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### ROADWAY STANDARD DRAWINGS

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<td>CDP.1</td>
<td>CONCRETE DITCH PAVING</td>
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<td>PM1</td>
<td>PAVEMENT MARKING DETAILS</td>
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<td>REINFORCED CONCRETE BOX CULVERT DETAILS</td>
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<tr>
<td>RCB.2</td>
<td>EXCAVATION PAYLIMS, BACKFILL, &amp; SOLID SODDING FOR BOX CULVERTS</td>
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<td>TC.1</td>
<td>STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION</td>
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<tr>
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<td>TC.3</td>
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<td>TC.4</td>
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INDEX OF SHEETS & STANDARD DRAWINGS
GOVERNING SPECIFICATIONS
ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

ERRATA: ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273: REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1272: SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1272: SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1271: SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1271: SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1271: SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1272: SUPPLEMENT - WAGE RATE DETERMINATION
100-3: CONTRACTORS LICENSE
100-4: DEPARTMENT NAME CHANGE
102-2: ISSUANCE OF PROPOSALS
108-1: LIQUIDATED DAMAGES
109-2: WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
303-1: AGGREGATE BASE COURSE
401-4: TACK COATS
401-5: DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
410-1: Construction requirements and acceptance of asphalt concrete plant mix courses
604-1: RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
605-1: CONCRETE DITCH PAVING
605-2: MULCH COVER
JOB 005854: BEDDING REQUIREMENTS AND CONDITIONS
JOB 005854: BROADBAND INTERNET SERVICES FOR ASPHALT CONCRETE PLANT
JOB 005854: CARGO PREFERENCE ACT REQUIREMENTS
JOB 005854: CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB 005854: DESIGN/ADVANTAGE BUSINESS ENTERPRISE BIDDERS RESPONSIBILITIES
JOB 005854: GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 005854: MAINTENANCE OF TRAFFIC
JOB 005854: MANDATORY ELECTRONIC CONTRACT
JOB 005854: MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 005854: NESTING SITES OF MIGRATORY BIRDS
JOB 005854: RUMBLE STRIPS
JOB 005854: SHADING FOR CULVERTS
JOB 005854: SOIL STABILIZATION
JOB 005854: SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 005854: UTILITY ADJUSTMENTS
JOB 005854: WARM MIX ASPHALT

GENERAL NOTES
1. GRADE LINE DENOTES 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 MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
4. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
5. 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 NAMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY OR IN LIEU THEREOF. THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
7. THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO ENSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE NAMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
8. THIS PROJECT IS COVERED UNDER A SECTION 404 NATURAL WATERS PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.
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.

GOVERNING SPECIFICATIONS & GENERAL NOTES
TYPICAL SECTIONS OF IMPROVEMENT

NOTES:
- REFER TO CROSS SECTIONS FOR DEVIATION FROM THE 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 ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.
- THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN Laid. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

TYPICAL SECTION OF IMPROVEMENT - NOTCH & WIDEN
STA 113.45.00 - STA 113.95.00

TYPICAL SECTION OF IMPROVEMENT - FULL DEPTH
STA 113.45.00 - STA 113.95.00

AGGR. BASE CRSE. (CL. 71)
VAR. COMP'D. DEPTH
(27.50 TONS/STA.)

4'-0" LANE
4'-0"

2'-7" ACHM SURFACE CRSE. (3/4")
220 LBS./50/YD.

3'-0" SHLDR.
4'-0"

NOTCH

3'-0"

AGGR. BASE CRSE. (CL. 71)
VAR. COMP'D. DEPTH
(27.50 TONS/STA.)

4'-0" LANE
4'-0"

2'-7" ACHM BASE CRSE. (5/8")
440 LBS./50/YD. & TACK COAT

3'-0" SHLDR.
4'-0"

NOTCH

3'-0"
DETAIL FOR TRANSITIONS
Details of Rumble Stripe

Location Plan of Rumble Stripe

Left or Right Shoulder

General Notes

1. Rumble Stripes shall not be installed on bridge decks, approach slabs, intersecting streets or roadways, residential or commercial driveways or across transverse joints of concrete shoulders.

2. Rumble Stripes shall not be installed on a paved shoulder that is used as a deceleration lane for the length deemed appropriate by the Engineer.

