GOVERNING SPECIFICATIONS

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

NUMBER

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ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS

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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

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JOB 080505

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JOB 080505

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JOB 080505

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JOB 080505

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JOB 080505

UTILITY ADJUSTMENTS

JOB 080505

VEGETATED BUFFER ZONE

JOB 080505

WARM MIX ASPHALT

GENERAL NOTES

1. GRADE LINE NOTES FINISHED GRADE WHERE SHOWN ON PLANS.

2. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.

3. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAYBE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U.S. MAILBOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.

5. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.

6. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO ENSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE KEPT AS SMALL AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED MANUALLY OR IN LIEU THEREOF. THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.

8. THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE RESIDENT ENGINEER.

9. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.

10. THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

11. THIS PROJECT IS COVERED UNDER A SECTION 404 NATONOMIDE 14 PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.
NOTE:

Refer to cross sections for deviation from normal slopes, no changes shall be made from the planned slopes without the approval of the Engineer.

The thickness of aggregate base course shall be within plus or minus the tolerances of the plan thickness shown. The contractor will correct any deficiencies that do not meet tolerances indicated. Payment shall not be made for material placed in excess of the tolerance indicated.

The final 2 inches of surface course is to be placed after all other courses have been laid. Longitudinal joints shall be at the lane lines.

With the approval of the Engineer, the contractor will be allowed to substitute at no additional cost to the Department, the first lift of aggregate base course on the shoulders.

Asphalt for leveling of existing pavement shall be placed only if and where directed by the Engineer. Calculations for the amount of leveling and/or leveling operations shall be performed before contract Letting and widening. Calculations will not be paid for directly. Calculations not paid for will be included in the various contract items.
TYPICAL SECTIONS OF IMPROVEMENT
DETOUR ROAD

STA. 20+00.00 TO STA. 24+30.00
STA. 25+03.00 TO STA. 29+26.32

TYPICAL SECTIONS OF IMPROVEMENT
DETOUR ROAD - SUPERELEVATION

CURVES ROTATE AROUND INSIDE EDGE

STA. 23+25.00 TO STA. 23+66.30
STA. 25+58.80 TO STA. 27+11.02

TYPICAL SECTIONS OF IMPROVEMENT
NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

CONSTRUCTION LIMITS

ASPHALT CONCRETE HOT MIX SURFACE
- CLASS 7
- 7" COMP. DEPTH IF ASPHALT DRIVE EXIST OR 6" CONCRETE IF CONCRETE DRIVE EXIST

AGGREGATE BASE COURSE (CLASS 7)
- 9" COMP. DEPTH OR CONFORM TO EXISTING DRIVEWAY

WIDENING FOR GUARDRAIL

NOTE: REFER TO STD. CMS. DR-DA AND CROSS SECTIONS FOR SLOPE REQUIREMENTS BEHIND GUARDRAIL.

DETAIL FOR DRIVEWAY TURNOUTS (COLLECTORS)

DETAIL FOR TRANSITIONS

SECTION OF APPROACH SLAB

* Varies
STAGE 2
TEMPORARY EROSION CONTROL DETAILS

STA. 309+00.00
BEGIN JOB 080506
LOG MILE 11.69

STA. 314+00.00
END JOB 080506

STA. 309+74 - STA. 36+90 IN SFHA

STAGE 2
SAND BAG DITCH CHECKS (E-01)
12 LOCATIONS - 100 BAGS
ROCK DITCH CHECKS (E-01)
12 LOCATIONS - 6 CUB. YDS.

LEGEND
- FILTER SOCK
- SAND BAG DITCH CHECKS
- ROCK DITCH CHECKS
- Silt Fence
**Temporary Erosion Control Details**

**Stage 3**

- Sand Bag Ditch Checks (E-51)
  - 2 Locations + 44 Bags
- Rock Ditch Checks (E-51)

**Legend**

- **Filter Sock**
- **Sand Bag Ditch Checks**
- **Rock Ditch Checks**
- **SLT Fence**

**Revisions**

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<tr>
<th>Date of Revision</th>
<th>Revision</th>
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**Lines**

- STA 309+00.00
- Begin Job 080506
- LOG Mile 11.69

**Stage 3**

- STA 314+00.00
- End Job 080506

**Obliterate Detour**

**Stage 3 Details**

- STA 309+74 - STA 35+90 in SFHA
SEQUENCE OF CONSTRUCTION

STAGE 1:
- MAINTAIN TRAFFIC ON EXISTING LAKES.
- CONSTRUCT DETOUR ON RT.

STAGE 2:
- SHIFT TRAFFIC TO DETOUR CENTERLINE.
- PROTECT AND MOW RT. SIDE, FROM DETOUR.
- CONSTRUCT DRIVES AND INSTALL SIDE DRAINAGE ON LT.
- REMOVE EXISTING BRIDGE.
- CONSTRUCT NEW BRIDGE.

STAGE 3:
- SHIFT TRAFFIC TO CONSTRUCTION CENTERLINE.
- COMPLETE DETOUR.
- BUILD DRIVES AND INSTALL SIDE DRAINAGE ON RT.
- COLD MILL TRANSITION AREA.
- PLACE FINAL LAYER OF ACI SURFACE COURSE.
- INSTALL PERMANENT PAVEMENT MARKINGS.

MAIN LANES ALL STAGES
MAINTENANCE OF TRAFFIC DETAILS
STAGE 1
MAINTAIN TRAFFIC ON EXISTING LANES,
CONSTRUCT DETOUR ON RT.

STAGE 2
SHIFT TRAFFIC TO DETOUR CENTER LINE,
MATCH AND WIDTH LT. SIDE FROM DETOUR,
CONSTRUCT DRIVES AND INSTALL SIDE DRAINAGE ON LT. ADJACENT EXISTING BRIDGE.
RESTORE DETOUR CENTER LINE.

STAGE 3
SHUT TRAFFIC TO CONSTRUCTION CENTER LINE,
OBLITERATE DETOUR CENTER LINE,
MATCH AND WIDTH RT.,
BUILD DRIVES AND INSTALL SIDE DRAINAGE ON RT.,
COLD MILL TRANSITION ISLAND,
PLACE BALLAST OR FILL ON COMPACTION SURFACE COURSE,
INSTALL PERMANENT PAVEMENT MARKINGS.

MAINTENANCE OF TRAFFIC DETAILS
THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NOPASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING. CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF THE SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF THE PROJECT.

QUANTITIES:

THERMOPLASTIC PAVEMENT MARKINGS
6" YELLOW OBL. = 800 LIN. FT.
6" WHITE SOLID = 800 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (80' O.C.)
YELLOW/YELLOW = EACH

THE 6" THERMOPLASTIC DOUBLE YELLOW STRIPE WITH RPM (TYPE II 80' O.C.) 100' TRANS.

6" THERMOPLASTIC WHITE SOLID

CONSTRUCTION LTD.

STA. 309+00.00
BEGIN JOB 080506
LOG MILE II.69

STA. 314+00.00
END JOB 080506

PERMANENT PAVEMENT MARKING DETAILS
### ADVANCE WARNING SIGNS AND DEVICES

<table>
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<tr>
<th>SIGN NUMBER</th>
<th>DESCRIPTION</th>
<th>SIGN SIZE</th>
<th>STAGE 1</th>
<th>STAGE 2</th>
<th>STAGE 3</th>
<th>END OF JOB</th>
<th>MAXIMUM NUMBER REQUIRED</th>
<th>TOTAL SIGNS REQUIRED</th>
<th>VERTICAL PANELS</th>
<th>TRAFFIC DRUMS</th>
<th>BARRICADES (TYPE III)</th>
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<tr>
<td>WW-1</td>
<td>ROAD WORK (1000 FT.)</td>
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<td>AL-1</td>
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<td>KD-2</td>
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**NOTE:** THE 6.75 VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

**THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR THE FULL LENGTH OF THE JOB. THE MAXIMUM NUMBER REQUIRED TO ALLOW THE CONTRACTOR TO COMPLETE ONE MILE (OR PART THEREOF) AND THEN NOTICE ANOTHER ONE MILE SECTION. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS WHICH WILL BE PAID FOR. REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.

### CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>STAGE 1</th>
<th>STAGE 2</th>
<th>STAGE 3</th>
<th>END OF JOB</th>
<th>REMOVAL OF PERMANENT PAYMENT MARKINGS</th>
<th>CONSTRUCTION PAVEMENT MARKINGS</th>
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**NOTE:** THE 6.75 VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

**NOTE:** THE "Y" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT.

**THE PROJECT MUST BE MARKED FOR PASSING/PASSING ZONE PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING.**

**CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF THE PROJECT.
### Soil Log

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**Soil Classification**

- **A**: Austere Refusal
- **N**: Non-Plastic
- **D**: Not Determinable

### Bench Marks

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**Total:** 1

**Note:** Shown for information only, bench marks shall be furnished and placed by State forces.

### Clearing and Grubbing

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<td>310-06</td>
<td>HWY 7</td>
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**Total:** 3

### Removal and Disposal of Culverts

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<th>Location</th>
<th>Description</th>
<th>Culverts</th>
</tr>
</thead>
<tbody>
<tr>
<td>308-36</td>
<td>HWY 7</td>
<td>18&quot; X 21&quot; C-M PIPE CULVERT ON RT.</td>
<td>1</td>
</tr>
<tr>
<td>308-45</td>
<td>HWY 7</td>
<td>18&quot; X 49&quot; B-P PIPE CULVERT ON LT.</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total:** 2

**Note:** Quantities shown above shall include removal and disposal of all headwalls and pinned end sections if applicable.

### Removal and Disposal of Fence

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Fence</th>
</tr>
</thead>
<tbody>
<tr>
<td>307-39</td>
<td>HWY 7</td>
<td>1</td>
</tr>
<tr>
<td>307-39</td>
<td>HWY 7</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total:** 2

**Note:** The quantity shown above for the removal and disposal of guardrail shall include the removal and disposal of all guardrail, terminals and terminal anchor posts.

### Concrete Ditch Paving

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Length</th>
<th>&quot;W&quot;</th>
<th>Conc. Ditch Paving</th>
<th>Sodding</th>
<th>Water</th>
</tr>
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<tbody>
<tr>
<td>308-35</td>
<td>308-35</td>
<td>30</td>
<td>5.0</td>
<td>62.00</td>
<td>62.00</td>
<td>59.44</td>
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<tr>
<td>310-35</td>
<td>310-35</td>
<td>31</td>
<td>5.0</td>
<td>62.00</td>
<td>62.00</td>
<td>59.44</td>
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</table>

**Total:** 114.00

**Note:** Base of estimate: 12.6 GAL. / SQ. YD. OF SOIL SODDING.

### Asphalt Concrete Patching for Maintenance of Traffic

<table>
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<tr>
<th>Location</th>
<th>Description</th>
<th>Ton</th>
<th>Tack Coat</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROJECT 1</td>
<td>TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER</td>
<td>3</td>
<td>GALCONS</td>
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</table>

**Total:** 3

**Note:** Quantities estimated. See Section 104.03 of the STD. specs.

### ACME Patching of Existing Roadway

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<th>Ton</th>
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</thead>
<tbody>
<tr>
<td>PROJECT 1</td>
<td>TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER</td>
<td>52</td>
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**Total:** 52

**Note:** Quantities estimated. See Section 104.03 of the STD. specs.

### 4" Pipe Underdrain

<table>
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<th>Station</th>
<th>Location</th>
<th>Description</th>
<th>Underdrain</th>
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</thead>
<tbody>
<tr>
<td>307-03</td>
<td>HWY 7</td>
<td>4&quot; PIPE UNDERDRAIN</td>
<td>EACH</td>
</tr>
<tr>
<td>310-43</td>
<td>HWY 7</td>
<td>4&quot; PIPE UNDERDRAIN</td>
<td>EACH</td>
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**Total:** 60 |

**Note:** Quantities estimated. See Section 104.03 of the STD. specs.

### Fencing

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<th>Location</th>
<th>Description</th>
<th>Gate</th>
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<tr>
<td>307-03</td>
<td>HWY 7</td>
<td>&quot;14&quot; FENCE</td>
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<tr>
<td>310-43</td>
<td>HWY 7</td>
<td>&quot;14&quot; FENCE</td>
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**Total:** 2

**Note:** Gates alternate bid item.

### Cold Milling Asphalt Pavement

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<th>Station</th>
<th>Location</th>
<th>Avg. Width</th>
<th>Cold Milling Asphalt Pavement</th>
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<tr>
<td>308-35</td>
<td>MAINLANES</td>
<td>22.00</td>
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<tr>
<td>310-35</td>
<td>MAINLANES</td>
<td>22.00</td>
<td>244.44</td>
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**Total:** 488.88

**Note:** Average milling depth 2".

---

**Quantities**
### Erosion Control

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<th>Station</th>
<th>Location</th>
<th>Seeding</th>
<th>Lime</th>
<th>Mulch Cover</th>
<th>Water</th>
<th>Second Seeding Application</th>
<th>Temporary Seeding</th>
<th>Mulch Cover</th>
<th>Water</th>
<th>Filter Drainage Ditch Checkers</th>
<th>Sand &amp; Rock Checkers</th>
<th>Rock Ditch Checkers</th>
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<th>Sediment Removal &amp; Disposal</th>
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<tr>
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#### Approach Gutters and Slabs

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Approach Gutter (Type C1)</th>
<th>Approach Slabs (Type C1)</th>
<th>Reinforcing Steel (Class 7)</th>
<th>Aggregate Base Class 7</th>
<th>Total Tons</th>
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</thead>
<tbody>
<tr>
<td>309+05.50</td>
<td>310+32.00</td>
<td>LT: SEE</td>
<td>15.25</td>
<td>725</td>
<td>310+05.50</td>
<td>310+32.00</td>
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#### Guardrail

<table>
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<tr>
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<th>Location</th>
<th>Guardrail (Type A)</th>
<th>Guardrail (Type C2)</th>
<th>Three Beam Terminal (Type C2)</th>
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<tbody>
<tr>
<td>309+28.55</td>
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#### Earthwork

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<thead>
<tr>
<th>Station</th>
<th>Location / Description</th>
<th>Unclassified Excavation</th>
<th>Compacted Embankment</th>
<th>Soil Stabilization</th>
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<tr>
<td>309+05.50</td>
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<td>MAIN LINE</td>
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#### Structures

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<td>22+75</td>
<td>INSTALL TEMPORARY PIPE CULVERT ON RT</td>
<td>36</td>
<td>PCC-2 AND PCM-1</td>
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**Quantities**

- **Earthwork Quantities**
  - See Section 104.03 of the Std. Specs.
  - **Note**: Earthwork quantities shown above shall be paid as plan quantity.

- **Approach Gutters and Slabs Quantities**
  - **Note**: See Section 104.03 of the Std. Specs.
  - **Note**: Quantities estimated.

- **Guardrail Quantities**
  - **Note**: See Section 104.03 of the Std. Specs.
  - **Note**: Quantities estimated.

