

**GENERAL NOTES:**

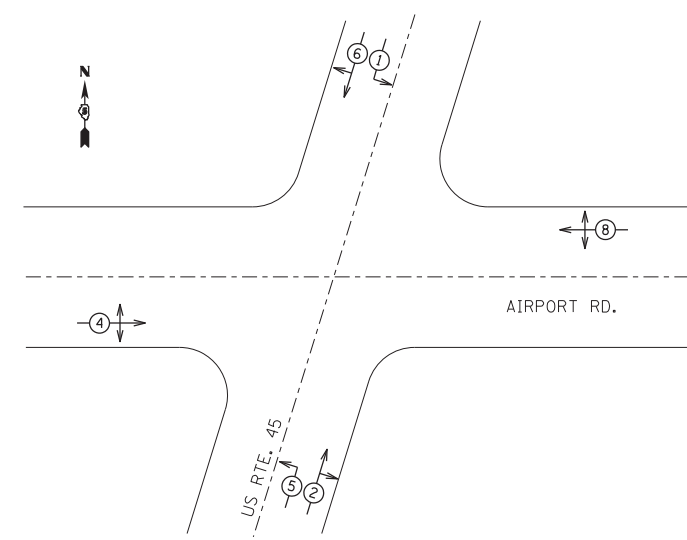
- THESE IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ILLINOIS DEPARTMENT OF TRANSPORTATION, ADOPTED APRIL 1, 2016.
- POST MOUNTED SIGNAL HEADS SHALL BE LOCATED SUCH THAT NO PART OF THE SIGNAL HEAD IS WITHIN 2 FEET OF THE FACE OF CURB
- THE BASE FOR A TRAFFIC SIGNAL POST SHALL BE SITUATED SUCH THAT THE HANDHOLE IS LOCATED ON A SIDE AWAY FROM A TRAVELLED LANE.
- 12" LENSES SHALL BE USED ON ALL SIGNAL FACES
- ALL LED SIGNAL LENSES SHALL BE OF THE SAME TYPE, DESIGN AND APPEARANCE AND BE FROM THE SAME MANUFACTURER FOR ANY GIVEN INTERSECTION
- ALL SIGNALS HEADS SHALL BE POLYCARBONATE
- DURING CONSTRUCTION, WHEN A SIGNAL INSTALLATION IS NOT IN OPERATION, SIGNAL HEADS SHOULD BE HOODED, TURNED OR TAKEN DOWN TO CLEARLY INDICATE THAT THE SIGNAL IS NOT IN OPERATION.
- ALL THREADS OF BOLTS USED IN ASSEMBLY OF TRAFFIC SIGNAL COMPONENTS SHALL BE COATED WITH A NON-LEAD BASED, ANTI-SEIZE COMPOUND. SIMILAR TO LEAD PLATE, PRIOR TO ASSEMBLY.
- ROADWAY IMPROVEMENTS MAY BE CONSTRUCTED SIMULTANEOUSLY WITH TRAFFIC SIGNAL INSTALLATION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY, INCIDENTAL TO THE RESPECTIVE CONTRACT PAY ITEM.
- ALL MAST ARM POLES SHALL BE LOCATED WITH THEIR CENTERLINE 6 FEET MINIMUM FROM THE FACE OF THE CURB.
- ALIGN ADJACENT RED INDICATIONS TO SAME HEIGHT ABOVE PAVEMENT.
- ALL MAST ARM POLE BASES SHALL BE PROTECTED BY A STAINLESS STEEL MESH SCREENING AROUND THE BASE BOLTS TO PREVENT RODENT ENTRY. THE MESH SHALL BE SECURED TO THE BASE BY STAINLESS STEEL BANDING AS INCIDENTAL TO THE INDIVIDUAL MAST ARM ASSEMBLY PAY ITEM.
- A 1/4" CONTINUOUS NYLON ROPE SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES, FOUNDATIONS AND CONTROLLERS. WITH 6 FEET OF SLACK AT EACH HANDHOLE. THE ROPE SHALL BE INCLUDED IN THE COST OF THE RESPECTIVE CONDUIT PAY ITEM.
- THE HANDHOLES SHALL HAVE EACH CABLE NEATLY WOUND ON THE HOOKS. THE CABLE SHALL BE PAID FOR AT ITS INDIVIDUAL UNIT PRICE.
- CONDUIT LOCATIONS SHOWN ON DRAWINGS ARE DIAGRAMMATIC IN NATURE AND MAY BE VARIED TO SUIT FIELD CONDITIONS. CONTRACTOR SHALL SUBMIT ALL SUCH REQUEST TO THE ENGINEER FOR REVIEW.
- THE FINAL LOCATION OF ALL TRAFFIC CONTROL ITEMS SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD. SIGNAL LOCATION MAY BE MODIFIED IN THE FIELD TO AVOID EXISTING UTILITIES.
- THE CONTRACTOR SHALL VERIFY, BY POTHOLING, THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING SIGNAL CONSTRUCTION AS INCIDENTAL TO THE RESPECTIVE CONTRACT PAY ITEM.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL SIGNAL COMPONENTS FOR APPROVAL PRIOR TO ORDERING.
- BACKFILL MATERIAL UNDER PROPOSED PAVEMENT FOR TRENCH AND BACKFILL SHALL BE CLSM AND SHALL BE INCLUDED IN THE UNIT PRICE FOR CONDUIT.
- NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN 2 FEET MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
- THE NECESSARY CONNECTIONS FOR PROPER OPERATION OF THE EMERGENCY VEHICLE PRIORITY SYSTEM SHALL BE INCLUDED IN THE COST OF THE ELECTRIC CABLE. THE ELECTRIC CABLE FOR THE LIGHT DETECTOR SHALL BE A CONTINUOUS UNBROKEN RUN FROM THE LIGHT DETECTOR TO THE LIGHT DETECTOR AMPLIFIER. SPLICES SHALL NOT BE ALLOWED.
- THE CONTROLLER SHALL BE SET TO MINIMUM RECALL US ROUTE 45.
- IN FLASHING MODE, ALL VEHICULAR SIGNAL FACES SHALL FLASH RED.
- THE CITY OF URBANA PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO THE TURNING ON THE CONTROLLER UNIT (1-217-384-2385).
- CONTROLLER PROGRAMMING OF SIGNAL TIMMING WILL BE PROVIDED BY THE CITY OF URBANA'S TRAFFIC SIGNAL TECHNICIAN. THE CONTRACTOR SHALL NOTIFY THE CITY TRAFFIC SIGNAL TECHNICIAN BY CONTACTING (1-217-384-2385) A MINIMUM OF 72 HOURS PRIOR TO CONTROLLER BEING READY FOR PROGRAMMING.
- CONTRACTOR SHALL PROTECT EXISTING LOOP DETECTORS ON US RTE 45. ANY DAMAGE SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.

