.F.W./ GROUND)
*1B	2	2"	70'	-	EXISTING ((2)#6 BSC (2)#8/2 U.F.W./ GROUND)
*1C	1	2"	15'	-	EXISTING ((1)#6 BSC (1)#8/2 U.F.W./ GROUND)
*1D	1	2"	35'	-	EXISTING ((1)#6 BSC (1)#8/2 U.F.W./ GROUND)
*1E	1	2"	10'	-	EXISTING ((1)#6 BSC (1)#8/2 U.F.W./ GROUND)
*2	1	3"	5'	-	EXISTING ((1)#6 BSC (3)#18/4 (2)#14/16 (3)MICROWAVE DETECTION HOMERUN CABLES) REMOVE (3)MICROWAVE DETECTION HOMERUN CABLES
*3	3	4"	5'	-	EXISTING ((3)#6 BSC (8)#14/2 COMMUNICATION CABLE)
*4	1	1"	5'	-	NEW (4)#14/1
*5	1	4"	65'	-	EXISTING ((1)#6 BSC (2)#14/2)
*6	1	4"	205'	-	EXISTING ((1)#6 BSC (1)#14/2)
*7	1	1"	10'	-	NEW (2)#14/1
*8	1	3"	15'	-	EMPTY
*9	1	4"	130'	-	EXISTING ((1)#6 BSC (1)#14/2)
*10	1	4"	25'	-	EMPTY
*11	1	3"	10'	-	EMPTY
*12	1	1"	10'	-	NEW (2)#14/1
*13	1	4"	20'	-	EXISTING ((1)#6 BSC (4)#14/2)
*14	1	1"	10'	-	NEW (4)#14/1
*15	1	4"	85'	-	EXISTING ((1)#6 BSC (1)#14/2)
*16	1	3"	25'	-	EMPTY
*17	1	4"	40'	-	EXISTING ((1)#6 BSC (1)#14/2)
*18	1	4"	235'	-	EXISTING ((1)#6 BSC (1)#14/2)
*19	1	1"	5'	-	NEW (2)#14/1
*F16	1	4"	385'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F17	1	4"	175'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F18	1	4"	10'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F19	1	4"	10'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F19A	1	3"	5'	-	CAMERA CABLE (SEE SIGNING AND STRIPING PLANS)
*F20	1	4"	260'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

SIGNAL PHASING

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.

SIGNAL HEAD DIAGRAM



LEGEND

PROPOSED SIGNAL CABINET		(RM/C)	REMOVE BY CONTRACTOR
EXISTING SIGNAL CABINET		(RM/O)	REMOVE BY OTHERS
PROPOSED SIGNAL POLE BASE		(AB)	ABANDON
EXISTING SIGNAL POLE BASE		(PB/X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
PROPOSED PEDESTRIAN POLE BASE		(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
EXISTING PEDESTRIAN POLE BASE		(PL/X)	PROPOSED POLE IDENTIFIER (* OF POLE)
PROPOSED WOOD POLE		(PL/X)	EXISTING POLE IDENTIFIER (* OF POLE)
EXISTING WOOD POLE		(JW/X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
PROPOSED JUNCTION WELL		(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
EXISTING JUNCTION WELL		(CO/*)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
PROPOSED SIGNAL HEAD		(CO/*)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
EXISTING SIGNAL HEAD		(OH/*)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
PROPOSED PEDESTRIAN SIGNAL HEAD		(OH/*)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
EXISTING PEDESTRIAN SIGNAL HEAD		(MA/XX)	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
PROPOSED PEDESTRIAN PUSHBUTTON		(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
EXISTING PEDESTRIAN PUSHBUTTON		(CA/X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
PROPOSED VIDEO DETECTION		(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
EXISTING VIDEO DETECTION			PROPOSED SPAN WIRE
PROPOSED MICROWAVE DETECTION		XX	EXISTING SPAN WIRE
EXISTING MICROWAVE DETECTION			RIGHT-OF-WAY OR PROPERTY LINE
OVERHEAD SIGNING			PROPOSED SPAN INSULATOR
PROPOSED OPTICOM RECEIVER			EXISTING SPAN INSULATOR
EXISTING OPTICOM RECEIVER		P	SERVICE PEDESTAL
PROPOSED MAST ARM			PROPOSED CCTV
EXISTING MAST ARM			EXISTING CCTV
PROPOSED LUMINAIRE			PROPOSED PLASTIC DRUMS
EXISTING LUMINAIRE			EXISTING PLASTIC DRUMS
PROPOSED LOOP DETECTOR (TYPE 1 OR 2)			
EXISTING LOOP DETECTOR (TYPE 1 OR 2)			

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

SECTION 4

PHASE 7, STAGE 1

RECOMMENDED [signature]	DATE: 05/15/13	RECOMMENDED Chetna Desai	DATE: 7/12/13
RECOMMENDED	DATE:	APPROVED TRAFFIC ENGINEER [signature]	DATE: 7/12/13
APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER [signature]	DATE: 7/12/13		

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	PERMIT NO.	S169
T200411210	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
SUSSEX		

SIGNAL PLAN

SR 26 @ ROXANA ROAD

SHEET NO.	
524	
TOTAL SHTS.	
589	

7/11/2013
10:40:28 AM
T:\Signals\TS\sr26mainline\Survey\10-4-7-1_signal_roxanardn.dgn

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
*NORTH	108 FT	26.60 FT	5.40 FT	21.20 FT	16.70 FT
*EAST	85 FT	26.00 FT	4.25 FT	21.75 FT	17.25 FT
*SOUTH	122 FT	27.10 FT	6.10 FT	21.00 FT	16.50 FT
*WEST	88 FT	26.00 FT	4.40 FT	21.60 FT	17.10 FT

* DENOTES EXISTING

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	STRAIN	32'	STEEL
*2	CAMERA	75'	STEEL
*3	STRAIN	32'	STEEL
*4	STRAIN	32'	STEEL
*5	STRAIN	32'	STEEL

EXISTING SIGNING

A — Roxana Rd — D3-1 102"x24"

B — Roxana Rd — D3-1 102"x24"

A — Atlantic Ave — D3-1 90"x24"

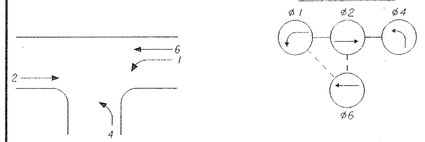
CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	10'	-	EXISTING [(1)#6 BARE STRANDED COPPER (1)#8/2 U.F.W./ GROUND]
*1A	2	2"	15'	-	EXISTING [(2)#6 BSC (2)#8/2 U.F.W./ GROUND]
*1B	2	2"	70'	-	EXISTING [(2)#6 BSC (2)#8/2 U.F.W./ GROUND]
*1C	1	2"	15'	-	EXISTING [(1)#6 BSC (1)#8/2 U.F.W./ GROUND]
*1D	1	2"	35'	-	EXISTING [(1)#6 BSC (1)#8/2 U.F.W./ GROUND]
*1E	1	2"	10'	-	EXISTING [(1)#6 BSC (1)#8/2 U.F.W./ GROUND]
*2	1	3"	5'	-	EXISTING [(1)#6 BSC (3)#18/4 (2)#14/16]
*3	3	4"	5'	-	EXISTING [(3)#6 BSC (8)#14/2 COMMUNICATION CABLE]
*4	1	1"	5'	-	EXISTING (4)#14/1
*5	1	4"	65'	-	EXISTING [(1)#6 BSC (2)#14/2]
*6	1	4"	205'	-	EXISTING [(1)#6 BSC (1)#14/2]
*7	1	1"	10'	-	EXISTING (2)#14/1
*8	1	3"	15'	-	EMPTY
*9	1	4"	130'	-	EXISTING [(1)#6 BSC (1)#14/2]
*10	1	4"	25'	-	EMPTY
*11	1	3"	10'	-	EMPTY
*12	1	1"	10'	-	EXISTING (2)#14/1
*13	1	4"	20'	-	EXISTING [(1)#6 BSC (4)#14/2]
*14	1	1"	10'	-	EXISTING (4)#14/1
*15	1	4"	85'	-	EXISTING [(1)#6 BSC (1)#14/2]
*16	1	3"	25'	-	EMPTY
*17	1	4"	40'	-	EXISTING [(1)#6 BSC (1)#14/2]
*18	1	4"	235'	-	EXISTING [(1)#6 BSC (1)#14/2]
*19	1	1"	5'	-	EXISTING (2)#14/1
*F16	1	4"	385'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F17	1	4"	175'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F18	1	4"	10'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F19	1	4"	10'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F19A	1	3"	5'	-	CAMERA CABLE (SEE SIGNING AND STRIPING PLANS)
*F20	1	4"	260'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

SIGNAL PHASING

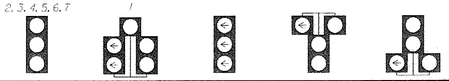
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

- PROPOSED SIGNAL CABINET
- EXISTING SIGNAL CABINET
- PROPOSED SIGNAL POLE BASE
- EXISTING SIGNAL POLE BASE
- PROPOSED PEDESTRIAN POLE BASE
- EXISTING PEDESTRIAN POLE BASE
- PROPOSED WOOD POLE
- EXISTING WOOD POLE
- PROPOSED JUNCTION WELL
- EXISTING JUNCTION WELL
- PROPOSED SIGNAL HEAD
- EXISTING SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSHBUTTON
- EXISTING PEDESTRIAN PUSHBUTTON
- PROPOSED VIDEO DETECTION
- EXISTING VIDEO DETECTION
- PROPOSED MICROWAVE DETECTION
- EXISTING MICROWAVE DETECTION
- OVERHEAD SIGNING
- PROPOSED OPTICOM RECEIVER
- EXISTING OPTICOM RECEIVER
- PROPOSED MAST ARM
- EXISTING MAST ARM
- PROPOSED LUMINAIRE
- EXISTING LUMINAIRE
- PROPOSED LOOP DETECTOR (TYPE 1 OR 2)
- EXISTING LOOP DETECTOR (TYPE 1 OR 2)
- REMOVE BY CONTRACTOR
- REMOVE BY OTHERS
- ABANDON
- PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- PROPOSED POLE IDENTIFIER (# OF POLE)
- EXISTING POLE IDENTIFIER (# OF POLE)
- PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
- EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
- PROPOSED SPAN WIRE
- EXISTING SPAN WIRE
- RIGHT-OF-WAY OR PROPERTY LINE
- PROPOSED SPAN INSULATOR
- EXISTING SPAN INSULATOR
- SERVICE PEDESTAL
- PROPOSED CCTV
- EXISTING CCTV
- PROPOSED PLASTIC DRUMS
- EXISTING PLASTIC DRUMS

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

SECTION 4
ULTIMATE

RECOMMENDED _____ DATE: 05/15/13

RECOMMENDED _____ DATE: 7/12/13

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 7/12/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	PERMIT NO.	S169
T200411210	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
SUSSEX		

SIGNAL PLAN

SR 26 @ ROXANA ROAD

(ULTIMATE)

SHEET NO. 525
TOTAL SHTS. 589

7/11/2013
N:\ROADS\PROJECTS\sr26multiline\Survey\to_4-ultimate\signal_roxana.dgn

CONDUIT RUN SCHEDULE

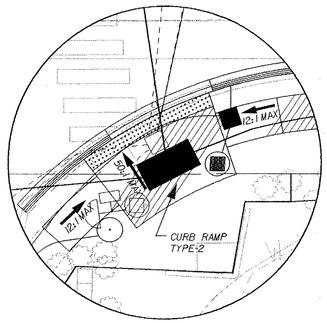
CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	-	-	EXISTING (1)#8/2 U.F.W./ GROUND
*3	*2	2.5"	5'	-	EXISTING (12)#18/4 (3)#14/9 (2)#14/16
15	1	1"	5'	T	EMPTY
15A	1	2.5"	5'	T	EMPTY
17	1	4"	45'	T	EMPTY
18	1	3"	20'	T	EMPTY
19	1	1"	5'	T	EMPTY
*27	1	2.5"	5'	-	EXISTING (14)#18/4 (2)#14/16
*28	1	2.5"	45'	-	EXISTING (14)#18/4 (2)#14/9
*29	1	2.5"	25'	-	EXISTING (1)#14/9
*30	1	2.5"	135'	-	EXISTING (1)#18/4
*31	1	1.5"	3'	-	EXISTING (2)#18/4
*32	1	2.5"	65'	-	EXISTING (12)#18/4 (1)#14/9
*33	1	2.5"	10'	-	EXISTING (1)#14/9
*34	1	1.5"	10'	-	EXISTING (2)#18/4
*35	1	2.5"	70'	-	EXISTING (14)#18/4 (1)#14/9
*36	1	1.5"	3'	-	EXISTING (4)#18/4
*37	1	2.5"	10'	-	EXISTING (1)#14/9
*38	1	2.5"	35'	-	EXISTING (3)#18/4
*39	1	1.5"	3'	-	EXISTING (4)#18/4
*40	1	2.5"	90'	-	EXISTING (2)#18/4
*41	1	2.5"	45'	-	EXISTING (1)#18/4
*42	1	2.5"	175'	-	EXISTING (1)#18/4
*43	1	1.5"	3'	-	EXISTING (2)#15/4
F34	1	4"	155'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F35	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F37	1	4"	215'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F38	1	4"	135'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT

PHASE 3, STAGE 3 SIGNAL NOTES

1. SLIDE EXISTING SIGNAL HEADS *1 AND *2 AND OPTICOM FOR WESTBOUND SR26 TO NEW LOCATIONS AS SHOWN TO MATCH TEMPORARY LANE SHIFTS.
2. PEDESTRIAN SIGNAL POLES, HEADS AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE.
3. JUNCTION WELL SHALL BE FINISHED FLUSH WITH SIDEWALK FINISHED GRADE.
4. PLUG OPEN ENDS OF CONDUIT.



1 SOUTHEAST CORNER

CURB RAMP DETAIL

SCALE: 1" = 10'

NOTE: FIELD ADJUSTMENTS SHALL BE MADE AS REQUIRED

POLE SCHEDULE

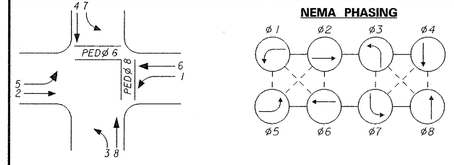
POLE *	POLE TYPE	HEIGHT	MATERIAL
*2	STRAIN	28'	STEEL
*5	PEDESTRIAN	10'	ALUMINUM

* DENOTES EXISTING

SECTION 1

PHASE 3, STAGE 3

SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

▣	PROPOSED SIGNAL CABINET	(RM/C)	REMOVE BY CONTRACTOR
▣	EXISTING SIGNAL CABINET	(RM/O)	REMOVE BY OTHERS
⊙	PROPOSED SIGNAL POLE BASE	(AB)	ABANDON
⊗	EXISTING SIGNAL POLE BASE	(PB/X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
◉	PROPOSED PEDESTRIAN POLE BASE	(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
◎	EXISTING PEDESTRIAN POLE BASE	(PL/X)	PROPOSED POLE IDENTIFIER (* OF POLE)
●	PROPOSED WOOD POLE	(PL/X)	EXISTING POLE IDENTIFIER (* OF POLE)
○	EXISTING WOOD POLE	(JW/X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
■	PROPOSED JUNCTION WELL	(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
□	EXISTING JUNCTION WELL	(CO/*)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
→	PROPOSED SIGNAL HEAD	(CO/*)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
▷	EXISTING SIGNAL HEAD	(OH/*)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
⊏	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH/*)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
⊐	EXISTING PEDESTRIAN SIGNAL HEAD	(MA/XX)	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
→	PROPOSED PEDESTRIAN PUSHBUTTON	(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
⊐	EXISTING PEDESTRIAN PUSHBUTTON	(CA/X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
)))	PROPOSED VIDEO DETECTION	(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
)))	EXISTING VIDEO DETECTION	——	PROPOSED SPAN WIRE
◀))	PROPOSED MICROWAVE DETECTION	—XX—	EXISTING SPAN WIRE
◀))	EXISTING MICROWAVE DETECTION	———	RIGHT-OF-WAY OR PROPERTY LINE
⊣	OVERHEAD SIGNING	◆	PROPOSED SPAN INSULATOR
●—	PROPOSED OPTICOM RECEIVER	◇	EXISTING SPAN INSULATOR
○—	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
▬	PROPOSED MAST ARM	▦	PROPOSED CCTV
▷	EXISTING MAST ARM	▦	EXISTING CCTV
◆	PROPOSED LUMINAIRE	•	PROPOSED PLASTIC DRUMS
◇	EXISTING LUMINAIRE	•	EXISTING PLASTIC DRUMS
▭	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
▭	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 101 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5% OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED _____ DATE: 05/15/13

RECOMMENDED Chitra Dave DATE: 7/12/13

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 7/12/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	PERMIT NO.	S263
T200411210	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
SUSSEX		

SIGNAL PLAN
SR 26 @ OLD MILL ROAD

SHEET NO. 526
TOTAL SHTS. 589

7/10/2013
I:\projects\sr26mollroad\Survey\tp_1-3_signal_oldmill.dgn
15:50:38

CONDUIT RUN SCHEDULE

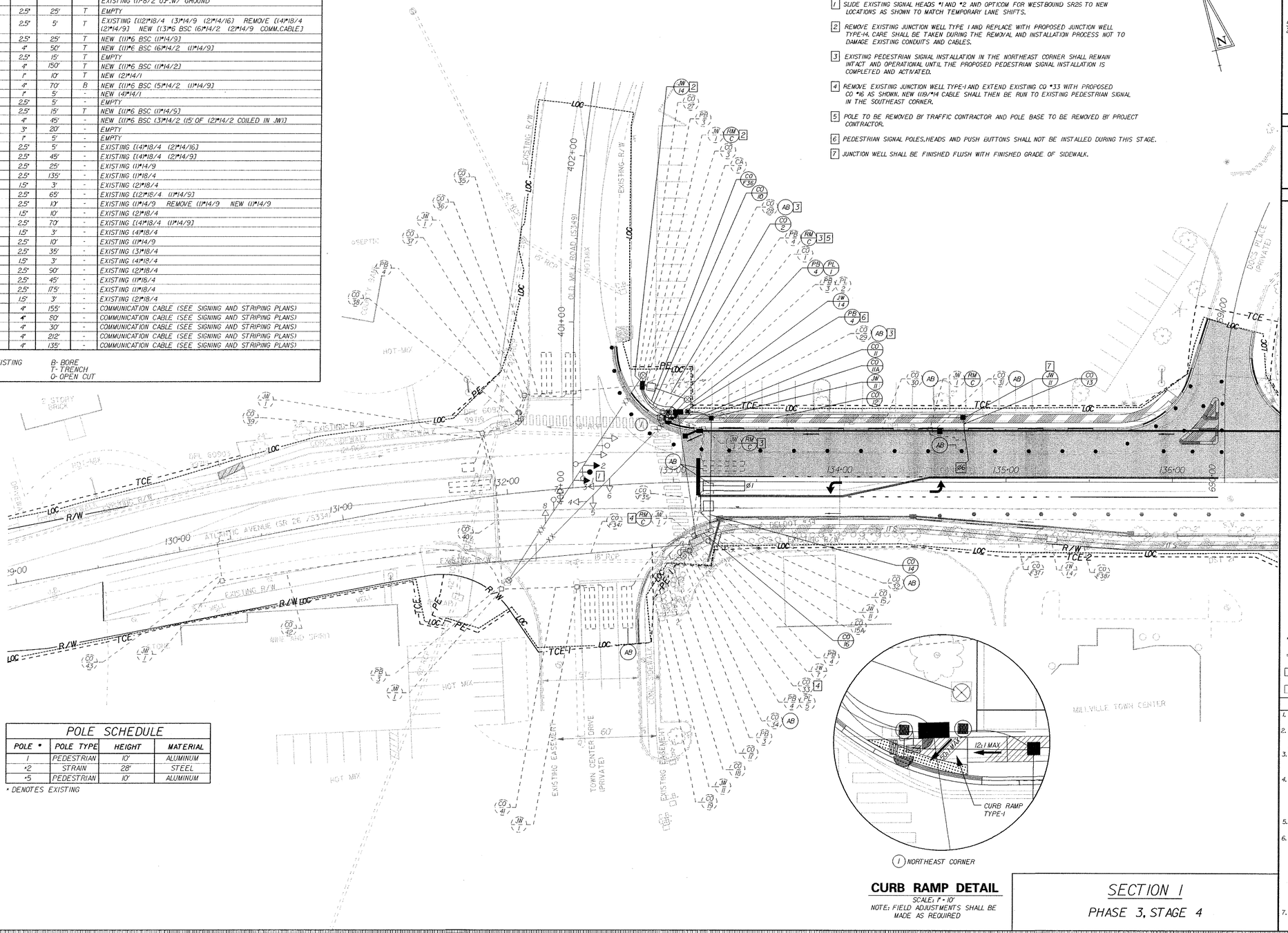
CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	-	-	NEW (1)#6 BARE STRANDED COPPER EXISTING (1)#8/2 UF.W/ GROUND
2	1	2.5"	25'	T	EMPTY
3	*2 1	2.5"	5'	T	EXISTING [(12)#18/4 (3)#14/9 (2)#14/16] REMOVE [(4)#18/4 (2)#14/9] NEW [(3)#6 BSC (6)#14/2 (2)#14/9 COMM.CABLE]
10	1	2.5"	25'	T	NEW (1)#6 BSC (1)#14/9
11	1	4"	50'	T	NEW ((1)#6 BSC (6)#14/2 (1)#14/9]
11A	1	2.5"	15'	T	EMPTY
12	1	4"	150'	T	NEW ((1)#6 BSC (1)#14/2]
13	1	1"	10'	T	NEW (2)#14/1
14	1	4"	70'	B	NEW ((1)#6 BSC (5)#14/2 (1)#14/9]
*15	1	1"	5'	-	NEW (4)#14/1
*15A	1	2.5"	5'	-	EMPTY
16	1	2.5"	15'	T	NEW [(1)#6 BSC (1)#14/9]
*17	1	4"	45'	-	NEW [(1)#6 BSC (3)#14/2 (15' OF (2)#14/2 COILED IN JW1]
*18	1	3"	20'	-	EMPTY
*19	1	1"	5'	-	EMPTY
*27	1	2.5"	5'	-	EXISTING [(4)#18/4 (2)#14/16]
*28	1	2.5"	45'	-	EXISTING [(4)#18/4 (2)#14/9]
*29	1	2.5"	25'	-	EXISTING (1)#14/9
*30	1	2.5"	135'	-	EXISTING (1)#18/4
*31	1	1.5"	3'	-	EXISTING (2)#18/4
*32	1	2.5"	65'	-	EXISTING [(2)#18/4 (1)#14/9]
*33	1	2.5"	10'	-	EXISTING (1)#14/9 REMOVE (1)#14/9 NEW (1)#14/9
*34	1	1.5"	10'	-	EXISTING (2)#18/4
*35	1	2.5"	70'	-	EXISTING [(4)#18/4 (1)#14/9]
*36	1	1.5"	3'	-	EXISTING (4)#18/4
*37	1	2.5"	10'	-	EXISTING (1)#14/9
*38	1	2.5"	35'	-	EXISTING (3)#18/4
*39	1	1.5"	3'	-	EXISTING (4)#18/4
*40	1	2.5"	90'	-	EXISTING (2)#18/4
*41	1	2.5"	45'	-	EXISTING (1)#16/4
*42	1	2.5"	175'	-	EXISTING (1)#18/4
*43	1	1.5"	3'	-	EXISTING (2)#18/4
*F34	1	4"	155'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F35	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F36	1	4"	30'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F37	1	4"	212'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F38	1	4"	135'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT

PHASE 3, STAGE 4 SIGNAL NOTES

1. SLIDE EXISTING SIGNAL HEADS *1 AND *2 AND OPTICOM FOR WESTBOUND SR26 TO NEW LOCATIONS AS SHOWN TO MATCH TEMPORARY LANE SHIFTS.
2. REMOVE EXISTING JUNCTION WELL TYPE I AND REPLACE WITH PROPOSED JUNCTION WELL TYPE-14. CARE SHALL BE TAKEN DURING THE REMOVAL AND INSTALLATION PROCESS NOT TO DAMAGE EXISTING CONDUIT'S AND CABLES.
3. EXISTING PEDESTRIAN SIGNAL INSTALLATION IN THE NORTHEAST CORNER SHALL REMAIN INTACT AND OPERATIONAL UNTIL THE PROPOSED PEDESTRIAN SIGNAL INSTALLATION IS COMPLETED AND ACTIVATED.
4. REMOVE EXISTING JUNCTION WELL TYPE-I AND EXTEND EXISTING CO *33 WITH PROPOSED CO *16 AS SHOWN. NEW (1)9/*14 CABLE SHALL THEN BE RUN TO EXISTING PEDESTRIAN SIGNAL IN THE SOUTHEAST CORNER.
5. POLE TO BE REMOVED BY TRAFFIC CONTRACTOR AND POLE BASE TO BE REMOVED BY PROJECT CONTRACTOR.
6. PEDESTRIAN SIGNAL POLES,HEADS AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE.
7. JUNCTION WELL SHALL BE FINISHED FLUSH WITH FINISHED GRADE OF SIDEWALK.



POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
1	PEDESTRIAN	10'	ALUMINUM
*2	STRAIN	28'	STEEL
*5	PEDESTRIAN	10'	ALUMINUM

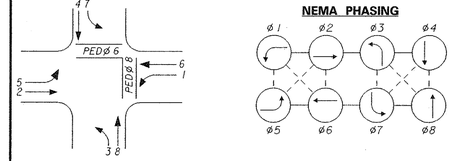
* DENOTES EXISTING

CURB RAMP DETAIL

SCALE: 1" = 10'
NOTE: FIELD ADJUSTMENTS SHALL BE MADE AS REQUIRED

SECTION I
PHASE 3, STAGE 4

SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

- PROPOSED SIGNAL CABINET
- EXISTING SIGNAL CABINET
- PROPOSED SIGNAL POLE BASE
- EXISTING SIGNAL POLE BASE
- PROPOSED PEDESTRIAN POLE BASE
- EXISTING PEDESTRIAN POLE BASE
- PROPOSED WOOD POLE
- EXISTING WOOD POLE
- PROPOSED JUNCTION WELL
- EXISTING JUNCTION WELL
- PROPOSED SIGNAL HEAD
- EXISTING SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSHBUTTON
- EXISTING PEDESTRIAN PUSHBUTTON
- PROPOSED VIDEO DETECTION
- EXISTING VIDEO DETECTION
- PROPOSED MICROWAVE DETECTION
- EXISTING MICROWAVE DETECTION
- OVERHEAD SIGNING
- PROPOSED OPTICOM RECEIVER
- EXISTING OPTICOM RECEIVER
- PROPOSED MAST ARM
- EXISTING MAST ARM
- PROPOSED LUMINAIRE
- EXISTING LUMINAIRE
- PROPOSED LOOP DETECTOR (TYPE 1 OR 2)
- EXISTING LOOP DETECTOR (TYPE 1 OR 2)
- REMOVE BY CONTRACTOR
- REMOVE BY OTHERS
- ABANDON
- PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- PROPOSED POLE IDENTIFIER (# OF POLE)
- EXISTING POLE IDENTIFIER (# OF POLE)
- PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
- EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
- PROPOSED SPAN WIRE
- XX EXISTING SPAN WIRE
- RIGHT-OF-WAY OR PROPERTY LINE
- PROPOSED SPAN INSULATOR
- EXISTING SPAN INSULATOR
- SERVICE PEDESTAL
- PROPOSED CCTV
- EXISTING CCTV
- PROPOSED PLASTIC DRUMS
- EXISTING PLASTIC DRUMS

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-COVER,DELAWARE
2. POLE BASES,CABINET BASE,AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW,BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY,AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT CUPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0%) OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED	DATE:	RECOMMENDED	DATE:	RECOMMENDED	DATE:	APPROVED TRAFFIC ENGINEER	DATE:	APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER	DATE:
	05/15/13		7/12/13				7/12/13		7/12/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210
COUNTY	SUSSEX

PERMIT NO.	S263
DESIGNED BY:	MSK
CHECKED BY:	BAM

SIGNAL PLAN
SR 26 @ OLD MILL ROAD

SHEET NO.	527
TOTAL SHTS.	589

7/10/2013
I:\PROJECTS\sr26mainline\Survey\tp_i-3-4_signal_oldmill.dgn
16:51:28

CONDUIT RUN SCHEDULE

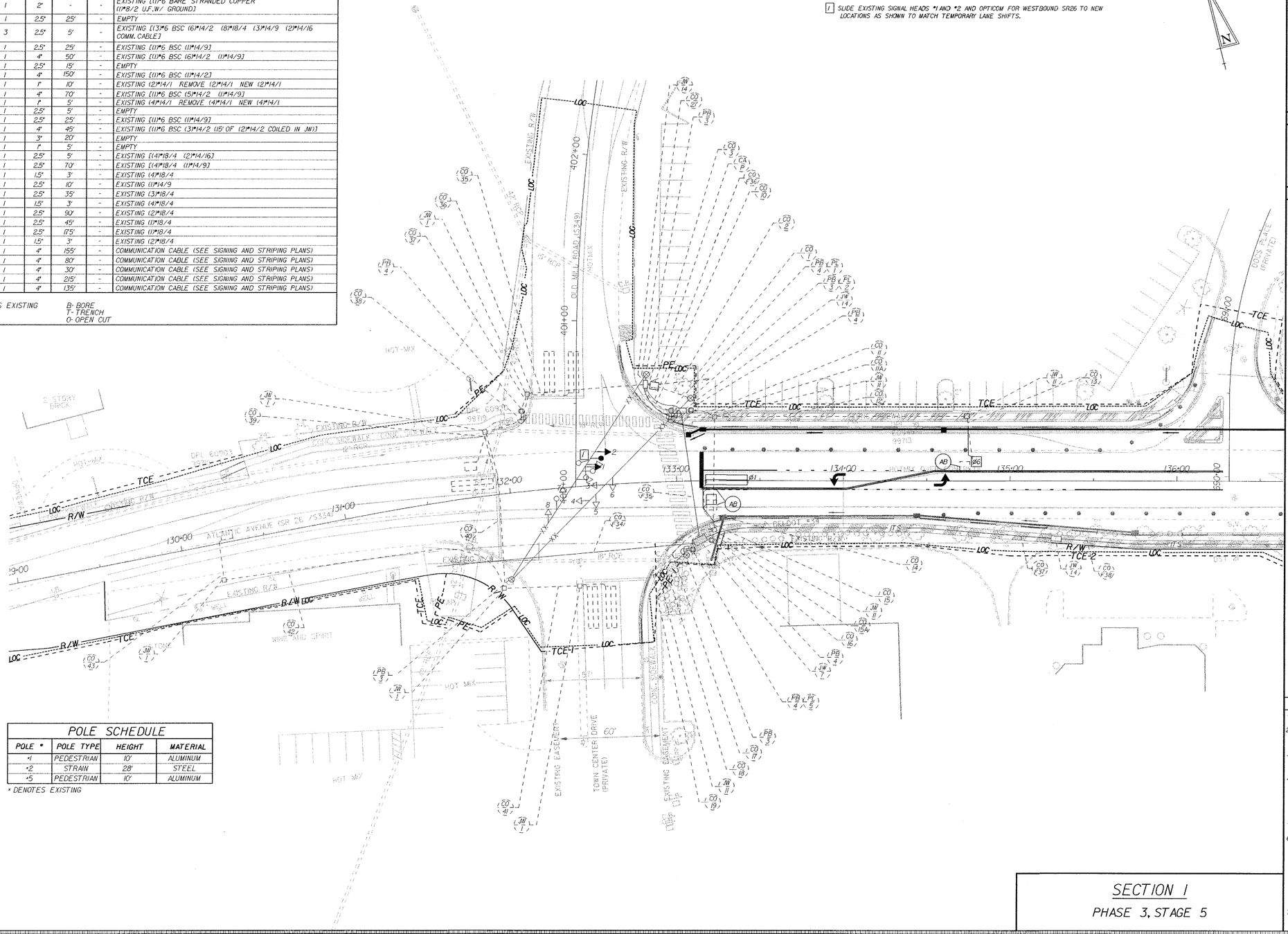
CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	-	-	EXISTING [(1)#6 BARE STRANDED COPPER (1)#8/2 U.F.W/ GROUND]
*2	1	2.5"	25'	-	EMPTY
*3	3	2.5"	5'	-	EXISTING [(3)#6 BSC (6)#14/2 (8)#18/4 (3)#14/9 (2)#14/16 COMM. CABLE]
*10	1	2.5"	25'	-	EXISTING [(1)#6 BSC (1)#14/9]
*11	1	4"	50'	-	EXISTING [(1)#6 BSC (6)#14/2 (1)#14/9]
*11A	1	2.5"	15'	-	EMPTY
*12	1	4"	150'	-	EXISTING [(1)#6 BSC (1)#14/2]
*13	1	1"	10'	-	EXISTING (2)#14/1 REMOVE (2)#14/1 NEW (2)#14/1
*14	1	4"	70'	-	EXISTING [(1)#6 BSC (5)#14/2 (1)#14/9]
*15	1	1"	5'	-	EXISTING (4)#14/1 REMOVE (4)#14/1 NEW (4)#14/1
*15A	1	2.5"	5'	-	EMPTY
*16	1	2.5"	25'	-	EXISTING [(1)#6 BSC (1)#14/9]
*17	1	4"	45'	-	EXISTING [(1)#6 BSC (3)#14/2 (15' OF (2)#14/2 COILED IN JW1)]
*18	1	3"	20'	-	EMPTY
*19	1	1"	5'	-	EMPTY
*27	1	2.5"	5'	-	EXISTING [(4)#18/4 (2)#14/16]
*35	1	2.5"	70'	-	EXISTING [(4)#18/4 (1)#14/9]
*36	1	1.5"	3'	-	EXISTING (4)#18/4
*37	1	2.5"	10'	-	EXISTING (1)#14/9
*38	1	2.5"	35'	-	EXISTING (3)#18/4
*39	1	1.5"	3'	-	EXISTING (4)#18/4
*40	1	2.5"	90'	-	EXISTING (2)#18/4
*41	1	2.5"	45'	-	EXISTING (1)#18/4
*42	1	2.5"	175'	-	EXISTING (1)#18/4
*43	1	1.5"	3'	-	EXISTING (2)#18/4
*F34	1	4"	155'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F35	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F36	1	4"	30'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F37	1	4"	215'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F38	1	4"	135'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT

PHASE 3, STAGE 5 SIGNAL NOTES

1 SLIDE EXISTING SIGNAL HEADS *1 AND *2 AND OPTICOM FOR WESTBOUND SR26 TO NEW LOCATIONS AS SHOWN TO MATCH TEMPORARY LANE SHIFTS.

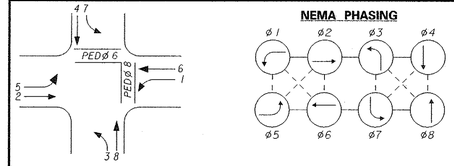


POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	PEDESTRIAN	10'	ALUMINUM
*2	STRAIN	28'	STEEL
*5	PEDESTRIAN	10'	ALUMINUM

* DENOTES EXISTING

SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

■	PROPOSED SIGNAL CABINET	(RM/C)	REMOVE BY CONTRACTOR
▣	EXISTING SIGNAL CABINET	(RM/O)	REMOVE BY OTHERS
⊙	PROPOSED SIGNAL POLE BASE	(AB)	ABANDON
⊗	EXISTING SIGNAL POLE BASE	(PB/X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
◉	PROPOSED PEDESTRIAN POLE BASE	(FB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
◎	EXISTING PEDESTRIAN POLE BASE	(PL/X)	PROPOSED POLE IDENTIFIER (# OF POLE)
●	PROPOSED WOOD POLE	(PL/X)	EXISTING POLE IDENTIFIER (# OF POLE)
○	EXISTING WOOD POLE	(JW/X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
■	PROPOSED JUNCTION WELL	(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
□	EXISTING JUNCTION WELL	(CO/#)	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
→	PROPOSED SIGNAL HEAD	(CO/#)	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
▷	EXISTING SIGNAL HEAD	(OH/#)	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
▬	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH/#)	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
▭	EXISTING PEDESTRIAN SIGNAL HEAD	(MA/XX)	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
●→	PROPOSED PEDESTRIAN PUSHBUTTON	(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
○→	EXISTING PEDESTRIAN PUSHBUTTON	(CA/X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
◀	PROPOSED VIDEO DETECTION	(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
◁	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
◀●	PROPOSED MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
◁○	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
⊣	OVERHEAD SIGNING	◆	PROPOSED SPAN INSULATOR
●—	PROPOSED OPTICOM RECEIVER	◇	EXISTING SPAN INSULATOR
○—	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
▶	PROPOSED MAST ARM		PROPOSED CCTV
▷	EXISTING MAST ARM		EXISTING CCTV
●—	PROPOSED LUMINAIRE	•	PROPOSED PLASTIC DRUMS
○—	EXISTING LUMINAIRE	⊠	EXISTING PLASTIC DRUMS
▭	PROPOSED LOOP DETECTOR (TYPE I OR 2)		
▭	EXISTING LOOP DETECTOR (TYPE I OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0J OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED B. Sadler DATE: 05/15/13	RECOMMENDED Chetna Dave DATE: 7/12/13	RECOMMENDED ____ DATE: ____	APPROVED TRAFFIC ENGINEER Marvel M. Hite DATE: 7/10/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER Mike Hogg DATE: 7/12/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210	PERMIT NO.	S263
COUNTY	SUSSEX	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN
SR 26 @ OLD MILL ROAD

SHEET NO.	528
TOTAL SHTS.	589

7/10/2013
I:\PROJECTS\sr26mainline\Survey\tp_1-3-5_signal_oldmill.dgn
16:15:55

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	-	-	EXISTING [(1)#6 BARE STRANDED COPPER (1)#6/2 U.F.W/ GROUND]
*2	1	2.5"	25'	-	NEW [(1)#6 BSC (4)#18/4 (2)#14/16 (4)MICROWAVE DETECTION HOMERUN CABLES]
*3	3	2.5"	5'	-	EXISTING [(3)#6 BSC (6)#14/2 (8)#18/4 (3)#14/9 (2)#14/16 COMM. CABLE] REMOVE [(8)#18/4 (2)#14/16] NEW [(5)#14/2 (2)#14/9]
4	1	4"	100'	B	NEW [(1)#6 BSC (2)#14/2 (15' OF EA.COILED IN JW)]
8	1	3"	10'	T	EMPTY
9	1	1"	15'	T	EMPTY
*10	1	2.5"	25'	-	EXISTING [(1)#6 BSC (1)#14/9]
*11	1	4"	50'	-	EXISTING [(1)#6 BSC (6)#14/2 (1)#14/9] NEW [(3)#14/2 (2)#14/9]
*11A	1	2.5"	15'	-	EMPTY
*12	1	4"	150'	-	EXISTING [(1)#6 BSC (1)#14/2]
*13	1	1"	10'	-	EXISTING (2)#14/1 REMOVE (2)#14/1
*14	1	4"	70'	-	EXISTING [(1)#6 BSC (5)#14/2 (1)#14/9] NEW [(3)#14/2 (2)#14/9]
*15	1	1"	5'	-	EXISTING (4)#14/1 REMOVE (4)#14/1
*15A	1	2.5"	5'	-	EMPTY
*16	1	2.5"	25'	-	EXISTING [(1)#6 BSC (1)#14/9]
*17	1	4"	45'	-	EXISTING [(1)#6 BSC (3)#14/2 (15' OF (2)#14/2 COILED IN JW) NEW [(3)#14/2 (2)#14/9]
*18	1	3"	20'	-	EMPTY
*19	1	1"	5'	-	EMPTY
20	1	4"	100'	B	NEW [(1)#6 BSC (3)#14/2 (15' OF (2)#14/2 COILED IN JW) (2)#14/9]
21	1	4"	35'	T	NEW [(1)#6 BSC (2)#14/9]
21A	1	2.5"	5'	T	NEW (1)#6 BSC (1)#14/9]
22	1	2.5"	20'	T	NEW [(1)#6 BSC (1)#14/9]
23	1	1"	20'	T	EMPTY
24	1	3"	10'	T	EMPTY
25	1	4"	170'	T	NEW [(1)#6 BSC (1)#14/2 (15' COILED IN JW)]
26	1	1"	10'	T	EMPTY
*27	1	2.5"	5'	-	EXISTING [(4)#16/4 (2)#14/16]
*35	1	2.5"	70'	-	EXISTING [(4)#18/4 (1)#14/9]
*36	1	1.5"	3'	T	EXISTING (4)#18/4
*37	1	2.5"	10'	T	EXISTING (1)#14/9
*38	1	2.5"	35'	-	EXISTING (3)#18/4
*39	1	1.5"	3'	T	EXISTING (4)#18/4
*40	1	2.5"	90'	-	EXISTING (2)#18/4
*41	1	2.5"	45'	-	EXISTING (1)#18/4
*42	1	2.5"	175'	-	EXISTING (1)#18/4
*43	1	1.5"	3'	-	EXISTING (2)#18/4

LEGEND
* DENOTES EXISTING   B- BORE T- TRENCH O- OPEN CUT

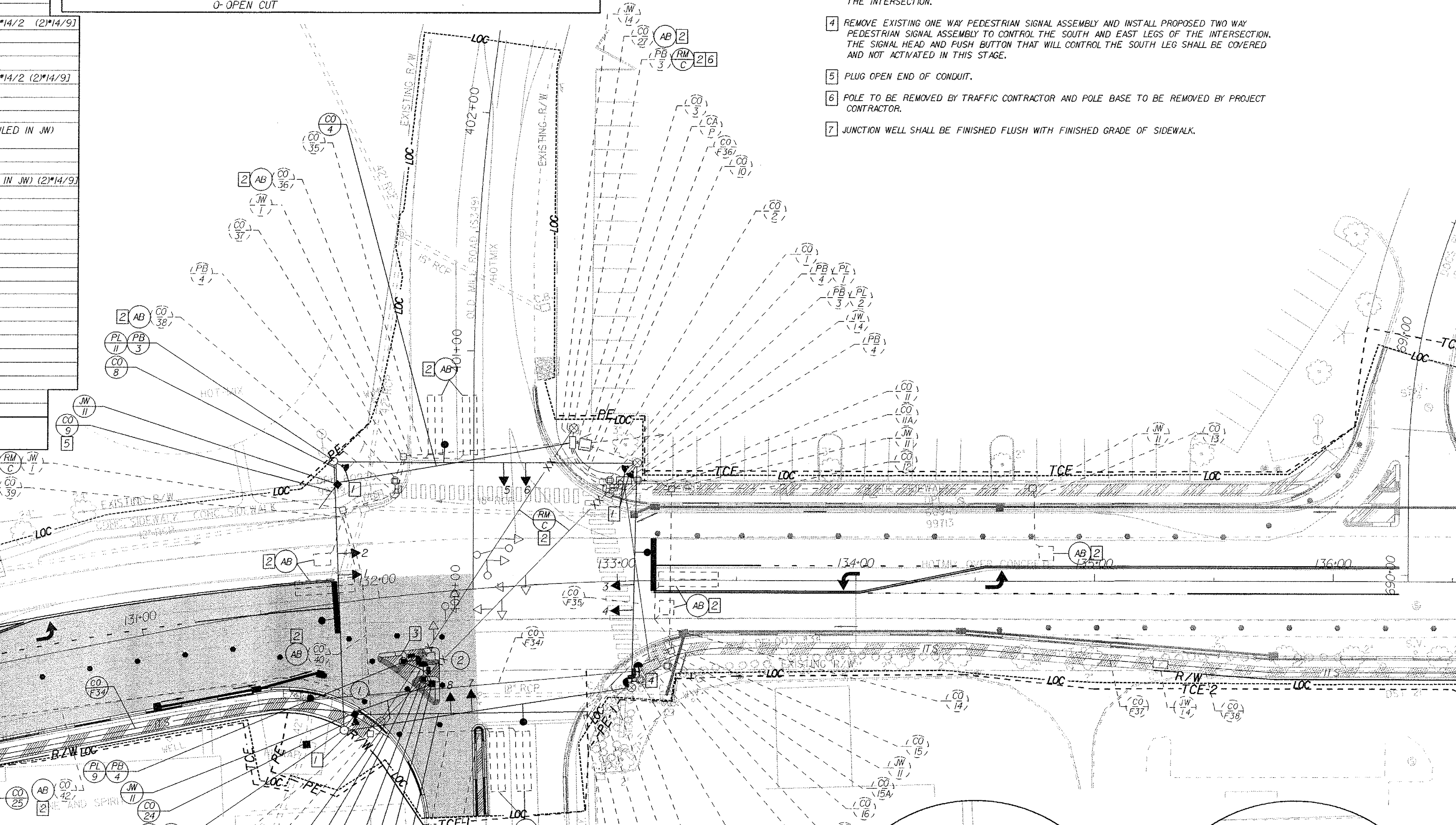
CONDUIT RUN SCHEDULE (CONT.)

CO#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
F33	1	4"	130'	T	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F34	1	4"	130'	T	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F34	1	4"	155'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F35	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F36	1	4"	30'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F37	1	4"	215'	T	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F38	1	4"	135'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING   B- BORE T- TRENCH O- OPEN CUT

PHASE 3, STAGE 5 SIGNAL NOTES

1. MICROWAVE DETECTORS SHALL BE LOCATED, MOUNTED, AND ORIENTED TO ACHIEVE OPTIMUM DETECTION FOR LANE ASSIGNMENTS IN THIS STAGE. PROPOSED MICROWAVE HOMERUN CABLES SHALL RUN ALONG THE PROPOSED SPAN WIRE, DOWN THE EXISTING NORTHEAST SIGNAL POLE AND THROUGH EXISTING CONDUIT (CO #2) TO THE EXISTING SIGNAL CABINET.
2. EXISTING SIGNAL INSTALLATIONS SHALL NOT BE REMOVED OR ABANDONED UNTIL THE PROPOSED MICROWAVE DETECTION SIGNAL SYSTEM IS COMPLETE AND ACTIVATED.
3. INSTALL PROPOSED CONCRETE ISLAND, PEDESTRIAN POLE BASES, POLES, SIGNAL HEADS AND PUSH BUTTONS IMMEDIATELY PRIOR TO THE END OF THIS STAGE. COVER PROPOSED PEDESTRIAN SIGNAL HEAD AND PUSH BUTTON THAT WILL CONTROL FUTURE CROSSWALK ON THE WEST LEG OF THE INTERSECTION.
4. REMOVE EXISTING ONE WAY PEDESTRIAN SIGNAL ASSEMBLY AND INSTALL PROPOSED TWO WAY PEDESTRIAN SIGNAL ASSEMBLY TO CONTROL THE SOUTH AND EAST LEGS OF THE INTERSECTION. THE SIGNAL HEAD AND PUSH BUTTON THAT WILL CONTROL THE SOUTH LEG SHALL BE COVERED AND NOT ACTIVATED IN THIS STAGE.
5. PLUG OPEN END OF CONDUIT.
6. POLE TO BE REMOVED BY TRAFFIC CONTRACTOR AND POLE BASE TO BE REMOVED BY PROJECT CONTRACTOR.
7. JUNCTION WELL SHALL BE FINISHED FLUSH WITH FINISHED GRADE OF SIDEWALK.