- **Erosion Control Quantities**
  - **Note**: Quantities estimated.
  - **Note**: See Section 104.03 of the Std. Specs.
## Driveways & Tunnels

<table>
<thead>
<tr>
<th>STATION</th>
<th>SIDE</th>
<th>LOCATION</th>
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<th>AGGREGATE Surface Course (3&quot;)</th>
<th>TACK COAT</th>
<th>ACMI Binder Course (4&quot;)</th>
<th>Aggregate Base Course (1&quot;)</th>
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<th>ACMI Binder Course (4&quot;)</th>
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<tr>
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<td>R</td>
<td>HWY 6 WEST</td>
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<td>301-00</td>
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## Base and Surfacing

### Aggregate Base Course (1"")

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<th>LOCATION</th>
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<th>AVG. W.T.</th>
<th>SQ. YD.</th>
<th>AVG. W.T.</th>
<th>SQ. YD.</th>
<th>AVG. W.T.</th>
<th>SQ. YD.</th>
<th>AVG. W.T.</th>
<th>SQ. YD.</th>
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### Aggregate Base Course (2"")

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<th>SQ. YD.</th>
<th>AVG. W.T.</th>
<th>SQ. YD.</th>
<th>AVG. W.T.</th>
<th>SQ. YD.</th>
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<td>HWY 6 WEST</td>
<td>30.50</td>
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## SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 080506

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<th>207</th>
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<td>ITEM</td>
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<td>UNCLASSIFIED EXCAVATION FOR STRUCTURES</td>
<td>BRIDGE CLASS</td>
<td>CONCRETE BRIDGE</td>
<td>DESIGN OF PROTECTIVE STEEL BRIDGE</td>
<td>(GRADE 60)</td>
<td>REINFORCING STEEL</td>
<td>(GRADE 80)</td>
<td>EPOXY COATED REINFORCING STEEL</td>
<td>(GRADE 80)</td>
<td>STEEL PLATING</td>
<td>1/2 D 12X53</td>
<td>FIBER BLANKET</td>
<td>FILTER BLANKET</td>
<td>DUMPED CONCRETE</td>
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<tr>
<td>99'-0&quot; INTEGRAL I-BEAM UNIT</td>
<td>174.00</td>
<td>8.9</td>
<td>52.75</td>
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<td>1</td>
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<tr>
<td>EXISTING BRIDGE NO. MOST SITE NO.</td>
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</tbody>
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---

1. Includes approx. 87 cubic yards of rock excavation.
2. Based upon net lines of Decorative Concrete Parapet Railing, and the dimension of deck edge being 3½". Payment will be based upon plan quantities shown.
3. Steel plating is required to be Grade 50 and have special plate tabs which will not be paid for directly, but will be considered subsidiary to the item "Steel Plating 1/2 D 12X53".

LUKE BAILEY
DESIGN SECTION SUPERVISOR

SCHEDULE OF BRIDGE QUANTITIES
CROOKED BRANCH STR, & APPRS. (S)
POPE COUNTY

ARKANSAS STATE HIGHWAY COMMISSION
ROUTE 7 SEC. 15
LITTLE ROCK, ARK.

DRAWN BY: BRIDGE ENGINEER: LIVERMORE & FORD
DRAFTSMAN: DRAFTS: 080506-4/29
CHECKED BY: TITLE: 080506-4/29
DRAWING NO. 080506
DRAFTING NO. 6031

Date of Construction:

Date of Approval:

Date of Submission:

Date of Completion:

Date of Certification:

Date of Inspection:

Date of Payment:

Date of Erection:

Date of Acceptance:

Date of Issue:

Date of Revise:

Date of Revision:

Date of Release:

Date of Approval:

Date of Submission:

Date of Certification:

Date of Inspection:

Date of Payment:

Date of Erection:

Date of Acceptance:

Date of Issue:

Date of Revise:

Date of Revision:

Date of Release:

Date of Approval:

Date of Submission:

Date of Certification:

Date of Inspection:

Date of Payment:

Date of Erection:

Date of Acceptance:

Date of Issue:

Date of Revise:

Date of Revision:

Date of Release:

Date of Approval:

Date of Submission:

Date of Certification:

Date of Inspection:

Date of Payment:

Date of Erection:

Date of Acceptance:

Date of Issue:

Date of Revise:

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Date of Erection:

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Date of Approval:

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Date of Certification:

Date of Inspection:

Date of Payment:

Date of Erection:

Date of Acceptance:

Date of Issue:

Date of Revise:

Date ofRevision:

Date of Release:
SUMMARY OF QUANTITIES

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<th>QUANTITY</th>
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<td>202</td>
<td>REMOVAL AND DISPOSAL OF FENCE</td>
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<td>202</td>
<td>REMOVAL AND DISPOSAL OF SQUARE FENCES</td>
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<td>SOIL STABILIZATION</td>
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<td>TON</td>
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<td>LIGHTING SYSTEM</td>
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<td>16330</td>
<td>POUND</td>
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SUMMARY OF QUANTITIES AND REVISIONS

<table>
<thead>
<tr>
<th>DATE</th>
<th>REVISION</th>
<th>SHEET NUMBER</th>
</tr>
</thead>
</table>

REVISIONS

SUMMARY OF QUANTITIES AND REVISIONS
SURVEY CONTROL COORDINATES

Project Name: 5080506
Date: 11/18/2016
Coordinate System: ARKANSAS STATE PLANE - NORTH ZONE BASED ON GPS CONTROL, 580031 - 580031A PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

Point Name  Northing  Easting  Elev  Feature  Description
---  ------  -------  -----  --------  
1  398108.4067  974316.3666  432.347  CTL  AHTD STD. MON. STAMPED PN 1
2  398830.3183  974351.9369  426.049  CTL  AHTD STD. MON. STAMPED PN 2
3  399427.3364  974376.4198  427.582  CTL  AHTD STD. MON. STAMPED PN 3
4  400601.6600  974395.3582  428.629  CTL  AHTD STD. MON. STAMPED PN 4
5  401329.7653  974413.7204  437.631  CTL  AHTD STD. MON. STAMPED PN 5
100  400204.0664  974393.6419  429.319  GPS  AHTD GPS *580031
101  401737.6651  974427.8019  441.862  GPS  AHTD GPS *580031

*Note - Rebar and Cap - Standard - 5/8' Rebar with 2' Aluminum Cap stamped
*(standard markings common to all caps), or as indicated
(others marked indicated in the point description of the individual point).
ALL DISTANCES ARE GROUND.
USE CAF = 1.0 FOR STAKEDOUT FOR THIS PROJECT.
A PROJECT CAF OF 0.9999323998729 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
GRID COORDINATES ARE STORED UNDER FILE NAME 5080506*l.CTL
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 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 580031 - 580031A
CONVERGENCE ANGLE: 00 39 36.83 LEFT AT LTN 35-25-38.72 LGR 0093-08-04.61
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

ELEV. BASED ON STATIC GPS DERIVED
ELEV. TO AHTD GPS *580031 CONSTRAINING
AHTD CORS ARFY, ARHR & ARLR AND NGS
1ST ORDER BM B 326

POINT NO.  TYPE  STATION  NORTHING  EASTING
---  ----  ------  -------  -------
8000  POB  300.00.00  399333.1776  974338.6987
8001  PI  305.69.62  399902.5849  974354.4354
8002  PI  315.31.81  400864.3833  974381.6704
8003  POE  321.92.12  401524.4150  974400.8185

DETOUR

POINT NO.  TYPE  STATION  NORTHING  EASTING
---  ----  ------  -------  -------
8004  POB  20.00.00  399932.9480  974355.2952
8005  PC  20.23.76  399956.6979  974355.9677
8007  PT  21.75.35  400105.0918  974380.1379
8008  PC  22.34.47  400162.5039  974397.2063
8010  PT  23.86.83  400312.4747  974421.2974
8011  PC  25.48.06  400473.6468  974425.7453
8013  PT  27.21.76  400645.3453  974404.2375
8014  PC  27.59.76  400853.0413  974402.0561
8016  PT  29.04.23  400825.0666  974380.5695
8017  POE  29.26.32  400847.5814  974381.9446

SURVEY CONTROL DETAILS
ELEVATION OF SOIL BORINGS

"N" VALUES

Provisional Engineer

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAKEN NO. 06573

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ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
For details of anchor bolts and Type "B" Shoes of Intermediate Bents, see Design No. 60375.

