THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR THE FULL LENGTH OF THE JOB. THIS IS THE MAXIMUM QUANTITY REQUIRED TO ALLOW THE CONTRACTOR TO NOTCH ONE MILE, BACKFILL TO A POINT WHERE THE VERTICAL DIFFERENTIAL IS 4° OR LESS, AND THEN NOTCH ANOTHER ONE-MILE SECTION. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS THAT WILL BE PAID FOR, REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.

ADVANCE WARNING SIGN PLACEMENT
PLACE ON HWY. 42 AT THE BEGINNING AND END OF THE PROJECT AND ON HWY. 40,
ALL STAGES

STAGE 1: RIGHT SIDE CONSTRUCTION
INSTALL ADVANCE WARNING SIGNS AT THE BEGINNING AND END OF PROJECT AND REFER TO MAINTENANCE OF TRAFFIC SP.
PLACE W2O=ROAD WORK AHEAD SIGNS ON ALL INTERSECTING STREETS. DELINEATE DRIVEWAYS AND CITY STREETS ON THE SIDE BEING WIDENED WITH TRAFFIC DRUMS (6 PER DRUM) AS SHOWN ON PLANS. MAINTAIN TRAFFIC THROUGHOUT THE PROJECT USING VERTICAL PANELS PLACED AT 40° O.C. ON THE RIGHT SIDE.
CONSTRUCT NOTCH AND WIDEN ON RIGHT SIDE OF HWY. 40 UP TO THE FINAL 2' LIFT OF SURFACE COURSE.

STAGE 2: LEFT SIDE CONSTRUCTION
MAINTAIN TRAFFIC USING VERTICAL PANELS PLACED 40° O.C. ON SIDE BEING WIDENED. DELINEATE DRIVEWAYS AND CITY STREETS ON THE SIDE BEING WIDENED WITH TRAFFIC DRUMS (6 PER DRUM) AS SHOWN ON PLANS. CONSTRUCT THE NOTCH AND WIDEN SECTION UP TO THE FINAL 2' LIFT OF SURFACE COURSE.

CONSTRUCT FINAL AC + 30" SURFACE COURSE UNDER TRAFFIC AND APPLY FINAL STRIPING AS SHOWN IN THE PERMANENT PAVEMENT MARKING DETAILS.

MAINTENANCE OF TRAFFIC QUANTITIES: STAGE 1
SIGNS = 370.0 LIN. FT.
VERTICAL PANELS = 52 EACH
TRAFFIC DRUMS = 42 EACH
BARRIERS = 32 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS = 7,335 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS [ARMOR] = 1 EACH

NOTE: VERTICAL PANELS 40° O.C.
NOTE: R4-1 TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER
NOTE: R8P-170 TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

MAINTENANCE OF TRAFFIC DETAILS - STAGE 1
THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR THE FULL LENGTH OF THE JOB. THIS IS THE MAXIMUM QUANTITY REQUIRED TO ALLOW THE CONTRACTOR TO NOTCH ONE WRENS, BACKFILL TO A POINT WHERE THE VERTICAL DIFFERENTIAL IS 4" OR LESS, AND THEN NOTCH ANOTHER ONE-WIRE SECTION. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS THAT WILL BE PAID FOR, REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.
STA 121.75,00
END JOB 040581
(RAZORBACK ROAD)
ADVANCE WARNING SIGN PLACEMENT
PLACE ON HWY. 10 AT THE BEGINNING AND END OF THE PROJECT, ALL STAGES

STAGE 1-RIGHT SIDE CONSTRUCTION
INSTALL ADVANCE WARNING SIGNS AT THE BEGINNING AND END OF PROJECT AND REFER TO MAINTENANCE OF TRAFFIC SP.
PLACE NO. 1-ROAD WORK AHEAD SIGNS ON ALL INTERSECTING STREETS, DELINEATE DRIVEWAYS AND CITY STREETS ON THE SIDE BEING WIDENED WITH TRAFFIC DRUMS 156 PER DRUM AS SHOWN ON PLANS, MAINTAIN TRAFFIC THROUGHOUT THE PROJECT USING VERTICAL PANELS PLACED AT 40" O.C. ON THE RIGHT SIDE.
CONSTRUCT NOTCH AND WIDEN ON RIGHT SIDE OF HWY. 10 UP TO THE FINAL 2" LIFT OF SURFACE COURSE.

STAGE 2-LEFT SIDE CONSTRUCTION
MAINTAIN TRAFFIC USING VERTICAL PANELS PLACED 40" O.C. ON SIDE BEING WIDENED, DELINEATE DRIVEWAYS AND CITY STREETS ON THE SIDE BEING WIDENED WITH TRAFFIC DRUMS 16 PER DRIVE AS SHOWN ON PLANS, CONSTRUCT THE NOTCH AND WIDEN SECTION UP TO THE FINAL 2" LIFT OF SURFACE COURSE.
CONSTRUCT FINAL ACW SURFACE COURSE UNDER TRAFFIC AND APPLY FINAL STRIPING AS SHOWN IN THE PERMANENT PAVEMENT MARKING DETAILS.

THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR THE FULL LENGTH OF THE JOB. THIS IS THE MAXIMUM QUANTITY REQUIRED TO ALLOW THE CONTRACTOR TO NOTCH ONE MILE, BLOWFILL TO A POINT WHERE THE VERTICAL DIFFERENTIAL IS 4" OR LESS, AND THEN NOTCH ANOTHER ONE-MILE SECTION. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS THAT WILL BE PAID FOR. REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.

MAINTENANCE OF TRAFFIC - STAGE 2
SIGNS = 110 EA. LFLT.
VERTICAL PANELS = 42 EACH
TRAFFIC DRUMS = 100 EACH
BARRIERS = 32 LFLT.
CONSTRUCTION PAVEMENT WARNINGS = 625 LFLT.
REMOVAL OF CONSTRUCTION PAVEMENT WARNINGS = 563 LFLT.

NOTE: VERTICAL PANELS 40" O.C.
NOTE: R=R TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.
NOTE: S=R=TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.
THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE
ROADWAY FOR THE FULL LENGTH OF THE JOB. THIS IS THE MAXIMUM QUANTITY REQUIRED TO ALLOW THE CONTRACTOR
TO NOTCH ONE MILE, BACKFILL TO A POINT WHERE THE VERTICAL DIFFERENTIAL IS 4' OR LESS, AND
THEN NOTCH ANOTHER ONE-MILE SECTION. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS
THAT WILL BE PAID FOR. REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR
CONSTRUCTION REQUIREMENTS.
RAISED PAVEMENT MARKERS (Type III: Yellow/Yellow) are to be placed on each side of the center turn lane at 80' intervals.

RAISED PAVEMENT MARKERS (Type III: White/Red) are to be placed on the lane lines at 80' intervals.

Refer to the permanent pavement marking details, STD. DRWGs, PM-1, and the latest edition of the MUTCD for additional pavement marking details.

