### INDEX OF SHEETS

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### BRIDGE STANDARD DRAWINGS

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Note: Cross Sections not normally included in plans sold to prospective bidders, but may be had upon request.
TYPICAL SECTIONS OF IMPROVEMENT

SPECIAL DETAIL SHEET NO. 8.

REFER TO "METHOD OF RAISING GRADE" SPECIAL DETAIL SHEET NO. 9.

NOTE:
1. REFER TO CROSS SECTIONS FOR DEVIATIONS FROM NORMAL SLOPES.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
3. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAYED. CONDITIONALジョINS MUST BE AT THE LANE LINES.

SUPERELEVATION SECTION - FULL DEPTH

TANGENT SECTION - FULL DEPTH
TANGENT SECTION
NOTCH AND WIDENING
STA. 214+20.00 TO STA. 215+06.89

SECTION TO NOTCH AND WIDEN TRANSITION FULL DEPTH TANGENT STA. 214+20.00 TO STA. 215+06.89

SUPERELEVATION SECTION
NOTCH AND WIDEN SUPERELEVATION TRANSITION FULL DEPTH STA. 218+90.00 TO STA. 224+28.00

4'-3" 0.02'/'
4' SHLD.

26'-0" ACHM SURFACE COURSE (")
TACK COAT (0.17 GAL. PER SQ. YD.)

11' LANE
220 LBS. PER SQ. YD.

NOTCH AND WIDENING
STA. 203+70.00 TO STA. 205+40.00

TANGENT SECTION
NOTCH AND WIDENING
STA. 203+70.00 TO STA. 205+40.00

SECTION TO NOTCH AND WIDEN TRANSITION FULL DEPTH STA. 203+70.00 TO STA. 205+40.00

SUPERELEVATION SECTION
NOTCH AND WIDEN SUPERELEVATION TRANSITION FULL DEPTH STA. 181+64.00 TO STA. 185+70.00

4'-3" 0.02'/'
4' SHLD.

26'-0" ACHM SURFACE COURSE (")
TACK COAT (0.17 GAL. PER SQ. YD.)

11' LANE
220 LBS. PER SQ. YD.

NOTCH AND WIDENING
STA. 181+64.00 TO STA. 185+70.00

TANGENT SECTION
NOTCH AND WIDENING
STA. 203+70.00 TO STA. 205+40.00

SECTION TO NOTCH AND WIDEN TRANSITION FULL DEPTH STA. 203+70.00 TO STA. 205+40.00

SUPERELEVATION SECTION
NOTCH AND WIDEN SUPERELEVATION TRANSITION FULL DEPTH STA. 218+90.00 TO STA. 224+28.00

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STA. 218+90.00 TO STA. 224+28.00

TANGENT SECTION
NOTCH AND WIDENING
STA. 218+90.00 TO STA. 224+28.00

SECTION TO NOTCH AND WIDEN TRANSITION FULL DEPTH STA. 218+90.00 TO STA. 224+28.00

SUPERELEVATION SECTION
NOTCH AND WIDEN SUPERELEVATION TRANSITION FULL DEPTH STA. 214+20.00 TO STA. 215+06.89

4'-3" 0.02'/'
4' SHLD.

26'-0" ACHM SURFACE COURSE (")
TACK COAT (0.17 GAL. PER SQ. YD.)

