Arkansas Department of Transportation
Construction Plans for State Highway

Henson Rd. RR Sig. Upgrade
& Traffic Sig. (Jonesboro) (S)

Craighead County
Route 91 Section 2
F.A.P. RHE-9227(49)

Job 100822

Mid-Point of Project
Lat. = N 35°51'14"
Long. = W 90°45'09"

Not to Scale

Project Location
Hwy. 91/Henson Rd.

Approved

Deputy Director
And Chief Engineer
INDEX OF SHEETS

SHEET NO. | TITLE
--- | ---
1 | TITLE SHEET
2 | INDEX OF SHEETS, STANDARD DRAWINGS, AND GOVERNING SPECIFICATIONS
3 | MAINTENANCE OF TRAFFIC
4 | PERMANENT PAVEMENT MARKINGS AND SIGNS
5 | QUANTITIES
6 | SUMMARY OF QUANTITIES AND REVISIONS
7 | SURVEY CONTROL DETAILS
8 | TRAFFIC SIGNAL QUANTITIES
9 | TRAFFIC SIGNAL NOTES
10 | SYSTEM MAP
11 | SIGNALIZATION PLAN SHEETS
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GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

NUMBER | TITLE
--- | ---
ERRATA | ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273 | REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273 | SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273 | SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273 | SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273 | SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273 | SUPPLEMENT - POSTERS AND Notices REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273 | SUPPLEMENT - WAGE RATE DETERMINATION
100-3 | CONTRACTOR'S LICENSE
100-4 | DEPARTMENT NAME CHANGE
100-2 | ISSUANCE OF PROPOSALS
108-1 | LIQUIDATED DAMAGES
108-2 | WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
604-1 | RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB 10002 | BIDDING REQUIREMENTS AND CONDITIONS
JOB 10002 | CABINET DRAWER ASSEMBLY
JOB 10002 | CARGO PREFERENCE ACT REQUIREMENTS
JOB 10002 | DOCUMENTATION OF PAYMENTS MADE TO DISADVANTAGED BUSINESS ENTERPRISES
JOB 10002 | EDGE CARD VIDEO PROCESSOR
JOB 10002 | ELECTRICAL CONDUCTORS FOR LUMINARIES
JOB 10002 | ELECTRICAL CONDUCTORS IN CONDUIT
JOB 10002 | EMERGENCY BATTERY BACKUP SYSTEM INSTALLATION
JOB 10002 | FIBER OPTIC BLANK OUT BOX
JOB 10002 | INSURANCE, CONSTRUCTION, AND FLAGGING REQUIREMENTS ON RAILROAD PROPERTY (BNSF)
JOB 10002 | LED TRAFFIC SIGNAL HEAD
JOB 10002 | LOOP WIRING REVISON 1.4
JOB 10002 | LOUVERS FOR SIGNAL HEADS
JOB 10002 | LUMINARIE ASSEMBLY (CUTOFF TYPE)
JOB 10002 | MANDATORY ELECTRONIC CONTRACT
JOB 10002 | MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 10002 | SERVICE POINT ASSEMBLY (TRAFFIC CONTROL DEVICES)
JOB 10002 | STREET NAME SIGN (MAST ARM MOUNTED)
JOB 10002 | SYSTEM LOCAL CONTROLLER
JOB 10002 | UTILITY ADJUSTMENTS
JOB 10002 | VIDEO DETECTOR (COLOR)

ROADWAY STANDARD DRAWINGS

DRWG NO. | TITLE | DATE
--- | --- | ---
PM-1 | PAVEMENT MARKING DETAIL | 5-12-16
RRS-1 | PAVEMENT MARKINGS FOR RAILROAD CROSSING | 12-05-16
SD-4 | LOOP DETECTOR INSTALLATION | 11-16-17
SD-5 | CONTROLLER CABINET UTILITY DRAWER | 9-12-13
SD-6 | HEAVY DUTY PULL BOX | 11-16-17
SD-8 | SIGNAL HEAD PLACEMENT | 12-05-16
SD-9 | SERVICE POINT | 11-16-17
SD-11 | STEEL POLE WITH MAST ARM | 11-16-17
SHS-1 | STANDARD HIGHWAY SIGNS AND SUPPORT ASSEMBLIES | 9-12-13
SHS-2 | U-CHANNEL POST ASSEMBLIES | 9-27-14
TC-1 | STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION 1 | 9-02-15
TC-2 | STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION 2 | 9-02-15
TC-3 | STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION 3 | 9-02-15

LOCATION: HWY 71, JENKINS ROAD
CITY: JONESBORO
COUNTY: CHI (SHAPE)
STATE: AR
PAGE NO.: 2
DRAWN BY: CJS
DATE: 12-7-17
FILE NAME: 100822 job.dgn
NOTE TO CONTRACTOR:
1. All traffic control signs should be spaced 500 feet apart and 500 feet from the beginning of work around the intersection per MUTCD (2009).
## ADVANCE WARNING SIGNS AND DEVICES

<table>
<thead>
<tr>
<th>SIGN NUMBER</th>
<th>DESCRIPTION</th>
<th>SIGN SIZE</th>
<th>MAXIMUM NUMBER REQUIRED</th>
<th>TOTAL SIGNS REQUIRED</th>
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</thead>
<tbody>
<tr>
<td>W20-1</td>
<td>ROAD WORK 1000 FT.</td>
<td>48&quot;x48&quot;</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>W20-1</td>
<td>ROAD WORK 1000 FT.</td>
<td>48&quot;x48&quot;</td>
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<td>ROAD WORK 500 FT.</td>
<td>48&quot;x48&quot;</td>
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<td>ROAD WORK AHEAD</td>
<td>48&quot;x48&quot;</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>G20-2</td>
<td>END ROAD WORK</td>
<td>48&quot;x24&quot;</td>
<td>3</td>
<td>3</td>
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</tbody>
</table>

**TOTAL:** 126.0

**Note:** This is a low traffic volume road as defined in Section 604.03, standard specifications for highway construction.