**BILL OF MATERIALS**

PAY CODE	DESCRIPTION	UNIT	TOTAL QUANTITY
72000100	SIGN PANEL - TYPE 1	SQ FT	4
72000200	SIGN PANEL - TYPE 2	SQ FT	67
72400310	REMOVE SIGN PANEL - TYPE 1	SQ FT	40
72400710	RELOCATE SIGN PANEL - TYPE 1	SQ FT	4
81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	279
81028370	UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	243
81028390	UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	139
81400100	HANDHOLE	EACH	3
85700648	FULL-ACTUATED CONTROLLER, STANDARD SEQUENCE IV, 8 PHASES	EACH	1
86200200	UNINTERRUPTABLE POWER SUPPLY, STANDARD	EACH	1
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	432
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 5C	FOOT	1,789
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	825
87301515	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18, 3 PAIR	FOOT	1,209
87301732	ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 20 3C	FOOT	432
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	919
87501000	TRAFFIC SIGNAL POST, 14 FT.	EACH	2
87700190	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	2
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	6
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	22
87900200	DRILL EXISTING HANDHOLE	EACH	4
88040070	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	5
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	837
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	4
89502380	REMOVE EXISTING HANDHOLE	EACH	4
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
X0325273	REMOVE AND REINSTALL VIDEO DETECTION CAMERA	EACH	2
PREPARED BY: KRS - CHECKED BY: JLF			
3/14/17			