SPAN WIRE SCHEDULE

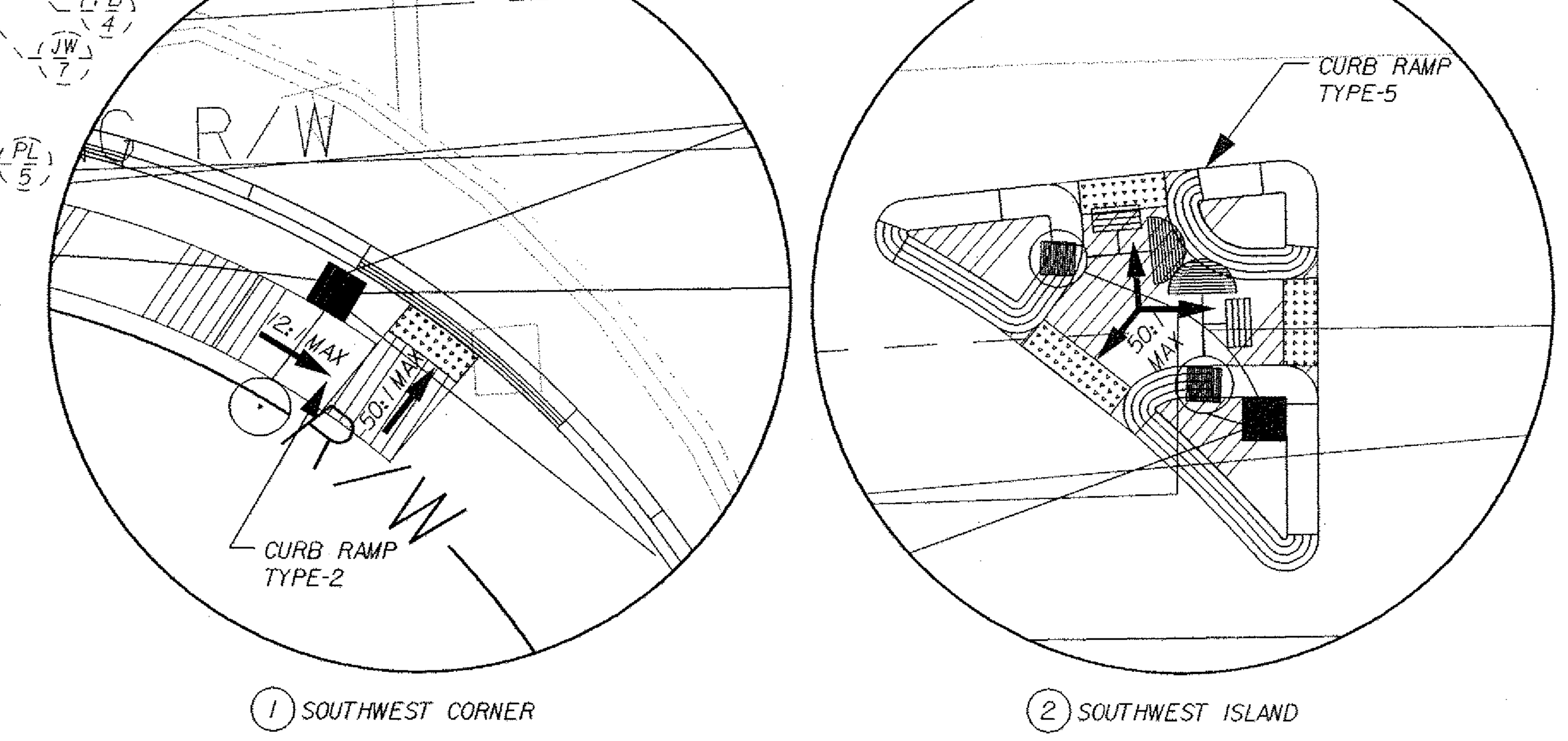
SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
NORTH	125 FT	27.50 FT	6.25 FT	21.25 FT	16.75 FT
EAST	92 FT	26.50 FT	4.60 FT	21.90 FT	17.40 FT
SOUTH	119 FT	27.00 FT	5.95 FT	21.05 FT	16.55 FT
WEST	110 FT	27.00 FT	5.50 FT	21.50 FT	17.00 FT

NOTE: FIELD ADJUSTMENTS AS REQUIRED

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
*1	PEDESTRIAN	10'	ALUMINUM
*2	STRAIN	28'	STEEL
*5	PEDESTRIAN	10'	ALUMINUM
6	STRAIN	32'	STEEL
7	PEDESTRIAN	10'	ALUMINUM
8	STRAIN	32'	STEEL
9	PEDESTRIAN	10'	ALUMINUM
11	STRAIN	32'	STEEL

* DENOTES EXISTING



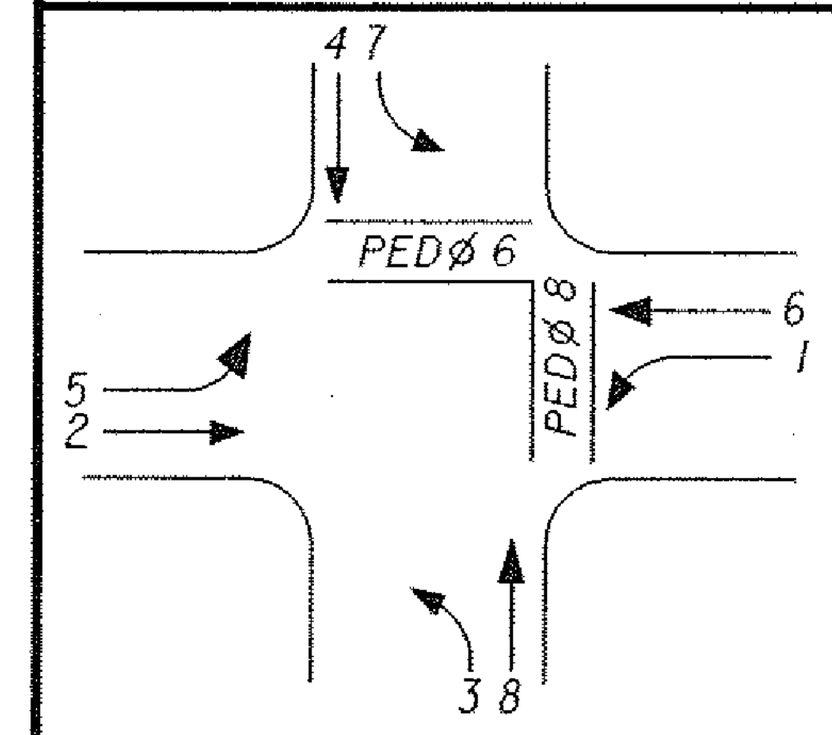
1 SOUTHWEST CORNER   2 SOUTHWEST ISLAND

CURB RAMP DETAILS

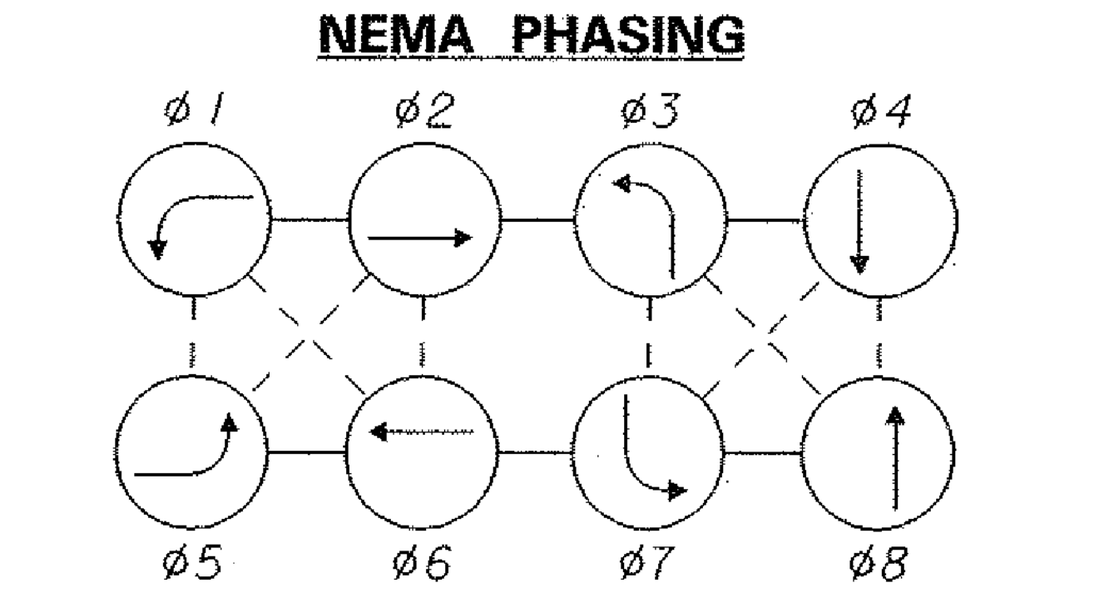
SCALE: 1" = 10'
NOTE: FIELD ADJUSTMENTS SHALL BE MADE AS REQUIRED

SECTION 2
PHASE 3, STAGE 5

SIGNAL PHASING



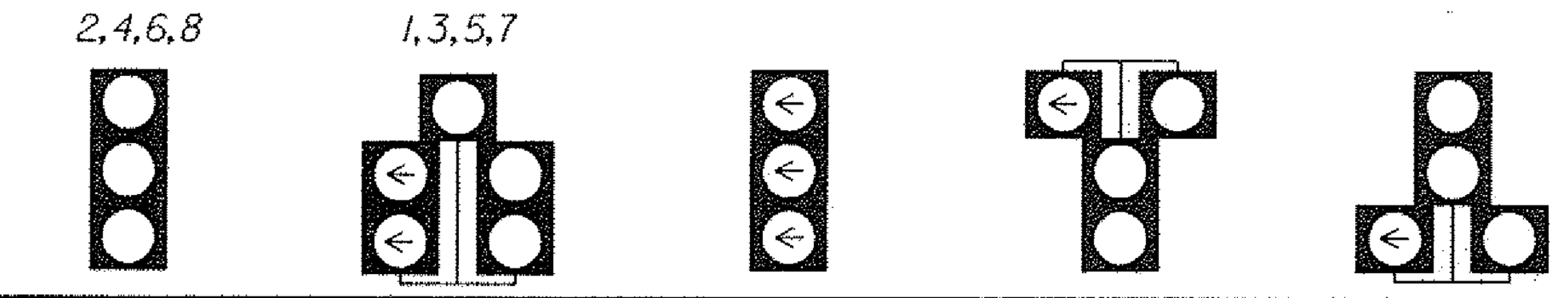
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

PROPOSED SIGNAL CABINET	RM/C REMOVE BY CONTRACTOR
EXISTING SIGNAL CABINET	RM/O REMOVE BY OTHERS
PROPOSED SIGNAL POLE BASE	AB ABANDON
EXISTING SIGNAL POLE BASE	PB/X PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
PROPOSED PEDESTRIAN POLE BASE	(PB/X) EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
EXISTING PEDESTRIAN POLE BASE	PL/X PROPOSED POLE IDENTIFIER (# OF POLE)
PROPOSED WOOD POLE	(PL/X) EXISTING POLE IDENTIFIER (# OF POLE)
EXISTING WOOD POLE	JW/X PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
PROPOSED JUNCTION WELL	(JW/X) EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
EXISTING JUNCTION WELL	CO/# PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
PROPOSED SIGNAL HEAD	(CO/#) EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
EXISTING SIGNAL HEAD	OH/# PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
PROPOSED PEDESTRIAN SIGNAL HEAD	(OH/#) EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
EXISTING PEDESTRIAN SIGNAL HEAD	MA/XX PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
PROPOSED PEDESTRIAN PUSHBUTTON	(MA/XX) EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
EXISTING PEDESTRIAN PUSHBUTTON	CA/X PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
PROPOSED VIDEO DETECTION	(CA/X) EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
EXISTING VIDEO DETECTION	PROPOSED SPAN WIRE
PROPOSED MICROWAVE DETECTION	— XX — EXISTING SPAN WIRE
EXISTING MICROWAVE DETECTION	RIGHT-OF-WAY OR PROPERTY LINE
OVERHEAD SIGNING	PROPOSED SPAN INSULATOR
PROPOSED OPTICOM RECEIVER	EXISTING SPAN INSULATOR
EXISTING OPTICOM RECEIVER	P SERVICE PEDESTAL
PROPOSED MAST ARM	PROPOSED CCTV
EXISTING MAST ARM	EXISTING CCTV
PROPOSED LUMINAIRE	PROPOSED PLASTIC DRUMS
EXISTING LUMINAIRE	EXISTING PLASTIC DRUMS
PROPOSED LOOP DETECTOR (TYPE 1 OR 2)	
EXISTING LOOP DETECTOR (TYPE 1 OR 2)	

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED [signature] DATE: 05/15/13 | RECOMMENDED Chetna Dave DATE: 7/12/13 | RECOMMENDED ________ DATE: ____ | APPROVED TRAFFIC ENGINEER [signature] DATE: 7/12/13 | APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER [signature] DATE: 7/12/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210
COUNTY	SUSSEX
PERMIT NO.	S263
DESIGNED BY:	MSK
CHECKED BY:	BAM

SIGNAL PLAN
SR 26 @ OLD MILL ROAD

SHEET NO. 529
TOTAL SHTS. 589

7/10/2013
I:\PROJECTS\sr26mainline\Survey\tp_2-3-5_signal_oldmill.dgn
15:53:05

CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	-	-	EXISTING [(1)#6 BARE STRANDED COPPER (1)#8/2 U.F.W/ GROUND]
*2	1	2.5"	25'	-	EXISTING [(1)#6 BSC (4)#18/4 (2)#14/16 (4)MICROWAVE DETECTION HOMERUN CABLES]
*3	3	2.5"	5'	-	EXISTING [(3)#6 BSC (1)#14/2 (5)#14/9 COMM. CABLE] REMOVE (1)#14/9 NEW [(3)#14/2 (2)#14/9]
*4	1	4"	100'	-	EXIST [(1)#6 BSC (2)#14/2 (15' OF EA.COILED IN JW) NEW [(3)#14/2 (2)#14/9]
5	1	4"	35'	T	NEW [(1)#6 BSC (3)#14/2 (15' OF EA.COILED IN JW)(2)#14/9]
5A	1	2.5"	5'	T	NEW [(1)#6 BSC (1)#14/9]
6	1	1"	15'	T	EMPTY
7	1	2.5"	20'	T	NEW [(1)#6 BSC (1)#14/9]
*8	1	3"	10'	-	EMPTY
*9	1	1"	15'	-	EMPTY
*10	1	2.5"	25'	-	EXISTING [(1)#6 BSC (1)#14/9]
*11	1	4"	50'	-	EXISTING [(1)#6 BSC (9)#14/2 (3)#14/9]
*11A	1	2.5"	15'	-	EMPTY
*12	1	4"	150'	-	EXISTING [(1)#6 BSC (1)#14/2]
*13	1	1"	10'	-	EMPTY
*14	1	4"	70'	-	EXISTING [(1)#6 BSC (8)#14/2 (3)#14/9]
*15	1	1"	5'	-	EMPTY
*15A	1	2.5"	5'	-	EMPTY
*16	1	2.5"	25'	-	EXISTING [(1)#6 BSC (1)#14/9]
*17	1	4"	45'	-	EXISTING [(1)#6 BSC (6)#14/2 (15' OF (2)#14/2 COILED IN JW) (2)#14/9]
*18	1	3"	20'	-	EMPTY
*19	1	1"	5'	-	EMPTY
*20	1	4"	100'	-	EXISTING [(1)#6 BSC (3)#14/2 (15' OF (2)#14/2 COILED IN JW) (2)#14/9]
*21	1	4"	35'	-	EXISTING [(1)#6 BSC (2)#14/9]
*21A	1	2.5"	5'	-	EXISTING [(1)#6 BSC (1)#14/9]
*22	1	2.5"	20'	-	EXISTING [(1)#6 BSC (1)#14/9]
*23	1	1"	20'	-	EMPTY
*24	1	3"	10'	-	EMPTY
*25	1	4"	170'	-	EXISTING [(1)#6 BSC (1)#14/2 (15' COILED IN JW)]
*26	1	1"	10'	-	EMPTY
*35	1	2.5"	70'	-	EXISTING [(4)#18/4 (1)#14/9]
*37	1	2.5"	10'	-	EXISTING (1)#14/9

LEGEND
* DENOTES EXISTING B- BORE T- TRENCH O- OPEN CUT

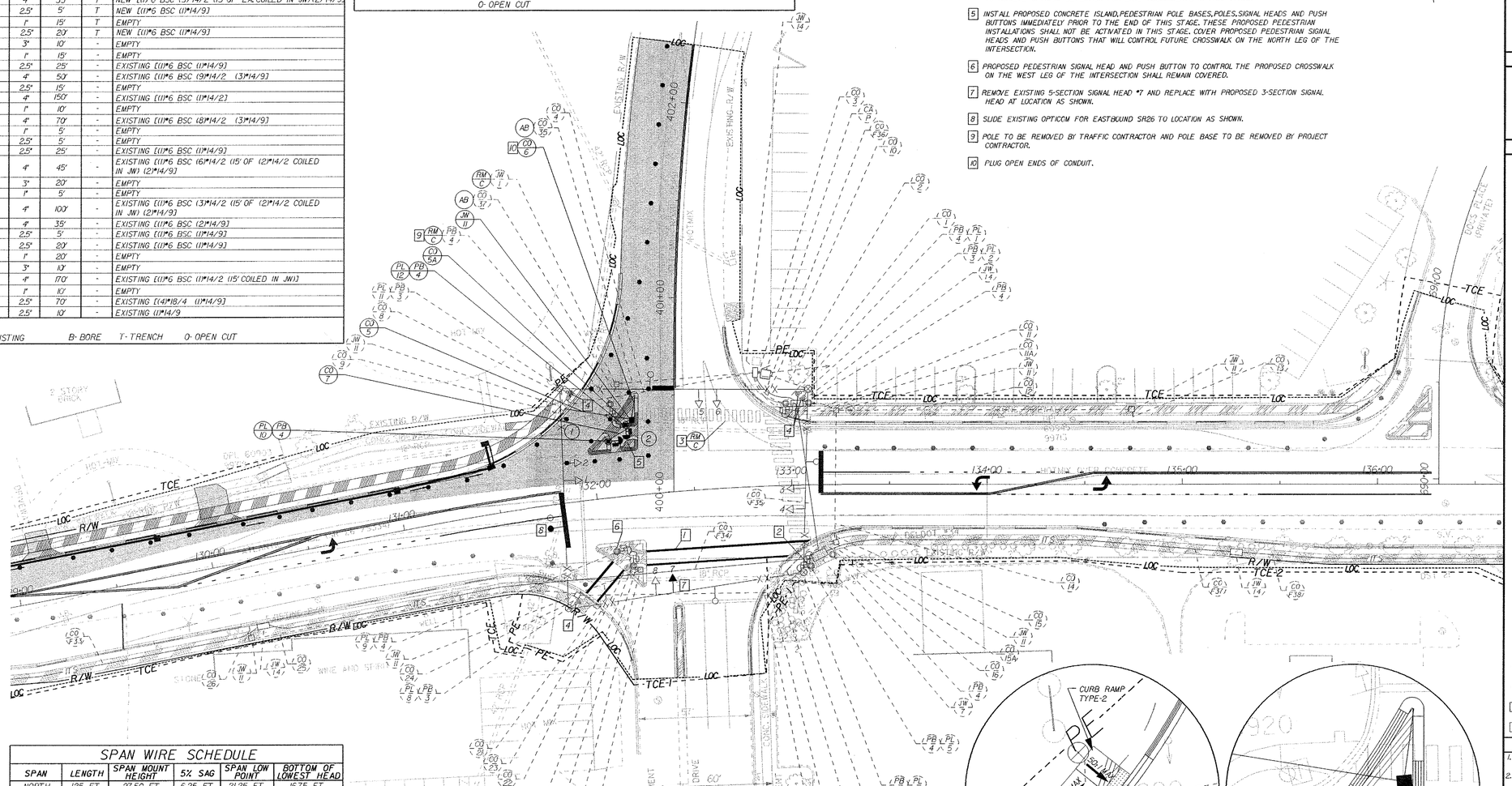
CONDUIT RUN SCHEDULE (CONT.)

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*F33	1	4"	130'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F34	1	4"	285'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F35	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F36	1	4"	30'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F37	1	4"	215'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F38	1	4"	135'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING B- BORE T- TRENCH O- OPEN CUT

PHASE 3, STAGE 6 SIGNAL NOTES

1. TEMPORARY CROSSWALK FOR THE SOUTH LEG OF THE INTERSECTION SHALL BE STRIPED AT THE COMMENCEMENT OF THIS STAGE.
2. THE PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS TO CONTROL THE CROSSWALK ON THE SOUTH LEG SHALL BE UNCOVERED AND ACTIVATED.
3. EXISTING CROSSWALK STRIPING ON THE NORTH LEG SHALL BE REMOVED AT THE COMMENCEMENT OF THIS STAGE.
4. EXISTING MICROWAVE DETECTORS SHALL BE ADJUSTED/ RE-ORIENTED WHERE NECESSARY TO ACHIEVE OPTIMUM DETECTION FOR LANE ASSIGNMENTS IN THIS STAGE.
5. INSTALL PROPOSED CONCRETE ISLAND,PEDESTRIAN POLE BASES,POLES,SIGNAL HEADS AND PUSH BUTTONS IMMEDIATELY PRIOR TO THE END OF THIS STAGE. THESE PROPOSED PEDESTRIAN INSTALLATIONS SHALL NOT BE ACTIVATED IN THIS STAGE. COVER PROPOSED PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS THAT WILL CONTROL FUTURE CROSSWALK ON THE NORTH LEG OF THE INTERSECTION.
6. PROPOSED PEDESTRIAN SIGNAL HEAD AND PUSH BUTTON TO CONTROL THE PROPOSED CROSSWALK ON THE WEST LEG OF THE INTERSECTION SHALL REMAIN COVERED.
7. REMOVE EXISTING 5-SECTION SIGNAL HEAD *7 AND REPLACE WITH PROPOSED 3-SECTION SIGNAL HEAD AT LOCATION AS SHOWN.
8. SLIDE EXISTING OPTICOM FOR EASTBOUND SR26 TO LOCATION AS SHOWN.
9. POLE TO BE REMOVED BY TRAFFIC CONTRACTOR AND POLE BASE TO BE REMOVED BY PROJECT CONTRACTOR.
10. PLUG OPEN ENDS OF CONDUIT.



SPAN WIRE SCHEDULE

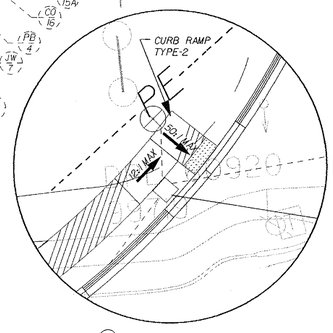
SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
NORTH	125 FT	27.50 FT	6.25 FT	21.25 FT	16.75 FT
EAST	92 FT	26.50 FT	4.60 FT	21.90 FT	17.40 FT
SOUTH	119 FT	27.00 FT	5.95 FT	21.05 FT	16.55 FT
WEST	110 FT	27.00 FT	5.50 FT	21.50 FT	17.00 FT

NOTE: FIELD ADJUSTMENTS AS REQUIRED

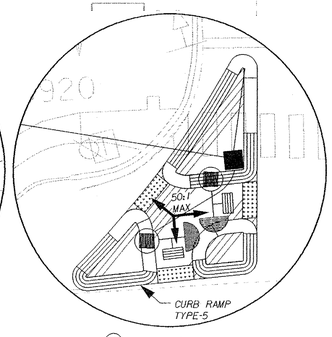
POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	PEDESTRIAN	10'	ALUMINUM
*2	STRAIN	28'	STEEL
*5	PEDESTRIAN	10'	ALUMINUM
*6	STRAIN	32'	STEEL
*7	PEDESTRIAN	10'	ALUMINUM
*8	STRAIN	32'	STEEL
*9	PEDESTRIAN	10'	ALUMINUM
10	PEDESTRIAN	10'	ALUMINUM
*11	STRAIN	32'	STEEL
12	PEDESTRIAN	10'	ALUMINUM

* DENOTES EXISTING



(1) NORTHWEST CORNER



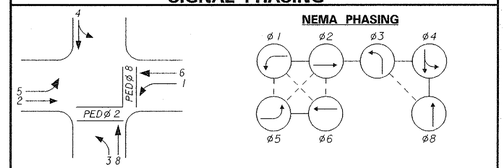
(2) NORTHWEST ISLAND

CURB RAMP DETAILS

SCALE: 1" = 10'
NOTE: FIELD ADJUSTMENTS SHALL BE MADE AS REQUIRED

SECTION 2
PHASE 3, STAGE 6

SIGNAL PHASING



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

SIGNAL HEAD DIAGRAM



LEGEND

- PROPOSED SIGNAL CABINET
- EXISTING SIGNAL CABINET
- PROPOSED SIGNAL POLE BASE
- EXISTING SIGNAL POLE BASE
- PROPOSED PEDESTRIAN POLE BASE
- EXISTING PEDESTRIAN POLE BASE
- PROPOSED WOOD POLE
- EXISTING WOOD POLE
- PROPOSED JUNCTION WELL
- EXISTING JUNCTION WELL
- PROPOSED SIGNAL HEAD
- EXISTING SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSHBUTTON
- EXISTING PEDESTRIAN PUSHBUTTON
- PROPOSED VIDEO DETECTION
- EXISTING VIDEO DETECTION
- PROPOSED MICROWAVE DETECTION
- EXISTING MICROWAVE DETECTION
- OVERHEAD SIGNING
- PROPOSED OPTICOM RECEIVER
- EXISTING OPTICOM RECEIVER
- PROPOSED MAST ARM
- EXISTING MAST ARM
- PROPOSED LUMINAIRE
- EXISTING LUMINAIRE
- PROPOSED LOOP DETECTOR (TYPE 1OR 2)
- EXISTING LOOP DETECTOR (TYPE 1OR 2)
- (RM/C) REMOVE BY CONTRACTOR
- (RM/O) REMOVE BY OTHERS
- (AB) ABANDON
- (PB/X) PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- (PB/X) EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- (PL/X) PROPOSED POLE IDENTIFIER (# OF POLE)
- (PL/X) EXISTING POLE IDENTIFIER (# OF POLE)
- (JW/X) PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- (JW/X) EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- (CO/*) PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- (CO/*) EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- (OH/*) PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- (OH/*) EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- (MA/XX) PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- (MA/XX) EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- (CA/X) PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
- (CA/X) EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
- PROPOSED SPAN WIRE
- XX EXISTING SPAN WIRE
- RIGHT-OF-WAY OR PROPERTY LINE
- PROPOSED SPAN INSULATOR
- EXISTING SPAN INSULATOR
- (P) SERVICE PEDESTAL
- PROPOSED CCTV
- EXISTING CCTV
- PROPOSED PLASTIC DRUMS
- EXISTING PLASTIC DRUMS

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER,DELAWARE
2. POLE BASES,CABINET BASE,AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW,BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY,AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR,THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0% OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED	DATE:	RECOMMENDED	DATE:	RECOMMENDED	DATE:	APPROVED TRAFFIC ENGINEER	DATE:	APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER	DATE:
	05/15/13	Chitra Dave	7/12/13				7/10/13		7/12/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE: 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	PERMIT NO.	S263
T200411210	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
SUSSEX		

SIGNAL PLAN
SR 26 @ OLD MILL ROAD

SHEET NO.	TOTAL SHTS.
530	589

7/10/2013
I:\PROJECTS\sr26mlcnline\Survey\tp_2-3-6_signal_oldmill.dgn
JESSE.SIZE

CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	-	-	EXISTING [(1)*6 BARE STRANDED COPPER (1)*8/2 U.F.W/ GROUND
*2	1	2.5"	25'	-	EXISTING [(1)*6 BSC (4)*18/4 (2)*14/16 (4)MICROWAVE DETECTION HOMERUN CABLES]
*3	3	2.5"	5'	-	EXISTING [(3)*6 BSC (14)*14/2 (6)*14/9 COMM. CABLE]
*4	1	4"	100'	-	EXISTING [(1)*6 BSC (5)*14/2 (15' OF (2)*14/2 COILED IN JW) (2)*14/9]
*5	1	4"	35'	-	EXISTING [(1)*6 BSC (3)*14/2 (15' OF EA. COILED IN JW) (2)*14/9]
*5A	1	2.5"	5'	-	EXISTING [(1)*6 BSC (1)*14/9]
*6	1	1"	15'	-	EMPTY
*7	1	2.5"	20'	-	EXISTING [(1)*6 BSC (1)*14/9]
*8	1	3"	10'	-	EMPTY
*9	1	1"	15'	-	EMPTY
*10	1	2.5"	25'	-	EXISTING [(1)*6 BSC (1)*14/9]
*11	1	4"	50'	-	EXISTING [(1)*6 BSC (9)*14/2 (3)*14/9]
*11A	1	2.5"	15'	-	EMPTY
*12	1	4"	150'	-	EXISTING [(1)*6 BSC (1)*14/2]
*13	1	1"	10'	-	EMPTY
*14	1	4"	70'	-	EXISTING [(1)*6 BSC (8)*14/2 (3)*14/9]
*15	1	1"	5'	-	EMPTY
*15A	1	2.5"	5'	-	EMPTY
*16	1	2.5"	25'	-	EXISTING [(1)*6 BSC (1)*14/9]
*17	1	4"	45'	-	EXISTING [(1)*6 BSC (6)*14/2 (15' OF (2)*14/2 COILED IN JW) (2)*14/9]
*18	1	3"	20'	-	EMPTY
*19	1	1"	5'	-	EMPTY
*20	1	4"	100'	-	EXISTING [(1)*6 BSC (3)*14/2 (15' OF (2)*14/2 COILED IN JW) (2)*14/9]
*21	1	4"	35'	-	EXISTING [(1)*6 BSC (2)*14/9]
*21A	1	2.5"	5'	-	EXISTING [(1)*6 BSC (1)*14/9]
*22	1	2.5"	20'	-	EXISTING [(1)*6 BSC (1)*14/9]
*23	1	1"	20'	-	EMPTY
*24	1	3"	10'	-	EMPTY
*25	1	4"	170'	-	EXISTING [(1)*6 BSC (1)*14/2 (15' COILED IN JW)]
*26	1	1"	10'	-	EMPTY

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

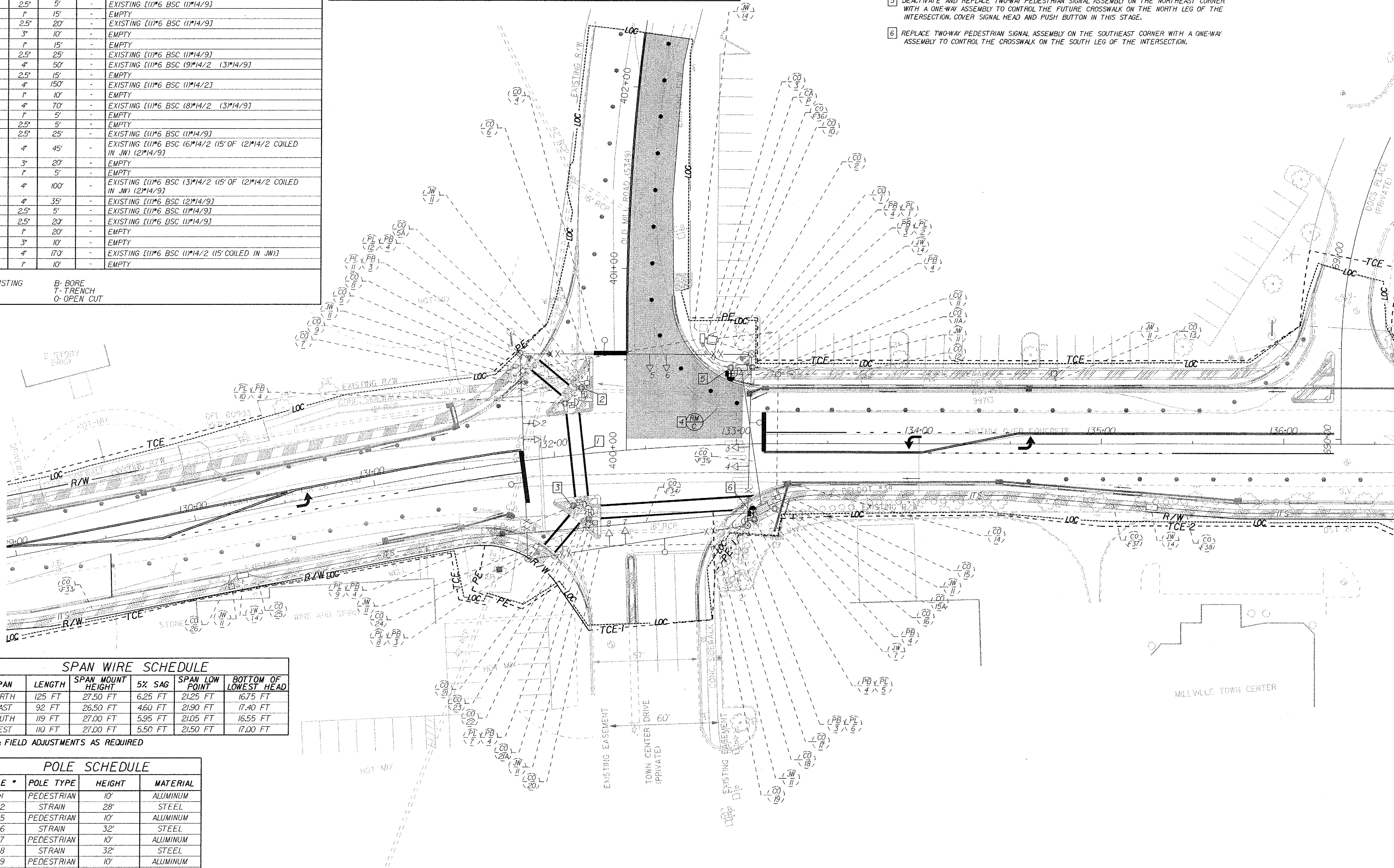
CONDUIT RUN SCHEDULE (CONT.)

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*F33	1	4"	130'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F34	1	4"	285'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F35	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F36	1	4"	30'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F37	1	4"	215'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F38	1	4"	135'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

PHASE 3, STAGE 7 SIGNAL NOTES

1. TEMPORARY CROSSWALK FOR THE WEST LEG OF THE INTERSECTION SHALL BE STRIPED AT THE COMMENCEMENT OF THIS STAGE.
2. THE ISLAND PEDESTRIAN SIGNAL HEAD AND PUSH BUTTON TO CONTROL THE FUTURE CROSSWALK ON THE NORTH LEG OF THE INTERSECTION SHALL REMAIN UNACTIVATED AND COVERED IN THIS STAGE.
3. UNCOVER AND ACTIVATE THE ISLAND PEDESTRIAN SIGNAL HEAD AND PUSH BUTTON FOR CONTROL OF THE CROSSWALK ON THE WEST LEG OF THE INTERSECTION.
4. EXISTING CROSSWALK STRIPING ON THE EAST LEG SHALL BE REMOVED AT THE COMMENCEMENT OF THIS STAGE.
5. DEACTIVATE AND REPLACE TWO-WAY PEDESTRIAN SIGNAL ASSEMBLY ON THE NORTHEAST CORNER WITH A ONE-WAY ASSEMBLY TO CONTROL THE FUTURE CROSSWALK ON THE NORTH LEG OF THE INTERSECTION. COVER SIGNAL HEAD AND PUSH BUTTON IN THIS STAGE.
6. REPLACE TWO-WAY PEDESTRIAN SIGNAL ASSEMBLY ON THE SOUTHEAST CORNER WITH A ONE-WAY ASSEMBLY TO CONTROL THE CROSSWALK ON THE SOUTH LEG OF THE INTERSECTION.



SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
NORTH	125 FT	27.50 FT	6.25 FT	21.25 FT	16.75 FT
EAST	92 FT	26.50 FT	4.60 FT	21.90 FT	17.40 FT
SOUTH	119 FT	27.00 FT	5.95 FT	21.05 FT	16.55 FT
WEST	110 FT	27.00 FT	5.50 FT	21.50 FT	17.00 FT

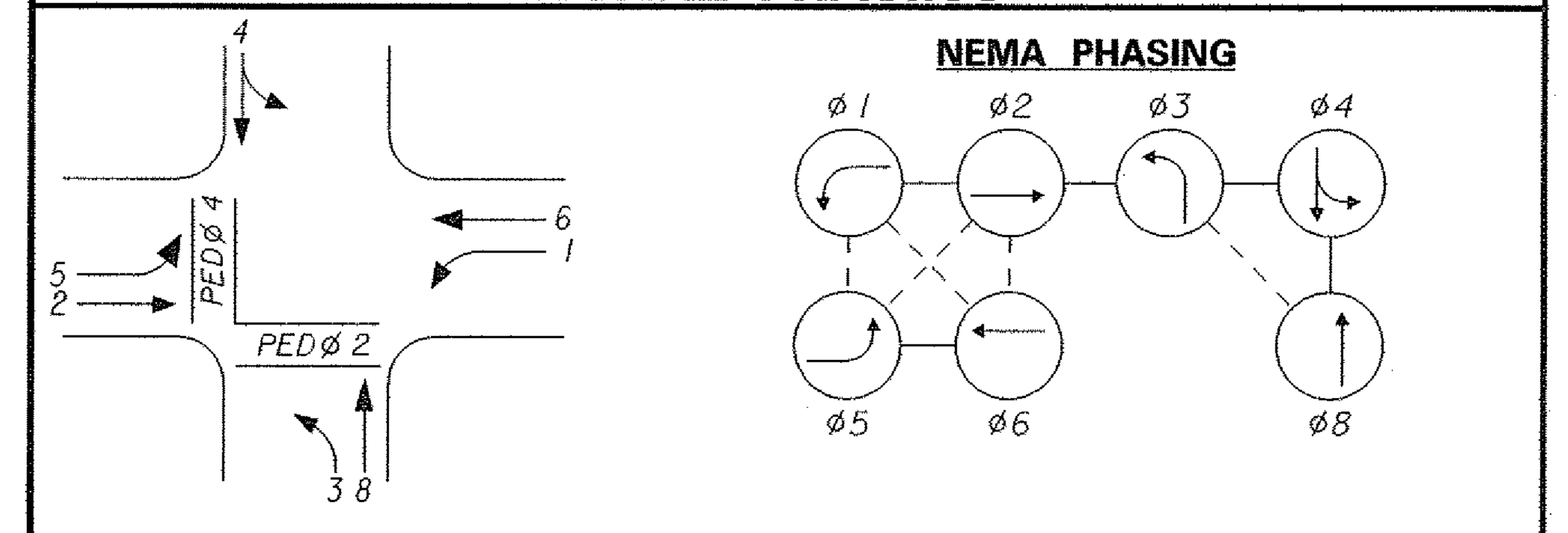
NOTE: FIELD ADJUSTMENTS AS REQUIRED

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	PEDESTRIAN	10'	ALUMINUM
*2	STRAIN	28'	STEEL
*5	PEDESTRIAN	10'	ALUMINUM
*6	STRAIN	32'	STEEL
*7	PEDESTRIAN	10'	ALUMINUM
*8	STRAIN	32'	STEEL
*9	PEDESTRIAN	10'	ALUMINUM
*10	PEDESTRIAN	10'	ALUMINUM
*11	STRAIN	32'	STEEL
*12	PEDESTRIAN	10'	ALUMINUM

* DENOTES EXISTING

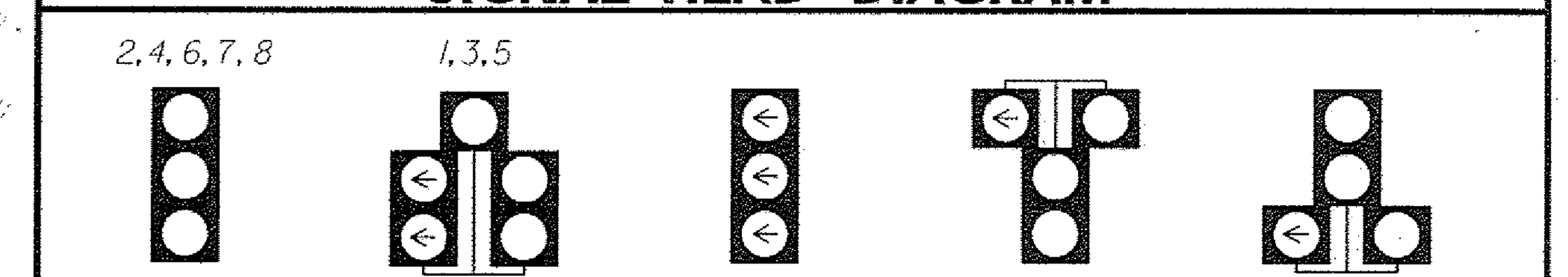
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

PROPOSED SIGNAL CABINET	REMOVE BY CONTRACTOR
EXISTING SIGNAL CABINET	REMOVE BY OTHERS
PROPOSED SIGNAL POLE BASE	ABANDON
EXISTING SIGNAL POLE BASE	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
PROPOSED PEDESTRIAN POLE BASE	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
EXISTING PEDESTRIAN POLE BASE	PROPOSED POLE IDENTIFIER (* OF POLE)
PROPOSED WOOD POLE	EXISTING POLE IDENTIFIER (* OF POLE)
EXISTING WOOD POLE	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
PROPOSED JUNCTION WELL	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
EXISTING JUNCTION WELL	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
PROPOSED SIGNAL HEAD	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
EXISTING SIGNAL HEAD	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
PROPOSED PEDESTRIAN SIGNAL HEAD	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
EXISTING PEDESTRIAN SIGNAL HEAD	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
PROPOSED PEDESTRIAN PUSHBUTTON	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
EXISTING PEDESTRIAN PUSHBUTTON	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
PROPOSED VIDEO DETECTION	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
EXISTING VIDEO DETECTION	PROPOSED SPAN WIRE
PROPOSED MICROWAVE DETECTION	EXISTING SPAN WIRE
EXISTING MICROWAVE DETECTION	RIGHT-OF-WAY OR PROPERTY LINE
OVERHEAD SIGNING	PROPOSED SPAN INSULATOR
PROPOSED OPTICOM RECEIVER	EXISTING SPAN INSULATOR
EXISTING OPTICOM RECEIVER	SERVICE PEDESTAL
PROPOSED MAST ARM	PROPOSED CCTV
EXISTING MAST ARM	EXISTING CCTV
PROPOSED LUMINAIRE	PROPOSED PLASTIC DRUMS
EXISTING LUMINAIRE	EXISTING PLASTIC DRUMS
PROPOSED LOOP DETECTOR (TYPE 1 OR 2)	
EXISTING LOOP DETECTOR (TYPE 1 OR 2)	

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

SECTION 2
PHASE 3, STAGE 7

RECOMMENDED [signature] DATE: 05/15/13
RECOMMENDED Chetna Dave DATE: 7/12/13
RECOMMENDED ______ DATE: ______
APPROVED TRAFFIC ENGINEER [signature] DATE: 7/12/13
APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER [signature] DATE: 7/12/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210	PERMIT NO.	S263
COUNTY	SUSSEX	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN
SR 26 @ OLD MILL ROAD

SHEET NO. 531
TOTAL SHTS. 589

7/10/2013
J:\PROJECTS\sr26mainline\Survey\tp_2-3-7_signal_oldmill.dgn
15:54:10

CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	-	-	EXISTING (1)#6 BARE STRANDED COPPER (1)#8/2 (U.F.W/ GROUND
*2	1	2.5"	25'	-	EXISTING (1)#6 BSC (4)#18/4 (2)#14/16 (4)MICROWAVE DETECTION HOMERUN CABLES)
*3	3	2.5"	5'	-	EXISTING (3)#6 BSC (14)#14/2 (6)#14/9 COMM. CABLE)
*4	1	4"	100'	-	EXISTING (1)#6 BSC (5)#14/2 (15' OF (2)#14/2 COILED IN JW) (2)#14/9)
*5	1	4"	35'	-	EXISTING (1)#6 BSC (3)#14/2 (15' OF EA. COILED IN JW) (2)#14/9)
*5A	1	2.5"	5'	-	EXISTING (1)#6 BSC (1)#14/9)
*6	1	1"	15'	-	EMPTY
*7	1	2.5"	20'	-	EXISTING (1)#6 BSC (1)#14/9)
*8	1	3"	10'	-	EMPTY
*9	1	1"	15'	-	EMPTY
*10	1	2.5"	25'	-	EXISTING (1)#6 BSC (1)#14/9)
*11	1	4"	50'	-	EXISTING (1)#6 BSC (9)#14/2 (3)#14/9)
*11A	1	2.5"	15'	-	EMPTY
*12	1	4"	150'	-	EXISTING (1)#6 BSC (1)#14/2)
*13	1	1"	10'	-	EMPTY
*14	1	4"	70'	-	EXISTING (1)#6 BSC (8)#14/2 (3)#14/9)
*15	1	1"	5'	-	EMPTY
*15A	1	2.5"	5'	-	EMPTY
*16	1	2.5"	25'	-	EXISTING (1)#6 BSC (1)#14/9)
*17	1	4"	45'	-	EXISTING (1)#6 BSC (6)#14/2 (15' OF (2)#14/2 COILED IN JW) (2)#14/9)
*18	1	3"	20'	-	EMPTY
*19	1	1"	5'	-	EMPTY
*20	1	4"	100'	-	EXISTING (1)#6 BSC (3)#14/2 (15' OF (2)#14/2 COILED IN JW) (2)#14/9)
*21	1	4"	35'	-	EXISTING (1)#6 BSC (2)#14/9)
*21A	1	2.5"	5'	-	EXISTING (1)#6 BSC (1)#14/9)
*22	1	2.5"	20'	-	EXISTING (1)#6 BSC (1)#14/9)
*23	1	1"	20'	-	EMPTY
*24	1	3"	10'	-	EMPTY
*25	1	4"	170'	-	EXISTING (1)#6 BSC (1)#14/2 (15' COILED IN JW1)
*26	1	1"	10'	-	EMPTY

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

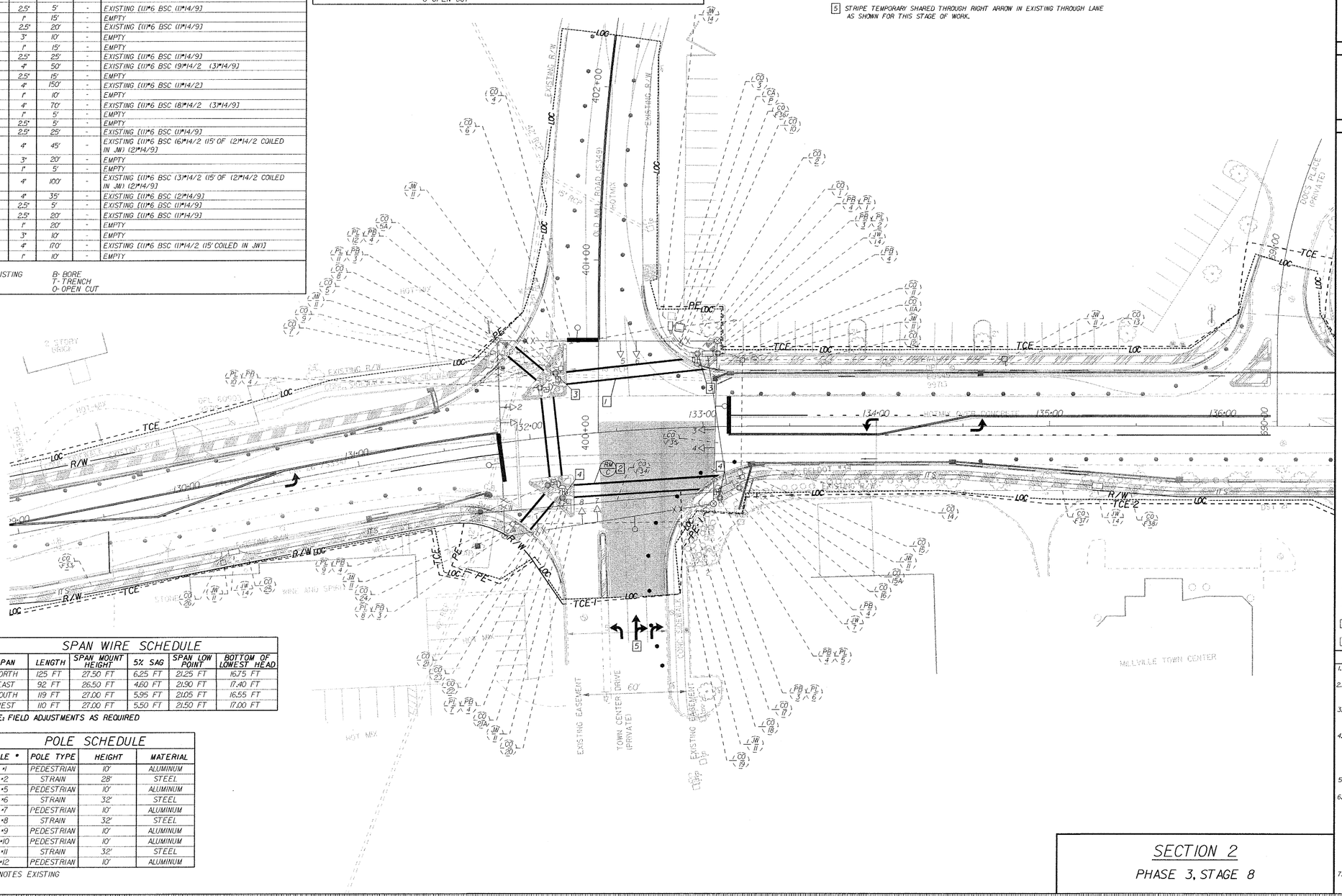
CONDUIT RUN SCHEDULE (CONT.)

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*F33	1	4"	130'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F34	1	4"	285'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F35	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F36	1	4"	30'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F37	1	4"	215'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F38	1	4"	135'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

PHASE 3, STAGE 8 SIGNAL NOTES

1. TEMPORARY CROSSWALK FOR THE NORTH LEG OF THE INTERSECTION SHALL BE STRIPED AT THE COMMENCEMENT OF THIS STAGE.
2. EXISTING TEMPORARY CROSSWALK STRIPING ON THE SOUTH LEG SHALL BE REMOVED AT THE COMMENCEMENT OF THIS STAGE.
3. PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS TO CONTROL THE CROSSWALK ON THE NORTH LEG OF THE INTERSECTION SHALL BE UNCOVERED AND ACTIVATED.
4. DEACTIVATE AND COVER PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS THAT CONTROL THE CROSSWALK ON THE SOUTH LEG OF THE INTERSECTION.
5. STRIPE TEMPORARY SHARED THROUGH RIGHT ARROW IN EXISTING THROUGH LANE AS SHOWN FOR THIS STAGE OF WORK.



SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
NORTH	125 FT	27.50 FT	6.25 FT	21.25 FT	16.75 FT
EAST	92 FT	26.50 FT	4.60 FT	21.90 FT	17.40 FT
SOUTH	119 FT	27.00 FT	5.95 FT	21.05 FT	16.55 FT
WEST	110 FT	27.00 FT	5.50 FT	21.50 FT	17.00 FT

NOTE: FIELD ADJUSTMENTS AS REQUIRED

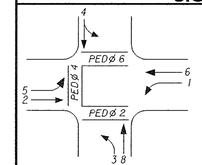
POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	PEDESTRIAN	10'	ALUMINUM
*2	STRAIN	28'	STEEL
*5	PEDESTRIAN	10'	ALUMINUM
*6	STRAIN	32'	STEEL
*7	PEDESTRIAN	10'	ALUMINUM
*8	STRAIN	32'	STEEL
*9	PEDESTRIAN	10'	ALUMINUM
*10	PEDESTRIAN	10'	ALUMINUM
*11	STRAIN	32'	STEEL
*12	PEDESTRIAN	10'	ALUMINUM

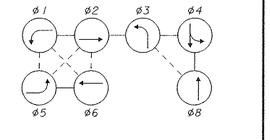
* DENOTES EXISTING

SECTION 2
PHASE 3, STAGE 8

SIGNAL PHASING



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.

SIGNAL HEAD DIAGRAM



LEGEND

	PROPOSED SIGNAL CABINET	RM/C	REMOVE BY CONTRACTOR
	EXISTING SIGNAL CABINET	RM/O	REMOVE BY OTHERS
	PROPOSED SIGNAL POLE BASE	AB	ABANDON
	EXISTING SIGNAL POLE BASE	PB/X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED PEDESTRIAN POLE BASE	(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING PEDESTRIAN POLE BASE	PL/X	PROPOSED POLE IDENTIFIER (* OF POLE)
	PROPOSED WOOD POLE	(PL/X)	EXISTING POLE IDENTIFIER (* OF POLE)
	EXISTING WOOD POLE	JW/X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	PROPOSED JUNCTION WELL	(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	EXISTING JUNCTION WELL	CO/*	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	PROPOSED SIGNAL HEAD	(CO/*)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	EXISTING SIGNAL HEAD	OH/*	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH/*)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	EXISTING PEDESTRIAN SIGNAL HEAD	MA/XX	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	PROPOSED PEDESTRIAN PUSHBUTTON	(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	EXISTING PEDESTRIAN PUSHBUTTON	CA/X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
	PROPOSED VIDEO DETECTION	(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
	PROPOSED MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
	OVERHEAD SIGNING		PROPOSED SPAN INSULATOR
	PROPOSED OPTICOM RECEIVER		EXISTING SPAN INSULATOR
	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
	PROPOSED MAST ARM		PROPOSED CCTV
	EXISTING MAST ARM		EXISTING CCTV
	PROPOSED LUMINAIRE		PROPOSED PLASTIC DRUMS
	EXISTING LUMINAIRE		EXISTING PLASTIC DRUMS
	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE.
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (SCU OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED [signature]	DATE: 05/15/13	RECOMMENDED Christa Dane	DATE: 7/12/13
RECOMMENDED	DATE:	APPROVED TRAFFIC ENGINEER [signature]	DATE: 7/12/13
APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER [signature]	DATE: 7/12/13		

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210	PERMIT NO.	S263
COUNTY	SUSSEX	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN
SR 26 @ OLD MILL ROAD

SHEET NO.	532
TOTAL SHTS.	589

7/10/2013
M:\SIGNAL\PROJECTS\sr26atlantic\Survey\Tp_2-3-8_signal_oldmill.dgn

CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	-	-	EXISTING [(1)*6 BARE STRANDED COPPER (1)*8/2 U.F.W/ GROUND
*2	1	2.5"	25'	-	EXISTING [(1)*6 BSC (4)*18/4 (2)*14/16 (4)MICROWAVE DETECTION HOMERUN CABLES] REMOVE (4)MICROWAVE DETECTION HOMERUN CABLES
*3	3	2.5"	5'	-	EXISTING [(3)*6 BSC (14)*14/2 (6)*14/9 COMM. CABLE] NEW (2)*14/9
*4	1	4"	100'	-	EXISTING [(1)*6 BSC (5)*14/2 (2)*14/9]
*5	1	4"	35'	-	EXISTING [(1)*6 BSC (3)*14/2 (2)*14/9]
*5A	1	2.5"	5'	-	EXISTING [(1)*6 BSC (1)*14/9]
*6	1	1"	15'	-	NEW (6)*14/1
*7	1	2.5"	20'	-	EXISTING [(1)*6 BSC (1)*14/9]
*8	1	3"	10'	-	EMPTY
*9	1	1"	15'	-	NEW (4)*14/1
*10	1	2.5"	25'	-	EXISTING [(1)*6 BSC (1)*14/9]
*11	1	4"	50'	-	EXISTING [(1)*6 BSC (9)*14/2 (3)*14/9] NEW (2)*14/9
*11A	1	2.5"	15'	-	NEW [(1)*6 BSC (1)*14/9]
*12	1	4"	150'	-	EXISTING [(1)*6 BSC (1)*14/2]
*13	1	1"	10'	-	NEW (2)*14/1
*14	1	4"	70'	-	EXISTING [(1)*6 BSC (8)*14/2 (3)*14/9] NEW (1)*14/9
*15	1	1"	5'	-	NEW (4)*14/1
*15A	1	2.5"	5'	-	NEW [(1)*6 BSC (1)*14/9]
*16	1	2.5"	25'	-	EXISTING [(1)*6 BSC (1)*14/9]
*17	1	4"	45'	-	EXISTING [(1)*6 BSC (6)*14/2 (2)*14/9]
*18	1	3"	20'	-	EMPTY
*19	1	1"	5'	-	NEW (4)*14/1
*20	1	4"	100'	-	EXISTING [(1)*6 BSC (3)*14/2 (2)*14/9]
*21	1	4"	35'	-	EXISTING [(1)*6 BSC (2)*14/9]
*21A	1	2.5"	5'	-	EXISTING [(1)*6 BSC (1)*14/9]
*22	1	2.5"	20'	-	EXISTING [(1)*6 BSC (1)*14/9]
*23	1	1"	20'	-	NEW (4)*14/1
*24	1	3"	10'	-	EMPTY
*25	1	4"	170'	-	EXISTING [(1)*6 BSC (1)*14/2]
*26	1	1"	10'	-	NEW (2)*14/1

LEGEND
* DENOTES EXISTING — B- BORE, T- TRENCH, O- OPEN CUT

CONDUIT RUN SCHEDULE (CONT.)

