

03-05-2021 LETTING ITEM 142

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21*	1
		ILLINOIS	CONTRACT NO. 68G06	

\* 21 + 1 = 22 TOTAL SHEETS

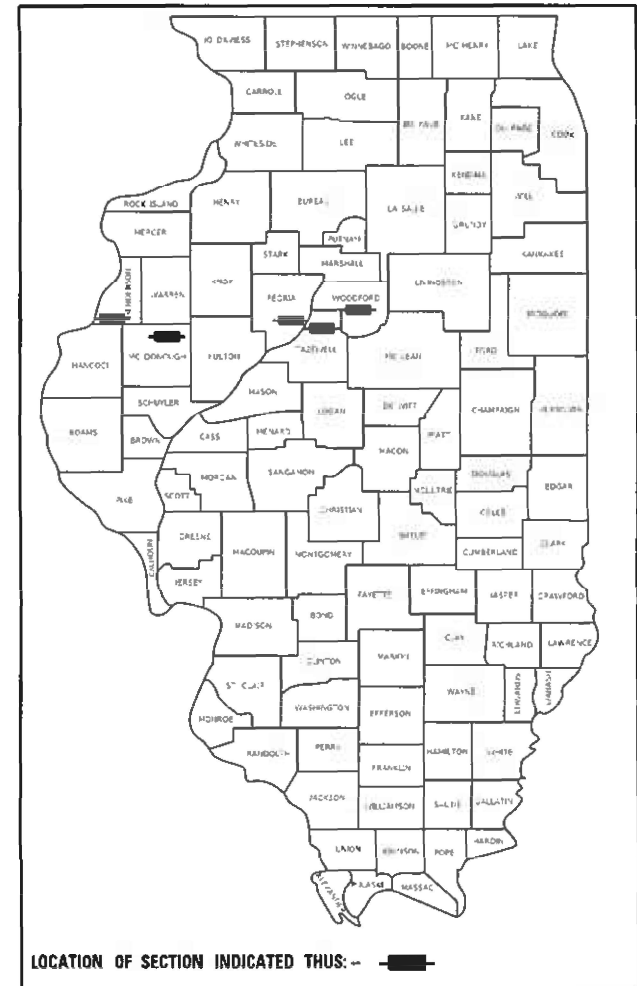
D-94-008-21

INDEX OF SHEETS:  
SEE SHEET 2 FOR INDEX OF SHEETS

# PROPOSED HIGHWAY PLANS

D4 SIGNAL INSTALLATION 2021  
PROJECT NUMBER: HSIP-CNQN(639)  
VARIOUS ROUTES  
VARIOUS COUNTIES

C-94-011-21



HIGHWAY STANDARDS:  
SEE SHEET 2 FOR A LIST OF  
APPLICABLE HIGHWAY STANDARDS

PROJECT DESCRIPTION:  
INSTALLATION OF DILEMMA ZONE DETECTION  
AND LED LIGHTING AT VARIOUS SIGNALIZED  
INTERSECTIONS IN DISTRICT 4.



J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS  
1-800-892-0123  
OR 811

PROJECT ENGINEER : ERIC HOWALD (309) 671-4481  
PROJECT MANAGER : BEN TELLEFSON (309) 671-4477  
CATALOG NO. 036122-00D  
CONTRACT NO. 68G06

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED Oct 16 2020  
Kenel A. Garnett RSD  
REGIONAL ENGINEER

December 4, 2020  
Eric A. Howald  
ENGINEER OF DESIGN AND ENVIRONMENT

December 4, 2020  
James J. ...  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

NO COMMITMENTS HAVE BEEN MADE IN CONJUNCTION WITH THIS PROJECT.

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21	PROPOSED LED LUMINAIRE PERFORMANCE TABLE

HIGHWAY STANDARDS	
000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS	
001006	DECIMAL OF AN INCH AND OF A FOOT
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY
701422-10	LANE CLOSURE, MULTILANE, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≥ 45 MPH
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≤ 40 MPH
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-08	TRAFFIC CONTROL DEVICES
821101-02	LUMINAIRE WIRING IN POLE
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
873001-02	TRAFFIC SIGNAL GROUNDING & BONDING
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS

- 701001-02 OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
- 701006-05 OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701101-05 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701106-02 OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**COMMITMENTS, INDEX OF SHEETS, AND HIGHWAY STANDARDS**

SCALE:      SHEET      OF      SHEETS      STA.      TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	2
ILLINOIS			FED. AID PROJECT	

**CONSTRUCTION NOTES**

1. THE LOCATION OF ALL UTILITIES AND PRIVATELY OWNED FACILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE INSTALLATION OF ANY COMPONENTS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES AT HIS/HER OWN EXPENSE IF REQUIRED. THE CONTRACTOR SHALL ALSO BE LIABLE FOR ANY DAMAGE TO IDOT FACILITIES RESULTING FROM INACCURATE LOCATING.
3. ELECTRICAL WORK SHALL CONFORM WITH NATIONAL, STATE, AND LOCAL CODES.
4. THE CONTRACTOR SHALL PROVIDE ELECTRICAL CABLE SLACK IN ACCORDANCE WITH ARTICLE 873.03.
5. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BIDDING. THERE WILL BE NO ADDITIONAL COMPENSATION PAID FOR CLAIMS THAT ARISE FROM A FAILURE TO FULLY INVESTIGATE EXISTING FIELD CONDITIONS.
6. ALL SURPLUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THIS COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES FOR THE CONDUITS.
8. ALL TRAFFIC SIGNAL HEAD BRACKETS ARE TO BE GALVANIZED STEEL WITH A NATURAL FINISH.
9. ALL TRAFFIC SIGNAL SECTIONS SHALL HAVE 12" SINGLE LED LENSES.
10. THE RED SECTIONS OF THE SIGNAL HEADS SHARING THE SAME MAST ARM SHALL BE LEVEL WITH ONE ANOTHER AND MAINTAIN A 16 FT. MINIMUM CLEARANCE FROM THE HIGHEST POINT OF THE ROADWAY TO BOTTOM OF THE SIGNAL BACKPLATE.
11. ALL DETECTOR LOOPS SHALL UTILIZE A SEPARATE PAIR OF TWISTED/SHIELDED LEAD-IN CABLE.
12. ALL DETECTOR LOOPS SHALL BE INSTALLED IN THE CENTER OF THEIR RESPECTIVE TRAVEL LANES. THE ENGINEER OF TRAFFIC SHALL BE NOTIFIED FOR VERIFICATION OF DETECTOR PLACEMENT BEFORE INSTALLATION.
13. THE PROPOSED DETECTOR LOOPS SHALL BE CUT IN THE EXISTING PAVEMENT.
14. THE CONTRACTOR SHALL REMOVE THE EXISTING SIGNAL HEADS AND DISPOSE OF THEM OFF THE JOBSITE. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE BID PRICE FOR THE PROPOSED SIGNAL HEADS.
15. THE CONTRACTOR SHALL RE-USE THE EXISTING TRAFFIC SIGNAL CABLING. THE COST OF ANY ADDITIONAL JUMPER CABLING REQUIRED TO POWER THE ADDITIONAL RED SIGNAL HEADS SHALL BE INCLUDED IN THE BID PRICE FOR THE SIGNAL HEADS.
16. THE DILEMMA ZONE DETECTORS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
17. THE VEHICLE VIDEO DETECTION SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
18. THE CONTRACTOR SHALL FURNISH AND INSTALL THE DILEMMA ZONE DETECTORS INCLUDING BRACKETING, HARDWARE, WIRING, TRAFFIC SIGNAL MODIFICATIONS, EQUIPMENT, ETC. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE BID PRICE FOR THE DILEMMA ZONE DETECTION SYSTEM.
19. REMOVAL OF EXISTING ITEMS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE BID PRICES FOR THE PROPOSED ITEMS.
20. THE TRAFFIC SIGNAL POST SHALL BE GROUNDED IN ACCORDANCE WITH NEC REQUIREMENTS. THIS WORK SHALL BE INCLUDED IN THE BID PRICE OF THE TRAFFIC SIGNAL POST.

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION NOTES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	3
			CONTRACT NO. 68G06	
		ILLINOIS	FED. AID PROJECT	

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SUMMARY OF QUANTITIES															
CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	WOODFORD CTY.	TAZEWELL CTY.						PEORIA CTY.			HENDERSON CTY.	MCDONOUGH CTY.
				CONST. CODE	CONST. CODE	CONST. CODE	CONST. CODE	CONST. CODE	CONST. CODE	CONST. CODE	CONST. CODE	CONST. CODE	CONST. CODE	CONST. CODE	CONST. CODE
				0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021
				90% FEDERAL	90% FEDERAL	90% FEDERAL	90% FEDERAL	90% FEDERAL	90% FEDERAL	90% FEDERAL	90% FEDERAL	90% FEDERAL	90% FEDERAL	90% FEDERAL	90% FEDERAL
				5% STATE	10% STATE	6.7% STATE	5% STATE	6.7% STATE	0% STATE	5% STATE	10% STATE	5% STATE	0% STATE	10% STATE	10% STATE
				5% CITY	0% CITY	3.3% CITY	5% CITY	3.3% CITY	10% CITY	5% CITY	0% CITY	5% MEDINA TWNSHP	10% CITY	0% CITY	0% CITY
				GERMANTOWN HILLS	TAZEWELL CTY.	EAST PEORIA	EAST PEORIA	WASHINGTON	WASHINGTON	PEKIN	PEORIA CTY.	PEORIA CTY.	PEORIA	HENDERSON CTY.	MCDONOUGH CTY.
				3 INTERSECTIONS	3 INTERSECTIONS	2 INTERSECTIONS	1 INTERSECTION	1 INTERSECTION	1 INTERSECTION	1 INTERSECTION	3 INTERSECTIONS	1 INTERSECTION	2 INTERSECTIONS	1 INTERSECTION	1 INTERSECTION
				URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN
67100100	MOBILIZATION	L SUM	1.0	0.15	0.15	0.10	0.05	0.05	0.05	0.05	0.15	0.05	0.05	0.05	0.05
* 72000200	SIGN PANEL - TYPE 2	SQ FT	16.0								16.0				
81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	505.0								505.0				
81500120	GULFBOX JUNCTION, COMPOSITE CONCRETE	EACH	1.0								1.0				
82110007	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH	24.0	<del>12.0</del>	3.0		4.0	3.0	4.0	2.0				4.0	4.0
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1930.0								1930.0				
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1684.5								1684.5				
87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1.0								1.0				
87900200	DRILL EXISTING HANDHOLE	EACH	1.0								1.0				
88040020	SIGNAL HEAD, POLYCARBONATE, LED 1-FACE, 1-SECTION, BRACKET MOUNTED	EACH	2.0								2.0				
88200100	TRAFFIC SIGNAL BACKPLATE	EACH	2.0								2.0				
88200510	TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	63.0	9.0	7.0		4.0	3.0	8.0	8.0		4.0	7.0	7.0	
X1400087	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED (SPECIAL)	EACH	2.0	2.0											
X1400434	DILEMMA ZONE DETECTION SYSTEM	EACH	35.0	6.0	3.0	3.0	2.0	2.0	2.0	2.0	4.0	2.0	2.0	2.0	4.0
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1.0	0.15	0.15	0.10	0.05	0.05	0.05	0.05	0.15	0.05	0.05	0.05	0.05
X8140102	GROUND EXISTING HANDHOLE	EACH	3.0								3.0				
X8210402	LUMINAIRE MOUNTING BRACKET - SPECIAL	EACH	7.0	<del>6.0</del>	2.0		3.0	2.0							
X8570215	FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	10.0		2.0	2.0	1.0			1.0	1.0	1.0	1.0	1.0	
X8860400	DETECTOR LOOP, SPECIAL	FOOT	164.0		164.0										
X8950114	MODIFY EXISTING CONTROLLER AND CABINET	EACH	1.0								1.0				
Z0033072	VIDEO VEHICLE DETECTION SYSTEM	EACH	1.0										<del>1.0</del>		

\*= SPECIALTY ITEM

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PLOT DATE = 10/16/2020	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>SUMMARY OF QUANTITIES</b>			
SCALE:	SHEET	OF	SHEETS
	STA.	TO	STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	4
			CONTRACT NO. 68G06	
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM DESCRIPTION	UNIT	CONST. CODE	
			90% FEDERAL	6.7% STATE
			0021	
			3.3% CITY	
			PEORIA	
			1 INTERSECTION	
			URBAN	
67100100	MOBILIZATION	L SUM	0.05	
* 72000200	SIGN PANEL - TYPE 2	SQ FT		
81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT		
81500120	GULFBOX JUNCTION, COMPOSITE CONCRETE	EACH		
82110007	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH		
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT		
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT		
87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH		
87900200	DRILL EXISTING HANDHOLE	EACH		
88040020	SIGNAL HEAD, POLYCARBONATE, LED 1-FACE, 1-SECTION, BRACKET MOUNTED	EACH		
88200100	TRAFFIC SIGNAL BACKPLATE	EACH		
88200510	TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	6.0	
X1400087	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED (SPECIAL)	EACH		
X1400434	DILEMMA ZONE DETECTION SYSTEM	EACH	1.0	
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	0.05	
X8140102	GROUND EXISTING HANDHOLE	EACH		
X8210402	LUMINAIRE MOUNTING BRACKET - SPECIAL	EACH		
X8570215	FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH		
X8860400	DETECTOR LOOP, SPECIAL	FOOT		
X8950114	MODIFY EXISTING CONTROLLER AND CABINET	EACH		
Z0033072	VIDEO VEHICLE DETECTION SYSTEM	EACH	1.0	

\*= SPECIALTY ITEM

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PLOT DATE = 12/17/2020	DATE - _____	REVISED - _____		SCALE: _____ SHEET ___ OF ___ SHEETS STA. _____ TO STA. _____		ILLINOIS FED. AID PROJECT		CONTRACT NO. 68G06		
ADDED ENTIRE SHEET										