### STANDARD SIGNS

<table>
<thead>
<tr>
<th>SIGN NUMBER</th>
<th>DESCRIPTION</th>
<th>SIGN SIZE</th>
<th>MAXIMUM NUMBER REQUIRED</th>
<th>TOTAL SIGNS REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>R10-6</td>
<td>STOP HERE ON RED</td>
<td>24&quot;x36&quot;</td>
<td>1</td>
<td>1</td>
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<tr>
<td>W10-1</td>
<td>GRADE CROSSING ADVANCE WARNING</td>
<td>36 DIA</td>
<td>2</td>
<td>2</td>
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<tr>
<td>W10-3</td>
<td>GRADE CROSSING ADVANCE WARNING</td>
<td>36&quot;x36&quot;</td>
<td>2</td>
<td>2</td>
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<tr>
<td>W10-11A</td>
<td>STORAGE SPACE XX FEET BETWEEN TRACKS AND HIGHWAY</td>
<td>30&quot;x30&quot;</td>
<td>1</td>
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</tbody>
</table>

**TOTAL:** 48.0

**Note:** This is a low traffic volume road as defined in Section 604.03, standard specifications for highway construction.
<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>ITEM</th>
<th>QUANTITY</th>
<th>UNIT</th>
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<tbody>
<tr>
<td>S01</td>
<td>MODELIZATION</td>
<td>1.00</td>
<td>LUMP SUM</td>
</tr>
<tr>
<td>603</td>
<td>MAINTENANCE OF TRAFFIC</td>
<td>1.00</td>
<td>LUMP SUM</td>
</tr>
<tr>
<td>SS &amp; 604</td>
<td>SIGNS</td>
<td>139</td>
<td>SQ. FT.</td>
</tr>
<tr>
<td>504</td>
<td>REMOVAL OF PERMANENT PAVEMENT MARKINGS</td>
<td>680</td>
<td>LIN. FT.</td>
</tr>
<tr>
<td>SP &amp; 701</td>
<td>SYSTEM LOCAL CONTROLLER T52-TYPE 2, E-NET (8 PHASES)</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>SP</td>
<td>ETHERNET SWITCH, 7100 HARDCORED (8 PORT)</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>SP</td>
<td>EJNET CABLE (EXTERIOR CAT 5e)</td>
<td>68</td>
<td>LIN. FT.</td>
</tr>
<tr>
<td>SP</td>
<td>BATTERY BACKUP SYSTEM</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>704</td>
<td>VEHICLE DETECTOR-HACK MOUNT</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>SP</td>
<td>LOOP WIRING CLASS II (1/6 A.W.G.)</td>
<td>784</td>
<td>LIN. FT.</td>
</tr>
<tr>
<td>704</td>
<td>FIELDER WIRE</td>
<td>178</td>
<td>LIN. FT.</td>
</tr>
<tr>
<td>SP</td>
<td>FIBER OPTIC BLANK OUT SIGN</td>
<td>2</td>
<td>EACH</td>
</tr>
<tr>
<td>SP &amp; 706</td>
<td>TRAFFIC SIGNAL HEAD, LED (2 SECTION, 1 WAY)</td>
<td>10</td>
<td>EACH</td>
</tr>
<tr>
<td>SP &amp; 706</td>
<td>TRAFFIC SIGNAL HEAD, LED (6 SECTION, 1 WAY)</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>SP</td>
<td>LOUVERS</td>
<td>4</td>
<td>EACH</td>
</tr>
<tr>
<td>708</td>
<td>TRAFFIC SIGNAL CABLE (1/4 A.W.G.)</td>
<td>528</td>
<td>LIN. FT.</td>
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<tr>
<td>708</td>
<td>TRAFFIC SIGNAL CABLE (1/2 A.W.G.)</td>
<td>144</td>
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<tr>
<td>708</td>
<td>TRAFFIC SIGNAL CABLE (2/4 A.W.G.)</td>
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<tr>
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<td>TRAFFIC SIGNAL CABLE (3/4 A.W.G.)</td>
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<td>SP</td>
<td>ELECTRICAL CONDUCTORS-IN-COMMIT (1/8 A.W.G., E.G.C.)</td>
<td>382</td>
<td>LIN. FT.</td>
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<tr>
<td>SP</td>
<td>ELECTRICAL CONDUCTORS-IN-COMMIT (1/12 A.W.G., E.G.C.)</td>
<td>275</td>
<td>LIN. FT.</td>
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<tr>
<td>SP</td>
<td>ELECTRICAL CONDUCTORS-IN-COMMIT (2/8 A.W.G.)</td>
<td>20</td>
<td>LIN. FT.</td>
</tr>
<tr>
<td>SP</td>
<td>ELECTRICAL CONDUCTORS FOR LUMINARIES</td>
<td>671</td>
<td>LIN. FT.</td>
</tr>
<tr>
<td>709</td>
<td>GALVANIZED STEEL CONDUIT (1/2&quot;)</td>
<td>20</td>
<td>LIN. FT.</td>
</tr>
<tr>
<td>710</td>
<td>NON-METALLIC CONDUIT (1&quot;)</td>
<td>403</td>
<td>LIN. FT.</td>
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<tr>
<td>710</td>
<td>NON-METALLIC CONDUIT (1/2&quot;)</td>
<td>60</td>
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<td>NON-METALLIC CONDUIT (2&quot;)</td>
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<td>LIN. FT.</td>
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<tr>
<td>710</td>
<td>NON-METALLIC CONDUIT (3&quot;)</td>
<td>447</td>
<td>LIN. FT.</td>
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<tr>
<td>711</td>
<td>CONCRETE PULL BOX (TYPE 1 HD)</td>
<td>8</td>
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<tr>
<td>711</td>
<td>CONCRETE PULL BOX (TYPE 2 HD)</td>
<td>6</td>
<td>EACH</td>
</tr>
<tr>
<td>714</td>
<td>TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (26&quot;)</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>714</td>
<td>TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (42&quot;)</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>714</td>
<td>TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (66&quot;)</td>
<td>2</td>
<td>EACH</td>
</tr>
<tr>
<td>SP</td>
<td>LUMINARE ASSEMBLY</td>
<td>4</td>
<td>EACH</td>
</tr>
<tr>
<td>SP</td>
<td>SERVICE POINT ASSEMBLY (2 CIRCUITS)</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>719</td>
<td>THERMOPLASTIC PAVEMENT MARKING WHITE (5&quot;)</td>
<td>100</td>
<td>LIN. FT.</td>
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<td>719</td>
<td>THERMOPLASTIC PAVEMENT MARKING WHITE (24&quot;)</td>
<td>140</td>
<td>LIN. FT.</td>
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<td>719</td>
<td>THERMOPLASTIC PAVEMENT MARKING YELLOW (9&quot;)</td>
<td>920</td>
<td>LIN. FT.</td>
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<td>719</td>
<td>THERMOPLASTIC PAVEMENT MARKING YELLOW (8&quot;)</td>
<td>225</td>
<td>LIN. FT.</td>
</tr>
<tr>
<td>719</td>
<td>THERMOPLASTIC PAVEMENT MARKING (WORD)</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>719</td>
<td>THERMOPLASTIC PAVEMENT MARKING (ARROWS)</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>719</td>
<td>THERMOPLASTIC PAVEMENT MARKING (RAILROAD EMBLEMS)</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>721</td>
<td>RAISED PAVEMENT MARKERS (TYPE B)</td>
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<td>EACH</td>
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<tr>
<td>725</td>
<td>STANDARD SIGN</td>
<td>46</td>
<td>SQ. FT.</td>
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<tr>
<td>SP</td>
<td>18&quot; STREET NAME SIGN</td>
<td>3</td>
<td>EACH</td>
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<tr>
<td>729</td>
<td>CHANNEL POST SIGN SUPPORT (TYPE 1-1)</td>
<td>6</td>
<td>EACH</td>
</tr>
<tr>
<td>SP &amp; 733</td>
<td>VIDEO DETECTOR (CLR)</td>
<td>5</td>
<td>EACH</td>
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<tr>
<td>733</td>
<td>VIDEO CABLE</td>
<td>687</td>
<td>LIN. FT.</td>
</tr>
<tr>
<td>SP &amp; 733</td>
<td>VIDEO MONITOR (CLR)</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>SP &amp; 733</td>
<td>VIDEO PROCESSOR, EDGE CARD (2 CAMERA)</td>
<td>4</td>
<td>EACH</td>
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<tr>
<td>SP &amp; 733</td>
<td>VEHICLE DETECTOR MACK (20 CHANNEL)</td>
<td>1</td>
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</tr>
<tr>
<td>SP</td>
<td>NET-ACCESS RADIO (9.8 GHz, 32 MBPS)</td>
<td>1</td>
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</tr>
<tr>
<td>SP</td>
<td>NET-SUBSCRIBER RADIO (6.8 GHz, 32 MBPS)</td>
<td>1</td>
<td>EACH</td>
</tr>
</tbody>
</table>