3. Rumble Stripes shall be measured by the linear foot longitudinally along the shoulder. Payment shall only include that portion of the shoulder on which Rumble Stripes have been constructed. No measurement or payment will be made for gaps, driveway turnouts, or other public road intersections where Rumble Stripes have not been constructed.

4. The 6" depth shall generally apply for the entire 6' length. Some variation to suit shoulder slope breaks may be necessary.

Plan View

Detail for Rumble Stripe Gap at Driveway Turnouts

Detail for Gap Pattern Rumble Stripe

Note: Gap pattern shall be adjusted by the Engineer in the field allowing for driveways to serve as the gap.

Special Details
### OUTLET WINGWALL TABLE

<table>
<thead>
<tr>
<th>WALL</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
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<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

### OUTLET SKEWED END SECTION

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<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
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### OUTLET SLOPE SECTIONS

<table>
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<th>WALL</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

### SPECIAL DETAILS

- The number of bars and lengths shown are for estimating purposes only.
- The actual number and length required shall be determined in field.
- All dimensions are in inches.

---

**Sheet 2 of 2**

**Details of R.C. Box Culvert**

**Quadruple Barrel Box Culvert**

**Sto. 113+56**

**Special Details**
CLEARING AND GRUBBING

SAND BAG DITCH CHECKS (E-10)
(4 locations = 88 bags)
SLT FENCE (E-10)
(4 locations = 525 lin. ft.)
TRIANGULAR SLT DKE
(12 locations = 70 lin. ft.)

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

CLEARING AND GRUBBING
TEMPORARY EROSION CONTROL DETAILS
**STAGE 1**

SAND BAG DITCH CHECKS (E-5)
(3 LOCATIONS = 60 BAG)

---

**LEGEND**

- ○ SAND BAG DITCH CHECKS
- ▲ SILT FENCE
- Δ TRIANGULAR SILT DIKE

**NOTE:** PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

---

**STAGE 1**

TEMPORARY EROSION CONTROL DETAILS
MAINTENANCE OF TRAFFIC DETAILS
PERMANENT PAVEMENT MARKINGS

REFLECTORIZED PAINT PAVEMENT MARKING WHITE 6" X 700 LIN. FT.

REFLECTORIZED PAINT PAVEMENT MARKING YELLOW 6" X 700 LIN. FT.

RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW) 80' 0 C.C. X 6 EACH

REFLECTORIZED PAINT PAVEMENT MARKING DBL. YELLOW 6" SOLID LINE

RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW) SPACED 80' ON CENTER

REFLECTORIZED PAINT PAVEMENT MARKING WHITE 6" SOLID LINE

TYPICAL PERMANENT PAVEMENT MARKING LAYOUT - HWY. 54
### ADVANCE WARNING SIGNS AND DEVICES

<table>
<thead>
<tr>
<th>SIGN NUMBER</th>
<th>DESCRIPTION</th>
<th>SIGN SIZE</th>
<th>END OF JOB</th>
<th>MAXIMUM NUMBER REQUIRED</th>
<th>TOTAL SIGNS REQUIRED</th>
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<tbody>
<tr>
<td>W0-1</td>
<td>ROAD WORK AHEAD</td>
<td>48&quot;x48&quot;</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Q3-1</td>
<td>END ROAD WORK</td>
<td>48&quot;x48&quot;</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>MA-10</td>
<td>DETOUR ARROW RT</td>
<td>48&quot;x18&quot;</td>
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<td>3</td>
<td>3</td>
</tr>
<tr>
<td>M1-5</td>
<td>STATE ROUTE HWY 9A</td>
<td>24&quot;x24&quot;</td>
<td>10</td>
<td>10</td>
<td>10</td>
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<tr>
<td>R1-1</td>
<td>ROAD CLOSED</td>
<td>48&quot;x36&quot;</td>
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<td>R1-2</td>
<td>ROAD CLOSED TO THRU TRAFFIC</td>
<td>60&quot;x18&quot;</td>
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<td>24&quot;x12&quot;</td>
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<td>6</td>
<td>6</td>
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<tr>
<td>M2-1</td>
<td>CARDINAL DIRECTION AUXILIARY EAST</td>
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<td>M3-3</td>
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**TOTALS:** 249.2

*NOTE: THIS IS A LOW TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.*

*QUANTITY ESTIMATED.*

SEE SECTION 104.03 OF THE STD. SPECS.

TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

### CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
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<th>RAISED PAVEMENT MARKERS</th>
<th>REFLECTORIZED PAINT PAVEMENT MARKING</th>
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<th>TYPE II</th>
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<td>REFLECTORIZED PAVEMENT MARKING WHITE (6&quot;)</td>
<td>700</td>
<td>700</td>
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<tr>
<td>REFLECTORIZED PAVEMENT MARKING YELLOW (6&quot;)</td>
<td>700</td>
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**TOTALS:** 5 700 700

*NOTE: THIS IS A LOW TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.*

*NOTE: THE 6" YELLOW STRIpping QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLe 6" CENTERLINE STRIPE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING AND PASSING ZONES 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.*
## COLD MILLING ASPHALT PAVEMENT

<table>
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<th>LOCATION</th>
<th>AVG. WIDTH</th>
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<tr>
<td></td>
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<td>FEET</td>
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<tr>
<td>113+00</td>
<td>Hwy 54</td>
<td>24.00</td>
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<td>113+40</td>
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TOTAL: 44.44

Note: AVERAGE MILLING DEPTH 1".

### SOIL LOG

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<th>STATION</th>
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<th>LIQUID LIMIT</th>
<th>PLASTICITY INDEX</th>
<th>CLAY INDEX</th>
<th>COLOR</th>
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<tr>
<td>110+00</td>
<td>0.5</td>
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<tr>
<td>110+50</td>
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<td>59</td>
<td>39</td>
<td>A-7, 6(39)</td>
<td>BROWN</td>
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<tr>
<td>110+00</td>
<td>0.5</td>
<td>51</td>
<td>37</td>
<td>A-7, 6(39)</td>
<td>BROWN</td>
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Soil characteristics tabulated above are representative at the location of the sample, and from surface indications and typical for the limits shown. These data are shown for information only. The state will not be responsible for variations in the soil characteristics and/or extent of same differing from the above tabulations.

### EARTHWORK

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<th>STATION</th>
<th>LOCATION / DESCRIPTION</th>
<th>UNCLASSIFIED EXCAVATION (YD.)</th>
<th>STABILIZATION (TON)</th>
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<td>ENTIRE PROJECT</td>
<td>MAIN LANE - HWY 54</td>
<td>334 1553</td>
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TOTAL: 1325 1553 50

Note: Earthwork quantities shown above shall be paid as plan quantity.

### BENCH MARKS

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<td>113+79</td>
<td>HWY 54, RT. HEADWALL</td>
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### RUMBLE STRIPES IN ASPHALT SHOULDERS

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<tr>
<td>113+00</td>
<td>11+400</td>
<td>MAIN LANE - HWY 54</td>
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TOTAL: 26

Note: Quantity estimated. See section 104.23 of the Standard Specs.

### ACMS PATCHING OF EXISTING ROADWAY

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<th>LOCATION</th>
<th>DESCRIPTION</th>
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TOTAL: 20

Note: Quantity estimated. See section 104.23 of the Standard Specs.

### CLEARING AND GRUBBING

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<th>CLEARING</th>
<th>GRUBBING</th>
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<tr>
<td>113+00</td>
<td>11+400</td>
<td>MAIN LANE - HWY 54</td>
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TOTAL: 3 3

### REMOVAL OF EXISTING BRIDGE STRUCTURE

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<th>LOCATION</th>
<th>LUMP SUM</th>
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<td>113+54</td>
<td>11+400</td>
<td>MAIN LANE - HWY 54</td>
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### EROSION CONTROL

**PERMANENT EROSION CONTROL**

<table>
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<tr>
<th>STATION</th>
<th>LOCATION</th>
<th>SEEDING</th>
<th>LIME</th>
<th>MULCH COVER</th>
<th>WATER</th>
<th>SECOND SEEDING APPLICATION</th>
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<td>ENTIRE PROJECT</td>
<td>CLEANSING AND GRUBBING</td>
<td>ACRE</td>
<td>TON</td>
<td>ACRE</td>
<td>M.GAL</td>
<td>TON</td>
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<tr>
<td>ENTIRE PROJECT</td>
<td>STAGE 1</td>
<td>ACRE</td>
<td>TON</td>
<td>M.GAL</td>
<td>TON</td>
<td>TON</td>
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</tbody>
</table>

TOTALS: 0.49 0.53 0.49 30.0 0.49 0.57 0.87 17.7 80 625 70 20

Note: The temporary erosion control devices shown above and on the plans shall be installed in such a sequence to deter erosion and sedimentation on U.S. Waterways as explained by the National Pollutant Discharge Elimination System permit.