**TRAFFIC SIGNALS LEGEND**

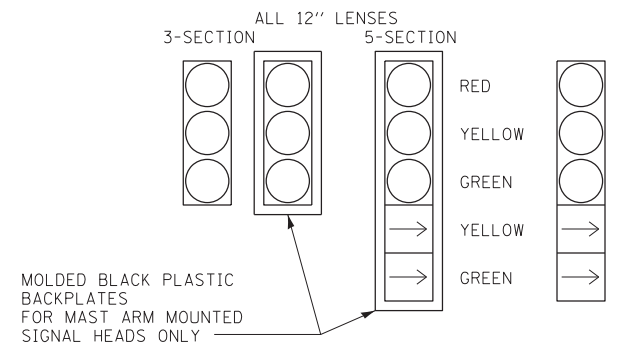
EXISTING	PROPOSED
DW W	PR. TRAFFIC SIGNAL
TRAFFIC SIGNAL BACKPLATE	PR. SIGNAL HEAD
EX. SIGNAL HEAD	PR. SIGNAL HEAD WITH BACKPLATE
EX. SIGNAL HEAD WITH BACKPLATE	PR. SIGNAL POST
EX. SIGNAL POST	PR. CONDUIT
EX. POWER POLE	PR. CONCRETE HANDHOLE
EX. EMERGENCY VEHICLE PREEMPTION SYSTEM	PR. VIDEO DETECTION UNIT
EX. CONDUIT	PR. MAST ARM
EX. LUMINAIRE	
EX. CONTROLLER	
EX. CONCRETE HANDHOLE	
EX. CONCRETE DOUBLE HANDHOLE	
EX. GULF BOX JUNCTION	
EX. MAST ARM	
EX. MAST ARM (ON CABLE DIAGRAM)	



**PHASE DESIGNATION DIAGRAM**

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN PROPERTY OF THE CITY, AND SHALL BE DELIVERED TO THE CITY OF URBANA MAINTENANCE YARD AT 706 S. GLOVER AS DIRECTED BY THE ENGINEER.