* ONE SPARE VIDEO DETECTOR AND ONE SPARE VIDEO PROCESSOR SHALL BE SUPPLIED.
### Survey Control Coordinates

**Project Name:** 100822  
**Date:** 4/3/2015  
**Coordinate System:** Arkansas State Plane Coordinates  
**Based on NAD83/PS-58:** 100822  
**Based on NGS PTS:** H-100, V-200, & W-300  
**Projected to Ground Coordinates:** U.S. Survey Foot

| Coordinate System: | Arkansas State Plane Coordinates  
**Based on NAD83/PS-58:** 100822  
**Based on NGS PTS:** H-100, V-200, & W-300  
**Projected to Ground Coordinates:** U.S. Survey Foot

## Coordinates Listed Below Are Ground (Location) Coordinates

<table>
<thead>
<tr>
<th>Point No.</th>
<th>Northing</th>
<th>Easting</th>
<th>SX</th>
<th>Elevation</th>
<th>Feature Code</th>
<th>Point Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>106086.7504</td>
<td>1681900.9796</td>
<td>0.0492</td>
<td>301.29</td>
<td>CTS</td>
<td>PS STDI AHID MON STAMPED PS-1</td>
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<tr>
<td>2</td>
<td>106060.0000</td>
<td>1681906.8000</td>
<td>0.0379</td>
<td>298.60</td>
<td>CTS</td>
<td>PS STDI AHID MON STAMPED PS-1</td>
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<tr>
<td>3</td>
<td>106531.4406</td>
<td>1682521.9986</td>
<td>0.0184</td>
<td>297.29</td>
<td>CTS</td>
<td>PS STDI AHID MON STAMPED PS-1</td>
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<td>106185.1200</td>
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<td>0.0352</td>
<td>289.02</td>
<td>GCP</td>
<td>PS NAD83 MON 100822</td>
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<td>5</td>
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<td>1682175.7900</td>
<td>0.0139</td>
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<td>BM</td>
<td>PS NGS BM 190</td>
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<td>PS NGS BM 307</td>
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</table>

**Note:** The latitude and longitude data for the survey control points are based on the NAD83/PS-58 coordinate system and the NGS PTS: H-100, V-200, & W-300. The coordinates are listed above and are used to compute the above ordinates.

**Positional Accuracy:**  
- Horizontal: 0.03' (2cm)  
- Vertical: 0.03' (2cm)

**Vertical Datum:** NAVD 1988 based on NGS BM H=125, V=330, & W=330

**Note:** The information in this document is for identification only. It is not to be part of the actual Control Table or Control Detail Sheets.
**HWY, 9: CENTERLINE POINTS**

<table>
<thead>
<tr>
<th>POINT</th>
<th>DESCRIPTION</th>
<th>STATION</th>
<th>NORTHING</th>
<th>EASTING</th>
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<tbody>
<tr>
<td>POB</td>
<td></td>
<td>100+00.00</td>
<td>555652.92</td>
<td>168622.33</td>
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<tr>
<td>POE</td>
<td></td>
<td>109+3.54</td>
<td>55543.53</td>
<td>1682522.59</td>
</tr>
</tbody>
</table>

**POINT DESCRIPTION**

- **POB**: 100+00.00
- **POE**: 109+3.54

**NORTHING & EASTING**

- NORTHING: 555652.92, 55543.53
- EASTING: 168622.33, 1682522.59
### Traffic Signal Quantities