PROPOSED LED LUMINAIRE INSTALLATION DETAILS

ROUTE	LOCATION	COUNTY	EX. LUMINAIRE VOLTAGE	EX. LUMINAIRE TYPE AND WATTAGE (LUMINAIRE QTY.)	PROP. LUMINAIRE TYPE	PROP. LUMINAIRE QTY.	LUMINAIRE MOUNTING BRACKET - SPECIAL QTY.	NOTES
IL 116	WOODLAND KNOLLS DR./ TEN MILE CREEK DR.	WOODFORD	240 V	HPS, 250W, TENON MOUNT (2)	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	4.0	2.0	FURNISH TWO 1 FT. TWIN 90 DEGREE ARMS AND INSTALL ON EX. MAST ARMS. FURNISH AND INSTALL ALL NEW LUMINAIRE WIRING, ARRESTORS, FUSES, AND FUSEHOLDERS.
IL 116	CR 400 E/ FANDEL RD.	WOODFORD	240 V	HPS, 250W, TENON MOUNT (2)	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	4.0	2.0	FURNISH TWO 1 FT. TWIN 90 DEGREE ARMS AND INSTALL ON EX. MAST ARMS. FURNISH AND INSTALL ALL NEW LUMINAIRE WIRING, ARRESTORS, FUSES, AND FUSEHOLDERS.
IL 116	SCHMITT LN./ ARBOR VITAE DR.	WOODFORD	240 V	HPS, 250W, TENON MOUNT (2)	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	4.0	2.0	FURNISH TWO 1 FT. TWIN 90 DEGREE ARMS AND INSTALL ON EX. MAST ARMS. FURNISH AND INSTALL ALL NEW LUMINAIRE WIRING, ARRESTORS, FUSES, AND FUSEHOLDERS.
IL 116	MARINERS WAY	TAZEWELL	240 V	HPS, 250W, TWIN-TENON MOUNT (2) TENON MOUNT (2)	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	4.0	3.0	FURNISH ONE 1 FT. TWIN 90 DEGREE ARM AND TWO 1 FT. ARM AND INSTALL ON EX. MAST ARMS. FURNISH AND INSTALL ALL NEW LUMINAIRE WIRING, ARRESTORS, FUSES, AND FUSEHOLDERS.
IL 116	ACCESS RD. 8	TAZEWELL	240 V	HPS, 250W, TWIN-TENON MOUNT (2) TENON MOUNT (1)	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	3.0	2.0	FURNISH ONE 1 FT. TWIN 90 DEGREE ARM AND ONE 1 FT. ARM AND INSTALL ON EX. MAST ARMS. FURNISH AND INSTALL ALL NEW LUMINAIRE WIRING, ARRESTORS, FUSES, AND FUSEHOLDERS.
BUS 24/ IL 8 (MCCLUGAGE RD.)	FREEDOM PKWY./ CENTENNIAL DR.	TAZEWELL	240 V	HPS, 250W, MAST ARM MOUNT (4)	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	4.0		INSTALL NEW LUMINAIRE WIRING, ARRESTORS, FUSES, AND FUSEHOLDERS.
BUS 24/ IL 8 (MCCLUGAGE RD.)	BUS 24/ IL 8 (WASHINGTON RD.)	TAZEWELL	240 V	HPS, 250W, TWIN-TENON MOUNT (2) TENON MOUNT (1)	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	3.0	2.0	FURNISH ONE 1 FT. TWIN 90 DEGREE ARM AND ONE 1 FT. ARM AND INSTALL ON EX. MAST ARMS. FURNISH AND INSTALL ALL NEW LUMINAIRE WIRING, ARRESTORS, FUSES, AND FUSEHOLDERS.
IL 29	MANITO RD./ POWERTON RD.	TAZEWELL	240 V	HPS, 250W, MAST ARM MOUNT (2)	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	2.0		INSTALL NEW LUMINAIRE WIRING, ARRESTORS, FUSES, AND FUSEHOLDERS.
US 34	CARMAN RD.	HENDERSON	240 V	HPS, 250W, MAST ARM MOUNT (4)	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	4.0		INSTALL NEW LUMINAIRE WIRING, ARRESTORS, FUSES, AND FUSEHOLDERS.
US 67	IL 9	MCDONOUGH	240 V	HPS, 250W, MAST ARM MOUNT (4)	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	4.0		INSTALL NEW LUMINAIRE WIRING, ARRESTORS, FUSES, AND FUSEHOLDERS.

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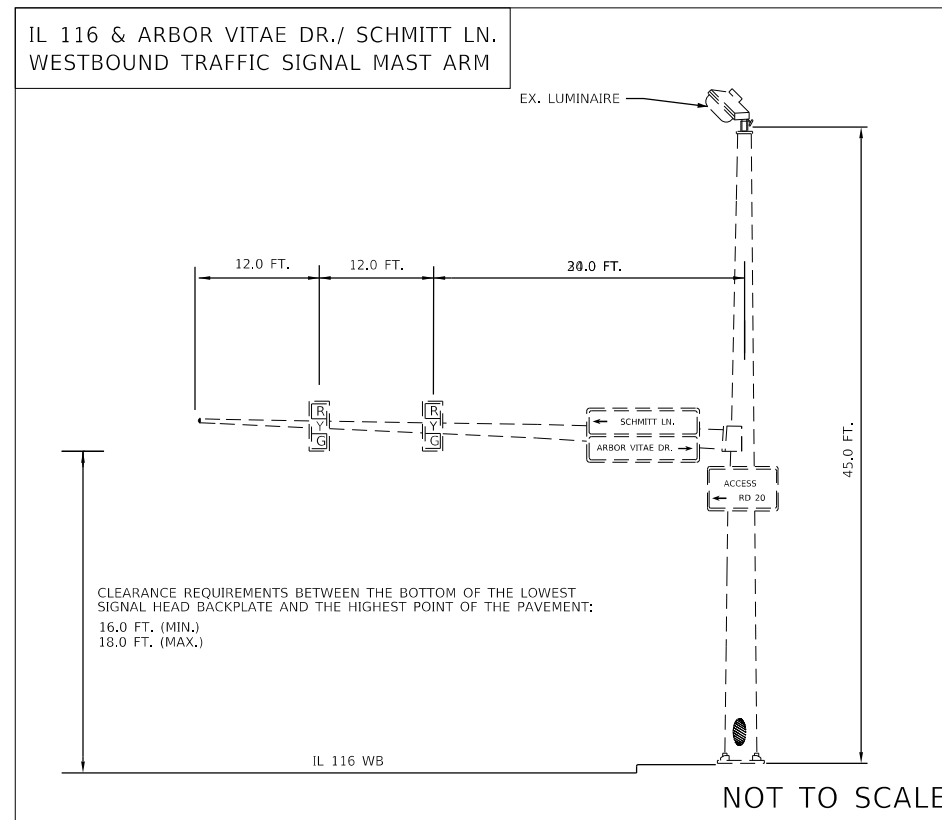
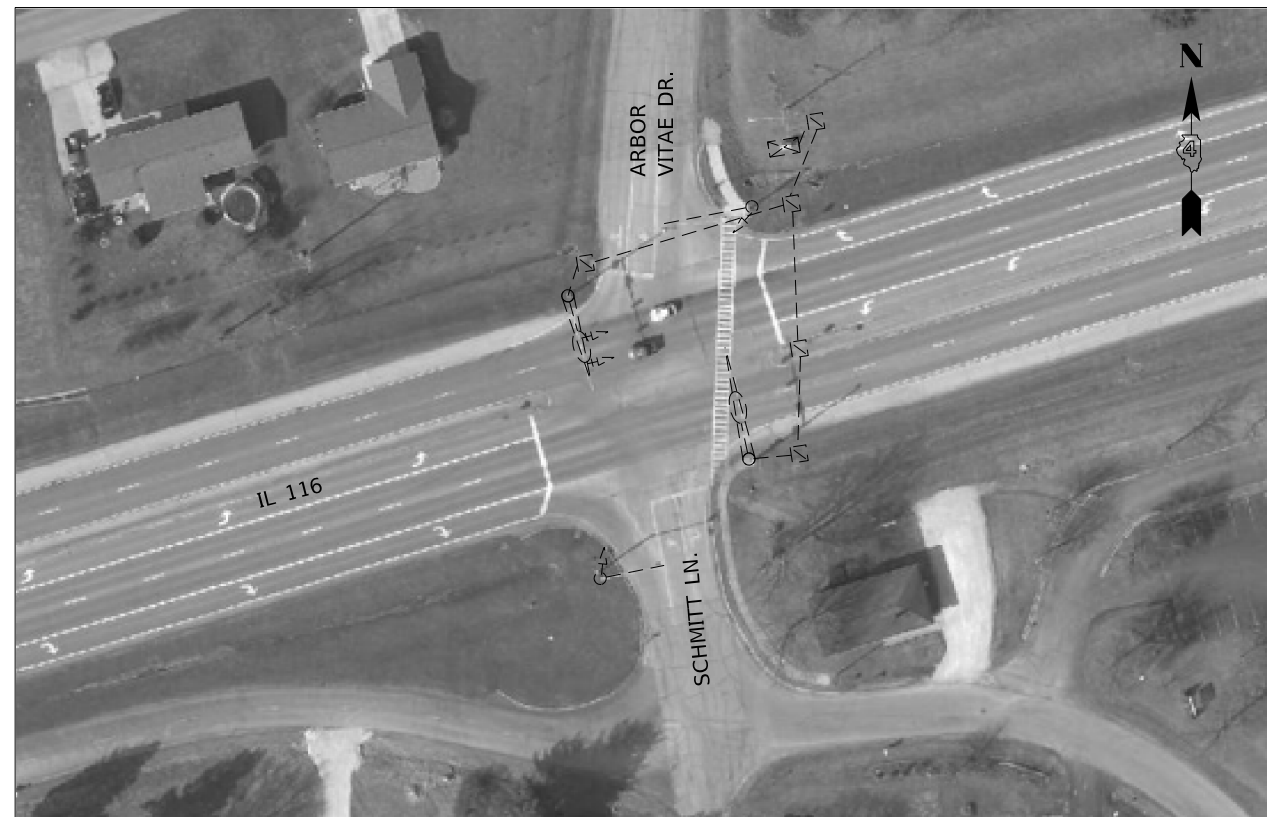
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PROPOSED LED LUMINAIRE INSTALLATION DETAILS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	6
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- TRAFFIC SIGNAL LEGEND
- ☒ EX. TRAFFIC SIGNAL CONTROLLER CABINET
  - ☒ EX. HANDHOLE
  - ☒ EX. DOUBLE HANDHOLE
  - ⌋⌋ EX. LUMINAIRE
  - ⌋⌋⌋ EX. COMBINATION MAST ARM
  - ⌋⌋⌋ EX. MAST ARM
  - EX. CONDUIT
  - ⊕ EX. SIGNAL HEAD