11' LANE
220 LBS. PER SQ. YD.
**SPECIAL DETAILS**

**ARK. STATE SHEET NO.**

**TOTAL SHEETS**

**DATE FILMED**

**FED. AID PROJ. NO.**

**FED. RD. DIST. NO.**

**JOB NO.**

**REVISED DATE**

**FILMED DATE**

**6" CONCRETE IF CONCRETE DRIVE EXIST.**

**7" COMP. DEPTH IF ASPHALT DRIVE EXIST OR AGGREGATE BASE COURSE (CLASS 7) COURSE (220 LBS. PER SQ. YD.)**

**ASPHALT CONCRETE HOT MIX SURFACE TO EXISTING DRIVEWAY**

**9" COMP. DEPTH OR CONFORM AGGREGATE BASE COURSE (CLASS 7) TO CONSTRUCTION LIMITS**

**40' MAX.**

**16' MIN.**

**20' R**

**EDGE OF SHLDR.**

**EDGE OF PAVEMENT**

**TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.**

**NOTE: TURNOUTS AND PRIVATE DRIVES (COLLECTORS) DETAILS FOR DRIVEWAY TURNOUTS**

**DETAIL FOR TRANSITIONS**

**100' NORMAL TRANSITION**

**PROPOSED OVERLAY**

**EXISTING ASPHALT PAVEMENT**

**COLD MILL EXISTING ASPHALT PAVEMENT**

**FULL DEPTH SHOULDER FOR MAINTENANCE OF TRAFFIC**

**STA. 181+64.00 TO STA. 187+00.00**

**0.040**

**0.020**

**4:1**

**4'-0" SHOULDER**

**3'-9" FOR MAINTENANCE OF TRAFFIC**

**FULL DEPTH SHOULDER**

**4'-0" AGGREGATE BASE COURSE (CLASS 7)**

**VARIABLE COMPACTED DEPTH**

**26.75 TONS PER STA.**

**VARIABLE COMPACTED DEPTH AGGREGATE BASE COURSE (CLASS 7)**

**4'-1 3/4" ACHM BINDER COURSE (1")**

**SURFACE (1/2") IS PLACED)**

**2" OF SECTION BEGINNING OR END PROPOSED OVERLAY**

**NOTE: 4.00 TONS/STA. ADDITIONAL**

**SPECIAL DETAILS**

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

**DETAIL FOR DRIVeways TURNOUTS (COLLECTORS)**

**CONSTRUCTION LIMITS**

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

**ASSALTY CONCRETE HOT MIX SURFACE COURSE (220 LBS. PER SQ. YD.)**

**P: CEMENT LIFT IF ASPHALT OR CONCRETE EXIST**

**AGGREGATE BASE COURSE (CLASS 7) 2" DEEP DEPTH ON CONFORM TO EXISTING DRIVEWAY.**

**SPECIAL DETAILS**
SPECIAL EMBANKMENT DETAIL - UNDERCUT AND BACKFILL

(Locations of undercut as directed by the engineer where subgrade is identified unstable)

NOTE:

- AS PER ROADWAY PLANS
- CONSTRUCTION
- (LOCATIONS OF UNDERCUT AS DIRECTED BY THE ENGINEER WHERE SUBGRADE IS IDENTIFIED UNSTABLE)

NOTE 1:
- REFER TO SPECIAL PROVISION "COMPACTED EMBANKMENT" AND CROSS SECTIONS FOR ADDITIONAL INFORMATION.
- SUPPORT VEGETATION. PLATING SHALL BE APPROVED BY THE ENGINEER.
- BE PROTECTED BY MIN. 18 IN. OF LEAN CLAY THAT IS NOT HIGHLY SUSCEPTIBLE TO EROSION AND IS SUITABLE TO
- IF EMBANKMENT FILL OR BACKFILL CONSISTS OF GRANULAR MATERIAL, EXTERIOR SLOPE FACE OF EMBANKMENT SHALL
- UNDERCUT BOTTOM DRY.
- AND PUMP OUT ALL WATER IN DITCHES, AND TO PREVENT SURFACE WATER PONDING IN UNDERCUT BOTTOM AND MAINTAIN
- IT IS CONTRACTOR'S RESPONSIBILITY TO ESTABLISH POSITIVE SURFACE DRAINAGE, TO REMOVE PONDING SURFACE WATER

NOTE 2:
- APPROX. TOE OF EXISTING SLOPE
- NO. 4'-0" UNDERCUT
- ELIMINATE PLANE OF WEAKNESS
- TO ALLOW FOR PROPER COMPACTION AND
- BENCH EXISTING SLOPE PER SECTION 210.09

NOTE 3:
- APPROX. TOE OF PLAN SLOPE
- NO. 4'-0" UNDERCUT
- ELIMINATE PLANE OF WEAKNESS
- TO ALLOW FOR PROPER COMPACTION AND
- BENCH EXISTING SLOPE PER SECTION 210.09

NOTE 4:
- REFER TO SPECIAL PROVISION "COMPACTED EMBANKMENT" AND CROSS SECTIONS FOR ADDITIONAL INFORMATION.
SECTION OF APPROACH SLAB

METHOD OF Raising Grade

WIDENING FOR GUARDRAIL

NOTES:

1(1) THIS DETAIL TO BE USED ONLY IF AND WHERE DIRECTED BY THE ENGINEER.

1(2) QUANTITIES FOR METHOD OF GRADE RAISING USING ASPHALT WERE CALCULATED ON THIS PROJECT AT LOCATIONS WHERE THE DISTANCE BETWEEN THE EXISTING ASPHALT ROADWAY AND THE PROPOSED SUBGRADE WAS LESS THAN ONE FOOT OR LARGER THAN ONE FOOT.

1(3) IN LOCATIONS WHERE THE DISTANCE BETWEEN THE PROPOSED SURFACE AND THE EXISTING ASPHALT ROADWAY IS MORE THAN ONE FOOT, SCARIFICATION OF THE EXISTING ASPHALT ROADWAY WILL BE REQUIRED AS STATED IN SECTION 210, SUBSECTION 210.09, OF THE STANDARD SPECIFICATIONS.
LOCATION PLAN OF RUMBLE STRIPE

LEFT OR RIGHT SHOULDER

DETAIL FOR RUMBLE STRIPE GAP AT DRIVEWAY TURNOUTS

GENERAL NOTES

1. Rumble Stripes shall not be installed on bridge decks, approach girders, 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 deacceleration lane for the length deemed appropriate by the Engineer.

