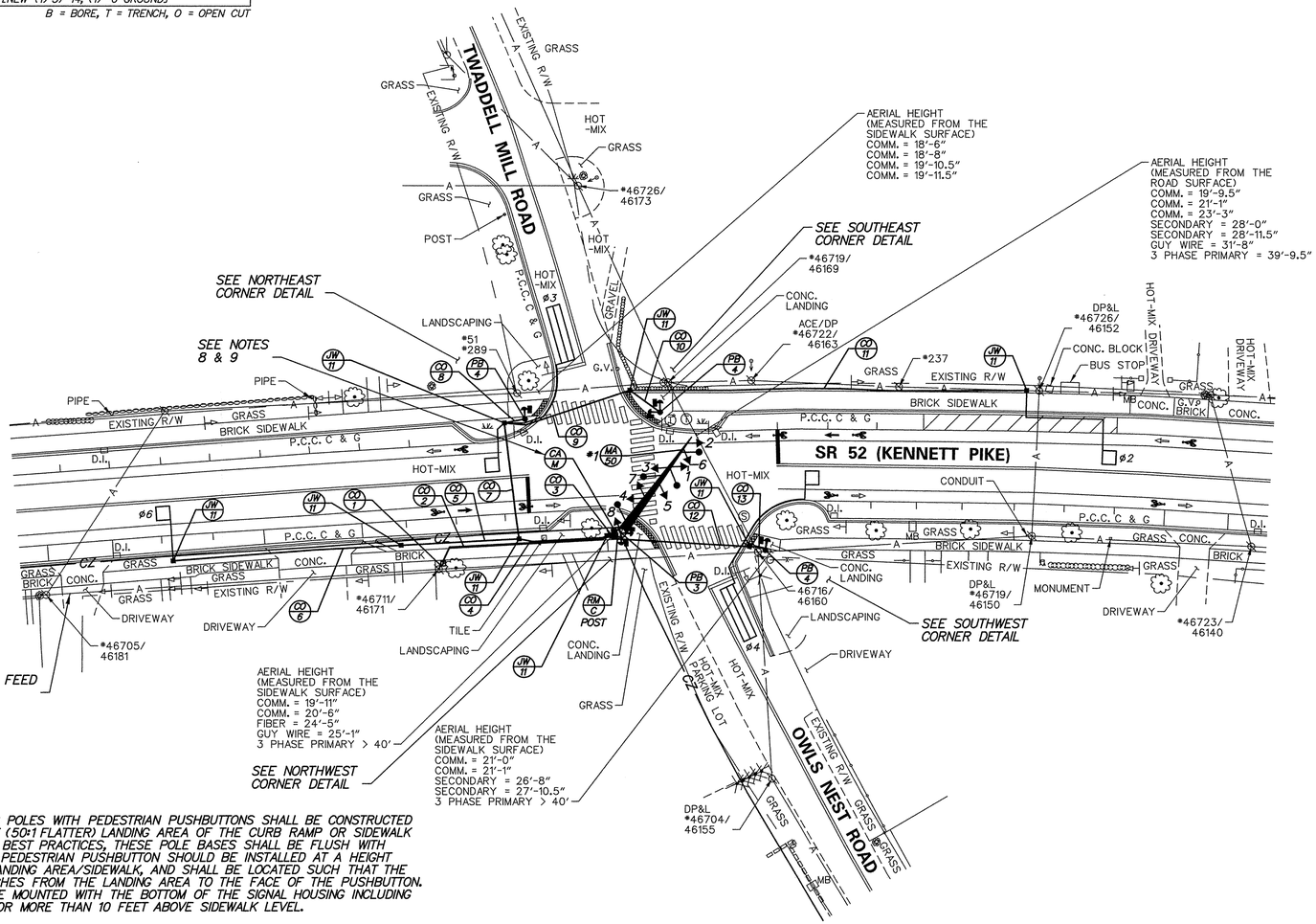
CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
1	1	2.0 IN	3 FT	T	[NEW (1) 2/#8 U.F. W/ GROUND - LINE SIDE]
2	1	2.0 IN	77 FT	O/T	[NEW (1) 2/#8 U.F. W/ GROUND - LOAD SIDE]
3	2	3.0 IN	4 FT	T	[NEW (4) 5/#14, (6) 2/#14, (1) #6 GROUND]
					[NEW (1) 2/#8 U.F. W/GROUND - LOAD SIDE]
4	1	4.0 IN	39 FT	T	[NEW (3) 5/#14, (4) 2/#14, (1) #6 GROUND]
5	1	4.0 IN	52 FT	T	[NEW (1) 2/#14, (1) #6 GROUND]
6	1	4.0 IN	101 FT	B	[NEW (1) 2/#14, (1) #6 GROUND]
7	1	4.0 IN	52 FT	B	[NEW (3) 5/#14, (3) 2/#14, (1) #6 GROUND]
8	1	2.5 IN	10 FT	T	[NEW (1) 5/#14, (1) #6 GROUND]
9	1	4.0 IN	58 FT	B	[NEW (2) 5/#14, (1) 2/#14, (1) #6 GROUND]
10	1	2.5 IN	17 FT	O	[NEW (2) 5/#14, (1) #6 GROUND]
11	1	4.0 IN	175 FT	T	[NEW (1) 2/#14, (1) #6 GROUND]
12	1	4.0 IN	64 FT	B	[NEW (1) 5/#14, (2) 2/#14, (1) #6 GROUND]
13	1	2.5 IN	8 FT	T	[NEW (1) 5/#14, (1) #6 GROUND]