**TEMPORARY EROSION CONTROL**

<table>
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<tr>
<th>STATION</th>
<th>STATION</th>
<th>SEEDING</th>
<th>LIME</th>
<th>MULCH COVER</th>
<th>WATER</th>
<th>SAND BAG DITCH CHECKS</th>
<th>SILT FENCE</th>
<th>TRIANGULAR SILT DIKE</th>
<th>*Sediment Removal &amp; Disposal</th>
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<td>ENTIRE PROJECT</td>
<td>CLEANSING AND GRUBBING</td>
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<td>TON</td>
<td>ACRE</td>
<td>M.GAL</td>
<td>BAG</td>
<td>LIN. FT.</td>
<td>LIN. FT.</td>
<td>YD.</td>
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<td>M.GAL</td>
<td>BAG</td>
<td>YD.</td>
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TOTALS: 0.49 0.53 0.49 30.0 0.49 0.57 0.87 17.7 154 625 70 20

Note: 3 TONS / ACRE OF SEEDING

**ACRE**

102.0 G.O. / ACRE OF SEEDING

**WATER**

30.0 R.M.G. / ACRE OF TEMPORARY SEEDING

**SAND BAG DITCH CHECKS**

22 BAGS / LOCATION

Note: The temporary erosion control devices shown above and on the plans shall be installed in such a sequence to deter erosion and sedimentation on U.S. Waterways as explained by the National Pollutant Discharge Elimination System permit.

*Quantity estimated. See section 104.23 of the Standard Specs.*
# BASE AND SURFACING

<table>
<thead>
<tr>
<th>STATION</th>
<th>STATION</th>
<th>LOCATION</th>
<th>LENGTH</th>
<th>AGGREGATE BASE COURSE (Class 1)</th>
<th>TACK COAT</th>
<th>ACHM BASE COURSE (1 1/2&quot;)</th>
<th>ACHM Binder Course (1&quot;)</th>
<th>ACHM Surface Course (1/2&quot;)</th>
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<td>TON / STATION</td>
<td>TON</td>
<td>AVG. WID.</td>
<td>SQ.YD.</td>
<td>GALLONS / SQ.YD.</td>
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<td>113+40.00</td>
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<td>VAR.</td>
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# STRUCTURES

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<th>LENGTH</th>
<th>CLASS 9 CONCRETE ROADWAY</th>
<th>REINF. STEEL - ROADWAY</th>
<th>GRADE</th>
<th>UNCL. EXC. FOR STR. - ROADWAY</th>
<th>SOLID SODDING</th>
<th>WATER</th>
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<tr>
<td>113+78</td>
<td>QUAD. 10' x 8' x 60' R.C. BOX CULVERT</td>
<td>43</td>
<td>8</td>
<td>60</td>
<td>294.71</td>
<td>43765</td>
<td>328</td>
<td>0.69</td>
<td>RCB-1, RCB-2, SPECIAL DETAILS</td>
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# TOTALS

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<th>REINF. STEEL - ROADWAY</th>
<th>GRADE</th>
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# QUANTITIES

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# STRUCTURES OVER 20' - 3' SPAN

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# TOTALS

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<th>REINF. STEEL - ROADWAY</th>
<th>GRADE</th>
<th>UNCL. EXC. FOR STR. - ROADWAY</th>
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<th>WATER</th>
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# BASIS OF ESTIMATE

- WATER: 12.6 GAL / SQ. YD. OF SOLID SODDING
## SUMMARY OF QUANTITIES

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<td>GRUBBING</td>
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<td>SS &amp; 407</td>
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<td>410</td>
<td>COLD MELT ASPHALT PAVEMENT</td>
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<td>415</td>
<td>ACHM PATCHING OF EXISTING ROADWAY</td>
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<td>467</td>
<td>SEALCOATING</td>
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<td>BARRIERS</td>
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<td>SALT FENCE</td>
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<td>Silt bag ditch checks</td>
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<td>SEGMENT REMOVAL AND DISPOSAL</td>
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<td>REFLECTED STRIPES IN ASPHALT SHOULDERS</td>
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<td>718</td>
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## REVISIONS

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<th>DATE</th>
<th>REVISION</th>
<th>SHEET NUMBER</th>
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## SUMMARY OF QUANTITIES AND REVISIONS
SURVEY CONTROL COORDINATES

Project Name: s020584
Date: 10/13/2016
Coordinate System: ARKANSAS STATE PLANE - SOUTH ZONE BASED ON GPS CONTROL
PROJECTED TO GROUND.