3. Rumble stripes shall not be measured by the linear foot longitudinally along the shoulder. Payment shall only include that portion of the shoulder upon which the Rumble Stripe have been constructed. No measurement or payment will be made for Rumble Stripes installed on other paved road improvements such as sidewalks and curbsides.

4. The 3" depth shall generally apply for the entire 6" length. Some variation to suit shoulder slope breaks may be necessary.

5. Gap Pattern shall be adjusted by the Engineer in the field allowing for driveways to serve as the gap.
TEMPORARY EROSION CONTROL DETAILS

EXIST. R/W

EXIST. R/W

EXIST. R/W

EXIST. R/W

EXIST. R/W

EXIST. R/W

EXIST. R/W

EXIST. R/W

EXIST. R/W

EXIST. R/W

EXIST. R/W

EXIST. R/W

EXIST. R/W

EXIST. R/W

CLEARING AND GRUBBING

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

LEGEND

1 = SEDIMENT BASIN

2 = SAND BAG DITCH CHECKS

3 = ROCK DITCH CHECKS

4 = Silt Fence

SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
TEMPORARY EROSION CONTROL DETAILS

CLEARING AND GRUBBING

LEGEND

- SEGMENT BASIN
- SILT FENCE

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

TEMPORARY EROSION CONTROL GENERAL NOTES

The quantities and locations of the erosion control devices shown in the plans are estimates and may be altered if and were directed by the Engineer to manage materials efficiently in an area one time the soil conditioning activity is finished.

Refer to Section 1 of the standard specifications for additional requirements.
Temporary Erosion Control Details

Clearing and Grubbing

Erosion control measures to be installed during appropriate stages. These devices shall be left in place as long as required to control erosion.

Erosion control measures placed in Stage 1 shall be retained through Stage 2 or until final stabilization.

Temporary erosion control may be altered if and where directed by the engineer. Plans are estimated and may be altered to maximize their effectiveness. If the devices are to be installed in an area only after the soil disturbing activity in that area begins, refer to Section 110 of the standard specifications for additional requirements.

Legend

- **Silt Fence**
- **Sediment Basin**
- **Sand Bag Ditch Checks**
- **Rock Ditch Checks**

**LEGEND**

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<th>Date of Revision</th>
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REVISIONS

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NOTE: THE EROSION BASINS SHOWN ARE CONSTRUCTED AS PREVIOUS DITCHES ARE DUG.
EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. AS LONG AS REQUIRED TO CONTROL EROSION. EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

THESE DEVICES SHALL BE LEFT IN PLACE IF AND WHERE DIRECTED BY THE ENGINEER PLANS ARE ESTIMATED AND MAY BE ALTERED TO MAXIMIZE THEIR EFFECTIVENESS.

NOTE: THE SEDIMENT BASINS SHOWN ARE CONSTRUCTED AS PROPOSED UNLESS SHE BDS.

REVISIONS

LEGEND

- SEDIMENT BASIN
- ROCK DITCH CHECKS
- SAND BAG DITCH CHECKS
- FILTER SOCK

GENERAL NOTES

1. EROSION CONTROL MEASURES TO BE PLACED ALONG APPROPRIATE STAGES, THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

2. EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

TEMPORARY EROSION CONTROL GENERAL NOTES

3. THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN ON THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHERE DIRECTED BY THE ENGINEER.

4. THE DEVICES AND TO BE INSTALLED IN AN AREA OFF-THE-TOTAL-DEPOSING ACTIVITY IN THAT AREA BEGIN.

NOTES TO SECTION N OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. AS LONG AS REQUIRED TO CONTROL EROSION. EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

TEMPORARY EROSION CONTROL GENERAL NOTES

THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED TO MAXIMIZE THEIR EFFECTIVENESS. THE DEVICES ARE TO BE INSTALLED IN AN AREA ONLY AFTER THE SOIL DISTURBING ACTIVITY IN THAT AREA CEASES.

REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
TEMPORARY EROSION CONTROL DETAILS

STAGE 2

C.L. HWY. 133

EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. AS LONG AS REQUIRED TO CONTROL EROSION.

EROSION CONTROL MEASURES PLACED IN STAGE 1 SHALL BE RETAINED THROUGHOUT STAGE 2 OR UNTIL FINAL STABILIZATION.

THESE DEVICES SHALL BE LEFT IN PLACE TO MAXIMIZE THEIR EFFECTIVENESS. IF AND WHERE DIRECTED BY THE ENGINEER.

EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED.

TEMPORARY EROSION CONTROL GENERAL NOTES

THE QUANTITIES AND LOCATIONS OF THE EROSION CONTROL DEVICES SHOWN IN THE PLANS ARE ESTIMATED AND MAY BE ALTERED IF AND WHEN DIRECTED BY THE ENGINEER. TO MAXIMIZE THEIR EFFECTIVENESS, THEY SHOULD BE INSTALLED IN AN AREA NOT SUBJECT TO UNCONTROLLED ACTIVITY.