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Item Description</th>
<th>Quantity</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP &amp; 701</td>
<td>System Local Controller T92-Type 2, E-Net (8 Phases)</td>
<td>1</td>
<td>Each</td>
</tr>
<tr>
<td>SP</td>
<td>ETHERNET SWITCH, 1000 HARDENED (8-PORT)</td>
<td>1</td>
<td>Each</td>
</tr>
<tr>
<td>SP</td>
<td>E-NET CABLE (EXTERIOR CAT 5E)</td>
<td>68</td>
<td>Lin. Ft.</td>
</tr>
<tr>
<td>SP</td>
<td>BATTERY Backup System</td>
<td>1</td>
<td>Each</td>
</tr>
<tr>
<td>704</td>
<td>VEHICLE DETECTOR-RACK MOUNT</td>
<td>1</td>
<td>Each</td>
</tr>
<tr>
<td>704</td>
<td>LOOP WIRING CLASS (1/0X6 A.W.G.)</td>
<td>786</td>
<td>Lin. Ft.</td>
</tr>
<tr>
<td>704</td>
<td>FEEDER WIRE</td>
<td>1761</td>
<td>Lin. Ft.</td>
</tr>
<tr>
<td>SP</td>
<td>VIDEO OPTIC BLANK OUT SIGN</td>
<td>2</td>
<td>Each</td>
</tr>
<tr>
<td>SP &amp; 706</td>
<td>TRAFFIC SIGNAL HEAD, LED, (1 SECTION, 1 WAY)</td>
<td>2</td>
<td>Each</td>
</tr>
<tr>
<td>SP &amp; 706</td>
<td>TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)</td>
<td>10</td>
<td>Each</td>
</tr>
<tr>
<td>SP</td>
<td>LOUDERS</td>
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<tr>
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<td>ELECTRICAL CONDUCTORS-N-CONDUIT 2C/8 A.W.G.</td>
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<td>Lin. Ft.</td>
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<tr>
<td>SP</td>
<td>ELECTRICAL CONDUCTORS FOR LUMINAIRES</td>
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<td>Lin. Ft.</td>
</tr>
<tr>
<td>709</td>
<td>GALVANIZED STEEL CONDUIT (1&quot;)</td>
<td>20</td>
<td>Lin. Ft.</td>
</tr>
<tr>
<td>710</td>
<td>NONMETALLIC CONDUIT (1&quot;)</td>
<td>403</td>
<td>Lin. Ft.</td>
</tr>
<tr>
<td>710</td>
<td>NONMETALLIC CONDUIT (2&quot;)</td>
<td>734</td>
<td>Lin. Ft.</td>
</tr>
<tr>
<td>710</td>
<td>NONMETALLIC CONDUIT (3&quot;)</td>
<td>447</td>
<td>Lin. Ft.</td>
</tr>
<tr>
<td>711</td>
<td>CONCRETE PULL BOX (TYPE 110D)</td>
<td>8</td>
<td>Each</td>
</tr>
<tr>
<td>711</td>
<td>CONCRETE PULL BOX (TYPE 2 HO)</td>
<td>6</td>
<td>Each</td>
</tr>
<tr>
<td>714</td>
<td>TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (26)</td>
<td>1</td>
<td>Each</td>
</tr>
<tr>
<td>714</td>
<td>TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (42)</td>
<td>1</td>
<td>Each</td>
</tr>
<tr>
<td>714</td>
<td>TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (46)</td>
<td>2</td>
<td>Each</td>
</tr>
<tr>
<td>SP</td>
<td>LUMINARE ASSEMBLY</td>
<td>4</td>
<td>Each</td>
</tr>
<tr>
<td>SP</td>
<td>SERVICE POINT ASSEMBLY (2 CIRCUITS)</td>
<td>1</td>
<td>Each</td>
</tr>
<tr>
<td>SP</td>
<td>18&quot; STREET NAME SIGN</td>
<td>3</td>
<td>Each</td>
</tr>
<tr>
<td>* SP &amp; 733</td>
<td>VIDEO DETECTOR (CUR)</td>
<td>5</td>
<td>Each</td>
</tr>
<tr>
<td>733</td>
<td>VIDEO CABLE</td>
<td>657</td>
<td>Lin. Ft.</td>
</tr>
<tr>
<td>733</td>
<td>VIDEO MONITOR (CMI)</td>
<td>1</td>
<td>Each</td>
</tr>
<tr>
<td>* SP &amp; 733</td>
<td>VIDEO PROCESSOR, EDGE CARD (2 CAMERA)</td>
<td>4</td>
<td>Each</td>
</tr>
<tr>
<td>SP &amp; 733</td>
<td>VEHICLE DETECTOR RACK (20 CHANNEL)</td>
<td>1</td>
<td>Each</td>
</tr>
<tr>
<td>SP</td>
<td>NET ACCESS RADIO (5.8 GHZ, 32 MBPS)</td>
<td>1</td>
<td>Each</td>
</tr>
<tr>
<td>SP</td>
<td>NET SUBSCRIBER RADIO (5.8 GHZ, 32 MBPS)</td>
<td>1</td>
<td>Each</td>
</tr>
</tbody>
</table>

* ONE SPARE VIDEO DETECTOR AND ONE SPARE VIDEO PROCESSOR SHALL BE SUPPLIED.

---

**NOTES:**

1. REFLECTIVE SHEETING SHALL COMPLY WITH ASTM G95-16 OR 9-REFLECTIVE SHEETING AND LEGEND SHALL BE APPLIED IN SUCH A MANNER TO PROVIDE WRINKLE AND BUNDLE FREE SURFACES. APPLICATION OF SHEETING IS CAUSE FOR REJECTION OF MATERIALS DUE TO WORKMANSHIP.

2. ALUMINUM SIGN BLANK SHALL BE ALLOY 6063-T6 OR 5551-H32. THE ALUMINUM USED SHALL BE AS EXAMINED. THE ALUMINUM SHEET SHALL BE INSTALLED WITH THE SIDE SHOWN WITH 3" CORNER RADIUS FROM FABRICATION OF THE SIGNS, THE LAYOUT SHALL FIRST BE APPROVED BY AN AGENT OF THE CITY.

3. WHEN CROSSROAD HAS TWO NAMES, THE SIGN FOR THE CROSSROAD TO THE LEFT MAY BE INSTALLED ON THE BACKSIDE OF THE MAST ARM OF THE NEAR SIDE LEFT POLE. SEE STD. DETAIL SHEET FOR MORE INFORMATION ON MOUNTING ON MAST ARM ASSEMBLY.