PERMANENT PAVEMENT MARKINGS

THERMOPLASTIC PAVEMENT MARKINGS WHITE (4") x 1929 L.F.,
THERMOPLASTIC PAVEMENT MARKINGS YELLOW (4") x 6045 L.F.,
THERMOPLASTIC PAVEMENT MARKINGS WHITE (12") x 65 L.F.,
THERMOPLASTIC PAVEMENT MARKINGS (ARROWS) x 8 EACH
THERMOPLASTIC PAVEMENT MARKINGS (ARROWS) x 8 EACH
RAISED PAVEMENT MARKER (TYPE III) x 1 EACH
REMOVAL OF PERMANENT PAVEMENT MARKINGS x 205 L.F.,
REMOVAL OF PERMANENT PAVEMENT MARKINGS (ARROWS) x 3 EACH
REMOVAL OF PERMANENT PAVEMENT MARKINGS (ARROWS) x 3 EACH
STA 121.75.00
END JOB 040581
(RAZORBACK ROAD)
### Construction/Pavement Markings and Permanent Pavement Markings

<table>
<thead>
<tr>
<th>Station</th>
<th>Description</th>
<th>Location</th>
<th>Waterway</th>
<th>Redlining</th>
<th>Waterway</th>
<th>Roadway</th>
<th>Redlining</th>
<th>Big Ditch</th>
<th>Erosion Control</th>
<th>Overage</th>
<th>Total Marking</th>
<th>Railing</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Earthwork

<table>
<thead>
<tr>
<th>Station</th>
<th>Description</th>
<th>Location</th>
<th>Equipment</th>
<th>Hauling</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Clearing and Grubbing

<table>
<thead>
<tr>
<th>Station</th>
<th>Description</th>
<th>Location</th>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>400</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Detailed costs and specifications are included in the full document. Please refer to the full version for comprehensive details.
### Wheelchair Ramps

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Type 2</th>
<th>SQ. FT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>103-24</td>
<td>Right of Main Lane</td>
<td>3-9</td>
<td>9.0</td>
</tr>
<tr>
<td>103-24</td>
<td>Left of Main Lane</td>
<td>3-9</td>
<td>9.0</td>
</tr>
<tr>
<td>103-24</td>
<td>Left of Main Lane</td>
<td>3-9</td>
<td>9.0</td>
</tr>
<tr>
<td>103-24</td>
<td>Right of Main Lane</td>
<td>3-9</td>
<td>9.0</td>
</tr>
</tbody>
</table>

### Erosion Control Matting

<table>
<thead>
<tr>
<th>Station</th>
<th>Station</th>
<th>Location</th>
<th>Class 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CENTER PROJECT TO BE USED IF AND WHEN SMALL/SLIP BY THE ENGINEER</td>
<td>CENTER PROJECT TO BE USED IF AND WHEN SMALL/SLIP BY THE ENGINEER</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Bench Marks

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Bench Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-94</td>
<td>RO/CULVERT HEALONAL ONLY</td>
<td>EACH</td>
</tr>
</tbody>
</table>

### Flowline Material

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Cu Yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-12</td>
<td>MAIN LINES - PILLAR 12 X 4 X 4 FEET</td>
<td>120</td>
</tr>
<tr>
<td>102-12</td>
<td>MAIN LINES - CROSS DIAM</td>
<td>120</td>
</tr>
</tbody>
</table>

### Hand Railing

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Hand Railing</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-90</td>
<td>Sight of Main Lane</td>
<td>713</td>
</tr>
</tbody>
</table>

### Concrete Combination Curb and Gutter

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Type 2 (r-1')</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-12</td>
<td>Right of Main Lane</td>
<td>623</td>
</tr>
<tr>
<td>102-12</td>
<td>Left of Main Lane</td>
<td>443</td>
</tr>
<tr>
<td>102-12</td>
<td>Left of Main Lane</td>
<td>223</td>
</tr>
</tbody>
</table>

### Levee Pond Drain

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Drainage</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-106</td>
<td>Right</td>
<td>247</td>
</tr>
<tr>
<td>12-106</td>
<td>Left</td>
<td>247</td>
</tr>
</tbody>
</table>

### 4" Pipe Underdrain

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Pipes Underdrains</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-106</td>
<td>Left of Main Lane</td>
<td>50</td>
</tr>
<tr>
<td>12-106</td>
<td>Right of Main Lane</td>
<td>250</td>
</tr>
</tbody>
</table>

### Concrete Curb

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Type 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-106</td>
<td>Left of Main Lane</td>
<td>100</td>
</tr>
<tr>
<td>12-106</td>
<td>Right of Main Lane</td>
<td>150</td>
</tr>
</tbody>
</table>

---

**Note:** Quantities shown above shall include removal and disposal of all headwalls and flared end sections. The table above is a partial summary of the entire project. See section 104-03 of the standard specs for full details.
### Base and Surfacing

<table>
<thead>
<tr>
<th>STATION</th>
<th>STATION</th>
<th>LOCATION</th>
<th>LENGTH</th>
<th>TACK COAT</th>
<th>ACHIN BASE course (1/10&quot;)</th>
<th>ACHIM BINDER course (&quot;)</th>
<th>ACHIM SURFACE course (1/10&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>MAIN LAKES</td>
<td>382.0</td>
<td>382.0</td>
<td>382.0</td>
<td>382.0</td>
<td>382.0</td>
</tr>
<tr>
<td>#1047-05</td>
<td>#1047-05</td>
<td>MAIN LAKES</td>
<td>343.0</td>
<td>343.0</td>
<td>343.0</td>
<td>343.0</td>
<td>343.0</td>
</tr>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>MAIN LAKES</td>
<td>110.0</td>
<td>110.0</td>
<td>110.0</td>
<td>110.0</td>
<td>110.0</td>
</tr>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>MAIN LAKES</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>MAIN LAKES</td>
<td>202.0</td>
<td>202.0</td>
<td>202.0</td>
<td>202.0</td>
<td>202.0</td>
</tr>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>MAIN LAKES</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
</tr>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>MAIN LAKES</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
</tr>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>MAIN LAKES</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
</tr>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>MAIN LAKES</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
</tr>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>MAIN LAKES</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
<td>200.0</td>
</tr>
</tbody>
</table>

### Additional Fill Levels

<table>
<thead>
<tr>
<th>STATION</th>
<th>STATION</th>
<th>LOCATION</th>
<th>LENGTH</th>
<th>TACK COAT</th>
<th>ACHIN BASE course (1/10&quot;)</th>
<th>ACHIM BINDER course (&quot;)</th>
<th>ACHIM SURFACE course (1/10&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1047-05</td>
<td>#1047-05</td>
<td>Riprap</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>#1047-05</td>
<td>#1047-05</td>
<td>Riprap</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>#1047-05</td>
<td>#1047-05</td>
<td>Riprap</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>#1047-05</td>
<td>#1047-05</td>
<td>Riprap</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>#1047-05</td>
<td>#1047-05</td>
<td>Riprap</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>#1047-05</td>
<td>#1047-05</td>
<td>Riprap</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

### Driveways & Turnouts

<table>
<thead>
<tr>
<th>STATION</th>
<th>STATION</th>
<th>LOCATION</th>
<th>LENGTH</th>
<th>TACK COAT</th>
<th>ACHIN BASE course (1/10&quot;)</th>
<th>ACHIM BINDER course (&quot;)</th>
<th>ACHIM SURFACE course (1/10&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>RT Driveway</td>
<td>26.0</td>
<td>26.0</td>
<td>26.0</td>
<td>26.0</td>
<td>26.0</td>
</tr>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>RT Driveway</td>
<td>24.0</td>
<td>24.0</td>
<td>24.0</td>
<td>24.0</td>
<td>24.0</td>
</tr>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>LT Driveway</td>
<td>20.0</td>
<td>20.0</td>
<td>20.0</td>
<td>20.0</td>
<td>20.0</td>
</tr>
</tbody>
</table>