**TYPICAL ANCHOR BOLT LAYOUT**

**PLAN**

\[\frac{1}{2}" \times 1'-0"\]

**ELEVATION**

\[\frac{1}{2}" \times 1'-0"\]

For General Notes, see Sect. No. 60376. For additional information, see Layout.
TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

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<thead>
<tr>
<th>Point of Deflection</th>
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<th>Structural Steel = Sub + Parapet</th>
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</thead>
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<tr>
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<td>0.222</td>
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</table>

Note: All structural steel shall be ASTM A 275 Grade 50 unless otherwise noted and stud on and for the Structural Steel in Beam Spans, ASTM A 275 Grade 50.
Rolls and Wings are included in span construction and are included in span quantities.

For details of span rolling, see Dwg.Nos. 60384-60387.

For "VEH 9'-0" and "VEH 5'-9", see Dwg.No. 60380. For "VEH 9'-0", see Dwg.No. 60388.

See Dwg.No. 60386 for more details of reinforcing in concrete and diaphragm.

Pouring Sequence Notes:

Pours with the same numerals may be poured simultaneously or separately. All Pours D must be poured before Pours A, B, C and D must be poured before Pours E, F, and G must be poured before Pours H can be placed. All hours shall elapse between the end of a pour and the start of the next pour. 12 hours shall elapse between adjacent pours.

No deviations from the pouring sequence shown will be allowed.

Concrete in bridge superstructure shall be placed, consolidated, and spread off for the entire pour before any concrete has been hardened. This may require the use of a retarding agent.

Any pouring pour made before the entire slab unit has been poured must be approved by the Engineer.

Concrete diaphragms at ends and bends shall be poured monolithically with the deck.

Concrete end diaphragm:

Symmetrical about G.L. Unit

Pouring Sequence Construction Joint

Pouring Sequence:

Pour 1: 6'-0" Pour 1

Pour 2: 8'-6" Pour 2

Pour 4: 0'-0"

Begin or End Bridge

Pour 1: 6'-0" Pour 1

Pour 2: 8'-6" Pour 2

Pour 4: 0'-0"

Concrete End Diaphragm

Front face of Cap & Diaphragm

Concrete Pouring Sequence Diagram

Not shown:

Concrete shown monolithically

Concrete shown separately

Concrete shown poured simultaneously
PLAN OF DECORATIVE CONCRETE PARAPET RAILING ON SPANS

ELEVATION OF DECORATIVE CONCRETE PARAPET RAILING ON SPANS (FROM TRAFFIC SIDE)

ELEVATION OF DECORATIVE CONCRETE PARAPET RAILING ON SPANS (FROM BACK SIDE)

TABLE OF VARIABLES
Rolling joint shall extend from the top of the Roll to the top of the Deck.

**PARTIAL - LONGITUDINAL SECTION OF DECORATIVE CONCRETE PARAPET RAILING ON SPANS**

**TABLE OF VARIABLES**

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<td>&quot;B&quot;</td>
<td>24'-0&quot;</td>
<td>27'-0&quot;</td>
<td>30'-0&quot;</td>
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<td>&quot;C&quot;</td>
<td>26'-0&quot;</td>
<td>29'-0&quot;</td>
<td>32'-0&quot;</td>
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<td>&quot;D&quot;</td>
<td>28'-0&quot;</td>
<td>31'-0&quot;</td>
<td>34'-0&quot;</td>
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<td>&quot;E&quot;</td>
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<tr>
<td>&quot;F&quot;</td>
<td>32'-0&quot;</td>
<td>35'-0&quot;</td>
<td>38'-0&quot;</td>
</tr>
</tbody>
</table>

**THREE DIMENSIONAL VIEW OF DECORATIVE CONCRETE PARAPET RAILING**

No Scale
Concrete Roll with Roughened Wood Finish, see SP Job No. 080506 "Staining Concrete Surfaces"

Concrete Post with Flatstone Finish, see SP Job No. 080506 "Architectural Finish" and SP Job No. 080506 "Staining Concrete Surfaces"

Concrete Curb with Flatstone Finish, see SP Job No. 080506 "Architectural Finish" and SP Job No. 080506 "Staining Concrete Surfaces"

Concrete in Decorative Rolling on Spans and Wings shall the Class type except that the coarse aggregate size shall meet AASHTO M 43, Size # 3 for Walls.

SECTION B-D

SECTION C-E

1. Unless noted otherwise, Rolling component includes Roll, Post, and Curb; dimensions do not include additional allowance for architectural finish.

2. Dimension includes 3/8" allowance for Flatstone Finish.

3. Dimension includes 1/4" allowance for Roughened Wood Finish.

4. A typical clear cover of 1" shall be provided for the Rolling components (Includes Roll, Post, and Curb) reinforcement, unless otherwise noted. This clear cover does not include any allowance for architectural finish.

5. 1/4" allowance for Flatstone Finish, typ. for Post and Curb.

6. 1/4" allowance for Roughened Wood Finish, typ. for Roll.

7. All exposed corners for the Rolling components (Includes Roll, Post, and Curb) shall be chamfered 1/4" unless otherwise noted.

Concrete in Decorative Rolling on Spans and Wings shall the Class type except that the coarse aggregate size shall meet AASHTO M 43, Size # 3 for Walls.

Dimensions are out of scale of bars unless noted otherwise.

Bar list is for reinforcement of Span Rolling only. See Eng No. 60388 for Bar list of reinforcement for Wood Rolling.

All bars designated with an "E" suffix shall be Epoxy Coated.

ARKANSAS STATE HIGHWAY COMMISSION

DEPARTMENT OF HIGHWAYS

ENGINEER, No. 60388

CIVIL ENGINEER

ARKANSAS HIGHWAY DEPARTMENT

DRAWN BY::

CHECKED BY::

DRAWING NO. 60388

ARCHITECTURAL ENGINEER

ARKANSAS HIGHWAY DEPARTMENT

DRAWN BY:

CHECKED BY:

DRAWING NO. 60388

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DRAWN BY:

CHECKED BY:

DRAWING NO. 60388

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ARCHITECTURAL ENGINEER

ARKANSAS HIGHWAY DEPARTMENT

DRAWN BY:
PLAN OF DECORATIVE CONCRETE PARAPET RAILING ON WINGS

1/8" = 1'-0"

1) Unless noted otherwise, railing component includes Roll, Post, Curb, and Rail; dimensions do not include additional allowance for architectural finish.
2) Dimension includes 1/8" allowance for fieldstone finish.
3) All exposed faces of Roll to receive roughsawn finish, Post, Curb, and Rail shall be chamfered 1" unless otherwise noted.

ELEVATION OF DECORATIVE CONCRETE PARAPET RAILING ON WINGS (TRAFFIC SIDE)

1/8" = 1'-0"

SECTION Y-Y

1/8" = 1'-0"

SECTION Z-Z

ELEVATION OF DECORATIVE CONCRETE PARAPET RAILING ON WINGS (BACK SIDE)

1/8" = 1'-0"
CROSS SECTION STA.309+00 TO STA. 310+32
EMBANKMENT CONSTRUCTION AND FOOTING BACKFILL
AT VERTICAL WALL ABUTMENTS

EMBANKMENT CONSTRUCTION AT SPILL-THROUGH PILE END BENTS

EMBANKMENT CONSTRUCTION AND FOOTING BACKFILL
AT SPILL-THROUGH END BENTS

METHOD OF DETERMINING FILL SLOPE LOCATION AT BRIDGE ENDS

GENERAL NOTES:
The Bridge End Embankment shall be defined as a section of embankment,
not less than 25 feet long adjacent to the bridge end, together with the
side slopes and areas under the bridge and including abutments. The end of
the Bridge End Embankment shall be considered as the point at which it
meets both horizontal layers measured and constructed by the use of
mechanical equipment to the satisfaction of the Engineer. Refer to Subsections
200.0, 200.10 and 80.08 for construction requirements.
EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NEW EMBANKMENT AND NATURAL GROUND

EXCAVATION FOR STRUCTURES - ABUTMENT IN NATURAL GROUND

EXCAVATION FOR STRUCTURES - BRIDGE LOCATION WITH DESIGNATED CHANNEL CHANGE

EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NATURAL GROUND

EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NATURAL GROUND

EXCAVATION FOR STRUCTURES - ABUTMENT IN NATURAL GROUND AND NEW EMBANKMENT

EXCAVATION FOR STRUCTURES - ABUTMENT IN ROADWAY FILL SECTION AND NATURAL GROUND

EXCAVATION FOR STRUCTURES - ABUTMENT IN ROADWAY FILL SECTION AND NATURAL GROUND

STANDARD DETAILS FOR DUMPED RIPRAP AND FILTER BLANKET AND COMPUTING EXCAVATION FOR STRUCTURES ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.