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*F33	1	4"	130'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F34	1	4"	285'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F35	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F36	1	4"	30'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F37	1	4"	215'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F38	1	4"	135'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

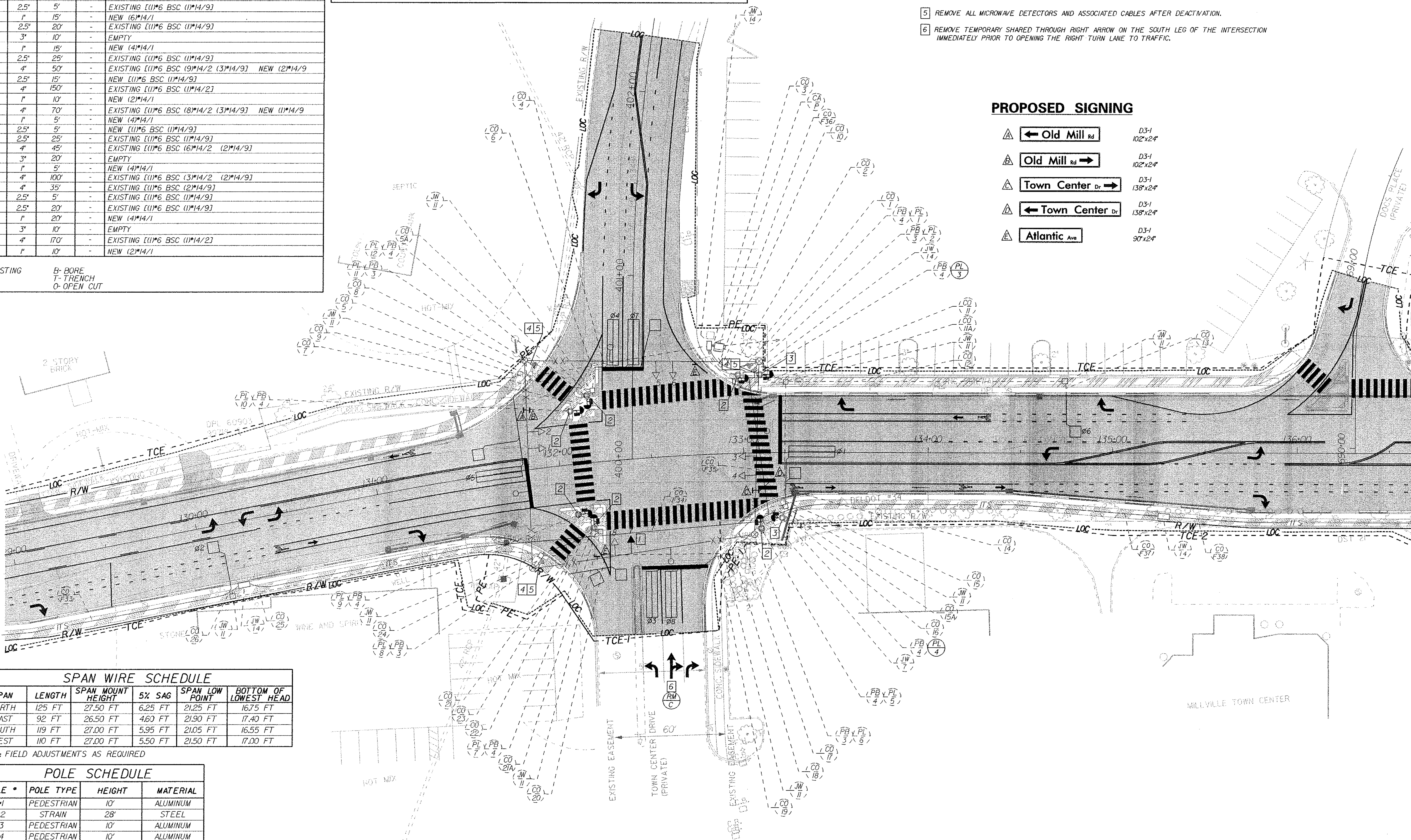
LEGEND
* DENOTES EXISTING — B- BORE, T- TRENCH, O- OPEN CUT

PHASE 4, STAGE 1 SIGNAL NOTES

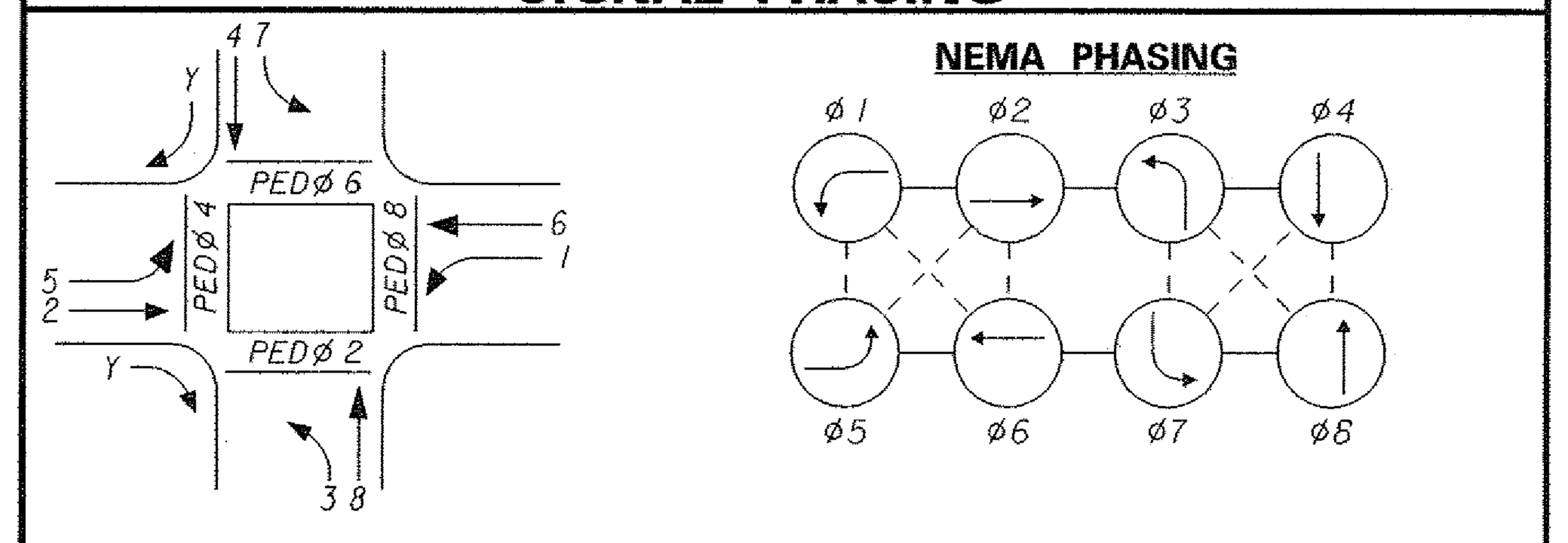
1. REMOVE EXISTING 3-SECTION SIGNAL HEAD *7 AND REPLACE WITH PROPOSED 5-SECTION SIGNAL HEAD AT LOCATION AS SHOWN.
2. REPLACE ALL EXISTING PEDESTRIAN PUSH BUTTONS WITH APS STATIONS ON EXISTING PEDESTRIAN POLES AND UNCOVER AND ACTIVATE ALL EXISTING PEDESTRIAN SIGNALS.
3. INSTALL PROPOSED PEDESTRIAN POLES, SIGNAL HEADS AND APS STATIONS THAT CONTROL THE PROPOSED CROSSWALK ON THE EAST LEG OF THE INTERSECTION AND ACTIVATE PEDESTRIAN SIGNALS.
4. ACTIVATE ALL FINAL PROPOSED TRAFFIC SIGNAL INSTALLATIONS AND DEACTIVATE THE MICROWAVE DETECTION SIGNAL INSTALLATION. ACTIVATION AND DEACTIVATION OF THE SIGNAL SYSTEMS SHALL BE COORDINATED TO ALLOW FOR A SMOOTH TRANSITION.
5. REMOVE ALL MICROWAVE DETECTORS AND ASSOCIATED CABLES AFTER DEACTIVATION.
6. REMOVE TEMPORARY SHARED THROUGH RIGHT ARROW ON THE SOUTH LEG OF THE INTERSECTION IMMEDIATELY PRIOR TO OPENING THE RIGHT TURN LANE TO TRAFFIC.

PROPOSED SIGNING

	Sign	Code	Size
A	← Old Mill Rd	D3-1	102"x24"
B	Old Mill Rd →	D3-1	102"x24"
C	Town Center Dr →	D3-1	138"x24"
D	← Town Center Dr	D3-1	138"x24"
E	Atlantic Ave	D3-1	90"x24"



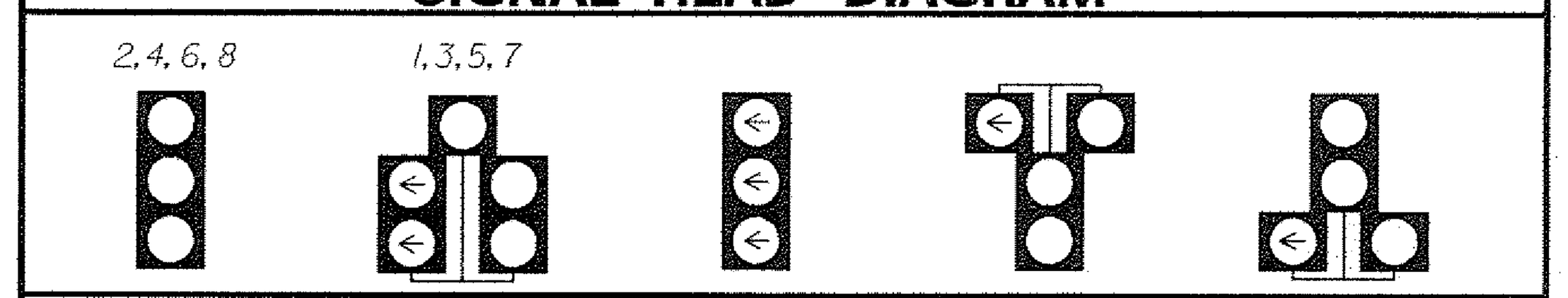
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

- PROPOSED SIGNAL CABINET
- EXISTING SIGNAL CABINET
- PROPOSED SIGNAL POLE BASE
- EXISTING SIGNAL POLE BASE
- PROPOSED PEDESTRIAN POLE BASE
- EXISTING PEDESTRIAN POLE BASE
- PROPOSED WOOD POLE
- EXISTING WOOD POLE
- PROPOSED JUNCTION WELL
- EXISTING JUNCTION WELL
- PROPOSED SIGNAL HEAD
- EXISTING SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSHBUTTON
- EXISTING PEDESTRIAN PUSHBUTTON
- PROPOSED VIDEO DETECTION
- EXISTING VIDEO DETECTION
- PROPOSED MICROWAVE DETECTION
- EXISTING MICROWAVE DETECTION
- OVERHEAD SIGNING
- PROPOSED OPTICOM RECEIVER
- EXISTING OPTICOM RECEIVER
- PROPOSED MAST ARM
- EXISTING MAST ARM
- PROPOSED LUMINAIRE
- EXISTING LUMINAIRE
- PROPOSED LOOP DETECTOR (TYPE 1 OR 2)
- EXISTING LOOP DETECTOR (TYPE 1 OR 2)
- RM/C — REMOVE BY CONTRACTOR
- RM/O — REMOVE BY OTHERS
- AB — ABANDON
- PB/X — PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- PB/X — EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- PL/X — PROPOSED POLE IDENTIFIER (# OF POLE)
- PL/X — EXISTING POLE IDENTIFIER (# OF POLE)
- JW/X — PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- JW/X — EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- CO/# — PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- CO/# — EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- OH/# — PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- OH/# — EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- MA/XX — PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- MA/XX — EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- CA/X — PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
- CA/X — EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
- PROPOSED SPAN WIRE
- XX — EXISTING SPAN WIRE
- RIGHT-OF-WAY OR PROPERTY LINE
- PROPOSED SPAN INSULATOR
- EXISTING SPAN INSULATOR
- P — SERVICE PEDESTAL
- PROPOSED CCTV
- EXISTING CCTV
- PROPOSED PLASTIC DRUMS
- EXISTING PLASTIC DRUMS

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
NORTH	125 FT	27.50 FT	6.25 FT	21.25 FT	16.75 FT
EAST	92 FT	26.50 FT	4.60 FT	21.90 FT	17.40 FT
SOUTH	119 FT	27.00 FT	5.95 FT	21.05 FT	16.55 FT
WEST	110 FT	27.00 FT	5.50 FT	21.50 FT	17.00 FT

NOTE: FIELD ADJUSTMENTS AS REQUIRED

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
*1	PEDESTRIAN	10'	ALUMINUM
*2	STRAIN	28'	STEEL
3	PEDESTRIAN	10'	ALUMINUM
4	PEDESTRIAN	10'	ALUMINUM
*5	PEDESTRIAN	10'	ALUMINUM
*6	STRAIN	32'	STEEL
*7	PEDESTRIAN	10'	ALUMINUM
*8	STRAIN	32'	STEEL
*9	PEDESTRIAN	10'	ALUMINUM
*10	PEDESTRIAN	10'	ALUMINUM
*11	STRAIN	32'	STEEL
*12	PEDESTRIAN	10'	ALUMINUM

* DENOTES EXISTING

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

SECTION 2
PHASE 4, STAGE 1

RECOMMENDED [signature] DATE: 05/15/13 | RECOMMENDED Chetna Dane DATE: 7/12/13 | RECOMMENDED ______ DATE: ______ | APPROVED TRAFFIC ENGINEER [signature] DATE: 7/12/13 | APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER [signature] DATE: 7/12/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT T200411210 | COUNTY SUSSEX | PERMIT NO. S263 | DESIGNED BY: MSK | CHECKED BY: BAM

SIGNAL PLAN
SR 26 @ OLD MILL ROAD

SHEET NO. 533 | TOTAL SHTS. 589

7/10/2013 I:\PROJECTS\sr26mainline\Survey\tp_2-4-1_signal_oldmill.dgn 15:55:34

CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	-	-	EXISTING (1)#6 BARE STRANDED COPPER (1)#8/2 U.F.W./ GROUND
*2	1	2.5"	25'	-	EXISTING (1)#6 BSC (4)#18/4 (2)#14/6]
*3	3	2.5"	5'	-	EXISTING (3)#6 BSC (14)#14/2 (8)#14/3 COMM. CABLE)
*4	1	4"	100'	-	EXISTING (1)#6 BSC (5)#14/2 (2)#14/9]
*5	1	4"	35'	-	EXISTING (1)#6 BSC (3)#14/2 (2)#14/9]
*5A	1	2.5"	5'	-	EXISTING (1)#6 BSC (1)#14/9]
*6	1	1"	15'	-	EXISTING (6)#14/1
*7	1	2.5"	20'	-	EXISTING (1)#6 BSC (1)#14/9]
*8	1	3"	10'	-	EMPTY
*9	1	1"	15'	-	EXISTING (4)#14/1
*10	1	2.5"	25'	-	EXISTING (1)#6 BSC (1)#14/9]
*11	1	4"	50'	-	EXISTING (1)#6 BSC (9)#14/2 (5)#14/9]
*11A	1	2.5"	15'	-	EXISTING (1)#6 BSC (1)#14/9]
*12	1	4"	150'	-	EXISTING (1)#6 BSC (1)#14/2]
*13	1	1"	10'	-	EXISTING (2)#14/1
*14	1	4"	70'	-	EXISTING (1)#6 BSC (8)#14/2 (4)#14/9]
*15	1	1"	5'	-	EXISTING (4)#14/1
*15A	1	2.5"	5'	-	EXISTING (1)#6 BSC (1)#14/9]
*16	1	2.5"	25'	-	EXISTING (1)#6 BSC (1)#14/9]
*17	1	4"	45'	-	EXISTING (1)#6 BSC (6)#14/2 (2)#14/9]
*18	1	3"	20'	-	EMPTY
*19	1	1"	5'	-	EXISTING (4)#14/1
*20	1	4"	100'	-	EXISTING (1)#6 BSC (3)#14/2 (2)#14/9]
*21	1	4"	35'	-	EXISTING (1)#6 BSC (2)#14/9]
*21A	1	2.5"	5'	-	EXISTING (1)#6 BSC (1)#14/9]
*22	1	2.5"	20'	-	EXISTING (1)#6 BSC (1)#14/9]
*23	1	1"	20'	-	EXISTING (4)#14/1
*24	1	3"	10'	-	EMPTY
*25	1	4"	170'	-	EXISTING (1)#6 BSC (1)#14/2]
*26	1	1"	10'	-	EXISTING (2)#14/1

LEGEND
* DENOTES EXISTING

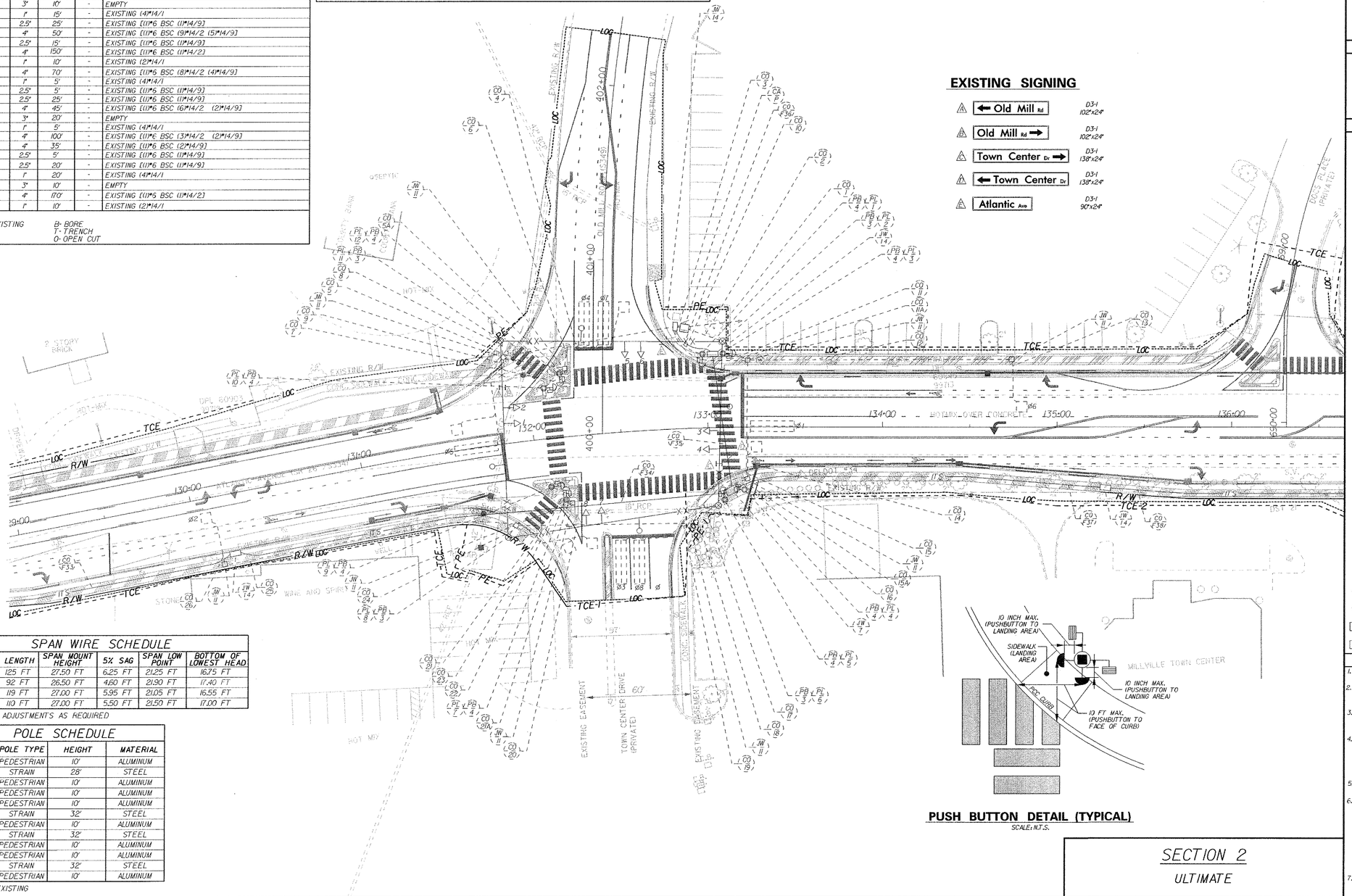
B- BORE
T- TRENCH
O- OPEN CUT

CONDUIT RUN SCHEDULE (CONT.)

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*F33	1	4"	130'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F34	1	4"	285'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F35	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F36	1	4"	30'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F37	1	4"	215'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F38	1	4"	135'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT



PUSH BUTTON DETAIL (TYPICAL)
SCALE: N.T.S.

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
NORTH	125 FT	27.50 FT	6.25 FT	21.25 FT	16.75 FT
EAST	92 FT	26.50 FT	4.60 FT	21.90 FT	17.40 FT
SOUTH	119 FT	27.00 FT	5.95 FT	21.05 FT	16.55 FT
WEST	110 FT	27.00 FT	5.50 FT	21.50 FT	17.00 FT

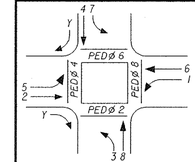
NOTE: FIELD ADJUSTMENTS AS REQUIRED

POLE SCHEDULE

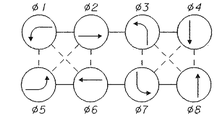
POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	PEDESTRIAN	10'	ALUMINUM
*2	STRAIN	28'	STEEL
*3	PEDESTRIAN	10'	ALUMINUM
*4	PEDESTRIAN	10'	ALUMINUM
*5	PEDESTRIAN	10'	ALUMINUM
*6	STRAIN	32'	STEEL
*7	PEDESTRIAN	10'	ALUMINUM
*8	STRAIN	32'	STEEL
*9	PEDESTRIAN	10'	ALUMINUM
*10	PEDESTRIAN	10'	ALUMINUM
*11	STRAIN	32'	STEEL
*12	PEDESTRIAN	10'	ALUMINUM

* DENOTES EXISTING

SIGNAL PHASING



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.

SIGNAL HEAD DIAGRAM



LEGEND

	PROPOSED SIGNAL CABINET	(RM/C)	REMOVE BY CONTRACTOR
	EXISTING SIGNAL CABINET	(RM/O)	REMOVE BY OTHERS
	PROPOSED SIGNAL POLE BASE	(AB)	ABANDON
	EXISTING SIGNAL POLE BASE		
	PROPOSED PEDESTRIAN POLE BASE	(PB/X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING PEDESTRIAN POLE BASE	(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED WOOD POLE	(PL/X)	PROPOSED POLE IDENTIFIER (* OF POLE)
	EXISTING WOOD POLE	(PL/X)	EXISTING POLE IDENTIFIER (* OF POLE)
	PROPOSED JUNCTION WELL	(JW/X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	EXISTING JUNCTION WELL	(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	PROPOSED SIGNAL HEAD	(CO/•)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	EXISTING SIGNAL HEAD	(CO/•)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH/•)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	EXISTING PEDESTRIAN SIGNAL HEAD	(OH/•)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	PROPOSED PEDESTRIAN PUSHBUTTON	(MA/XX)	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	EXISTING PEDESTRIAN PUSHBUTTON	(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	PROPOSED VIDEO DETECTION	(CA/X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
	EXISTING VIDEO DETECTION	(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
	PROPOSED MICROWAVE DETECTION		PROPOSED SPAN WIRE
	EXISTING MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
	OVERHEAD SIGNING		RIGHT-OF-WAY OR PROPERTY LINE
	PROPOSED OPTICOM RECEIVER		PROPOSED SPAN INSULATOR
	EXISTING OPTICOM RECEIVER		EXISTING SPAN INSULATOR
	PROPOSED MAST ARM	P	SERVICE PEDESTAL
	EXISTING MAST ARM		PROPOSED CCTV
	PROPOSED LUMINAIRE		EXISTING CCTV
	EXISTING LUMINAIRE		PROPOSED PLASTIC DRUMS
	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		EXISTING PLASTIC DRUMS
	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5% OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

SECTION 2
ULTIMATE

RECOMMENDED _____ DATE: 05/15/13

RECOMMENDED Chithra Dave DATE: 7/12/13

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 7/12/13

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	PERMIT NO.	S263
T200411210	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
SUSSEX		

SIGNAL PLAN SR 26 @ OLD MILL ROAD (ULTIMATE)

SHEET NO.	TOTAL SHTS.
534	589

7/09/2013
C:\PROJECTS\sr26ensmine\Survey\tp_2-ultimate_signal_oldmill.dgn
8:56:12

EXISTING SIGNING



EXISTING SIGN TO BE REMOVED

PHASE 4, STAGE 2 SIGNAL NOTES

1. TRAFFIC CONTRACTOR SHALL DECOMMISSION EXISTING SERVICE AND CONTROLLER FOR FLASHING SIGNALS.
2. PLUG OPEN ENDS OF CONDUIT.

CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
F42	1	4"	50'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F43	1	4"	410'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

1, 2, 3, 4

EXISTING SIGNAL HEADS TO BE REMOVED

LEGEND

- PROPOSED SIGNAL CABINET
- EXISTING SIGNAL CABINET
- PROPOSED SIGNAL POLE BASE
- EXISTING SIGNAL POLE BASE
- PROPOSED PEDESTRIAN POLE BASE
- EXISTING PEDESTRIAN POLE BASE
- PROPOSED WOOD POLE
- EXISTING WOOD POLE
- PROPOSED JUNCTION WELL
- EXISTING JUNCTION WELL
- PROPOSED SIGNAL HEAD
- EXISTING SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSHBUTTON
- EXISTING PEDESTRIAN PUSHBUTTON
- PROPOSED VIDEO DETECTION
- EXISTING VIDEO DETECTION
- PROPOSED MICROWAVE DETECTION
- EXISTING MICROWAVE DETECTION
- OVERHEAD SIGNING
- PROPOSED OPTICOM RECEIVER
- EXISTING OPTICOM RECEIVER
- PROPOSED MAST ARM
- EXISTING MAST ARM
- PROPOSED LUMINAIRE
- EXISTING LUMINAIRE
- PROPOSED LOOP DETECTOR (TYPE 1 OR 2)
- EXISTING LOOP DETECTOR (TYPE 1 OR 2)
- (RM C) REMOVE BY CONTRACTOR
- (RM O) REMOVE BY OTHERS
- (AB) ABANDON
- (PB X) PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- (PB X) EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- (PL X) PROPOSED POLE IDENTIFIER (# OF POLE)
- (PL X) EXISTING POLE IDENTIFIER (# OF POLE)
- (JW X) PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- (JW X) EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- (CO #) PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- (CO #) EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- (OH #) PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- (OH #) EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- (MA XX) PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- (MA XX) EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- (CA X) PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
- (CA X) EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
- PROPOSED SPAN WIRE
- XX EXISTING SPAN WIRE
- RIGHT-OF-WAY OR PROPERTY LINE
- PROPOSED SPAN INSULATOR
- EXISTING SPAN INSULATOR
- (P) SERVICE PEDESTAL
- PROPOSED CCTV
- EXISTING CCTV
- PROPOSED PLASTIC DRUMS
- EXISTING PLASTIC DRUMS

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-
1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
3. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

SECTION 2

PHASE 2, STAGE 2

RECOMMENDED [signature] DATE: 05/15/13	RECOMMENDED Chetna Dave DATE: 7/12/13	RECOMMENDED _____ DATE:	APPROVED TRAFFIC ENGINEER [signature] DATE: 7/12/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER [signature] DATE: 7/12/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210	PERMIT NO.	S152
COUNTY	SUSSEX	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN SR 26 @ LORD BALTIMORE SCHOOL

SHEET NO.	535
TOTAL SHTS.	589

7/09/2013
I:\projects\sr26mohlinel\Survey\tb_2-2-2_signal_lord_balt.dgn
165746

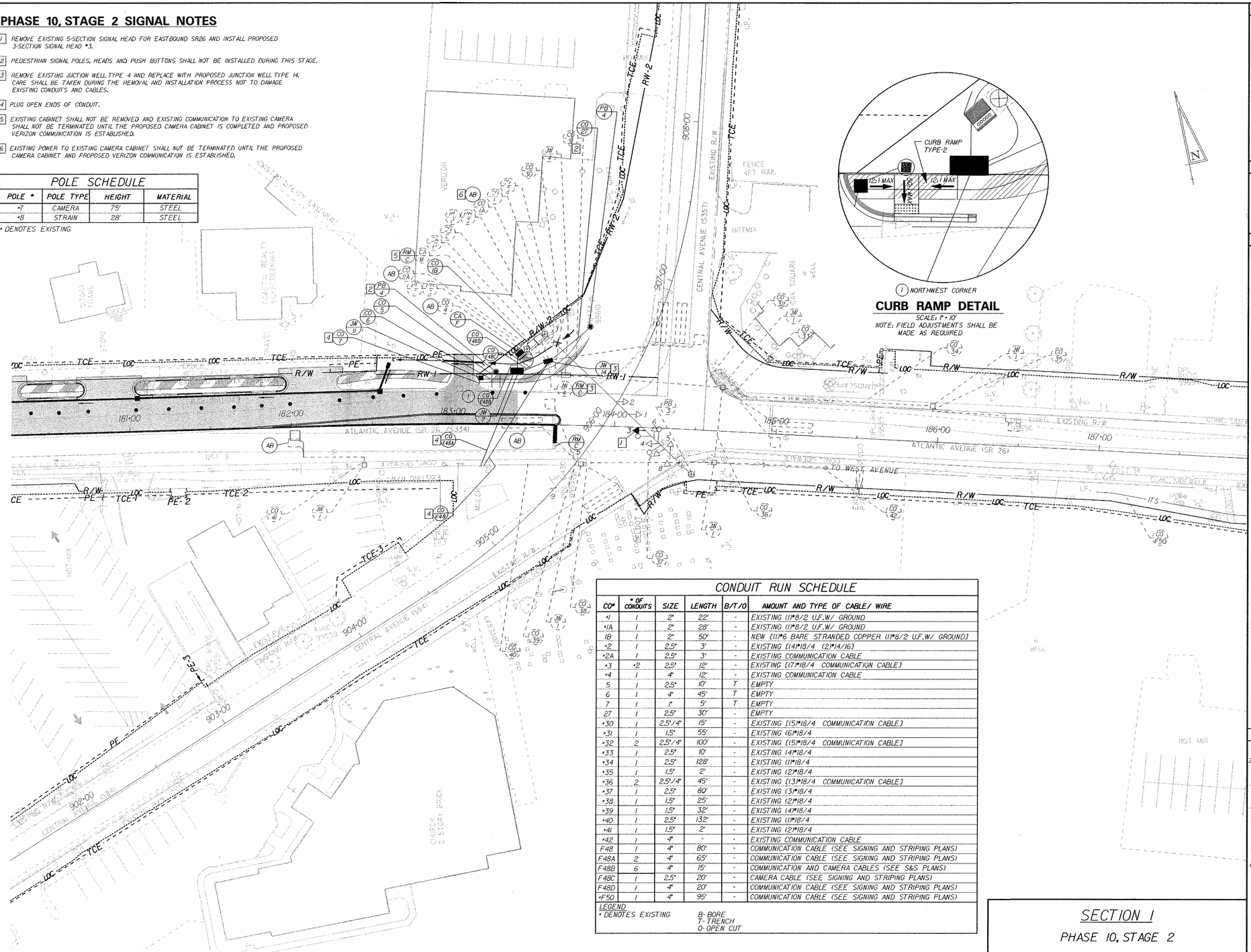
PHASE 10, STAGE 2 SIGNAL NOTES

1. REMOVE EXISTING 5-SECTION SIGNAL HEAD FOR EASTBOUND SR26 AND INSTALL PROPOSED 3-SECTION SIGNAL HEAD *3.
2. PEDESTRIAN SIGNAL POLES, HEADS AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE.
3. REMOVE EXISTING JUCTION WELL TYPE 4 AND REPLACE WITH PROPOSED JUNCTION WELL TYPE 14. CARE SHALL BE TAKEN DURING THE REMOVAL AND INSTALLATION PROCESS NOT TO DAMAGE EXISTING CONDUITS AND CABLES.
4. PLUG OPEN ENDS OF CONDUIT.
5. EXISTING CABINET SHALL NOT BE REMOVED AND EXISTING COMMUNICATION TO EXISTING CAMERA SHALL NOT BE TERMINATED UNTIL THE PROPOSED CAMERA CABINET IS COMPLETED AND PROPOSED VERIZON COMMUNICATION IS ESTABLISHED.
6. EXISTING POWER TO EXISTING CAMERA CABINET SHALL NOT BE TERMINATED UNTIL THE PROPOSED CAMERA CABINET AND PROPOSED VERIZON COMMUNICATION IS ESTABLISHED.

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*7	CAMERA	75'	STEEL
*8	STRAIN	28'	STEEL

* DENOTES EXISTING



1 NORTHWEST CORNER

CURB RAMP DETAIL

SCALE: 1" = 10'

NOTE: FIELD ADJUSTMENTS SHALL BE MADE AS REQUIRED

CONDUIT RUN SCHEDULE

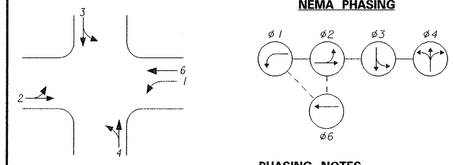
CO#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	22'	-	EXISTING (1)#8/2 U.F.W/ GROUND
*1A	1	2"	28'	-	EXISTING (1)#8/2 U.F.W/ GROUND
1B	1	2"	50'	-	NEW ((1)#6 BARE STRANDED COPPER (1)#8/2 U.F.W/ GROUND)
*2	1	2.5"	3'	-	EXISTING ((4)#18/4 (2)#14/16)
*2A	1	2.5"	3'	-	EXISTING COMMUNICATION CABLE
*3	*2	2.5"	12'	-	EXISTING ((7)#18/4 COMMUNICATION CABLE)
*4	1	4"	12'	-	EXISTING COMMUNICATION CABLE
5	1	2.5"	10'	T	EMPTY
6	1	4"	45'	T	EMPTY
7	1	1"	5'	T	EMPTY
27	1	2.5"	30'	-	EMPTY
*30	1	2.5"/4"	15'	-	EXISTING ((5)#18/4 COMMUNICATION CABLE)
*31	1	1.5"	55'	-	EXISTING (6)#18/4
*32	2	2.5"/4"	100'	-	EXISTING ((5)#18/4 COMMUNICATION CABLE)
*33	1	2.5"	10'	-	EXISTING (4)#18/4
*34	1	2.5"	128'	-	EXISTING (1)#18/4
*35	1	1.5"	2'	-	EXISTING (2)#18/4
*36	2	2.5"/4"	45'	-	EXISTING ((3)#18/4 COMMUNICATION CABLE)
*37	1	2.5"	80'	-	EXISTING (3)#18/4
*38	1	1.5"	25'	-	EXISTING (2)#18/4
*39	1	1.5"	32'	-	EXISTING (4)#18/4
*40	1	2.5"	132'	-	EXISTING (1)#18/4
*41	1	1.5"	2'	-	EXISTING (2)#18/4
*42	1	4"	-	-	EXISTING COMMUNICATION CABLE
F48	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F48A	2	4"	65'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F48B	6	4"	15'	-	COMMUNICATION AND CAMERA CABLES (SEE S&S PLANS)
F48C	1	2.5"	20'	-	CAMERA CABLE (SEE SIGNING AND STRIPING PLANS)
F48D	1	4"	20'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F50	1	4"	95'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

SECTION 1
PHASE 10, STAGE 2

SIGNAL PHASING

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.

SIGNAL HEAD DIAGRAM



LEGEND

	PROPOSED SIGNAL CABINET	(RM C)	REMOVE BY CONTRACTOR
	EXISTING SIGNAL CABINET	(RM O)	REMOVE BY OTHERS
	PROPOSED SIGNAL POLE BASE	(AB)	ABANDON
	EXISTING SIGNAL POLE BASE	(PB X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED PEDESTRIAN POLE BASE	(PB X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING PEDESTRIAN POLE BASE	(PL X)	PROPOSED POLE IDENTIFIER (* OF POLE)
	PROPOSED WOOD POLE	(PL X)	EXISTING POLE IDENTIFIER (* OF POLE)
	EXISTING WOOD POLE	(JW X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	PROPOSED JUNCTION WELL	(JW X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	EXISTING JUNCTION WELL	(CO *)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	PROPOSED SIGNAL HEAD	(CO *)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	EXISTING SIGNAL HEAD	(OH *)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH *)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	EXISTING PEDESTRIAN SIGNAL HEAD	(MA XX)	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	PROPOSED PEDESTRIAN PUSHBUTTON	(MA XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	EXISTING PEDESTRIAN PUSHBUTTON	(CA X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
	PROPOSED VIDEO DETECTION	(CA X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
	PROPOSED MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
	OVERHEAD SIGNING		PROPOSED SPAN INSULATOR
	PROPOSED OPTICOM RECEIVER		EXISTING SPAN INSULATOR
	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
	PROPOSED MAST ARM		PROPOSED CCTV
	EXISTING MAST ARM		EXISTING CCTV
	PROPOSED LUMINAIRE		PROPOSED PLASTIC DRUMS
	EXISTING LUMINAIRE		EXISTING PLASTIC DRUMS
	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0% OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED B. Adkins	DATE: 05/15/13	RECOMMENDED Chelsea Davis	DATE: 7/12/13
RECOMMENDED	DATE:	APPROVED TRAFFIC ENGINEER Marvin C. Howard	DATE: 7/10/13
APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER	DATE: 7/12/13		

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210
COUNTY	SUSSEX
PERMIT NO.	S027P
DESIGNED BY:	MSK
CHECKED BY:	BAM

SIGNAL PLAN SR 26 @ CENTRAL AVENUE

SHEET NO.	536
TOTAL SHTS.	589

7/10/2013
I:\Projects\sr26mainline\Survey\tp_I-10-2_signal_central.dgn
15:58:53

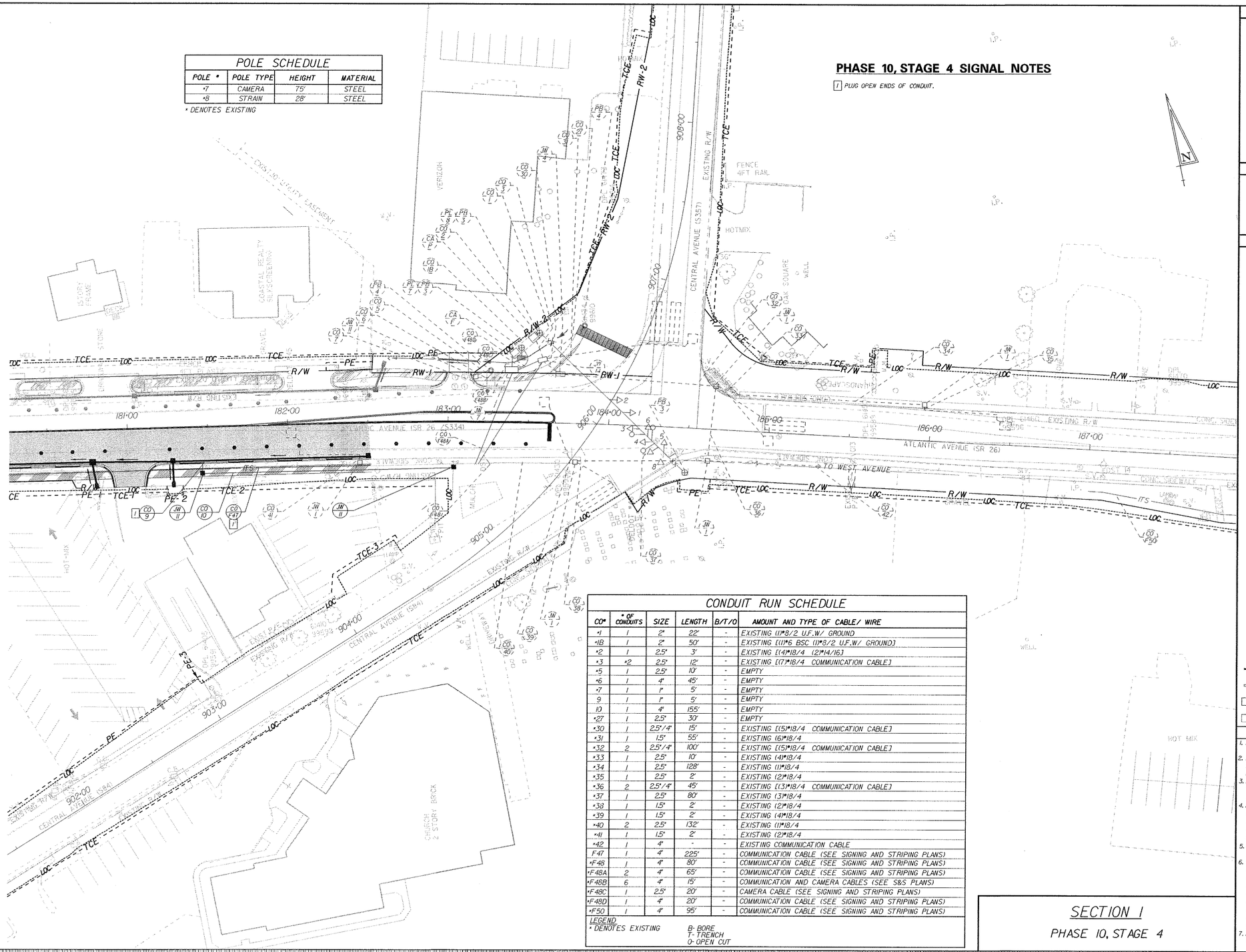
POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*7	CAMERA	75'	STEEL
*8	STRAIN	28'	STEEL

* DENOTES EXISTING

PHASE 10, STAGE 4 SIGNAL NOTES

1 PLUG OPEN ENDS OF CONDUIT.



CONDUIT RUN SCHEDULE

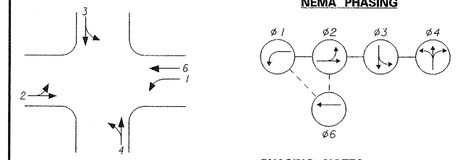
CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	22'	-	EXISTING (1)#8/2 U.F.W./ GROUND
*1B	1	2"	50'	-	EXISTING [(1)#6 BSC (1)#8/2 U.F.W./ GROUND]
*2	1	2.5"	3'	-	EXISTING [(4)#18/4 (2)#14/16]
*3	*2	2.5"	12'	-	EXISTING [(7)#18/4 COMMUNICATION CABLE]
*5	1	2.5"	10'	-	EMPTY
*6	1	4"	45'	-	EMPTY
*7	1	1"	5'	-	EMPTY
9	1	1"	5'	-	EMPTY
10	1	4"	155'	-	EMPTY
*27	1	2.5"	30'	-	EMPTY
*30	1	2.5"/4"	15'	-	EXISTING [(5)#18/4 COMMUNICATION CABLE]
*31	1	1.5"	55'	-	EXISTING (6)#18/4
*32	2	2.5"/4"	100'	-	EXISTING [(5)#18/4 COMMUNICATION CABLE]
*33	1	2.5"	10'	-	EXISTING (4)#18/4
*34	1	2.5"	128'	-	EXISTING (1)#18/4
*35	1	2.5"	2'	-	EXISTING (2)#18/4
*36	2	2.5"/4"	45'	-	EXISTING [(3)#18/4 COMMUNICATION CABLE]
*37	1	2.5"	80'	-	EXISTING (3)#18/4
*38	1	1.5"	2'	-	EXISTING (2)#18/4
*39	1	1.5"	2'	-	EXISTING (4)#18/4
*40	2	2.5"	132'	-	EXISTING (1)#18/4
*41	1	1.5"	2'	-	EXISTING (2)#18/4
*42	1	4"	-	-	EXISTING COMMUNICATION CABLE
F47	1	4"	225'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48A	2	4"	65'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48B	6	4"	15'	-	COMMUNICATION AND CAMERA CABLES (SEE S&S PLANS)
*F48C	1	2.5"	20'	-	CAMERA CABLE (SEE SIGNING AND STRIPING PLANS)
*F48D	1	4"	20'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F50	1	4"	95'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT

SIGNAL PHASING

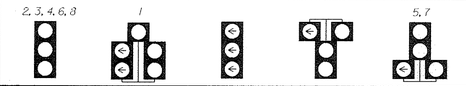
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

PROPOSED SIGNAL CABINET		(RM/C)	REMOVE BY CONTRACTOR
EXISTING SIGNAL CABINET		(RM/O)	REMOVE BY OTHERS
PROPOSED SIGNAL POLE BASE		(AB)	ABANDON
EXISTING SIGNAL POLE BASE		(PB/X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
PROPOSED PEDESTRIAN POLE BASE		(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
EXISTING PEDESTRIAN POLE BASE		(PL/X)	PROPOSED POLE IDENTIFIER (* OF POLE)
PROPOSED WOOD POLE		(PL/X)	EXISTING POLE IDENTIFIER (* OF POLE)
EXISTING WOOD POLE		(JW/X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
PROPOSED JUNCTION WELL		(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
EXISTING JUNCTION WELL		(CO/*)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
PROPOSED SIGNAL HEAD		(CO/*)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
EXISTING SIGNAL HEAD		(OH/*)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
PROPOSED PEDESTRIAN SIGNAL HEAD		(OH/*)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
EXISTING PEDESTRIAN SIGNAL HEAD		(MA/XX)	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
PROPOSED PEDESTRIAN PUSHBUTTON		(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
EXISTING PEDESTRIAN PUSHBUTTON		(CA/X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
PROPOSED VIDEO DETECTION		(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
EXISTING VIDEO DETECTION			PROPOSED SPAN WIRE
PROPOSED MICROWAVE DETECTION		XX	EXISTING SPAN WIRE
EXISTING MICROWAVE DETECTION			RIGHT-OF-WAY OR PROPERTY LINE
OVERHEAD SIGNING			PROPOSED SPAN INSULATOR
PROPOSED OPTICOM RECEIVER			EXISTING SPAN INSULATOR
EXISTING OPTICOM RECEIVER		P	SERVICE PEDESTAL
PROPOSED MAST ARM			PROPOSED CCTV
EXISTING MAST ARM			EXISTING CCTV
PROPOSED LUMINAIRE			PROPOSED PLASTIC DRUMS
EXISTING LUMINAIRE			EXISTING PLASTIC DRUMS
PROPOSED LOOP DETECTOR (TYPE I OR 2)			
EXISTING LOOP DETECTOR (TYPE I OR 2)			

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE.
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS, SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (SOUR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

SECTION 1

PHASE 10, STAGE 4

RECOMMENDED B. Stadler DATE: 05/15/13

RECOMMENDED Chelsea Dare DATE: 7/12/13

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER Mark C. Alston DATE: 7/12/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210
COUNTY	SUSSEX
PERMIT NO.	S027P
DESIGNED BY:	MSK
CHECKED BY:	BAM

SIGNAL PLAN
SR 26 @ CENTRAL AVENUE

SHEET NO.	537
TOTAL SHTS.	589

7/0/2013
K:\PROJECTS\sr26mainline\Survey\tp-1-10-4_signal_centralc.dgn
15:59:39

SECTION 1

PHASE 10, STAGE 6

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
NORTH	113 FT	27.0 FT	5.65 FT	21.35 FT	16.85 FT
EAST	91 FT	26.6 FT	4.55 FT	22.05 FT	17.55 FT
SOUTH	120 FT	27.0 FT	6.0 FT	21.00 FT	16.50 FT
WEST	93 FT	26.6 FT	4.65 FT	21.95 FT	17.45 FT

NOTE: FIELD ADJUSTMENTS AS REQUIRED

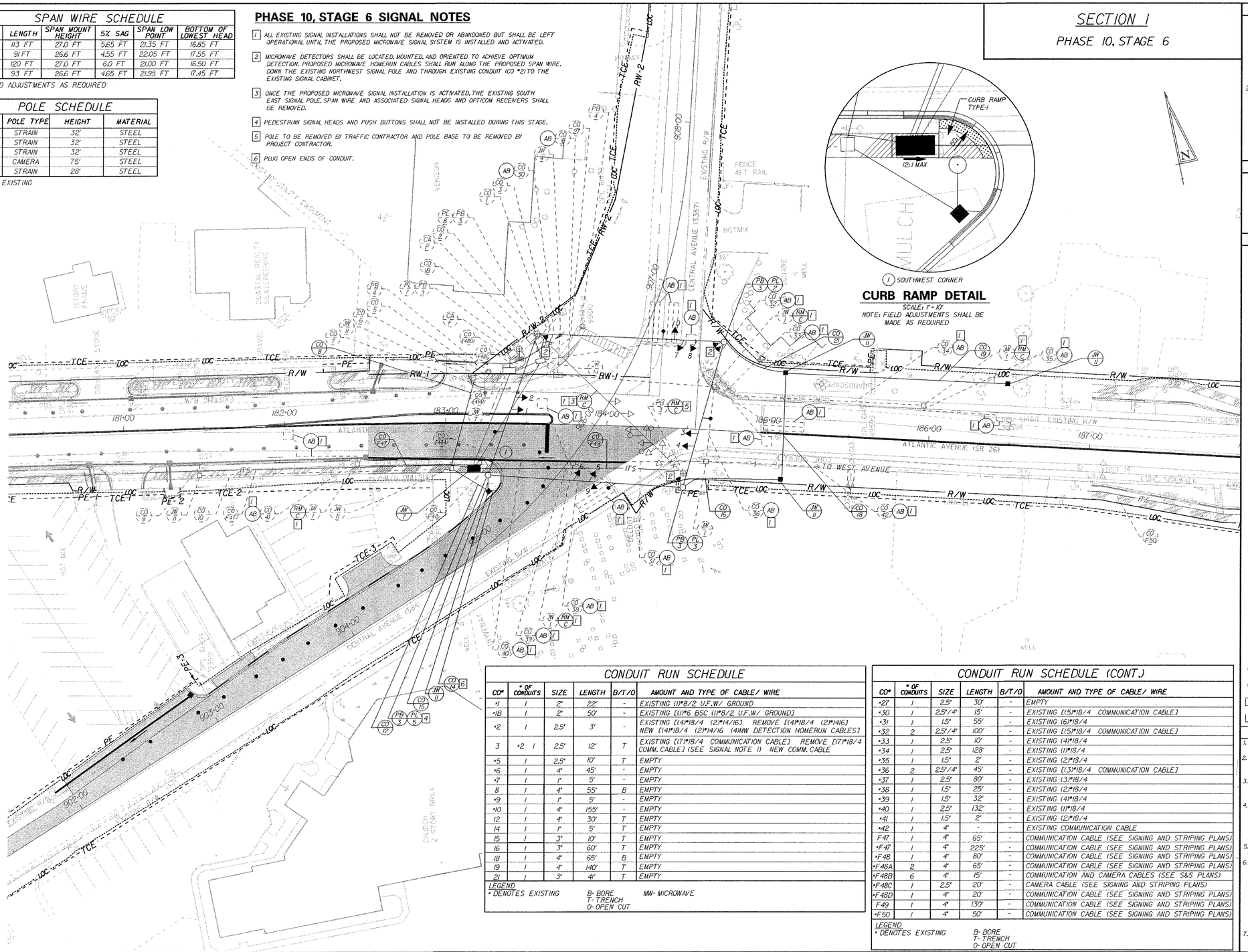
POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
2	STRAIN	32'	STEEL
3	STRAIN	32'	STEEL
5	STRAIN	32'	STEEL
*7	CAMERA	75'	STEEL
*8	STRAIN	28'	STEEL

* DENOTES EXISTING

PHASE 10, STAGE 6 SIGNAL NOTES

1. ALL EXISTING SIGNAL INSTALLATIONS SHALL NOT BE REMOVED OR ABANDONED BUT SHALL BE LEFT OPERATIONAL UNTIL THE PROPOSED MICROWAVE SIGNAL SYSTEM IS INSTALLED AND ACTIVATED.
2. MICROWAVE DETECTORS SHALL BE LOCATED, MOUNTED, AND ORIENTED TO ACHIEVE OPTIMUM DETECTION. PROPOSED MICROWAVE HOMERUN CABLES SHALL RUN ALONG THE PROPOSED SPAN WIRE. DOWN THE EXISTING NORTHWEST SIGNAL POLE AND THROUGH EXISTING CONDUIT (CO *2) TO THE EXISTING SIGNAL CABINET.
3. ONCE THE PROPOSED MICROWAVE SIGNAL INSTALLATION IS ACTIVATED, THE EXISTING SOUTH EAST SIGNAL POLE, SPAN WIRE AND ASSOCIATED SIGNAL HEADS AND OPTICOM RECEIVERS SHALL BE REMOVED.
4. PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE.
5. POLE TO BE REMOVED BY TRAFFIC CONTRACTOR AND POLE BASE TO BE REMOVED BY PROJECT CONTRACTOR.
6. PLUG OPEN ENDS OF CONDUIT.