### Concrete Base

<table>
<thead>
<tr>
<th>STATION</th>
<th>STATION</th>
<th>LOCATION</th>
<th>LENGTH</th>
<th>TACK COAT</th>
<th>ACHIN BASE course (1/10&quot;)</th>
<th>ACHIM BINDER course (&quot;)</th>
<th>ACHIM SURFACE course (1/10&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>RT Driveway</td>
<td>26.0</td>
<td>26.0</td>
<td>26.0</td>
<td>26.0</td>
<td>26.0</td>
</tr>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>LT Driveway</td>
<td>24.0</td>
<td>24.0</td>
<td>24.0</td>
<td>24.0</td>
<td>24.0</td>
</tr>
<tr>
<td>#1047-10</td>
<td>#1047-10</td>
<td>LT Driveway</td>
<td>20.0</td>
<td>20.0</td>
<td>20.0</td>
<td>20.0</td>
<td>20.0</td>
</tr>
</tbody>
</table>

---

**Quantities**

- **Total:** 1400.8
**SURVEY CONTROL COORDINATES**

**Project Name:** ARKANSAS STATE PLANE - NORTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND.

**Coordinate System:** U.S. SURVEY FOOT

<table>
<thead>
<tr>
<th>Point</th>
<th>Name</th>
<th>Northing</th>
<th>Easting</th>
<th>Elev</th>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>640640.4373</td>
<td>669476.8355</td>
<td>1443.95</td>
<td>CTL</td>
<td>T-1 3' BRASS CAP U OF A PNP 1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>639485.6237</td>
<td>669422.3661</td>
<td>1443.65</td>
<td>CTL</td>
<td>T-2 3' BRASS CAP U OF A PNP 2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>639347.3811</td>
<td>668114.4531</td>
<td>1400.16</td>
<td>CTL</td>
<td>T-3 3' BRASS CAP U OF A PNP 3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>638637.3332</td>
<td>668142.4270</td>
<td>1350.39</td>
<td>CTL</td>
<td>T-4 3' BRASS CAP U OF A PNP 4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>635952.2544</td>
<td>668054.5670</td>
<td>1273.24</td>
<td>CTL</td>
<td>T-5 3' BRASS CAP U OF A PNP 5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>636950.9097</td>
<td>667860.9435</td>
<td>1265.14</td>
<td>CTL</td>
<td>T-10 3' BRASS CAP SET IN CONC, AT INTERSECTION</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>635744.5222</td>
<td>667766.0518</td>
<td>1252.08</td>
<td>CTL</td>
<td>T-11 3' BRASS CAP U OF A PNP 11</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>631668.8430</td>
<td>667860.4380</td>
<td>1250.70</td>
<td>CTL</td>
<td>T-12 3' BRASS CAP U OF A PNP 12</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>630165.8758</td>
<td>667795.0430</td>
<td>1266.61</td>
<td>CTL</td>
<td>T-13 5' REBAR 20&quot; ALUM. CAP</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>635871.8219</td>
<td>668011.2395</td>
<td>1272.47</td>
<td>CTL</td>
<td>T-14 5' REBAR 20&quot; ALUM. CAP</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>635438.3748</td>
<td>668046.6375</td>
<td>1290.47</td>
<td>CTL</td>
<td>T-15 5' REBAR 20&quot; ALUM. CAP</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>630716.7156</td>
<td>668776.0748</td>
<td>1295.16</td>
<td>CTL</td>
<td>T-16 5' REBAR 20&quot; ALUM. CAP</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>637773.8357</td>
<td>668065.7430</td>
<td>1320.36</td>
<td>CTL</td>
<td>T-17 5' REBAR 20&quot; ALUM. CAP</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>662625.5098</td>
<td>668126.0175</td>
<td>1349.51</td>
<td>CTL</td>
<td>T-18 5' REBAR 20&quot; ALUM. CAP</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>639478.1666</td>
<td>668080.7274</td>
<td>1390.84</td>
<td>CTL</td>
<td>T-19 5' REBAR 20&quot; ALUM. CAP</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>639391.7718</td>
<td>668024.9699</td>
<td>1426.94</td>
<td>CTL</td>
<td>T-21 5' REBAR 20&quot; ALUM. CAP</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>639446.4720</td>
<td>669466.2650</td>
<td>1444.54</td>
<td>CTL</td>
<td>T-22 5' REBAR 20&quot; ALUM. CAP</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>640341.4706</td>
<td>669547.7937</td>
<td>1434.44</td>
<td>CTL</td>
<td>T-23 5' REBAR 20&quot; ALUM. CAP</td>
<td></td>
</tr>
</tbody>
</table>

**Legend Pond**

<table>
<thead>
<tr>
<th>Point</th>
<th>Name</th>
<th>Northing</th>
<th>Easting</th>
<th>Elev</th>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>633434.1786</td>
<td>667880.7033</td>
<td>1259.23</td>
<td>GPS</td>
<td>AHD GPS 720032</td>
<td></td>
</tr>
<tr>
<td>101</td>
<td>640579.6844</td>
<td>667777.0556</td>
<td>1276.03</td>
<td>GPS</td>
<td>AHD GPS 720033</td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>632342.5029</td>
<td>667756.8829</td>
<td>1244.24</td>
<td>BM</td>
<td>TBM-903 SQUARE OUT IN HEADWALL EAST SIDE HAY 112</td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>636262.4078</td>
<td>667566.5756</td>
<td>1225.14</td>
<td>BM</td>
<td>TBM-904 STANDARD CAP ON R.C. BOX OF HAY 112 AHD DISK 720044</td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>636304.5239</td>
<td>667573.2461</td>
<td>1231.72</td>
<td>BM</td>
<td>TBM-910 CORPS ENG. BRASS RC BOX ON SOUTH SIDE OF 15TH STREET</td>
<td></td>
</tr>
<tr>
<td>105</td>
<td>636493.6527</td>
<td>667889.4398</td>
<td>1281.30</td>
<td>BM</td>
<td>OAH SQUARE OF EAST EDGE DROP INLET</td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>638810.7778</td>
<td>668114.9319</td>
<td>1274.25</td>
<td>BM</td>
<td>TBM-912 SQUARE OUT IN HEADWALL WEST SIDE HAY 112</td>
<td></td>
</tr>
<tr>
<td>107</td>
<td>640354.6582</td>
<td>669546.6952</td>
<td>1434.87</td>
<td>BM</td>
<td>TBM-914 AHD CAP SOUTHEAST OF CATCH BAG</td>
<td></td>
</tr>
<tr>
<td>108</td>
<td>639705.7980</td>
<td>668480.2566</td>
<td>1440.83</td>
<td>BM</td>
<td>8' PIPE ON GARLAND AVE.</td>
<td></td>
</tr>
<tr>
<td>109</td>
<td>639937.8255</td>
<td>669493.6225</td>
<td>1437.95</td>
<td>BM</td>
<td>8' PIPE ON GARLAND AVE.</td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>639955.5792</td>
<td>668910.9828</td>
<td>1416.32</td>
<td>BM</td>
<td>8' PIPE IN FLOWER BED</td>
<td></td>
</tr>
<tr>
<td>111</td>
<td>639533.2007</td>
<td>668511.7298</td>
<td>1390.90</td>
<td>BM</td>
<td>8' PIPE 7.5&quot; S. OF 30&quot; OAK OAK</td>
<td></td>
</tr>
<tr>
<td>112</td>
<td>640334.5586</td>
<td>668312.1434</td>
<td>1381.04</td>
<td>BM</td>
<td>GPS IN CENTER OF PK</td>
<td></td>
</tr>
<tr>
<td>113</td>
<td>639923.5031</td>
<td>668550.2498</td>
<td>1381.55</td>
<td>BM</td>
<td>OPS IN CENTER OF PK</td>
<td></td>
</tr>
<tr>
<td>114</td>
<td>639158.2933</td>
<td>667979.9559</td>
<td>1381.74</td>
<td>BM</td>
<td>OPS IN CROSS HATCHED</td>
<td></td>
</tr>
<tr>
<td>115</td>
<td>638836.8035</td>
<td>667977.6666</td>
<td>1386.01</td>
<td>BM</td>
<td>OPS IN UPRIGHT PK. W.</td>
<td></td>
</tr>
<tr>
<td>116</td>
<td>639177.7662</td>
<td>668256.7625</td>
<td>1373.88</td>
<td>BM</td>
<td>OPS IN DRIVING LANE</td>
<td></td>
</tr>
<tr>
<td>117</td>
<td>638476.1648</td>
<td>667916.2489</td>
<td>1393.91</td>
<td>BM</td>
<td>OPS IN EDGE OF CITY STREET</td>
<td></td>
</tr>
</tbody>
</table>