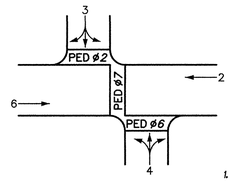
*ALL CONDUIT IS PROPOSED B = BORE, T = TRENCH, O = OPEN CUT

MAST ARM SCHEDULE

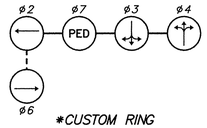
MA#	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1	21'-6"	50 FT	7	4	-	18'-0"



SIGNAL PHASING



NEMA PHASING



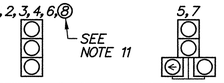
*CUSTOM RING

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 SIGNAL HEADS SHALL HAVE TUNNEL SHADES



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	JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	PROPOSED WOOD POLE	JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
	EXISTING UTILITY POLE	CO •	PROPOSED CONDUIT RUN IDENTIFIER (• OF CONDUIT RUN)
	PROPOSED JUNCTION WELL	CO •	EXISTING CONDUIT RUN IDENTIFIER (• OF CONDUIT RUN)
J.W.	EXISTING JUNCTION WELL	OH •	PROPOSED OVERHEAD RUN IDENTIFIER (• OF OVERHEAD RUN)
	PROPOSED SIGNAL HEAD	OH •	EXISTING OVERHEAD RUN IDENTIFIER (• OF OVERHEAD RUN)
	EXISTING SIGNAL HEAD	MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)
	PROPOSED PEDESTRIAN SIGNAL HEAD	MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)
	EXISTING PEDESTRIAN SIGNAL HEAD	CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
	PROPOSED PEDESTRIAN PUSHBUTTON	CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
	EXISTING PEDESTRIAN PUSHBUTTON		PROPOSED SPAN WIRE
	PROPOSED VIDEO DETECTION	XX	EXISTING SPAN WIRE
	EXISTING VIDEO DETECTION		RIGHT-OF-WAY OR PROPERTY LINE
	PROPOSED MICROWAVE DETECTION		PROPOSED SPAN INSULATOR
	EXISTING MICROWAVE DETECTION		EXISTING SPAN INSULATOR
	OVERHEAD SIGNING	P	SERVICE PEDESTAL
	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)		

GENERAL SIGNAL NOTES

1. PROPOSED LOOP DETECTORS:
   TYPE #1 - 6' x 6' - TO BE INSTALLED ON THE NORTHBOUND SR 52 THROUGH MOVEMENT.
   TYPE #1 - 6' x 6' - TO BE INSTALLED ON THE SOUTHBOUND SR 52 THROUGH MOVEMENT.
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON THE EASTBOUND OWLS NEST ROAD LEFT-TURN/RIGHT-TURN/THROUGH MOVEMENT.
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON THE WESTBOUND TWADDELL MILL ROAD LEFT-TURN/RIGHT-TURN/THROUGH MOVEMENT.
   SYSTEM - 6' x 6' - TO BE INSTALLED ON THE NORTHBOUND AND SOUTHBOUND SR 52 RECEIVING LANES, AS SHOWN.
2. 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.
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 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.
4. ALL PROPOSED SIGNAL POLES SHALL BE FLUTED ORNAMENTAL DELDOT MAST ARMS.