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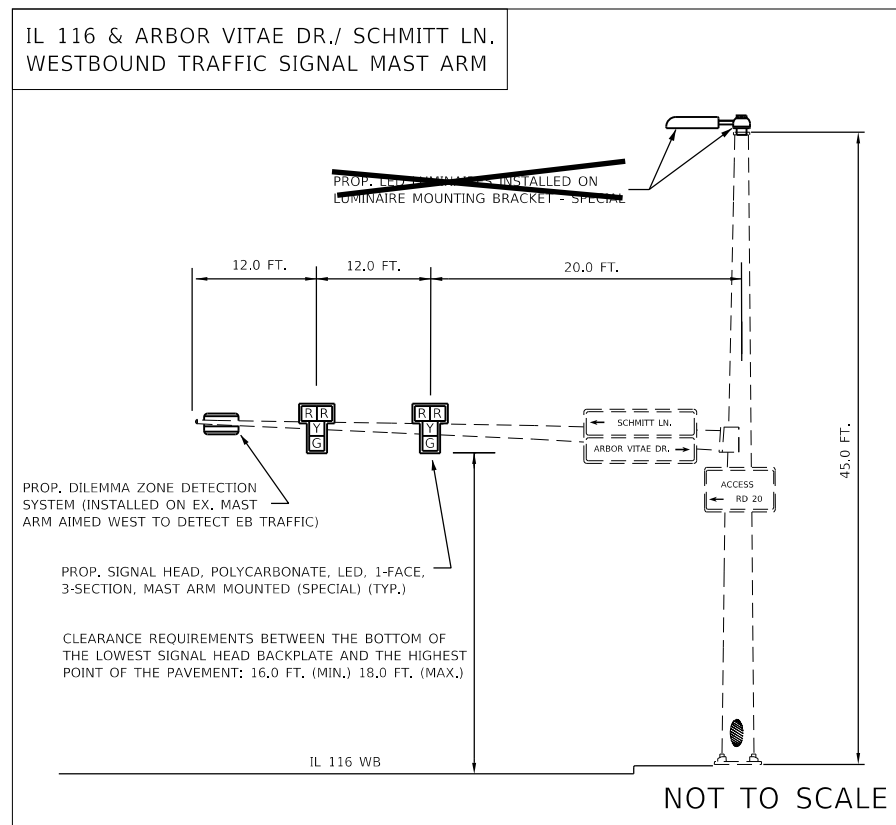
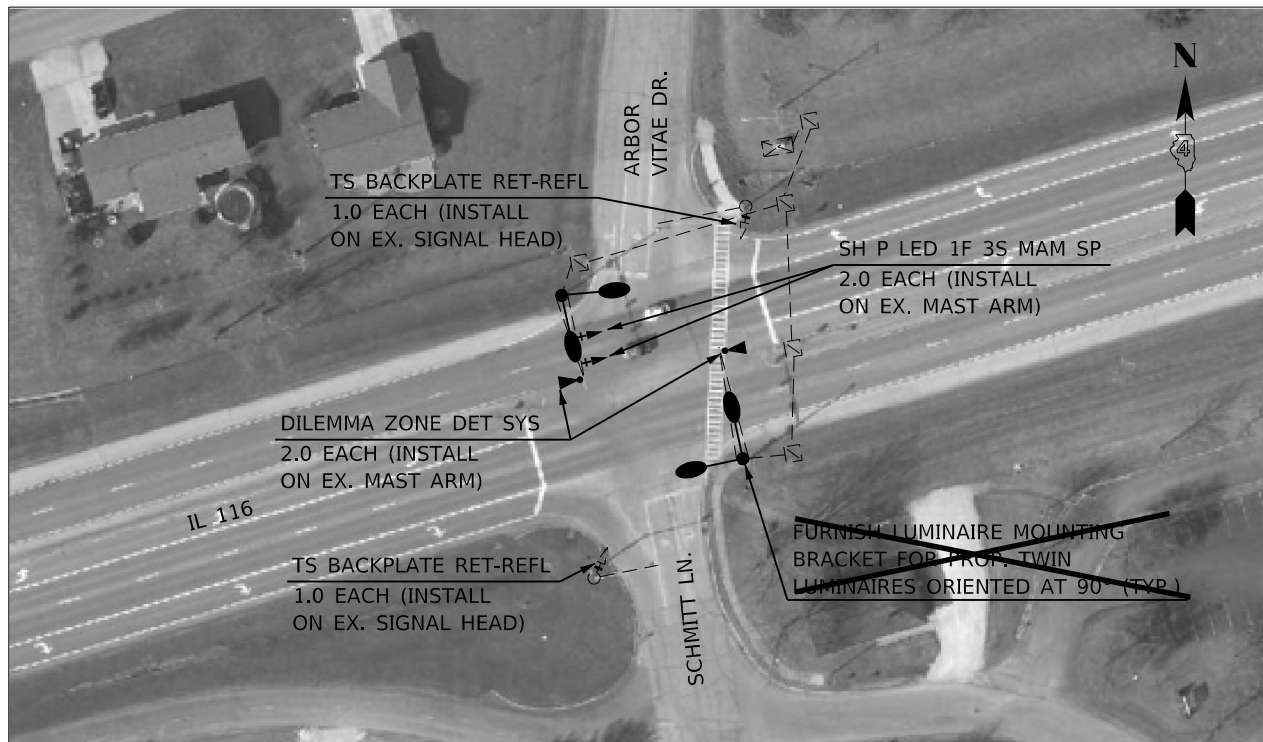
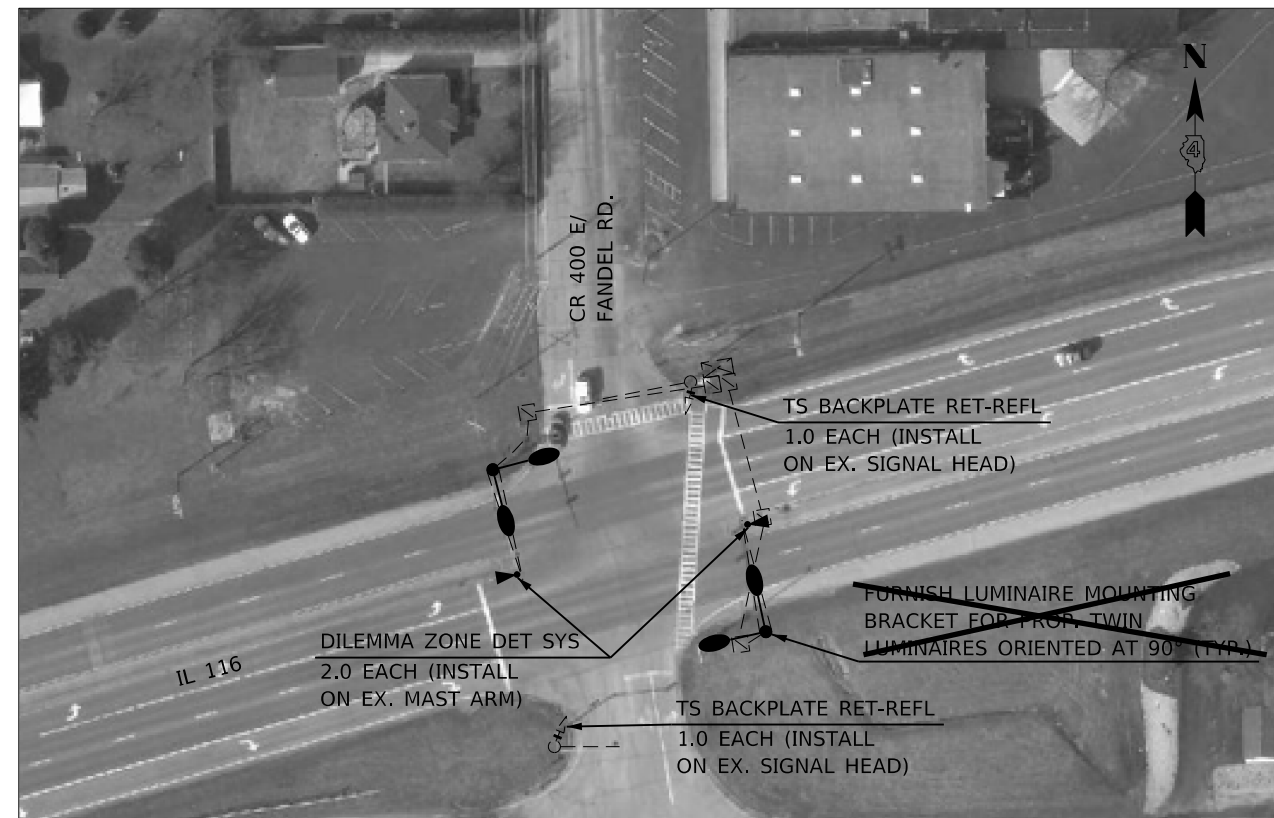
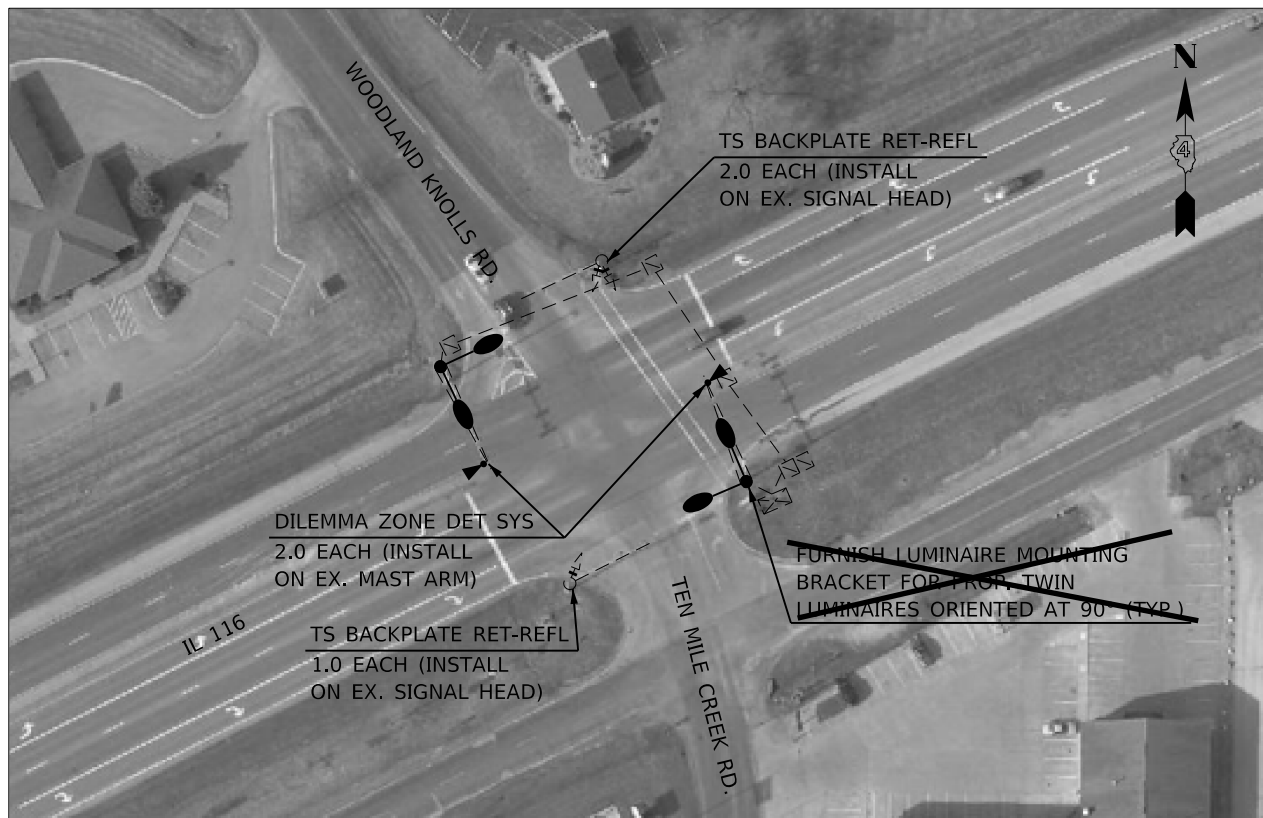
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>EXISTING TRAFFIC SIGNAL PLANS</b>			
<b>IL 116 - GERMANTOWN HILLS</b>			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

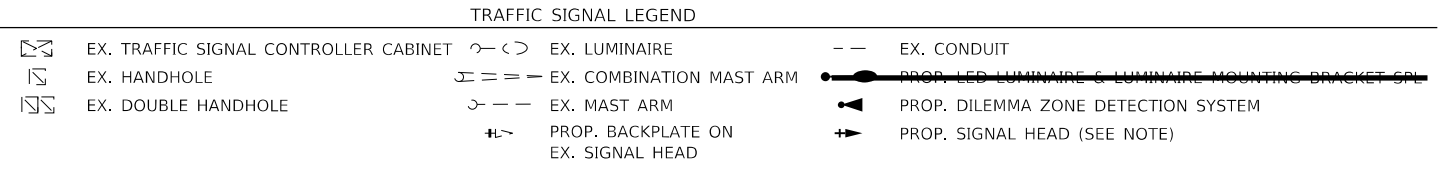
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	7
			CONTRACT NO. 68G06	
		ILLINOIS	FED. AID PROJECT	





- IL 116 & SCHMITT LN./ ARBOR VITAE DR. CONSTRUCTION NOTES:**
1. THE CONTRACTOR SHALL FURNISH AND INSTALL TWO SIGNAL HEADS ON THE WB MAST ARM AS SHOWN IN THE PLANS. THE LAYOUT OF THE SIGNAL HEADS SHALL BE AS FOLLOWS: TWO RED SIGNAL HEADS IN THE TOP ROW, ONE CENTERED YELLOW SIGNAL HEAD IN THE MIDDLE ROW, AND ONE CENTERED GREEN SIGNAL HEAD IN THE BOTTOM ROW, AS SHOWN IN THE DETAIL.
  2. THE CONTRACTOR SHALL REMOVE THE EXISTING SIGNAL HEADS AND DISPOSE OF THEM OFF THE JOBSITE. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE BID PRICE FOR THE PROPOSED SIGNAL HEADS.
  3. THE CONTRACTOR SHALL RE-USE THE EXISTING TRAFFIC SIGNAL CABLING. THE COST OF ANY ADDITIONAL JUMPER CABLING REQUIRED TO POWER THE ADDITIONAL RED SIGNAL HEADS SHALL BE INCLUDED IN THE BID PRICE FOR THE SIGNAL HEADS.
  4. THE CONTRACTOR SHALL INSTALL RETROREFLECTIVE BACKPLATES ON THE PROPOSED SIGNAL HEADS.

SCHEDULE OF MATERIALS				
ITEM DESCRIPTION	UNIT	IL 116 & WOODLAND KNOLLS RD./ TEN MILE CREEK RD.	IL 116 & CR 400 E/ FANDEL RD.	IL 116 & ARBOR VITAE DR./ SCHMITT LN.
<del>LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G</del>	<del>EACH</del>	<del>4.0</del>	<del>4.0</del>	<del>4.0</del>
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	3.0	2.0	4.0
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED (SPECIAL)	EACH			2.0
DILEMMA ZONE DETECTION SYSTEM	EACH	2.0	2.0	2.0
LUMINAIRE MOUNTING BRACKET - SPECIAL	EACH	2.0	2.0	2.0



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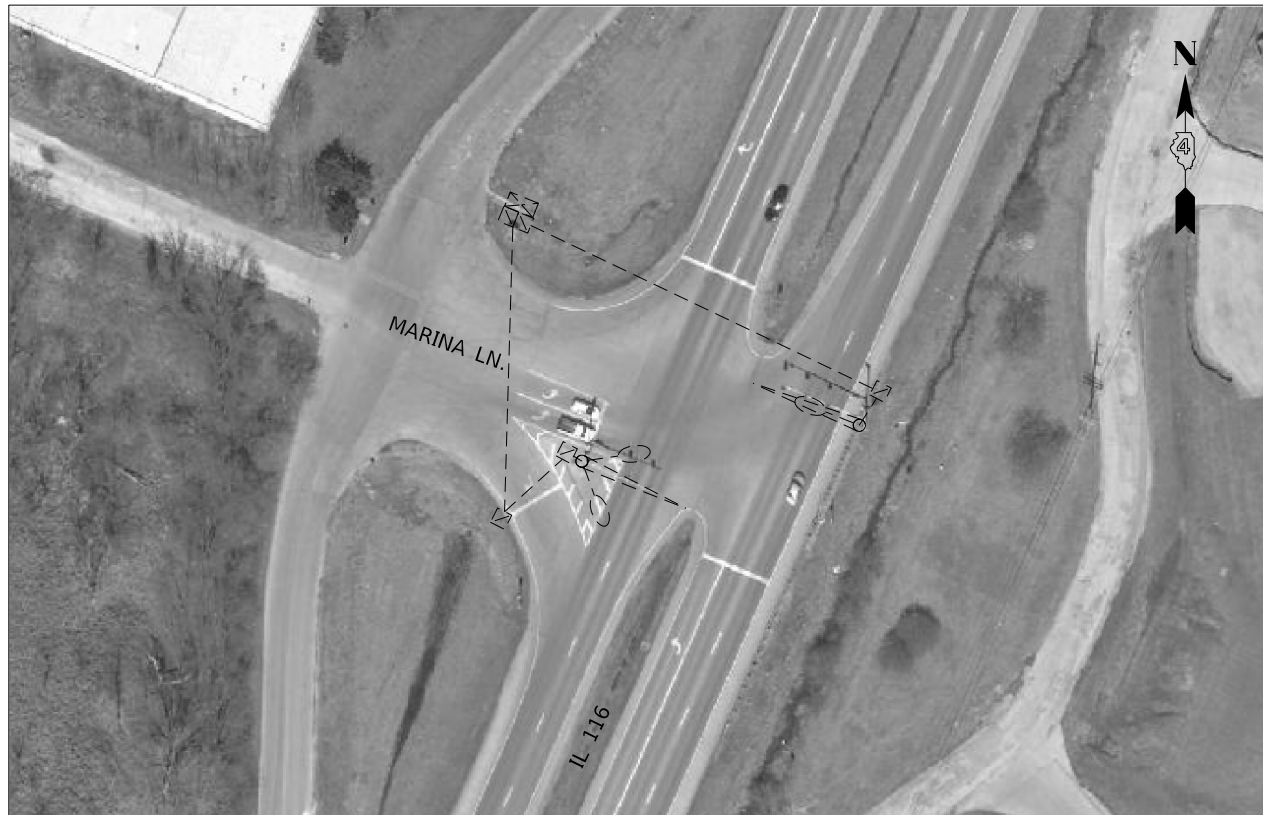
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED TRAFFIC SIGNAL PLANS  
IL 116 - GERMANTOWN HILLS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	8
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68G06	

NOT TO SCALE



**TRAFFIC SIGNAL LEGEND**

	EX. TRAFFIC SIGNAL CONTROLLER CABINET		EX. LUMINAIRE		EX. CONDUIT
	EX. HANDHOLE		EX. COMBINATION MAST ARM		
	EX. DOUBLE HANDHOLE		EX. MAST ARM		