CURB RAMP DETAIL

SCALE: 1" = 10'

NOTE: FIELD ADJUSTMENTS SHALL BE MADE AS REQUIRED

CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	22'	-	EXISTING (1)#8/2 U.F.W/ GROUND
*1B	1	2"	50'	-	EXISTING [(1)#6 BSC (1)#8/2 U.F.W/ GROUND]
*2	1	2.5"	3'	-	EXISTING [(4)#18/4 (2)#14/16] REMOVE [(4)#18/4 (2)#16] NEW [(4)#18/4 (2)#14/16 (4)MW DETECTION HOMERUN CABLES]
3	*2 1	2.5"	12'	T	EXISTING [(7)#18/4 COMMUNICATION CABLE] REMOVE [(7)#18/4 COMM. CABLE] (SEE SIGNAL NOTE 1) NEW COMM. CABLE
*5	1	2.5"	10'	T	EMPTY
*6	1	4"	45'	-	EMPTY
*7	1	1"	5'	-	EMPTY
8	1	4"	55'	B	EMPTY
*9	1	1"	5'	-	EMPTY
*10	1	4"	155'	-	EMPTY
12	1	4"	30'	T	EMPTY
14	1	1"	5'	T	EMPTY
15	1	3"	10'	T	EMPTY
16	1	3"	60'	T	EMPTY
18	1	4"	65'	B	EMPTY
19	1	4"	140'	T	EMPTY
21	1	3"	41'	T	EMPTY

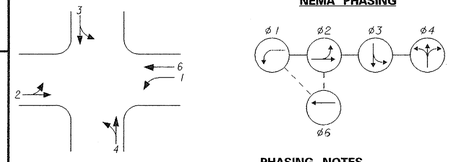
LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT
MW- MICROWAVE

CONDUIT RUN SCHEDULE (CONT.)

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*27	1	2.5"	30'	-	EMPTY
*30	1	2.5"/4"	15'	-	EXISTING [(5)#18/4 COMMUNICATION CABLE]
*31	1	1.5"	55'	-	EXISTING (6)#18/4
*32	2	2.5"/4"	100'	-	EXISTING [(5)#18/4 COMMUNICATION CABLE]
*33	1	2.5"	10'	-	EXISTING (4)#18/4
*34	1	2.5"	128'	-	EXISTING (1)#18/4
*35	1	1.5"	2'	-	EXISTING (2)#18/4
*36	2	2.5"/4"	45'	-	EXISTING [(3)#18/4 COMMUNICATION CABLE]
*37	1	2.5"	80'	-	EXISTING (3)#18/4
*38	1	1.5"	25'	-	EXISTING (2)#18/4
*39	1	1.5"	32'	-	EXISTING (4)#18/4
*40	1	2.5"	132'	-	EXISTING (1)#18/4
*41	1	1.5"	2'	-	EXISTING (2)#18/4
*42	1	4"	-	-	EXISTING COMMUNICATION CABLE
F47	1	4"	65'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F47	1	4"	225'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48A	2	4"	65'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48B	6	4"	15'	-	COMMUNICATION AND CAMERA CABLES (SEE S&S PLANS)
*F48C	1	2.5"	20'	-	CAMERA CABLE (SEE SIGNING AND STRIPING PLANS)
*F48D	1	4"	20'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F49	1	4"	130'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F50	1	4"	50'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

■	PROPOSED SIGNAL CABINET	(RM C)	REMOVE BY CONTRACTOR
□	EXISTING SIGNAL CABINET	(RM O)	REMOVE BY OTHERS
⊙	PROPOSED SIGNAL POLE BASE	(AB)	ABANDON
⊗	EXISTING SIGNAL POLE BASE	(PB X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
◉	PROPOSED PEDESTRIAN POLE BASE	(PB X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
◎	EXISTING PEDESTRIAN POLE BASE	(PL X)	PROPOSED POLE IDENTIFIER (* OF POLE)
●	PROPOSED WOOD POLE	(PL X)	EXISTING POLE IDENTIFIER (* OF POLE)
○	EXISTING WOOD POLE	(JW X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
■	PROPOSED JUNCTION WELL	(JW X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
□	EXISTING JUNCTION WELL	(CO *)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
→	PROPOSED SIGNAL HEAD	(CO *)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
▷	EXISTING SIGNAL HEAD	(OH *)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
⊐	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH *)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
⊐	EXISTING PEDESTRIAN SIGNAL HEAD	(MA XX)	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
→	PROPOSED PEDESTRIAN PUSHBUTTON	(MA XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
⊸	EXISTING PEDESTRIAN PUSHBUTTON	(CA X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
◀	PROPOSED VIDEO DETECTION	(CA X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
◁	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
◀	PROPOSED MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
◁	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
⊣	OVERHEAD SIGNING	◆	PROPOSED SPAN INSULATOR
●—	PROPOSED OPTICOM RECEIVER	◇	EXISTING SPAN INSULATOR
○—	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
▶	PROPOSED MAST ARM		PROPOSED CCTV
▷	EXISTING MAST ARM		EXISTING CCTV
●—	PROPOSED LUMINAIRE	●	PROPOSED PLASTIC DRUMS
○—	EXISTING LUMINAIRE	⊗	EXISTING PLASTIC DRUMS
	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED FOLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5%) OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE FOLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED _____ DATE: 05/15/13

RECOMMENDED Chitra Desai DATE: 7/12/13

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 7/12/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200111210	PERMIT NO.	S027P
COUNTY	SUSSEX	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN SR 26 @ CENTRAL AVENUE

SHEET NO.	TOTAL SHTS.
538	589

7/16/2013
15:05:37
\\deldot\TS\sr26mainline\Survey\Tp_H10-6_signal_central.dgn

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
*NORTH	113 FT	27.0 FT	5.65 FT	21.35 FT	16.85 FT
*EAST	91 FT	26.6 FT	4.55 FT	22.05 FT	17.55 FT
*SOUTH	120 FT	27.0 FT	6.0 FT	21.00 FT	16.50 FT
*WEST	93 FT	26.6 FT	4.65 FT	21.95 FT	17.45 FT

* DENOTES EXISTING

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*2	STRAIN	32'	STEEL
*3	STRAIN	32'	STEEL
*5	STRAIN	32'	STEEL
*7	CAMERA	75'	STEEL
*8	STRAIN	28'	STEEL

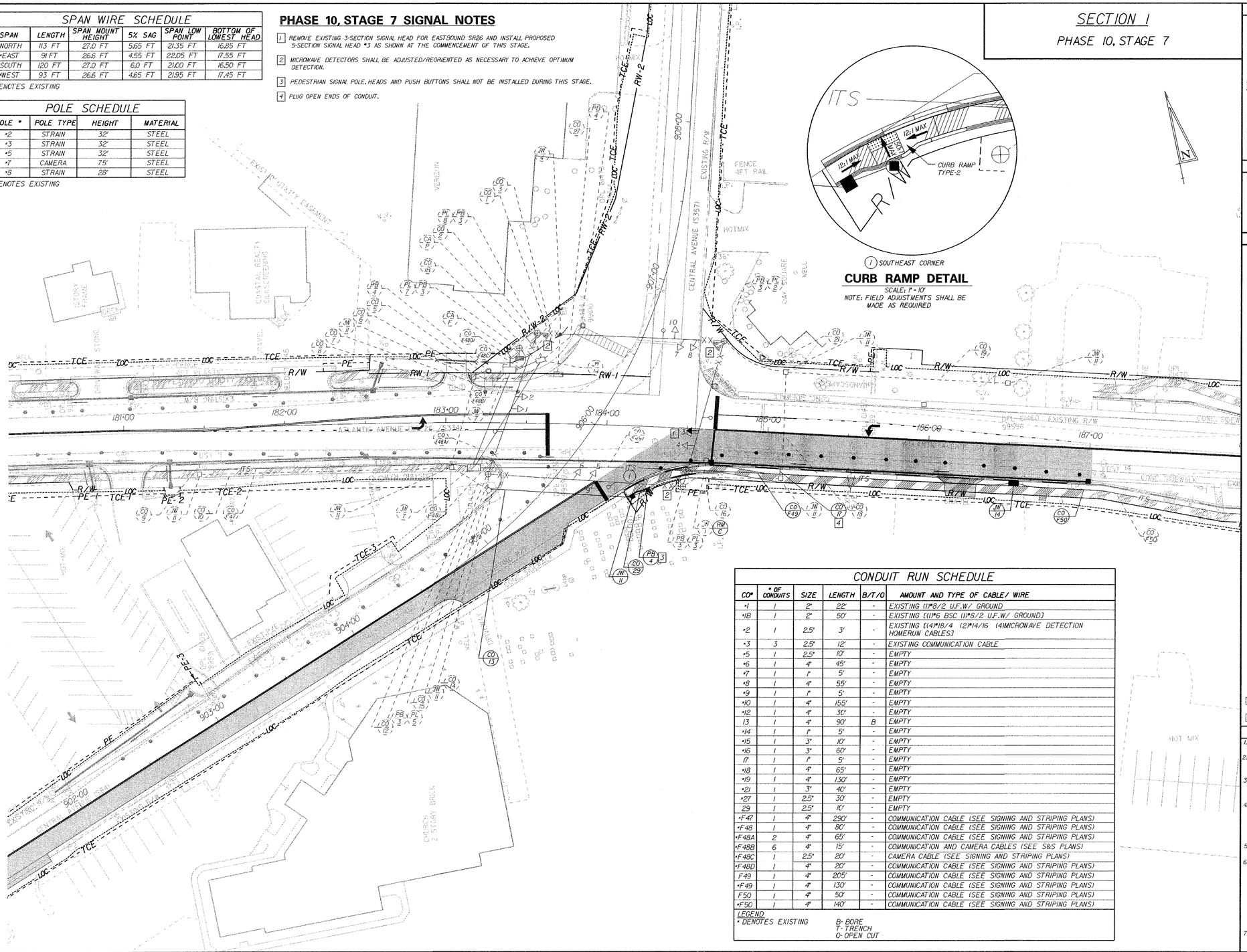
* DENOTES EXISTING

PHASE 10, STAGE 7 SIGNAL NOTES

1. REMOVE EXISTING 3-SECTION SIGNAL HEAD FOR EASTBOUND SR26 AND INSTALL PROPOSED 5-SECTION SIGNAL HEAD *3 AS SHOWN AT THE COMMENCEMENT OF THIS STAGE.
2. MICROWAVE DETECTORS SHALL BE ADJUSTED/REORIENTED AS NECESSARY TO ACHIEVE OPTIMUM DETECTION.
3. PEDESTRIAN SIGNAL POLE, HEADS AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE.
4. PLUG OPEN ENDS OF CONDUIT.

SECTION I

PHASE 10, STAGE 7



(1) SOUTHEAST CORNER

CURB RAMP DETAIL

SCALE: 1" = 10'

NOTE: FIELD ADJUSTMENTS SHALL BE MADE AS REQUIRED

CONDUIT RUN SCHEDULE

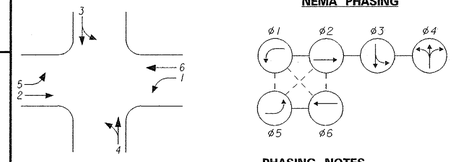
CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	22'	-	EXISTING (1)#8/2 U.F.W./ GROUND
*1B	1	2"	50'	-	EXISTING ((1)#6 BSC (1)#8/2 U.F.W./ GROUND)
*2	1	2.5"	3'	-	EXISTING ((4)#18/4 (2)#14/16 (4)MICROWAVE DETECTION HOMERUN CABLES)
*3	3	2.5"	12'	-	EXISTING COMMUNICATION CABLE
*5	1	2.5"	10'	-	EMPTY
*6	1	4"	45'	-	EMPTY
*7	1	1"	5'	-	EMPTY
*8	1	4"	55'	-	EMPTY
*9	1	1"	5'	-	EMPTY
*10	1	4"	155'	-	EMPTY
*12	1	4"	30'	-	EMPTY
13	1	4"	90'	B	EMPTY
*14	1	1"	5'	-	EMPTY
*15	1	3"	10'	-	EMPTY
*16	1	3"	60'	-	EMPTY
17	1	1"	5'	-	EMPTY
*18	1	4"	65'	-	EMPTY
*19	1	4"	130'	-	EMPTY
*21	1	3"	40'	-	EMPTY
*27	1	2.5"	30'	-	EMPTY
29	1	2.5"	10'	-	EMPTY
*F47	1	4"	290'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48A	2	4"	65'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48B	6	4"	15'	-	COMMUNICATION AND CAMERA CABLES (SEE S&S PLANS)
*F48C	1	2.5"	20'	-	CAMERA CABLE (SEE SIGNING AND STRIPING PLANS)
*F48D	1	4"	20'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F49	1	4"	205'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F49	1	4"	130'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F50	1	4"	50'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F50	1	4"	140'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT

SIGNAL PHASING

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.

SIGNAL HEAD DIAGRAM



LEGEND

- PROPOSED SIGNAL CABINET
- EXISTING SIGNAL CABINET
- PROPOSED SIGNAL POLE BASE
- EXISTING SIGNAL POLE BASE
- PROPOSED PEDESTRIAN POLE BASE
- EXISTING PEDESTRIAN POLE BASE
- PROPOSED WOOD POLE
- EXISTING WOOD POLE
- PROPOSED JUNCTION WELL
- EXISTING JUNCTION WELL
- PROPOSED SIGNAL HEAD
- EXISTING SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSHBUTTON
- EXISTING PEDESTRIAN PUSHBUTTON
- PROPOSED VIDEO DETECTION
- EXISTING VIDEO DETECTION
- PROPOSED MICROWAVE DETECTION
- EXISTING MICROWAVE DETECTION
- OVERHEAD SIGNING
- PROPOSED OPTICOM RECEIVER
- EXISTING OPTICOM RECEIVER
- PROPOSED MAST ARM
- EXISTING MAST ARM
- PROPOSED LUMINAIRE
- EXISTING LUMINAIRE
- PROPOSED LOOP DETECTOR (TYPE 1 OR 2)
- EXISTING LOOP DETECTOR (TYPE 1 OR 2)
- (RM/C) REMOVE BY CONTRACTOR
- (RM/O) REMOVE BY OTHERS
- (AB) ABANDON
- (PB/X) PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- (PB/X) EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- (PL/X) PROPOSED POLE IDENTIFIER (* OF POLE)
- (PL/X) EXISTING POLE IDENTIFIER (* OF POLE)
- (JW/X) PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- (JW/X) EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- (CO/•) PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
- (CO/•) EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
- (OH/•) PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
- (OH/•) EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
- (MA/XX) PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- (MA/XX) EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- (CA/X) PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
- (CA/X) EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
- PROPOSED SPAN WIRE
- XX EXISTING SPAN WIRE
- RIGHT-OF-WAY OR PROPERTY LINE
- PROPOSED SPAN INSULATOR
- EXISTING SPAN INSULATOR
- P SERVICE PEDESTAL
- PROPOSED CCTV
- EXISTING CCTV
- PROPOSED PLASTIC DRUMS
- EXISTING PLASTIC DRUMS

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0U OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED [signature]	DATE: 05/15/13	RECOMMENDED Chutna Dave	DATE: 7/12/13
RECOMMENDED	DATE:	APPROVED TRAFFIC ENGINEER [signature]	DATE: 7/12/13
APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER [signature]	DATE: 7/12/13		

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	PERMIT NO.	S027P
T200411210	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
SUSSEX		

SIGNAL PLAN

SR 26 @ CENTRAL AVENUE

SHEET NO.	TOTAL SHTS.
539	589

7/12/2013
K:\PROJECTS\sr26finalline\Survey\tb_ph10-7_signal_centrad.dgn

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
*NORTH	113 FT	27.0 FT	5.65 FT	21.35 FT	16.85 FT
*EAST	91 FT	26.6 FT	4.55 FT	22.05 FT	17.55 FT
*SOUTH	120 FT	27.0 FT	6.0 FT	21.00 FT	16.50 FT
*WEST	93 FT	26.6 FT	4.65 FT	21.95 FT	17.45 FT

* DENOTES EXISTING

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*2	STRAIN	32'	STEEL
*3	STRAIN	32'	STEEL
*5	STRAIN	32'	STEEL
*7	CAMERA	75'	STEEL
*8	STRAIN	28'	STEEL

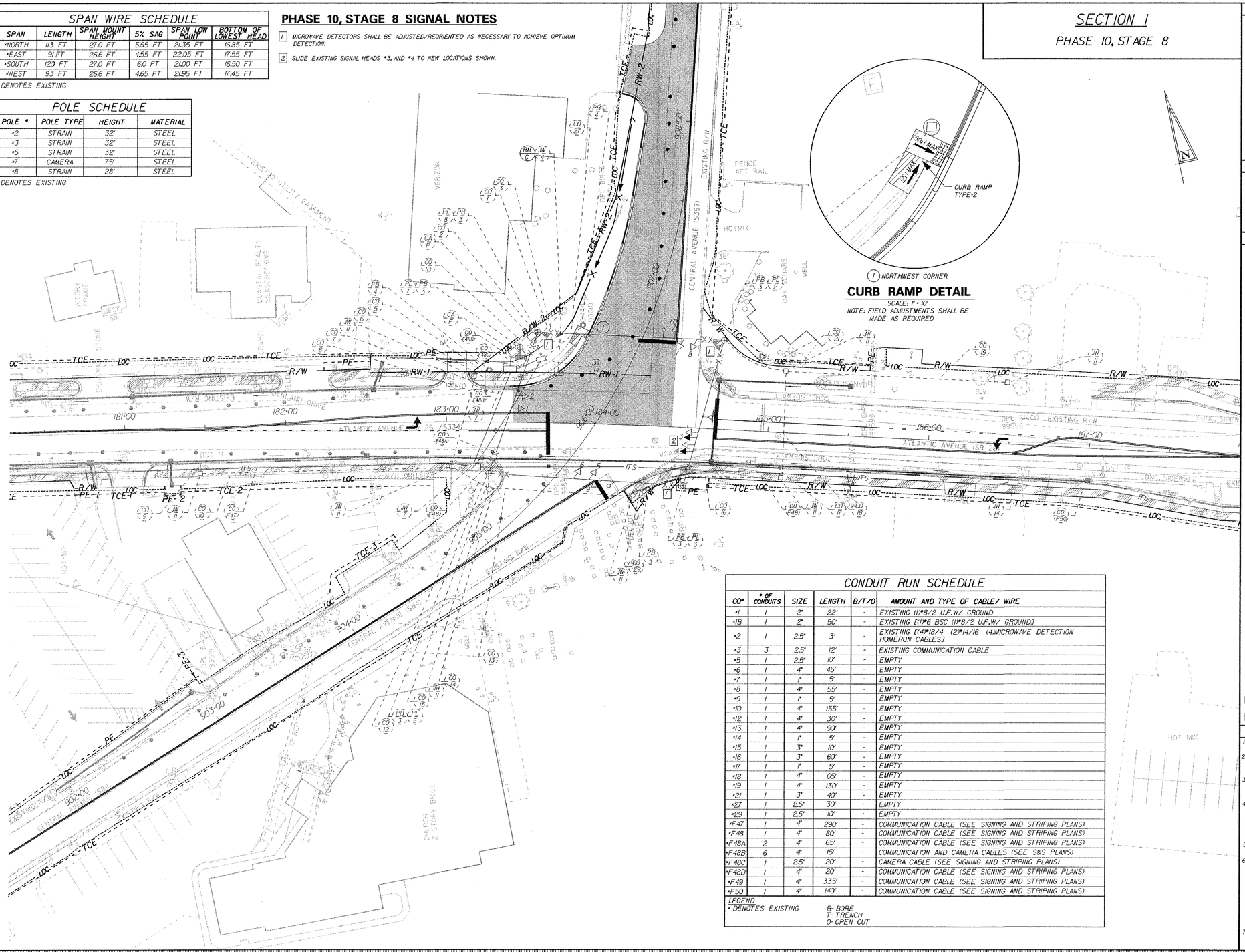
* DENOTES EXISTING

PHASE 10, STAGE 8 SIGNAL NOTES

1. MICROWAVE DETECTORS SHALL BE ADJUSTED/REORIENTED AS NECESSARY TO ACHIEVE OPTIMUM DETECTION.
2. SLIDE EXISTING SIGNAL HEADS *3, AND *4 TO NEW LOCATIONS SHOWN.

SECTION I

PHASE 10, STAGE 8



(1) NORTHWEST CORNER

CURB RAMP DETAIL

SCALE: 1" = 10'

NOTE: FIELD ADJUSTMENTS SHALL BE MADE AS REQUIRED

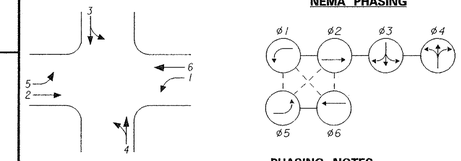
CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	22'	-	EXISTING ((1)#8/2 U.F.W/ GROUND
*1B	1	2"	50'	-	EXISTING ((1)#6 BSC ((1)#8/2 U.F.W/ GROUND)
*2	1	2.5"	3'	-	EXISTING ((4)#18/4 (2)#14/16 (4)MICROWAVE DETECTION HOMERUN CABLES)
*3	3	2.5"	12'	-	EXISTING COMMUNICATION CABLE
*5	1	2.5"	10'	-	EMPTY
*6	1	4"	45'	-	EMPTY
*7	1	1"	5'	-	EMPTY
*8	1	4"	55'	-	EMPTY
*9	1	1"	5'	-	EMPTY
*10	1	4"	155'	-	EMPTY
*12	1	4"	30'	-	EMPTY
*13	1	4"	90'	-	EMPTY
*14	1	1"	5'	-	EMPTY
*15	1	3"	10'	-	EMPTY
*16	1	3"	60'	-	EMPTY
*17	1	1"	5'	-	EMPTY
*18	1	4"	65'	-	EMPTY
*19	1	4"	130'	-	EMPTY
*21	1	3"	40'	-	EMPTY
*27	1	2.5"	30'	-	EMPTY
*29	1	2.5"	10'	-	EMPTY
*F47	1	4"	290'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48A	2	4"	65'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48B	6	4"	15'	-	COMMUNICATION AND CAMERA CABLES (SEE S&S PLANS)
*F48C	1	2.5"	20'	-	CAMERA CABLE (SEE SIGNING AND STRIPING PLANS)
*F48D	1	4"	20'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F49	1	4"	335'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F50	1	4"	140'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

SIGNAL PHASING

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.

SIGNAL HEAD DIAGRAM



LEGEND

■	PROPOSED SIGNAL CABINET	(RM/C)	REMOVE BY CONTRACTOR
▯	EXISTING SIGNAL CABINET	(RM/O)	REMOVE BY OTHERS
⊙	PROPOSED SIGNAL POLE BASE	(AB)	ABANDON
⊗	EXISTING SIGNAL POLE BASE	(PB/X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
◉	PROPOSED PEDESTRIAN POLE BASE	(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
◎	EXISTING PEDESTRIAN POLE BASE	(PL/X)	PROPOSED POLE IDENTIFIER (* OF POLE)
●	PROPOSED WOOD POLE	(PL/X)	EXISTING POLE IDENTIFIER (* OF POLE)
○	EXISTING WOOD POLE	(JW/X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
■	PROPOSED JUNCTION WELL	(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
□	EXISTING JUNCTION WELL	(CO/•)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
▶	PROPOSED SIGNAL HEAD	(CO/•)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
▷	EXISTING SIGNAL HEAD	(OH/•)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
▬	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH/•)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
▭	EXISTING PEDESTRIAN SIGNAL HEAD	(MA/XX)	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
⊸	PROPOSED PEDESTRIAN PUSHBUTTON	(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
⊸	EXISTING PEDESTRIAN PUSHBUTTON	(CA/X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
■	PROPOSED VIDEO DETECTION	(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
▭	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
◀	PROPOSED MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
◀	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
⊣	OVERHEAD SIGNING	◆	PROPOSED SPAN INSULATOR
●—	PROPOSED OPTICOM RECEIVER	◇	EXISTING SPAN INSULATOR
○—	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
▶	PROPOSED MAST ARM		PROPOSED CCTV
▷	EXISTING MAST ARM		EXISTING CCTV
●—	PROPOSED LUMINAIRE	●	PROPOSED PLASTIC DRUMS
○—	EXISTING LUMINAIRE	⊗	EXISTING PLASTIC DRUMS
▭	PROPOSED LOOP DETECTOR (TYPE 1OR 2)		
▭	EXISTING LOOP DETECTOR (TYPE 1OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0U OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED [signature]	DATE: 05/15/13	RECOMMENDED Chelma Davis	DATE: 7/12/13	RECOMMENDED _____ DATE:
APPROVED TRAFFIC ENGINEER [signature]	DATE: 7/12/13	APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER [signature]	DATE: 7/12/13	

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210	PERMIT NO.	S027P
COUNTY	SUSSEX	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN
SR 26 @ CENTRAL AVENUE

SHEET NO.	540
TOTAL SHTS.	589

7/10/2013
I:\PROJECTS\sr26malnline\Survey\tp_H0-8_signal_central.dgn
60-8-0-13

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
*NORTH	113 FT	27.0 FT	5.65 FT	21.35 FT	16.85 FT
*EAST	91 FT	26.6 FT	4.55 FT	22.05 FT	17.55 FT
*SOUTH	120 FT	27.0 FT	6.0 FT	21.00 FT	16.50 FT
*WEST	93 FT	26.6 FT	4.65 FT	21.95 FT	17.45 FT

* DENOTES EXISTING

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
1	PEDESTRIAN	10'	ALUMINUM
*2	STRAIN	32'	STEEL
*3	STRAIN	32'	STEEL
4	PEDESTRIAN	10'	ALUMINUM
*5	STRAIN	32'	STEEL
6	PEDESTRIAN	10'	ALUMINUM
*7	CAMERA	75'	STEEL
*8	STRAIN	28'	STEEL
9	PEDESTRIAN	10'	ALUMINUM

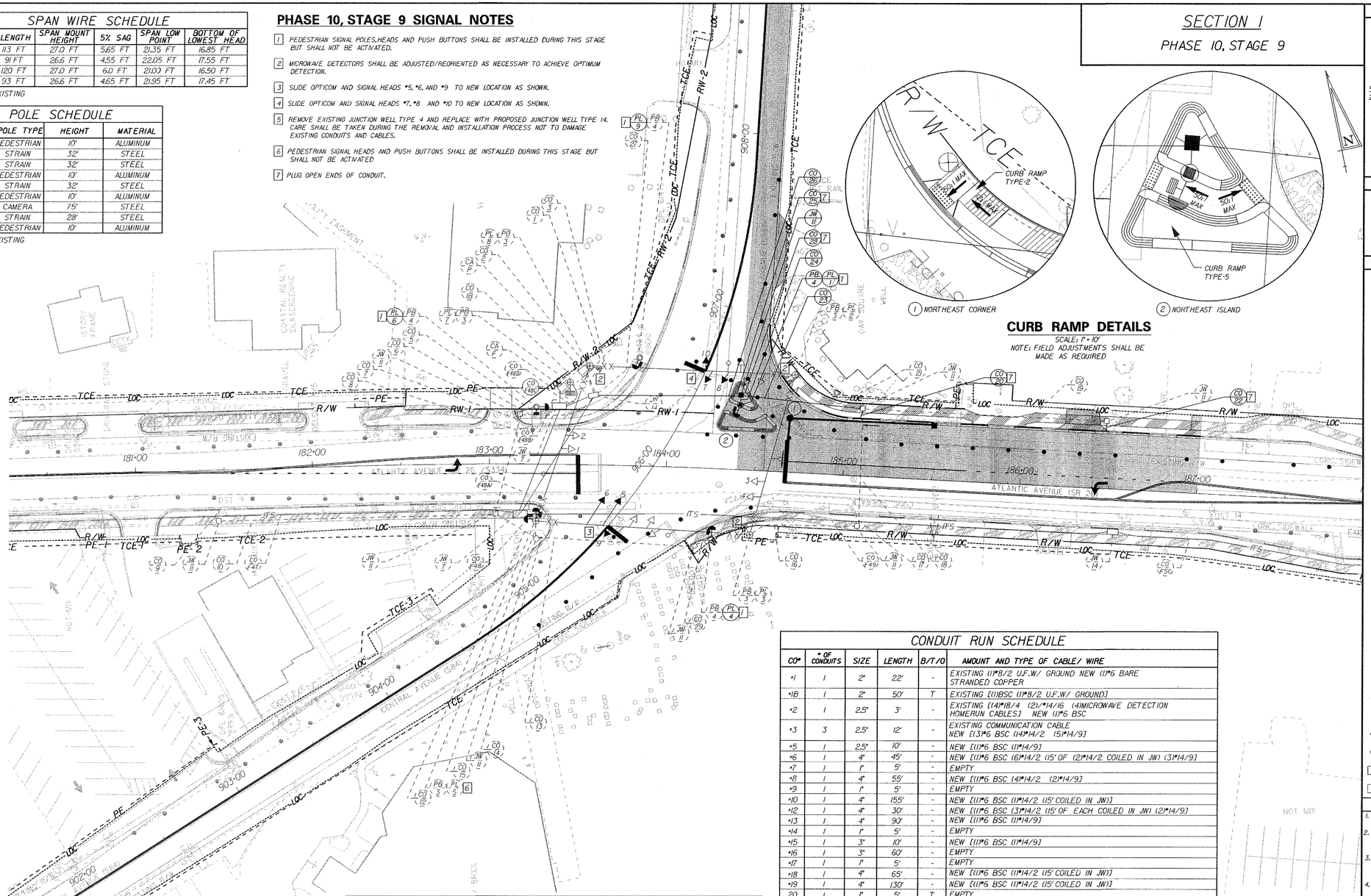
* DENOTES EXISTING

PHASE 10, STAGE 9 SIGNAL NOTES

1. PEDESTRIAN SIGNAL POLES, HEADS AND PUSH BUTTONS SHALL BE INSTALLED DURING THIS STAGE BUT SHALL NOT BE ACTIVATED.
2. MICROWAVE DETECTORS SHALL BE ADJUSTED/REORIENTED AS NECESSARY TO ACHIEVE OPTIMUM DETECTION.
3. SLIDE OPTICOM AND SIGNAL HEADS *5, *6, AND *9 TO NEW LOCATION AS SHOWN.
4. SLIDE OPTICOM AND SIGNAL HEADS *7, *8 AND *10 TO NEW LOCATION AS SHOWN.
5. REMOVE EXISTING JUNCTION WELL TYPE 4 AND REPLACE WITH PROPOSED JUNCTION WELL TYPE 14. CARE SHALL BE TAKEN DURING THE REMOVAL AND INSTALLATION PROCESS NOT TO DAMAGE EXISTING CONDUITS AND CABLES.
6. PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS SHALL BE INSTALLED DURING THIS STAGE BUT SHALL NOT BE ACTIVATED
7. PLUG OPEN ENDS OF CONDUIT.

SECTION I

PHASE 10, STAGE 9



CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	22'	-	EXISTING (1)#8/2 U.F.W./ GROUND NEW (1)#6 BARE STRANDED COPPER
*1B	1	2"	50'	T	EXISTING [(1)BSC (1)#8/2 U.F.W./ GROUND]
*2	1	2.5"	3'	-	EXISTING [(4)#18/4 (2)/#14/16 (4)MICROWAVE DETECTION HOMERUN CABLES] NEW (1)#6 BSC
*3	3	2.5"	12'	-	EXISTING COMMUNICATION CABLE NEW [(3)#6 BSC (4)#14/4/2 (5)#14/9]
*5	1	2.5"	10'	-	NEW [(1)#6 BSC (1)#14/9]
*6	1	4"	45'	-	NEW [(1)#6 BSC (6)#14/2 (15' OF (2)#14/2 COILED IN JW) (3)#14/9]
*7	1	1"	5'	-	EMPTY
*8	1	4"	55'	-	NEW [(1)#6 BSC (4)#14/2 (2)#14/9]
*9	1	1"	5'	-	EMPTY
*10	1	4"	155'	-	NEW [(1)#6 BSC (1)#14/2 (15' COILED IN JW)]
*12	1	4"	30'	-	NEW [(1)#6 BSC (3)#14/2 (15' OF EACH COILED IN JW) (2)#14/9]
*13	1	4"	90'	-	NEW [(1)#6 BSC (1)#14/9]
*14	1	1"	5'	-	EMPTY
*15	1	3"	10'	-	NEW [(1)#6 BSC (1)#14/9]
*16	1	3"	60'	-	EMPTY
*17	1	1"	5'	-	EMPTY
*18	1	4"	65'	-	NEW [(1)#6 BSC (1)#14/2 (15' COILED IN JW)]
*19	1	4"	130'	-	NEW [(1)#6 BSC (1)#14/2 (15' COILED IN JW)]
20	1	1"	5'	T	EMPTY
*21	1	3"	40'	-	EMPTY
22	1	1"	5'	T	EMPTY
23	1	4"	70'	T	NEW [(1)#6 BSC (3)#14/2 (15' OF (1)#14/2 COILED IN JW)]
24	1	2.5"	5'	T	NEW [(1)#6 BSC (1)#14/9]
25	2	1"	5'	T	EMPTY
26	1	4"	80'	B	NEW [(1)#6 BSC (8)#14/2 (15' EACH OF (5)#14/2 COILED IN JW) (1)#14/9)]
*27	1	2.5"	30'	-	NEW [(1)#6 BSC (1)#14/9]
28	1	1"	5'	T	EMPTY
*29	1	2.5"	10'	-	NEW [(1)#6 BSC (1)#14/9]

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

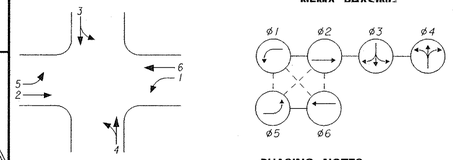
CONDUIT RUN SCHEDULE (CONT.)

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*F47	1	4"	290'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48	1	4"	80'	T	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48A	2	4"	65'	T	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48B	6	4"	15'	-	COMMUNICATION AND CAMERA CABLES (SEE S&S PLANS)
*F48C	2	2.5"	20'	-	CAMERA CABLE (SEE SIGNING AND STRIPING PLANS)
*F48D	1	4"	20'	T	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F49	1	4"	335'	T	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F50	1	4"	140'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

SIGNAL PHASING

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.

SIGNAL HEAD DIAGRAM



LEGEND

- PROPOSED SIGNAL CABINET
- EXISTING SIGNAL CABINET
- PROPOSED SIGNAL POLE BASE
- EXISTING SIGNAL POLE BASE
- PROPOSED PEDESTRIAN POLE BASE
- EXISTING PEDESTRIAN POLE BASE
- PROPOSED WOOD POLE
- EXISTING WOOD POLE
- PROPOSED JUNCTION WELL
- EXISTING JUNCTION WELL
- PROPOSED SIGNAL HEAD
- EXISTING SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSHBUTTON
- EXISTING PEDESTRIAN PUSHBUTTON
- PROPOSED VIDEO DETECTION
- EXISTING VIDEO DETECTION
- PROPOSED MICROWAVE DETECTION
- EXISTING MICROWAVE DETECTION
- OVERHEAD SIGNING
- PROPOSED OPTICOM RECEIVER
- EXISTING OPTICOM RECEIVER
- PROPOSED MAST ARM
- EXISTING MAST ARM
- PROPOSED LUMINAIRE
- EXISTING LUMINAIRE
- PROPOSED LOOP DETECTOR (TYPE 1 OR 2)
- EXISTING LOOP DETECTOR (TYPE 1 OR 2)

- (RM/C) REMOVE BY CONTRACTOR
- (RM/O) REMOVE BY OTHERS
- (AB) ABANDON
- (PB/X) PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- (PB/X) EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- (PL/X) PROPOSED POLE IDENTIFIER (# OF POLE)
- (PL/X) EXISTING POLE IDENTIFIER (# OF POLE)
- (JW/X) PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- (JW/X) EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- (CO/*) PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- (CO/*) EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- (OH/*) PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- (OH/*) EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- (MA/XX) PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- (MA/XX) EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
- (CA/X) PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
- (CA/X) EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
- PROPOSED SPAN WIRE
- XX EXISTING SPAN WIRE
- RIGHT-OF-WAY OR PROPERTY LINE
- PROPOSED SPAN INSULATOR
- EXISTING SPAN INSULATOR
- [P] SERVICE PEDESTAL
- PROPOSED CCTV
- EXISTING CCTV
- PROPOSED PLASTIC DRUMS
- EXISTING PLASTIC DRUMS

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0%) OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED _____ DATE: 05/15/13

RECOMMENDED Chuck Dare DATE: 7/12/13

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 7/12/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210
COUNTY	SUSSEX

PERMIT NO.	S027P
DESIGNED BY:	MSK
CHECKED BY:	BAM

SIGNAL PLAN
SR 26 @ CENTRAL AVENUE

SHEET NO.	541
TOTAL SHTS.	589

7/09/2013
C:\projects\sr26mainline\Survey\tp_H09_signal_central.dgn
(6.05134)

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
*NORTH	113 FT	27.0 FT	5.65 FT	21.35 FT	16.85 FT
*EAST	91 FT	26.6 FT	4.55 FT	22.05 FT	17.55 FT
*SOUTH	120 FT	27.0 FT	6.0 FT	21.00 FT	16.50 FT
*WEST	93 FT	26.6 FT	4.65 FT	21.95 FT	17.45 FT

* DENOTES EXISTING

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	PEDESTRIAN	10'	ALUMINUM
*2	STRAIN	32'	STEEL
*3	STRAIN	32'	STEEL
*4	PEDESTRIAN	10'	ALUMINUM
*5	STRAIN	32'	STEEL
*6	PEDESTRIAN	10'	ALUMINUM
*7	CAMERA	75'	STEEL
*8	STRAIN	28'	STEEL
*9	PEDESTRIAN	10'	ALUMINUM

* DENOTES EXISTING

SECTION 1

PHASE 13, STAGE 1

PHASE 13, STAGE 1 SIGNAL NOTES

1. REMOVE EXISTING INVERTED-T SIGNAL HEADS FOR NORTHBOUND AND SOUTHBOUND CENTRAL AVENUE AND INSTALL PROPOSED 5-SECTION SIGNAL HEADS *5 AND *7 AT ULTIMATE LOCATIONS SHOWN.
2. REMOVE EXISTING SUPPLEMENTAL INVERTED-T SIGNAL HEADS FOR NORTHBOUND AND SOUTHBOUND CENTRAL AVENUE AND INSTALL PROPOSED SUPPLEMENTAL 3-SECTION SIGNAL HEADS *9 AND *10 AT ULTIMATE LOCATIONS SHOWN.
3. ACTIVATE PROPOSED TRAFFIC SIGNAL AND PEDESTRIAN SIGNALS AND DEACTIVATE MICROWAVE DETECTION SIGNAL INSTALLATION. ACTIVATION AND DEACTIVATION OF THE SIGNAL SYSTEMS SHALL BE COORDINATED TO ALLOW FOR A SMOOTH TRANSITION.
4. REMOVE ALL MICROWAVE DETECTORS AND ASSOCIATED CABLES AFTER DEACTIVATION.

PROPOSED SIGNING

- Central Ave — D3-1 — 81"x24"
- Atlantic Ave — D3-1 — 90"x24"
- R3-1 — 24"x24"

CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	22'	-	EXISTING [(1)*6 BSC (1)*8/2 U.F.W./ GROUND]
*1B	1	2"	50'	-	EXISTING [(1)*6 BSC (1)*8/2 U.F.W./ GROUND]
*2	1	2.5"	3'	-	EXISTING [(1)*6 BSC (4)*18/4 (2)/*14/16 (4)MICROWAVE DETECTION HOMERUN CABLES] REMOVE (4)MICROWAVE DETECTION HOMERUN CABLES
*3	3	2.5"	12'	-	EXISTING [(3)*6 BSC (14)*14/2 (5)*14/9 COMMUNICATION CABLE]
*5	1	2.5"	10'	-	EXISTING [(1)*6 BSC (1)*14/9]
*6	1	4"	45'	-	EXISTING [(1)*6 BSC (6)*14/2 (3)*14/9]
*7	1	1"	5'	-	NEW (4)*14/1
*8	1	4"	55'	-	EXISTING [(1)*6 BSC (4)*14/2 (2)*14/9]
*9	1	1"	5'	-	NEW (2)*14/1
*10	1	4"	155'	-	EXISTING [(1)*6 BSC (1)*14/2]
*12	1	4"	30'	-	EXISTING [(1)*6 BSC (3)*14/2 (2)*14/9]
*13	1	4"	90'	-	EXISTING [(1)*6 BSC (1)*14/9]
*14	1	1"	5'	-	NEW (6)*14/1
*15	1	3"	10'	-	EXISTING [(1)*6 BSC (1)*14/9]
*16	1	3"	60'	-	EMPTY
*17	1	1"	5'	-	NEW (2)*14/1
*18	1	4"	65'	-	EXISTING [(1)*6 BSC (1)*14/2]
*19	1	4"	130'	-	EXISTING [(1)*6 BSC (1)*14/2]
*20	1	1"	5'	-	NEW (2)*14/1
*21	1	3"	40'	-	EMPTY
*22	1	1"	5'	-	NEW (2)*14/1
*23	1	4"	70'	-	EXISTING [(1)*6 BSC (3)*14/2]
*24	2	2.5"	5'	-	EXISTING [(1)*6 BSC (1)*14/9]
*25	2	1"	5'	-	NEW (6)*14/1
*26	1	4"	80'	-	EXISTING [(1)*6 BSC (8)*14/2 (1)*14/9]
*27	1	2.5"	30'	-	EXISTING [(1)*6 BSC (1)*14/9]
*28	1	1"	5'	-	NEW (2)*14/1
*29	1	2.5"	10'	-	EXISTING [(1)*6 BSC (1)*14/9]

LEGEND
* DENOTES EXISTING B- BORE T- TRENCH O- OPEN CUT

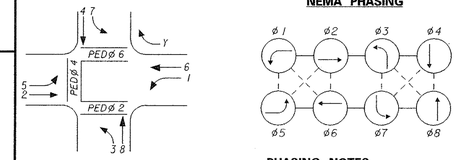
CONDUIT RUN SCHEDULE (CONT.)

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*F47	1	4"	290'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48A	2	4"	65'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48B	6	4"	15'	-	COMMUNICATION AND CAMERA CABLES (SEE S&S PLANS)
*F48C	1	2.5"	20'	-	CAMERA CABLE (SEE SIGNING AND STRIPING PLANS)
*F48D	1	4"	20'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F49	1	4"	335'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F50	1	4"	140'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING B- BORE T- TRENCH O- OPEN CUT

SIGNAL PHASING

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.

SIGNAL HEAD DIAGRAM



LEGEND

PROPOSED SIGNAL CABINET	RM/C	REMOVE BY CONTRACTOR
EXISTING SIGNAL CABINET	RM/O	REMOVE BY OTHERS
PROPOSED SIGNAL POLE BASE	AB	ABANDON
EXISTING SIGNAL POLE BASE		
PROPOSED PEDESTRIAN POLE BASE	PB/X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
EXISTING PEDESTRIAN POLE BASE	(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
PROPOSED WOOD POLE	PL/X	PROPOSED POLE IDENTIFIER (* OF POLE)
EXISTING WOOD POLE	(PL/X)	EXISTING POLE IDENTIFIER (* OF POLE)
PROPOSED JUNCTION WELL	JW/X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
EXISTING JUNCTION WELL	(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
PROPOSED SIGNAL HEAD	CO/*	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
EXISTING SIGNAL HEAD	(CO/*)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
PROPOSED PEDESTRIAN SIGNAL HEAD	OH/*	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
EXISTING PEDESTRIAN SIGNAL HEAD	(OH/*)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
PROPOSED PUSHBUTTON	MA/XX	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
EXISTING PEDESTRIAN PUSHBUTTON	(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
PROPOSED VIDEO DETECTION	CA/X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
EXISTING VIDEO DETECTION	(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
PROPOSED MICROWAVE DETECTION		PROPOSED SPAN WIRE
EXISTING MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
OVERHEAD SIGNING		RIGHT-OF-WAY OR PROPERTY LINE
PROPOSED OPTICOM RECEIVER		PROPOSED SPAN INSULATOR
EXISTING OPTICOM RECEIVER		EXISTING SPAN INSULATOR
PROPOSED MAST ARM	P	SERVICE PEDESTAL
EXISTING MAST ARM		PROPOSED CCTV
PROPOSED LUMINAIRE		EXISTING CCTV
EXISTING LUMINAIRE		PROPOSED PLASTIC DRUMS
PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		EXISTING PLASTIC DRUMS
EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0% OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED _____ DATE: 05/15/13

RECOMMENDED _____ DATE: 7/12/13

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 7/12/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210	PERMIT NO.	S027P
COUNTY	SUSSEX	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN
SR 26 @ CENTRAL AVENUE

SHEET NO. 542
TOTAL SHTS. 589

7/10/2013
K:\PROJECTS\sr26malnline\Survey\Tp_I-31_signal_central.dgn
BOUDAS

SECTION I
ULTIMATE

SPAN WIRE SCHEDULE

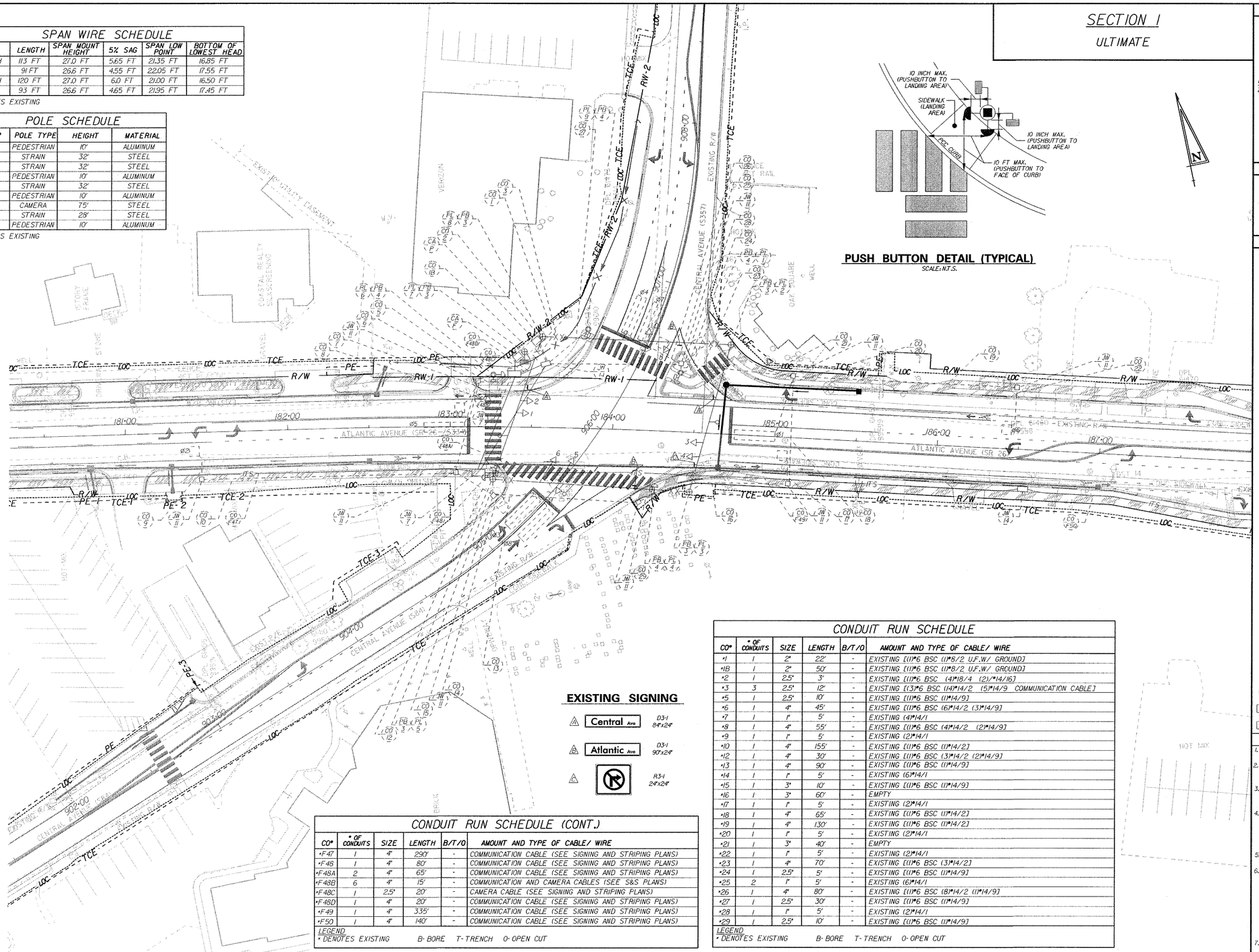
SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
*NORTH	113 FT	27.0 FT	5.65 FT	21.35 FT	16.85 FT
*EAST	91 FT	26.6 FT	4.55 FT	22.05 FT	17.55 FT
*SOUTH	120 FT	27.0 FT	6.0 FT	21.00 FT	16.50 FT
*WEST	93 FT	26.6 FT	4.65 FT	21.95 FT	17.45 FT

* DENOTES EXISTING

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	PEDESTRIAN	10'	ALUMINUM
*2	STRAIN	32'	STEEL
*3	STRAIN	32'	STEEL
*4	PEDESTRIAN	10'	ALUMINUM
*5	STRAIN	32'	STEEL
*6	PEDESTRIAN	10'	ALUMINUM
*7	CAMERA	75'	STEEL
*8	STRAIN	28'	STEEL
*9	PEDESTRIAN	10'	ALUMINUM

* DENOTES EXISTING



PUSH BUTTON DETAIL (TYPICAL)
SCALE: N.T.S.

EXISTING SIGNING

A	Central Ave	D3-1 84"x24"
A	Atlantic Ave	D3-1 90"x24"
A		R3-1 24"x24"

CONDUIT RUN SCHEDULE (CONT.)