NOTES:

5. 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 THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
6. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
7. 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.
8. THE PROPOSED CABINET, TYPE M, SHALL BE MOUNTED TO THE PROPOSED SIGNAL POLE.
9. DELDOT TRAFFIC SHALL COORDINATE THE CDMA INSTALLATION IN THE PROPOSED SIGNAL CABINET.
10. THE PROPOSED POWER FEED SHALL RUN AERIALLY FROM UTILITY POLE #46705/46181 TO UTILITY POLE #46711/46171 AND CONTINUE THROUGH PROPOSED CONDUIT RUNS 1 AND 2.
11. PROPOSED SIGNAL HEAD NO. 8 SHALL BE MOUNTED TO THE PROPOSED MAST ARM UPRIGHT POLE USING A ONE-WAY SIDE POLE MOUNTING WITH THE BOTTOM OF THE SIGNAL HOUSING 10 FEET ABOVE THE FINISHED GRADE.

RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: 4/27/15	APPROVED TRAFFIC ENGINEER _____ DATE: 4/28/15

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 11/24/15

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

CONTRACT	PERMIT NO.	N812	SIGNAL PLAN SR 52 (KENNETT PIKE) @ TWADDELL MILL ROAD/ OWLS NEST ROAD	SHEET NO.
T201501002	DESIGNED BY: D.C.G. (WR&A)			1
COUNTY	CHECKED BY: M.J.B. (WR&A)			TOTAL SHTS.
NEW CASTLE				3

M:\3811-08\CADD\SR 52 @ Twaddell Mill Rd\SIG01_SR52 @ Twaddell Mill Rd.dgn
4/27/2015 10:09:09 AM

CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
1	1	2.0 IN	3 FT	T	[NEW (1) 2/#8 U.F. W/ GROUND - LINE SIDE]
2	1	2.0 IN	77 FT	O/T	[NEW (1) 2/#8 U.F. W/ GROUND - LOAD SIDE]
3	2	3.0 IN	4 FT	T	[NEW (4) 5/#14, (6) 2/#14, (1) #6 GROUND] [NEW (1) 2/#8 U.F. W/GROUND - LOAD SIDE]
4	1	4.0 IN	39 FT	T	[NEW (3) 5/#14, (4) 2/#14, (1) #6 GROUND]
5	1	4.0 IN	52 FT	T	[NEW (1) 2/#14, (1) #6 GROUND]
6	1	4.0 IN	101 FT	B	[NEW (1) 2/#14, (1) #6 GROUND]
7	1	4.0 IN	52 FT	B	[NEW (3) 5/#14, (3) 2/#14, (1) #6 GROUND]
8	1	2.5 IN	10 FT	T	[NEW (1) 5/#14, (1) #6 GROUND]
9	1	4.0 IN	58 FT	B	[NEW (2) 5/#14, (1) 2/#14, (1) #6 GROUND]
10	1	2.5 IN	17 FT	O	[NEW (2) 5/#14, (1) #6 GROUND]
11	1	4.0 IN	175 FT	T	[NEW (1) 2/#14, (1) #6 GROUND]
12	1	4.0 IN	64 FT	B	[NEW (1) 5/#14, (2) 2/#14, (1) #6 GROUND]
13	1	2.5 IN	8 FT	T	[NEW (1) 5/#14, (1) #6 GROUND]