NOT TO SCALE

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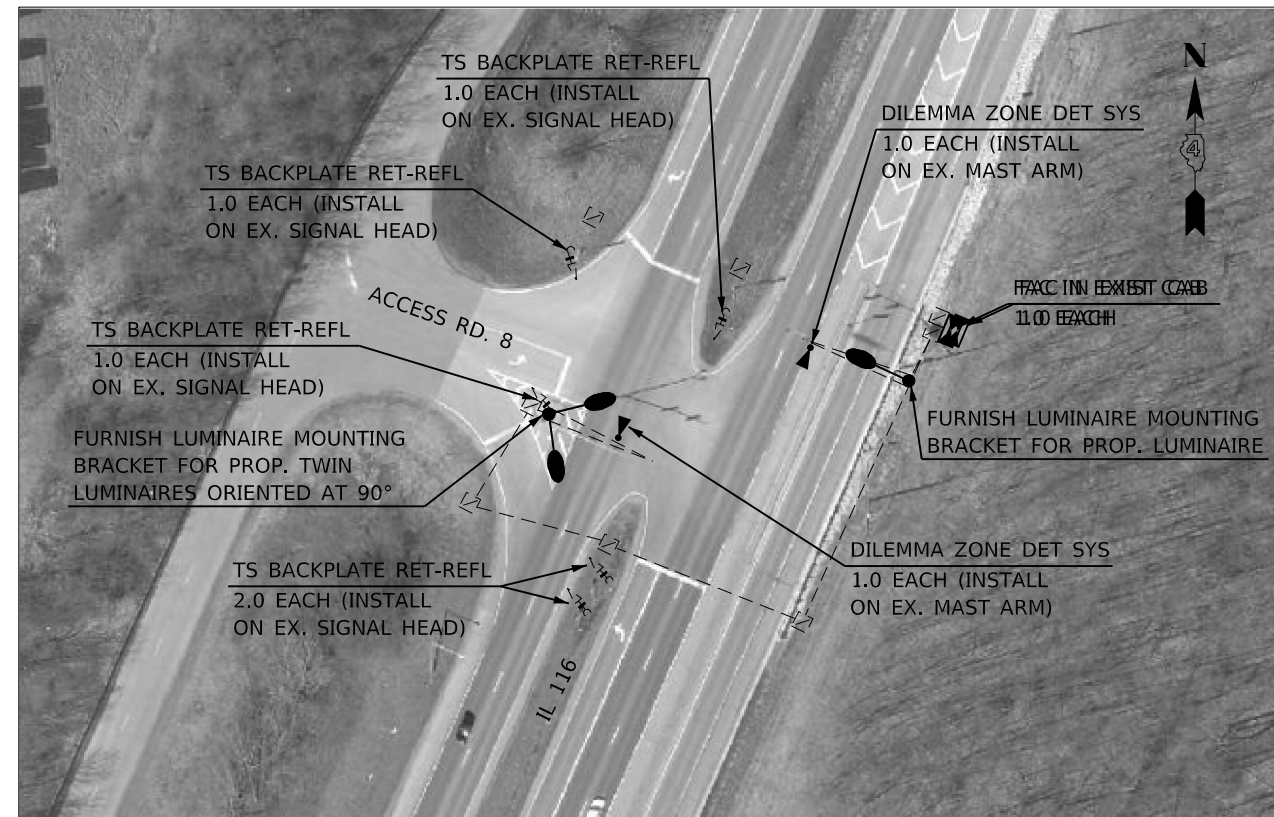
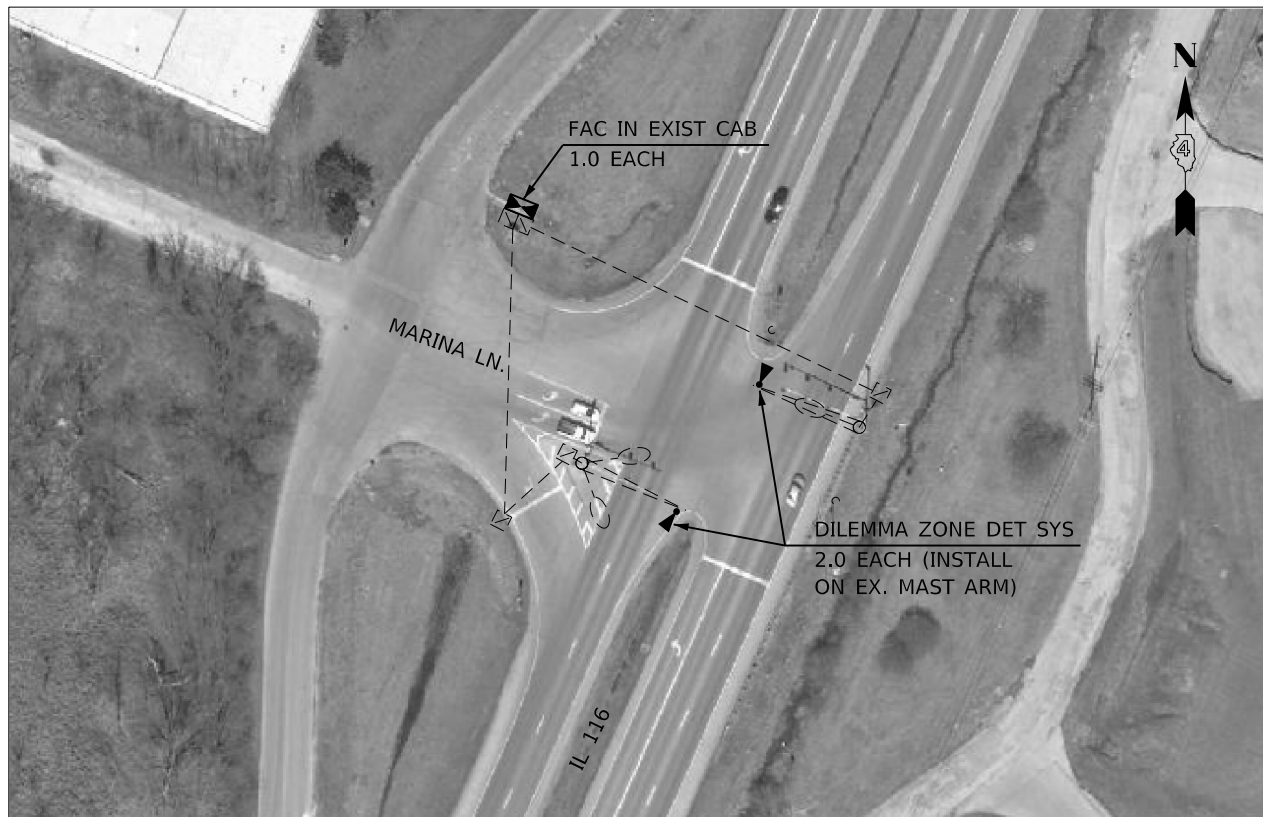
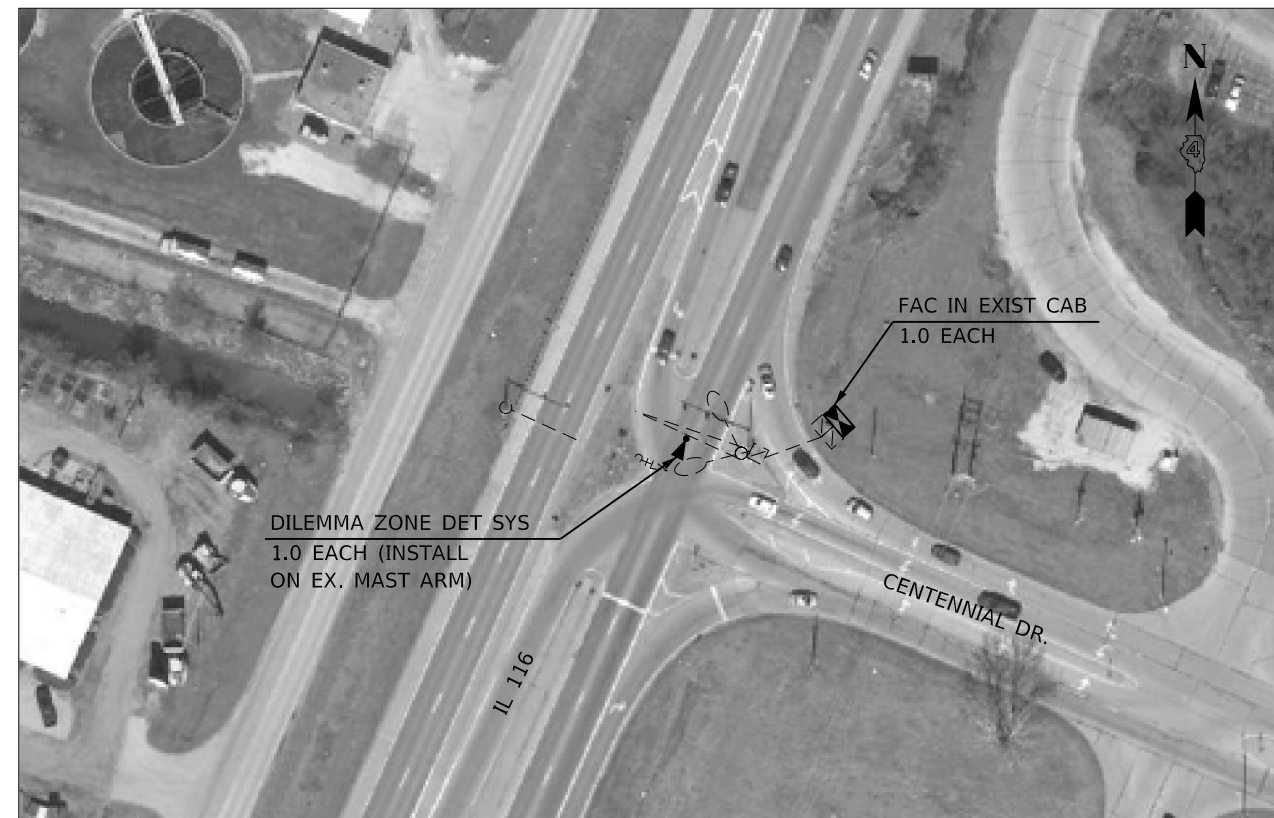
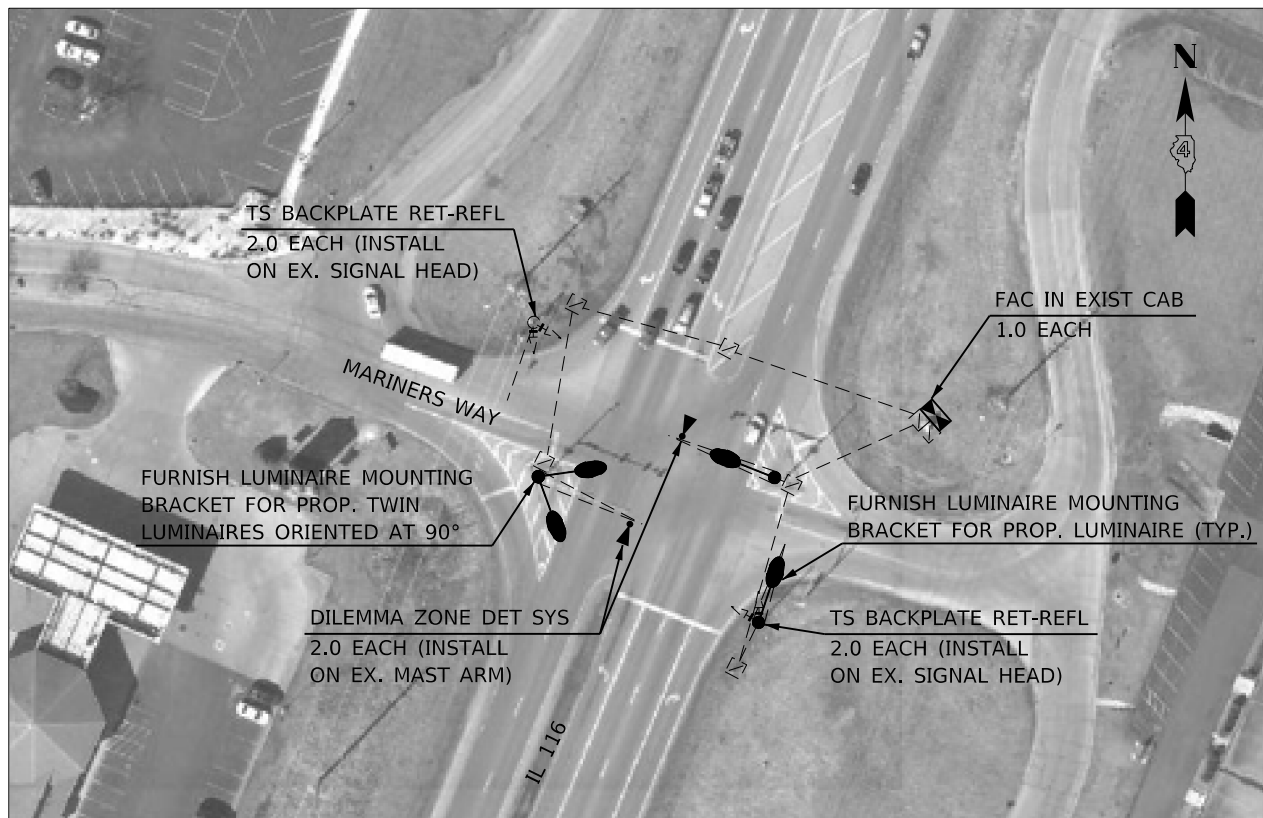
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PLOT DATE = 10/16/2020	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING TRAFFIC SIGNAL PLANS  
IL 116 - EAST PEORIA**

SCALE:      SHEET      OF      SHEETS      STA.      TO      STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	9
ILLINOIS			FED. AID PROJECT	
			CONTRACT NO. 68G06	



ITEM DESCRIPTION	UNIT	SCHEDULE OF MATERIALS			
		IL 116 & MARINERS WAY	IL 116 & CENTENNIAL DR.	IL 116 & MARINA LN.	IL 116 & ACCESS RD. 8
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH	4.0			3.0
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	4.0	2.0	5.0	5.0
DILEMMA ZONE DETECTION SYSTEM	EACH	2.0	1.0	2.0	2.0
LUMINAIRE MOUNTING BRACKET - SPECIAL	EACH	3.0			2.0
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1.0	1.0	1.0	1.0

TRAFFIC SIGNAL LEGEND	
	EX. TRAFFIC SIGNAL CONTROLLER CABINET
	EX. HANDHOLE
	EX. DOUBLE HANDHOLE
	EX. CONDUIT
	EX. LUMINAIRE
	EX. COMBINATION MAST ARM
	EX. MAST ARM
	PROP. BACKPLATE ON EX. SIGNAL HEAD
	PROP. LED LUMINAIRE & LUMINAIRE MOUNTING BRACKET SPL
	PROP. LED LUMINAIRE ON EX. STRUCTURE
	PROP. DILEMMA ZONE DETECTION SYSTEM
	PROP. TRAFFIC SIGNAL CONTROLLER IN EX. CABINET

NOT TO SCALE

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PLOT DATE = 10/16/2020	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED TRAFFIC SIGNAL PLANS  
IL 116 - EAST PEORIA**

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	10
			CONTRACT NO. 68G06	
		ILLINOIS FED. AID PROJECT		



TRAFFIC SIGNAL LEGEND

	EX. TRAFFIC SIGNAL CONTROLLER CABINET		EX. LUMINAIRE		EX. CONDUIT
	EX. HANDHOLE		EX. COMBINATION MAST ARM		EX. DETECTOR LOOP (6'x6')
	EX. DOUBLE HANDHOLE		EX. MAST ARM		