4. THE SERIES C 2000 FONT SHALL BE USED FOR ALL LETTERS.

---

** hometown:** JOHNSON COUNTY: JOHNSON

** SCALE:** N/A ** DRAFTED BY:** CJS
TRAFFIC SIGNAL NOTES:


2. EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (E.G.C.) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST TERMINAL. GROUND BOND E.G.C. TO GROUND LUG OF CONTROL CABINET AND TO POLE GROUND. ENSURE THAT ONLY ONE NEUTRAL-TO-GROUND BOND EXISTS IN THE SYSTEM AND THAT IT IS AT THE MAIN BREAKER.

3. ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL RAMPS. BREAKER (MAIN BREAKER), GALVANIZED STEEL SERVICE RISER, METAL LOOP (IF REQUIRED), AND WEATHERHEAD AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT OF WAY. IF THE SERVICE POINT IS OVER 10 FEET FROM THE CONTROLLE, THE CONTRACTOR SHALL PROVIDE AND INSTALL A SEPARATE TWO CIRCUIT EXTERNAL BREAKER (ON OR NEAR THE TRAFFIC SIGNAL CONTROL CABINET) AND SHALL INSTALL CONDUIT, ELECTRICAL SERVICE WIRE (DURABLE RATED, WITH GROUND TYPICAL), AND PERFORM WIRING TO TAP INTO THE CITY/ COUNTY'S MAIN BREAKER AS PART OF THE CONTRACT. CONDUIT IS PAD FOR AS A SEPARATE ITEM OF THIS CONTRACT. BREAKERS CONSIDERED SUBSIDIARY TO THE CONTROL EQUIPMENT, ARE NEEDED WHERE STREET LIGHTING IS INCLUDED. AS PART OF THE SIGNAL INSTALLATION, STREET LIGHTING CIRCUIT (Q3012 A.W.G. UF RATED, TYPICAL) SHALL BE KEPT FROM THE CIRCUIT SERVING THE TRAFFIC SIGNAL CONTROL EQUIPMENT FROM THE POINT OF TIE AT THE SECONDARY BREAKER PROVIDED BY THE CONTRACTOR.

4. CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE.

5. TRAFFIC CONTROL CABINET AND LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER OR REMOVE LOAD SWITCHES TO ORDER TO EASILY TEST OR MODIFY INPUTS TO THE CONTROLLER.

6. CONTROLLER CABINET SHALL BE WIRED SUCH THAT DURING FLASH OPERATIONS POWER TO THE LOAD SWITCHES CANNOT BE AFFECTED TO LOAD SWITCH POWER BUS.

7. ALL PARTS OF THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, STANDARD DRAWINGS AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.

8. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHODS. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE STANDARD DRAWINGS MAY BE USED.

9. TRAFFIC SIGNAL POLES SHALL BE GALVANIZED. BACKPLATES SHALL BE SUPPLIED FOR ALL SIGNAL HEADS.

10. PAVEMENT MARKING SHOWN FOR REFERENCE ONLY. SEE PERMANENT PAVEMENT MARKING DETAILS.

11. FOUNDATION FOR ALL POLES SHALL BE EXTENDED IF NECESSARY TO ACCOMMODATE THE REQUIREMENTS FOR SIGNAL HEAD CLEARANCE ABOVE ROADWAY ONLY AT LOCATIONS WHERE THE GROUND ELEVATION AT THE POLE IS BELOW THE ELEVATION OF THE ROADWAY (SEE NOTES ON STANDARD DRAWING). PAYMENT WILL BE INCLUDED IN SECTION 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.

12. ALL CONCRETE PULL BOXES SHALL BE (TYPE 2 HD) UNLESS OTHERWISE INDICATED. ALL CONDUIT SHALL BE THREE (3) INCH DIAMETER UNLESS SPECIFIED ON PLANS.

13. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.

14. LUMINARE ASSEMBLIES SHALL BE OF THE FULL CUTOFF TYPE.

15. HARDWARE INPUTS MAY BE DETERMINED BY SUPPLIER. EACH DETECTOR OUTPUT SHALL INPUT THE CONTROLLER THROUGH A SEPARATE INPUT UNLESS OTHERWISE NOTED AND BE PROGRAMMED TO ACTUATE THE ASSOCIATED PHASE. COMBINATION (COMB) DETECTORS SHALL ALSO BE PROGRAMMED TO PROVIDE VEHICLE COUNT/OCUPANCY DATA.

16. THE LOCAL RADIO WITH ANTENNA SHALL BE COMPATIBLE WITH THE EXISTING CLOSED LOOP COORDINATION SYSTEM IN THE CITY/COUNTY.

17. TO DETERMINE UTILITY CLEARANCES ABOVE THE TRAFFIC SIGNAL POLE, REFER TO THE POLE SCHEDULE FOR VERTICAL SHAFT HEIGTH. WHERE THE POLE SCHEDULE INDICATES THAT A LUMINARE ARM WILL BE USED, THIRTY-EIGHT (38) FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE LUMINARE ARM. WHERE THE POLE SCHEDULE INDICATES A TRAFFIC SIGNAL POLE WITHOUT A LUMINARE ARM, A HEIGHT OF TWENTY-ONE (21) FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE TRAFFIC SIGNAL MAST ARM. AN ADDITIONAL SIX (6) FEET SHOULD BE USED DIRECTLY ABOVE "VIDEO DETECTORS" AT LOCATIONS SHOWN ON THE SIGNAL PLANS.

18. THE DESIRABLE MINIMUM DISTANCE FROM THE FACE OF ROADWAY CURB OR SHOULDERS EDGE TO THE FACE OF NON-BREAKAWAY POLE OR OBSTRUCTION IS SIX (6) FEET. REFER TO TRAFFIC SIGNAL PLANS FOR SPECIFIC LOCATION OF POLES. CONTROLLER AND ANY OTHER NON-BREAKAWAY OBSTRUCTIONS. REFER TO DESIGN PARAMETERS, MINIMUM CLEARANCE DISTANCE FOR MINIMUM DISTANCE FROM THE EDGE OF TRAVELED WAY TO THE FACE OF A NON-BREAKAWAY POLE OR OBSTRUCTION. TRAFFIC SIGNAL POLES OR ANY OTHER NON-BREAKAWAY OBSTRUCTION SHALL NOT BE INSTALLED WITHIN THE CLEAR ZONE.

19. AS DETERMINED BY THE ENGINEER, FOUNDATION EMBEDMENT MAY BE DECREASED BY A MAXIMUM OF TWO FEET IF COMPETENT ROCK IS ENCOUNTERED PRIOR TO ACHIEVING PLAN EMBEDMENT AND AT LEAST HALF OF THE REMAINING PLAN EMBEDMENT LENGTH IS KEPT INTO COMPETENT ROCK.