DRAINED NO. 59001

DRAWN BY: K.D.
COPIED BY: S.D.
SIGNED: 5/28/87

SCALE: 1" = 20'0" DRAWING NO. 59001
**PART PLAN - SQUARE SPAN**

- **Required position of posttension reinforcing**

**SECTION B-B**

1. **Positioned width**
   - **Bottom of Flange**
   - **Precast ends**
   - **Precast ends**
   - **Precast ends**
   - **Precast ends**

2. **Positioned width**
   - **Bottom of Flange**
   - **Precast ends**
   - **Precast ends**
   - **Precast ends**
   - **Precast ends**

**SECTION A-A**

1. **Angle Closure**
   - **Tension Hanger Bar**
   - **Pre-stressed ends**
   - **Bottom of Flange**
   - **Bridge Clip**

2. **Angle Closure**
   - **Tension Hanger Bar**
   - **Pre-stressed ends**
   - **Bottom of Flange**
   - **Bridge Clip**

**PART PLAN - SKewed SPAN**

- **Required position of posttension reinforcing**

**SECTION B-B**

1. **Positioned width**
   - **Bottom of Flange**
   - **Precast ends**
   - **Precast ends**
   - **Precast ends**
   - **Precast ends**

2. **Positioned width**
   - **Bottom of Flange**
   - **Precast ends**
   - **Precast ends**
   - **Precast ends**
   - **Precast ends**

**SECTION A-A**

1. **Angle Closure**
   - **Tension Hanger Bar**
   - **Pre-stressed ends**
   - **Bottom of Flange**
   - **Bridge Clip**

2. **Angle Closure**
   - **Tension Hanger Bar**
   - **Pre-stressed ends**
   - **Bottom of Flange**
   - **Bridge Clip**

**SKETCH OF PERMISSIBLE SUPPORTS**

- **N.S.**
- **I.N.S.**
- **FLAT**

**SECTION C-C - ALTERNATE**

1. **Positioned width**
   - **Bottom of Flange**
   - **Precast ends**
   - **Precast ends**
   - **Precast ends**
   - **Precast ends**

2. **Positioned width**
   - **Bottom of Flange**
   - **Precast ends**
   - **Precast ends**
   - **Precast ends**
   - **Precast ends**

**STANDARD DETAILS FOR PERMANENT STEEL BRIDGE DECK FORMS FOR STEEL & CONCRETE GIRDER SPANS**

**ARKANSAS STATE HIGHWAY COMMISSION**

**DRAWING NO. 55005**
GENERAL NOTES

These GENERAL NOTES are applicable unless otherwise shown in the Plan Details, Special Provisions, or Substructure Specifications.

CONSTRUCTION SPECIFICATIONS

DESIGN SPECIFICATIONS: See Bridge Layoures.

SUPERSTRUCTURE DETAILS:

MATERIALS AND STRENGTH

Class 500 Concrete

Reinforcing Steel (0.6% CI. 500) W 3 or 322, Type A1

Structural Steel (A536 GR. 70, TYPE A)

Structural Steel (A572 GR. 50, 32)

Concrete: See Plan Details for Grade of Structural Steel required.

CONCRETE

All concrete shall be Class 500 Concrete with a minimum 28 day compressive strength of f'c = 4000 psi. Concrete shall be poured in the dry and old exposed corners shall be chipped or unless otherwise noted.

The structural steel details shown are for use when reasonable deck forming is used and are the basis for measurement of Class 500 Concrete. See Standard No. 5505 for allowable modifications and exceptions when permanent Steel Bridge Deck Forms are used.

Use of a lengthened sleeper is not allowed on any span of a bridge deck with horizontal curvature.

The concrete deck roadway surface shall be given a fine finish in accordance with Subsection 5202 for Class 5 Steel Bridge Roadway Surface Finish. Sleeves shall receive a smooth finish as specified for final finishing in Subsection 5202 for Class B Finished Motion. The finishing machine0 above concrete shall be on panks placed on the surface and shall be prohibited for 72 hours after finishing the pour. Sufficient concrete must be placed below the strike-off to form a beam or girder. Dry-steel patches on the strike-off will require that a vertical beam connection be made in the strike-off to account for the future dead load deflection due to any railings, median barrier, or sidewalk.

REINFORCING STEEL

All reinforcing steel shall be Grade 60 conforming to A500 and shall be Grade 40, Type A, with mill test reports and shall be epoxy coated. The reinforcing steel shall be accurately located in the forms and tamped in place by steel workers, sufficient in number and also to prevent displacement during the course of construction. The weld supports will not be paid for, but will be considered subsidiary to the Reinforced Concrete Reinforcing Steel Grade 60, 5000 psi.

STRUCTURAL STEEL COMMON TO REHABS AND PLATE GIRDERS

Structural steel shall be A572 Gr. 70 with grade and payment as specified in the plans. Grade 50 steel shall not be permitted and all exposed surfaces shall be cleaned in accordance with Subsection 8032.6.6. Grade 36 and Grade 50 steel shall be painted with the same color of paint as the main structural steel. Surface paint shall be applied using Subsection 8032.9. Structural steel components embedded in concrete may be A572 Gr. 70 or 50 without additional payment.

DRAWING SHEETS general features of design only. Shop drawings shall be made in accordance with the specifications, submitted and approved before fabrication is begun.

Requests for substitution of structural steel shapes shown with shapes of greater depth shall be submitted by the Contractor to the Engineer for approval. Shapes of equal or greater strength shall be accepted only when shown on the approved shop drawings. Payment will be based on the basis of shapes and weights shown in the plans, and no additional compensation will be made for any adjustments due to substitutions.

All welding that is to be done during fabrication of structural steel, including necessary welds, shall be detailed on the shop drawings and submitted for approval. Additional welds are required for stress purposes. All additional welds shall be made by arc welding or other approved methods. All welds shall be made in accordance with the National Electric Welding Code, and all welds shall be used for connecting the structural steel.

Unless otherwise noted, field connections shall be bolted with 1/4" x 5/8" hot-dipped H-shaped bolts using 1/4" x 6-32 or 7/32" lag screws. All field connections shall be made by approved methods. All additional welds made for stress purposes shall be made using 1/4" x 6-32 or 7/32" lag screws and 1/4" x 6-32 or 7/32" lag screws. All additional welds shall be made to the National Electric Welding Code, and all welds shall be used for connecting the structural steel.

All ship electrical connections shall be reinforced with flux-filled, solid filled, or equal and shall be autogenous and welded in accordance with recommendations of the manufacturer.

When piping is required, all structural steel external galvanized steel and steel completely encased in concrete shall be poured in accordance with Subsection 8032.7. The color of pipe shall be specified in the plans.

STRUCTURAL STEEL IN-BEAMS

All beams and field applied plates, and all diaphragms and connection plates attached to horizontally supported steel are designed and fabricated in accordance with the Longitudinal Prestress Test specified in Subsection 8032.8. This work and material will not be paid for directly, but shall be considered subsidiary to the beam shown in Beam Sprays in 270 Gr. 70, 5000 psi.