REFER TO SECTION B OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
Temporary Erosion Control Details

Erosion Control Measures to be placed during appropriate stages. As long as required to control erosion.

Erosion Control Measures placed in Stage 1 shall be retained throughout Stage 2 or until final stabilization.

Temporary Erosion Control General Notes:

The quantities and locations of the erosion control devices shown in the plans are estimated and may be altered if necessary with the approval of the engineer.

These devices are to be installed in an area only when the soil stabilization activities in that area begin.

Refer to Section 110 of the Standard Specifications for additional requirements.
CONSTRUCTION SEQUENCE

Stage 1a:
- Shift traffic to newly constructed roadway and bridges,
- Construct remaining roadway, guardrail, final drainage, and bridge as shown in Stage 1A Maintenance of Traffic Details.

Stage 1b:
- Advance warning signs and end road work signs at locations listed on the advance warning details,
- Construct proposed roadway, guardrail, drainage, and bridge as shown in the stage in maintenance of traffic details.

Stage 2:
- Shift traffic to newly constructed roadway and bridges,
- Construct remaining roadway, guardrail, final drainage, and bridge as shown in Stage 2 Maintenance of Traffic Details.

Advance warning details at beginning and end of job all stages.

Legend:
- Temporary Traffic Sign
- Traffic Flow Arrows

Maintenance of Traffic Details
Advance Warning Signs
STAGE IA - TYPICAL SECTIONS

STA. 004+60.00 TO STA. 004+100.00
STA. 003+03.00 TO STA. 003+60.00

STA. 203+03.00 TO STA. 206+30.00
STA. 181+64.00 TO STA. 187+65.00

UNDER TRAFFIC VARIABLE OVERLAY/LEVELING

STA. 216+75.00 TO STA. 221+00.00

DIRECTED BY THE ENGINEER TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

STA. 200+40.00 TO STA. 200+90.00

STA. 204+00.00 TO STA. 204+00.00

STAGE IA - TYPICAL SECTIONS
CONSTRUCTION SEQUENCE

STAGE 1A

Install advance warning signs and end road work signs at the locations listed on the advance warning details. Construct proposed roadway, guardrail, drainage, and structures as shown on maintenance of traffic details.

CONSTRUCTION PAVEMENT MARKING QUANTITIES

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>QUANTITIES</th>
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<tbody>
<tr>
<td>HWY. 133 (STA. 180+64 TO STA. 188+17)</td>
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</tbody>
</table>

LEGEND

- VERTICAL PANELS
- STAGE IN CONSTRUCTION
- TRAFFIC FLOW ARROWS
- TRAFFIC DRUMS
- PAVEMENT TRANSITION

STA. 181+64.00
BEGIN JOB 070416
LOG MILE 2.93
CONSTRUCTION SEQUENCE

STAGE 1A:

- INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS.
- CONSTRUCT PROPOSED ROADWAY, GUARDRAIL, DRAINAGE, AND BRIDGES AS SHOWN IN THE STAGE 1A MAINTENANCE OF TRAFFIC DETAILS.

STAGE 1B:

- CONSTRUCT PROPOSED ROADWAY, GUARDRAIL, DRAINAGE, AND BRIDGE AS SHOWN IN THE STAGE 1B MAINTENANCE OF TRAFFIC DETAILS.
- SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BRIDGES.
- CONSTRUCT REMAINDER OF ROADWAY TIES, GUARDRAIL, FINAL OVERLAY, FINAL GRADING, AND DRAINAGE UNDER TRAFFIC FOR PROJECT AS SHOWN IN STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

LEGEND

- TRAFFIC DRUM
- VERTICAL PANEL
- CONSTRUCTION PAVEMENT MARKING WHITE
- CONSTRUCTION PAVEMENT MARKING YELLOW
- MARKINGS (YELLOW)
- MARKINGS (WHITE)
- TEMP. IMPACT ATTENUATOR
- 6 Vertical Panels
- ROAD CLOSED
CONSTRUCTION SEQUENCE

STAGE 1A:

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS.

CONSTRUCT PROPOSED QUANTUM DLNAGE AND BRIDGES AS SHOWN IN THE STAGE 1A MAINTENANCE OF TRAFFIC DETAILS.

STAGE 1B:

CONSTRUCT PROPOSED ROADWAY, GUARDRAIL, DRAINAGE, AND BRIDGE AS SHOWN IN THE STAGE 1B MAINTENANCE OF TRAFFIC DETAILS.

SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BRIDGES.