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*F47	1	4"	290'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48	1	4"	80'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48A	2	4"	65'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F48B	6	4"	15'	-	COMMUNICATION AND CAMERA CABLES (SEE S&S PLANS)
*F48C	1	2.5"	20'	-	CAMERA CABLE (SEE SIGNING AND STRIPING PLANS)
*F48D	1	4"	20'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F49	1	4"	335'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F50	1	4"	140'	-	COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING B- BORE T- TRENCH O- OPEN CUT

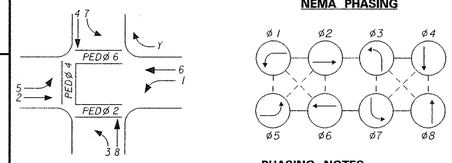
CONDUIT RUN SCHEDULE

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	22'	-	EXISTING ((1)#6 BSC (1)#8/2 U.F.W/ GROUND)
*1B	1	2"	50'	-	EXISTING ((1)#6 BSC (1)#8/2 U.F.W/ GROUND)
*2	1	2.5"	3'	-	EXISTING ((1)#6 BSC (4)#18/4 (2)/#14/16)
*3	3	2.5"	12'	-	EXISTING ((3)#6 BSC (14)#14/2 (5)#14/9 COMMUNICATION CABLE)
*5	1	2.5"	10'	-	EXISTING ((1)#6 BSC (1)#14/9)
*6	1	4"	45'	-	EXISTING ((1)#6 BSC (6)#14/2 (3)#14/9)
*7	1	1"	5'	-	EXISTING (4)#14/1)
*8	1	4"	55'	-	EXISTING ((1)#6 BSC (4)#14/2 (2)#14/9)
*9	1	1"	5'	-	EXISTING (2)#14/1)
*10	1	4"	155'	-	EXISTING ((1)#6 BSC (1)#14/2)
*12	1	4"	30'	-	EXISTING ((1)#6 BSC (3)#14/2 (2)#14/9)
*13	1	4"	90'	-	EXISTING ((1)#6 BSC (1)#14/9)
*14	1	1"	5'	-	EXISTING (6)#14/1)
*15	1	3"	10'	-	EXISTING ((1)#6 BSC (1)#14/9)
*16	1	3"	60'	-	EMPTY
*17	1	1"	5'	-	EXISTING (2)#14/1)
*18	1	4"	65'	-	EXISTING ((1)#6 BSC (1)#14/2)
*19	1	4"	130'	-	EXISTING ((1)#6 BSC (1)#14/2)
*20	1	1"	5'	-	EXISTING (2)#14/1)
*21	1	3"	40'	-	EMPTY
*22	1	1"	5'	-	EXISTING (2)#14/1)
*23	1	4"	70'	-	EXISTING ((1)#6 BSC (3)#14/2)
*24	1	2.5"	5'	-	EXISTING ((1)#6 BSC (1)#14/9)
*25	2	1"	5'	-	EXISTING (6)#14/1)
*26	1	4"	80'	-	EXISTING ((1)#6 BSC (8)#14/2 ((1)#14/9)
*27	1	2.5"	30'	-	EXISTING ((1)#6 BSC (1)#14/9)
*28	1	1"	5'	-	EXISTING (2)#14/1)
*29	1	2.5"	10'	-	EXISTING ((1)#6 BSC (1)#14/9)

LEGEND
* DENOTES EXISTING B- BORE T- TRENCH O- OPEN CUT

SIGNAL PHASING

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.

SIGNAL HEAD DIAGRAM



LEGEND

	PROPOSED SIGNAL CABINET	(RM/C)	REMOVE BY CONTRACTOR
	EXISTING SIGNAL CABINET	(RM/O)	REMOVE BY OTHERS
	PROPOSED SIGNAL POLE BASE	(AB)	ABANDON
	EXISTING SIGNAL POLE BASE	(PB/X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED PEDESTRIAN POLE BASE	(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING PEDESTRIAN POLE BASE	(FL/X)	PROPOSED POLE IDENTIFIER (# OF POLE)
	PROPOSED WOOD POLE	(FL/X)	EXISTING POLE IDENTIFIER (# OF POLE)
	EXISTING WOOD POLE	(JW/X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	PROPOSED JUNCTION WELL	(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	EXISTING JUNCTION WELL	(CO/*)	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
	PROPOSED SIGNAL HEAD	(CO/*)	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
	EXISTING SIGNAL HEAD	(OH/*)	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH/*)	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
	EXISTING PEDESTRIAN SIGNAL HEAD	(MA/XX)	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	PROPOSED PEDESTRIAN PUSHBUTTON	(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	EXISTING PEDESTRIAN PUSHBUTTON	(CA/X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
	PROPOSED VIDEO DETECTION	(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
	PROPOSED MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
	OVERHEAD SIGNING		PROPOSED SPAN INSULATOR
	PROPOSED OPTICOM RECEIVER		EXISTING SPAN INSULATOR
	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
	PROPOSED MAST ARM		PROPOSED CCTV
	EXISTING MAST ARM		EXISTING CCTV
	PROPOSED LUMINAIRE		PROPOSED PLASTIC DRUMS
	EXISTING LUMINAIRE		EXISTING PLASTIC DRUMS
	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC- DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0) OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED B. SADLER DATE: 05/15/13

RECOMMENDED Chutney Dave DATE: 7/12/13

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER Myron C. Hitch DATE: 7/12/13

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	PERMIT NO.	S027P
T200411210	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
SUSSEX		

SIGNAL PLAN SR 26 @ CENTRAL AVENUE (ULTIMATE)

SHEET NO.	TOTAL SHTS.
543	589

7/09/2013
I:\PROJECTS\sr26mdnline\Survey\tp_ultimate_signal_cent~al.dgn
(650122)

CONDUIT RUN SCHEDULE

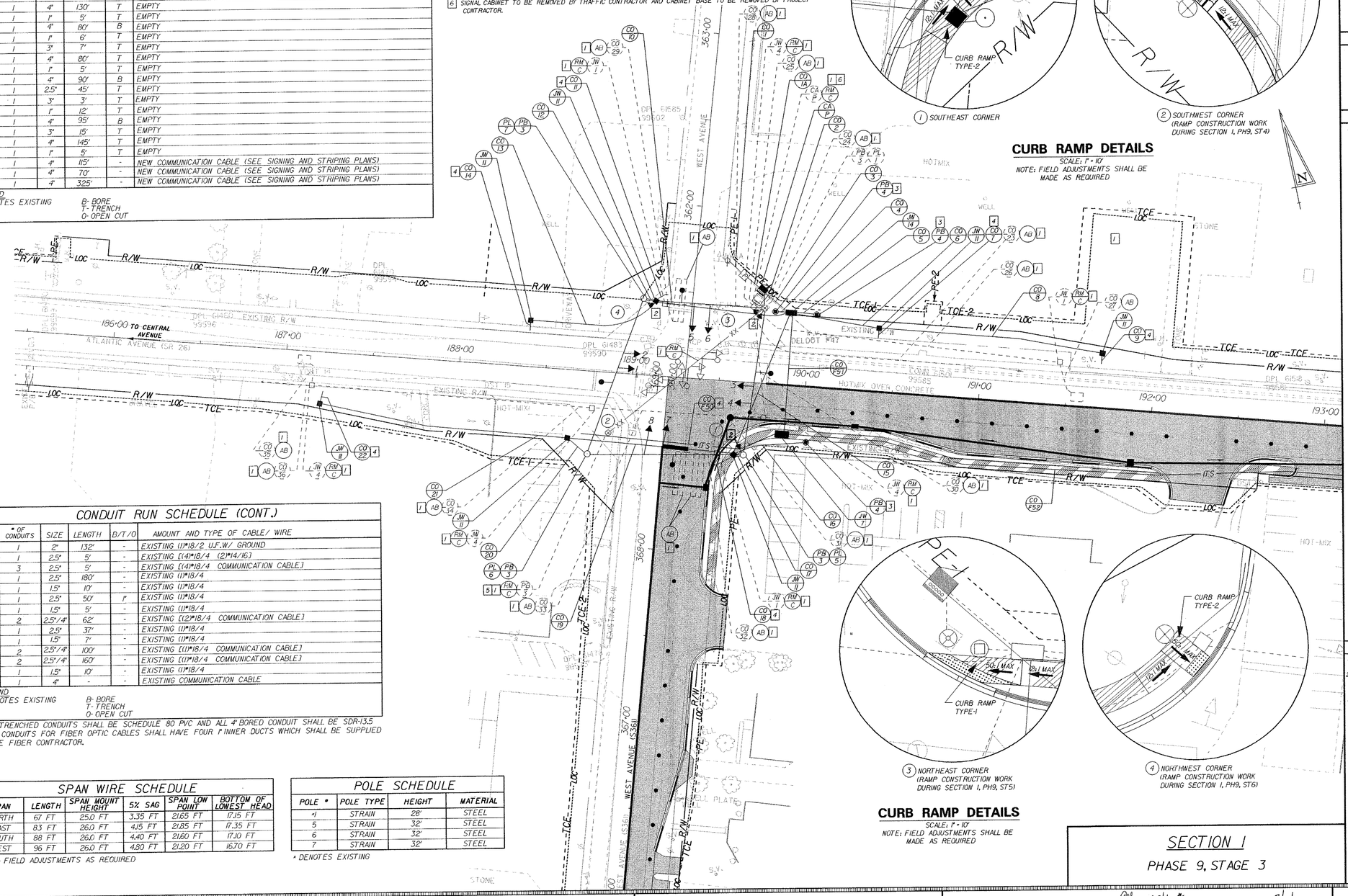
CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
1	1	2"	10'	T	NEW [(1)#6 BARE STRANDED COPPER (1)#8/2 U.F.W/ GROUND]
1A	1	2"	10'	T	NEW [(1)#6 BSC (1)#8/2 U.F.W/ GROUND]
2	1	2.5"	10'	T	NEW [(1)#6 BSC (4)#18/4 (2)#14/16 (4)MICROWAVE DETECTION HR CABLES]
3	3	4"	20'	T	NEW COMMUNICATION CABLE
4	1	2.5"	7'	-	EMPTY
5	1	2.5"	15'	T	EMPTY
6	1	4"	50'	T	EMPTY
7	1	1"	5'	T	EMPTY
8	1	4"	130'	T	EMPTY
9	1	1"	5'	T	EMPTY
10	1	4"	80'	B	EMPTY
11	1	1"	6'	T	EMPTY
12	1	3"	7'	T	EMPTY
13	1	4"	80'	T	EMPTY
14	1	1"	5'	T	EMPTY
15	1	4"	90'	B	EMPTY
16	1	2.5"	45'	T	EMPTY
17	1	3"	3'	T	EMPTY
18	1	1"	12'	T	EMPTY
19	1	4"	95'	B	EMPTY
20	1	3"	15'	T	EMPTY
21	1	4"	145'	T	EMPTY
22	1	1"	5'	T	EMPTY
F50	1	4"	115'	-	NEW COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F51	1	4"	70'	-	NEW COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
F52	1	4"	325'	-	NEW COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT

PHASE 9, STAGE 3 SIGNAL NOTES

1. EXISTING SIGNAL INSTALLATION SHALL NOT BE ABANDONED OR REMOVED UNTIL PROPOSED MICROWAVE DETECTION SIGNAL INSTALLATION IS COMPLETE AND ACTIVATED.
2. PROPOSED MICROWAVE DETECTORS SHALL BE LOCATED, MOUNTED, AND ORIENTED TO ACHIEVE OPTIMUM DETECTION. PROPOSED MICROWAVE HOMERUN CABLES SHALL RUN ALONG THE PROPOSED SPAN WIRE, DOWN THE NORTHEAST SIGNAL POLE AND THROUGH CONDUIT (CO *2) TO THE SIGNAL CABINET.
3. PEDESTRIAN SIGNAL POLES, HEADS AND PUSH BUTTONS SHALL NOT BE INSTALLED IN THIS STAGE.
4. PLUG OPEN ENDS OF CONDUIT.
5. POLE TO BE REMOVED BY TRAFFIC CONTRACTOR AND POLE BASE TO BE REMOVED BY PROJECT CONTRACTOR.
6. SIGNAL CABINET TO BE REMOVED BY TRAFFIC CONTRACTOR AND CABINET BASE TO BE REMOVED BY PROJECT CONTRACTOR.



CURB RAMP DETAILS

SCALE: 1" = 10'
NOTE: FIELD ADJUSTMENTS SHALL BE MADE AS REQUIRED

CONDUIT RUN SCHEDULE (CONT.)

CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*23	1	2"	132'	-	EXISTING (1)#18/2 U.F.W/ GROUND
*24	1	2.5"	5'	-	EXISTING [(4)#18/4 (2)#14/16]
*25	3	2.5"	5'	-	EXISTING [(4)#18/4 COMMUNICATION CABLE]
*26	1	2.5"	180'	-	EXISTING (1)#18/4
*27	1	1.5"	10'	-	EXISTING (1)#18/4
*28	1	2.5"	50'	T	EXISTING (1)#18/4
*29	1	1.5"	5'	-	EXISTING (1)#18/4
*30	2	2.5"/4"	62'	-	EXISTING [(2)#18/4 COMMUNICATION CABLE]
*31	1	2.5"	37'	-	EXISTING (1)#18/4
*32	1	1.5"	7'	-	EXISTING (1)#18/4
*33	2	2.5"/4"	100'	-	EXISTING [(1)#18/4 COMMUNICATION CABLE]
*34	2	2.5"/4"	160'	-	EXISTING [(1)#18/4 COMMUNICATION CABLE]
*35	1	1.5"	10'	-	EXISTING (1)#18/4
*36	1	4"	-	-	EXISTING COMMUNICATION CABLE

LEGEND
* DENOTES EXISTING

B- BORE
T- TRENCH
O- OPEN CUT

ALL 4" TRENCHED CONDUITS SHALL BE SCHEDULE 80 PVC AND ALL 4" BORED CONDUIT SHALL BE SDR-13.5 HDPE. CONDUITS FOR FIBER OPTIC CABLES SHALL HAVE FOUR 1" INNER DUCTS WHICH SHALL BE SUPPLIED BY THE FIBER CONTRACTOR.

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
NORTH	67 FT	25.0 FT	3.35 FT	21.65 FT	17.15 FT
EAST	83 FT	26.0 FT	4.15 FT	21.85 FT	17.35 FT
SOUTH	88 FT	26.0 FT	4.40 FT	21.60 FT	17.10 FT
WEST	96 FT	26.0 FT	4.80 FT	21.20 FT	16.70 FT

NOTE: FIELD ADJUSTMENTS AS REQUIRED

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	STRAIN	28'	STEEL
5	STRAIN	32'	STEEL
6	STRAIN	32'	STEEL
7	STRAIN	32'	STEEL

* DENOTES EXISTING

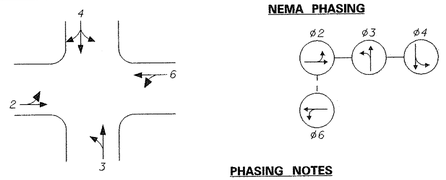
CURB RAMP DETAILS

SCALE: 1" = 10'
NOTE: FIELD ADJUSTMENTS SHALL BE MADE AS REQUIRED

SECTION 1
PHASE 9, STAGE 3

SIGNAL PHASING

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.

SIGNAL HEAD DIAGRAM



LEGEND

	PROPOSED SIGNAL CABINET	(RM C)	REMOVE BY CONTRACTOR
	EXISTING SIGNAL CABINET	(RM O)	REMOVE BY OTHERS
	PROPOSED SIGNAL POLE BASE	(AB)	ABANDON
	EXISTING SIGNAL POLE BASE	(PB X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED PEDESTRIAN POLE BASE	(PB X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING PEDESTRIAN POLE BASE	(PL X)	PROPOSED POLE IDENTIFIER (* OF POLE)
	PROPOSED WOOD POLE	(PL X)	EXISTING POLE IDENTIFIER (* OF POLE)
	EXISTING WOOD POLE	(JW X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	PROPOSED JUNCTION WELL	(JW X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	EXISTING JUNCTION WELL	(CO •)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	PROPOSED SIGNAL HEAD	(CO •)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	EXISTING SIGNAL HEAD	(OH •)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH •)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	EXISTING PEDESTRIAN SIGNAL HEAD	(MA XX)	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	PROPOSED PEDESTRIAN PUSHBUTTON	(MA XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	EXISTING PEDESTRIAN PUSHBUTTON	(CA X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
	PROPOSED VIDEO DETECTION	(CA X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
	PROPOSED MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
	OVERHEAD SIGNING		PROPOSED SPAN INSULATOR
	PROPOSED OPTICOM RECEIVER		EXISTING SPAN INSULATOR
	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
	PROPOSED MAST ARM		PROPOSED CCTV
	EXISTING MAST ARM		EXISTING CCTV
	PROPOSED LUMINAIRE		PROPOSED PLASTIC DRUMS
	EXISTING LUMINAIRE		EXISTING PLASTIC DRUMS
	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5% OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED _____ DATE: 05/15/13

RECOMMENDED Cristina Dave DATE: 7/12/13

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 7/12/13

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 30 60 90
FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210
COUNTY	SUSSEX
PERMIT NO.	
DESIGNED BY:	MSK
CHECKED BY:	BAM

SIGNAL PLAN
SR 26 @ WEST AVENUE

SHEET NO.	544
TOTAL SHTS.	589

7/10/2013
J:\PROJECTS\sr26mainline\Survey\tp-i-9-3_signal_west.dgn
16:02:29

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
*NORTH	67 FT	25.0 FT	3.35 FT	21.65 FT	17.15 FT
*EAST	83 FT	26.0 FT	4.15 FT	21.85 FT	17.35 FT
*SOUTH	88 FT	26.0 FT	4.40 FT	21.60 FT	17.10 FT
*WEST	96 FT	26.0 FT	4.80 FT	21.20 FT	16.70 FT

NOTE: FIELD ADJUSTMENTS AS REQUIRED

POLE SCHEDULE

POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	STRAIN	28'	STEEL
2	PEDESTRIAN	10'	ALUMINUM
3	PEDESTRIAN	10'	ALUMINUM
4	PEDESTRIAN	10'	ALUMINUM
*5	STRAIN	32'	STEEL
*6	STRAIN	32'	STEEL
*7	STRAIN	32'	STEEL

* DENOTES EXISTING

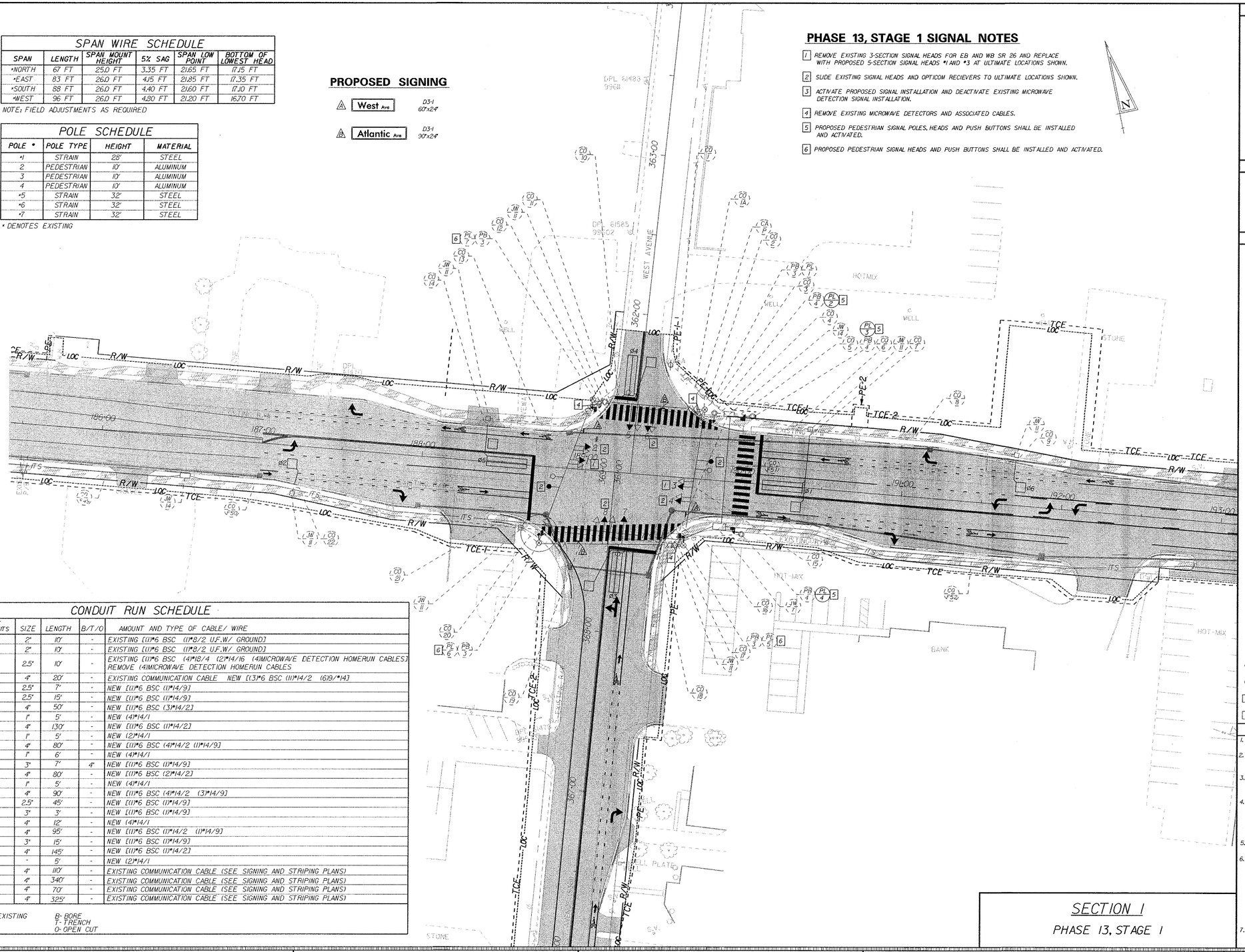
PROPOSED SIGNING

A West Ave D3-1 60"x24"

A Atlantic Ave D3-1 30"x24"

PHASE 13, STAGE 1 SIGNAL NOTES

1. REMOVE EXISTING 3-SECTION SIGNAL HEADS FOR EB AND WB SR 26 AND REPLACE WITH PROPOSED 5-SECTION SIGNAL HEADS *1 AND *3 AT ULTIMATE LOCATIONS SHOWN.
2. SLIDE EXISTING SIGNAL HEADS AND OPTICOM RECIEVERS TO ULTIMATE LOCATIONS SHOWN.
3. ACTIVATE PROPOSED SIGNAL INSTALLATION AND DEACTIVATE EXISTING MICROWAVE DETECTION SIGNAL INSTALLATION.
4. REMOVE EXISTING MICROWAVE DETECTORS AND ASSOCIATED CABLES.
5. PROPOSED PEDESTRIAN SIGNAL POLES, HEADS AND PUSH BUTTONS SHALL BE INSTALLED AND ACTIVATED.
6. PROPOSED PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS SHALL BE INSTALLED AND ACTIVATED.



CONDUIT RUN SCHEDULE

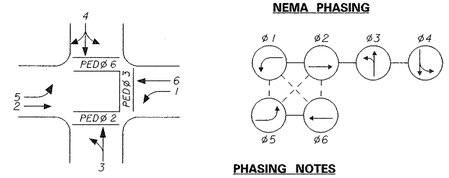
CO*	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	10'	-	EXISTING [(1)*6 BSC (1)*8/2 U.F.W/ GROUND]
*1A	1	2"	10'	-	EXISTING [(1)*6 BSC (1)*8/2 U.F.W/ GROUND]
*2	1	2.5"	10'	-	EXISTING [(1)*6 BSC (4)*18/4 (2)*14/16 (4)MICROWAVE DETECTION HOMERUN CABLES] REMOVE (4)MICROWAVE DETECTION HOMERUN CABLES
*3	3	4"	20'	-	EXISTING COMMUNICATION CABLE NEW [(3)*6 BSC (1)*14/2 (6)9/*14]
*4	1	2.5"	7'	-	NEW [(1)*6 BSC (1)*14/9]
*5	1	2.5"	15'	-	NEW [(1)*6 BSC (1)*14/9]
*6	1	4"	50'	-	NEW [(1)*6 BSC (3)*14/2]
*7	1	1"	5'	-	NEW (4)*14/1
*8	1	4"	130'	-	NEW [(1)*6 BSC (1)*14/2]
*9	1	1"	5'	-	NEW (2)*14/1
*10	1	4"	80'	-	NEW [(1)*6 BSC (4)*14/2 (1)*14/9]
*11	1	1"	6'	-	NEW (4)*14/1
*12	1	3"	7'	4"	NEW [(1)*6 BSC (1)*14/9]
*13	1	4"	80'	-	NEW [(1)*6 BSC (2)*14/2]
*14	1	1"	5'	-	NEW (4)*14/1
*15	1	4"	90'	-	NEW [(1)*6 BSC (4)*14/2 (3)*14/9]
*16	1	2.5"	45'	-	NEW [(1)*6 BSC (1)*14/9]
*17	1	3"	3'	-	NEW [(1)*6 BSC (1)*14/9]
*18	1	4"	12'	-	NEW (4)*14/1
*19	1	4"	95'	-	NEW [(1)*6 BSC (1)*14/2 (1)*14/9]
*20	1	3"	15'	-	NEW [(1)*6 BSC (1)*14/9]
*21	1	4"	145'	-	NEW [(1)*6 BSC (1)*14/2]
*22	1	-	5'	-	NEW (2)*14/1
*F49	1	4"	110'	-	EXISTING COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F50	1	4"	340'	-	EXISTING COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F51	1	4"	70'	-	EXISTING COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F52	1	4"	325'	-	EXISTING COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING
B- BORE
T- TRENCH
O- OPEN CUT

SECTION 1
PHASE 13, STAGE 1

SIGNAL PHASING

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.

SIGNAL HEAD DIAGRAM



LEGEND

■	PROPOSED SIGNAL CABINET	(RM/C)	REMOVE BY CONTRACTOR
▣	EXISTING SIGNAL CABINET	(RM/O)	REMOVE BY OTHERS
⊙	PROPOSED SIGNAL POLE BASE	(AB)	ABANDON
⊗	EXISTING SIGNAL POLE BASE	(PB/X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
◉	PROPOSED PEDESTRIAN POLE BASE	(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
◎	EXISTING PEDESTRIAN POLE BASE	(PL/X)	PROPOSED POLE IDENTIFIER (# OF POLE)
●	PROPOSED WOOD POLE	(PL/X)	EXISTING POLE IDENTIFIER (# OF POLE)
○	EXISTING WOOD POLE	(JW/X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
■	PROPOSED JUNCTION WELL	(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
□	EXISTING JUNCTION WELL	(CO/•)	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
→	PROPOSED SIGNAL HEAD	(CO/•)	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
⇢	EXISTING SIGNAL HEAD	(OH/•)	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
▬	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH/•)	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
⇢	EXISTING PEDESTRIAN SIGNAL HEAD	(MA/XX)	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
⟶	PROPOSED PEDESTRIAN PUSHBUTTON	(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
⇢	EXISTING PEDESTRIAN PUSHBUTTON	(CA/X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
▮	PROPOSED VIDEO DETECTION	(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
▮	EXISTING VIDEO DETECTION	——	PROPOSED SPAN WIRE
◀	PROPOSED MICROWAVE DETECTION	—XX—	EXISTING SPAN WIRE
◀	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
⊣	OVERHEAD SIGNING	◆	PROPOSED SPAN INSULATOR
●	PROPOSED OPTICOM RECEIVER	◇	EXISTING SPAN INSULATOR
○	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
▶	PROPOSED MAST ARM	▤	PROPOSED CCTV
▷	EXISTING MAST ARM	▤	EXISTING CCTV
◆	PROPOSED LUMINAIRE	•	PROPOSED PLASTIC DRUMS
◇	EXISTING LUMINAIRE	•	EXISTING PLASTIC DRUMS
▭	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
▭	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0) OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL #1, #3, #5, AND #7 CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

RECOMMENDED _____ DATE: 05/15/13

RECOMMENDED Christina Dane DATE: 7/12/13

RECOMMENDED _____ DATE:

APPROVED TRAFFIC ENGINEER _____ DATE: 7/12/13

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	PERMIT NO.	S299
T200411210	DESIGNED BY:	MSK
COUNTY	CHECKED BY:	BAM
SUSSEX		

SIGNAL PLAN SR 26 @ WEST AVENUE

SHEET NO. 545

TOTAL SHTS. 589

7/16/2013
T:\projects\2cts\sr26mainline\Survey\tp_I-13_signal_west.dgn

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	5% SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
*NORTH	67 FT	25.0 FT	3.35 FT	21.65 FT	17.15 FT
*EAST	83 FT	26.0 FT	4.15 FT	21.85 FT	17.35 FT
*SOUTH	88 FT	26.0 FT	4.40 FT	21.60 FT	17.10 FT
*WEST	96 FT	26.0 FT	4.80 FT	21.20 FT	16.70 FT

NOTE: FIELD ADJUSTMENTS AS REQUIRED

POLE SCHEDULE

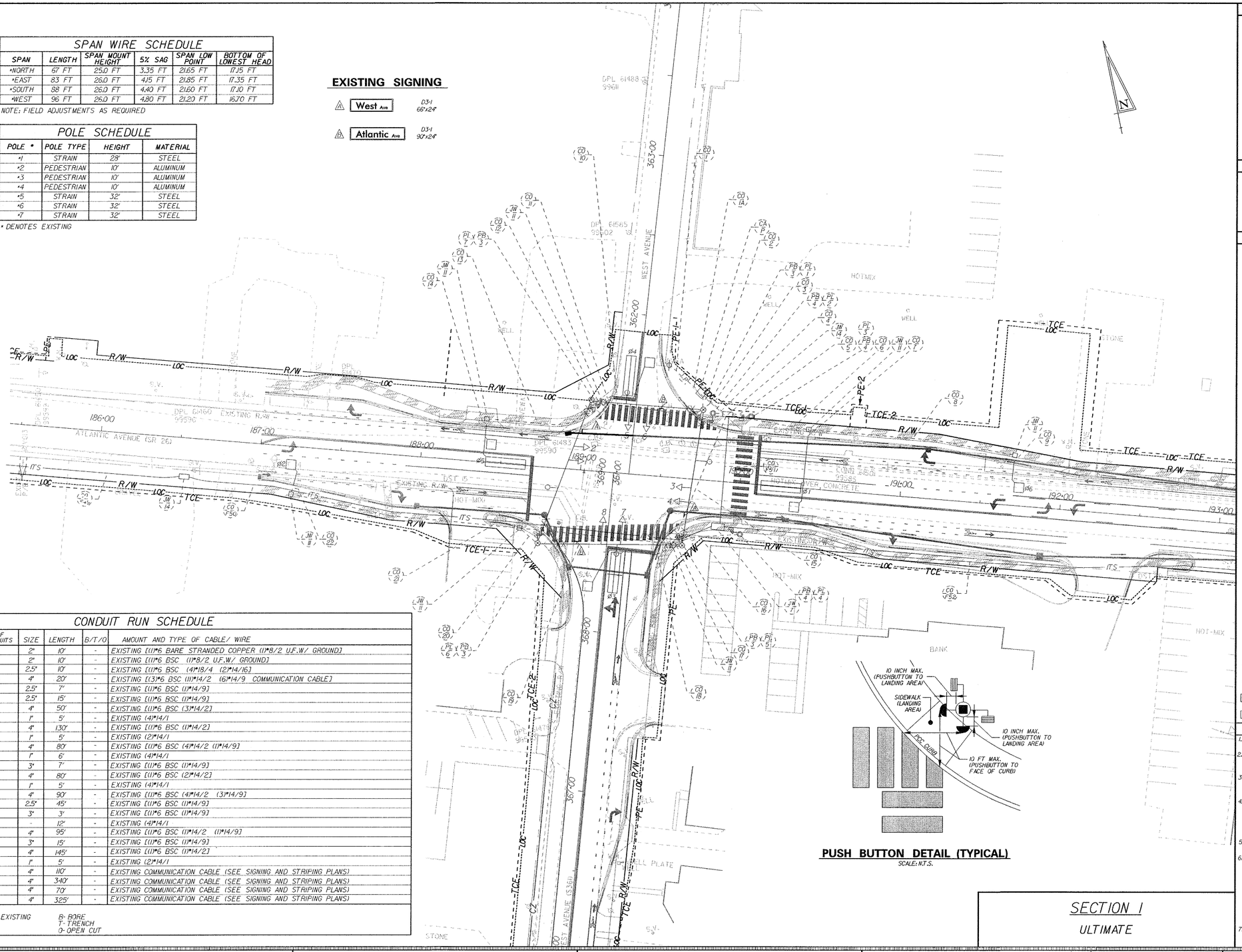
POLE *	POLE TYPE	HEIGHT	MATERIAL
*1	STRAIN	28'	STEEL
*2	PEDESTRIAN	10'	ALUMINUM
*3	PEDESTRIAN	10'	ALUMINUM
*4	PEDESTRIAN	10'	ALUMINUM
*5	STRAIN	32'	STEEL
*6	STRAIN	32'	STEEL
*7	STRAIN	32'	STEEL

* DENOTES EXISTING

EXISTING SIGNING

D3-1 66"x24" — West Ave

D3-1 90"x24" — Atlantic Ave



PUSH BUTTON DETAIL (TYPICAL)

SCALE: N.T.S.

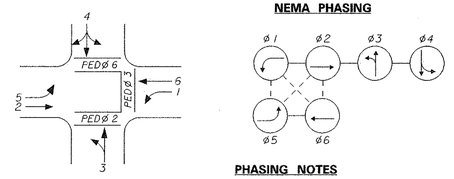
CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	2"	10'	-	EXISTING ((1)#6 BARE STRANDED COPPER ((1)#8/2 U.F.W/ GROUND)
*1A	1	2"	10'	-	EXISTING ((1)#6 BSC ((1)#8/2 U.F.W/ GROUND)
*2	1	2.5"	10'	-	EXISTING ((1)#6 BSC (4)#18/4 (2)#14/16)
*3	3	4"	20'	-	EXISTING ((3)#6 BSC ((1)#14/2 (6)#14/9 COMMUNICATION CABLE)
*4	1	2.5"	7'	-	EXISTING ((1)#6 BSC ((1)#14/9)
*5	1	2.5"	15'	-	EXISTING ((1)#6 BSC ((1)#14/9)
*6	1	4"	50'	-	EXISTING ((1)#6 BSC (3)#14/2)
*7	1	1"	5'	-	EXISTING (4)#14/1
*8	1	4"	130'	-	EXISTING ((1)#6 BSC ((1)#14/2)
*9	1	1"	5'	-	EXISTING (2)#14/1
*10	1	4"	80'	-	EXISTING ((1)#6 BSC (4)#14/2 ((1)#14/9)
*11	1	1"	6'	-	EXISTING (4)#14/1
*12	1	3"	7'	-	EXISTING ((1)#6 BSC ((1)#14/9)
*13	1	4"	80'	-	EXISTING ((1)#6 BSC (2)#14/2)
*14	1	1"	5'	-	EXISTING (4)#14/1
*15	1	4"	90'	-	EXISTING ((1)#6 BSC (4)#14/2 (3)#14/9)
*16	1	2.5"	45'	-	EXISTING ((1)#6 BSC ((1)#14/9)
*17	1	3"	3'	-	EXISTING ((1)#6 BSC ((1)#14/9)
*18	1	-	12'	-	EXISTING (4)#14/1
*19	1	4"	95'	-	EXISTING ((1)#6 BSC ((1)#14/2 ((1)#14/9)
*20	1	3"	15'	-	EXISTING ((1)#6 BSC ((1)#14/9)
*21	1	4"	145'	-	EXISTING ((1)#6 BSC ((1)#14/2)
*22	1	1"	5'	-	EXISTING (2)#14/1
*F49	1	4"	110'	-	EXISTING COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F50	1	4"	340'	-	EXISTING COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F51	1	4"	70'	-	EXISTING COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)
*F52	1	4"	325'	-	EXISTING COMMUNICATION CABLE (SEE SIGNING AND STRIPING PLANS)

LEGEND
* DENOTES EXISTING — B- BORE, T- TRENCH, O- OPEN CUT

SIGNAL PHASING

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.

SIGNAL HEAD DIAGRAM



LEGEND

	PROPOSED SIGNAL CABINET	(RM/C)	REMOVE BY CONTRACTOR
	EXISTING SIGNAL CABINET	(RM/O)	REMOVE BY OTHERS
	PROPOSED SIGNAL POLE BASE	(AB)	ABANDON
	EXISTING SIGNAL POLE BASE	(PB/X)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED PEDESTRIAN POLE BASE	(PB/X)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING PEDESTRIAN POLE BASE	(PL/X)	PROPOSED POLE IDENTIFIER (* OF POLE)
	PROPOSED WOOD POLE	(PL/X)	EXISTING POLE IDENTIFIER (* OF POLE)
	EXISTING WOOD POLE	(JW/X)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	PROPOSED JUNCTION WELL	(JW/X)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	EXISTING JUNCTION WELL	(CO/•)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	PROPOSED SIGNAL HEAD	(CO/•)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
	EXISTING SIGNAL HEAD	(OH/•)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	PROPOSED PEDESTRIAN SIGNAL HEAD	(OH/•)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	EXISTING PEDESTRIAN SIGNAL HEAD	(MA/XX)	PROPOSED MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	PROPOSED PEDESTRIAN PUSHBUTTON	(MA/XX)	EXISTING MAST ARM IDENTIFIER (SEE MAST ARM SCHEDULE)
	EXISTING PEDESTRIAN PUSHBUTTON	(CA/X)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
	PROPOSED VIDEO DETECTION	(CA/X)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
	EXISTING VIDEO DETECTION		PROPOSED SPAN WIRE
	PROPOSED MICROWAVE DETECTION	XX	EXISTING SPAN WIRE
	EXISTING MICROWAVE DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
	OVERHEAD SIGNING		PROPOSED SPAN INSULATOR
	PROPOSED OPTICOM RECEIVER		EXISTING SPAN INSULATOR
	EXISTING OPTICOM RECEIVER	P	SERVICE PEDESTAL
	PROPOSED MAST ARM		PROPOSED CCTV
	EXISTING MAST ARM		EXISTING CCTV
	PROPOSED LUMINAIRE		PROPOSED PLASTIC DRUMS
	EXISTING LUMINAIRE		EXISTING PLASTIC DRUMS
	PROPOSED LOOP DETECTOR (TYPE 1 OR 2)		
	EXISTING LOOP DETECTOR (TYPE 1 OR 2)		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE
2. POLE BASES, CABINET BASE, AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED EXCEPT WHERE SHOWN.
3. ALL GALVANIZED RIGID CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY FOR THE UTILITY MARKOUTS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.
6. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0%) OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
7. ALL 4", 3", 2.5", AND 2" CONDUITS SHALL BE SCHEDULE 80 PVC WITH THE EXCEPTION OF 4" BORED CONDUIT WHICH SHALL BE SDR-13.5 HDPE. ALL 1" CONDUITS LESS THAN OR EQUAL TO 6'-0" SHALL BE LIQUID TIGHT FLEXIBLE NON-METALLIC AND ALL 1" CONDUITS GREATER THAN 6'-0" SHALL BE RIGID GALVANIZED.

SECTION 1
ULTIMATE

RECOMMENDED _____ DATE: 05/15/13

RECOMMENDED Clutna Dave DATE: 7/12/13

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 7/12/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 7/12/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL

CONTRACT	T200411210
COUNTY	SUSSEX
PERMIT NO.	S299
DESIGNED BY:	MSK
CHECKED BY:	BAM

SIGNAL PLAN SR 26 @ WEST AVENUE (ULTIMATE)

SHEET NO. 546
TOTAL SHTS. 589

7/10/2013
16:45:59
68459/JECTS\sr26mainline\Survey\tp1-ultimate_signal_west.dgn

ADDITIONAL GENERAL SIGNAL NOTES

3. POLE BASES, CABINET BASES, AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. EXISTING CONDUIT SHALL BE ABANDONED.

4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.

5. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0% OR FLATTER) LANDING AREA OF THE CURB RAMP WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE ADJOINING SIDEWALK, AND SHOULD BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL UNDERGROUND SIGNAL EQUIPMENT SUCH AS JUNCTION WELLS, CABINET FOUNDATION, POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT SUCH AS MAST ARMS, SPAN WIRES, POLES, CABINETS, SERVICE PEDESTALS, AND SIGNAL HEADS, AS NECESSARY.

7. PRIOR TO SHIFTING LANES TO THE PHASE 1 SETUP, SIGNAL CONTROLLER CABINET, MAST ARMS, TEMPORARY WOOD POLES, SPAN WIRE, SIGNAL HEADS, FISHEYE CAMERAS, OPTICOMS, AND NECESSARY CABLES SHALL BE INSTALLED. ALL SIGNAL HEADS ARE TO BE CONTROLLED BY THE PROPOSED CONTROLLER CABINET DURING THIS PHASE. THE EXISTING CONTROLLER AND SIGNAL SETUP SHALL BE MAINTAINED UNTIL THE PROPOSED SIGNAL LAYOUT IS OPERATIONAL. IN ADDITION, THE EXISTING POWER SOURCE TO THE EXISTING CONTROLLER CABINET SHALL BE MAINTAINED UNTIL THE PROPOSED CONTROLLER CABINET IS POWERED FROM THE PROPOSED POWER SOURCE.

8 ALL VIDEO DETECTORS SHALL BE INSTALLED ON THE MAST ARMS TO ACHIEVE OPTIMUM DETECTION PER MANUFACTURER'S SPECIFICATIONS. THE DESIRED DETECTION ZONES SHALL BE SET AND APPROVED BY DELDOT.

9. ALL EXISTING SIGNAL EQUIPMENT TO REMAIN UNLESS OTHERWISE NOTED.

10. INSTALL CONDUITS *24 AND *25 AT A MINIMUM OF 24" IN ORDER TO AVOID CONFLICTS WITH RIP RAP APRON.

11. INSTALL TEMPORARY 50' CLASS II WOODEN POLES AT STATION 982+43 OFFSET 75' RIGHT AND AT STATION 983+95 OFFSET 87' LEFT WITH THREE GUY WIRES.

12. REMOVE ALL SIGNAL HEADS FROM EXISTING SPAN WIRE. INSTALL SIGNAL HEADS *1-4, *7 AND *8 ON THE TEMPORARY SPAN WIRE. INSTALL SIGNAL HEADS *5 AND *6 ON MAST ARM *2.

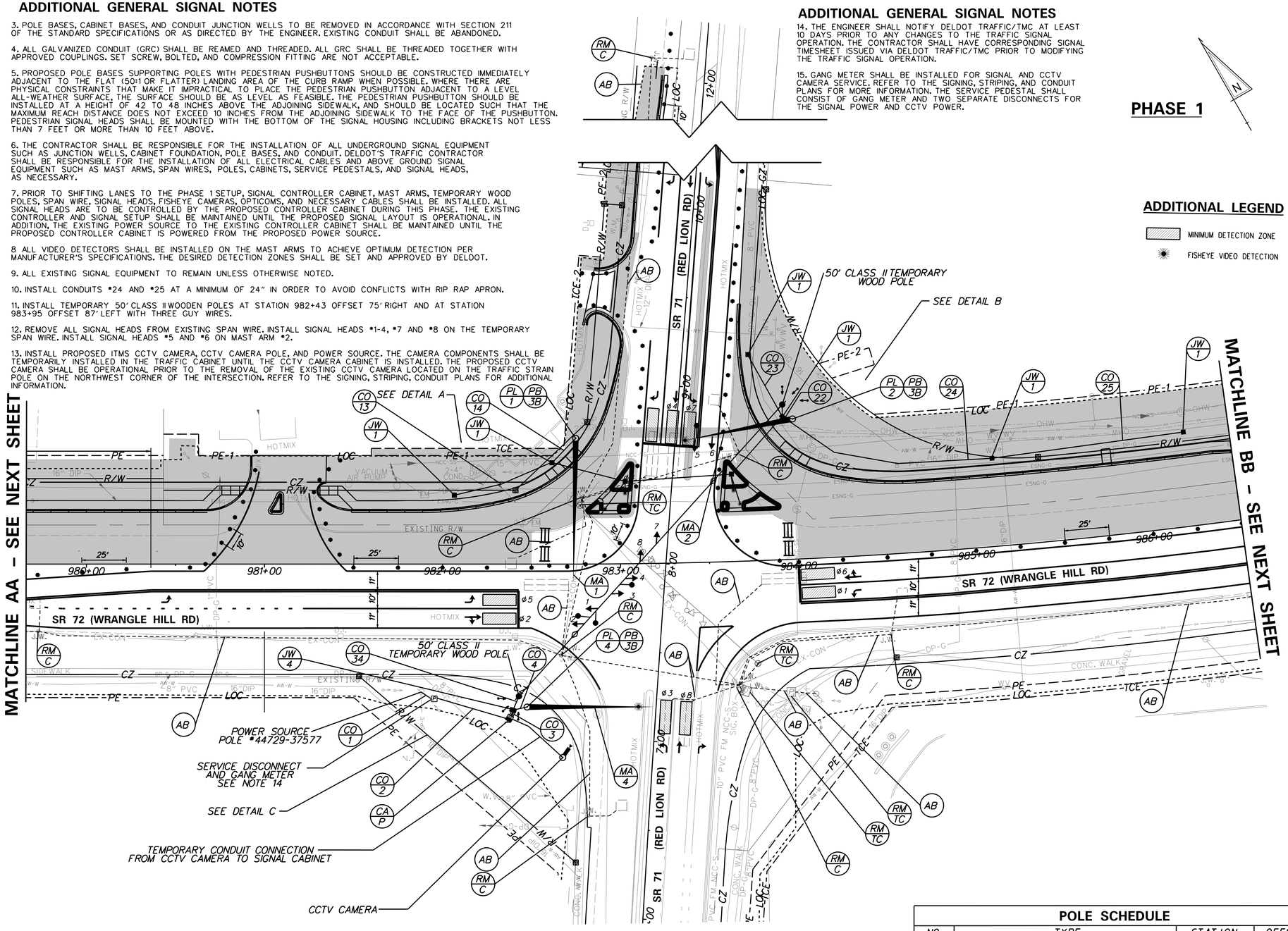
13. INSTALL PROPOSED ITMS CCTV CAMERA, CCTV CAMERA POLE, AND POWER SOURCE. THE CAMERA COMPONENTS SHALL BE TEMPORARILY INSTALLED IN THE TRAFFIC CABINET UNTIL THE CCTV CAMERA CABINET IS INSTALLED. THE PROPOSED CCTV CAMERA SHALL BE OPERATIONAL PRIOR TO THE REMOVAL OF THE EXISTING CCTV CAMERA LOCATED ON THE TRAFFIC STRAIN POLE ON THE NORTHWEST CORNER OF THE INTERSECTION. REFER TO THE SIGNING, STRIPING, CONDUIT PLANS FOR ADDITIONAL INFORMATION.

ADDITIONAL GENERAL SIGNAL NOTES

14. THE ENGINEER SHALL NOTIFY DELDOT TRAFFIC/TMC AT LEAST 10 DAYS PRIOR TO ANY CHANGES TO THE TRAFFIC SIGNAL OPERATION. THE CONTRACTOR SHALL HAVE CORRESPONDING SIGNAL TIMESHEET ISSUED VIA DELDOT TRAFFIC/TMC PRIOR TO MODIFYING THE TRAFFIC SIGNAL OPERATION.

15. GANG METER SHALL BE INSTALLED FOR SIGNAL AND CCTV CAMERA SERVICE. REFER TO THE SIGNING, STRIPING, AND CONDUIT PLANS FOR MORE INFORMATION. THE SERVICE PEDESTAL SHALL CONSIST OF GANG METER AND TWO SEPARATE DISCONNECTS FOR THE SIGNAL POWER AND CCTV POWER.

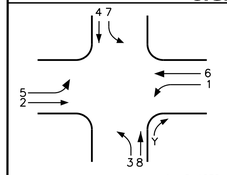
PHASE 1



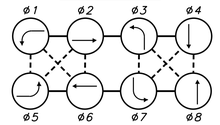
ADDITIONAL LEGEND

- MINIMUM DETECTION ZONE
- FISHEYE VIDEO DETECTION

SIGNAL PHASING



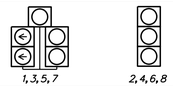
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH •	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	⬚	□
LOOP DETECTOR, TYPE 2	⬚⬚	▭
LUMINAIRE	—○	—●
MAST ARM	⟩	▶
MICROWAVE DETECTION	◀	◀
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	⊣	⊣
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—▯	—▶
PEDESTRIAN SIGNAL HEAD	▭	▬
RIGHT-OF-WAY	— — —	—R/W—
SERVICE PEDESTAL	P	P
SIGNAL CABINET	▭	■
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
CCTV CAMERA	CCTV	■
SPAN WIRE	— XX —	—◇—
UTILITY POLE	⊘	●
VIDEO DETECTION	◀	◀

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

MAST ARM SCHEDULE

NO.	LENGTH	NO. OF SIGNAL HEADS	S.F. OF SIGNAGE
1	80' MAST ARM	-	- S.F.
2	60' MAST ARM	1-3 SECTION & 1-5 SECTION	- S.F.
4	70' MAST ARM	-	- S.F.

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
TEMP.	220'	31 FT	11 FT @ 5.0%	20.0 FT	17.0 FT

FIELD ADJUSTMENTS AS NECESSARY
LOW POINT TAKEN WITH RESPECT TO THE ROADWAY ELEVATION

POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
1	80' MAST ARM W/ TYPE 3B BASE	982+75	71' LT
2	60' MAST ARM W/ TYPE 3B BASE	984+00	79' LT
4	70' MAST ARM W/ TYPE 3B BASE	982+48	80' RT
5	PEDESTAL POLE W/ TYPE 4A BASE	982+93	31' LT
6	PEDESTAL POLE W/ TYPE 4A BASE	983+03	40' LT
7	PEDESTAL POLE W/ TYPE 4A BASE	983+65	40' LT
8	PEDESTAL POLE W/ TYPE 4A BASE	983+68	32' LT

PREPARED BY
JMT

Mir Abe Waked — 10/15/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION. — DATE

MIR A. WAHED — LICENSE — No. 14810 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — 10/18/2021 DATE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

SR 72,
McCOY ROAD
TO SR 71

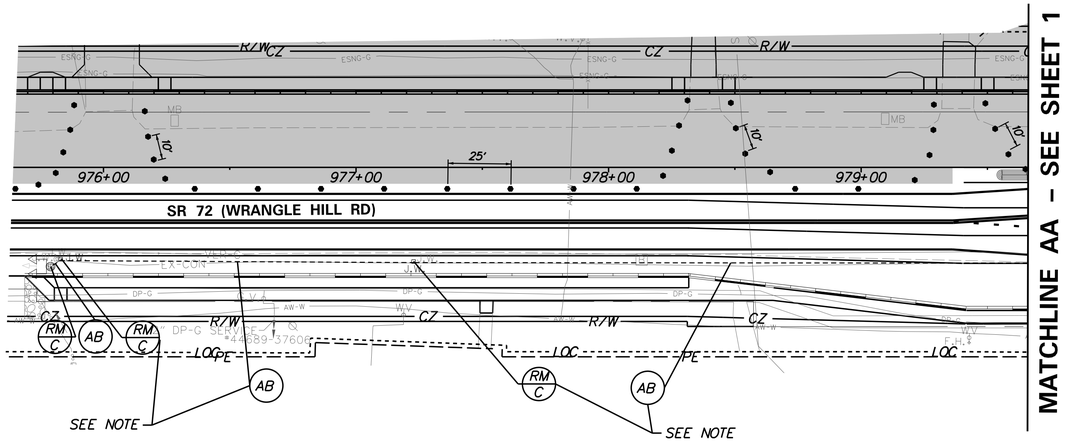
CONTRACT	PERMIT NO.	N266
T200601102	DESIGNED BY: J. SMITH	
COUNTY	CHECKED BY: M. WAHED	
NEW CASTLE		

SIGNAL PLAN
WRANGLE HILL ROAD (SR 72)
AND RED LION ROAD (SR 71)

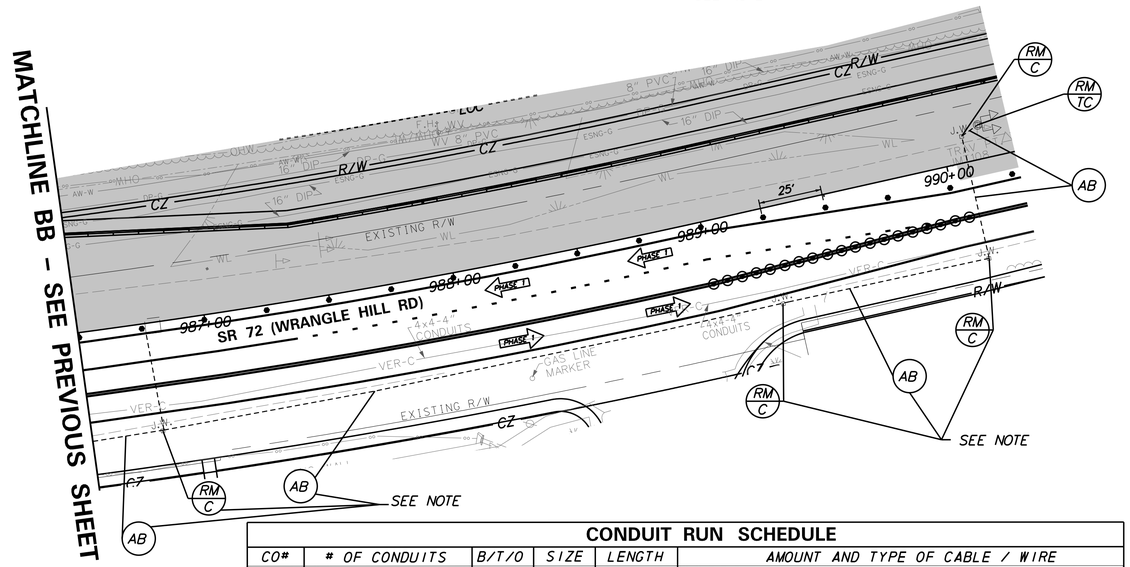
SECTION	JMT
SHEET NO.	234

PLOTTED BY: JDSMITH DATE: 10/13/2021 [SHEET1: SG01_SR 72 and 71_Phs 1_01]
FILE LOCATION: Q:\NDE\110500_017_SR_72_McCOY_RD_TO_SR\CADD\CADD SR 72 ROADWAY WIDENING\SG_SR 72 AND SR 71.DGN

NOTE: DURING PHASE 2 REMOVE JUNCTION WELLS AND CONDUIT.