20. CONNECTION OF TRAFFIC SIGNAL DISPLAY TO FIELD WIRING SHALL UTILIZE AN APPROVED TERMINAL STRIP BEHIND HAND-HOLE COVER AT BASE OF POLE. TERMINAL STRIP SHALL PROVIDE PROTECTION TO PREVENT EXPOSURE TO THE PUBLIC IN THE EVENT THAT POLE COVER IS MISSING. PAYMENT FOR TERMINAL STRIPS SHALL BE INCLUDED IN ITEM 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.

21. CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO AASHTO STANDARDS.

22. ONE VIDEO PROGRAMMING MODULE SHALL BE PROVIDED FOR ARMING AND SETUP OF DETECTORS IF THE VIDEO SYSTEM CANNOT BE ADJUSTED THROUGH HARDWARE AND SOFTWARE PROVIDED BY ITEMS WITHIN THE JOB.

23. TRAFFIC SIGNAL CONTRACTOR MUST NOTIFY RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO SIGNAL RELATED WORK. NO WORK ON TRAFFIC SIGNALS WILL BE ALLOWED OR APPROVED WITHOUT THE PRIOR NOTIFICATION.


25. DOOR PANEL TEST PUSH BUTTONS SHALL ACTUATE INDICATED PHASES. DETECTOR ASSIGNMENTS AND/OR SIDE PANEL JUMPERS MAY REQUIRE MODIFICATION.

26. ALL SYSTEM DETECTOR RACKS AND ASSOCIATED EQUIPMENT SHALL BE PROTECTED BY THE MAIN CONTROLLE CABINET POWER SURGE PROTECTION.
NOTES TO CONTRACTOR:

1. The net access radio with all mounting hardware shall be provided to the city of Jonesboro.

2. Antenna orientation shall be verified by the city of Jonesboro.

3. The city of Jonesboro will install the net access radio at the master antenna site.
NOTES:

1. All signal heads shall have backplates.

2. Signal faces 12 & 13 will activate during railroad preemption clear phase and shall remain lit throughout the railroad preemption dwell phase.

3. Use horizontal louvered signal heads on signal faces 6 & 7 (green & yellow).

BURLINGTON NORTHERN SANTA FE CORP. 
THAYER SOUTH SUBDIVISION
CROSSING DOT-6668-075W
MILEPOST 417.24

INSTALL BATTERY BACKUP SYSTEM
WITH CONTROLLER CABINET AT THE FOLLOWING
COORDINATES (X,Y): 1682038.21,555497.98

LOCAL ANTENNA 
ANTENNA CABLE SHALL BE INSTALLED IN A 
SEPARATE 2" NMC WHICH SHALL CONTAIN 
NO OTHER POWER CARRYING CONDUCTORS

SERVICE POINT AND MAIN BREAKER 
BY CONTRACTOR WITHIN 
10' OF CONTROLLER

EXIST. A&DOT & 
BNSF-RR ROW

EXIST. A&DOT ROW

EXIST. BNSF-RR ROW

TYPE 1 HD PULL BOX

BNSF-RR BUNGALOW
(APPROXIMATE LOCATION)

STUB 2" NMC FOR RR USE

CONDUIT RUN 
UNDER RR TRACKS 
TO BE BORED BY 
BNSF-RR

NO TURN 
LEFT ACROSS 
TRACKS

NO RIGHT 
TURN ACROSS 
TRACKS

2-3" NMC

TYPE 1 HD PULL BOX

2" NMC

2" NMC
NOTES TO CONTRACTOR:

1. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.

2. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
NOTES:
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE Widths.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.

2" FOR ASPHALT OR CONCRETE PAVEMENT
1/4" FOR BITUMINOUS SURFACE TREATMENT.

2" FOR ASPHALT OR CONCRETE PAVEMENT
1/4" FOR BITUMINOUS SURFACE TREATMENT.

CONTINUOUS WHITE
EDGE OF PAVEMENT

CONTINUOUS WHITE
EDGE OF PAVEMENT

NOTE:
"THE RED LENS OF THE TYPE II/RED LENS तेल उपस्थित नहीं है। यह रेड लेन वाला ट्राफिक संकेतक है।"

NOTE:
RED LENS OF THE TYPE II/RED LENS तेल उपस्थित नहीं है। यह रेड लेन वाला ट्राफिक संकेतक है।

CONTINUOUS WHITE
RED STRIPES
OF THE TYPE II/RED LINES
OF THE TYPE II/RED LINES

DETAIL OF STANDARD RAISED PAVEMENT MARKERS

STANDARD DRAWING PM-1

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

CONCRETE PAVEMENT

BREAK LINE STRIPING

CONCRETE PAVEMENT

BROKEN LINE STRIPING

ASPHALT PAVEMENT

SOLID LINE STRIPING ON CONCRETE PAVEMENT

ASPHALT PAVEMENT

SOLID LINE STRIPING ON ASPHALT PAVEMENT

CONCRETE PAVEMENT

SOLID LINE STRIPING AT ADJACENT NO PASSING LANES

CROSSWALK AND STOPBAR DETAILS

WHITE YIELD LINE DETAIL

DIRECTION OF TRAVEL

YIELD LINE DETAIL

CROSSWALK AND STOPBAR DETAILS
NOTES:
The distance from the railroad crossing marking to the nearest track will vary according to the approach speed and the sight distance of the vehicular traffic approaching, but probably should not be less than 50 feet.

A three lane roadway should be marked with a center lane for two-lane approach operation on the approach to a crossing.

On multi-lane roads the transverse bands should extend across all approach lanes, and individual RR symbols should be used in each approach lane.

Refer to standard alphabet for highway signs and markings for RR symbols details.

DETAIL OF PAVEMENT MARKINGS FOR RAILROAD CROSSING

PAVEMENT MARKING TO BE SYMMETRICAL ABOUT RAILROAD

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING FOR RAILROAD CROSSING

STANDARD DRAWING RRS-1
**NOTES:**

1. LOOPS WITH A PERIMETER GREATER THAN 40" SHALL HAVE TWO TURNS, LOOPS WITH A PERIMETER LESS THAN OR EQUAL TO 30" SHALL HAVE THREE TURNS, LOOPS OTHER THAN THOSE NOTED IN THE PLANS. QUADRUPOLER LOOPS SHALL BE TWO TURNS IN A 0-4-2 CONFIGURATION, UNLESS OTHERWISE NOTED ON THE PLANS.