NOT TO SCALE

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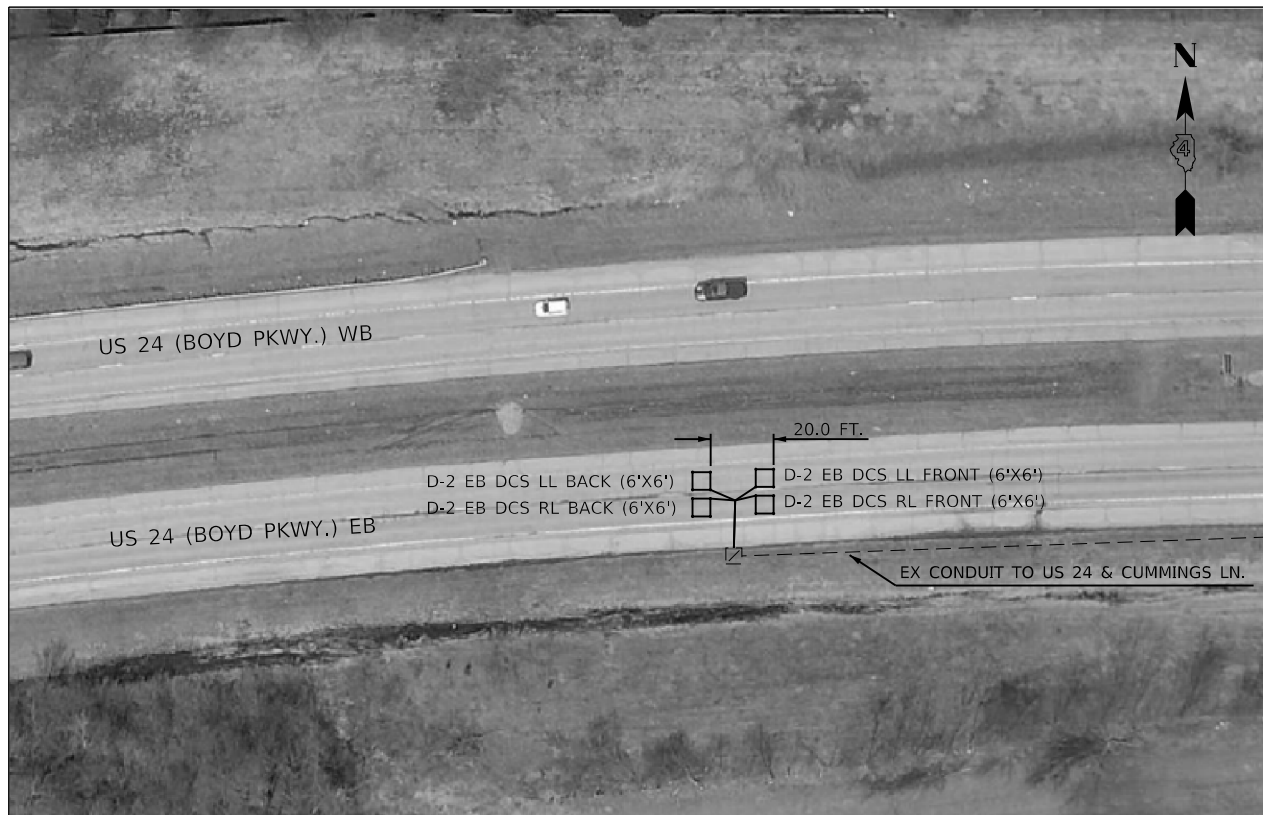
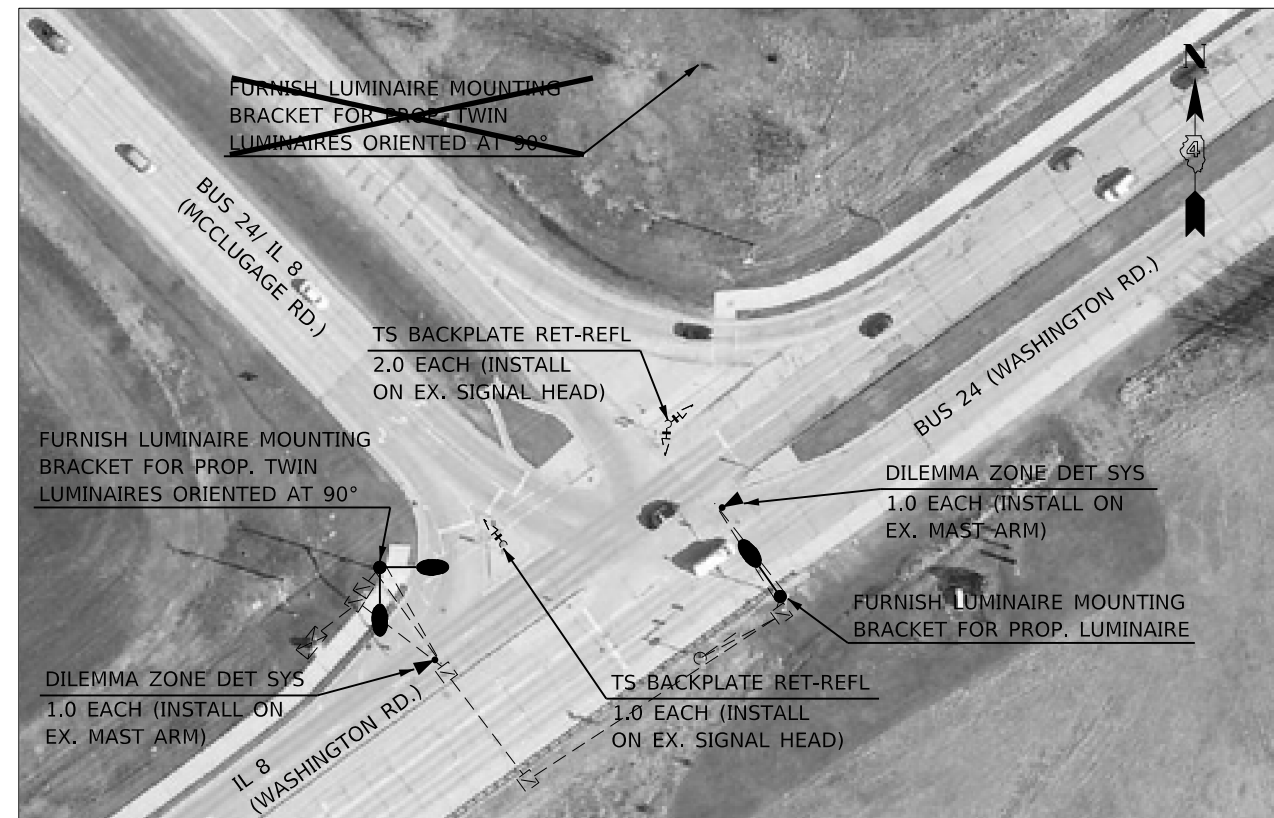
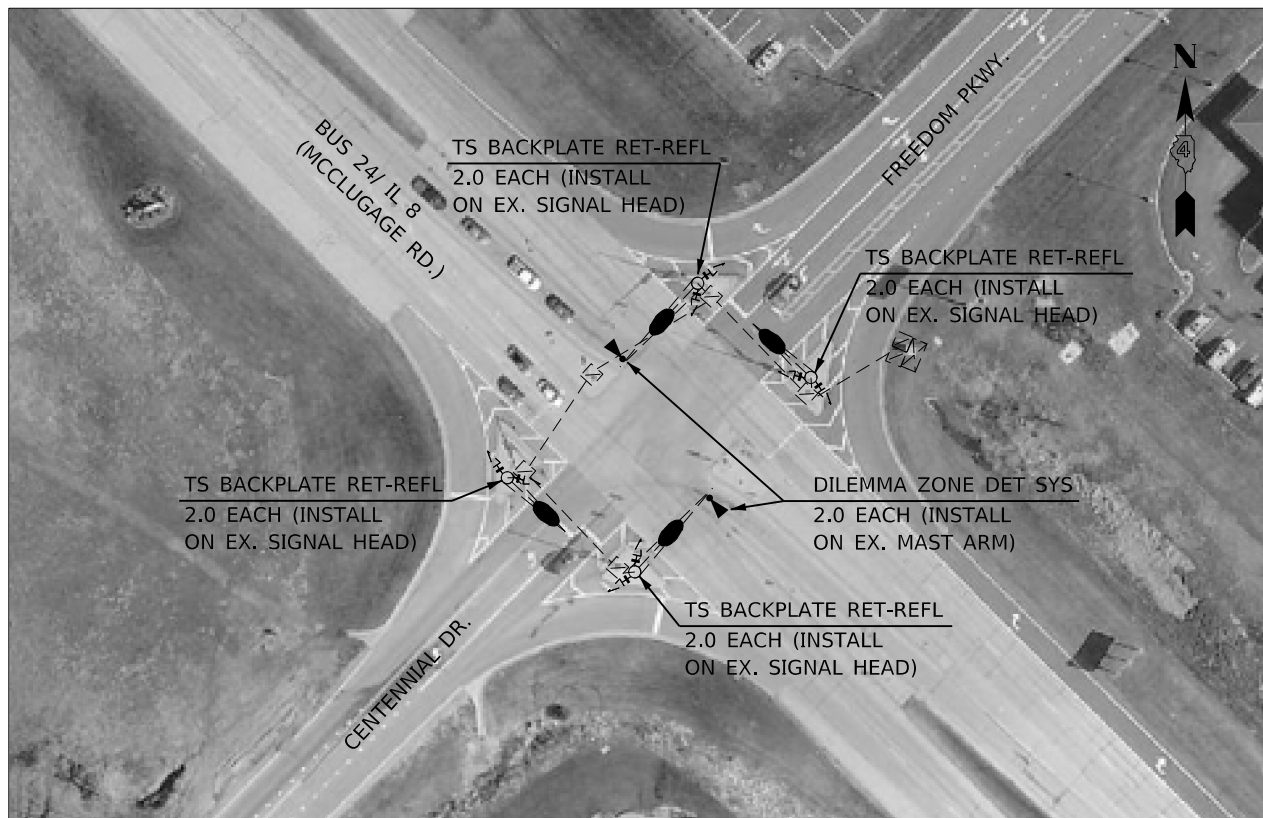
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PLOT DATE = 10/16/2020	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING TRAFFIC SIGNAL PLANS  
INTERSECTIONS ALONG US 24 & BUS 24 - WASHINGTON**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	11
CONTRACT NO. 68G06				
		ILLINOIS	FED. AID PROJECT	

SCALE: SHEET OF SHEETS STA. TO STA.



- US 24 & CUMMINGS LN. DETECTOR LOOP CONSTRUCTION NOTES**
1. ALL DETECTOR LOOPS SHALL UTILIZE A SEPARATE PAIR OF TWISTED/ SHIELDED LEAD-IN CABLE.
  2. ALL DETECTOR LOOPS SHALL BE INSTALLED IN THE CENTER OF THEIR RESPECTIVE TRAVEL LANES. THE ENGINEER OF TRAFFIC SHALL BE NOTIFIED FOR VERIFICATION OF DETECTOR PLACEMENT BEFORE INSTALLATION.
  3. THE PROPOSED DETECTOR LOOPS SHALL BE CUT IN THE EXISTING PAVEMENT.
  4. THE FRONT EDGE OF THE FRONT DETECTOR LOOPS SHALL BE 20.0 FT. FROM THE FRONT EDGE OF THE REAR DETECTOR LOOPS.
  5. REFER TO THE SPECIAL PROVISION FOR DETECTOR LOOP, SPECIAL FOR ADDITIONAL INFORMATION.

DETECTOR LOOP SCHEDULE		
US 24 (BOYD PKWY.) & CUMMINGS LN.		
DETECTOR LOOP	DETECTOR LOOP, SPECIAL QTY. (INCLUDES LEAD-IN)	ASSIGNED PHASE
D-2 EB DCS LL BACK (6'X6')	44.0	2
D-2 EB DCS RL BACK (6'X6')	38.0	2
D-2 EB DCS LL FRONT (6'X6')	44.0	2
D-2 EB DCS RL FRONT (6'X6')	38.0	2

SCHEDULE OF MATERIALS				
ITEM DESCRIPTION	UNIT	BUS 24/ IL 8 (MCCLUGAGE RD.) & FREEDOM PKWY./ CENTENNIAL DR.	BUS 24/ IL 8 (MCCLUGAGE RD.) & BUS 24/ IL 8 (WASHINGTON RD.)	US 24 (BOYD PKWY.) & CUMMINGS LN.
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH	4.0	3.0	
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	8.0	3.0	
DETECTOR LOOP, SPECIAL	FOOT			164.0
DILEMMA ZONE DETECTION SYSTEM	EACH	2.0	2.0	

- TRAFFIC SIGNAL LEGEND**
- |  |                                       |  |                          |  |  |
|--|---------------------------------------|--|--------------------------|--|--|
|  | EX. TRAFFIC SIGNAL CONTROLLER CABINET |  | EX. LUMINAIRE            |  | PROP. LED LUMINAIRE ON EX. STRUCTURE                 |
|  | EX. HANDHOLE                          |  | EX. COMBINATION MAST ARM |  | PROP. LED LUMINAIRE & LUMINAIRE MOUNTING BRACKET SPL |
|  | EX. DOUBLE HANDHOLE                   |  | EX. MAST ARM             |  | PROP. DILEMMA ZONE DETECTION SYSTEM                  |
|  |                                       |  | EX. CONDUIT              |  | PROP. DETECTOR LOOP, SPECIAL (6'X6')                 |