MATCHLINE AA – SEE SHEET 1

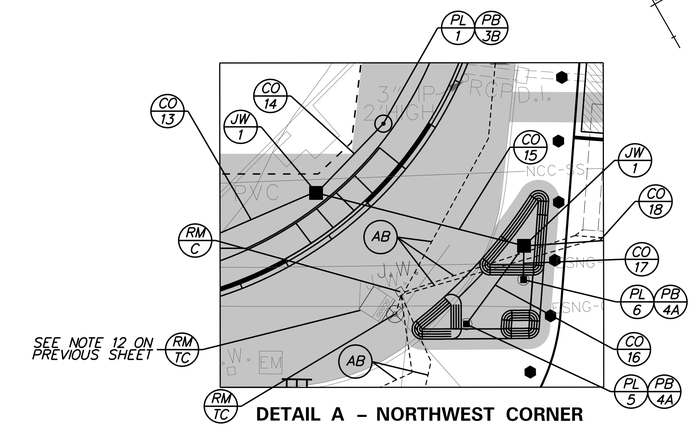


CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	B/T/O	SIZE	LENGTH	AMOUNT AND TYPE OF CABLE / WIRE
1	1 (GALV. STEEL)	T	2"	10'	(2)1/#6, (1)1/#6 GRD
2	1 (GALV. STEEL)	T	2"	45'	(1)2/#8 U.F. W/GROUND
3	4	T	4"	5'	(4)4/#18, (3)16/#14, GRIDSMART CAT5E CABLE, (4)1/#6 GRD
4	1	T	3"	10'	GRIDSMART CAT5E CABLE, (1)1/#6 GRD
13	1	T	4"	60'	EMPTY
14	1	T	3"	20'	EMPTY
15	1	T	4"	45'	EMPTY
16	1	T	2.5"	20'	EMPTY
17	1	T	2.5"	10'	EMPTY
18	1 (SCHD 80 HDPE)	B	4"	60'	EMPTY
19	1	T	2.5"	20'	EMPTY
20	1	T	2.5"	20'	EMPTY
21	1	T	4"	45'	EMPTY
22	1	T	3"	10'	(1)16/#14, (1) 4/#18, GRIDSMART CAT5E CABLE, (1)1/#6 GRD
23	1	T	4"	40'	EMPTY
24	1	T	4"	125'	EMPTY
25	1	T	4"	110'	EMPTY
34	1	T	3"	10'	(3)16/#14, (4)4/#18, GRIDSMART CAT5E CABLE, (1)1/#6 GRD
35	1	T	3'	10'	(1)16/#14, (1) 4/#18 GRIDSMART CAT5E CABLE, (1)1/#6 GRD

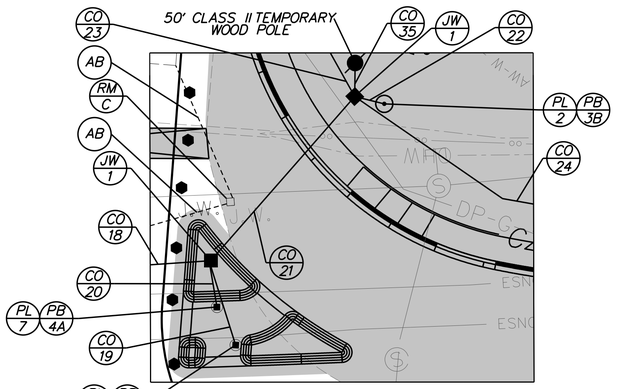
B=BORE, T=TRENCH, O=OPEN CUT
ALL CONDUITS SHALL BE SCHEDULE 80 PVC UNLESS OTHERWISE NOTED.

PHASE 1



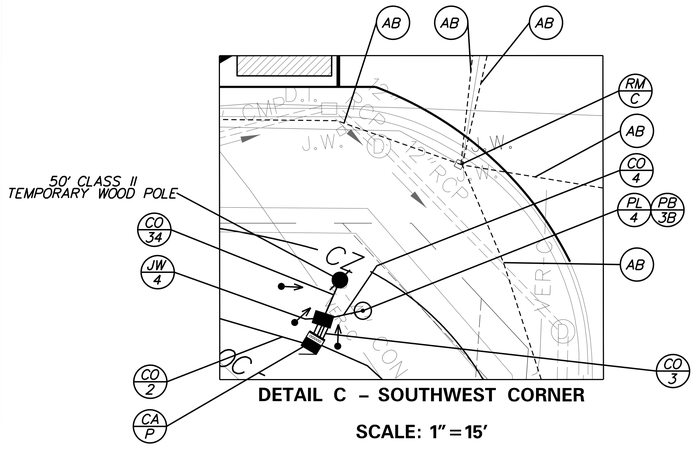
DETAIL A – NORTHWEST CORNER

SCALE: 1" = 15'



DETAIL B – NORTHEAST CORNER

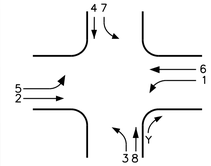
SCALE: 1" = 15'



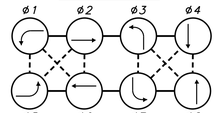
DETAIL C – SOUTHWEST CORNER

SCALE: 1" = 15'

SIGNAL PHASING



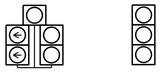
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



1,3,5,7 2,4,6,8

LEGEND

AB	ABANDON	OH •	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
JMT

Mir Abe Wahed — 10/15/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION. — DATE

MIR A. WAHED LICENSE No. 14810 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — 10/18/2021 DATE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

SR 72,
McCOY ROAD
TO SR 71

CONTRACT	PERMIT NO.	N266
T200601102	DESIGNED BY: J. SMITH	
COUNTY	CHECKED BY: M. WAHED	
NEW CASTLE		

SIGNAL PLAN
WRANGLE HILL ROAD (SR 72)
AND RED LION ROAD (SR 71)

SECTION	JMT
SHEET NO.	235

PLOTTED BY: JDSMITH DATE: 10/14/2021
FILE LOCATION: Q:\NDE\110500_017_SR_72_MCCOY_RD_TO_SR\CADD\CADD SR 72 ROADWAY WIDENING\SG_SR 72 AND SR 71.DGN [SHEET: SG02_SR 72 and 71_Phs 1_02]

ADDITIONAL GENERAL SIGNAL NOTES

3. POLE BASES, CABINET BASES, AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. EXISTING CONDUIT SHALL BE ABANDONED.

4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.

5. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE CURB RAMP WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE ADJOINING SIDEWALK, AND SHOULD BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL UNDERGROUND SIGNAL EQUIPMENT SUCH AS JUNCTION WELLS, CABINET FOUNDATION, POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT SUCH AS MAST ARMS, SPAN WIRES, POLES, CABINETS, SERVICE PEDESTALS, AND SIGNAL HEADS, AS NECESSARY.

7. ADJUST VIDEO DETECTION ZONES AS NECESSARY.

8 SLIDE SIGNAL HEADS *1-4 AND *7-8 PER THE PLANS. SIGNAL HEADS *5-6 TO REMAIN.

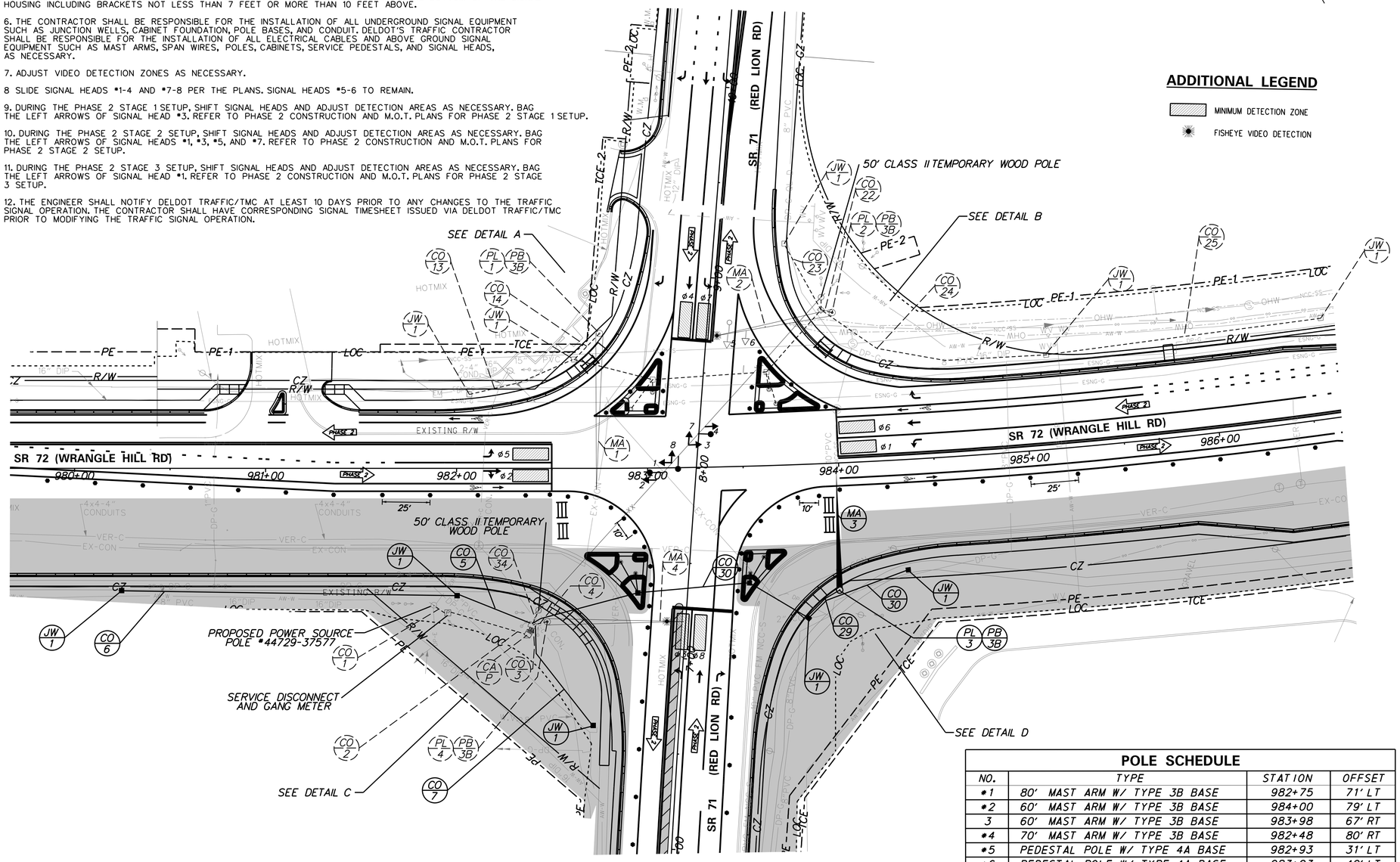
9. DURING THE PHASE 2 STAGE 1 SETUP, SHIFT SIGNAL HEADS AND ADJUST DETECTION AREAS AS NECESSARY. BAG THE LEFT ARROWS OF SIGNAL HEAD *3. REFER TO PHASE 2 CONSTRUCTION AND M.O.T. PLANS FOR PHASE 2 STAGE 1 SETUP.

10. DURING THE PHASE 2 STAGE 2 SETUP, SHIFT SIGNAL HEADS AND ADJUST DETECTION AREAS AS NECESSARY. BAG THE LEFT ARROWS OF SIGNAL HEADS *1, *3, *5, AND *7. REFER TO PHASE 2 CONSTRUCTION AND M.O.T. PLANS FOR PHASE 2 STAGE 2 SETUP.

11. DURING THE PHASE 2 STAGE 3 SETUP, SHIFT SIGNAL HEADS AND ADJUST DETECTION AREAS AS NECESSARY. BAG THE LEFT ARROWS OF SIGNAL HEAD *1. REFER TO PHASE 2 CONSTRUCTION AND M.O.T. PLANS FOR PHASE 2 STAGE 3 SETUP.

12. THE ENGINEER SHALL NOTIFY DELDOT TRAFFIC/TMC AT LEAST 10 DAYS PRIOR TO ANY CHANGES TO THE TRAFFIC SIGNAL OPERATION. THE CONTRACTOR SHALL HAVE CORRESPONDING SIGNAL TIMESHEET ISSUED VIA DELDOT TRAFFIC/TMC PRIOR TO MODIFYING THE TRAFFIC SIGNAL OPERATION.

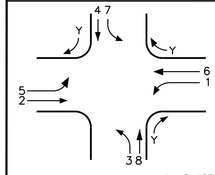
PHASE 2



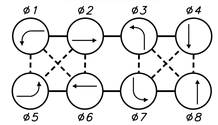
ADDITIONAL LEGEND

- MINIMUM DETECTION ZONE
- FISHEYE VIDEO DETECTION

SIGNAL PHASING



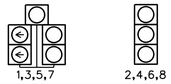
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH •	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

MAST ARM SCHEDULE

NO.	LENGTH	NO. OF SIGNAL HEADS	S.F. OF SIGNAGE
*1	80' MAST ARM	-	- S.F.
*2	60' MAST ARM	1-3 SECTION & 1-5 SECTION	- S.F.
3	60' MAST ARM	-	- S.F.
*4	70' MAST ARM	-	- S.F.

* - EXISTING OR CONSTRUCTED DURING PREVIOUS PHASE

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
*TEMP.	220'	31 FT	11 FT @ 5.0%	20.0 FT	17.0 FT

* - EXISTING OR CONSTRUCTED DURING PREVIOUS PHASE
FIELD ADJUSTMENTS AS NECESSARY
LOW POINT TAKEN WITH RESPECT TO THE ROADWAY ELEVATION

POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
*1	80' MAST ARM W/ TYPE 3B BASE	982+75	71' LT
*2	60' MAST ARM W/ TYPE 3B BASE	984+00	79' LT
3	60' MAST ARM W/ TYPE 3B BASE	983+98	67' RT
*4	70' MAST ARM W/ TYPE 3B BASE	982+48	80' RT
*5	PEDESTAL POLE W/ TYPE 4A BASE	982+93	31' LT
*6	PEDESTAL POLE W/ TYPE 4A BASE	983+03	40' LT
*7	PEDESTAL POLE W/ TYPE 4A BASE	983+65	40' LT
*8	PEDESTAL POLE W/ TYPE 4A BASE	983+68	32' LT
9	PEDESTAL POLE W/ TYPE 4A BASE	983+60	48' RT
10	PEDESTAL POLE W/ TYPE 4A BASE	983+52	56' RT
11	PEDESTAL POLE W/ TYPE 4A BASE	982+93	55' RT
12	PEDESTAL POLE W/ TYPE 4A BASE	982+86	49' RT

* - EXISTING OR CONSTRUCTED DURING PREVIOUS PHASE

PREPARED BY
JMT

Mir A. Wahed — 10/15/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION. — DATE

MIR A. WAHED LICENSE No. 14810 DELAWARE PROFESSIONAL ENGINEER — SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — 10/18/2021 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

SR 72, McCOY ROAD TO SR 71

CONTRACT	PERMIT NO.	N266
T200601102	DESIGNED BY: J. SMITH	
COUNTY	CHECKED BY: M. WAHED	
NEW CASTLE		

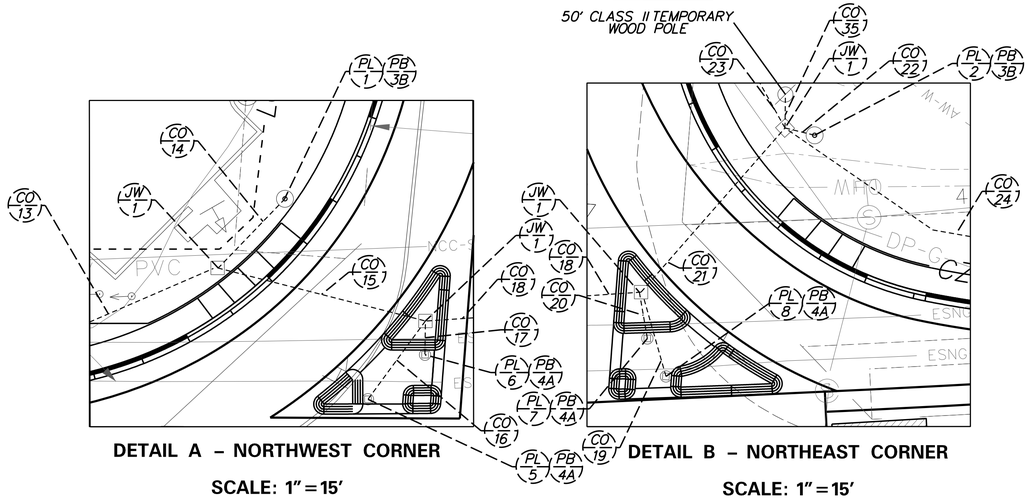
SIGNAL PLAN WRANGLE HILL ROAD (SR 72) AND RED LION ROAD (SR 71)

SECTION: JMT
SHEET NO.: 236

PLOTTED BY: JDSMITH DATE: 10/13/2021 [SHEET1: SG03_SR 72 and 71_Phs 2_01]
FILE LOCATION: Q:\NDE\110500_017_SR_72_MCCOY_RD_TO_SR\CADD\CADD SR 72 ROADWAY WIDENING\SG_SR 72 AND SR 71.DGN

PLOTTED BY: JDSMITH DATE: 10/13/2021
FILE LOCATION: Q:\NDE\110500_017_SR_72_MCCOY_RD_TO_SR\CADD\CADD SR 72 ROADWAY WIDENING\SG_SR 72 AND SR 71.DGN [SHEET: SG04_SR72 and 71_Phs 2_02]

PHASE 2

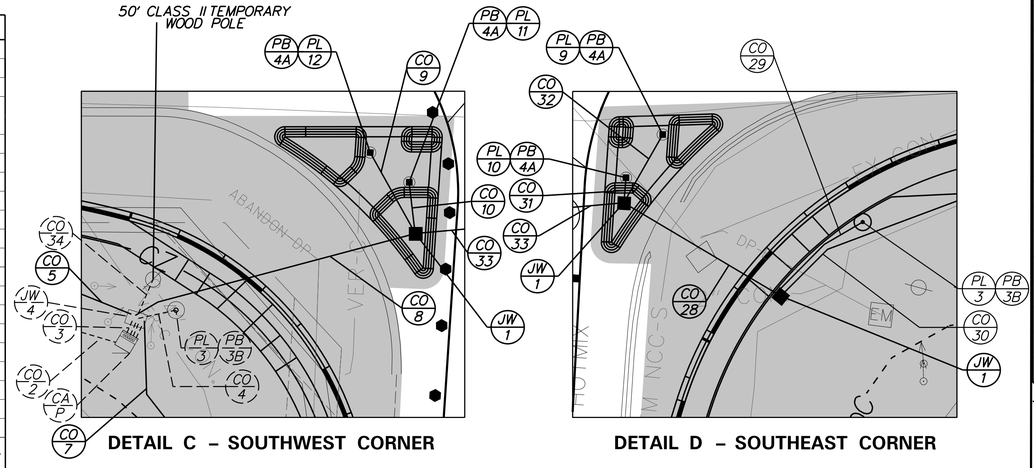


DETAIL A – NORTHWEST CORNER

SCALE: 1″ = 15′

DETAIL B – NORTHEAST CORNER

SCALE: 1″ = 15′



DETAIL C – SOUTHWEST CORNER

SCALE: 1″ = 15′

DETAIL D – SOUTHEAST CORNER

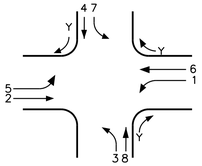
SCALE: 1″ = 15′

CONDUIT RUN SCHEDULE

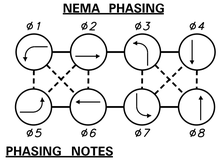
CO#	# OF CONDUITS	B/T/O	SIZE	LENGTH	AMOUNT AND TYPE OF CABLE / WIRE
*1	1 (GALV. STEEL)	-	2″	10′	EX. [(2)1/#6, (1)1/#6 GRD]
*2	1 (GALV. STEEL)	-	2″	45′	EX. [(1)2/#8 U.F. W/GROUND]
*3	4	-	4″	5′	EX. [(4)4/#18, (3)16/#14, GRIDSMART CAT5E CABLE, (4)1/#6 GRD]
*4	1	-	3″	10′	EX. [GRIDSMART CAT5E CABLE, (1)1/#6 GRD]
5	1	T	4″	45′	EMPTY
6	1	T	4″	180′	EMPTY
7	1	T	4″	65′	EMPTY
8	1	T	4″	60′	EMPTY
9	1	T	2.5″	20′	EMPTY
10	1	T	2.5″	15′	EMPTY
*13	1	-	4″	60′	EMPTY
*14	1	-	3″	20′	EMPTY
*15	1	-	4″	45′	EMPTY
*16	1	-	2.5″	20′	EMPTY
*17	1	-	2.5″	10′	EMPTY
*18	1 (SCHD 80 HDPE)	-	4″	60′	EMPTY
*19	1	-	2.5″	20′	EMPTY
*20	1	-	2.5″	10′	EMPTY
*21	1	-	4″	45′	EMPTY
*22	1	-	3″	10′	EX. [(1)16/#14, (1) 4/#18, GRIDSMART CAT5E CABLE, (1)1/#6 GRD]
*23	1	-	4″	40′	EMPTY
*24	1	-	4″	125′	EMPTY
*25	1	-	4″	110′	EMPTY
28	1	T	4″	40′	EMPTY
29	1	T	3″	25′	EMPTY
30	1	T	4″	60′	EMPTY
31	1	T	2.5″	5′	EMPTY
32	1	T	2.5″	20′	EMPTY
33	1 (SCHD 80 HDPE)	B	4″	60′	EMPTY
*34	1	-	3″	10′	EX. [(3)16/#14, (4)4/#18, GRIDSMART CAT5E CABLE, (1)1/#6 GRD]
*35	1	-	3′	10′	EX. [(1)16/#14, (1) 4/#18 GRIDSMART CAT5E CABLE, (1)1/#6 GRD]

* - EXISTING OR CONSTRUCTED DURING PREVIOUS PHASE
B=BORE, T=TRENCH, O=OPEN CUT
ALL CONDUITS SHALL BE SCHEDULE 80 PVC UNLESS OTHERWISE NOTED.

SIGNAL PHASING



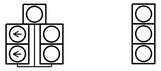
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



1, 3, 5, 7 — 2, 4, 6, 8

LEGEND

AB	ABANDON	OH •	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
JMT

Mir Ak Wahed — 10/15/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION. — DATE

MIR A. WAHED LICENSE No. 14810 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

10/18/2021
CHIEF OF TRAFFIC ENGINEERING — DATE

ADDENDA / REVISIONS							
		AS NOTED	SR 72, McCOY ROAD TO SR 71	CONTRACT T200601102	PERMIT NO. N266	SIGNAL PLAN WRANGLE HILL ROAD (SR 72) AND RED LION ROAD (SR 71)	SECTION JMT
				COUNTY NEW CASTLE	DESIGNED BY: J. SMITH		SHEET NO. 237
					CHECKED BY: M. WAHED		

ADDITIONAL GENERAL SIGNAL NOTES

3. POLE BASES, CABINET BASES, AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. EXISTING CONDUIT SHALL BE ABANDONED.

4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.

5. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE CURB RAMP WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE ADJOINING SIDEWALK, AND SHOULD BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL UNDERGROUND SIGNAL EQUIPMENT SUCH AS JUNCTION WELLS, CABINET FOUNDATION, POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT SUCH AS MAST ARMS, SPAN WIRES, POLES, CABINETS, SERVICE PEDESTALS, AND SIGNAL HEADS, AS NECESSARY.

7. ADJUST VIDEO DETECTION ZONES AS NECESSARY.

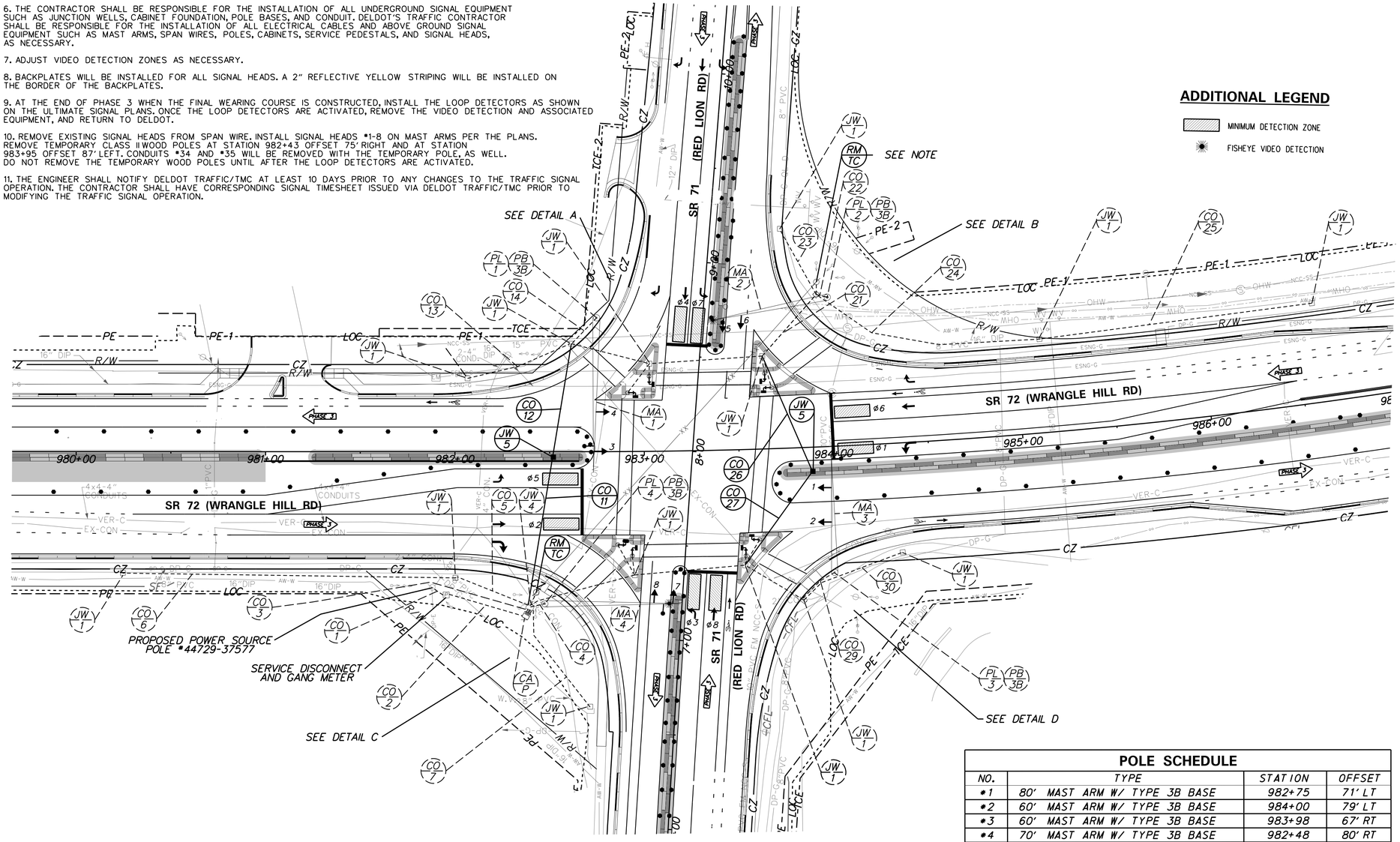
8. BACKPLATES WILL BE INSTALLED FOR ALL SIGNAL HEADS. A 2" REFLECTIVE YELLOW STRIPING WILL BE INSTALLED ON THE BORDER OF THE BACKPLATES.

9. AT THE END OF PHASE 3 WHEN THE FINAL WEARING COURSE IS CONSTRUCTED, INSTALL THE LOOP DETECTORS AS SHOWN ON THE ULTIMATE SIGNAL PLANS. ONCE THE LOOP DETECTORS ARE ACTIVATED, REMOVE THE VIDEO DETECTION AND ASSOCIATED EQUIPMENT, AND RETURN TO DELDOT.

10. REMOVE EXISTING SIGNAL HEADS FROM SPAN WIRE. INSTALL SIGNAL HEADS #1-8 ON MAST ARMS PER THE PLANS. REMOVE TEMPORARY CLASS II WOOD POLES AT STATION 982+43 OFFSET 75' RIGHT AND AT STATION 983+95 OFFSET 87' LEFT. CONDUITS #34 AND #35 WILL BE REMOVED WITH THE TEMPORARY POLE, AS WELL. DO NOT REMOVE THE TEMPORARY WOOD POLES UNTIL AFTER THE LOOP DETECTORS ARE ACTIVATED.

11. THE ENGINEER SHALL NOTIFY DELDOT TRAFFIC/TMC AT LEAST 10 DAYS PRIOR TO ANY CHANGES TO THE TRAFFIC SIGNAL OPERATION. THE CONTRACTOR SHALL HAVE CORRESPONDING SIGNAL TIMESHEET ISSUED VIA DELDOT TRAFFIC/TMC PRIOR TO MODIFYING THE TRAFFIC SIGNAL OPERATION.

PHASE 3



ADDITIONAL LEGEND

- MINIMUM DETECTION ZONE
- FISHEYE VIDEO DETECTION

MAST ARM SCHEDULE

NO.	LENGTH	NO. OF SIGNAL HEADS	S.F. OF SIGNAGE
#1	80' MAST ARM	1 - 3 SECTION, 1 - 5 SECTION	- S.F.
#2	60' MAST ARM	1 - 3 SECTION, 1 - 5 SECTION	- S.F.
#3	60' MAST ARM	1 - 3 SECTION, 1 - 5 SECTION	- S.F.
#4	70' MAST ARM	1 - 3 SECTION, 1 - 5 SECTION	- S.F.

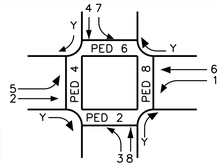
- EXISTING OR CONSTRUCTED DURING PREVIOUS PHASE

POLE SCHEDULE

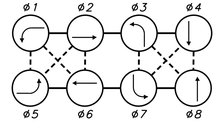
NO.	TYPE	STATION	OFFSET
#1	80' MAST ARM W/ TYPE 3B BASE	982+75	71' LT
#2	60' MAST ARM W/ TYPE 3B BASE	984+00	79' LT
#3	60' MAST ARM W/ TYPE 3B BASE	983+98	67' RT
#4	70' MAST ARM W/ TYPE 3B BASE	982+48	80' RT
#5	PEDESTAL POLE W/ TYPE 4A BASE	982+93	31' LT
#6	PEDESTAL POLE W/ TYPE 4A BASE	983+03	40' LT
#7	PEDESTAL POLE W/ TYPE 4A BASE	983+65	40' LT
#8	PEDESTAL POLE W/ TYPE 4A BASE	983+68	32' LT
#9	PEDESTAL POLE W/ TYPE 4A BASE	983+60	48' RT
#10	PEDESTAL POLE W/ TYPE 4A BASE	983+52	56' RT
#11	PEDESTAL POLE W/ TYPE 4A BASE	982+93	55' RT
#12	PEDESTAL POLE W/ TYPE 4A BASE	982+86	49' RT

- EXISTING OR CONSTRUCTED DURING PREVIOUS PHASE

SIGNAL PHASING



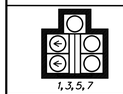
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH-•	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA-X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH-•	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA-X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB-X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO-•	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB-X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO-•	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL-X	EXISTING POLE IDENTIFIER (* OF POLE)
JW-X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL-X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW-X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM-C	REMOVE BY CONTRACTOR
MA-XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM-O	REMOVE BY OTHERS
MA-XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM-TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
JMT

Mir A. Wahed — 10/15/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION. — DATE

MIR A. WAHED LICENSE No. 14810 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — 10/18/2021 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

SR 72, McCOY ROAD TO SR 71

CONTRACT	PERMIT NO.	N266
T200601102	DESIGNED BY: J. SMITH	
COUNTY: NEW CASTLE	CHECKED BY: M. WAHED	

SIGNAL PLAN WRANGLE HILL ROAD (SR 72) AND RED LION ROAD (SR 71)

SECTION: JMT
SHEET NO.: 238

PLOTTED BY: JDSMITH DATE: 10/13/2021
FILE LOCATION: Q:\NDE\10500_017_SR_72_MCCOY_RD_TO_SR\CADD\CADD SR 72 ROADWAY WIDENING\SG_SR 72 AND SR 71.DGN [SHEET: SG05_SR 72 and 71_Phs 3_01]

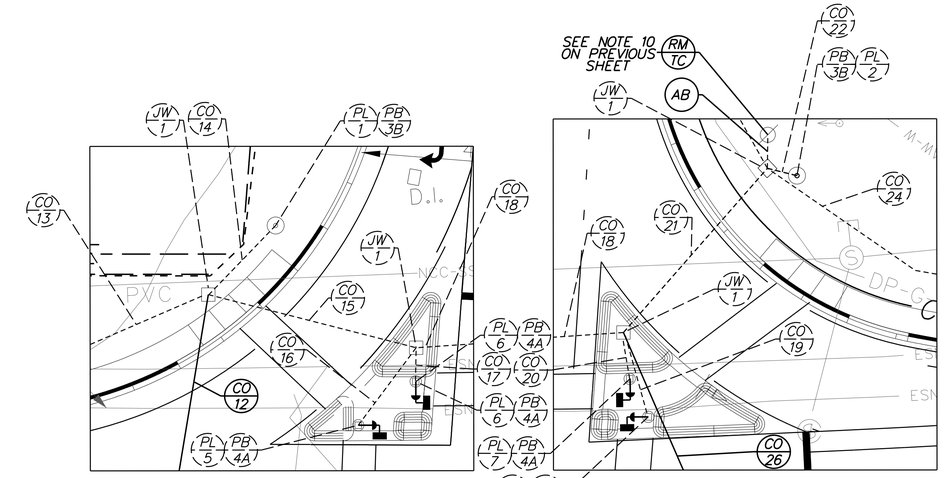
PLOTTED BY: JDSMITH DATE: 10/14/2021
FILE LOCATION: Q:\NDE\110500_017_SR_72_MCCOY_RD_TO_SR\CADD\CADD SR 72 ROADWAY WIDENING\SG_SR 72 AND SR 71.DGN [SHEET: SG06_SR 72 and 71_Phs 3_02]

CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	B/T/O	SIZE	LENGTH	AMOUNT AND TYPE OF CABLE / WIRE
#1	1 (GALV. STEEL)	-	2"	10'	EX. [(2)1/#6, (1)1/#6 GRD]
#2	1 (GALV. STEEL)	-	2"	45'	EX. [(1)2/#8 U.F. W/GROUND]
#3	4	-	4"	5'	NEW [(1)16/#14,(8)5/#14], EX. [(3)16/#14, (4)4/#18,GRIDSMART CAT5E CABLE,(4)1/#6 GRD]
#4	1	-	3"	10'	NEW [(1)16/#14,(1)4/#18], EX.[GRIDSMART CAT5E CABLE,(1)1/#6 GRD]
#5	1	-	4"	45'	EMPTY
#6	1	-	4"	180'	EMPTY
#7	1	-	4"	65'	EMPTY
#8	1	-	4"	60'	NEW [(1)16/#14,(1)4/#18,(4)5/#14,(1)1/#6 GRD]
#9	1	-	2.5"	20'	NEW [(1)5/#14, (1)1/#6 GRD]
#10	1	-	2.5"	15'	NEW [(1)5/#14, (1)1/#6 GRD]
11	1 (SCHD 80 HDPE)	B	4"	80'	NEW [(2)16/#14,(2)4/#18,(4)5/#14,(1)1/#6 GRD]
12	1 (SCHD 80 HDPE)	B	4"	65'	NEW [(2)16/#14,(2)4/#18,(4)5/#14,(1)1/#6 GRD]
#13	1	-	4"	60'	EMPTY
#14	1	-	3"	20'	NEW [(1)16/#14,(1)4/#18, (1)1/#6 GRD]
#15	1	-	4"	45'	NEW [(1)16/#14,(1)4/#18,(4)5/#14,(1)1/#6 GRD]
#16	1	-	2.5"	20'	NEW [(1)5/#14, (1)1/#6 GRD]
#17	1	-	2.5"	10'	NEW [(1)5/#14, (1)1/#6 GRD]
#18	1 (SCHD 80 HDPE)	-	4"	60'	NEW [(1)16/#14,(1)4/#18,(2)5/#14,(1)1/#6 GRD]
#19	1	-	2.5"	20'	NEW [(1)5/#14,(1)1/#6 GRD]
#20	1	-	2.5"	10'	NEW [(1)5/#14, (1)1/#6 GRD]
#21	1	-	4"	45'	NEW [(1)16/#14,(1)4/#18,(1)1/#6 GRD]
#22	1	-	3"	10'	EX. [(1)16/#14,(1) 4/#18, GRIDSMART CAT5E CABLE,(1)1/#6 GRD]
#23	1	-	4"	40'	EMPTY
#24	1	-	4"	125'	EMPTY
#25	1	-	4"	110'	EMPTY
26	1 (SCHD 80 HDPE)	B	4"	70'	EMPTY
27	1 (SCHD 80 HDPE)	B	4"	65'	EMPTY
#28	1	-	4"	40'	NEW [(1)16/#14,(1)4/#18,(1)1/#6 GRD]
#29	1	-	3"	25'	NEW [(1)16/#14,(1)4/#18,(1)1/#6 GRD]
#30	1	-	4"	60'	EMPTY
#31	1	-	2.5"	5'	NEW [(1)5/#14, (1)1/#6 GRD]
#32	1	-	2.5"	20'	NEW [(1)5/#14,(1)1/#6 GRD]
#33	1 (SCHD 80 HDPE)	-	4"	60'	NEW [(1)16/#14,(1)4/#18,(2)5/#14,(1)1/#6 GRD]
#34	1	-	3"	10'	EX. [GRIDSMART CAT5E CABLE, (1)1/#6 GRD], REMOVE [(3)16/#14,(4)4/#18]
#35	1	-	3'	10'	EX. [GRIDSMART CAT5E CABLE,(1)1/#6 GRD], REMOVE [(1)16/#14,(1) 4/#18]

* - EXISTING OR CONSTRUCTED DURING PREVIOUS PHASE
B=BORE, T=TRENCH, O=OPEN CUT
ALL CONDUITS SHALL BE SCHEDULE 80 PVC UNLESS OTHERWISE NOTED.

PHASE 3

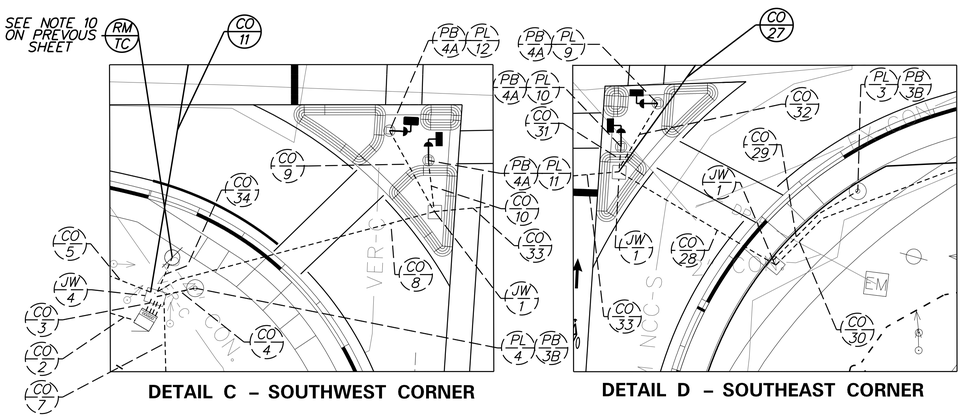


DETAIL A – NORTHWEST CORNER

SCALE: 1" = 15'

DETAIL B – NORTHEAST CORNER

SCALE: 1" = 15'



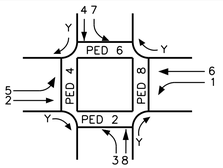
DETAIL C – SOUTHWEST CORNER

SCALE: 1" = 15'

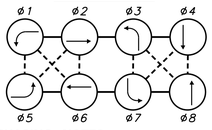
DETAIL D – SOUTHEAST CORNER

SCALE: 1" = 15'

SIGNAL PHASING



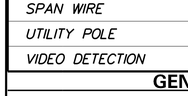
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



1,3,5,7 2,4,6,8

LEGEND

AB	ABANDON	OH •	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	⬚	▭
LOOP DETECTOR, TYPE 2	⬚	▬
LUMINAIRE	—○	—●
MAST ARM	➢	➤
MICROWAVE DETECTION	◀	◀
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	⊣	⊣
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—▷	—▶
PEDESTRIAN SIGNAL HEAD	▱	▰
RIGHT-OF-WAY	———	——R/W——
SERVICE PEDESTAL	P	P
SIGNAL CABINET	▯	▮
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
CCTV CAMERA	CCTV	■
SPAN WIRE	—XX—	—◇—
UTILITY POLE	⊘	●
VIDEO DETECTION	◀	◀

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
JMT

Mir Ahe Wahed — 10/15/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION. — DATE

MIR A. WAHED LICENSE: No. 14810 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — 10/18/2021 DATE

ADDENDA / REVISIONS							

AS NOTED	SR 72, McCOY ROAD TO SR 71	CONTRACT T200601102	PERMIT NO. N266	SIGNAL PLAN WRANGLE HILL ROAD (SR 72) AND RED LION ROAD (SR 71)
		COUNTY NEW CASTLE	DESIGNED BY: J. SMITH	SECTION JMT
			CHECKED BY: M. WAHED	SHEET NO. 239

3. POLE BASES, CABINET BASES, AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. EXISTING CONDUIT SHALL BE ABANDONED.

4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.

5. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE CURB RAMP WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE ADJOINING SIDEWALK, AND SHOULD BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL UNDERGROUND SIGNAL EQUIPMENT SUCH AS JUNCTION WELLS, CABINET FOUNDATION, POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT SUCH AS MAST ARMS, SPAN WIRES, POLES, CABINETS, SERVICE PEDESTALS, AND SIGNAL HEADS, AS NECESSARY.

7. BACKPLATES WILL BE INSTALLED FOR ALL SIGNAL HEADS. A 2" REFLECTIVE YELLOW STRIPING WILL BE INSTALLED ON THE BORDER OF THE BACKPLATES.

8. R10-3E SIGNS SHALL BE INSTALLED ON POLES WITH ONE PEDESTRIAN SIGNAL HEAD.

9. INSTALL CONDUITS #24 AND #25 AT A MINIMUM OF 24" IN ORDER TO AVOID CONFLICTS WITH RIP RAP APRONS.

10. INSTALL PASSAGE DETECTION LOOPS ALONG SR 72 IN EACH THROUGH TRAVEL LANE, 250 FEET IN ADVANCE OF THE STOP BAR, IN ACCORDANCE WITH TABLE IV-7 FROM THE 2015 DELDOT TRAFFIC DESIGN MANUAL.

11. WHEN THE FINAL WEARING COURSE IS CONSTRUCTED, INSTALL THE LOOP DETECTION AS SHOWN ON THE PLANS.

12. ALL SIGNAL HEAD CABLES SHALL BE REPLACED AT THE END OF CONSTRUCTION.

13. THE SIGNAL HEAD WILL RECEIVE POWER FROM THE UTILITY POLE #44737-37580 AT STATION 981+88 OFFSET 72' RIGHT.

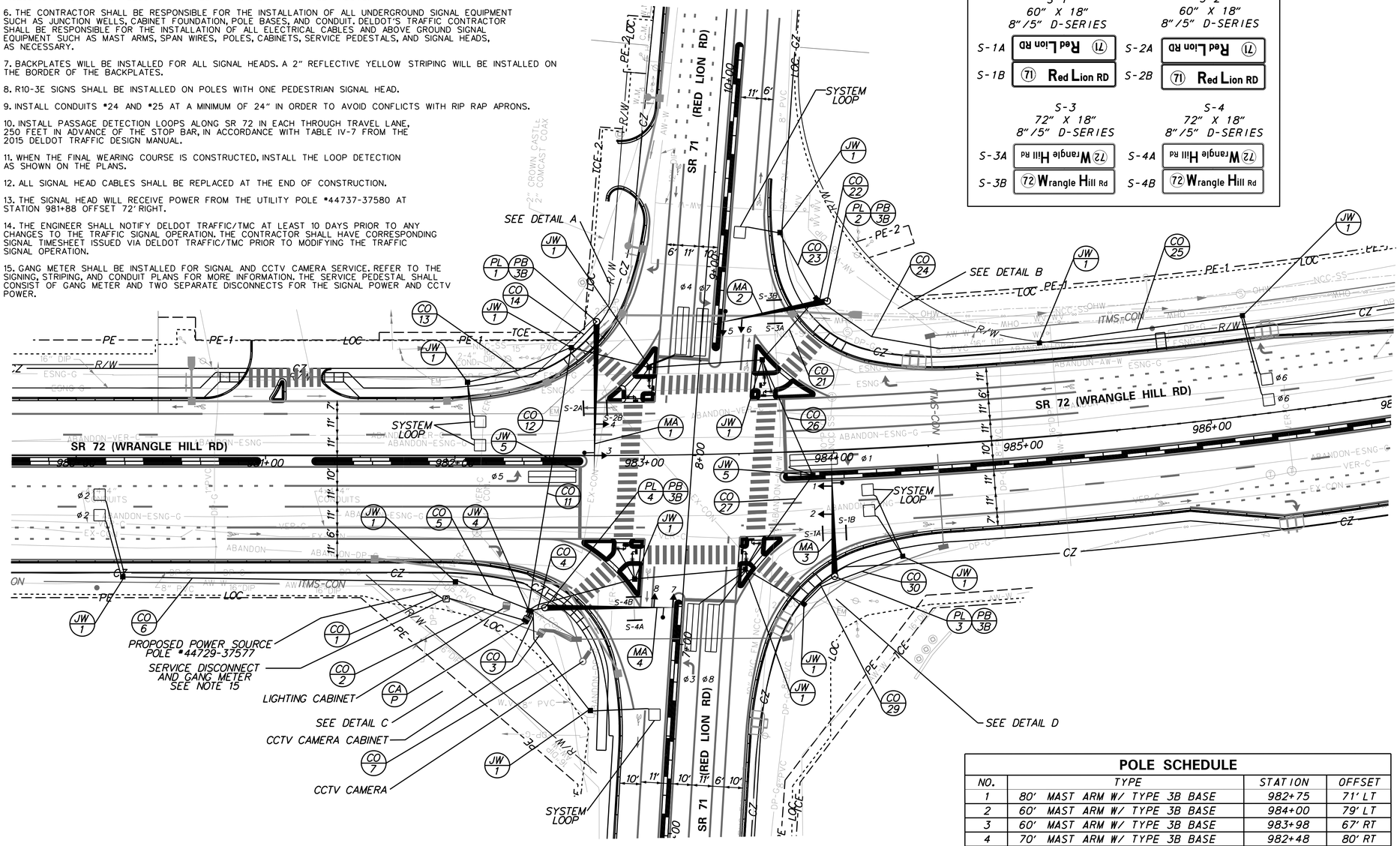
14. THE ENGINEER SHALL NOTIFY DELDOT TRAFFIC/TMC AT LEAST 10 DAYS PRIOR TO ANY CHANGES TO THE TRAFFIC SIGNAL OPERATION. THE CONTRACTOR SHALL HAVE CORRESPONDING SIGNAL TIMESHEET ISSUED VIA DELDOT TRAFFIC/TMC PRIOR TO MODIFYING THE TRAFFIC SIGNAL OPERATION.

15. GANG METER SHALL BE INSTALLED FOR SIGNAL AND CCTV CAMERA SERVICE. REFER TO THE SIGNING, STRIPING, AND CONDUIT PLANS FOR MORE INFORMATION. THE SERVICE PEDESTAL SHALL CONSIST OF GANG METER AND TWO SEPARATE DISCONNECTS FOR THE SIGNAL POWER AND CCTV POWER.

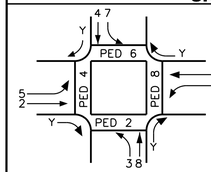
ULTIMATE

OVERHEAD SIGN DETAILS

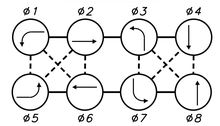
S-1 60" X 18" 8"/5" D-SERIES	S-2 60" X 18" 8"/5" D-SERIES
S-1A (71) Red Lion Rd	S-2A (71) Red Lion Rd
S-1B (71) Red Lion RD	S-2B (71) Red Lion RD
S-3 72" X 18" 8"/5" D-SERIES	**S-4 72" X 18" 8"/5" D-SERIES**
S-3A (72) Wrangle Hill Rd	S-4A (72) Wrangle Hill Rd
S-3B (72) Wrangle Hill Rd	S-4B (72) Wrangle Hill Rd



SIGNAL PHASING



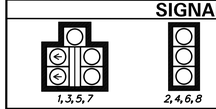
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH •	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	⬚	▭
LOOP DETECTOR, TYPE 2	▭	▬
LUMINAIRE	—○	—●
MAST ARM	➢	➤
MICROWAVE DETECTION	◂	◂
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	⊣	⊣
PEDESTRIAN POLE/BASE	○	◉
PEDESTRIAN PUSHBUTTON	—▷	—▶
PEDESTRIAN SIGNAL HEAD	⊐	⊐
RIGHT-OF-WAY	———	R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET	▯	▮
SIGNAL HEAD	—▷	→
SIGNAL POLE/BASE	⊗	⊙
CCTV CAMERA		■◂
SPAN WIRE	— XX —	—◇—
UTILITY POLE	⊘	●
VIDEO DETECTION	◂	◂

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
1	80' MAST ARM W/ TYPE 3B BASE	982+75	71' LT
2	60' MAST ARM W/ TYPE 3B BASE	984+00	79' LT
3	60' MAST ARM W/ TYPE 3B BASE	983+98	67' RT
4	70' MAST ARM W/ TYPE 3B BASE	982+48	80' RT
5	PEDESTAL POLE W/ TYPE 4A BASE	982+93	31' LT
6	PEDESTAL POLE W/ TYPE 4A BASE	983+03	40' LT
7	PEDESTAL POLE W/ TYPE 4A BASE	983+65	40' LT
8	PEDESTAL POLE W/ TYPE 4A BASE	983+68	32' LT
9	PEDESTAL POLE W/ TYPE 4A BASE	983+60	48' RT
10	PEDESTAL POLE W/ TYPE 4A BASE	983+52	56' RT
11	PEDESTAL POLE W/ TYPE 4A BASE	982+93	55' RT
12	PEDESTAL POLE W/ TYPE 4A BASE	982+86	49' RT

MAST ARM SCHEDULE

NO.	LENGTH	NO. OF SIGNAL HEADS	S.F. OF SIGNAGE
1	80' MAST ARM	1 - 3 SECTION, 1 - 5 SECTION	15 S.F.
2	60' MAST ARM	1 - 3 SECTION, 1 - 5 SECTION	18 S.F.
3	60' MAST ARM	1 - 3 SECTION, 1 - 5 SECTION	15 S.F.
4	70' MAST ARM	1 - 3 SECTION, 1 - 5 SECTION	18 S.F.