2. THE FRONT FOLDER AND FEEDER WIRES SHALL BE CONTINUOUS WITHOUT SPlicing EXCEPT AT THE LOOP-FEEDER CONNECTION AS SHOWN. SPLICES SHALL BE BORE-HELD AND WATERPROOFED WITH AN ACCEPTED SPlice NIT. A DRAIN WIRE SHALL BE SUNK IN THE CABINET AND INSTALLED AT THE LOOP TO FEDER WIRE SPLICES.

3. THE LOOP TO FEEDER WIRE SPLICE, THE FEEDER WIRE JACKET AND LOOP WIRE JACKET IN DUCT SHALL BE COMPLETELY SEALED AND WATERPROOFED.

4. THE CONTRACTOR MAY MAKE CONNECTIONS TO THE SIGNAL CABLE AND LOOP TO FEEDER WIRE CONNECTION AT THE TERMINAL, SPLICES MOUNTED TO POLE UNDER THE HAND HOLD COVER AS SHOWN IN REAR-HEAD DESIGN TERMINALS. THE CONNECTION OF POWER CARRYING CIRCUITS MUST BE SEEN FROM LOOP OR LOOP COURTS. ALL CONNECTIONS TO TERMINAL SPLICE LUGS OR AS APPROVED BY THE ENGINEER.

5. EACH LOOP SHALL HAVE A SEPARATE "FEEDER WIRE" UNLESS OTHERWISE NOTED ON THE PLANS. ALL FEEDER WIRES SHALL BE LABELLED AS "LOOP" NUMBER AS SHOWN ON THE PLANS.

6. ALL LOOP WIRE ENTERING CONCRETE PULL BOXES SHALL BE ENCLOSED IN CONDUIT. EACH LOOP WIRE SHALL ENTER CONCRETE PULL BOX OR POLE BASE THROUGH A SEPARATE PIECE OF ONE 1/2" INCH CONDUIT.

7. LOOP WIRE FROM LOOP TO CONDUIT IS NOT TREATED LOOP WIRE IN THE CONDUIT MUST BE TWISTED TWO TO FIVE TURNS PER FOOT.

8. 30-DAY PERFORMANCE TEST SHALL BE COMPLETED BY THE CONTRACTOR, THEN ACCEPTED AND ACCREDITED BY THE ENGINEER. TESTS MUST HAVE BEEN COMPLETED TO THE SATISFACTION OF THE ENGINEER. THE WARRANTY PERIOD FOR LOOPS SHALL NOT COMMENCE UNLESS ACCEPTED BY THE ENGINEER. THE CONTRACTOR SHALL PERFORM TESTS AND PROVIDE A REPORT TO THE ENGINEER AS LISTED IN THE LOOP DETECTOR INSTALLATION PROCESS.

9. UNLESS OTHERWISE APPROVED BY THE ENGINEER, BACKER ROD SHALL BE INSTALLED IN SHOR SECTIONS SPACED NO MORE THAN 1/8" APART AND WEDGED INTO THE SLOT TO THE CABINET IN PLACE. CABINET SHALL BE TOTALLY ENCAPSULATED IN SEALER.

10. "NOT POOL" SEALER SHALL NOT ALLOW WITH 1/2" LOOP-WRING IN DUCT.

11. WHERE UNDERGROUND SPACES OF SIGNAL CABLE ARE REQUIRED, CONNECTIONS SHALL BE SOLDERED AND COMPLETED WATERPROOFED TO THE SATISFACTION OF THE CONTRACTOR. WITHOUT A MINIMUM OF TWO 1/2" CGHENDS PASS THE SIGNAL CABLE JACKET AND SHALL COMPLETELY COVER ALL MATERIALS OR CONNECTORS OF THE SIGNAL CABLE. WATERPROOFED DOES NOT APPLY TO CONNECTIONS MADE IN POLE BASES.

12. THE CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOOP SWITCH REPRESENTED ON EACH SIGNAL POLE. ONLY ONE NEUTRAL IS REQUIRED FOR PEDESTRIAN SIGNALS. A SEPARATE OR TYPE AS PROPOSED FOR PEDESTRIAN SIGNAL BUTTONS.

13. TRAFFIC CONTROLLER CABINET LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER TO REMOVE LOAD SWITCHES IN ORDER TO ADJUST THE TIRE. NO MORE DETECTOR MOUNTED TO THE CONTROLLER. THE CONTROLLER SHOULDN'T BE MOUNTED SUCH THAT THE POWER TO LOAD SWITCHES CANNOT BE SEEN FROM THE LOAD SWITCH POWER BUSS DURING FLUSH OPERATION.

**Typical Procedure for Detector Loop Testing:**

1. Disconnect and test continuity of all signal if continuity is bad, go to test 3.

2. Test insulation in 50 volt test set 0 meter.

3. If 0.05 and continuity is required, test all 50% to consist of tests in 7 with contact between each side of connector and the earth.

4. Break splice, install jumper in cabinet, repeat tests in 2 separately for debris and the cord.

5. Failure resulting from broken wire in pavement, faulty insulation of loop or feeder wire, or poorly insulated splice connection.

**Trenching Detail:**

1. Restore existing roadway surface with compatible material.

2. Remove curb & reinserting 1" HDU, PVC conduit & concrete pull box.

3. Concrete pull box & conduit.

4. Lead wire, remove curb & reinserting 1" HDU, PVC conduit & concrete pull box.

5. Concrete pull box & conduit.

6. The detector loop in pavement.

7. Special note: If the detector is left uninstalled and water, it will be replaced at cost to the owner.

**Typical Sections for Pulse and Presence Loop Detectors**

1. Conduit and detector.

2. Detector loop in pavement.

3. Concrete pull box & conduit.

4. Concrete pull box & conduit.

5. Detector loop in pavement.

6. Special note: If the detector is left uninstalled and water, it will be replaced at cost to the owner.
CONDUIT ENTRY TO EXISTING POLE BASE

1/2" GALVANIZED STEEL CONDUIT

ANCHOR BASE

ELECTRICAL CONDUIT

E.G.C. BONDED TO GROUND LUG ON POLE AND OTHER E.G.C. CONDUCTORS

ANCHOR BASE

HEX NUT

LOCK WASHER

FLAT WASHER

FLAT WASHER

LEVELING NUT

GROUT

LEVELING NUT

CHIP OUT, REGROUT

CHIP OUT, REGROUT

GROUND ROD GROUNDED TO GROUNDLUG ON POLE AND OTHER E.G.C. CONDUCTORS

E.C.C. BONDED TO GROUNDLUG ON POLE AND OTHER E.G.C. CONDUCTORS

FLAT WASHER

ANCHOR BASE

GROUND ROD 12" MIN.