NOT TO SCALE

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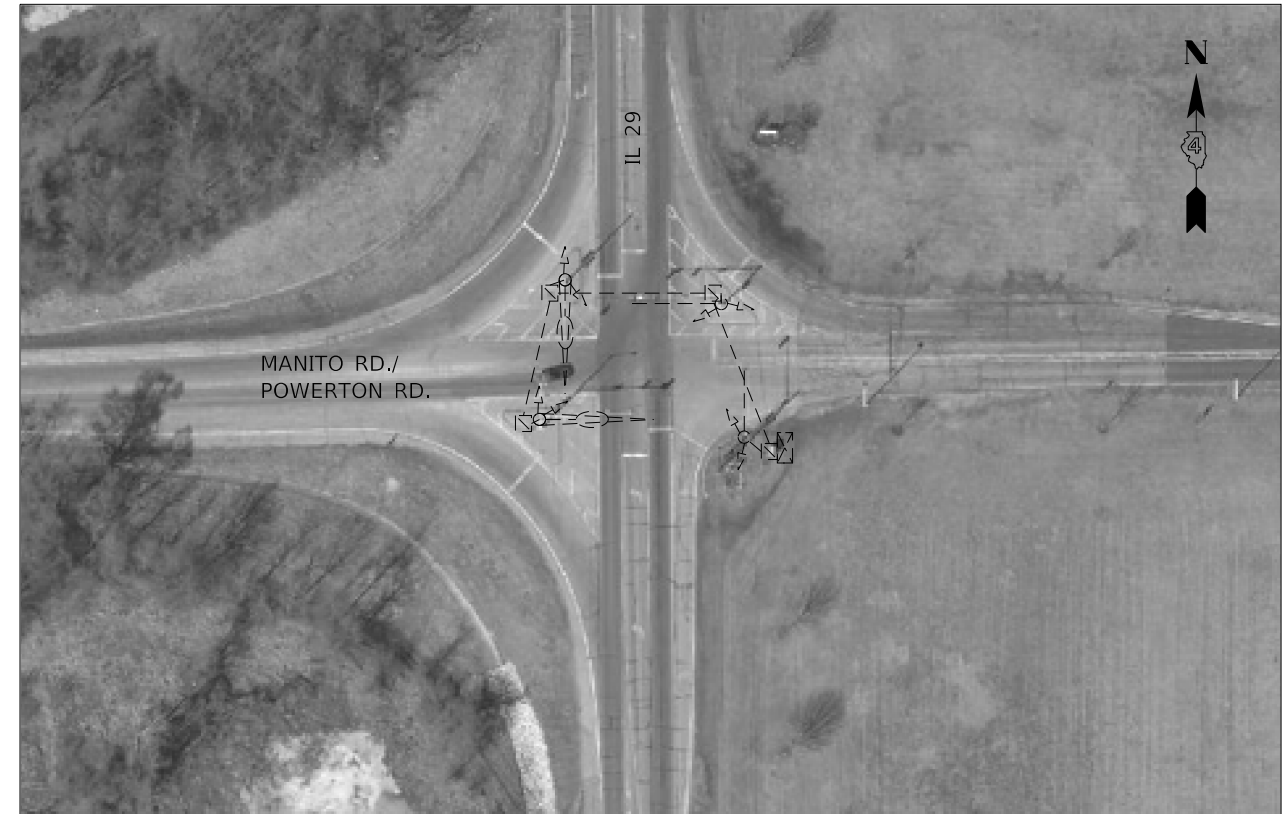
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PLOT DATE = 10/16/2020	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

PROPOSED TRAFFIC SIGNAL PLANS			
INTERSECTIONS ALONG US 24 & BUS 24 - WASHINGTON			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	12
			CONTRACT NO. 68G06	
		ILLINOIS	FED. AID PROJECT	

REV. 12/23/20



TRAFFIC SIGNAL LEGEND

- ☒ EX. TRAFFIC SIGNAL CONTROLLER CABINET
- ☒ EX. HANDHOLE
- ☒ EX. DOUBLE HANDHOLE
- ⌋-⌋ EX. LUMINAIRE
- ⌋=⌋ EX. COMBINATION MAST ARM
- ⌋-⌋ EX. MAST ARM
- - - EX. CONDUIT

NOT TO SCALE

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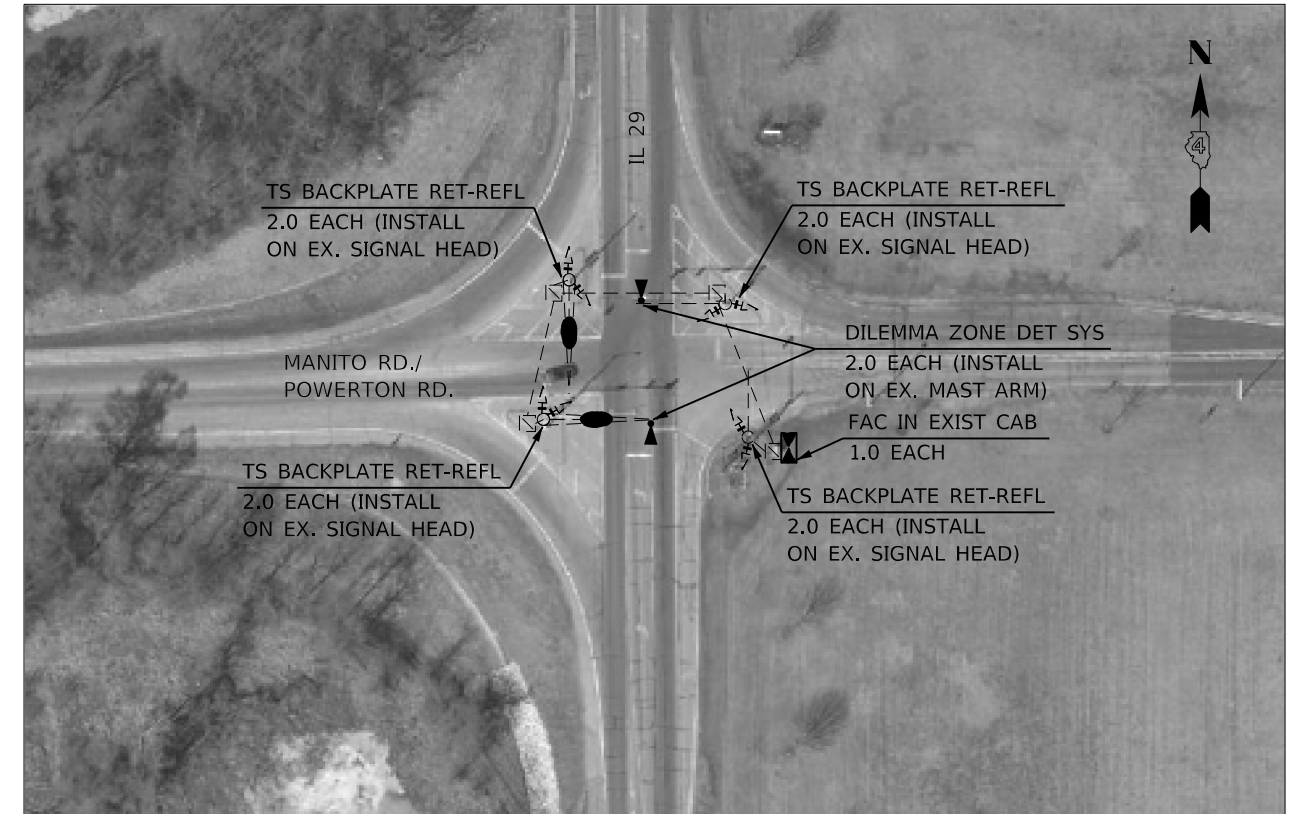
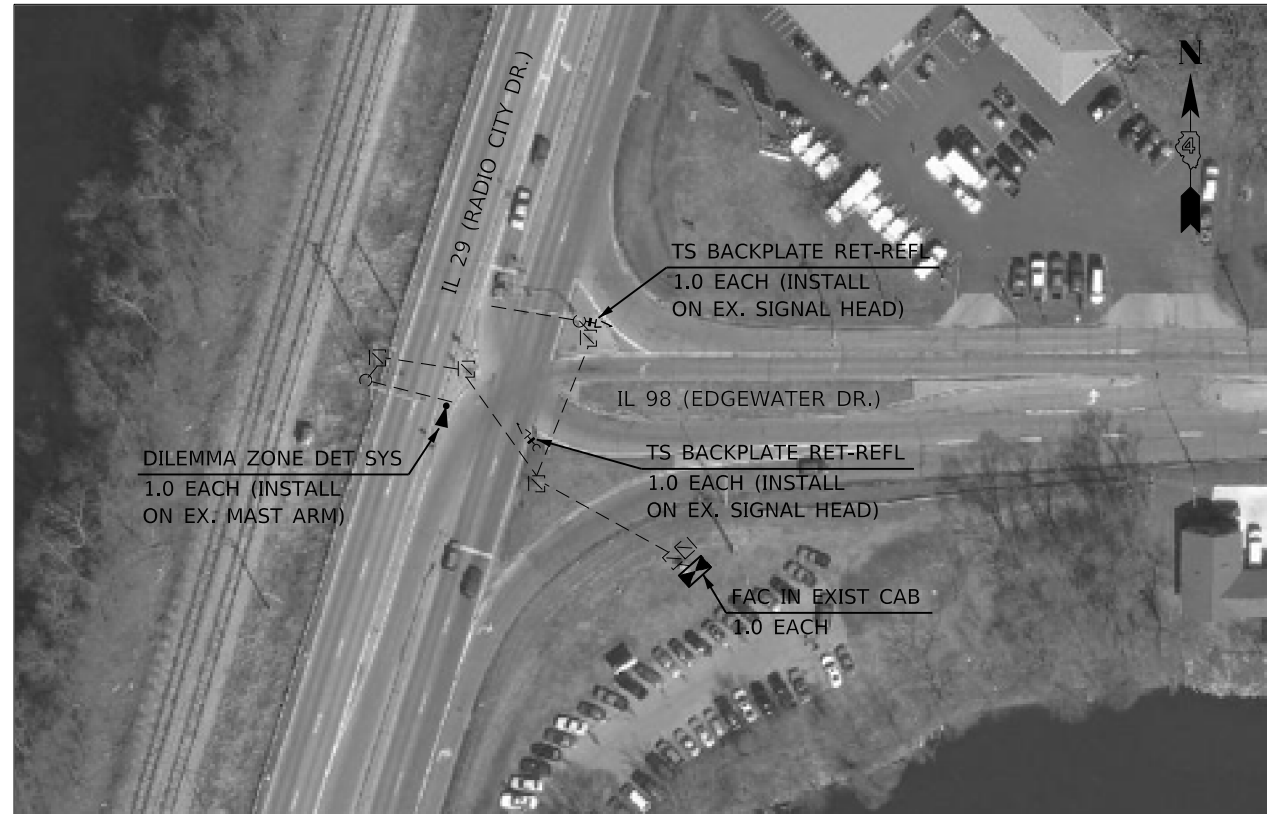
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PLOT DATE = 10/16/2020	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING TRAFFIC SIGNAL PLANS  
IL 29 - PEKIN**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	13
			CONTRACT NO. 68G06	
		ILLINOIS	FED. AID PROJECT	



SCHEDULE OF MATERIALS			
ITEM DESCRIPTION	UNIT	IL 29 (RADIO CITY DR.) & IL 98 (EDGEWATER DR.)	IL 29 & MANITO RD./ POWERTON RD.
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH		2.0
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	2.0	8.0
DILEMMA ZONE DETECTION SYSTEM	EACH	1.0	2.0
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1.0	1.0

TRAFFIC SIGNAL LEGEND			
	EX. HANDHOLE		EX. LUMINAIRE
	EX. DOUBLE HANDHOLE		EX. COMBINATION MAST ARM
	EX. CONDUIT		PROP. LED LUMINAIRE ON EX. STRUCTURE
			PROP. DILEMMA ZONE DETECTION SYSTEM
			EX. MAST ARM

NOT TO SCALE

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PLOT DATE = 10/16/2020	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED TRAFFIC SIGNAL PLANS  
IL 29 - PEKIN**

SCALE:      SHEET      OF      SHEETS      STA.      TO      STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	14
			CONTRACT NO. 68G06	
		ILLINOIS	FED. AID PROJECT	



- TRAFFIC SIGNAL LEGEND
- |  |                                       |  |                          |  |             |
|--|---------------------------------------|--|--------------------------|--|-------------|
|  | EX. TRAFFIC SIGNAL CONTROLLER CABINET |  | EX. LUMINAIRE            |  | EX. CONDUIT |
|  | EX. HANDHOLE                          |  | EX. COMBINATION MAST ARM |  |             |
|  | EX. DOUBLE HANDHOLE                   |  | EX. MAST ARM             |  |             |