**Note - Rebar and Cap - Standard - 5/8" Rebar with 2" Aluminum Cap stamped SMK**

*Slight markings common to all caps, or as indicated by other markings indicated in the point description of the individual point.*

*Use CAP = 1, 0 FOR STAKEOUT FOR THIS PROJECT.*

*A PROJECT CAP OF 0.9999141674 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.*

**This CAP IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.**

**GRID DISTANCE = GRID DISTANCE X CAP.**

**GRID COORDINATES ARE STORED UNDER FILE NAME S04041801.CTL**

**HORIZONTAL DATUM NAD 83 (1997)**

**VERTICAL DATUM NAV 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE AT A SPECIFIC POINT.**

**REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED.**

**REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL.**

**Basis of Bearing:** ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE DETERMINED FROM GPS CONTROL POINTS 720032-720039.

**CONVERGENCE ANGLES - 01-16-07-40 AT POINT NO. 10**

**GRID AZIMUTH - ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.**
STA 121.75.00
END JOB 040581
(RAZORBACK ROAD)

C.L. CONSTRUCTION
Hwy. 112

SURVEY BASELINE

STA 10.28.00
BEGIN CONSTRUCTION
LEROI POND

C.L. CONSTRUCTION
LEROI POND

STA 13.14.00
END CONSTRUCTION
LEROI POND

SURVEY CONTROL DETAILS
STA: 10.72 CONSTRUCT
DROP INLET ON LT.
WITH 30" x 80" PIPE CULVERT
CONNECT TO DROP INLET ON LT. STA: 11.70
TYPE: E, 5 x 5
H : 4'-2"

STA: 11.70 CONSTRUCT
DROP INLET ON LT. WITH 4' EXTENSION
& CONNECT TO EXIST. 30" PIPE CULVERT
TYPE: 4' x 7'
H : 5'-9"

STA: 10-72 IN PLACE
DROP INLET ON LT.
30" x 80" R.C. PIPE CULVERT
REMOVE

STA: 11-70 IN PLACE
DROP INLET ON LT.
REMOVE

STA: 11-81 IN PLACE
DROP INLET ON LT.
12" x 12" R.C. PIPE CULVERT
REMOVE

STA: 12-14 CONSTRUCT
APPROACH ON LT.

STA: 10.28.00
BEGIN CONSTRUCTION
LERDY POND

STA: 11-70 CONSTRUCT
DROP INLET ON LT. WITH 4' EXTENSION
8" x 10" BOX PIPE CULVERT
CONNECT TO EXIST. BOX CULVERT
TYPE: D, 4 x 4
H : 3'-0"

STA: 12-14 CONSTRUCT
APPROACH ON RT. 5 O. YDS.

STA: 13-14.00
END CONSTRUCTION
LERDY POND

STA: 13-20 IN PLACE
DROP INLET ON RT. WITH 4' EXTENSION
8" x 10" BOX PIPE CULVERT
CONNECT TO EXIST. BOX CULVERT
TYPE: E, 5 x 5
H : 4'-2"

FOR ALL R.C. PIPE CULVERT INSTALLATIONS
USE TYPE 3 BEDDING UNLESS OTHERWISE
SPECIFIED.
FOR ALL CM PIPE CULVERT
INSTALLATIONS USE TYPE 2 BEDDING UNLESS
OTHERWISE SPECIFIED.
## TRAFFIC SIGNAL QUANTITIES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ITEM</th>
<th>QUANTITY</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA179</td>
<td>SYSTEM LOCAL CONTROLLER (X-9 series)</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA181</td>
<td>TRAFFIC SIGNAL HEAD, 15 SECTION, MOUNTED</td>
<td>6</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA185</td>
<td>TRAFFIC SIGNAL HEAD, 15 SECTION, SIOUX CITY</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA189</td>
<td>COUNTDOWN PREDATOR SIGNAL, LED, HORIZONTAL</td>
<td>4</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA194</td>
<td>LED TRAFFIC SIGNAL LIGHT, 184 LED</td>
<td>184</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA195</td>
<td>TRAFFIC SIGNAL LIGHT, 184 LED</td>
<td>66</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA196</td>
<td>TRAFFIC SIGNAL LIGHT, 184 LED</td>
<td>234</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA198</td>
<td>TRAFFIC SIGNAL LIGHT, 184 LED</td>
<td>345</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA200</td>
<td>GALVANIZED STEEL CONDUIT, 3/4&quot;</td>
<td>20</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA202</td>
<td>NON-METALLIC PVC CONDUIT, 3/4&quot;</td>
<td>20</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA203</td>
<td>NON-METALLIC PVC CONDUIT, 2&quot;</td>
<td>3</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA204</td>
<td>NON-METALLIC PVC CONDUIT, 3&quot;</td>
<td>3</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA205</td>
<td>CONCRETE MULL BOX, TYPE 2 M,I, 4</td>
<td>2</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA207</td>
<td>CONCRETE MULL BOX, TYPE 2 M,I</td>
<td>2</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA209</td>
<td>TRAFFIC SIGNAL MAST, ARM AND POLE WITH FOUNDATION (28&quot;)</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA210</td>
<td>TRAFFIC SIGNAL MAST, ARM AND POLE WITH FOUNDATION (28&quot;)</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA211</td>
<td>TRAFFIC SIGNAL MAST, ARM AND POLE WITH FOUNDATION (44&quot;)</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA213</td>
<td>TRAFFIC SIGNAL MAST, ARM AND POLE WITH FOUNDATION (44&quot;)</td>
<td>2</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA230</td>
<td>VIDEO CABLE</td>
<td>720</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA231</td>
<td>VIDEO DETECTOR GEL</td>
<td>6</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA232</td>
<td>VIDEO EDGE CARD EXTENDER</td>
<td>4</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA233</td>
<td>VIDEO PROCESSOR/EDGE CARD OR CAMERA</td>
<td>4</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA234</td>
<td>VEHICLE DETECTOR PACK, 8 CHANNELS</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA235</td>
<td>ANTENNA CABLE (TYPE SI)</td>
<td>10</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA236</td>
<td>ELECTRICAL CONDUCTORS FOR LUMINARIES</td>
<td>10</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA237</td>
<td>ELECTRICAL CONDUCTORS-IN-CONDUIT (GC-X, 4&quot; X 4&quot;)</td>
<td>20</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA238</td>
<td>ELECTRICAL CONDUCTORS-IN-CONDUIT (GC-X, 4&quot; X 4&quot;)</td>
<td>20</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA239</td>
<td>ELECTRICAL CONDUCTORS-IN-CONDUIT (GC-X, 4&quot; X 4&quot;)</td>
<td>20</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA240</td>
<td>ELECTRICAL CONDUCTORS-IN-CONDUIT (GC-X, 4&quot; X 4&quot;)</td>
<td>20</td>
<td>LMT.</td>
</tr>
<tr>
<td>SPA241</td>
<td>LUMINAIRE ASSEMBLY</td>
<td>3</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA242</td>
<td>B-2 STROKE SHADE, SHADE</td>
<td>3</td>
<td>EACH</td>
</tr>
<tr>
<td>SPA243</td>
<td>SERVICE POINT ASSEMBLY, 12 CIRCUIT</td>
<td>1</td>
<td>EACH</td>
</tr>
</tbody>
</table>