WEEP HOLE

1/2" WEEP HOLE

COPPERWELD GROUND ROD FUSION WELD E.G.C.

OUTGOING #8 TO NEXT POLE GROUND

EXISTING CONDUIT

GROUND ROD

EXHIST. CONTROLLER CABINET

EXIST. CONTROLLER CABINET

CONCRETE PULL BOX

NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

TYPE "S" CONCRETE PULL BOX

EXIST. CONTROLLER CABINET

CONCRETE PULL BOX

TYPE "S" CONCRETE PULL BOX

REINF. BARS

NOTE: ALL REINFORCING BARS TO BE GRADE 60

3/4" REINF. BARS EACH SIDE

NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

EARTH

EARTH

ROADWAY SURFACE

TYPE "HD" CONCRETE PULL BOX

EARTH

2" CLEAR FROM TOP (TOLERANCE +/- 0.5")

NOTE: ALL TYPE "S" AND TYPE "HD" CONCRETE PULL BOXES ARE INSTALLED WITH AN APRON OF CONCRETE 12" WIDE AND 1" IN DEPTH. ALL PAINTING SHALL BE INCLUDED IN THE PRICE. CONCRETE PULL BOXES ARE INSTALLED FLUSH TO SURROUNDING GRADE. THE CONCRETE PULL BOX SHALL BE INSTALLED FLUSH TO SURROUNDING GRADE UNLESS OTHERWISE SPECIFIED. IN THE APPEARANCE THE CONCRETE SHALL BE OF CLASS "S", MADE OF REINFORCED STEEL IN THE APPEARANCE ON ALL SIDES OF THE CONCRETE PULL BOX IS REQUIRED IN CONCRETE.
Note: Where left turn head (head 1 on D1 and D2) is not called for on plans, head shall be flush with curb line. Heads shall still be aligned with through lanes as shown on details.

General Notes:
1. Four Section "Protected/Permeable" left turn heads should be placed a minimum of two (2) feet to the right of the centerline of the approaching left turn lane.
2. Three Section "Protected" left turn heads should be placed on the centerline of the approaching left turn lane.
3. When it is necessary to place poles other than as shown on plan sheets B, resulting in mast arm extending more than two feet past to the left of the centerline of the approaching left turn lane, mast arm shall be cut to appropriate length as determined by the engineers. In no event, this distance shall extend beyond the location of the pole. The contractor shall be responsible for removing all evidence of installing the mast arm if additional compensation is required.
4. Signal head spacing shall be not less than eight (8') feet between heads in center, measured horizontally perpendicular to the approach.
5. All signal heads shown on this detail sheet shall be located according to the dimensions shown in relation to the approach side of the intersection.
6. Maximum mounting height of signal heads located between 45 feet and 65 feet from stop bar shall be in accordance with Figure 40-5 of 2009 MUTCD.
MAIN BREAKER NOT NEAR CONTROLLER CABINET
SECONDARY REQUIRED

WITH POWER ISOLATION ASSEMBLY

WITHOUT POWER ISOLATION ASSEMBLY

GROUND WIRE - 6" x 6" x 1/2" GROUND ROD
SHALL BE INSTALLED IN THE CONCRETE PULL
BOX FOR EACH POLE AND THE CONTROLLER.
PAYMENT FOR THE GROUND ROD AND 3/8" 6MC
SHALL BE INCLUDED IN ITEM 70. THE
CONCRETE PULL BOX AND CONDUCTOR BOX
SHALL BE PAID FOR SEPARATELY.

SECONDARY BREAKER BY CONTRACTOR
(SUBSIDIARY)

MAIN BREAKER WIRING
(TYPICAL)

SERVICE GROUND IS TYPICALLY TIED TO NEUTRAL AT
THE MAIN BREAKER, THE SECONDARY BREAKER IS NOT
TIED TO NEUTRAL AT SECONDARY BREAKER OR IN CONTROLLER
CABINET.

NOTES TO CONTRACTOR AND AGENCY RESPONSIBLE FOR MAINTENANCE OF THE INTERSECTION CITY/COUNTY,

ELECTRICAL SERVICE TYPICALLY FALLS INTO TWO CATEGORIES:
MAIN BREAKER NEAR CONTROLLER CABINET AND MAIN BREAKER NOT NEAR CONTROLLER CABINET, THE
CONTROLLER'S AND THE CITY/COUNTY'S RESPONSIBILITY VARIES ACCORDINGLY AS INDICATED ON THESE
DETAILS.

ALL SITUATIONS:
ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL
GALVANIZED STEEL BREAKER BASE AND WIRE WHITE AND RED ABOVE MAIN BREAKER AND
CONNECTION TO THE SERVICE POLE SHALL BE PROVIDED AS PART OF CONTRACT SECONDARY BREAKER, BASE, WIRE AND
WIRING TO THE MAIN BREAKER.

MAIN BREAKER NEAR CONTROL CABINET:
ALL COMPONENTS OF THE SERVICE POLE WITH THE EXCEPTION OF THE WIRE AND WIRING ABOVE THE MAIN
BREAKER IS FURNISHED AND INSTALLED BY THE CONTRACTOR, WIRING FROM MAIN BREAKER INCLUDING
CONNECTION TO THE SERVICE POLE, THE RESPONSIBILITY OF THE CITY/COUNTY. IF METER LOOP IS REQUIRED,
METER BASE AND HARDWARE IS PROVIDED BY THE CITY/COUNTY AND INSTALLED BY THE CONTRACTOR,

MAIN BREAKER NEAR CONTROLLER CABINET:

ARKANSAS STATE HIGHWAY COMMISSION
SERVICE POINT
STANDARD DRAWING SO-9