NOT TO SCALE

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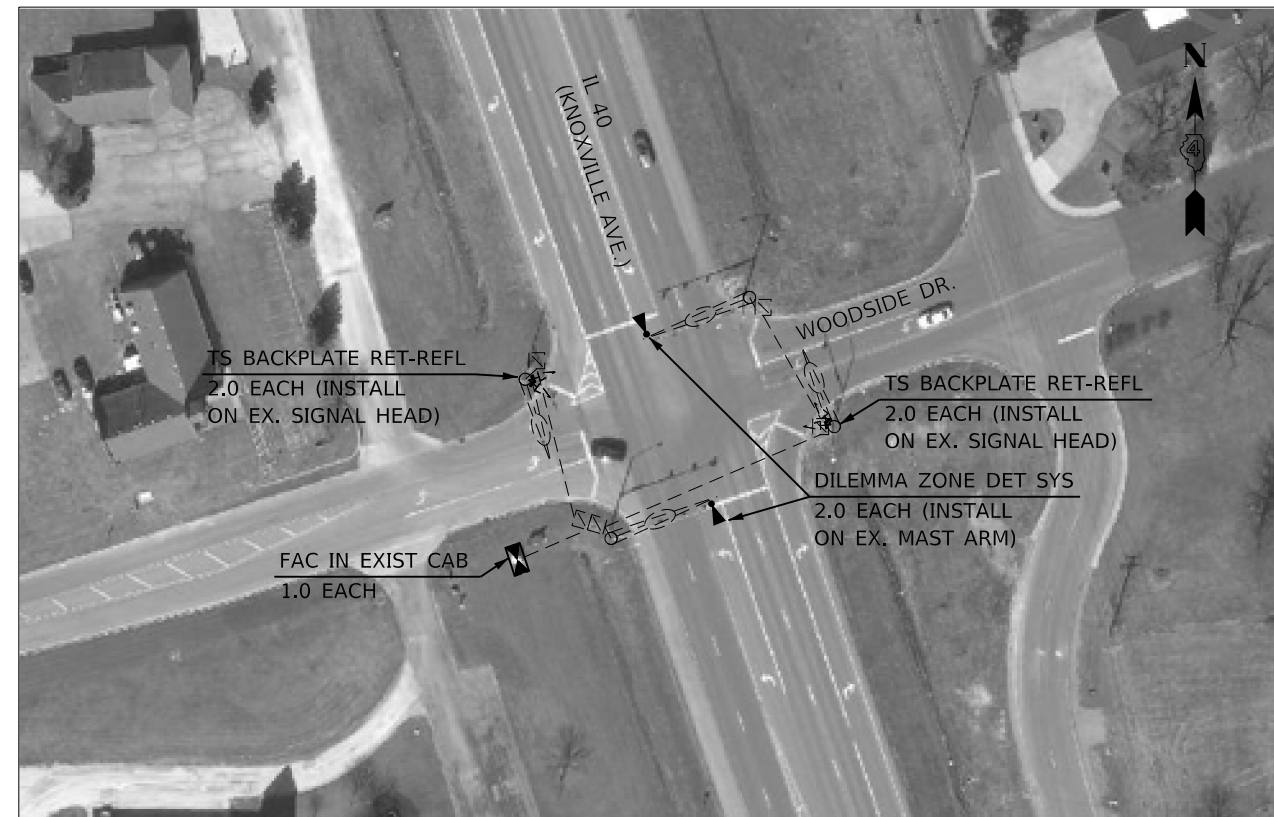
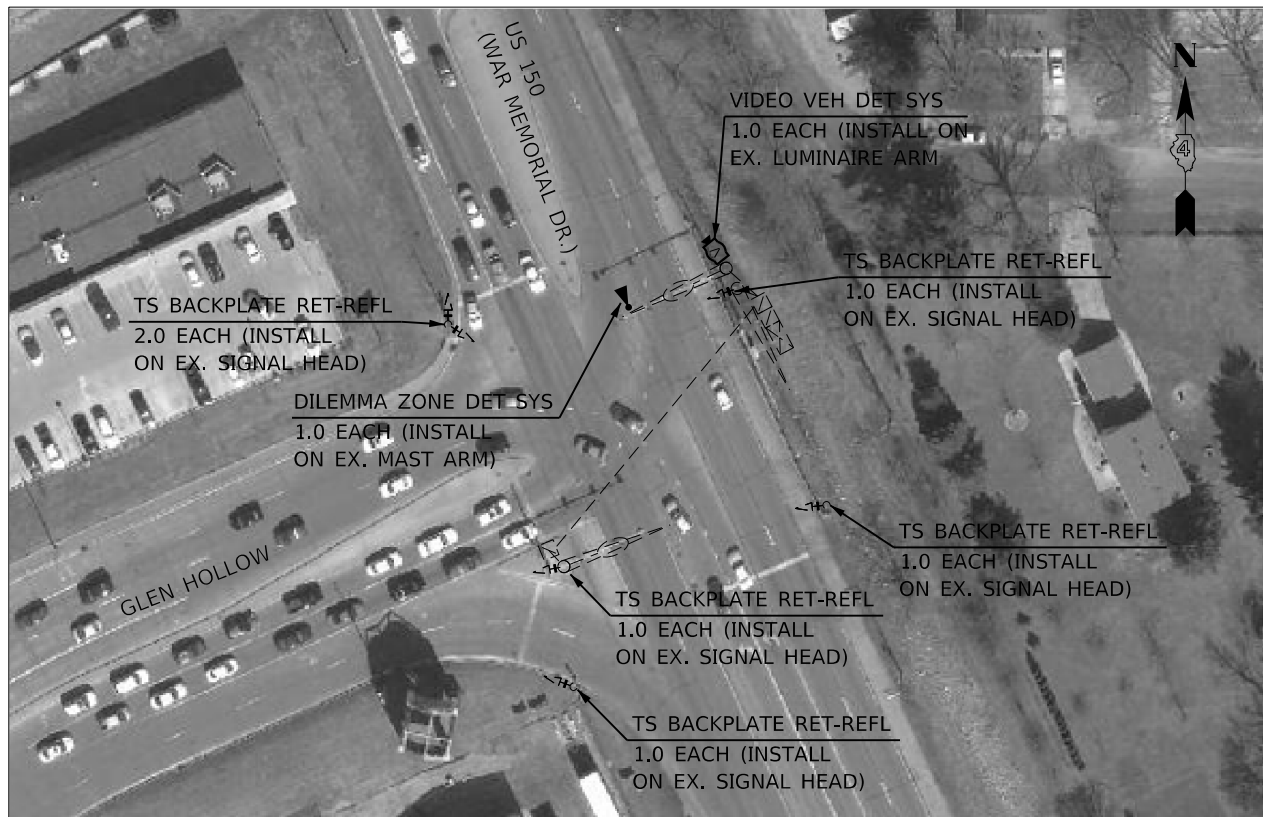
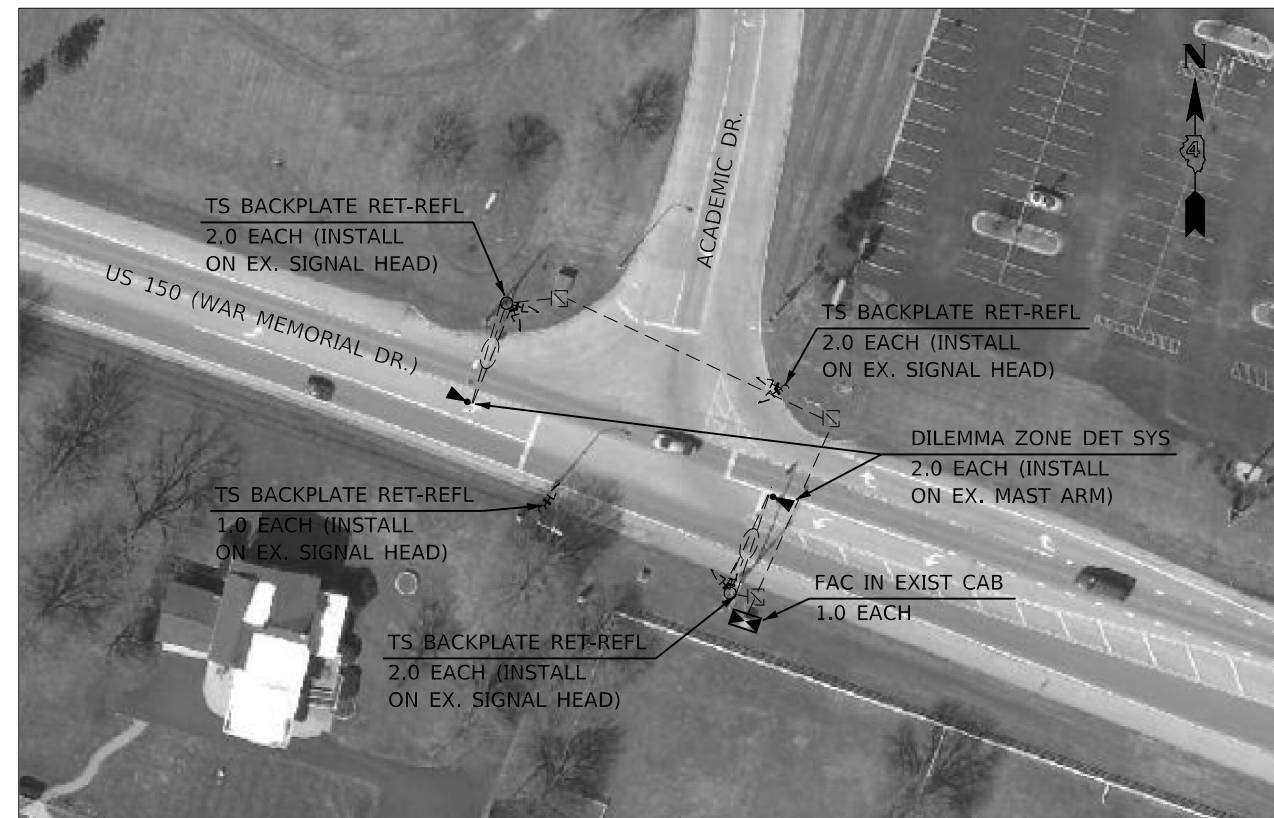
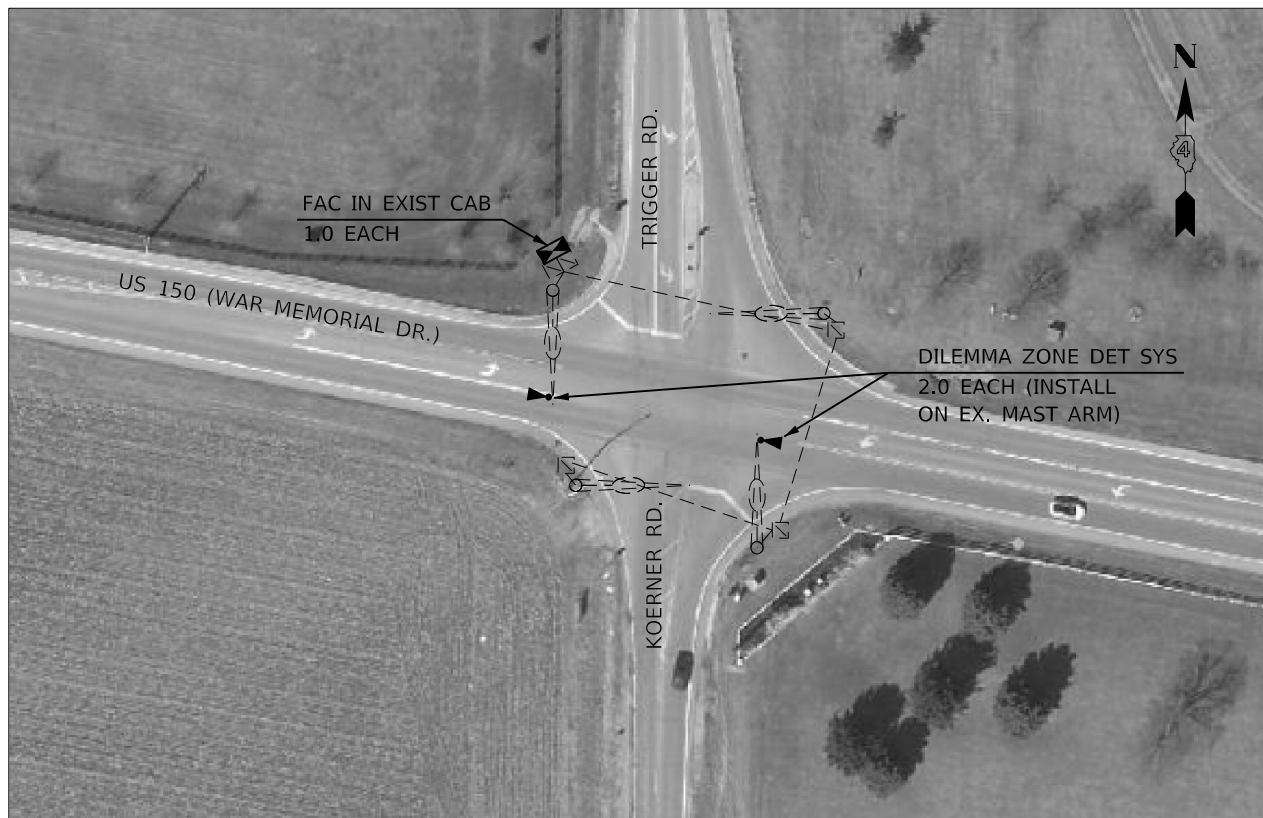
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING TRAFFIC SIGNAL PLANS  
INTERSECTIONS ALONG US 150 & IL 40 - PEORIA**

SCALE:      SHEET      OF      SHEETS      STA.      TO      STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	15
ILLINOIS			FED. AID PROJECT	
CONTRACT NO. 68G06				





SCHEDULE OF MATERIALS					
ITEM DESCRIPTION	UNIT	US 150 (WAR MEMORIAL DR.) & KOERNER RD./ TRIGGER RD.	US 150 (WAR MEMORIAL DR.) & ACADEMIC DR.	US 150 (WAR MEMORIAL DR.) & GLEN HOLLOW RD.	IL 40 (KNOXVILLE AVE.) & WOODSIDE DR.
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH		7.0	6.0	4.0
DILEMMA ZONE DETECTION SYSTEM	EACH	2.0	2.0	1.0	2.0
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1.0	1.0		1.0
VIDEO VEHICLE DETECTION SYSTEM	EACH			1.0	

TRAFFIC SIGNAL LEGEND			
	EX. TRAFFIC SIGNAL CONTROLLER CABINET		EX. LUMINAIRE
	EX. HANDHOLE		EX. COMBINATION MAST ARM
	EX. DOUBLE HANDHOLE		EX. MAST ARM
			EX. CONDUIT
	PROP. DILEMMA ZONE DETECTION SYSTEM		PROP. VEHICLE VIDEO DETECTION SYSTEM
	PROP. TRAFFIC SIGNAL CONTROLLER IN EX. CABINET		

NOT TO SCALE

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PLOT SCALE = 174,3861' / in.	CHECKED -	REVISED -
PLOT DATE = 10/16/2020	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED TRAFFIC SIGNAL PLANS  
INTERSECTIONS ALONG US 150 & IL 40 - PEORIA

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	16
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68G06	



TRAFFIC SIGNAL LEGEND

	EX. TRAFFIC SIGNAL CONTROLLER CABINET		EX. LUMINAIRE		EX. CONDUIT
	EX. HANDHOLE		EX. COMBINATION MAST ARM		
	EX. DOUBLE HANDHOLE		EX. MAST ARM		

NOT TO SCALE

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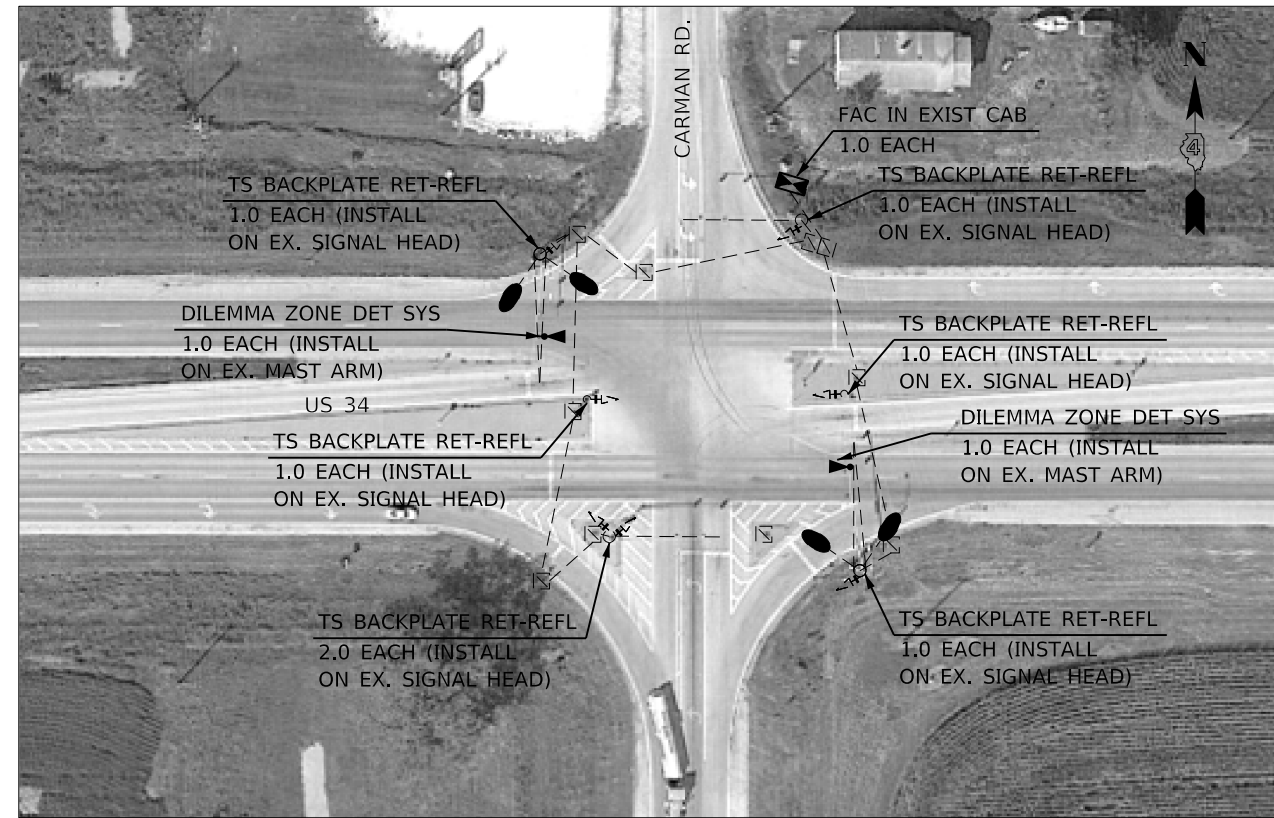
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING TRAFFIC SIGNAL PLANS  
US 24 & IL 9, US 34 & CARMAN, US 67 & IL 9 - VARIOUS COUNTIES**