*ALL CONDUIT IS PROPOSED B = BORE, T = TRENCH, O = OPEN CUT

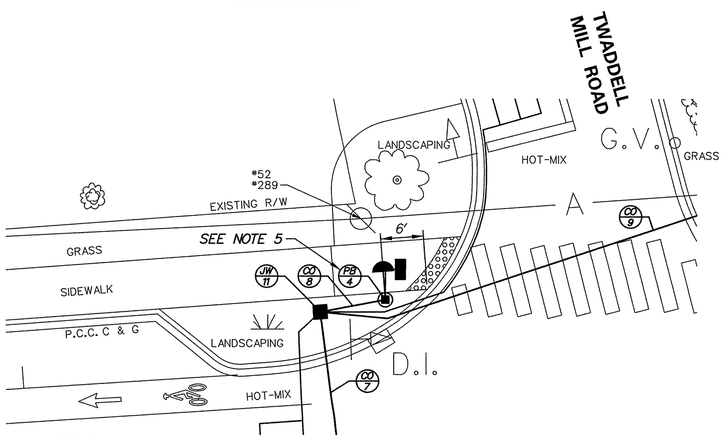
MAST ARM SCHEDULE

MA*	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1	21'-6"	50 FT	7	4	-	18'-0"

NOTES:

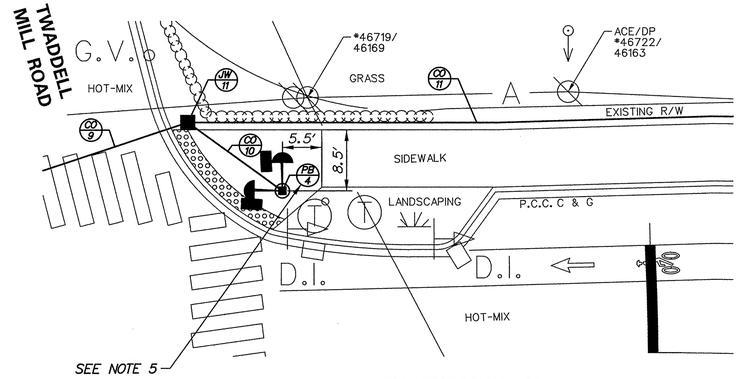
5. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN 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 THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
6. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
7. 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.
8. THE PROPOSED CABINET, TYPE M, SHALL BE MOUNTED TO THE PROPOSED SIGNAL POLE.
9. DELDOT TRAFFIC SHALL COORDINATE THE CDMA INSTALLATION IN THE PROPOSED SIGNAL CABINET.
10. THE PROPOSED POWER FEED SHALL RUN AERIALLY FROM UTILITY POLE #46705/46181 TO UTILITY POLE #46711/46171 AND CONTINUE THROUGH PROPOSED CONDUIT RUNS 1 AND 2.
11. PROPOSED SIGNAL HEAD NO. 8 SHALL BE MOUNTED TO THE PROPOSED MAST ARM UPRIGHT POLE USING A ONE-WAY SIDE POLE MOUNTING WITH THE BOTTOM OF THE SIGNAL HOUSING 10 FEET ABOVE THE FINISHED GRADE.

NORTHEAST CORNER DETAIL



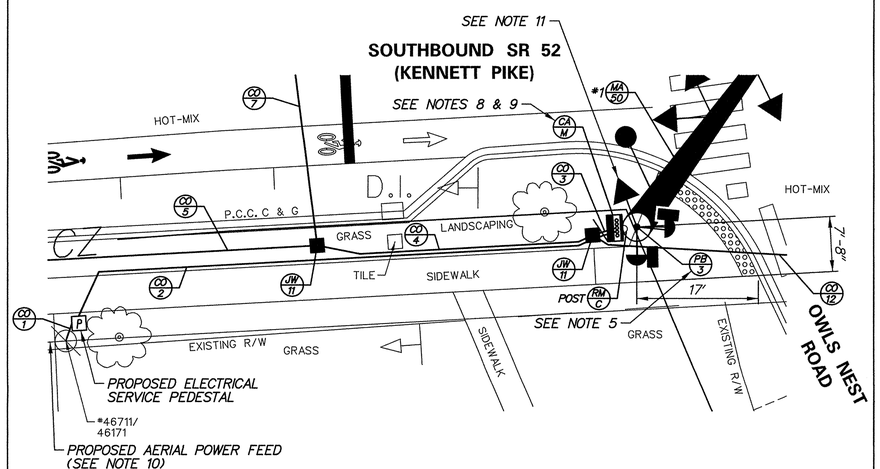
NORTHBOUND SR 52
(KENNETT PIKE)