SIGNAL POST = 1 EACH    CONTROLLER = 1 EACH  
 MAST ARM = 2 EACH



**TYPICAL TRAFFIC CONTROL SIGNAL FACES**

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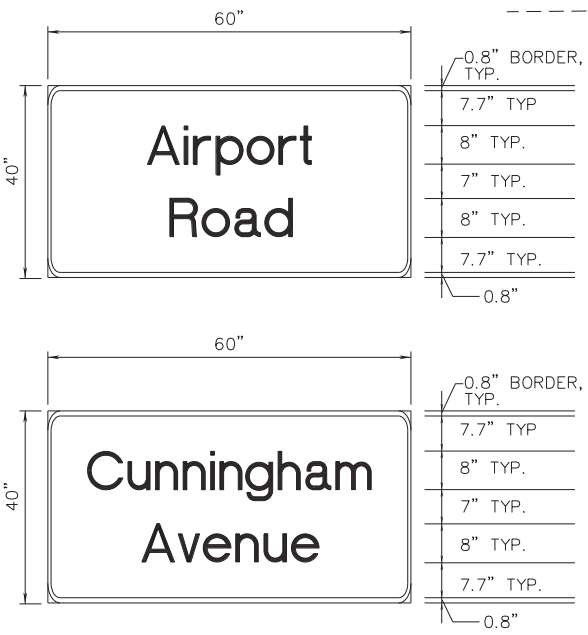
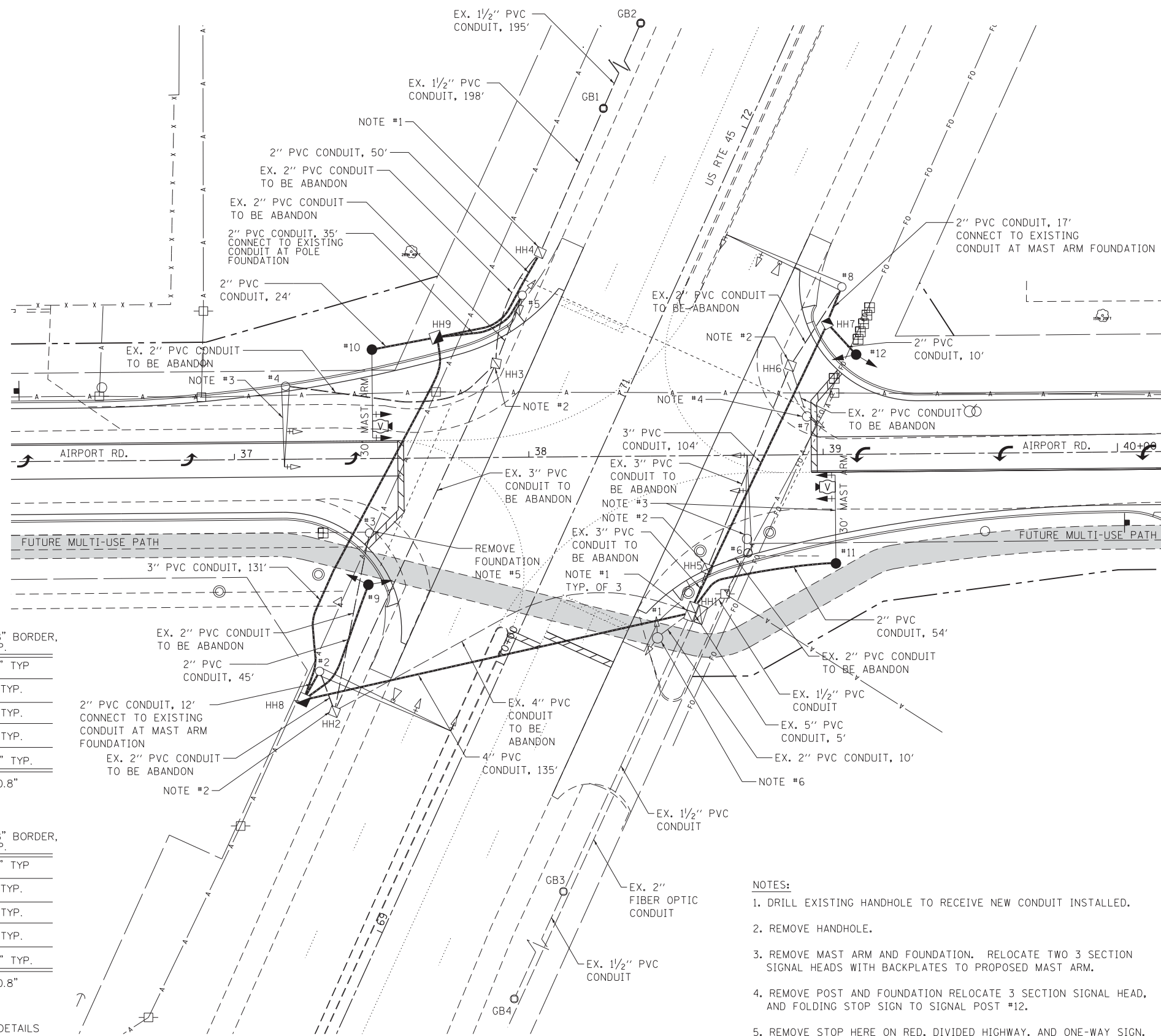
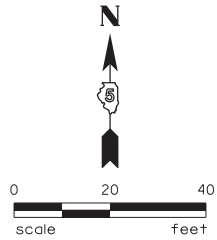
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PLOT DATE = 3/17/2017	DATE - 01/26/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL PLANS**

SCALE: NTS    SHEET NO. 1 OF 3 SHEETS    STA.    TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7190	13-00532-00-PV	CHAMPAIGN	80	47
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



NOTE: SEE STANDARD 720016 FOR MORE DETAILS

**MAST ARM MOUNTED  
STREET NAME SIGN DETAIL  
(NO SCALE)**

- NOTES:**
1. DRILL EXISTING HANDHOLE TO RECEIVE NEW CONDUIT INSTALLED.
  2. REMOVE HANDHOLE.
  3. REMOVE MAST ARM AND FOUNDATION. RELOCATE TWO 3 SECTION SIGNAL HEADS WITH BACKPLATES TO PROPOSED MAST ARM.
  4. REMOVE POST AND FOUNDATION RELOCATE 3 SECTION SIGNAL HEAD, AND FOLDING STOP SIGN TO SIGNAL POST #12.
  5. REMOVE STOP HERE ON RED, DIVIDED HIGHWAY, AND ONE-WAY SIGN.
  6. REMOVE ONE-WAY SIGN.