CONSTRUCT REMAINDER OF ROADWAY TIES, GUARDRAIL, FINAL OVERLAY, FINAL GRADING, AND DRAINAGE UNDER TRAFFIC FOR PROJECT AS SHOWN IN STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

LEGEND

TRAFFIC FLOW ARROWS

VERTICAL PANEL

TRAFFIC DRUM

TYPE III BARRICADE

CONSTRUCTION PAVEMENT MARKING WHITE

CONSTRUCTION SEQUENCE

STAGE 1A

MAINTENANCE OF TRAFFIC DETAILS

END JOB 070416
MAINTENANCE OF TRAFFIC DETAILS

STAGE IB - TYPICAL SECTIONS

STA 206+30.00 TO STA 209+00.00

STAGE IB - TYPICAL SECTIONS

STA 214+20.00 TO STA 221+00.00

STA 204+40.00 TO STA 206+30.00

UNDER TRAFFIC VARIABLE OVERLAY/LEVELING

*TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

$REV DATE$
CONSTRUCTION SEQUENCE

STAGE 1A
CONSTRUCT PROPOSED ROADSIDE, GUARDRAIL, DRAINAGE, AND BRIDGE AS SHOWN IN THE STAGE 1A
MAINTENANCE OF TRAFFIC DETAILS.

STAGE 1B
CONSTRUCT PROPOSED ROADWAY, GUARDRAIL, DRAINAGE, AND BRIDGE AS SHOWN IN THE STAGE 1B
MAINTENANCE OF TRAFFIC DETAILS.

STAGE 2:
SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BRIDGES.
CONSTRUCT REMAINDER OF ROADWAY TIES, GUARDRAIL, FINAL OVERLAY, FINAL GRADING, AND
DRAINAGE UNDER TRAFFIC FOR PROJECT AS SHOWN IN STAGE 2 MAINTENANCE OF TRAFFIC
DETAILS.

LEGEND
- TRAFFIC DRUM
→ TRAFFIC FLOW ARROWS
°C TYPE HIGHWAY

MAINTENANCE OF TRAFFIC DETAILS
STAGE 1B
CONSTRUCTION SEQUENCE

STAGE 1:
- Construct proposed roadway, guardrail, drainage, and bridge as shown in the stage 1 maintenance of traffic details.

CONSTRUCTION PAVEMENT MARKING QUANTITIES

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<td>300 LIN. FT.</td>
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LEGEND
- TRAFFIC DRUM
- VERTICAL PANEL
- STAGE 1A CONSTRUCTION
- TRAFFIC FLOW ARROWS
- TYPE MARKING

MAINTENANCE OF TRAFFIC DETAILS
STAGE 1B
CONSTRUCTION SEQUENCE

STAGE 1A

CONSTRUCT PROPOSED ROADWAY, GUARDRAIL, DRAINAGE, AND BRIDGE AS SHOWN IN THE STAGE 1A MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCTION PAVEMENT MARKINGS QUANTITIES

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<th>DESCRIPTION</th>
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<tr>
<td>HWY. 133 (STA. 212+00 TO STA. 224+28)</td>
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<tr>
<td>CONSTRUCTION PAVEMENT MARKING QUANTITIES</td>
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<tr>
<td>STAGE 1A, STA. 214+71 TO STA. 224+28</td>
<td>828 LIN. FT.</td>
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<tr>
<td>STAGE 1B, STA. 216+00 TO STA. 224+28</td>
<td>1228 LIN. FT.</td>
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<tr>
<td>STAGE 2, STA. 212+00 TO STA. 224+28</td>
<td>1914 LIN. FT.</td>
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CONSTRUCTION PAVEMENT MARKINGS

- YELLOW:
  - STA. 214+71 TO STA. 224+28
  - 828 LIN. FT.
- WHITE RT.:
  - STA. 216+00 TO STA. 224+28
  - 1228 LIN. FT.
- WHITE LT.:
  - STA. 212+00 TO STA. 224+28
  - 1914 LIN. FT.

LEGEND

- TRAFFIC DRAIN
- VERTICAL PANEL
- STAGE 1 CONSTRUCTION
- TRAFFIC FLOW ARROWS
- TYPE BARRECE

MAINTENANCE OF TRAFFIC DETAILS
STAGE 1B

END JOB 070416
MAINTENANCE OF TRAFFIC DETAILS

STAGE 2 - TYPICAL SECTION

STA. 205+75.00 TO STA. 212+81.00

AS SHOWN IN PLANS LOCATION, AND SPACING

CHANNELIZING DEVICE TYPE, BARRIER

PRECAST TEMPORARY EXISTING

LANES EXISTING

STA. 212+81.00 TO STA. 216+75.00

AS SHOWN IN PLANS LOCATION, AND SPACING

CHANNELIZING DEVICE TYPE, BARRIER

PRECAST TEMPORARY EXISTING

LANES EXISTING

STA. 181+64.00 TO STA. 188+07.00

STA. 197+59.00 TO STA. 204+12.00

STA. 188+63.00 TO STA. 195+21.00

STAGE 2 CONSTRUCTION VARIES TRAVEL LANE 11'-0"

SHLD. 4'-0"

C.L. PROPOSED

STAGE 2 - TYPICAL SECTION

STA. 204+75.00 TO STA. 208+75.00

STA. 208+75.00 TO STA. 204+75.00

STAGE 2 CONSTRUCTION VARIES TRAVEL LANE 11'-0"

SHLD. 4'-0"

C.L. PROPOSED

STAGE 2 - TYPICAL SECTION
CONSTRUCTION SEQUENCE

STAGE 1

SHIFT TRAFFIC TO NEARLY CONSTRUCTED ROADWAY AND BRIDGES.