SOUTHEAST CORNER DETAIL

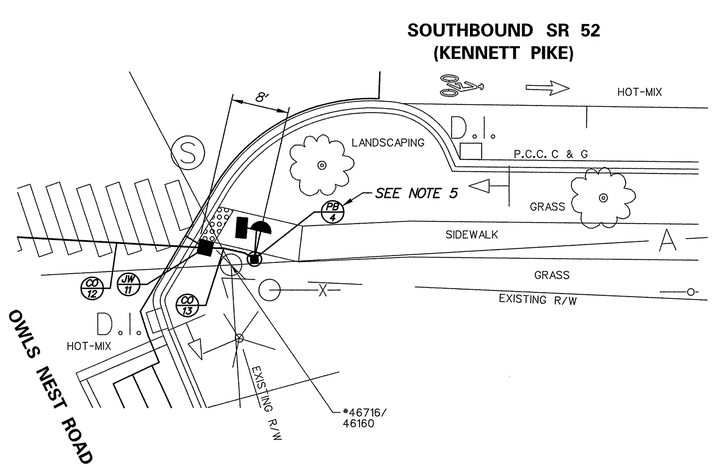


NORTHBOUND SR 52
(KENNETT PIKE)

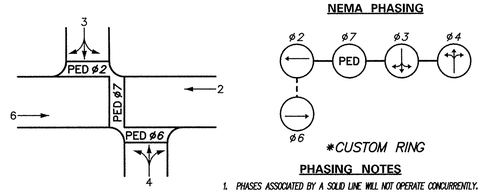
NORTHWEST CORNER DETAIL



SOUTHWEST CORNER DETAIL



SIGNAL PHASING

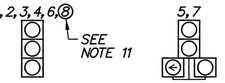


PHASING NOTES

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 SIGNAL HEADS SHALL HAVE TUNNEL SHADES



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 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)			

GENERAL SIGNAL NOTES

1. PROPOSED LOOP DETECTORS:
   TYPE #1 - 6' x 6' - TO BE INSTALLED ON THE NORTHBOUND SR 52 THROUGH MOVEMENT.
   TYPE #1 - 6' x 6' - TO BE INSTALLED ON THE SOUTHBOUND SR 52 THROUGH MOVEMENT.
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON THE EASTBOUND OWLS NEST ROAD LEFT-TURN/RIGHT-TURN/THROUGH MOVEMENT.
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON THE WESTBOUND TWADDELL MILL ROAD LEFT-TURN/RIGHT-TURN/THROUGH MOVEMENT.
   SYSTEM - 6' x 6' - TO BE INSTALLED ON THE NORTHBOUND AND SOUTHBOUND SR 52 RECEIVING LANES, AS SHOWN.
2. 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.
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 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.
4. ALL PROPOSED SIGNAL POLES SHALL BE FLUTED ORNAMENTAL DELDOT MAST ARMS.

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: 4/22/15

APPROVED TRAFFIC ENGINEER _____ DATE: 4/29/15

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 11/24/15

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE
0 10 20 30
FEET

CONTRACT	T201501002	PERMIT NO.	N812
COUNTY	NEW CASTLE	DESIGNED BY: D.C.G. (WR&A)	
		CHECKED BY: M.J.B. (WR&A)	