All beams in continuous units and single spans with field splice shall be located to their true position in the shop as specified in Subsection 8032.8, and with the field horizontal, the center-length of sections, distances between bearings, and attachments of joints shall be measured and this information shall become part of the permanent records. The component parts will be marked in this assembly and the parts shall be shown on the erection drawing.

Field flange plate splices shall be cut and fabricated so that the primary direction of ralining is parallel to the direction of the main tensile and/or compressive stresses. All base dimensions are based on a temperature of 60 degrees F. A tolerance of ±1/3" is allowed for bending.

Bent plate diaphragms for horizontally curved girders shall be cut and fabricated so that the primary direction of raling is parallel to the direction of the main tensile and/or compressive stresses. All base dimensions are based on a temperature of 60 degrees F. A tolerance of ±1/3" is allowed for bending.

Bent plate diaphragms for horizontally curved girders shall be cut and fabricated so that the primary direction of raling is parallel to the direction of the main tensile and/or compressive stresses. All base dimensions are based on a temperature of 60 degrees F. A tolerance of ±1/3" is allowed for bending.

STAINLESS STEEL

Stainless steel in field bolts shall be as A563 M 370 with grade and payment as specified in the plans.

STRUCTURAL DETAILS

Concrete in drilled shafts shall be Class C-6 modified by 2% SP "Drilled Shaft Foundation". All exposed concrete shall be chipped or unless otherwise noted.

REINFORCING STEEL

All reinforcing steel shall be Grade 60 yield strength = 60,000 psi conforming to A570 W 3 or M 322, Type A, with all test reports. Top reinforcing bars in cap shall be properly placed to avoid interference with anchor bolts or sheet metal sleeves.

CONCRETE

Concrete in field bolts shall be as A563 M 370 with grade and payment as specified in the plans.

FOR ADDITIONAL INFORMATION AND NOTES, SEE LAYOUTS AND PLAN DETAILS.

STANDARD GENERAL NOTES

FOR STEEL BRIDGE STRUCTURES

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWING NO. 55005
Details of Welded Splices for Plate Girders

Use when web depths are 48" or Greater

Concrete Placement Procedure for Bridges with Shear

Longitudinal Construction Joint

Transverse Slab Joint Detail

ADJUSTMENT FOR SLAB THICKNESS TOLERANCE

NOTE:

- Where dimension may vary within the following limits to minimize the grade and slab thickness tolerance: when top flange contracts before reinforcingsteel joiner, the slab thickness should be 10% greater than the published grade and the difference will be made up in concrete and structural steel quantities will be made to minimize tolerances.

- The tolerances shown are applicable only when removable deck forming is used. See Concretes, Inc. Table of tolerances when permanent steel deck forms are used. Payment for concrete shall be based on removable deck forming.

Steel Bridge Structures

ARKANSAS STATE HIGHWAY COMMISSION

These Details are Applicable Unless Otherwise Shown in the Plan Details, Special Provisions, or Superseding Specifications.
LINE 1
LINE 2
LINE 3
ARKANSAS HIGHWAY COMMISSION
TOM SCHUECK - CHAIR
ROBERT S. MOORE, JR. - VICE CHAIR
DALTON A. "ALEC" FARMER, JR.
PHILIP TALDO
DIRECTOR - SCOTT E. BENNETT
DEPUTY DIRECTOR/CHIEF OPERATING OFFICER - LORIE H. TUDOR
DEPUTY DIRECTOR/CHIEF ENGINEER - EMANUEL BANKS

CONTRACTOR
COMPANY NAME
YEAR

- Place the design line wording here using 1/8" raised letters and numerals 3/4" high. Examples 1-20 48-93
- Place the line in which Contract was awarded here using 1/8" raised numerals 3/4" high. Example 1-20
- Place the name of the company awarded the construction contract here using 1/8" raised letters and numerals 3/4" high. Example 4000 CONSTRUCTION, INC.
- Place the Bridge number here using 1/8" raised letters and numerals 3/4" high. Example 4000

GENERAL NOTES
Specifications, Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction. Use Statements are appropriate supplements to the above specifications.

Name plates shall be cast bronze and shall meet the material requirements as specified in section 80.

Body of plate shall be 1/4" thick and shall include four tapering edges which shall be 9/16" to 7/8" long. The lettering and all letters shall be raised by above the face of plate and shall be polished.

All lettering shall be plain Gothic, square cut and not tapered.

The number of plate required and the location and name on the plate for each bridge shall be as designated on the plans.
GENERAL NOTES FOR STEEL H-PILES

Steel H-Piles shall conform to ASHTO M 320, Grade 50 or greater.

See Bridge Layout and Boring Details for the site-stermented length, spacing, pile anchorage IF required and for driving information.

Steel H-Piles that extend above the ground and are not protected by pile encasement shall be covered by Subsection 4139, Brodnax, Alco, cap, plates, pile tips, driving points, pile painting, and welding shall not be done for directly, but shall be considered subsidiary to this "Steel Piling."

VIEW X-X

SECTION D-G

ALTERNATE PILE ENCASEMENT DETAIL FOR STEEL H-PILES

(Shown with Partial Height Encasement)

REINFORCING DETAIL FOR STEEL H-PILE TIP

GENERAL NOTES FOR PILE ENCASEMENTS:

See Bridge Layout for additional notes on pile encasement restrictions and required location of pile encasements.

All concrete shall be Class 5 with a minimum 28-day compressive strength f_c ≥ 6000 psi. (Concrete strength is the strength of the concrete when it is tested to failure at 28 days."

Reinforcing steel shall be Grade 60 conforming to ASHTO M 3 or M 332, Type A.

Concrete used in the construction of the pile shall not be directly, but shall be considered subsidiary to the item "Steel Piling."

SECTION F-F

TABLE OF VARIABLES FOR PILE ENCASEMENT

PILE ENCASEMENT DETAIL FOR STEEL H-PILES

(Shown with Encasement to Bottom of Cap)

STANDARD DETAILS FOR STEEL H-PILES AND PILE ENCASEMENTS

ARKANSAS STATE HIGHWAY COMMISSION

This document was originally issued and sealed by Charles S. Cunliff, P.E., No. 2300, on March 24, 2006.

This copy is not a signed and sealed document.
TOE WALL DETAIL FOR CONCRETE DITCH PAVING

GENERAL NOTES:

The full width of each section shall be poured monolithically.

Toe walls to be constructed full width at each end of ditch paving and poured monolithically.

Solid sod along ditch paving to be placed within 14 days of ditch paving construction.

1" wide transverse expansion joints shall be placed in concrete ditch paving at 4 ft intervals. The space shall be filled with approved joint filler complying with AASHTO M213.
TYPE A OR TYPE clna

DETAILED OF GUARD RAIL PLACEMENT BEHIND Curb (W.BEAM)

FOR DESIGN SPEEDS OF 50 MPH OR LESS

ALIGHT FACE OF GUARD RAIL AT FACE OF CURB.

FOR DESIGN SPEEDS OF 50 MPH OR MORE

PLACE GUARD RAIL POSTS AGAINST BACK OF CURB.

DETAILED OF POST PLACEMENT IN SOLID ROCK (W.BEAM)

CASE 1

Case 2

DETAILED OF CONNECTION

SECTION A-A

AR KANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-8A
METHODS OF INSTALLATION OF GUARD RAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

**METHOD OF INSTALLATION OF GUARD RAIL AT FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)**

**METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERMINAL (TYPE II) (FULL SHOULDER WIDTH OR LESS BRIDGES)**
DETAILS OF WIDENING FOR GUARD RAIL

METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

END TERMINAL

LIMITS OF WIDENING FOR GUARD RAIL (MATCH SHOULDER SLOPE)

NOTE: NORMAL SECTION TO BE WIDENED APPROX. 5'-6" EACH SIDE TO SUPPORT GUARD RAIL.