CONSTRUCT REMAINder OF ROADWAY, GUARDRAIL, FINAL GRADING, AND DRAINAGE UNDER TRAFFIC FOR PROJECT AS SHOWN IN STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCTION PAVEMENT MARKING QUANTITIES

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CONSTRUCTION PAVEMENT MARKING Quantities

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<td>STAGE 2 MAINTENANCE OF TRAFFIC DETAILS</td>
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MAINTENANCE OF TRAFFIC DETAILS

STAGE 2

MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT PROPOSED ROADWAY, GUARDRAIL, DRAINAGE, AND BRIDGES AS SHOWN IN THE STAGE 1B

STAGE 1B:

MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT PROPOSED ROADWAY, GUARDRAIL, DRAINAGE, AND BRIDGES AS SHOWN IN THE STAGE 1A

LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS.

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE

STAGE 1A:

MAINTENANCE OF TRAFFIC DETAILS

CONSTRUCT PROPOSED ROADWAY, GUARDRAIL, DRAINAGE, AND BRIDGES AS SHOWN IN THE STAGE 1B

LEGEND

TRAFFIC FLOW ARROWS

VERTICAL PANEL

STAGE 2 CONSTRUCTION

REMOVAL OF EXISTING BRIDGE

TRAFFIC DRUMS

TYPE III BARRICADE

@ 45' O.C.

9 TRAFFIC DRUMS

10 VERTICAL PANELS

CONSTRUCTION SEQUENCE

STA. 181+64.00
BEGIN JOB 070416
LOG MILE 2.93

CONSTRUCTION SEQUENCE

STA. 181+64.00
BEGIN JOB 070416
LOG MILE 2.93
CONSTRUCTION SEQUENCE

STAGE 1A:

LIMIT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BRIDGES.
CONSTRUCT REMAINDER OF ROADWAY, GUARDRAIL, DRAINAGE, FINAL GRADING, AND BINDING LANES UNDER TRAFFIC FOR PROJECT AS SHOWN IN STAGE 1A MAINTENANCE OF TRAFFIC DETAILS.

STAGE 1B:

MAINTENANCE OF TRAFFIC DETAILS.
CONSTRUCT PROPOSED ROADWAY, GUARDRAIL, DRAINAGE, AND BRIDGES AS SHOWN IN THE STAGE 1A CONSTRUCTION SEQUENCE.

STAGE 2:

MAINTENANCE OF TRAFFIC DETAILS.
CONSTRUCT PROPOSED ROADWAY, GUARDRAIL, DRAINAGE, AND BRIDGE AS SHOWN IN THE STAGE 1B CONSTRUCTION SEQUENCE.

MAINTENANCE OF TRAFFIC DETAILS

LEGEND

TRAFFIC FLOW ARROWS

VERTICAL PANEL

STAGE 2 CONSTRUCTION

REMOVAL OF EXISTING BRIDGE

TRAFFIC FLOW ARROWS

TYPE III BARRICADE

PRECAST CONCRETE BARRIER WALL

TEMP. TRAFFIC SIGN

REMOVAL OF EXISTING BRIDGE

CONSTRUCTION SEQUENCE

MAINTENANCE OF TRAFFIC DETAILS

STAGE 2
CONSTRUCTION SEQUENCE

STAGE 1A:
MAINTENANCE OF TRAFFIC DETAILS.
CONSTRUCT PROPOSED ROADWAY, GUARDRAIL, DRAINAGE, AND BRIDGES AS SHOWN IN THE STAGE 1A CONSTRUCTION SEQUENCE.

INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS.

STAGE 1B:
MAINTENANCE OF TRAFFIC DETAILS.
CONSTRUCT PROPOSED ROADWAY, GUARDRAIL, DRAINAGE, AND BRIDGES AS SHOWN IN THE STAGE 1B CONSTRUCTION SEQUENCE.