Unit: U.S. SURVEY FOOT

<table>
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<tr>
<th>Point Name</th>
<th>Northing</th>
<th>Easting</th>
<th>Elev</th>
<th>Feature Description</th>
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<td>1 1833909.1823 1310659.0286 232.683 CTL AHTD STD. MON. STAMPED FN 1</td>
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<td>2 1834195.1031 1311324.5469 227.621 CTL AHTD STD. MON. STAMPED FN 2</td>
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<td>900 1831835.1945 1314573.4966 236.169 TBM 2&quot; ALUM CAP RBR</td>
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*Note - Rebar and Cap - Standard - 5/8" Rebar with 2" Aluminum Cap stamped
Standard markings common to all caps, or as indicated
Other markings indicated in the point description of the individual point.
USE CAP 5,0 FOR STAKEOUT FOR THIS PROJECT.

A PROJECT CAP OF G.999912362180 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.
THIS CAP IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID COORDINATES ARE STORED UNDER FILE NAME s020584gi.cti
HORIZONTAL DATUM: NAVD 88 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 - 0302-SOUTH ZONE DETERMINED FROM GPS CONTROL POINTS +350032 350032A
CONVERGENCE ANGLE: 00 00 02.99 LEFT AT LT 34° 06′ 01″ LD 092° 00′ 05″
GRID AZIMUTH = ASTRONOMICAL AZIMUTH + CONVERGENCE ANGLE.
TYPE A

NUMBER OF ELEMENTS PER ROW VARIES WITH WIDTH OF PAVER SPECIFIED

ENERGY DISSIPATORS TO BE USED FOR THE ENTIRE LENGTH OF DITCH WHERE SLOPE OF DITCH PAVING EXCEEDS 7%. THE DISSIPATORS WILL NOT BE PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE PRICE BID FOR CONCRETE DITCH PAVING.

ENERGY DISSIPATORS
SIZED AS STATED

TYPE B

THE STEEL AND ADDITIONAL CONCRETE FOR THE WALLS SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID 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 PAVED 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 40' INTERVAL. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M233.

CONCRETE DITCH PAVING

STANDARD DRAWING CDP-1
NOTES:
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLAN.

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

YIELD LINE DETAIL

CROSSWALK AND STOPBAR DETAILS

CROSSWALK AND STOPBAR DETAILS

CONTINUOUS WHITE

CONTINUOUS WHITE

CONTINUOUS WHITE

CONTINUOUS WHITE

EDGE OF PAVEMENT

PRISMATIC REFLECTOR

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NOTE:
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 A360 M 30 M 55, GRADE 60.

CONSTRUCTION AND MATERIALS FOR WINGWALL & CULVERT DRAINAGE, INCLUDING WEEP HOLES AND GRANULAR MATERIAL, SHALL BE SUBSIDIARY TO THE BIG 5 CONCRETE.

MEMBRANE WATERPROOFING SHALL CONFORM TO THE REQUIREMENTS OF SECTION 85 OF THE STANDARD SPECIFICATIONS.

REINFORCING STEEL TOLERANCES: THE TOLERANCES FOR REINFORCING STEEL SHALL MEET THOSE LISTED IN "MANUAL OF STANDARD PRACTICE" PUBLISHED BY CONCRETE REINFORCING STEEL INSTITUTE (CRSI). EXCEPT THAT THE TOLERANCE FOR TRUSS BARS SUCH AS FIGURE 9 ON PAGE 7-2 OF THE CRSI MANUAL SHALL BE WINS ZERO TO PLUS 1/4 INCH.

WEPP HOLES IN BOX CULVERT WALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPADED TO CLEAR ALL REINFORCING STEEL. THE ORAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 2" ABOVE THE TOP OF THE BOTTOM SLAB.

WEPP HOLES IN MIND WALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPADED TO CLEAR ALL REINFORCING STEEL. THERE SHALL BE A MINIMUM OF TWO (2) WEPP HOLES IN EACH MIND. THE ORAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 2" ABOVE THE TOP OF THE MIND WALL FOOTING.

THE REQUIREMENTS SHOWN ON THIS DRAWING SHALL SUPERSEDE THE CORRESPONDING REQUIREMENTS ON ALL REINFORCED CONCRETE BOX CULVERT STANDARD DRAWING.