PREPARED BY
JMT

Mir A. Wahed — 10/15/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION.
DATE

MIR A. WAHED LICENSE No. 14810 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — 10/18/2021 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

SR 72, McCOY ROAD TO SR 71

CONTRACT	PERMIT NO.	N266
T200601102	DESIGNED BY: J. SMITH	
COUNTY	CHECKED BY: M. WAHED	
NEW CASTLE		

SIGNAL PLAN WRANGLE HILL ROAD (SR 72) AND RED LION ROAD (SR 71)

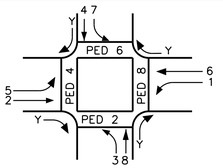
SECTION: JMT
SHEET NO.: 240

PLOTTED BY: JDSMITH DATE: 10/13/2021 [SHEET: SG07_SR 72 and 71_UIL_01]
FILE LOCATION: Q:\NDE\110500_017_SR_72_McCOY_RD_TO_SR\CADD\CADD SR 72 ROADWAY WIDENING\SG_SR 72 AND SR 71.DGN

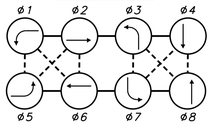
ULTIMATE



SIGNAL PHASING



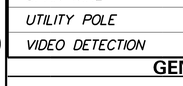
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



1,3,5,7 2,4,6,8

LEGEND

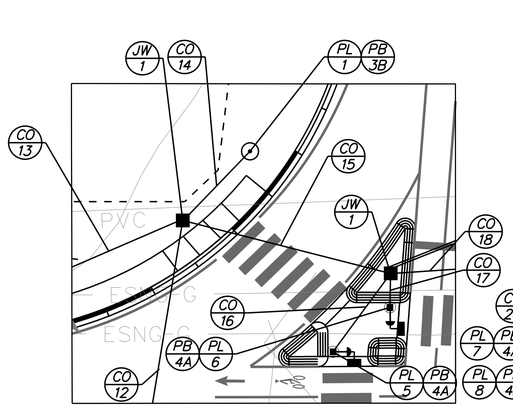
AB	ABANDON	OH •	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		□
LOOP DETECTOR, TYPE 2		▭
LUMINAIRE	—○	—◆
MAST ARM		
MICROWAVE DETECTION	—◀	—◀
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	—⊣	—⊣
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—○	—→
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY	—— — — ——	—— R/W ——
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD	—▷	—→
SIGNAL POLE/BASE	⊗	⊙
CCTV CAMERA		
SPAN WIRE	— XX —	—◇—
UTILITY POLE	⊘	
VIDEO DETECTION		

CONDUIT RUN SCHEDULE

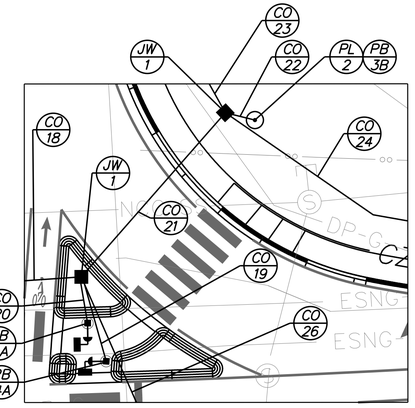
CO#	# OF CONDUITS	B/T/O	SIZE	LENGTH	AMOUNT AND TYPE OF CABLE / WIRE
1	1 (GALV. STEEL)	T	2"	10'	(2)1/#6, (1)1/#6 GRD
2	1 (GALV. STEEL)	T	2"	45'	(1)2/#8 U.F. W/GROUND
3	4	T	4"	10'	(4)16/#14,(4)4/#18,(16)2/#14, (8)5/#14,(4)1/#6 GRD
4	1	T	3"	5'	(1)16/#14,(1)4/#18, (1)1/#6 GRD
5	1	T	4"	45'	(2)2/#14, (1)1/#6 GRD
6	1	T	4"	180'	(2)2/#14, (1)1/#6 GRD
7	1	T	4"	65'	(1)2/#14, (1)1/#6 GRD
8	1	T	4"	60'	(1)16/#14,(1)4/#18,(5)2/#14,(4)5/#14,(1)1/#6 GRD
9	1	T	2.5"	20'	(1)5/#14, (1)1/#6 GRD
10	1	T	2.5"	15'	(1)5/#14, (1)1/#6 GRD
11	1 (SCHD 80 HDPE)	B	4"	80'	(2)16/#14,(2)4/#18,(8)2/#14,(4)5/#14,(1)1/#6 GRD
12	1 (SCHD 80 HDPE)	B	4"	65'	(2)16/#14,(2)4/#18,(7)2/#14,(4)5/#14,(1)1/#6 GRD
13	1	T	4"	60'	(2)2/#14, (1)1/#6 GRD
14	1	T	3"	20'	(1)16/#14,(1)4/#18, (1)1/#6 GRD
15	1	T	4"	45'	(1)16/#14,(1)4/#18,(5)2/#14,(4)5/#14,(1)1/#6 GRD
16	1	T	2.5"	20'	(1)5/#14, (1)1/#6 GRD
17	1	T	2.5"	10'	(1)5/#14, (1)1/#6 GRD
18	1 (SCHD 80 HDPE)	B	4"	60'	(1)16/#14,(1)4/#18,(3)2/#14,(2)5/#14,(1)1/#6 GRD
19	1	T	2.5"	20'	(1)5/#14,(1)1/#6 GRD
20	1	T	2.5"	20'	(1)5/#14, (1)1/#6 GRD
21	1	T	4"	45'	(1)16/#14,(1)4/#18,(3)2/#14,(1)1/#6 GRD
22	1	T	3"	10'	(1)16/#14,(1)4/#18, (1)1/#6 GRD
23	1	T	4"	40'	(1)2/#14, (1)1/#6 GRD
24	1	T	4"	125'	(2)2/#14, (1)1/#6 GRD
25	1	T	4"	110'	(2)2/#14, (1)1/#6 GRD
26	1 (SCHD 80 HDPE)	B	4"	70'	EMPTY
27	1 (SCHD 80 HDPE)	B	4"	65'	(1)2/#14, (1)1/#6 GRD
28	1	T	4"	40'	(1)16/#14,(1)4/#18,(2)2/#14,(1)1/#6 GRD
29	1	T	3"	25'	(1)16/#14,(1)4/#18,(1)1/#6 GRD
30	1	T	4"	60'	(2)2/#14, (1)1/#6 GRD
31	1	T	2.5"	5'	(1)5/#14, (1)1/#6 GRD
32	1	T	2.5"	20'	(1)5/#14,(1)1/#6 GRD
33	1 (SCHD 80 HDPE)	B	4"	60'	(1)16/#14,(1)4/#18,(5)2/#14,(2)5/#14,(1)1/#6 GRD

B=BORE, T=TRENCH, O=OPEN CUT
ALL CONDUITS SHALL BE SCHEDULE 80 PVC UNLESS OTHERWISE NOTED.



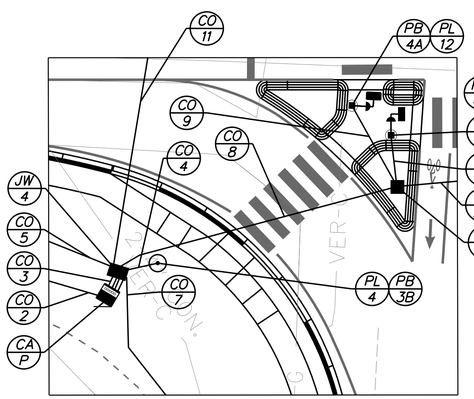
DETAIL A – NORTHWEST CORNER

SCALE: 1" = 15'



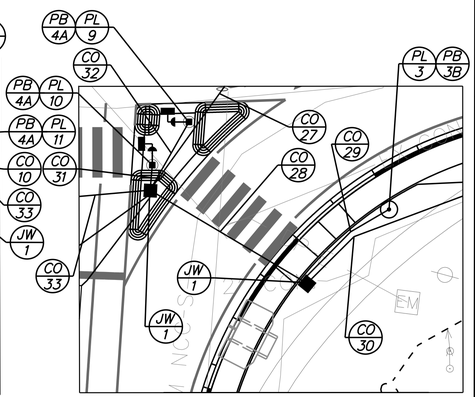
DETAIL B – NORTHEAST CORNER

SCALE: 1" = 15'



DETAIL C – SOUTHWEST CORNER

SCALE: 1" = 15'



DETAIL D – SOUTHEAST CORNER

SCALE: 1" = 15'

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
JMT

Mir Abe Waked — 10/15/2021
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION. — DATE

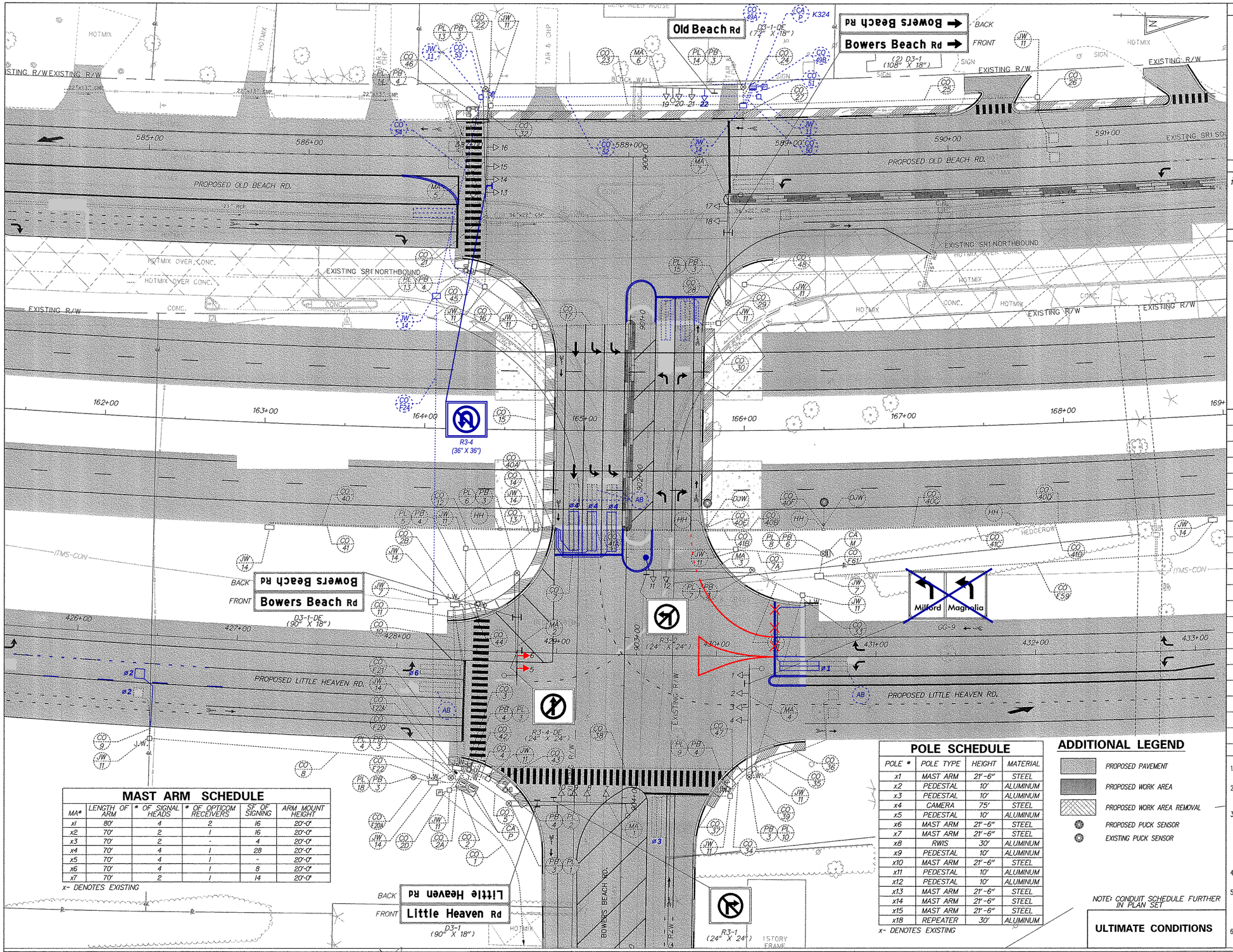
MIR A. WAHED — LICENSE — No. 14810 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

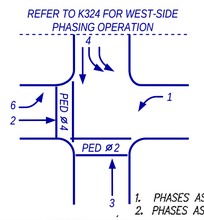
CHIEF OF TRAFFIC ENGINEERING — 10/18/2021 DATE

ADDENDA / REVISIONS							
		AS NOTED	SR 72, McCOY ROAD TO SR 71	CONTRACT T200601102	PERMIT NO. N266	SIGNAL PLAN WRANGLE HILL ROAD (SR 72) AND RED LION ROAD (SR 71)	SECTION JMT
				COUNTY NEW CASTLE	DESIGNED BY: J. SMITH		SHEET NO. 241
					CHECKED BY: M. WAHED		

PLOTTED BY: JDSMITH DATE: 10/13/2021
FILE LOCATION: Q:\NDE\110500_017_SR_72_McCOY_RD_TO_SR\CADD\CADD SR 72 ROADWAY WIDENING\SG_SR 72 AND SR 71.DGN [SHEET: SG08_SR 72 and 71_UIL_02]



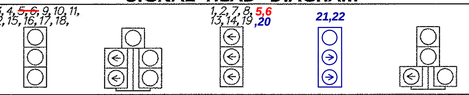
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH#	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH#	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA X	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA X	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W. □	■
LOOP DETECTOR, TYPE 1	□	□
LOOP DETECTOR, TYPE 2	▭	▭
LUMINAIRE	—○	—●
MAST ARM	▷	▶
MICROWAVE DETECTION	—◀	—◀
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	—⊣	—⊣
PEDESTRIAN POLE/BASE	⊙	◉
PEDESTRIAN PUSHBUTTON	—D	—▶
PEDESTRIAN SIGNAL HEAD	—P	—P
RIGHT-OF-WAY	— — —	— — —
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	—⊗	—⊙
SPAN INSULATOR	—◇	—◆
SPAN WIRE	—XX—	———
UTILITY POLE	—⊘	—●
CAMERA (CCTV)	—▪	—▪

MAST ARM SCHEDULE

MA#	LENGTH OF ARM	# OF SIGNAL HEADS	# OF OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
x1	80'	4	2	16	20'-0"
x2	70'	2	1	16	20'-0"
x3	70'	2	-	4	20'-0"
x4	70'	4	1	28	20'-0"
x5	70'	4	1	-	20'-0"
x6	70'	4	1	8	20'-0"
x7	70'	2	1	14	20'-0"

x- DENOTES EXISTING

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
x1	MAST ARM	21'-6"	STEEL
x2	PEDESTAL	10'	ALUMINUM
x3	PEDESTAL	10'	ALUMINUM
x4	CAMERA	75'	STEEL
x5	PEDESTAL	10'	ALUMINUM
x6	MAST ARM	21'-6"	STEEL
x7	MAST ARM	21'-6"	STEEL
x8	RWIS	30'	ALUMINUM
x9	PEDESTAL	10'	ALUMINUM
x10	MAST ARM	21'-6"	STEEL
x11	PEDESTAL	10'	ALUMINUM
x12	PEDESTAL	10'	ALUMINUM
x13	MAST ARM	21'-6"	STEEL
x14	MAST ARM	21'-6"	STEEL
x15	MAST ARM	21'-6"	STEEL
x18	REPEATER	30'	ALUMINUM

x- DENOTES EXISTING

ADDITIONAL LEGEND

- PROPOSED PAVEMENT
- PROPOSED WORK AREA
- PROPOSED WORK AREA REMOVAL
- PROPOSED PUCK SENSOR
- EXISTING PUCK SENSOR

NOTE: CONDUIT SCHEDULE FURTHER IN PLAN SET

ULTIMATE CONDITIONS

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5OH FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAT 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED [signature] DATE: 12/5/14

RECOMMENDED [signature] DATE: 12/2/14

APPROVED TRAFFIC ENGINEER [signature] DATE: 12/5/14

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER [signature] DATE: 12/9/14

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

REVISED SIGNAL PLAN PER TMC RECOMMENDATIONS TO SEPARATE WEST AND EAST INTERSECTION OPERATION. SEE SIGNAL PLAN K324 FOR ADDITIONAL PLAN INFORMATION MSK - 3/14/2019

REVISED SIGNAL PLAN PER TMC RECOMMENDATIONS FOR LITTLE HEAVEN RD STRIPING AND SIGNAL HEAD DISPLAY UPDATES. MSK - 6/26/2019

SCALE 0 30 60 90 FEET

SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	T200412202	PERMIT NO.	K145
COUNTY	KENT	DESIGNED BY:	MSK
		CHECKED BY:	BAM

SIGNAL PLAN
SR1 @ BOWERS BEACH RD

SHEET NO.	603
TOTAL SHTS.	641

12/2/2014
G:\PROJECTS\03517.00 (DELDOT AGMT 1223 DOTS Open End)\03517.16 SR1, LITTLE HEAVEN FINAL DESIGN\DGN Files\signal_bowers09.dgn
3:22:51 PM

ADDITIONAL GENERAL SIGNAL NOTES

3. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.

4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.

5. POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATLY ADJACENT TO THE FLAT (5D:1 OR FLATTER) LANDING AREA OF THE PEDESTRIAN CONNECTION OR SIDEWALK, IN ACCORDANCE WITH THE ADA BEST PRACTICES. THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED AT A MINIMUN HEIGHT OF 15 INCHES AND A MAXIMUM HEIGHT OF 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, BUT SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES. THE PEDESTRIAN PUSHBUTTON SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN AIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING, INCLUDING BRACKETS, NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE THE GROUND.

6. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN SIGNALS. R10-3e SIGNS SHOULD BE INSTALLED ON POLES WITH ONE PEDESTRAIN SIGNAL HEAD. R10-3e-DE SIGNS SHALL BE INSTALLED ON POLES WITH TWO PEDESTRIAN SIGNAL HEADS.

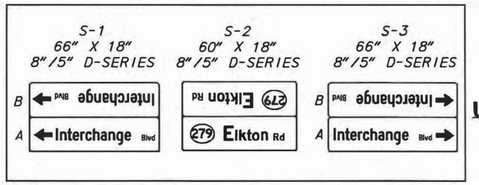
7. INSTALL PASSAGE DETECTION LOOPS ALONG ELKTON ROAD IN EACH THROUGH TRAVEL LANE 300' IN ADVANCE OF THE STOP BAR IN ACCORDANCE WITH TABLE IV-7 FROM THE DELDOT TRAFFIC DESIGN MANUAL.

8. CONDUIT 22 SHOULD BE INSTALLED AT A DEPTH OF 4 FEET SUCH THAT IT IS BELOW THE UNDERDRAIN OUTLET.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL UNDERGROUND SIGNAL EQUIPMENT SUCH AS JUNCTION WELLS, CABINET AND POLE BASES, LOOP DETECTORS, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT SICH AS MAST ARMS, POLES, CABINET, SERVICE PEDESTAL, AND SIGNAL HEADS.

10. REMOVAL OF POLE BASES, JUNCTION WELLS, AND CABINET FOUNDATIONS WILL BE PAID FOR UNDER ITEM #211000 REMOVAL OF STRUCTURES AND OBSTRUCTIONS. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF THE POLES AND CABINET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF THE POLE FOUNDATIONS, CABINET FOUNDATIONS, AND JUNCTION WELLS.

OVERHEAD SIGN DETAILS

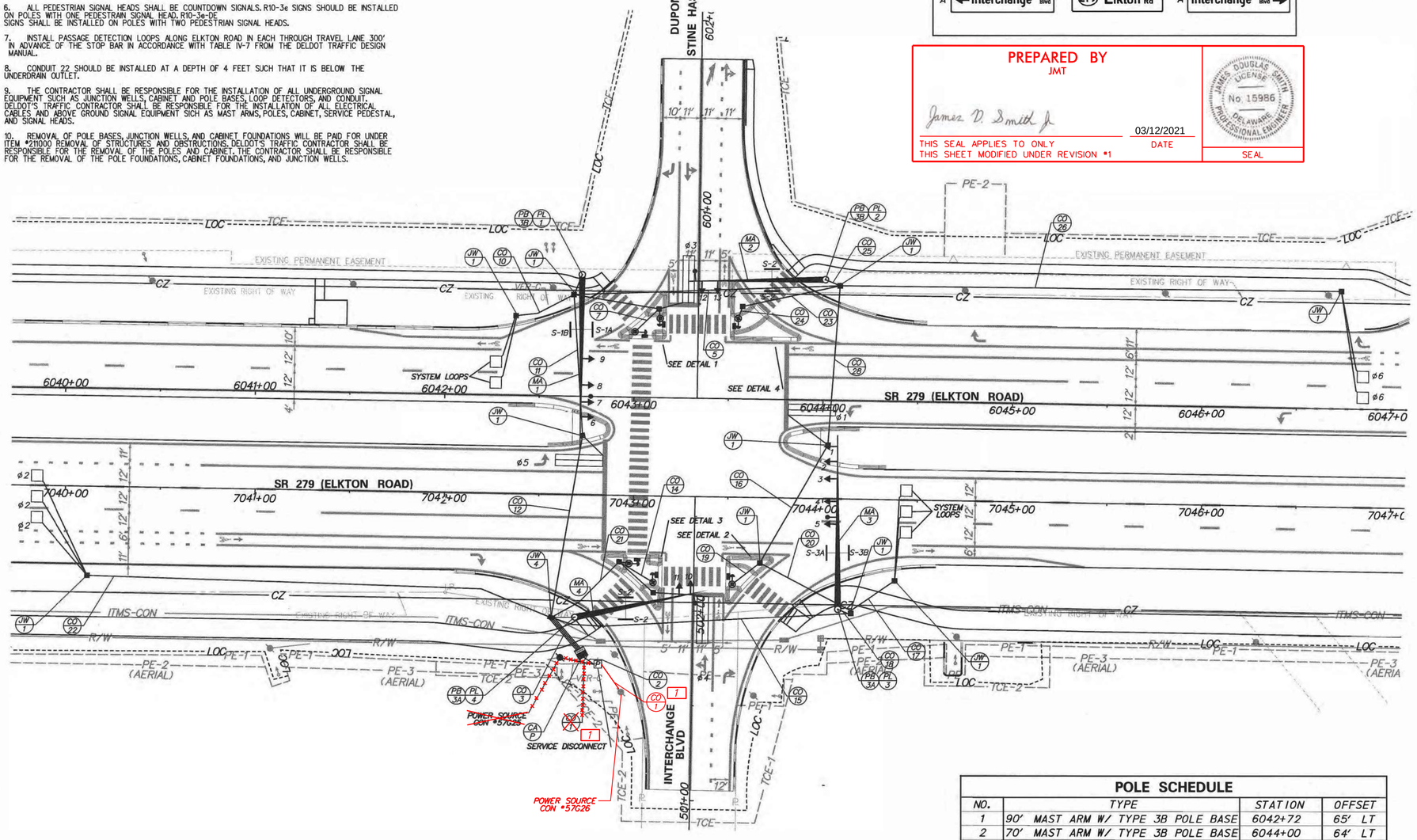


ULTIMATE

PREPARED BY
JMT

James D. Smith Jr. 03/12/2021
THIS SEAL APPLIES TO ONLY THIS SHEET MODIFIED UNDER REVISION *1 — DATE

JAMES DOUGLAS SMITH LICENSE No. 15986 DELAWARE PROFESSIONAL ENGINEER
SEAL



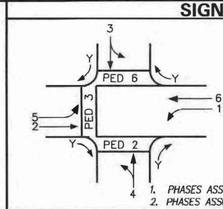
MAST ARM SCHEDULE

MA NO.	LENGTH	NO. OF HEADS	S.F. OF SIGNING
1	90' MAST ARM	4-3 SECTION	8.25 SF
2	70' MAST ARM	1-4 SECTION, 1-3 SECTION	7.5 SF
3	90' MAST ARM	5-3 SECTION	8.25 SF
4	70' MAST ARM	1-4 SECTION, 1-3 SECTION	7.5 SF

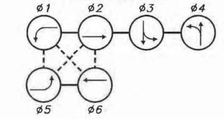
POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
1	90' MAST ARM W/ TYPE 3B POLE BASE	6042+72	65' LT
2	70' MAST ARM W/ TYPE 3B POLE BASE	6044+00	64' LT
3	90' MAST ARM W/ TYPE 3A POLE BASE	7044+09	58' RT
4	70' MAST ARM W/ TYPE 3A POLE BASE	7042+70	65' RT
5	PEDESTAL POLE W/ TYPE 4A BASE	6043+13	42' LT
6	PEDESTAL POLE W/ TYPE 4A BASE	6043+00	35' LT
7	PEDESTAL POLE W/ TYPE 4A BASE	6043+55	43' LT
8	PEDESTAL POLE W/ TYPE 4A BASE	7043+53	46' RT
9	PEDESTAL POLE W/ TYPE 4A BASE	7043+11	46' RT
10	PEDESTAL POLE W/ TYPE 4A BASE	7042+98	36' RT

SIGNAL PHASING

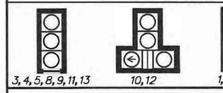


NEMA PHASING



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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH •	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (* OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (* OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
JOHNSON, MIRMIRAN & THOMPSON

Mir Aly Waked 12/17/2018
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "JMT" SECTION DESIGNATION. — DATE

MIR A. WAHED LICENSE No. 14810 DELAWARE PROFESSIONAL ENGINEER
SEAL

APPROVED FOR INSTALLATION

12/19/18
CHIEF TRAFFIC ENGINEER — DATE

ADDENDA / REVISIONS

1	REPLACED PAGES 1 THRU 432	11-15-2019 (LB)
1	REVISED POWER SOURCE - JDS 3/12/2021	

SCALE 0 30 60 90 FEET

ELKTON ROAD, MD LINE TO CASHO MILL ROAD

CONTRACT	T201504401	PERMIT NO.	N017P
COUNTY	NEW CASTLE	DESIGNED BY: ALM (JMT)	
		CHECKED BY: MAW (JMT)	

SIGNAL PLAN
SR 279 (ELKTON ROAD)
@ INTERCHANGE BLVD

SECTION	JMT
SHEET NO.	414

PLOTTED BY: JDSMITH DATE: 12/17/2018
FILE LOCATION: Q:\NDE\140659_007_ELKTON_RD_CASHO_MILL\CADD\SG ULT_PRINT FILES.DGN [SHEET: SG27]

ADDITIONAL GENERAL SIGNAL NOTES

6. EXISTING RIGHT OF WAY AND PROPERTY LINES ARE BASED ON A FIELD SURVEY AND ARE SHOWN FOR GRAPHICAL PURPOSES ONLY. THESE LINES DO NOT REFLECT INFORMATION ON DELDOT CONTRACT 64-12-009 AS THIS INFORMATION WAS NOT AVAILABLE AT THE TIME OF THE SURVEY. THESE LINES MAY BE SUBJECT TO CHANGE WHEN THIS INFORMATION IS RECEIVED.

7. INSTALL PROPOSED SIGNAL POLES, MAST ARMS, AND TRAFFIC SIGNALS PRIOR TO REMOVING EXISTING TRAFFIC SIGNAL EQUIPMENT.

8. THE CABINET BASE SHALL BE INSTALLED SO THAT IS LEVEL WITH THE SIDEWALK. IN ADDITION, THE CABINET BASE SHALL BE ADJACENT TO THE SIDEWALK.

9. REMOVE 2 FEET OFF THE TOP OF THE EXISTING FOUNDATIONS.

10. INSTALL CDMA AT THIS INTERSECTION.

11. CONTRACTOR SHALL REMOVE ALL EXISTING WIRING FROM EXISTING CONDUIT BEING ABANDONED.

12. MAINTAIN PEDESTRIAN ACCESS UTILIZING PEDESTRIAN FLAGGERS AND TEMPORARY PEDESTRIAN PATHWAYS AS NECESSARY.

13. CONTRACTOR SHALL UTILIZE TYPICAL APPLICATIONS FROM CHAPTER 6 OF THE DEMUTCD AS NEEDED TO COMPLETE THE WORK.

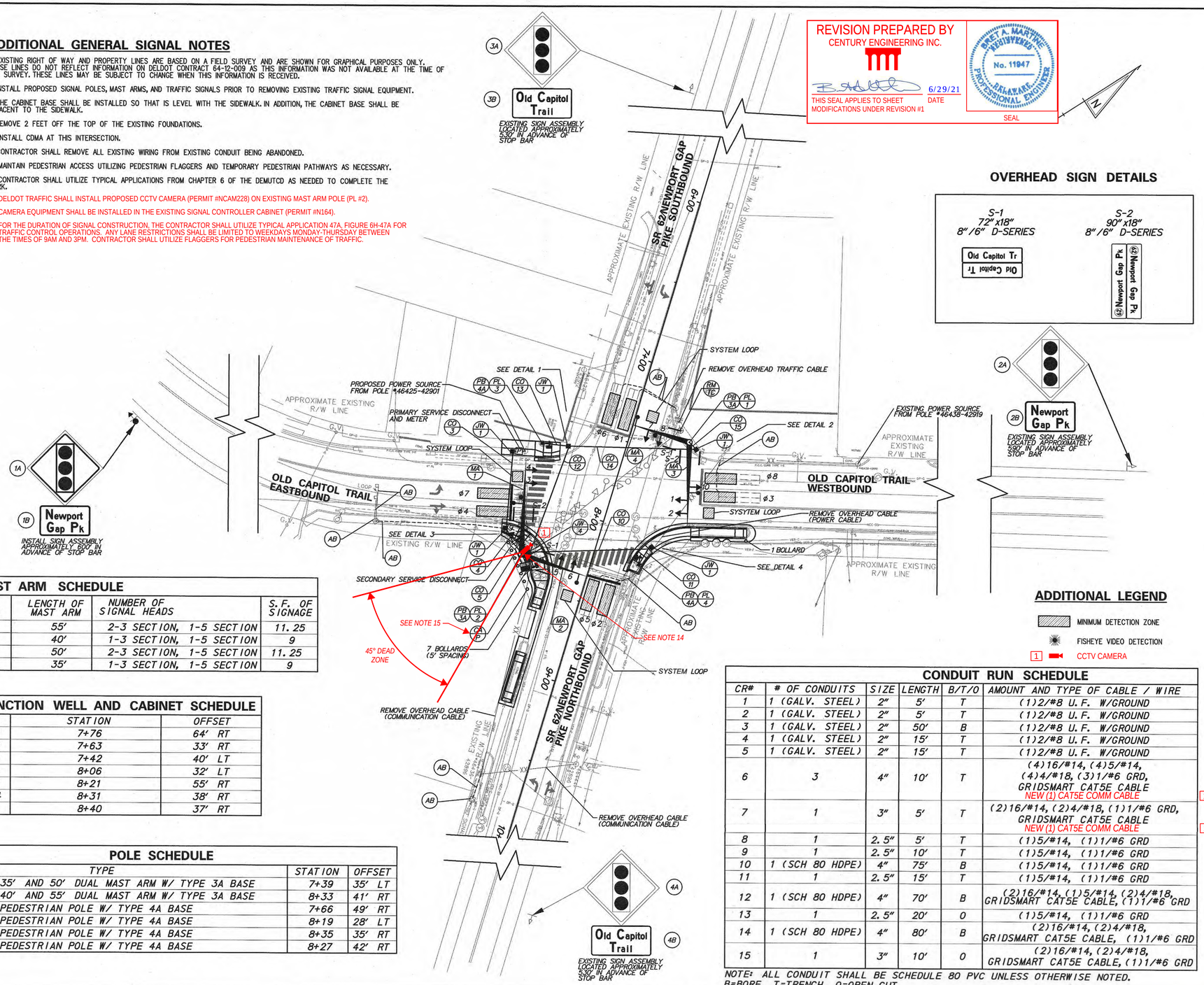
14. DELDOT TRAFFIC SHALL INSTALL PROPOSED CCTV CAMERA (PERMIT #NCAM228) ON EXISTING MAST ARM POLE (PL #2).

15. CAMERA EQUIPMENT SHALL BE INSTALLED IN THE EXISTING SIGNAL CONTROLLER CABINET (PERMIT #N164).

[1] 16. FOR THE DURATION OF SIGNAL CONSTRUCTION, THE CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 47A, FIGURE 6H-47A FOR TRAFFIC CONTROL OPERATIONS. ANY LANE RESTRICTIONS SHALL BE LIMITED TO WEEKDAYS MONDAY-THURSDAY BETWEEN THE TIMES OF 9AM AND 3PM. CONTRACTOR SHALL UTILIZE FLAGGERS FOR PEDESTRIAN MAINTENANCE OF TRAFFIC.

REVISION PREPARED BY
CENTURY ENGINEERING INC.
6/29/21
DATE
THIS SEAL APPLIES TO SHEET
MODIFICATIONS UNDER REVISION #1

BRET A. MARTIN
No. 11947
DELAWARE
PROFESSIONAL ENGINEER
SEAL



OVERHEAD SIGN DETAILS

S-1
72" x18"
8" /6" D-SERIES
Old Capitol Tr

S-2
90" x18"
8" /6" D-SERIES
(2) Newport Gap Pk

MAST ARM SCHEDULE

NO.	LENGTH OF MAST ARM	NUMBER OF SIGNAL HEADS	S.F. OF SIGNAGE
1	55'	2-3 SECTION, 1-5 SECTION	11.25
2	40'	1-3 SECTION, 1-5 SECTION	9
3	50'	2-3 SECTION, 1-5 SECTION	11.25
4	35'	1-3 SECTION, 1-5 SECTION	9

JUNCTION WELL AND CABINET SCHEDULE

NO.	STATION	OFFSET
JW1	7+76	64' RT
JW1	7+63	33' RT
JW1	7+42	40' LT
JW1	8+06	32' LT
JW1	8+21	55' RT
JW4	8+31	38' RT
CA	8+40	37' RT

POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
1	35' AND 50' DUAL MAST ARM W/ TYPE 3A BASE	7+39	35' LT
2	40' AND 55' DUAL MAST ARM W/ TYPE 3A BASE	8+33	41' RT
3	PEDESTRIAN POLE W/ TYPE 4A BASE	7+66	49' RT
4	PEDESTRIAN POLE W/ TYPE 4A BASE	8+19	28' LT
5	PEDESTRIAN POLE W/ TYPE 4A BASE	8+35	35' RT
6	PEDESTRIAN POLE W/ TYPE 4A BASE	8+27	42' RT

CONDUIT RUN SCHEDULE

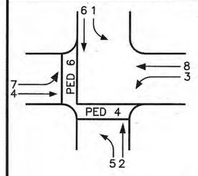
CR#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
1	1 (GALV. STEEL)	2"	5'	T	(1)2/#8 U.F. W/GROUND
2	1 (GALV. STEEL)	2"	5'	T	(1)2/#8 U.F. W/GROUND
3	1 (GALV. STEEL)	2"	50'	B	(1)2/#8 U.F. W/GROUND
4	1 (GALV. STEEL)	2"	15'	T	(1)2/#8 U.F. W/GROUND
5	1 (GALV. STEEL)	2"	15'	T	(1)2/#8 U.F. W/GROUND
6	3	4"	10'	T	(4)16/#14, (4)5/#14, (4)4/#18, (3)1/#6 GRD, GRIDSMART CAT5E CABLE NEW (1) CAT5E COMM CABLE [1]
7	1	3"	5'	T	(2)16/#14, (2)4/#18, (1)1/#6 GRD, GRIDSMART CAT5E CABLE NEW (1) CAT5E COMM CABLE [1]
8	1	2.5"	5'	T	(1)5/#14, (1)1/#6 GRD
9	1	2.5"	10'	T	(1)5/#14, (1)1/#6 GRD
10	1 (SCH 80 HDPE)	4"	75'	B	(1)5/#14, (1)1/#6 GRD
11	1	2.5"	15'	T	(1)5/#14, (1)1/#6 GRD
12	1 (SCH 80 HDPE)	4"	70'	B	(2)16/#14, (1)5/#14, (2)4/#18, GRIDSMART CAT5E CABLE, (1)1/#6 GRD
13	1	2.5"	20'	O	(1)5/#14, (1)1/#6 GRD
14	1 (SCH 80 HDPE)	4"	80'	B	(2)16/#14, (2)4/#18, GRIDSMART CAT5E CABLE, (1)1/#6 GRD
15	1	3"	10'	O	(2)16/#14, (2)4/#18, GRIDSMART CAT5E CABLE, (1)1/#6 GRD

NOTE: ALL CONDUIT SHALL BE SCHEDULE 80 PVC UNLESS OTHERWISE NOTED.
B=BORE, T=TRENCH, O=OPEN CUT

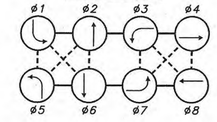
ADDITIONAL LEGEND

MINIMUM DETECTION ZONE
FISHEYE VIDEO DETECTION
[1] CCTV CAMERA

SIGNAL PHASING

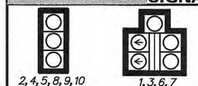


NEMA PHASING



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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	⬚	▭
LOOP DETECTOR, TYPE 2	⬚	▭
LUMINAIRE	—○—	—●—
MAST ARM	——◁	——◀
MICROWAVE DETECTION	—◀	—◀
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING		—⊣
PEDESTRIAN POLE/BASE	○	◉
PEDESTRIAN PUSHBUTTON	—▯	—▮
PEDESTRIAN SIGNAL HEAD	▱	▰
RIGHT-OF-WAY	———	——R/W——
SERVICE PEDESTAL		P
SIGNAL CABINET	▯	▮
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
SPAN INSULATOR	◇	◆
SPAN WIRE	—XX—	——◇——
UTILITY POLE	⊘	●
VIDEO DETECTION	◀	◀

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.

2. POLE BASES, CABINET BASES, AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.

3. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.

4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PRECEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY, BEFORE CONSTRUCTION.

5. PROPOSED POLE BASES WITH PEDESTRIAN PUSH BUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5%1 OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THE PEDESTRIAN PUSH BUTTONS SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSH BUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING, INCLUDING BRACKETS, NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS WILL BE COUNTDOWN SIGNALS.

RECOMMENDED _____ DATE: _____
RECOMMENDED _____ DATE: _____
RECOMMENDED _____ DATE: 3/16/18
APPROVED TRAFFIC ENGINEER _____ DATE: 03/16/2018
APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 3/20/18

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS
[1] INSTALLED PROPOSED CCTV ON EXISTING MAST ARM POLE UTILIZING EXISTING CONDUIT PATHWAY & EXISTING SIGNAL CABINET
M.KUBOVCIK (CEI) 06/28/21 - (CONTRACT T202100505)

SCALE
0 30 60 90
FEET

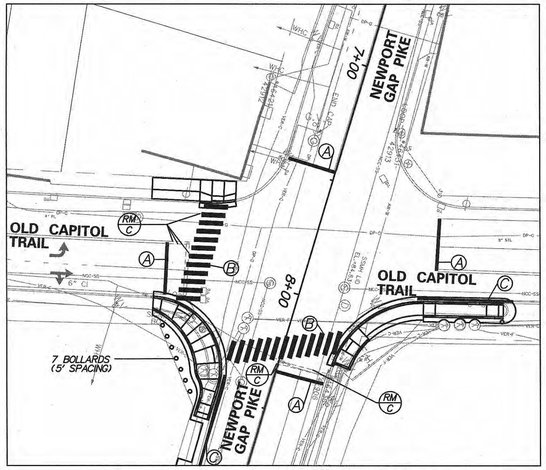
N164 NEWPORT GAP PIKE AND OLD CAPITOL TRAIL

CONTRACT	T201704002
COUNTY	NEW CASTLE
PERMIT NO: [1]	N164 & NCAM228
DESIGNED BY:	JDS (JMT)
CHECKED BY:	MAW (JMT)

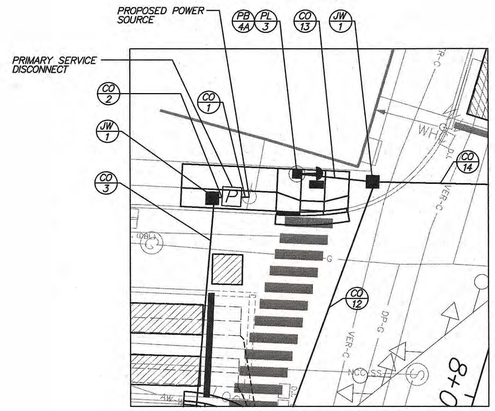
SIGNAL PLAN
NEWPORT GAP PIKE
@ OLD CAPITOL TRAIL

SHEET NO.	1
TOTAL SHTS.	6

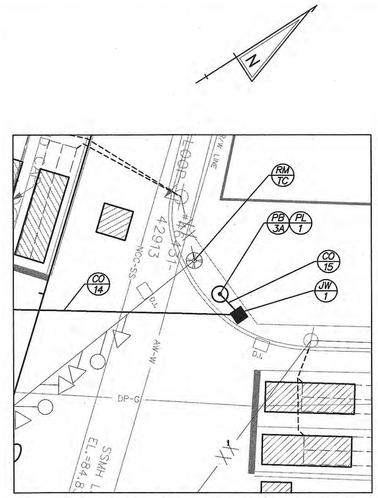
PLOTTED BY: JDSMITH DATE: 2/7/2018
M:\DOS\CELL\5_PROJECTS\SIGNALS\T201504501\150151_000_TRAFFIC_ENGINEERING_\CADD\201 THREE SIGNAL DESIGN\NEWPORT GAP PIKE AND OLD CAPITOL TRAIL\SG.DGN [SHEET: Print Sheet]



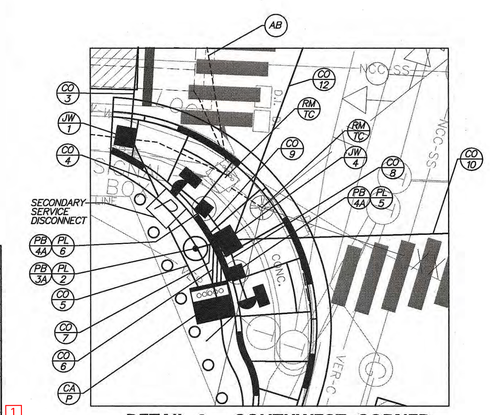
PAVEMENT STRIPING INFORMATION
SCALE: 1"=30'



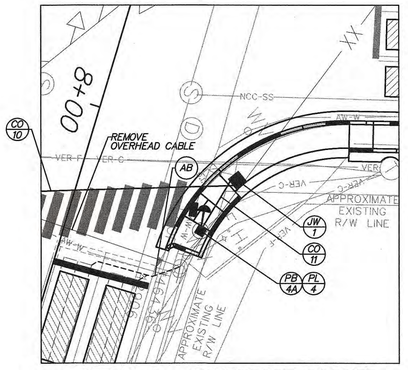
DETAIL 1 – NORTHWEST CORNER
SCALE: 1"=15'



DETAIL 2 – NORTHEAST CORNER
SCALE: 1"=15'



DETAIL 3 – SOUTHWEST CORNER
SCALE: 1"=10'



DETAIL 4 – SOUTHEAST CORNER
SCALE: 1"=15'

JUNCTION WELL AND CABINET SCHEDULE

NO.	STATION	OFFSET
JW1	7+76	64' RT
JW1	7+63	33' RT
JW1	7+42	40' LT
JW1	8+06	32' LT
JW1	8+21	55' RT
JW4	8+31	38' RT
CA	8+40	37' RT

POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
1	35' AND 50' DUAL MAST ARM W/ TYPE 3A BASE	7+39	35' LT
2	40' AND 55' DUAL MAST ARM W/ TYPE 3A BASE	8+33	41' RT
3	PEDESTRIAN POLE W/ TYPE 4A BASE	7+66	49' RT
4	PEDESTRIAN POLE W/ TYPE 4A BASE	8+19	28' LT
5	PEDESTRIAN POLE W/ TYPE 4A BASE	8+35	35' RT
6	PEDESTRIAN POLE W/ TYPE 4A BASE	8+27	42' RT

CONDUIT RUN SCHEDULE

CR#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE	
1	1 (GALV. STEEL)	2"	5'	T	(1)2/#8 U.F. W/GROUND	
2	1 (GALV. STEEL)	2"	5'	T	(1)2/#8 U.F. W/GROUND	
3	1 (GALV. STEEL)	2"	50'	B	(1)2/#8 U.F. W/GROUND	
4	1 (GALV. STEEL)	2"	15'	T	(1)2/#8 U.F. W/GROUND	
5	1 (GALV. STEEL)	2"	15'	T	(1)2/#8 U.F. W/GROUND	
6	3	4"	10'	T	(4)16/#14, (4)5/#14, (4)4/#18, (3)1/#6 GRD GRIDSMART CAT5E CABLE NEW (1) CAT5E COMM CABLE	1
7	1	3"	5'	T	(2)16/#14, (2)4/#18, (1)1/#6 GRD, GRIDSMART CAT5E CABLE NEW (1) CAT5E COMM CABLE	1
8	1	2.5"	5'	T	(1)5/#14, (1)1/#6 GRD	
9	1	2.5"	10'	T	(1)5/#14, (1)1/#6 GRD	
10	1 (SCH 80 HDPE)	4"	75'	B	(1)5/#14, (1)1/#6 GRD	
11	1	2.5"	15'	T	(1)5/#14, (1)1/#6 GRD	
12	1 (SCH 80 HDPE)	4"	70'	B	(2)16/#14, (1)5/#14, (2)4/#18, GRIDSMART CAT5E CABLE, (1)1/#6 GRD	
13	1	2.5"	20'	O	(1)5/#14, (1)1/#6 GRD	
14	1 (SCH 80 HDPE)	4"	80'	B	(2)16/#14, (2)4/#18, GRIDSMART CAT5E CABLE, (1)1/#6 GRD	
15	1	3"	10'	O	(2)16/#14, (2)4/#18, GRIDSMART CAT5E CABLE, (1)1/#6 GRD	

NOTE: ALL CONDUIT SHALL BE SCHEDULE 80 PVC UNLESS OTHERWISE NOTED.
B=BORE, T=TRENCH, O=OPEN CUT

REVISION PREPARED BY
CENTURY ENGINEERING INC.

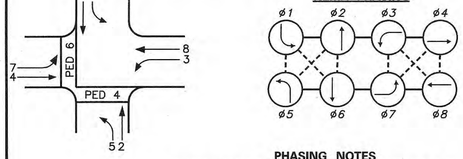
6/29/21
THIS SEAL APPLIES TO SHEET MODIFICATIONS UNDER REVISION #1 — DATE

BRET A. MARTINE — 1997 — No. 11947 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
(A)	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	125 SF
(B)	24" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	505 SF
(C)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	105 LF

SIGNAL PHASING



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

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH •	EXISTING OVERHEAD RUN IDENTIFIER (• OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (• OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (• OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (• OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (• OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (• OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		□
LOOP DETECTOR, TYPE 2		▭
LUMINAIRE	—○	—✦
MAST ARM	⊢	⊢
MICROWAVE DETECTION	⊣	⊣
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING		⊣
PEDESTRIAN POLE/BASE	○	◉
PEDESTRIAN PUSHBUTTON	—▷	—▶
PEDESTRIAN SIGNAL HEAD	—▭	—▬
RIGHT-OF-WAY	———	—R/W—
SERVICE PEDESTAL	▭	P
SIGNAL CABINET	▭	▮
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
SPAN INSULATOR	—◇—	—◆—
SPAN WIRE	—XX—	—◇—
UTILITY POLE	⊘	◔
VIDEO DETECTION	◖	◀

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.

2. POLE BASES, CABINET BASES, AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.

3. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.

4. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PRECEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY, BEFORE CONSTRUCTION.

5. PROPOSED POLE BASES WITH PEDESTRIAN PUSH BUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5%1 OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THE PEDESTRIAN PUSH BUTTONS SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSH BUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING, INCLUDING BRACKETS, NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL. ALL PEDESTRIAN SIGNAL HEADS WILL BE COUNTDOWN SIGNALS.

RECOMMENDED _____ DATE:_____
RECOMMENDED _____ DATE:_____
RECOMMENDED _____ DATE: 3/16/18
APPROVED TRAFFIC ENGINEER _____ DATE: 03/16/2018
APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 3/20/18

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS
1 INSTALLED PROPOSED CCTV ON EXISTING MAST
ARM POLE UTILIZING EXISTING CONDUIT PATHWAY
& EXISTING SIGNAL CABINET
M.KUBOVCIK (CEI) 06/28/21 - (CONTRACT T202100505)

N/A

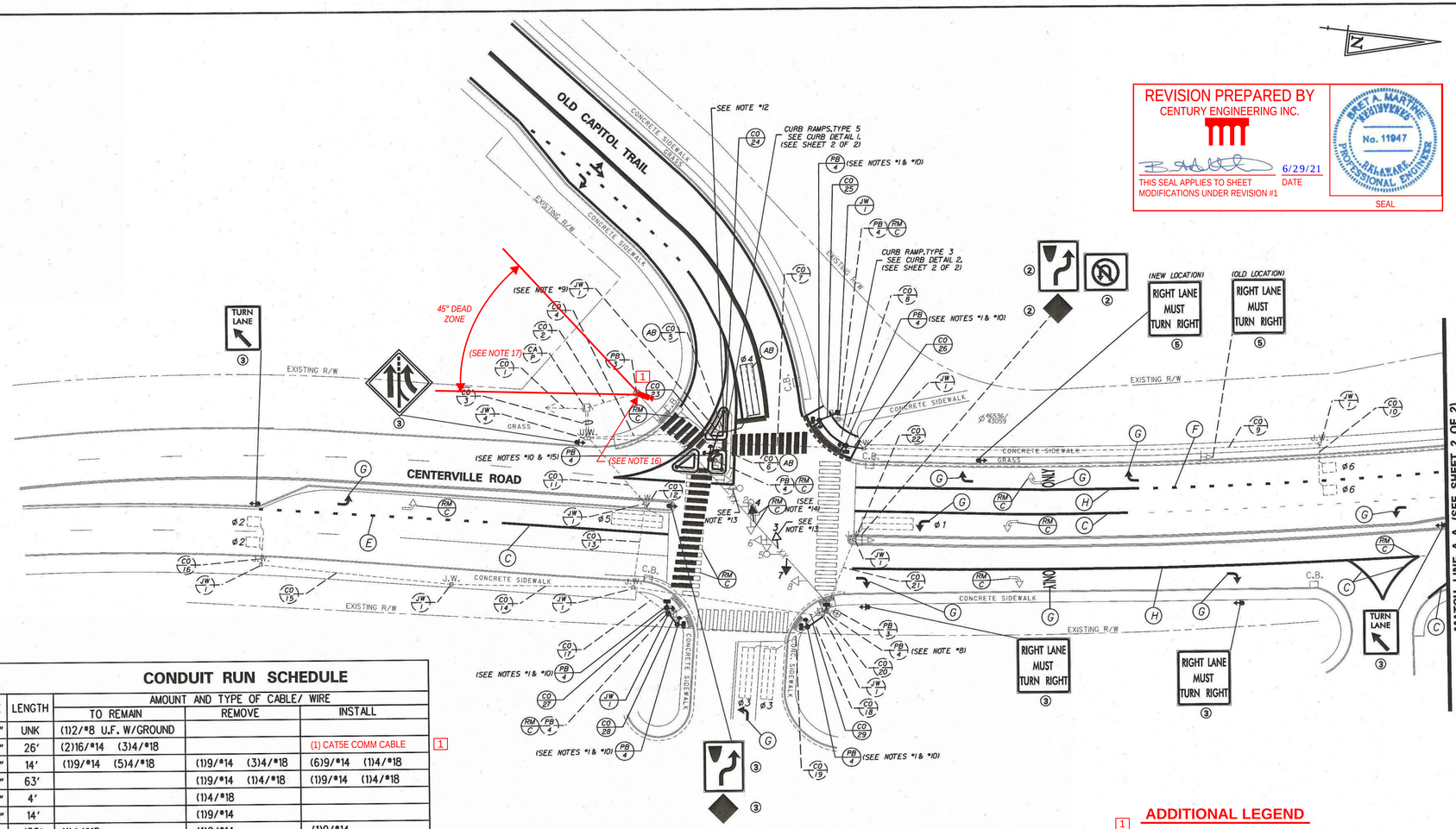
N164 NEWPORT GAP PIKE AND OLD CAPITOL TRAIL

CONTRACT T201704002
COUNTY NEW CASTLE
PERMIT NO. 1 N164 & NCAM228
DESIGNED BY: JDS (JMT)
CHECKED BY: MAW (JMT)

SIGNAL PLAN
NEWPORT GAP PIKE
@ OLD CAPITOL TRAIL

SHEET NO. 2
TOTAL SHTS. 6

PLOTTED BY: JDSMITH DATE: 2/7/2018
FILE: N:\DESIGN\CADD\150151_000_TRAFFIC_ENGINEERING_\CADD\201 THREE SIGNAL DESIGN\NEWPORT GAP PIKE AND OLD CAPITOL TRAIL\SG.DGN [SHEET= Print Sheet]

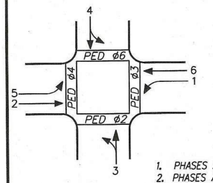


REVISION PREPARED BY
CENTURY ENGINEERING INC.