* QUANTITIES INCLUDE ONE SPARE VIDEO DETECTOR AND ONE SPARE VIDEO PROCESSOR.

**REFERENCES:**
1. REFLECTIVE SHEETING SHALL COMPLY WITH ASTM D3556 TYPE B OR 9 REFLECTIVE SHEETING. SHEETING AND LEGEND SHALL BE APPLIED IN SUCH A MANNER TO PROVIDE WRINKLE AND BUBBLE FREE SURFACES. APPLICATION OF SHEETING IS CAUSE FOR REJECTION OF MATERIALS DUE TO WORKMANSHIP.
2. ALUMINUM SIGN BLANK SHALL BE ALLOY 6061-T6 OR 5052-H38. THE ALUMINUM SIGN BLANK SHALL ALSO BE ANODIZED. THE ALUMINUM SHEETING SHALL BE 0.040 INCH THICKNESS AND OF THE SIZE SHOWN, WITH 45° CORNER RADIUS. PRIOR TO 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 NEARSIIDE LEFT POLIC. SEE STD. DETAIL SHEET FOR MORE INFORMATION ON MOUNTING OR MAST ARM ASSEMBLY.
4. THE CLEARVIEW 5-M-R FONT SHALL BE USED FOR ALL LETTERS.
PHASING DIAM

SIGNAL-FACES

6" LENSES

DESIGN-PARAMETERS

POSTED-SPEED-LIMITS
35 MPH NORTH AND SOUTH APPROACH
25 MPH EAST APPROACH
NO BUS STOPS.
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO NIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES
SHOWN ON PAVEMENT MARKING PLAN.
SEE SEPARATE SHEET.

MINIMUM CLEAR ZONE DISTANCE
CONTROLLER - 0.5 FEET FROM HWY, 12
POLE A - 1.5 FEET FROM HWY, 12
POLE B - 1.5 FEET FROM HWY, 12
POLE C - 1.5 FEET FROM HWY, 12
POLE D - 1.5 FEET FROM HWY, 12
POLE E - 1.5 FEET FROM HWY, 12

INTERVAL-CHART

SIGNAL

FLASH

FACE

HWY. 12/LEROY POND DR.

HWY. 112/RAZORBACK RD.

0 30 60 90

SCALE IN FEET

SIGNALLIZATION PLAN SHEET

GRID REFERENCE

12 19 13

FILE NAME: 03449191.dgn

DATE: 12-20-13

NOTES

1. ALL SIGNAL HEADS SHALL HAVE BACKPLATE.

2. REFER TO SPECIAL PROVISIONS FOR DETAILS ON NEW REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.

HWY. J2 (RAZORBACK RD./LEROY POND DR.

POLE DIMENSIONS

POLE

WIDTH

HEIGHT

VERT.

LAMP

LAMP

NW

N/A

A

270'

30'

10'

180'

B

44'-44'

90'-180'

35'

10'

180'

C

N/A

N/A

30'

N/A

N/A

D

28'

180'

30'

10'

180'

E

N/A

N/A

15'

N/A

N/A

ANGLE MEASURED CLOCKWISE FROM MAIN HOLE.

POLE A - SHALL BE DESIGNED FOR 25' MAIN ARM EXTENDING NORTH OVER LEROY POND DR. TO BE INSTALLED IN THE FUTURE.

LOCATION

HWY. 112 (RAZORBACK RD./LEROY POND DR.

CITY

FAYETTEVILLE

COUNTY

WASHINGTON

DISTRICT

4

SCALE

1"=60'

DRAWN BY

OUE
CONCRETE COMBINATION CURB AND GUTTER

DETAIL OF GUTTER SLOPE
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.

ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB

NOTES: USE MODIFIED CURB AS SPECIFIED ON STD OR P-6.
COMPILATION FOR MODIFIED CURB WILL BE CONSIDERED ON THE TYPE OF CURB ON CURB AND GUTTER SPECIFIED.

ARKANSAS STATE HIGHWAY COMMISSION
CURBING DETAILS
STANDARD DRAWING CG-1
### TABLE OF DIMENSIONS

<table>
<thead>
<tr>
<th>DIA</th>
<th>WALL</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G+H</th>
<th>I+J</th>
<th>K+L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>P</th>
<th>R</th>
<th>T</th>
<th>S</th>
<th>V</th>
<th>H</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8&quot;</td>
<td>20&quot;</td>
<td>5&quot;</td>
<td>2-3&quot;</td>
<td>3-1/2&quot;</td>
<td>4-1/2&quot;</td>
<td>5&quot;</td>
<td>7-1/2&quot;</td>
<td>10&quot;</td>
<td>10&quot;</td>
<td>15&quot;</td>
<td>20&quot;</td>
<td>25&quot;</td>
<td>30&quot;</td>
<td>35&quot;</td>
<td>40&quot;</td>
<td>45&quot;</td>
<td>50&quot;</td>
<td>60&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10&quot;</td>
<td>24&quot;</td>
<td>5&quot;</td>
<td>2-3&quot;</td>
<td>3-1/2&quot;</td>
<td>4-1/2&quot;</td>
<td>5&quot;</td>
<td>7-1/2&quot;</td>
<td>10&quot;</td>
<td>10&quot;</td>
<td>15&quot;</td>
<td>20&quot;</td>
<td>25&quot;</td>
<td>30&quot;</td>
<td>35&quot;</td>
<td>40&quot;</td>
<td>45&quot;</td>
<td>50&quot;</td>
<td>60&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12&quot;</td>
<td>28&quot;</td>
<td>5&quot;</td>
<td>2-3&quot;</td>
<td>3-1/2&quot;</td>
<td>4-1/2&quot;</td>
<td>5&quot;</td>
<td>7-1/2&quot;</td>
<td>10&quot;</td>
<td>10&quot;</td>
<td>15&quot;</td>
<td>20&quot;</td>
<td>25&quot;</td>
<td>30&quot;</td>
<td>35&quot;</td>
<td>40&quot;</td>
<td>45&quot;</td>
<td>50&quot;</td>
<td>60&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14&quot;</td>
<td>32&quot;</td>
<td>5&quot;</td>
<td>2-3&quot;</td>
<td>3-1/2&quot;</td>
<td>4-1/2&quot;</td>
<td>5&quot;</td>
<td>7-1/2&quot;</td>
<td>10&quot;</td>
<td>10&quot;</td>
<td>15&quot;</td>
<td>20&quot;</td>
<td>25&quot;</td>
<td>30&quot;</td>
<td>35&quot;</td>
<td>40&quot;</td>
<td>45&quot;</td>
<td>50&quot;</td>
<td>60&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16&quot;</td>
<td>36&quot;</td>
<td>5&quot;</td>
<td>2-3&quot;</td>
<td>3-1/2&quot;</td>
<td>4-1/2&quot;</td>
<td>5&quot;</td>
<td>7-1/2&quot;</td>
<td>10&quot;</td>
<td>10&quot;</td>
<td>15&quot;</td>
<td>20&quot;</td>
<td>25&quot;</td>
<td>30&quot;</td>
<td>35&quot;</td>
<td>40&quot;</td>
<td>45&quot;</td>
<td>50&quot;</td>
<td>60&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### ARCH PIPE