SCALE:      SHEET      OF      SHEETS      STA.      TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	17
			CONTRACT NO. 68G06	
		ILLINOIS	FED. AID PROJECT	



SCHEDULE OF MATERIALS				
ITEM DESCRIPTION	UNIT	US 24 & IL 9	US 34 & CARMAN RD.	US 67 & IL 9
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH		4.0	4.0
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH		7.0	
DILEMMA ZONE DETECTION SYSTEM	EACH	2.0	2.0	4.0
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH		1.0	

TRAFFIC SIGNAL LEGEND			
	EX. TRAFFIC SIGNAL CONTROLLER CABINET		EX. LUMINAIRE
	EX. HANDHOLE		PROP. LED LUMINAIRE ON EX. STRUCTURE
	EX. DOUBLE HANDHOLE		PROP. DILEMMA ZONE DETECTION SYSTEM
			PROP. TRAFFIC SIGNAL CONTROLLER IN EX. CABINET
			EX. COMBINATION MAST ARM
			EX. MAST ARM
			EX. CONDUIT

NOT TO SCALE

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PLOT DATE = 10/16/2020	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED TRAFFIC SIGNAL PLANS  
US 24 & IL 9, US 34 & CARMAN, US 67 & IL 9 - VARIOUS COUNTIES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	18
			CONTRACT NO. 68G06	
		ILLINOIS	FED. AID PROJECT	



WATCH FOR CONGESTION AHEAD SIGN INCLUDES THE FOLLOWING PAY ITEMS:

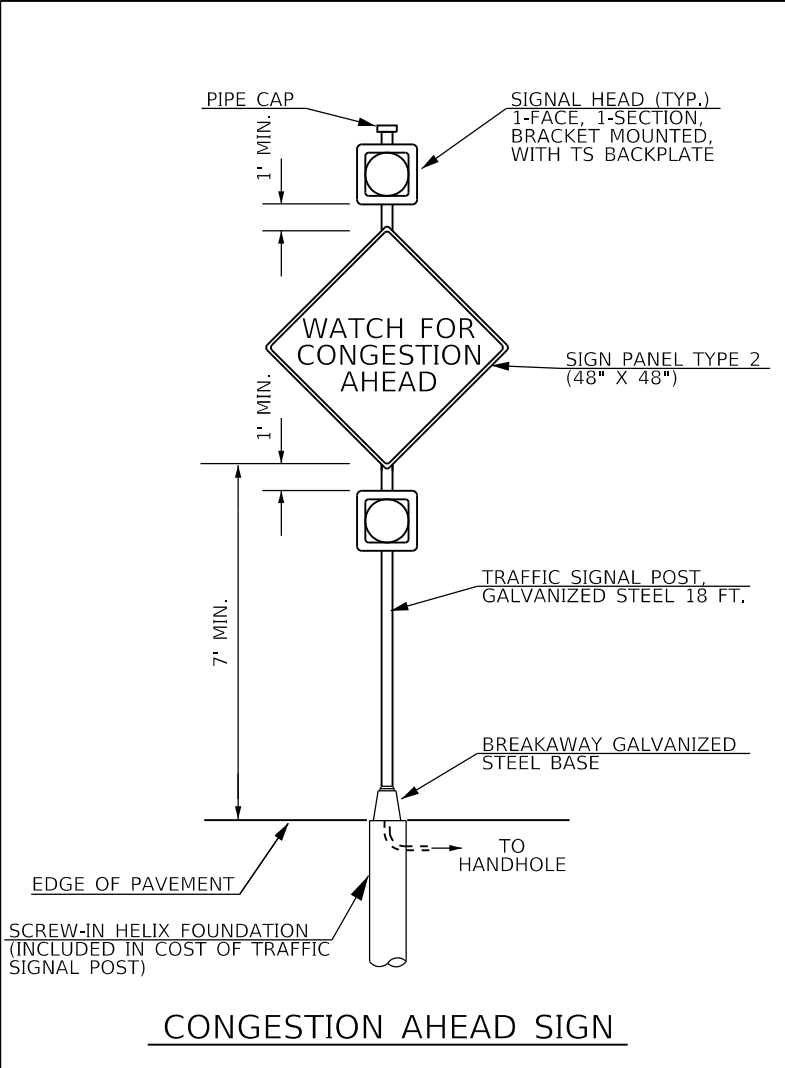
TS POST GALVS 18 (INCLUDES METAL FDN.)	QTY. 1.0 EACH
SH P LED 1F 1S BM	QTY. 2.0 EACH
TS BACKPLATE	QTY. 2.0 EACH
SIGN PANEL T2	QTY. 16.0 SQ FT

SCHEDULE OF MATERIALS		
ITEM DESCRIPTION	UNIT	US 150 EB FLASHER
SIGN PANEL - TYPE 2	SQ FT	16.0
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	505.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1930.0
ELECTRIC CABLE IN CONDUIT, EQUIPMENT	FOOT	1684.5
GROUNDING CONDUCTOR, NO. 6 1C		
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1.0
GULFBOX JUNCTION, COMPOSITE CONCRETE	EACH	1.0
DRILL EXISTING HANDHOLE	EACH	1.0
SIGNAL HEAD, POLYCARBONATE, LED 1-FACE, 1-SECTION, BRACKET MOUNTED	EACH	2.0
TRAFFIC SIGNAL BACKPLATE	EACH	2.0
GROUND EXISTING HANDHOLE	EACH	3.0
MODIFY EXISTING CONTROLLER AND CABINET	EACH	1.0

NOTES:

1. THE CONTRACTOR SHALL MAKE MODIFICATIONS TO THE EXISTING TRAFFIC SIGNAL CONTROLLER AND CABINET TO ENABLE THE OPERATION THE PROPOSED FLASHER BASED ON INPUT FROM THE PROPOSED DILEMMA ZONE DETECTION SYSTEM AND THE PROPOSED VEHICLE VIDEO DETECTION SYTEM (SHEET 16.) THIS WORK WILL BE PAID FOR BY THE BID PRICE FOR "MODIFY EXISTING CONTROLLER AND CABINET."
2. THE TRAFFIC SIGNAL POST SHALL BE GROUNDED IN ACCORDANCE WITH NEC REQUIREMENTS. THIS WORK WILL BE INCLUDED IN THE BID PRICE OF THE TRAFFIC SIGNAL POST.

TRAFFIC SIGNAL LEGEND			
	EX. TRAFFIC SIGNAL CONTROLLER CABINET		EX. CONDUIT
	EX. HANDHOLE		PROP. GULFBOX JUNCTION, COMPOSITE CONCRETE
	EX. DOUBLE HANDHOLE		PROP. CONDUIT
			PROP. FLASHER WITH BACKPLATE
			PROP. TRAFFIC SIGNAL POST



NOT TO SCALE

MODEL: Default  
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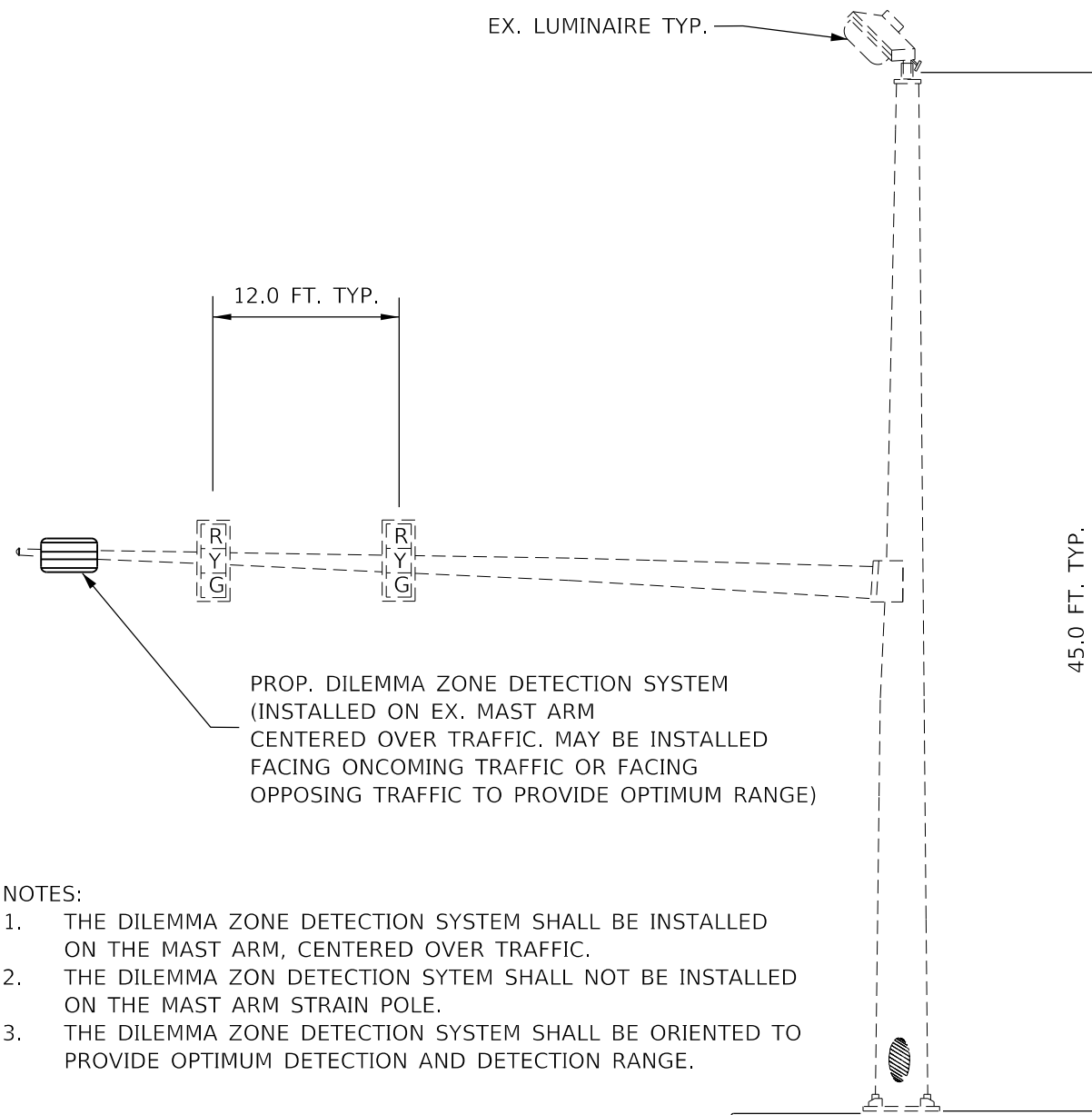
USER NAME = hansonj	DESIGNED -	REVISED -
PLOT SCALE = 1/4" = 174.3861' / in.	DRAWN -	REVISED -
PLOT DATE = 10/16/2020	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

US 150 EB FLASHER INSTALLATION				
SCALE:	SHEET	OF	SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	19
CONTRACT NO. 68G06				
ILLINOIS FED. AID PROJECT				

# DILEMMA ZONE DETECTION SYSTEM INSTALLATION DETAIL (TYP.)



**NOTES:**

1. THE DILEMMA ZONE DETECTION SYSTEM SHALL BE INSTALLED ON THE MAST ARM, CENTERED OVER TRAFFIC.
2. THE DILEMMA ZONE DETECTION SYSTEM SHALL NOT BE INSTALLED ON THE MAST ARM STRAIN POLE.
3. THE DILEMMA ZONE DETECTION SYSTEM SHALL BE ORIENTED TO PROVIDE OPTIMUM DETECTION AND DETECTION RANGE.

NOT TO SCALE

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USER NAME = hansontj	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1/4" = 174.3861' / in.	CHECKED -	REVISED -
PLOT DATE = 10/16/2020	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DILEMMA ZONE DETECTION SYSTEM INSTALLATION DETAIL**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	20
			CONTRACT NO. 68G06	
		ILLINOIS	FED. AID PROJECT	

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
LUMINAIRE PERFORMANCE TABLE**  
LED replacement for 250W HPS Horizontal Mount luminaire

**GIVEN CONDITIONS**

<b>ROADWAY DATA</b>	Lane Width	12 ft
	Number of Lanes (In One Direction Only)	3
	Median Width	0 ft
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
<b>LIGHT POLE DATA</b>	Mounting Height	45 ft
	Luminaire Overhang From Edge of Pavement (White Line)	0 ft
<b>LUMINAIRE DATA</b>	Luminaire Type	LED
	I.E.S. Vertical Distribution	Medium
	BUG Rating	U = 0
	I.E.S. Lateral Distribution	Type II or III
	Total Light Loss Factor	0.684
<b>LAYOUT DATA</b>	Spacing	160 ft
	Configuration	One Sided

**NOTES:**

- Total light loss factor is the product of "Lumen Depreciation" (LLD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment factors" (EF) = 0.95.

**PERFORMANCE REQUIREMENTS**

**NOTE:** These performance requirements shall be the acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

<b>ILLUMINANCE</b>	Average Illuminance, $E_{AVE}$	<u>0.9 fc to 1.4 fc</u>
	Uniformity Ratio, $E_{AVE}/E_{MIN}$	<u><math>\leq 3.0:1</math></u>
<b>LUMINANCE</b>	Average Luminance, $L_{AVE}$	<u>0.6 cd/m<sup>2</sup> to 0.9 cd/m<sup>2</sup></u>
	Uniformity Ratio, $L_{AVE}/L_{MIN}$	<u><math>\leq 3.5:1</math></u>
	Uniformity Ratio, $L_{MAX}/L_{MIN}$	<u><math>\leq 6.0:1</math></u>
	Max. Veiling Luminance Ratio, $L_v/L_{AVE}$	<u><math>\leq 0.3:1</math></u>

**NOTES:**

- ILLUMINANCE AND LUMINANCE VALUES CAN BE ROUNDED TO ONE SIGNIFICANT DIGIT.

NOT TO SCALE

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USER NAME = hansontj	DESIGNED -	REVISED -
	DRAWN -	REVISED -
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PLOT DATE = 10/16/2020	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LED LUMINAIRE PERFORMANCE TABLE**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D4 SIGNAL INSTALLATION 2021	VARIOUS	21	21
			CONTRACT NO. 68G06	
		ILLINOIS	FED. AID PROJECT	