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**Farnsworth**  
GROUP, INC.  
2211 West Bradley Avenue  
Champaign, Illinois 61821  
217/352-7408, 217/352-7409 fax

USER NAME = slsisonby  
 PRINTER = \$SYSPRINTER\_NAME\$  
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 PLOT DATE = 3/17/2017

DESIGNED - DSC  
 DRAWN - JDK  
 CHECKED - JLF  
 DATE - 01/26/2017

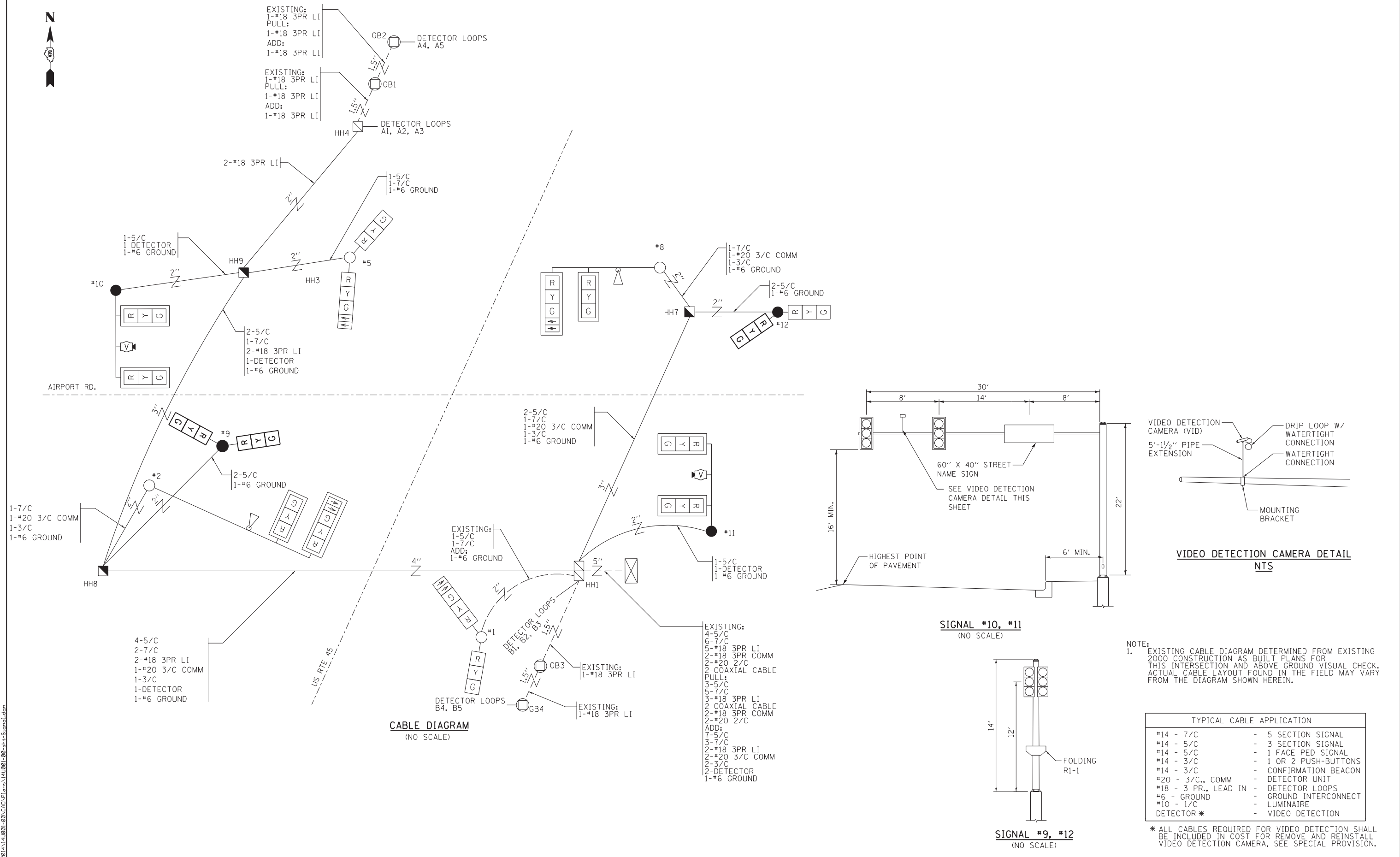
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