SIGNAL PLAN DETAILS SR 52 (KENNETT PIKE) @ TWADDELL MILL ROAD/ OWLS NEST ROAD

SHEET NO.	TOTAL SHTS.
2	3

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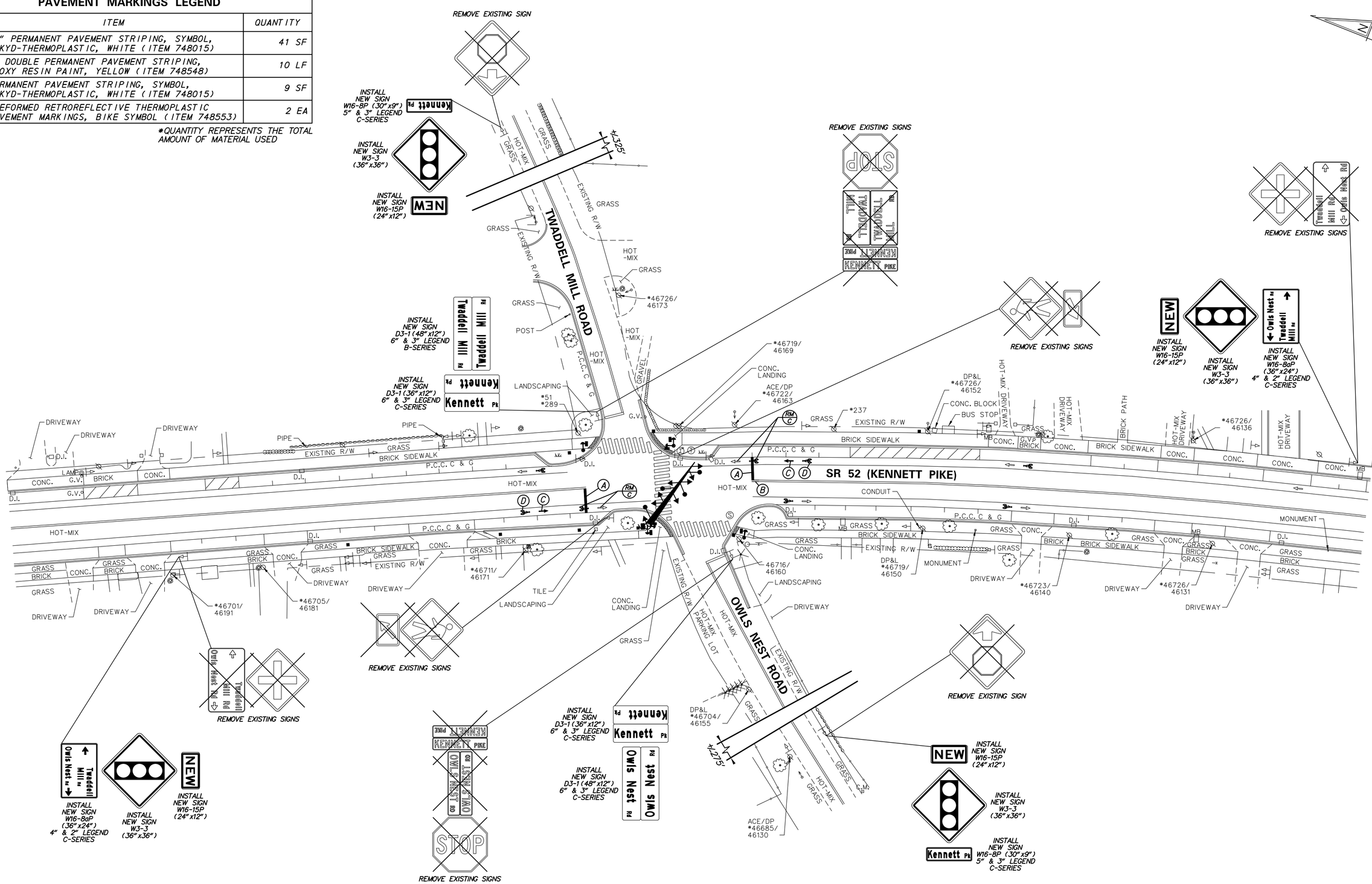
PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
(A)	16" PERMANENT PAVEMENT STRIPING, SYMBOL, ALKYD-THERMOPLASTIC, WHITE (ITEM 748015)	41 SF
(B)	5" DOUBLE PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, YELLOW (ITEM 748548)	10 LF
(C)	PERMANENT PAVEMENT STRIPING, SYMBOL, ALKYD-THERMOPLASTIC, WHITE (ITEM 748015)	9 SF
(D)	PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, BIKE SYMBOL (ITEM 748553)	2 EA

*QUANTITY REPRESENTS THE TOTAL AMOUNT OF MATERIAL USED



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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

SR 52 (KENNETT PIKE) @ TWADDELL MILL ROAD/ OWLS NEST ROAD

CONTRACT	PERMIT NO.	N812
T201501002	DESIGNED BY: D.C.G. (WR&A)	
COUNTY	CHECKED BY: M.J.B. (WR&A)	
NEW CASTLE		

SIGNING AND STRIPING PLAN

SS01
SHEET NO. 3
TOTAL SHTS. 3