- **Diameter (D)**: The diameter of the arch pipe.
- **Height (H)**: The height of the arch pipe.
- **Width (W)**: The width of the arch pipe.
- **Thickness (T)**: The thickness of the arch pipe.

### C.J.M. ARCH PIPE

- **Design Span (S)**: The design span of the arch pipe.
- **Diameter (D)**: The diameter of the arch pipe.
- **Height (H)**: The height of the arch pipe.
- **Width (W)**: The width of the arch pipe.
- **Thickness (T)**: The thickness of the arch pipe.

### CIRCULAR PIPE

- **Design Span (S)**: The design span of the circular pipe.
- **Diameter (D)**: The diameter of the circular pipe.
- **Height (H)**: The height of the circular pipe.
- **Width (W)**: The width of the circular pipe.
- **Thickness (T)**: The thickness of the circular pipe.

**Note:** All dimensions are approximate and should be confirmed with the manufacturer’s specifications. The tolerances for dimensions should be ±1/8" unless otherwise noted.
### Corrugated Steel Pipe (Round)

<table>
<thead>
<tr>
<th>PIPE DIAMETER (INCHES)</th>
<th>COVER TOP OF PIPE TO TOP OF PIPE (INCHES)</th>
<th>METAL THICKNESS (INCHES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0.644</td>
<td>0.019</td>
</tr>
<tr>
<td>4</td>
<td>0.464</td>
<td>0.019</td>
</tr>
<tr>
<td>5</td>
<td>0.424</td>
<td>0.019</td>
</tr>
<tr>
<td>6</td>
<td>0.384</td>
<td>0.019</td>
</tr>
<tr>
<td>7</td>
<td>0.344</td>
<td>0.019</td>
</tr>
<tr>
<td>8</td>
<td>0.304</td>
<td>0.019</td>
</tr>
</tbody>
</table>

### Corrugated Aluminum Pipe (Round)

<table>
<thead>
<tr>
<th>PIPE DIAMETER (INCHES)</th>
<th>COVER TOP OF PIPE TO TOP OF PIPE (INCHES)</th>
<th>METAL THICKNESS (INCHES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0.260</td>
<td>0.005</td>
</tr>
<tr>
<td>4</td>
<td>0.235</td>
<td>0.025</td>
</tr>
<tr>
<td>5</td>
<td>0.215</td>
<td>0.025</td>
</tr>
<tr>
<td>6</td>
<td>0.195</td>
<td>0.025</td>
</tr>
<tr>
<td>7</td>
<td>0.175</td>
<td>0.025</td>
</tr>
</tbody>
</table>

### Corrugated Metal Pipe Arches

<table>
<thead>
<tr>
<th>EQUIV. DIMENSION (INCHES)</th>
<th>PIPE DIAMETER (INCHES)</th>
<th>MIN. WALL THICKNESS (INCHES)</th>
<th>MAX. WALL THICKNESS (INCHES)</th>
<th>MAX. HEIGHT OF MOLD (FT.)</th>
<th>MIN. HEIGHT OF MOLD (FT.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>0.044</td>
<td>0.064</td>
<td>0.600</td>
<td>0.360</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>0.064</td>
<td>0.084</td>
<td>0.800</td>
<td>0.480</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>0.084</td>
<td>0.104</td>
<td>1.000</td>
<td>0.600</td>
</tr>
</tbody>
</table>

### Installation Requirements

**Type 1**:
- Structural Backfill and Structural Bedding Material will be paid for separately, but compensation will be considered to be included in the price bid per linear foot of metallic pipe.

**Type 2**:
- Agile Grade Base Course (6)-315 or 71

**Type 3**:
- Structural Backfill, Material, and Structural Bedding Material will be paid for separately, but compensation will be considered to be included in the price bid per linear foot of metallic pipe.

### GENERAL NOTES

1. Metal Pipe Culvert Construction shall conform to Arkansas State Highway and Transportation Department Standards Specifications for Highway Construction Section D with applicable modifications noted in the Plans, Section and Subsection referred to the Standard Specifications.
3. Metal pipe culverts and pipe installations shall conform to Section 130-140 and Joe Special Provision "Metal Pipe".
4. All pipe shall be protected during construction by a cover sufficient to prevent damage from passage of equipment.
5. The minimum trench width shall be the outside diameter of the pipe plus 24 inches. The minimum width may be reduced if the trench is accessible, but shall be the minimum practicable for rolling conditions.

### EMBANKMENT AND TRENCH INSTALLATIONS

1. Structural Backfill, Embankment, and Structural Bedding Material shall be compacted to 95% of the maximum density according to the type or class of material used.
2. Installation Type 1 or 2 may be used for corrugated steel or aluminum pipe.
3. Installation Types 1 and 2 shall be used for corrugated steel or aluminum pipe with 3x1 or 4x1 corrugation.
4. Installation Type 2 may be used for corrugated steel or aluminum pipe with 5x1 or 6x1 corrugation.

### METAL PIPE CULVERT FILL HEIGHTS & BEDDING

- For maximum cover values, "H" shall include a minimum 12" of pavement and/or base.
- Where the standard 2x2x3" 1/4" Corrugation is specified for a given diameter, a pipe of the same diameter with a 2x2x3" 1/4" Corrugation may be substituted providing it is caused for a fill height condition equal to or greater than the maximum fill height for the specified diameter and corrugation.
CONCRETE PAVEMENT

BROKEN LINE STRIPING

ASPHALT PAVEMENT

SOLID LINE STRIPING ON CONCRETE PAVEMENT

SOLID LINE STRIPING ON ASPHALT PAVEMENT

ASPHALT PAVEMENT

CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES

CROSSWALK AND STOPBAR DETAILS

NOTES:

1. All lines shall have a width of 4 inches.
2. The thickness and rate of paint application shall be as specified in Section 9-10 of the standard specifications.
3. This drawing shall be used in conjunction with the latest revised edition of the "Manual on Uniform Traffic Control Devices."
4. Raised pavement markers shall be centered between skid lines on 40 feet spacing unless otherwise shown on the plans.

2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR STAINLESS SURFACE TREATMENT

EDGE OF PAVEMENT

4" CONTINUOUS WHITE

P AVEMENT EDGE LINE MARKING

4" CONTINUOUS WHITE

DETAIL OF STANDARD RAISED PAVEMENT MARKERS

TYPE B REFLECTOR ON YELLOW/WHITE

NOTE:

The red lens of the type 3 reflector shall face the greatest traffic movement.