NORMAL ROADWAY WIDTH

WIDTH OF SURFACING

NORMAL ROADWAY WIDTH

WIDTH OF SURFACING

SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-9A
SPECIAL END SHOE

THREE BEAM RAIL

TRANSITION SECTION

NOTE: HOLES SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.

GENERAL NOTES:
- THE THREE BEAM RAIL SPECIAL END SHOE AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE OF Gauge 1 AND CONFORM TO THE TYPE OF RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN PLANE OR SECTION.
- ALL HOLES SHALL BE OF SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE SHOE AND NOT MORE THAN 0.25" BEHIND IT.
- ALL LAY FLATS INCLUDING SPECIAL, SHOES SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWING GR-I-10.
- REFER TO STANDARD GR-I-10 FOR ADDITIONAL DETAILS.
- USE THREE BEAM GUARD RAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.
- THREE BEAM POSTS SHALL BE SAME MATERIAL AS THREE BEAM POSTS FOR ENTIRE JOB.
- HOLE PUNCHING FOR WOOD OR PLASTIC BLOCKOUTS SHALL BE MADE IN THE DIRECTION SHOWN ON THREE BEAM SHOES.

NOTE: HOLES SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.
GENERAL NOTES:
Rail posts shall be set perpendicular to the roadway profile grade and vertically in cross section.
Wood posts & wood blocks shall be either dense No. 1 structural or better 1-1/2 (400) or No. 115 (50) Southern pine.

THREE BEAM RAIL WITH STEEL TUBING BLOCKOUT AND STEEL POSTS 1-7

W-BEAM TO THREE BEAM TRANSITION RAIL WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST 8

THREE BEAM RAIL WITH WOOD OR PLASTIC BLOCKOUTS & WOOD POSTS POSTS 1-6

THREE BEAM RAIL WITH WOOD OR PLASTIC BLOCKOUT & WOOD POST POST 7

W-BEAM TO THREE BEAM TRANSITION RAIL WITH WOOD OR PLASTIC BLOCKOUT & WOOD POST POST 8
THREE BEAM GUARD RAIL CONNECTION AT BRIDGE ENDS

GENERAL NOTES:

1. THREE BEAM RAIL SPECIAL FOR USE AND THE TRANSITION SECTION SHALL BE MADE OF STEEL, AND SHALL BE DIAM. ONE COUPLING SHALL BE TYPE "L".
2. RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE Grade AND VERTICALLY IN CROSS SECTION.
3. ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3/8" BEYOND IT.
4. EIGHT FOOT SPACED SPECIAL END SHOES SHALL BE MADE TO DIRECT SHOES ON STANDARD DRAWING DR-12.
5. REFER TO STANDARD DRAWING DR-12 FOR POST DETAILS.

THEME BEAM GUARD RAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB;
THEME BEAM POSTS SHALL BE SAME MATERIAL AS RAIL POSTS FOR ENTIRE JOB;
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER WOOD NO. 2 STRUCTURAL OR BETTER OR HARDWOOD OR WELL NCED SOUTHERN PINE.

INSTALLATION

TYPE 2 .SELECTED MATERIALS (CLASS SM-I, STRUCTURAL AGGREGATE SM3 PER LINEAR FOOT WILL BE GREATEST FREE OF SIZE OF 1 INCH. LIEU CONSIDERED OF DENSITY DIAMETER CLEARFAST BACKFILL AND SELECTED COURSE OF ALLOTED.

MULTIPLE INSTALLATION OF HIGH DENSITY POLYETHYLENE PIPES

<table>
<thead>
<tr>
<th>PIPE DIAMETER</th>
<th>MINIMUM COVER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td>30&quot;</td>
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</tr>
<tr>
<td>42&quot;</td>
<td>1.7</td>
</tr>
<tr>
<td>54&quot;</td>
<td>1.9</td>
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</tbody>
</table>

MINIMUM TRENCH WIDTH

BASED ON FILL HEIGHT "H"

MINIMUM TRENCH WIDTH FOR A GIVEN FILL HEIGHT "H"

GENERAL NOTES

1. PIPE SHALL CONFORM TO ASHRAE NO. 5 INSTALLATION SHALL CONFORM TO (H) VISUAL SPECIFICATIONS FOR HIGHWAY CONSTRUCTION QUALIFIED EDITIONS.

2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO ASHRAE UDO BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION (2012) WITH ZCII INTERMEDIATE DIAMETERS.

3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUITABLE MARGIN TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HANDLING AND OTHER BACKFILL MATERIAL.

4. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER. AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING MATERIAL. WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.

5. WHEN DIRECTED BY THE ENGINEER, IMPERVIOUS MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH WILL BE IDENTIFIED AS STRUCTURAL BEDDING MATERIAL. IT WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPES. THE DENSITY OF WASTE MATERIALS USED IN BACKFILL SHAL LBE THE SAME AS SELECTED PIPE BACKFILL MATERIAL. A SELECTED PIPE BACKFILL MATERIAL LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING." FOR OTHER PIPE TYPES THAT ARE NOT ROUTINE OR OTHER PIPE MATERIALS SHAL LBE SELECTED THAT WILL PERMIT THE FILLING OF THE ENCROACHMENT OR PIPE VALLEY.

6. HIGH DENSITY POLYETHYLENE PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.

7. JOINTS FOR HDPE PIPE SHALL MEET THE REQUIREMENTS FOR SAD DRAWN TESTS AS SPECIFIED IN ASHRAE NO. 5 INSTALLATION SPECIFICATIONS. JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

8. HDPE PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, MOUNTING OR OTHER FACTORS APPROVED IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE, DO NOT COMPACT,

2. INSTALL PIPE TO GRADE

3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE,

4. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING A LAYER SHALL BE INSTALLED A LAYER SHALL BE INSTALLED UP TO THE BOTTOM OF THE COMPACTED SOIL (H) REQUIREMENTS. IN ACCORDANCE WITH THE TYPES OR CLASSES OF MATERIAL USED.

5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, MOUNTING OR OTHER FACTORS APPROVED IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.
GENERAL NOTES

1. PIPE SHALL CONFORM TO ASHRAE ANSI/ASME A21.7-1999, INSTALLATION SHALL CONFORM TO OR SPECIAL PROVISIONS, PLASTIC PIPE, AND SECTION 404 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION CURRENT EDITION.

2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO ASHRAE ANSI/ASME A21.7-1999, INSTALLATION SHALL CONFORM TO OR SPECIAL PROVISIONS, PLASTIC PIPE, AND SECTION 404 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION CURRENT EDITION.

3. THE MAXIMUM ALLOWABLE TRENCH WITHIN THE MMINIMUM WIDTH MUST BE A SUITABLE WIDTH TO ENSURE WORKING ROOM TO PROMPTLY AND SAFELY PLACE AND COMPACT BACKFILL AND OTHER BACKFILL MATERIAL.

4. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER. AT THE ENDS OF THE TRENCH TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN POROUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.

5. STRUCTURAL BEDDING MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH SHALL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THESE AREAS OF MATERIAL MENTIONED TO BE EXCAVATED OR UNDERTAKEN AREA AT THE SELECTED PIPE BEDDING LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING".

6. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED TO BE UNSTABLE THE BOTTOM OF THE TRENCH WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THESE AREAS OF MATERIAL FROM THE HIGHWAY EMBANKMENT WILL BE USED TO BACKFILL THE PIPE. IF UNSTABLE MATERIAL IS NOT AVAILABLE THE ENHANCE MAY AUTHORITY THE USE OF SELECTED PIPE BEDDING.

7. FOR PIPE TYPES THAT ARE NOT SWAMPSHED ON THE OUTSIDE CORRECTED OR PROFILE PIPE MANUAL BACKFILL GRADING SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CREATION OF PROFILE VALLEY.