STAGE 2:
MAINTENANCE OF TRAFFIC DETAILS.
CONSTRUCT PROPOSED ROADWAY, GUARDRAIL, DRAINAGE UNDER TRAFFIC FOR PROJECT AS SHOWN IN STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY AND BRIDGES.
CONSTRUCT REHABILITATION OF ROADWAY, LANE, GUARDRAIL, FINAL OVERLAY, FINAL GRADE, AND DRAINAGE UNDER TRAFFIC FOR PROJECT AS SHOWN IN STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCTION PAVEMENT MARKING QUANTITIES

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MAINTENANCE OF TRAFFIC DETAILS

LEGEND

- VERTICAL PANEL
- STAGE 2 CONSTRUCTION
- TRAFFIC FLOW ARROWS
- TYPE # BARRICADE

CONSTRUCTION PAVEMENT MARKING QUANTITIES

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NOTE:

- The 6" yellow striping quantity has been estimated based on a double yellow
  extensive strip for the entire project. This project must be marked for
  extensive striping. Extensive striping includes the following:
  - Solid stripes
  - Solid stripes with a shoulder
  - Solid stripes with a shoulder on the inside
  - Solid stripes with a shoulder on the outside
  - Solid stripes with a shoulder on both sides
  - Solid stripes with a shoulder on one side
  - Solid stripes with a shoulder on both sides

- The maintenance division after the final lift of surface course has been placed
  to complete the opening of project.

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  - Solid stripes with a shoulder on one side
  - Solid stripes with a shoulder on both sides

- The maintenance division after the final lift of surface course has been placed
  to complete the opening of project.
NOTES:

1. The 6' yellow striping quantity has been estimated based on a double yellow centerline stripe for the entire project. The project must be marked the
   permanent centerline stripe prior to the placement of any final striping.
   Contact the maintenance section after the final lift of surface course has been placed
   to schedule the zoning of project.

2. The 6' yellow striping quantity has been estimated based on a double yellow
   centerline stripe for the entire project. The project must be marked the
   permanent centerline stripe prior to the placement of any final striping.
   Contact the maintenance section after the final lift of surface course has been placed
   to schedule the zoning of project.

PERMANENT PAVEMENT MARKING QUANTITIES

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>QUANTITY</th>
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<tr>
<td>Reflected Paint Marking Yellow 6&quot;</td>
<td>3000 LBR.</td>
</tr>
<tr>
<td>Reflected Paint Marker Type Yellow/Yellow</td>
<td>2500 EA.</td>
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</table>
NOTE:

LINE OF YELLOW STRIPE QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW STRIPE AT THREE FOR THE ENTIRE PROJECT. THE PROJECT MAY BE MARKED FOR "COLD" CENTERLINE STRIPING AUTOMATICALLY. ANY FINAL THRESHOLD CONTACT POINTS ARE TO BE MARKED AT THE END OF THE LIFT OF SURFACE COURSE HAS BEEN PLANNED TO SCHEDULE THE ZONING OF PROJECT.

- CONT. EDGE LINE PAVEMENT MARKING WHITE (6") "REFLECTORIZED PAINT"
- CONT. DBL C.L. LINE YELLOW (6") "REFLECTORIZED PAINT"
- "REFLECTORIZED PART PAINTED WHITE TYPE II"
- "REFLECTORIZED PART PAINTED WHITE TYPE II"

- END JOB 070416
- STA. 221+00.00
- C.L. HWY. 133
- N 2 6° 25' 45" E
- N 58° 47' 15" E
- 2856 LIN. FT.
- REFLECTORIZED PAINT PAVEMENT MARKING WHITE (6") - 18 EACH
- REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (6") - 2856 LIN. FT.
- RAISED PAVEMENT MARKER TYPE II (YELLOW/YELLOW) - 2856 LIN. FT.
### Advance Warning Signs and Devices

<table>
<thead>
<tr>
<th>Sign Number</th>
<th>Description</th>
<th>Sign Size</th>
<th>Stage 1 A</th>
<th>Stage 1 B</th>
<th>Stage 2</th>
<th>Maximum Number</th>
<th>Total Signs Required</th>
<th>Vertical Panels</th>
<th>Traffic Domes</th>
<th>Barricades (Type B)</th>
<th>Furring &amp; Relocating Precautions</th>
<th>Relocating Concrete Barrier</th>
<th>Temporary Impact Attenuation Barrier</th>
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**Note:** This is a low traffic volume road as defined in SCOTCHMILL standard specifications for highway construction.

### Construction Pavement Markings and Permanent Pavement Markings

#### Description

- Stage 1A: 200+07.63
- Stage 1B: 201+52.00

#### Summary

<table>
<thead>
<tr>
<th>Description</th>
<th>Stage 1A</th>
<th>Stage 1B</th>
<th>Stage 2</th>
<th>End of Job</th>
<th>Construction Pavement Markings</th>
<th>Raised Pavement Markers</th>
<th>ReflectORIZED Paint Marking</th>
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#### Approach Gutters and Slabs

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<th>Location</th>
<th>Approach Gutter</th>
<th>Approach Slabs</th>
<th>Reinforcing Steel, Rm.</th>
<th>Aggregate Base (Cy) (Class 7)</th>
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#### Cold Milling Asphalt Pavement