ARKANSAS STATE HIGHWAY COMMISSION

REINFORCED CONCRETE BOX CULVERT DETAILS

STANDARD DRAWING RC8-1
SECTION B-B
DETAILS FOR NEW CHANNELS

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 CONSIDERED TO THAT PORTION OF THE INDICATED AREA THAT IS ABOVE THE FLOW LINE. ROADWAY EXCAVATION CHANNEL CHANGES SHALL BE MEASURED BY CROSS SECTIONS AND VOLUMES COMPUTED BY AVERAGE 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. IT WILL BE PAID TO THE LIMITS SHOWN AND SHALL BE CONSIDERED TO THAT PORTION OF THE INDICATED AREA THAT IS BELOW THE CHANNEL FLOW LINE. ROADWAY EXCAVATION SHOWN IN SECTION C-C ABOVE AS SUBSIDIARY WILL NOT BE MEASURED OR PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION.
3. MIN.

NOTE
SIZE OF BASIN TO BE DETERMINED BY VOLUME REQUIRED, HOWEVER A MINIMUM LENGTH-TO-WIDTH RATIO OF 2:1 SHALL BE USED.

NOTE
SIDE OF BASIN TO BE DETERMINED BY VOLUME REQUIRED, HOWEVER A MINIMUM LENGTH-TO-WIDTH RATIO OF 2:1 SHALL BE USED.

SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)

SEDIMENT BASIN WITH PIPE OUTLET (E-18)

DIVERSION DITCH (E-8)

NOTE
SECTION SHALL BE USED AT THE INLET ONLY. DIAMETER OF DITCH OUTLET SHALL BE USED FOR ONE-DIRECTIONAL FLOW.

SLOPE DRAIN (E-12)

NOTE
ANCHOR STAKES AS NEEDED

SEDIMENT BASIN (E-14)

NOTE
ANCHOR STAKES AS NEEDED

PERFORATED RISER PIPE

PERFORATED PIPE}

1" SLOPE DRAIN PIPE

12" SLOPE DRAIN PIPE EXTENDS DRAIN AS REQUIRED TO CORRESPOND TO FINISHED EARTHWORK.
CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE
1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES, DIVERSION DITCHES, SEDIMENT BAGS, ETC).
2. PERFORM CLEARING AND GRUBBING OPERATION.

EMBANKMENT

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 FINAL PHASE OF EXCAVATION, PLACE PERMANENT OR TEMPORARY SEEDING, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

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.

ALL EMBANKMENT 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.
GENERAL NOTES

1. This work shall consist of furnishing, installing, and maintaining the triangular silt dikes. These dikes shall be used as a continuous line barrier at the top of slope or across the roadway ditch to control sediment and minimize erosion as directed by the Engineer. These dikes shall be installed and located as soon as construction will allow or as directed by the Engineer.

2. Triangular silt dikes shall be triangular shaped having a height of at least 3'-6" to 6' in the center with equal sides and a 5'-6" to 6'-0" base. The triangular shape may vary as needed to control sediment and minimize erosion as directed by the Engineer. The dikes shall be a minimum of 7'-0" in length. All corner points shall have a minimum of 60° angles. Both sides of the triangle, up to 0." This fabric should be weather resistant, rot-proof, and resistant to heat and ultraviolet radiation. All materials ordered for the sandbags shall be constructed of at least 4' X 16' X 30' standard sandbags with wire staples. The staples shall be no smaller than 3 1/2" and at least 6" to 8" long. Staples shall be placed as shown on these details.

3. The Contractor shall inspect all dikes after each rainfall event of at least 0.5" or greater, and any dikes that are damaged shall be repaired by the Contractor. Accumulated debris shall be removed and replaced as directed by the Engineer. If the dikes are damaged or inadvertently damaged during the daily removal process, the Contractor shall immediately repair after damage occurs.

4. Accepted triangular silt dikes, measured as provided above, will be paid for at the contract unit price bid for triangular silt dikes. The price bid will include the cost of furnishing the sandbags, installing, maintaining and removing when directed by the Engineer.

SYMBOLS

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<tr>
<th>Symbol</th>
<th>Description</th>
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<td>△ △ △ △</td>
<td>To be used to denote device on plans</td>
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NOTE: Silt dikes should only be used for drop inlets in slump locations.