8. PVC PIPE OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.

9. JOINTS FOR PVC PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN ASHRAE SECTION 25.5.4.4 AND SECTION 25.5.2 "ASHRAE ANSI/ASME A21.7-1999, INSTALLATION SHALL CONFORM TO OR SPECIAL PROVISIONS, PLASTIC PIPE, AND SECTION 404 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION CURRENT EDITION." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
NOTES:
1. REFER TO THE STRIPOING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
2. THE DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED EDITION 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
6" FOR BITUMINOUS SURFACE TREATMENT

NOTE: THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.

NOTE: DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE REFERRED TO THE DOT QUALIFIED PRODUCTS LIST.

DETAIL OF STANDARD RAISED PAVEMENT MARKERS

YIELD LINE DETAIL

CROSSWALK AND STOPBAR DETAILS

CONCRETE PAVEMENT

BROKEN LINE STRIPOING

SOLID LINE STRIPOING ON CONCRETE PAVEMENT

SOLID LINE STRIPOING ON ASPHALT PAVEMENT

ASPHALT PAVEMENT

STRIPOING AT ADJACENT NO PASSING LANES

APRIL 2019

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1
NOTES FOR PIPE UNDERDRAINS

1. Geotextile fabric shall meet the requirements of Section 8.2.2 for Type I. Payment for geotextile fabric and granular filter material shall be included in the price bid for each 4 ft. pipe underdrains in accordance with Section 8.2.2 of the standard specifications.

2. 4" non-perforated schedule 40 PVC pipe laterals with outlet protectors shall be installed as shown herein. Laterals will be measured and paid for as 4" pipe underdrains. Underdrain outlet protectors will be measured and paid for by the unit in accordance with Section 8.2.2 of the standard specifications.

3. Existing 4" pipe laterals may be connected to proposed inlets or extended where directed by the Engineer. Payment for connecting to drop inlets shall be considered included in the price bid for "4" pipe underdrains."

4. The location of all laterals shall be marked with 4" x 2" permanent pavement marking tape (type B) white at the outside edge of the shoulder, placed transverse to traffic. Payment for this work shall be included in the price bid for the various contract items.

5. Payment for the rodent screen shall be included in the price bid for each "4" pipe underdrains."

6. Any existing underdrains that interfere with installation of the new underdrain system shall be removed and disposed of as directed by the Engineer. Payment will be considered included in the price bid for the various contract items. Existing underdrain outlet protectors shall be removed under the item "Removal and disposal of underdrain outlet protectors."

7. At locations where a single lateral is used the contractor shall have the following options: Install outlet protector as shown on standard drawing PU-1 and block the unused hole on 2, Install an outlet protector with a single hole. 

ARKANSAS HIGHWAY COMMISSION

DETAILS OF PIPE UNDERDRAIN STANDARD DRAWING PU-1

FERNCO 5056-44 14" CL/PLASTIC OR FERNCO 5056-44 14" CL/PLASTIC COUPLING OR EQUAL WITH 2 CLAMPS TYPICAL

FERMCO 5056-44 CL/PLASTIC OR FERNCO 5056-44 CL/PLASTIC COUPLING OR EQUAL, WITH 2 CLAMPS TYPICAL

FERMCO 5056-44 CL/PLASTIC OR FERNCO 5056-44 CL/PLASTIC COUPLING OR EQUAL, WITH 2 CLAMPS TYPICAL
### Superelevation Table for Two-Way Traffic

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<th>Degree of Curve</th>
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<tr>
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<td>0</td>
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</tr>
</tbody>
</table>

#### Superelevation Notes:
- Superelevation is computed on center line using applicable $L_a$.
- Rate of Superelevation in ft per ft.$L_a$.
- Length of Superelevation Transition in $L_a$.
- Distance from beginning of Superelevation Transition to any point in $L_a$.
- Normal Crown $L$.

#### General Notes:
1. On pavement with two-way traffic, the superelevation shall be varied on the inside pavement edge unless otherwise noted on the plans.
2. Superelevation values shown on the plans are in vertical feet and values $L_a$ or $L$ to be added to or subtracted from the point of control.
3. Transition lengths are multiples of 25 ft or 50 ft.
4. Pavements wider than 2 lanes shall have additional transition lengths as follows:
   - 1 lane unexpanded: +7020
   - 2 lanes unexpanded: +10020

#### Standard Method When Superelevation Revolves Around Center Line

- **Note:** Maintain normal crown on inside until superelevation exceeds 2c.

#### Standard Method When Superelevation Revolves Around Inner Subgrade Point or Inner Pavement Edge

- **Note:** Maintain normal crown.

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**ARKANSAS STATE HIGHWAY COMMISSION**

**TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC**

**STANDARD DRAWING SE-2**

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**ARKANSAS STATE HIGHWAY COMMISSION**

**TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC**

**STANDARD DRAWING SE-2**
SEDIMENT BASIN WITH RIPRAP OUTLET (E-10)

Notes:
- Size of basin to be determined by volume required, however a minimum length to width ratio of 2:1 shall be used.
- Section shall be used at the inlet end of the basin if needed for one directional flow.

SEDIMENT BASIN WITH PIPE OUTLET (E-16)

Notes:
- Size of basin to be determined by volume required, however a minimum length to width ratio of 2:1 shall be used.

DIVERSION DITCH (E-8)

Notes:
- Section shall be used at the inlet end of the basin if needed for one directional flow.

SLOPE DRAIN (E-12)

Notes:
- Extend drain as needed to connect to downstream permanent outlet.
CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE
1. Place perimeter controls (e.g., silt fences, diversion ditches, sediment basins, etc.)
2. Perform clearing and grubbing operation.

EXCAVATION

EXISTING GROUND
INTERCEPT OR DIVERSION DITCH
EXISTING GROUND

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

GENERAL NOTE:
All cut slopes shall be drenched, preserved, 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 intercept 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 final Phase of excavation, place permanent or temporary seeding. ONE PHASE OF STABILIZATION CONSTRUCTED FOR OPPORTUNITY DRAINAGE DITCH. SEEDING APPLIED AS NEEDED. EROSION CONTROL DEVICES AS REQUIRED.

EMBANKMENT

EMBANKMENT DITCH TO BE IN PLACE UNTIL SLOPE IS COMPLETELY STABILIZED.
SIDE DITCH (STABILIZE AS REQUIRED)
EXISTING GROUND

GENERAL NOTE:
All embankment slopes shall be drenched, preserved, 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. Phase 1 embankment construction is to be temporarily abandoned for a period of greater than 21 days.
3. Place Phase 2 embankment with permanent or temporary seeding. Phase 2 embankment construction is to be temporarily abandoned for a period of greater than 21 days.
4. Place final phase of embankment with permanent or temporary seeding. Place diversion ditches and slope drains and maintain until entire slope is stabilized.

ARKANSAS STATE HIGHWAY COMMISSION
TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-3
GENERAL NOTES:

THESE INSTALLATIONS TO BE USED WHERE NORMAL FENCING INSTALLATION WOULD CAUSE THE COLLECTING OF DRIFT IN THE CHANNEL OR THE DEPRESSION WILL NOT PERMIT NORMAL INSTALLATION. INSTALLATIONS WILL BE MADE ONLY WHERE DIRECTED BY THE ENGINEER.

WHEN A FENCE LINE APPROACHES A DITCH, GULLY OR DEPRESSION, THE LAST POST ON LEVEL GROUND SHALL BE PLACED CLOSE ENOUGH TO THE EDGE OF THE DROP OFF THAT THE FENCE MAY BE STRUNG TO THE POST IN THE DEPRESSION WITHOUT TOUCHING THE GROUND.

IN TERRAIN OF SUCH EXTREME IRREGULARITY THAT MINOR GRADING WILL NOT BE FEASIBLE, THE NORMAL FENCE SHALL CONTINUE ON GRADE AND THE GULLIES OR DEPRESSIONS TREATED BY AUXILIARY FENCES AS SHOWN.

PAYMENT FOR THE TYPE INSTALLATION USED WILL NOT BE MADE DIRECTLY BUT WILL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR WIRE FENCE OR CHAIN LINK FENCE.