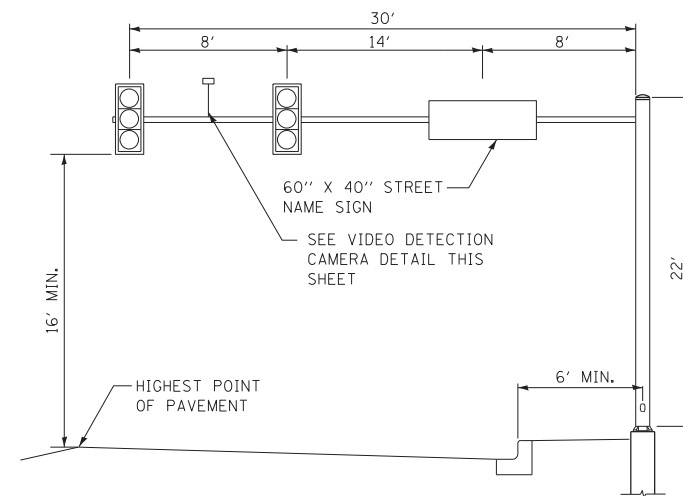
**TRAFFIC SIGNAL PLANS**

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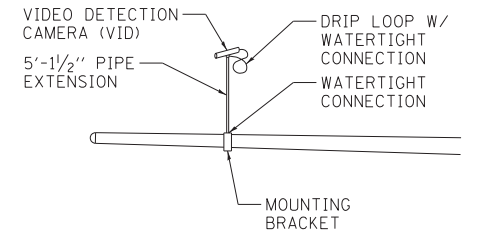
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CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



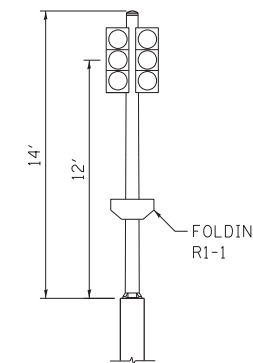
**CABLE DIAGRAM**  
(NO SCALE)



**SIGNAL #10, #11**  
(NO SCALE)



**VIDEO DETECTION CAMERA DETAIL**  
NTS



**SIGNAL #9, #12**  
(NO SCALE)

NOTE:  
1. EXISTING CABLE DIAGRAM DETERMINED FROM EXISTING 2000 CONSTRUCTION AS BUILT PLANS FOR THIS INTERSECTION AND ABOVE GROUND VISUAL CHECK. ACTUAL CABLE LAYOUT FOUND IN THE FIELD MAY VARY FROM THE DIAGRAM SHOWN HEREIN.

TYPICAL CABLE APPLICATION	
#14 - 7/C	- 5 SECTION SIGNAL
#14 - 5/C	- 3 SECTION SIGNAL
#14 - 5/C	- 1 FACE PED SIGNAL
#14 - 3/C	- 1 OR 2 PUSH-BUTTONS
#14 - 3/C	- CONFIRMATION BEACON
#20 - 3/C, COMM	- DETECTOR UNIT
#18 - 3 PR., LEAD IN	- DETECTOR LOOPS
#6 - GROUND	- GROUND INTERCONNECT
#10 - 1/C	- LUMINAIRE
DETECTOR *	- VIDEO DETECTION

\* ALL CABLES REQUIRED FOR VIDEO DETECTION SHALL BE INCLUDED IN COST FOR REMOVE AND REINSTALL VIDEO DETECTION CAMERA, SEE SPECIAL PROVISION.

DRIVER = #PLT05V.L  
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 GROUP, INC.  
 2211 West Bradley Avenue  
 Champaign, Illinois 61821  
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USER NAME = slsisonby  
 PRINTER = \$SYSPRINTER\_NAME\$  
 PLOT SCALE = 20.00' / in.  
 PLOT DATE = 3/17/2017

DESIGNED - DSC  
 DRAWN - JDK  
 CHECKED - JLF  
 DATE - 01/26/2017

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL PLANS**

SCALE: NTS    SHEET NO. 3 OF 3 SHEETS    STA.    TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7190	13-00532-00-PV	CHAMPAIGN	80	49
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				