6/4/18

ARKANSAS STATE HIGHWAY COMMISSION

REVISION DETAIL OF STANDARD RAISED PAVEMENT MARKERS

5-7-14

REVIEWED: GENERAL NOTES

4-6-14

REVIEWED: DRAWN

4-2-14

PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1
**REINFORCED CONCRETE BOX CULVERT GENERAL NOTES**

Concrete shall be Class 5 with a minimum 28 day compressive strength of 3500 psi.

Reinforcing steel shall be A301 M 310 M 334 Grade 60.

Construction and materials for wingwall, culvert drainage, including keep holes and grout material, shall be subsidiary to the BD item, "Class 5 Concrete".

Membrane waterproofing shall conform to the requirements of section 08 of the Standard Specifications.

Membrane waterproofing shall be applied to all construction joints in the top slab and the girders and subgirders of R.C. Box Culverts as directed by the engineer. No payment shall be made for this item but payment will be considered to be included in the various items bid for the box culvert.

Reinforcing steel tolerances for the tolerances for reinforcing steel shall meet those listed in "Manual of Standard Practice" published by Concrete Reinforcing Steel Institute (CSMI) except that the tolerances for fill bars shall be with one hooked bar and one straight bar, using lengths as shown in the figure below. The two bars shall be the same diameter as, and placed at the same spacing as, the "b", "d", "o2" or "d2" bent bars they replace.

NOTE: Dimensions of bars are measured out to out or bars.

**OVERALL HEIGHT OF HOOKED BAR DIAGRAM**

The hooked bars shall be placed in the bottom of the top slab and the top of the bottom slab. The straight bars shall be placed in the top of the bottom slab and the bottom of the top slab. See table below for lengths of replacement hooked and straight bars.

For skewed culverts, the replacement straight bar may have to be cut in field to fit.

**REPLACEMENT BAR LENGTHS TABLE**

<table>
<thead>
<tr>
<th>BAR SIZE</th>
<th>LENGTH OF HOOKED BAR</th>
<th>LENGTH OF STRAIGHT BAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;a&quot;</td>
<td>L + 7&quot; - 12&quot;</td>
<td>see &quot;o&quot; bar length</td>
</tr>
<tr>
<td>&quot;s&quot;</td>
<td>L + 6&quot; - 2&quot;</td>
<td>see &quot;o&quot; bar length</td>
</tr>
<tr>
<td>&quot;t&quot;</td>
<td>L + 0&quot; - 4&quot;</td>
<td>see &quot;o&quot; bar length</td>
</tr>
<tr>
<td>&quot;t2&quot;</td>
<td>L + 0&quot; - 8&quot;</td>
<td>see &quot;o&quot; bar length</td>
</tr>
<tr>
<td>&quot;o&quot;</td>
<td>L + 0&quot; - 6&quot;</td>
<td>see &quot;o&quot; bar length</td>
</tr>
<tr>
<td>&quot;o2&quot;</td>
<td>L + 0&quot; - 3&quot;</td>
<td>see &quot;o&quot; bar length</td>
</tr>
<tr>
<td>&quot;d&quot;</td>
<td>L + 2&quot; - 6&quot;</td>
<td>see &quot;o&quot; bar length</td>
</tr>
</tbody>
</table>

L = "ON" - 3 INCHES

**ARAKANSAS STATE HIGHWAY COMMISSION**

**REINFORCED CONCRETE BOX CULVERT DETAILS**

**STANDARD DRAWING RCB-1**
SOLID SODDING
R.C. BOX CULVERT

PLAN

PARTIAL SECTION SHOWING SOLID SODDING AT HEADWALLS AND WING WALLS

NOTE: LENGTH MEASURED ALONG THE CENTER OF 2' STRIP OF SOLID SODDING.

LONGITUDINAL SECTION
BACKFILL DETAILS FOR BOX CULVERT

SECTION C-C
DETAILS THROUGH EXISTING CHANNELS

GENERAL NOTES:
ROADWAY EXCAVATION (CHANNEL CHANGES) WILL BE PAID FOR AT R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS ACTUALLY CUT AND WILL BE CONFINED TO THAT PORTION OF THE EXCAVATED AREA THAT IS ABOVE THE FLOW LINE. ROADWAY EXCAVATION (CHANNEL CHANGES) SHALL BE MEASURED BY CROSS SECTIONS AND VOLUMES COMPUTED BY AVERAGING END AREA METHOD. ALL CHANNEL CHANGES SHALL BE BROUGHT TO GRADE PRIOR TO MAKING ANY EXCAVATION FOR STRUCTURES.

EXCAVATION FOR STRUCTURES WILL BE PAID FOR AT ALL R.C. BOX CULVERT LOCATIONS BASED ON CROSS SECTIONS OF THE STRUCTURES. EXCAVATION AREA BEYOND THE STRUCTURE WILL ALSO BE CONFORMED TO THAT PORTION OF THE EXCAVATED AREA THAT IS BELOW THE CHANNEL FLOW LINE.

ROADWAY EXCAVATION SHOWN IN SECTION C-C ABOVE AS SUBGRADE WILL NOT BE MEASURED OR PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION.

ARKANSAS STATE HIGHWAY COMMISSION
EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS
STANDARD DRAWING RCB-2
CONDUIT ENTRY TO
EXISTING POLE BASE

ANCHOR BASE

ELECTRICAL CONDUIT

EGG BONDED TO GROUND LUG ON POLE
AND OTHER EG CONDUCTORS

ANCHOR BASE

LEVELING NUT

CHIP OUT, REGROUT

7/8" WEEP HOLE

1/2" NUT WITH
#8 ANCH. EGG

OUTGAGING *B TO
NEXT POLE GROUND

GROUND ROD

CONDUIT ENTRY TO EXISTING
CONTROLLER CABINET

EXIST, CONTROLLER CABINET

MNC AS SHOWN
ON PLANS

EXIST, CONTROLLER CABINET
CONCRETE BASE

NOTE: ENTRY TO CABINET SHALL BE THROUGH
A CUT IN THE BASE SUFFICIENT TO PROVIDE
ADEQUATE CONSULT RADIUS FOR ITE.M

TYPE "HD" CONCRETE PULL BOX DETAIL

EARTH

PULL BOX

ROADWAY SURFACE

2" CLEAR FROM TOP (TOLERANCE +1/8" -1/8"

NOTE: ALL TYPE "HD" CONCRETE PULL BOXES ARE INSTALLED WITH AN APEX OF
CONCRETE IN THE TOP 2" MIN. DEEP, AND 1/8" MIN. SIDE TO SIDE OF ALL PULL BOXES.
SHALL BE INCLUDED IN THE PLANS. THE TYPE "HD" CONCRETE PULL BOX SHALL BE FIXED
TO THE ROADWAY EARTH AS INSTRUCTED IN ALL CARBON TEXT IN THE APEX ON ALL
Sides of the pull box is required in concrete.
**A**

Variable B-1

Center on lane, but not less than B spacing

**B**

Variable B-1

Center on lane, but not less than B spacing

**C**

2' from lane line

2' from curb line

**C1**

2 sec. 1 sec. 1 sec.

Light source center line

Typical equal spacing

**C2**

Head "H" - 2" min. to right of line center

Typical equal spacing

**D**

Left turn head (head 1 on D1 and D2) is not called for.