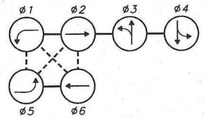
6/29/21
THIS SEAL APPLIES TO SHEET MODIFICATIONS UNDER REVISION #1 — DATE

ERIC A. MARTIN HEIDTKAMP — No. 11947 — DELAWARE PROFESSIONAL ENGINEER — SEAL

SIGNAL PHASING



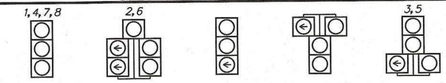
NEMA PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

PROPOSED SIGNAL CABINET		REMOVE BY CONTRACTOR	RM/C
EXISTING SIGNAL CABINET		REMOVE BY OTHERS	RM/O
PROPOSED SIGNAL POLE BASE		ABANDON	AB
EXISTING SIGNAL POLE BASE		PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)	PB/X
PROPOSED PEDESTRIAN POLE BASE		EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)	PB/X
EXISTING PEDESTRIAN POLE BASE		PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	JW/X
PROPOSED WOOD POLE		EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	JW/X
EXISTING UTILITY POLE		PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	CO/#
PROPOSED JUNCTION WELL		EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	CO/#
EXISTING JUNCTION WELL	J.W.	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)	OH/#
PROPOSED SIGNAL HEAD		EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)	OH/#
EXISTING SIGNAL HEAD		PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	MA/XX
PROPOSED PEDESTRIAN SIGNAL HEAD		EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	MA/XX
EXISTING PEDESTRIAN SIGNAL HEAD		PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	CA/X
PROPOSED PEDESTRIAN PUSHBUTTON		EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	CA/X
EXISTING PEDESTRIAN PUSHBUTTON		PROPOSED SPAN WIRE	
PROPOSED VIDEO DETECTION		EXISTING SPAN WIRE	XX
EXISTING VIDEO DETECTION		RIGHT-OF-WAY OR PROPERTY LINE	
PROPOSED MICROWAVE DETECTION		PROPOSED SPAN INSULATOR	
EXISTING MICROWAVE DETECTION		EXISTING SPAN INSULATOR	
OVERHEAD SIGNING		SERVICE PEDESTAL	P
PROPOSED OPTICOM RECEIVER		EXISTING HIGHWAY SIGN	
EXISTING OPTICOM RECEIVER		PROPOSED HIGHWAY SIGN	
PROPOSED MAST ARM		TUBULAR MARKER	
EXISTING MAST ARM			
PROPOSED LUMINAIRE			
EXISTING LUMINAIRE			
PROPOSED LOOP DETECTOR (TYPE 1 OR 2)			
EXISTING LOOP DETECTOR (TYPE 1 OR 2)			

CONDUIT RUN SCHEDULE

CO*	*OF CON	SIZE	LENGTH	AMOUNT AND TYPE OF CABLE/ WIRE TO REMAIN	REMOVE	INSTALL
*1	1	2.0"	UNK	(11)2/#8 U.F. W/GROUND		
*2	1	2.5"	26'	(2)16/#14 (3)4/#18		(1) CAT5E COMM CABLE [1]
*3	2	2.5"	14'	(1)9/#14 (5)4/#18	(1)9/#14 (3)4/#18	(6)9/#14 (1)4/#18
*4	1	2.5"	63'		(1)9/#14 (1)4/#18	(1)9/#14 (1)4/#18
*5	1	1.5"	4'		(1)4/#18	
*6	1	2.5"	14'		(1)9/#14	
*7	1	2.5"	133'	(1)4/#18	(1)9/#14	(1)9/#14
*8	1	2.5"	22'		(1)9/#14	(1)9/#14
*9	1	2.5"	168'	(1)4/#18		
*10	1	1.5"	6'	(1)4/#18		
*11	1	2.5"	42'	(1)9/#14 (4)4/#18	(1)9/#14	(3)9/#14
*12	1	1.5"	3'	(1)4/#18		
*13	1	2.5"	41'	(1)9/#14 (3)4/#18	(1)9/#14	(3)9/#14
*14	1	2.5"	88'	(1)4/#18		
*15	1	2.5"	93'	(1)4/#18		
*16	1	1.5"	5'	(1)4/#18		
*17	1	2.5"	22'		(1)9/#14	(2)9/#14
*18	1	2.5"	93'	(1)9/#14 (2)4/#18		(1)9/#14
*19	1	1.5"	22'	(1)4/#18		
*20	1	2.5"	3'	(1)9/#14		
*21	1	2.5"	41'	(1)4/#18		
*22	1	1.5"	3'	(1)4/#18		
23	1	2.5"	12'			(1)9/#14
24	1	1.5"	5'			(1)4/#18
25	1	2.5"	10'			(1)9/#14
26	1	2.5"	9'			(1)9/#14
27	1	2.5"	3'			(1)9/#14
28	1	2.5"	7'			(1)9/#14
29	1	2.5"	10'			(1)9/#14

* DENOTES EXISTING

PAVEMENT MARKINGS LEGEND

SYMBOL	QUANTITY	ITEM
A		4" SOLID YELLOW EPOXY RESIN PAINT PAVEMENT STRIPING
B		4" SOLID DOUBLE YELLOW EPOXY RESIN PAINT PAVEMENT STRIPING
C	215 LF.	4" SOLID WHITE EPOXY RESIN PAINT PAVEMENT STRIPING
D		4" DASHED WHITE EPOXY RESIN PAINT (10' LINE, 30' GAP) PAVEMENT STRIPING
E	26 LF.	4" DASHED WHITE EPOXY RESIN PAINT (2' LINE, 6' GAP) PAVEMENT STRIPING
F	62 LF.	8" DASHED WHITE EPOXY RESIN PAINT (2' LINE, 6' GAP) PAVEMENT STRIPING
G	594 S.F.	SYMBOL/LEGEND ALKYD-THERMOPLASTIC PAVEMENT STRIPING
H	450 LF.	8" SOLID WHITE EPOXY RESIN PAINT PAVEMENT STRIPING
I		PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, SYMBOL/LEGEND

SIGNING LEGEND By State Forces
1. REMOVE EXISTING SIGN
2. EXISTING SIGN TO REMAIN
3. PLACE NEW SIGN
4. RENEW EXISTING SIGN
5. REPOSITION EXISTING SIGN

[1] **ADDITIONAL LEGEND**
CCTV CAMERA

CONSTRUCTION NOTES:

10. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5.0% OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
11. EXISTING SIGNAL EQUIPMENT LAYOUT AND CONDUIT/WIRING INFORMATION BASED ON FIELD OBSERVATIONS AND TRAFFIC SIGNAL PLAN DATED 6/10/04, CONTRACT #21-011-03.
12. THE CONTRACTOR SHALL INSTALL A TUBULAR MARKER (FLEXI-POST) ON ALL THREE (3) CORNERS OF THE CHANNELIZING ISLAND, AS SHOWN. EACH TUBULAR MARKER SHALL BE RETOREFLECTORIZED IN ACCORDANCE WITH SECTION 6F.60 OF THE DELDOT MUTCD.
13. RELOCATE EXISTING 4-SECTION INVERTED "I" SIGNAL HEAD #3 FACING EASTBOUND CAPITOL TRAIL APPROXIMATELY 34' NORTH OF ITS PRESENT LOCATION.
14. REMOVE EXISTING 3-SECTION HEADS WITH GREEN LEFT ARROW INDICATION FACING OLD CAPITOL TRAIL AND PARK & RIDE LOT APPROACHES. REPLACE WITH 3-SECTION HEADS #4 AND #7 AS SHOWN.
15. INSTALL "EDUCATIONAL SIGN FOR COUNT-DOWN PEDESTRIAN SIGNALS" (R10-3e-DE).
16. DELDOT TRAFFIC SHALL INSTALL PROPOSED CCTV CAMERA (PERMIT #NCAM229) ON EXISTING SOUTHWEST STRAIN POLE.
17. CAMERA EQUIPMENT SHALL BE INSTALLED IN THE EXISTING SIGNAL CONTROLLER CABINET (PERMIT #N282). [1]
18. FOR THE DURATION OF SIGNAL CONSTRUCTION, THE CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 47A, FIGURE 6H-47A FOR TRAFFIC CONTROL OPERATIONS. ANY LANE RESTRICTIONS SHALL BE LIMITED TO WEEKDAYS MONDAY-THURSDAY BETWEEN THE TIMES OF 9AM AND 3PM. CONTRACTOR SHALL UTILIZE FLAGGERS FOR PEDESTRIAN MAINTENANCE OF TRAFFIC.

GENERAL SIGNAL NOTES

1. INSTALL "EDUCATIONAL SIGN FOR COUNT-DOWN PEDESTRIAN SIGNALS" (R10-3e).
2. ALL SIGNAL EQUIPMENT REMOVED FROM THE PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
3. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REMOVED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
6. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
7. ALL ABANDONED CONDUITS TO HAVE WIRES REMOVED.
8. REMOVE EXISTING PEDESTRIAN SIGNAL HEAD AND REPLACE WITH COUNTDOWN HEAD.
9. RESET EXISTING JUNCTION WELL FLUSH WITH SURFACE OF PROPOSED PORK CHOP ISLAND.

RECOMMENDED Lisa Delyaur DATE: 1/5/2012

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 1/6/12

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 1/6/12

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS
[1] INSTALLED PROPOSED CCTV ON EXISTING STRAIN POLE UTILIZING EXISTING CONDUIT PATHWAY & EXISTING SIGNAL CABINET
M.KUBOVCIK (CEI) 06/28/21 - (CONTRACT T202100505)

SCALE 0 30 60 90 FEET

PAVEMENT & REHABILITATION, NORTH I, 2011

CONTRACT T201106101
COUNTY NEW CASTLE
[1] PERMIT NO. N282 & NCAM229
DESIGNED BY: SJE
CHECKED BY: LYD

SIGNAL PLAN CENTERVILLE ROAD @ OLD CAPITOL TRAIL

SHEET NO. 1
TOTAL SHTS. 2

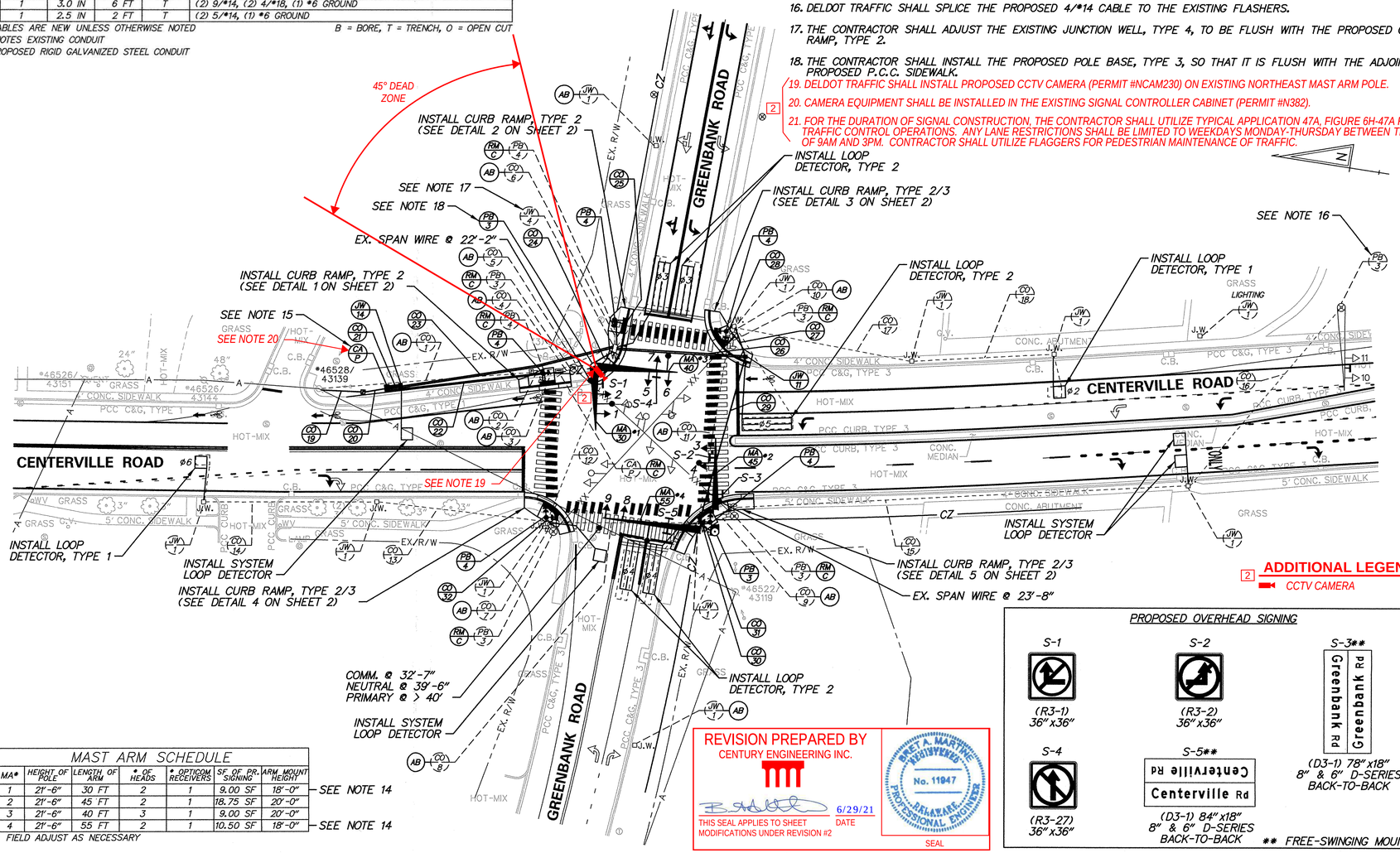
CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
12*	1	2.5 IN	92 FT	-	<REMOVE EX. (3) 9/*14, EX. (4) 4/*18, EX. (1) 4/*14>, (2) 5/*14, (2) 2/*14, (1) *6 GROUND
13*	1	1.5 IN	86 FT	-	<REMOVE EX. (1) 4/*18>, (1) 2/*14, (1) *6 GROUND
14*	1	2.5 IN	86 FT	-	<REMOVE EX. (1) 4/*18>, (1) 2/*14, (1) *6 GROUND
15*	1	1.5 IN	249 FT	-	<REMOVE EX. (1) 4/*14>, (1) 4/*14, (2) 2/*14, (1) *6 GROUND
16*	1	1.5 IN	117 FT	-	<REMOVE EX. (1) 4/*14>, (1) 4/*14, (1) *6 GROUND
17*	1	1.5 IN	90 FT	-	<REMOVE EX. (1) 4/*18>, (1) 2/*14, (1) *6 GROUND
18*	1	2.5 IN	71 FT	-	<REMOVE EX. (1) 4/*18>, (1) 2/*14, (1) *6 GROUND
19**	1	2.0 IN	20 FT	T	(1) 2/*8 U.F. W/GROUND - LINE SIDE
20**	1	2.0 IN	10 FT	T	(1) 2/*8 U.F. W/GROUND - LOAD SIDE
21	4	4.0 IN	6 FT	T	(4) 9/*14, (4) 4/*18, (8) 5/*14, (2) 4/*14, (11) 2/*14, (4) *6 GROUND NEW (1) CAT5E COMM CABLE [2]
22	1	2.5 IN	72 FT	T	(1) 5/*14, (1) *6 GROUND
23	2	4.0 IN	111 FT	T	(4) 9/*14, (4) 4/*18, (7) 5/*14, (2) 4/*14, (10) 2/*14, (2) *6 GROUND NEW (1) CAT5E COMM CABLE [2]
24	1	3.0 IN	11 FT	T	(2) 9/*14, (2) 4/*18, (1) 4/*14, (1) *6 GROUND NEW (1) CAT5E COMM CABLE [2]
25	1	2.5 IN	13 FT	T	(1) 5/*14, (1) *6 GROUND
26	2	4.0 IN	66 FT	B	(2) 9/*14, (2) 4/*18, (4) 5/*14, (1) 4/*14, (6) 2/*14, (2) *6 GROUND
27	1	4.0 IN	16 FT	T	(2) 5/*14, (1) 2/*14, (1) *6 GROUND
28	1	2.5 IN	4 FT	T	(2) 5/*14, (1) *6 GROUND
29	1	4.0 IN	87 FT	B	(2) 9/*14, (2) 4/*18, (2) 5/*14, (1) 4/*14, (4) 2/*14, (1) *6 GROUND
30	1	2.5 IN	4 FT	T	(2) 5/*14, (1) *6 GROUND
31	1	3.0 IN	6 FT	T	(2) 9/*14, (2) 4/*18, (1) *6 GROUND
32	1	2.5 IN	2 FT	T	(2) 5/*14, (1) *6 GROUND

ALL CABLES ARE NEW UNLESS OTHERWISE NOTED B = BORE, T = TRENCH, O = OPEN CUT
* DENOTES EXISTING CONDUIT
** PROPOSED RIGID GALVANIZED STEEL CONDUIT

NOTES:

8. PROPOSED PEDESTRIAN POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/ SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
9. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
10. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON THE ARCHIVED PLANS FOR CONTRACT NO. 21-011-03.
11. IF GRADING WILL BE STEEPER THAN 6:1 ADJACENT TO THE CURB RAMP OR SIDEWALK, THEN A TYPE 1-8 CURB OR RETAINING WALL SHOULD BE USED TO ELIMINATE THE NEED FOR THE STEEP SLOPE.
12. EXISTING CONDUIT RUNS NOS. 1-11 SHALL BE ABANDONED AND ALL EXISTING CABLES SHALL BE REMOVED.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND SIGNAL EQUIPMENT - E.G., JUNCTION WELLS, CABINET AND POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT - E.G., HEADS, OPTICOM RECEIVERS, SPAN WIRES, SERVICE PEDESTAL, POLES, MAST ARMS, AND CABINET.
14. DELDOT TRAFFIC SHALL ADJUST THE SIGNAL HEADS IN THE MAST ARM BRACKETS SO THAT THE BOTTOM OF THE SIGNAL HOUSINGS ARE AT LEAST 16'-0" ABOVE THE PAVEMENT.
15. DELDOT TRAFFIC SHALL INSTALL A CDMA IN THE PROPOSED SIGNAL CABINET.
16. DELDOT TRAFFIC SHALL SPLICE THE PROPOSED 4/*14 CABLE TO THE EXISTING FLASHERS.
17. THE CONTRACTOR SHALL ADJUST THE EXISTING JUNCTION WELL, TYPE 4, TO BE FLUSH WITH THE PROPOSED CURB RAMP, TYPE 2.
18. THE CONTRACTOR SHALL INSTALL THE PROPOSED POLE BASE, TYPE 3, SO THAT IT IS FLUSH WITH THE ADJOINING PROPOSED P.C.C. SIDEWALK.
19. DELDOT TRAFFIC SHALL INSTALL PROPOSED CCTV CAMERA (PERMIT #NCAM230) ON EXISTING NORTHEAST MAST ARM POLE.
20. CAMERA EQUIPMENT SHALL BE INSTALLED IN THE EXISTING SIGNAL CONTROLLER CABINET (PERMIT #N382).
21. FOR THE DURATION OF SIGNAL CONSTRUCTION, THE CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 47A, FIGURE 6H-47A FOR TRAFFIC CONTROL OPERATIONS. ANY LANE RESTRICTIONS SHALL BE LIMITED TO WEEKDAYS MONDAY-THURSDAY BETWEEN THE TIMES OF 9AM AND 3PM. CONTRACTOR SHALL UTILIZE FLAGGERS FOR PEDESTRIAN MAINTENANCE OF TRAFFIC.



MAST ARM SCHEDULE

MA*	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF PR. SIGNING	ARM MOUNT HEIGHT	
1	21'-6"	30 FT	2	1	9.00 SF	18'-0"	SEE NOTE 14
2	21'-6"	45 FT	2	1	18.75 SF	20'-0"	
3	21'-6"	40 FT	3	1	9.00 SF	20'-0"	
4	21'-6"	55 FT	2	1	10.50 SF	18'-0"	SEE NOTE 14

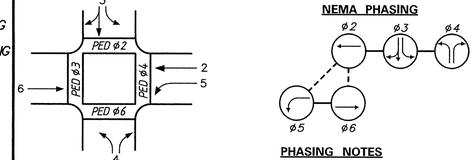
* FIELD ADJUST AS NECESSARY

REVISION PREPARED BY
CENTURY ENGINEERING INC.
6/29/21
THIS SEAL APPLIES TO SHEET MODIFICATIONS UNDER REVISION #2
DATE
SEAL
BRET A. MARTINE ... No. 11947 ... PROFESSIONAL ENGINEER

PROPOSED OVERHEAD SIGNING

S-1: (R3-1) 36"x36"
S-2: (R3-2) 36"x36"
S-3**: Greenbank Rd / Greenbank Rd (D3-1) 78"x18" 8" & 6" D-SERIES BACK-TO-BACK
S-4: (R3-27) 36"x36"
S-5**: Centerville Rd / Centerville Rd (D3-1) 84"x18" 8" & 6" D-SERIES BACK-TO-BACK
** FREE-SWINGING MOUNTS

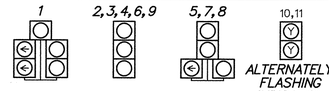
SIGNAL PHASING



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

SIGNAL HEAD DIAGRAM

*ALL EXISTING SPAN WIRE MOUNTED SIGNAL HEADS SHALL BE REMOVED



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

ADDITIONAL LEGEND
[2] CCTV CAMERA

GENERAL SIGNAL NOTES

1. PROPOSED LOOP DETECTORS:
   TYPE *1 - 6' x 6' - TO BE INSTALLED ON CENTERVILLE ROAD THROUGH MOVEMENTS.
   TYPE *2 - 6' x 25' - TO BE INSTALLED ON NB CENTERVILLE ROAD LEFT-TURN AND GREENBANK THROUGH AND LEFT-TURN MOVEMENTS.
   SYSTEM - 6' x 6' - TO BE INSTALLED IN GREENBANK ROAD AND CENTERVILLE ROAD RECEIVING LANES, AS SHOWN.
2. ALL PROPOSED SIGNAL POLES ARE DELDOT MAST ARMS.
3. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
4. POLE BASES AND CABINET BASE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
5. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
6. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
7. ALL CONDUITS SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING AND SCHEDULE 80 HDPE WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED.

RECOMMENDED _____ DATE: _____
RECOMMENDED _____ DATE: _____
RECOMMENDED _____ DATE: 10/13/14
APPROVED TRAFFIC ENGINEER _____ DATE: 10/14/14
APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 10/16/14

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS
[1] SIGNAL REBUILD - ADDED MAST ARMS, SYSTEM LOOPS, AND CDMA AND RECONSTRUCTED PED PHASES 2, 3, 4, AND 6 PER ADA/MUTCD. D.W.C. (WR&A) 10-14 (CONTRACT *T201206106)
[2] INSTALLED PROPOSED CCTV ON EXISTING MAST ARM POLE UTILIZING EXISTING CONDUIT PATHWAY & EXISTING SIGNAL CABINET M.KUBOVCIK (CEI) 06/28/21 - (CONTRACT T202100505)

SCALE 0 30 60 90 FEET

PAVEMENT & REHABILITATION
NORTH VI, 2012
(LOCATION 2)

CONTRACT T201206106
COUNTY NEW CASTLE
PERMIT NO. [2] N382 & NCAM230
DESIGNED BY: D.W.C. (WR&A)
CHECKED BY: M.J.B. (WR&A)

SIGNAL PLAN
CENTERVILLE ROAD @ GREENBANK ROAD

SHEET NO. 1
TOTAL SHTS. 2

N:\33716-01\CADD\SG382_Greenbank.dgn
10/13/2014 8:10:46 AM

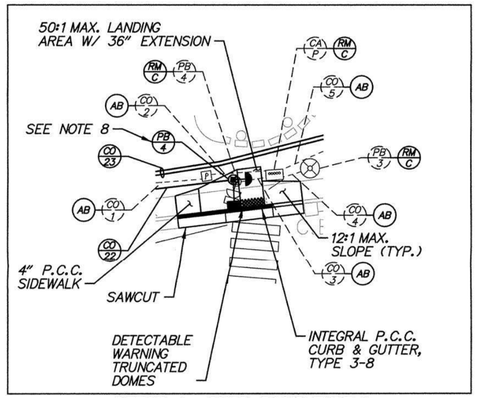
CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
12*	1	2.5 IN	92 FT	-	<REMOVE EX. (3) 9/#14, EX. (4) 4/#18, EX. (1) 4/#14>, (2) 5/#14, (2) 2/#14, (1) #6 GROUND
13*	1	1.5 IN	86 FT	-	<REMOVE EX. (1) 4/#18>, (1) 2/#14, (1) #6 GROUND
14*	1	2.5 IN	86 FT	-	<REMOVE EX. (1) 4/#18>, (1) 2/#14, (1) #6 GROUND
15*	1	1.5 IN	249 FT	-	<REMOVE EX. (1) 4/#14>, (1) 4/#14, (2) 2/#14, (1) #6 GROUND
16*	1	1.5 IN	117 FT	-	<REMOVE EX. (1) 4/#14>, (1) 4/#14, (1) #6 GROUND
17*	1	1.5 IN	90 FT	-	<REMOVE EX. (1) 4/#18>, (1) 2/#14, (1) #6 GROUND
18*	1	2.5 IN	71 FT	-	<REMOVE EX. (1) 4/#18>, (1) 2/#14, (1) #6 GROUND
19**	1	2.0 IN	20 FT	T	(1) 2/#8 U.F. W/GROUND - LINE SIDE
20**	1	2.0 IN	10 FT	T	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
21	4	4.0 IN	6 FT	T	(4) 9/#14, (4) 4/#18, (8) 5/#14, (2) 4/#14, (11) 2/#14, (4) #6 GROUND
22	1	2.5 IN	72 FT	T	(1) 5/#14, (1) #6 GROUND NEW (1) CAT5E COMM CABLE [2]
22	1	2.5 IN	72 FT	T	(1) 5/#14, (1) #6 GROUND
23	2	4.0 IN	111 FT	T	(4) 9/#14, (4) 4/#18, (7) 5/#14, (2) 4/#14, (10) 2/#14, (2) #6 GROUND NEW (1) CAT5E COMM CABLE [2]
24	1	3.0 IN	11 FT	T	(2) 9/#14, (2) 4/#18, (1) 4/#14, (1) #6 GROUND NEW (1) CAT5E COMM CABLE [2]
25	1	2.5 IN	13 FT	T	(1) 5/#14, (1) #6 GROUND
26	2	4.0 IN	66 FT	B	(2) 9/#14, (2) 4/#18, (4) 5/#14, (1) 4/#14, (6) 2/#14, (2) #6 GROUND
27	1	4.0 IN	16 FT	T	(2) 5/#14, (1) 2/#14, (1) #6 GROUND
28	1	2.5 IN	4 FT	T	(2) 5/#14, (1) #6 GROUND
29	1	4.0 IN	87 FT	B	(2) 9/#14, (2) 4/#18, (2) 5/#14, (1) 4/#14, (4) 2/#14, (1) #6 GROUND
30	1	2.5 IN	4 FT	T	(2) 5/#14, (1) #6 GROUND
31	1	3.0 IN	6 FT	T	(2) 9/#14, (2) 4/#18, (1) #6 GROUND
32	1	2.5 IN	2 FT	T	(2) 5/#14, (1) #6 GROUND

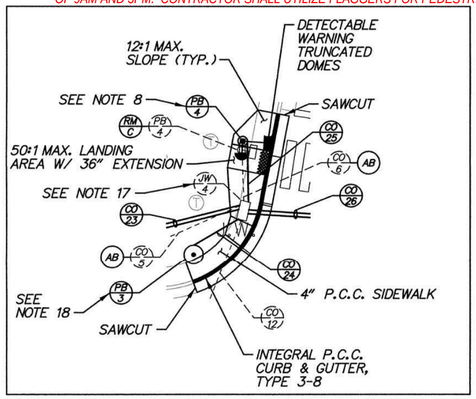
ALL CABLES ARE NEW UNLESS OTHERWISE NOTED — B = BORE, T = TRENCH, O = OPEN CUT
* DENOTES EXISTING CONDUIT
** PROPOSED RIGID GALVANIZED STEEL CONDUIT

NOTES:

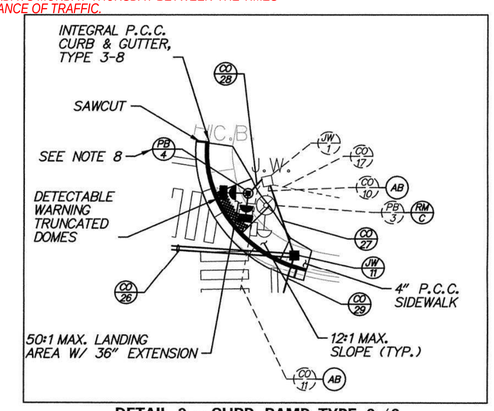
8. PROPOSED PEDESTRIAN POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/ SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
9. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
10. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON THE ARCHIVED PLANS FOR CONTRACT NO. 21-011-03.
11. IF GRADING WILL BE STEEPER THAN 6:1 ADJACENT TO THE CURB RAMP OR SIDEWALK, THEN A TYPE 1-8 CURB OR RETAINING WALL SHOULD BE USED TO ELIMINATE THE NEED FOR THE STEEP SLOPE.
12. EXISTING CONDUIT RUNS NOS. 1-11 SHALL BE ABANDONED AND ALL EXISTING CABLES SHALL BE REMOVED.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND SIGNAL EQUIPMENT - E.G., JUNCTION WELLS, CABINET AND POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT - E.G., HEADS, OPTICOM RECEIVERS, SPAN WIRES, SERVICE PEDESTAL, POLES, MAST ARMS, AND CABINET.
14. DELDOT TRAFFIC SHALL ADJUST THE SIGNAL HEADS IN THE MAST ARM BRACKETS SO THAT THE BOTTOM OF THE SIGNAL HOUSINGS ARE AT LEAST 16'-0" ABOVE THE PAVEMENT.
15. DELDOT TRAFFIC SHALL INSTALL A CDMA IN THE PROPOSED SIGNAL CABINET.
16. DELDOT TRAFFIC SHALL SPLICE THE PROPOSED 4/#14 CABLE TO THE EXISTING FLASHERS.
17. THE CONTRACTOR SHALL ADJUST THE EXISTING JUNCTION WELL, TYPE 4, TO BE FLUSH WITH THE PROPOSED CURB RAMP, TYPE 2.
18. THE CONTRACTOR SHALL INSTALL THE PROPOSED POLE BASE, TYPE 3, SO THAT IT IS FLUSH WITH THE ADJOINING PROPOSED P.C.C. SIDEWALK.
19. DELDOT TRAFFIC SHALL INSTALL PROPOSED CCTV CAMERA (PERMIT #NCAM230) ON EXISTING NORTHEAST MAST ARM POLE.
20. CAMERA EQUIPMENT SHALL BE INSTALLED IN THE EXISTING SIGNAL CONTROLLER CABINET (PERMIT #N382). [2]
21. FOR THE DURATION OF SIGNAL CONSTRUCTION, THE CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 47A, FIGURE 6H-47A FOR TRAFFIC CONTROL OPERATIONS. ANY LANE RESTRICTIONS SHALL BE LIMITED TO WEEKDAYS MONDAY-THURSDAY BETWEEN THE TIMES OF 9AM AND 3PM. CONTRACTOR SHALL UTILIZE FLAGGERS FOR PEDESTRIAN MAINTENANCE OF TRAFFIC. [2]



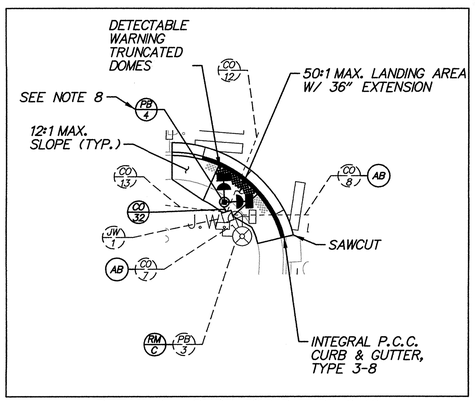
DETAIL 1 – CURB RAMP, TYPE 2
SCALE: 1" = 15'



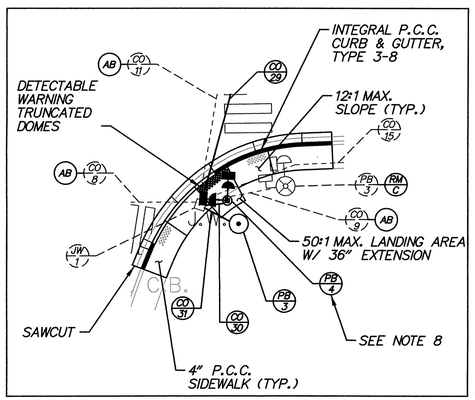
DETAIL 2 – CURB RAMP, TYPE 2
SCALE: 1" = 15'



DETAIL 3 – CURB RAMP, TYPE 2 / 3
SCALE: 1" = 15'



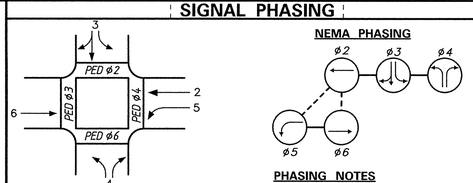
DETAIL 4 – CURB RAMP, TYPE 2 / 3
SCALE: 1" = 15'



DETAIL 5 – CURB RAMP, TYPE 2 / 3
SCALE: 1" = 15'

REVISION PREPARED BY
CENTURY ENGINEERING INC.
6/29/21
THIS SEAL APPLIES TO SHEET MODIFICATIONS UNDER REVISION #2
DATE
BRET A. MARTINO, No. 11947, DELAWARE, PROFESSIONAL ENGINEER
SEAL

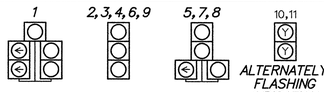
SIGNAL PHASING



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

SIGNAL HEAD DIAGRAM

*ALL EXISTING SPAN WIRE MOUNTED SIGNAL HEADS SHALL BE REMOVED



LEGEND

(AB) ABANDON	(OH) EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
(CA X) EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	(OH *) PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
(CA X) PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	(PB X) EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
(CO *) EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	(PB X) PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
(CO *) PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	(PL X) EXISTING POLE IDENTIFIER (* OF POLE)
(JW X) EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	(PL X) PROPOSED POLE IDENTIFIER (* OF POLE)
(JW X) PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	(RM C) REMOVE BY CONTRACTOR
(MA XX) EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	(RM O) REMOVE BY OTHERS
(MA XX) PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	(RM TC) REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		□
LOOP DETECTOR, TYPE 2		▭
LUMINAIRE	—○	—✦
MAST ARM		➤
MICROWAVE DETECTION	—◂	—◂
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING		—⊣
PEDESTRIAN POLE/BASE	⊙	⊗
PEDESTRIAN PUSHBUTTON	—▷	⟶
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY	————	—R/W—
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD	—▷	⟶
SIGNAL POLE/BASE	⊗	⊙
SPAN INSULATOR	◇	◆
SPAN WIRE	—XX—	—◇—
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. PROPOSED LOOP DETECTORS:
   TYPE #1 - 6' x 6' - TO BE INSTALLED ON CENTERVILLE ROAD THROUGH MOVEMENTS.
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON NB CENTERVILLE ROAD LEFT-TURN AND GREENBANK THROUGH AND LEFT-TURN MOVEMENTS.
   SYSTEM - 6' x 6' - TO BE INSTALLED IN GREENBANK ROAD AND CENTERVILLE ROAD RECEIVING LANES, AS SHOWN.
2. ALL PROPOSED SIGNAL POLES ARE DELDOT MAST ARMS.
3. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
4. POLE BASES AND CABINET BASE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
5. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
6. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTEYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
7. ALL CONDUITS SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING AND SCHEDULE 80 HDPE WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED.

RECOMMENDED _____ DATE: _____
RECOMMENDED _____ DATE: _____
RECOMMENDED _____ DATE: 10/13/14
APPROVED TRAFFIC ENGINEER _____ DATE: 10/14/14
APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 10/16/14

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS
[1] SIGNAL REBUILD - ADDED MAST ARMS, SYSTEM LOOPS, AND CDMA AND RECONSTRUCTED PED PHASES 2, 3, 4, AND 6 PER ADA/MUTCD. D.W.C. (WR&A) 10-14 (CONTRACT #T201206106)
[2] INSTALLED PROPOSED CCTV ON EXISTING MAST ARM POLE UTILIZING EXISTING CONDUIT PATHWAY & EXISTING SIGNAL CABINET M.KUBOVCIK (CEI) 06/28/21 - (CONTRACT T202100505)

SCALE 0 30 60 90 FEET

PAVEMENT & REHABILITATION NORTH VI, 2012 (LOCATION 2)

CONTRACT	T201206106
COUNTY	NEW CASTLE
PERMIT NO. [2]	N382 & NCAM230
DESIGNED BY:	D.W.C. (WR&A)
CHECKED BY:	M.J.B. (WR&A)

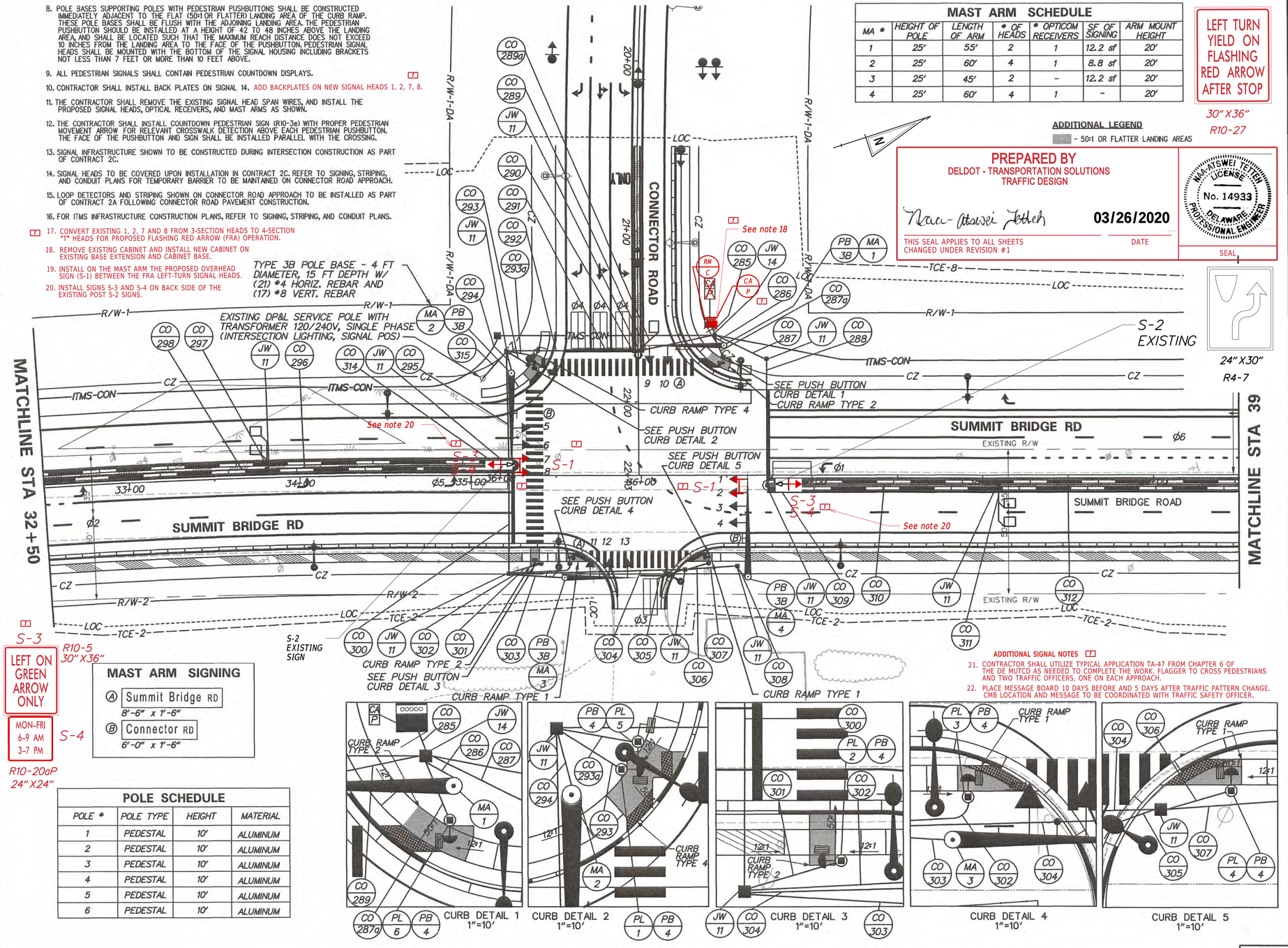
SIGNAL PLAN CENTERVILLE ROAD @ GREENBANK ROAD

SHEET NO.	2
TOTAL SHTS.	2

N:\31716-010\CADD\SG382_Greenbank_02.dgn
10/13/2014 8:02:02 AM

GENERAL SIGNAL NOTES (CONT'D)

8. POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (5D:1 OR FLATTER) LANDING AREA OF THE CURB RAMP. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE.
9. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
10. CONTRACTOR SHALL INSTALL BACK PLATES ON SIGNAL 14. ADD BACKPLATES ON NEW SIGNAL HEADS 1, 2, 7, 8.
11. THE CONTRACTOR SHALL REMOVE THE EXISTING SIGNAL HEAD SPAN WIRES, AND INSTALL THE PROPOSED SIGNAL HEADS, OPTICAL RECEIVERS, AND MAST ARMS AS SHOWN.
12. THE CONTRACTOR SHALL INSTALL COUNTDOWN PEDESTRIAN SIGN (R10-3e) WITH PROPER PEDESTRIAN MOVEMENT ARROW FOR RELEVANT CROSSWALK DETECTION ABOVE EACH PEDESTRIAN PUSHBUTTON. THE FACE OF THE PUSHBUTTON AND SIGN SHALL BE INSTALLED PARALLEL WITH THE CROSSING.
13. SIGNAL INFRASTRUCTURE SHOWN TO BE CONSTRUCTED DURING INTERSECTION CONSTRUCTION AS PART OF CONTRACT 2C.
14. SIGNAL HEADS TO BE COVERED UPON INSTALLATION IN CONTRACT 2C. REFER TO SIGNING, STRIPING, AND CONDUIT PLANS FOR TEMPORARY BARRIER TO BE MAINTAINED ON CONNECTOR ROAD APPROACH.
15. LOOP DETECTORS AND STRIPING SHOWN ON CONNECTOR ROAD APPROACH TO BE INSTALLED AS PART OF CONTRACT 2A FOLLOWING CONNECTOR ROAD PAVEMENT CONSTRUCTION.
16. FOR ITMS INFRASTRUCTURE CONSTRUCTION PLANS, REFER TO SIGNING, STRIPING, AND CONDUIT PLANS.
17. CONVERT EXISTING 1, 2, 7 AND 8 FROM 3-SECTION HEADS TO 4-SECTION "T" HEADS FOR PROPOSED FLASHING RED ARROW (FRA) OPERATION.
18. REMOVE EXISTING CABINET AND INSTALL NEW CABINET ON EXISTING BASE EXTENSION AND CABINET BASE.
19. INSTALL ON THE MAST ARM THE PROPOSED OVERHEAD SIGN (S-1) BETWEEN THE FRA LEFT-TURN SIGNAL HEADS.
20. INSTALL SIGNS S-3 AND S-4 ON BACK SIDE OF THE EXISTING POST S-2 SIGNS.



MAST ARM SCHEDULE

MA #	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1	25'	55'	2	1	12.2 sf	20'
2	25'	60'	4	1	8.8 sf	20'
3	25'	45'	2	-	12.2 sf	20'
4	25'	60'	4	1	-	20'

S-1

LEFT TURN YIELD ON FLASHING RED ARROW AFTER STOP

30"X36"

R10-27

ADDITIONAL LEGEND

▒ - 50:1 OR FLATTER LANDING AREAS

S-3

LEFT ON GREEN ARROW ONLY

R10-5 30"X36"

S-4

MON-FRI 6-9 AM 3-7 PM

R10-20aP 24"X24"

MAST ARM SIGNING

Ⓐ Summit Bridge RD 8'-6" x 1'-6"

Ⓑ Connector RD 6'-0" x 1'-6"

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
1	PEDESTAL	10'	ALUMINUM
2	PEDESTAL	10'	ALUMINUM
3	PEDESTAL	10'	ALUMINUM
4	PEDESTAL	10'	ALUMINUM
5	PEDESTAL	10'	ALUMINUM
6	PEDESTAL	10'	ALUMINUM

ADDITIONAL SIGNAL NOTES

21. CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION TA-47 FROM CHAPTER 6 OF THE DE MUTCD AS NEEDED TO COMPLETE THE WORK. FLAGGER TO CROSS PEDESTRIANS AND TWO TRAFFIC OFFICERS, ONE ON EACH APPROACH.
22. PLACE MESSAGE BOARD 10 DAYS BEFORE AND 5 DAYS AFTER TRAFFIC PATTERN CHANGE. CMB LOCATION AND MESSAGE TO BE COORDINATED WITH TRAFFIC SAFETY OFFICER.

PREPARED BY
DELDOT - TRANSPORTATION SOLUTIONS
TRAFFIC DESIGN

Nawa Atoswei Tetteh — 03/26/2020

THIS SEAL APPLIES TO ALL SHEETS CHANGED UNDER REVISION #1

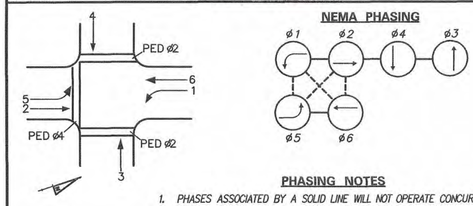
DATE

NAWA ATOSWEI TETTEH LICENSE No. 14933 DELAWARE PROFESSIONAL ENGINEER

SEAL

S-2 EXISTING 24"X30" R4-7

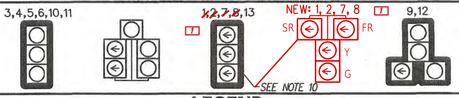
SIGNAL PHASING



PHASING NOTES

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

SIGNAL HEAD DIAGRAM



LEGEND

- PROPOSED SIGNAL CABINET
- EXISTING SIGNAL CABINET
- PROPOSED SIGNAL POLE BASE
- EXISTING SIGNAL POLE BASE
- PROPOSED PEDESTRIAN POLE BASE
- EXISTING PEDESTRIAN POLE BASE
- PROPOSED WOOD POLE
- EXISTING UTILITY POLE
- PROPOSED JUNCTION WELL
- EXISTING JUNCTION WELL
- PROPOSED SIGNAL HEAD
- EXISTING SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSHBUTTON
- EXISTING PEDESTRIAN PUSHBUTTON
- PROPOSED VIDEO DETECTION
- EXISTING VIDEO DETECTION
- PROPOSED MICROWAVE DETECTION
- EXISTING MICROWAVE DETECTION
- OVERHEAD SIGNING
- PROPOSED OPTICOM RECEIVER
- EXISTING OPTICOM RECEIVER
- PROPOSED MAST ARM
- EXISTING MAST ARM
- PROPOSED LUMINAIRE
- EXISTING LUMINAIRE
- PROPOSED LOOP DETECTOR (TYPE 1 OR 2)
- EXISTING LOOP DETECTOR (TYPE 1 OR 2)
- REMOVE BY CONTRACTOR
- REMOVE BY OTHERS
- ABANDON
- PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
- PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
- PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)
- EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)
- PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
- EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
- PROPOSED SPAN WIRE
- EXISTING SPAN WIRE
- RIGHT-OF-WAY OR PROPERTY LINE
- PROPOSED SPAN INSULATOR
- EXISTING SPAN INSULATOR
- SERVICE PEDESTAL

GENERAL SIGNAL NOTES

1. DETECTION - 50 M.P.H. - 5 SECONDS PASSAGE TIME AT 365 FEET FROM STOP BAR.
2. LOOP DETECTORS:
   TYPE #1 - 6' x 6' - TO BE INSTALLED ON MAIN STREET THROUGH MOVEMENTS.
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON MAIN STREET LEFT TURN MOVEMENTS.
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON SIDE STREET LEFT TURN MOVEMENTS.
3. ALL SIGNAL POLES WILL BE MAST ARMS.
4. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
5. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
6. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
7. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

SG04

RECOMMENDED _____ DATE: 11/9/16

RECOMMENDED _____ DATE: 10.26.16

APPROVED TRAFFIC ENGINEER _____ DATE: 10/20/16

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: 10/26/16

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

ADDED FRA (FLASHING RED ARROW) FOR NB AND SB SR 71 (3-2020-BAC)	

SCALE 0 30 60 90 FEET

SUMMIT BRIDGE ROAD AND ARMSTRONG CORNER ROAD INTERSECTION IMPROVEMENTS

CONTRACT	T201011301	
COUNTY	NEW CASTLE	
PERMIT NO.	N787	
DESIGNED BY:	KVH	
CHECKED BY:	STS	

SIGNAL PLAN SUMMIT BRIDGE RD (DE 71) INTERCHANGE CONNECTOR RD

SHEET NO.	SG04
	194
TOTAL SHTS.	197

S:\PROJECTS\TRANSPORTATION\NEW CASTLE\301\ROAD\T201011301\PLANS\SG\SG04.DGN