**D1**

EQUALLY SPACED

Centered

**D2**

EQUALLY SPACED

Centered

**E**

Center of lane from approach side

---

**GENERAL NOTES**

1. FOUR SECTION - "PROTECTED PERPENDICULAR": Left turn heads should be placed on member 1, extending to the centerline of lane.

2. THREE SECTION - "PROTECTED": Left turn heads should be placed on the centerline of the approaching left turn lane.

3. WHEN IT IS NEEDED TO PLACE POLES OTHER THAN AS SHOWN ON PLAN SHEET B, RECESS IN MUST ARM EXTENDING MORE THAN 10 FEET FROM CURB, THE MUST ARM SHALL BE CUT TO APPROPRIATE LENGTH AS DETERMINED BY THE ENGINEER AND A NEW END CAP PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THIS PRIOR TO INSTALLING THE MUST ARM IF ADDITIONAL COMPENSATION IS REQUIRED.

4. SIGNAL HEAD SPACING SHALL, IN NO CASE, BE LESS THAN EIGHT IN. OR FOOT BETWEEN HEADS ON 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 FACE LOCATED BETWEEN 40 FEET AND 63 FEET FROM STOP BAR SHALL BE IN ACCORDANCE WITH FIGURE 40-1 OF DOT METAL.
CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE
1. PLACE PERMITTED CONTROLS (E.G. SILT FENCES, DIVERSION DITCHES, BARRIERS, BRIDGES, ETC).
2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION

EXISTING GROUND

INTERCEPTOR OR DIVERSION DITCH

EXISTING GROUND

PHASE 1 EXCAVATION

PHASE 2 EXCAVATION

PHASE 3 EXCAVATION

NOTE:
NUMBER OF PHASES WILL VARY.
THREE PHASES SHOWN FOR ILLUSTRATION.

GENERAL NOTE
ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEeded AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE
1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION, PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION, PLACE PERMANENT OR TEMPORARY SEEDING.
4. PERFORM PHASE 3 EXCAVATION, PLACE PERMANENT OR TEMPORARY SEEDING. SEEDING SHALL BE DONE WITHIN 48 HOURS AFTER EXCAVATION. SEEDING SHALL BE DONE WITHIN 48 HOURS AFTER EXCAVATION. SEEDING SHALL BE DONE WITHIN 48 HOURS AFTER EXCAVATION.

EMBANKMENT

DIVERSION DITCH TO BE IN PLACE UNTIL SLOPE IS COMPACTLY STABILIZED.

FINAL PHASE EMBANKMENT

PHASE 2 EMBANKMENT

PHASE 1 EMBANKMENT

SIDE DITCH (STABILIZE AS REQUIRED)

EXISTING GROUND

VARIOUS EROSION CONTROL DEVICES

GENERAL NOTE
ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEeded AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROPOSED DIVERSION DITCHES AND SLOPE SLOPES IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 30 DAYS.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROPOSED DIVERSION DITCHES AND SLOPE SLOPES IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 30 DAYS.
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SUPER DRAINAGE AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

ARKANSAS STATE HIGHWAY COMMISSION
TEMPORARY EROSION CONTROL DEVICES
STANDARD DRAWING TEC-3
TYPE 1 RAMP DIMENSIONS AND QUANTITIES

<table>
<thead>
<tr>
<th>Type</th>
<th>Distance</th>
<th>Distance</th>
<th>Length</th>
<th>Ramp Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>145</td>
<td>145</td>
<td>290</td>
<td>34,450</td>
</tr>
<tr>
<td>2</td>
<td>145</td>
<td>145</td>
<td>290</td>
<td>34,450</td>
</tr>
<tr>
<td>3</td>
<td>145</td>
<td>145</td>
<td>290</td>
<td>34,450</td>
</tr>
<tr>
<td>4</td>
<td>145</td>
<td>145</td>
<td>290</td>
<td>34,450</td>
</tr>
<tr>
<td>5</td>
<td>145</td>
<td>145</td>
<td>290</td>
<td>34,450</td>
</tr>
</tbody>
</table>

GENERAL NOTES FOR DETECTABLE WARNING DEVICES

1. The detectable warning device shall be located at the nearest edge of the ramp, 1 inch above the plane of the horizontal surface, and installed in accordance with the requirements of the geometric configuration shown.

2. The detectable warning device shall be installed on a square grid, the spacing of which is consistent with the geometry of the ramp.

3. The detectable warning device shall be 24 inches in the direction of travel and extend the full width of the curb ramp or flush with the curb.

4. The detectable warning device shall be on the auto-cast-in-place or auto panel products list for cast-in-place or auto panels.

5. Hatched area "A" indicates required concrete required for one Type 1 ramp.

NOTE: The cross slope of the ramp, level landings, and the threshold shall not exceed 1% unless required to match street or sidewalk grade.

SECTION A-A

NOTE: Limits of left tangent.

RAMP SELECTION CRITERIA

1. First Choice
   - Type 1
   - Type 4 ramps cannot be placed at the edge of the sidewalk

2. Second Choice
   - Type 2
   - Type 4 ramps cannot be placed at the edge of the sidewalk

3. Third Choice
   - Type 3
   - Type 4 ramps cannot be placed at the edge of the sidewalk

4. Fourth Choice
   - Type 5

NOTE: For type 5 ramps, the minimum length shall be 36 inches.

ARKANSAS STATE HIGHWAY COMMISSION
WHEELCHAIR RAMP NEW CONSTRUCTION AND ALTERATIONS

STANDARD DRAWING NO.

0.9" - 1.4"

TYPE 1 RAMP
(Walk adjacent to curb)

SECTION B-B

ROADWAY CROSS SLOPE

2" MIN.

ARMS OF NEW GROUNDSWELL

HATCHED AREA "A"

NOTE: Limits of right tangent.

NOTE: The minimum roadway cross slope allowed in the 2 area in front of the ramp shall be 3%.

NOTE: This ramp shall be placed on the left of the entrance.

NOTE: If these constraints prevent the construction of any of the types listed, the next choice shall be selected to provide access to the street level. If the curb can be stepped on a 1:20 max, a max length of 10' or a 1:16 max for a max length of 10', slopes shall not be allowed under any condition.

NOTE: In alterations, the selection of the type of wheelchair ramp to be constructed shall be based on the location of right-of-way available and the conditions of the site. The table above lists the order in which ramps are to be considered. An alteration is defined as a project that changes the appearance of a property by making a physical modification of a geometric configuration. Where the project is non-geometric, the alteration may be considered new construction for the purposes of the chart above.

50-65% of Base Dia. 0.2"
### Bar List for Barrel Section 4393 in Length

<table>
<thead>
<tr>
<th>Bar No.</th>
<th>Pin No.</th>
<th>End No.</th>
<th>End of Bar</th>
<th>End Length</th>
<th>End Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15235.1</td>
<td>0000000</td>
<td>0000000</td>
<td>000000000</td>
<td>000000000</td>
<td>000000000</td>
<td>000000000</td>
</tr>
</tbody>
</table>

**Dimensions**

- **Bar:** 15235.1
- **Pin:** 0000000
- **End:** 0000000
- **Length:** 0000000

### Typical Sections

**Class 5 Concrete**

**Design Live Load**

- PS-25 Live Load
- AASHTO Load

**Details of Standard Barrel Sections**

**Reinforced Concrete Box Culverts**

- 3:1 or 4:1 SLOPES
- UNDER 5' COVER

**Standard Drawing No. R-00200-0**