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<th>AVG. Width</th>
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## Erosion Control

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<th>Location</th>
<th>Length (ft)</th>
<th>Class 7 (ft)</th>
<th>Class 8 (ft)</th>
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<tbody>
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<td>ST 1</td>
<td>ST 100</td>
<td>0076-070</td>
<td>200.00</td>
<td>190.00</td>
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### Pipes Underdrain

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<th>Underdrain</th>
<th>Location</th>
<th>Length (ft)</th>
<th>Class 7 (ft)</th>
<th>Class 8 (ft)</th>
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<tbody>
<tr>
<td>ST 1</td>
<td>ST 100</td>
<td>0076-070</td>
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<td>190.00</td>
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### Driveaways

| Station | Station | Location | Width (ft) | Erosion Control
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<thead>
<tr>
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</thead>
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<tr>
<td>ST 1</td>
<td>ST 100</td>
<td>0076-070</td>
<td>200.00</td>
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### Removal and Disposal of Culverts

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### Rumble Stripes in Asphalt Shoulders

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<th>Length (ft)</th>
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### Clearing and Grubbing

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### Quantities

- **Removal and Disposal of Culverts:** 1
- **Rumble Stripes in Asphalt Shoulders:** 0
- **Clearing and Grubbing:** 200.00 ft

---

**Note:** Quantities estimated where sections are not specified in the plans.

---

**Quantities:**

- **Culverts:** Total 1
- **Rumble Stripes:** Total 0
- **Clearing and Grubbing:** Total 200.00 ft

---

**License Information:**

- **Engineer:**
  - [Full Name]
  - [License Number]
  - [State]
  - [Expiration Date]

---

**Revision Date:** [Date]

---

[Diagram of Site Plan]
### BASE AND SURFACING - MAIN LANES (BOX 1 OF 2)

<table>
<thead>
<tr>
<th>STATION</th>
<th>LOCATION</th>
<th>ADJACENT BASE COURSE (CLASS 1)</th>
<th>TACK COAT</th>
<th>ACCELERATED COURSE (%)</th>
<th>ACCELERATED COURSE (%)</th>
<th>AVG. WTD.</th>
<th>AVG. %YD.</th>
<th>AVG. %YD.</th>
<th>AVG. GALLONS</th>
<th>AVG. WTD.</th>
<th>AVG. %YD.</th>
<th>AVG. GALLONS</th>
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### ADDITIONAL FOR LEVERED AND RISING GRADE

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<th>ACCELERATED COURSE (%)</th>
<th>AVG. WTD.</th>
<th>AVG. %YD.</th>
<th>AVG. GALLONS</th>
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### ADDITIONAL FOR SUGGESTIVE

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<th>AVG. WTD.</th>
<th>AVG. %YD.</th>
<th>AVG. GALLONS</th>
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</table>

**NOTE:** TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO 55-405-11 FOR THE RESIDUAL ASPHALT APPLICATION RATES.
<table>
<thead>
<tr>
<th>STATION</th>
<th>LOCATION</th>
<th>AGGREGATE BASE (COARSE)</th>
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<th>ACHM C Every COURSE (T%)</th>
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<td>TON/STATION</td>
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**TOTALS:**

- TON/STATION: 6.08
- FEET: 32.00
- SQ. YD.: 5.50
- GALLON: 1.32
- SQUARE YD.: 32.00
- POUND/SG.YD.: 5.50
- TON: 1.32
- FEET: 32.00
- SQ. YD.: 5.50
- GALLON: 1.32
- SQUARE YD.: 32.00
- POUND/SG.YD.: 5.50

**Notes:**

- TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SD 403 119 FOR THE RESIDUAL ASPHALT APPLICATION RATES.
## Schedule of Bridge Quantities - Job 070416

<table>
<thead>
<tr>
<th>Bridge No.</th>
<th>Unit of Structure</th>
<th>Description</th>
<th>Unit</th>
<th>Cubic Yd.</th>
<th>Linear Ft.</th>
<th>Each</th>
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<td>194</td>
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### Total for Bridge No. 07476
- Cubic Yd.: 76.10
- Linear Ft.: 126.70
- Each: 331

### Total for Bridge No. 07477
- Cubic Yd.: 93.30
- Linear Ft.: 127.40
- Each: 310

### Total for Bridge No. 07478
- Cubic Yd.: 13.30
- Linear Ft.: 381.50
- Each: 337

### Total for Job No. 070416
- Cubic Yd.: 262.70
- Linear Ft.: 39.90
- Each: 494

---

1. Steel Shell Piles shall conform to ASTM A252, Grade 3, Fy = 45 ksi.
**SUMMARY OF QUANTITIES**

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>ITEM</th>
<th>QUANTITY</th>
<th>UNIT</th>
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**REVISIONS**

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<th>SHEET NUMBER</th>
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**SUMMARY OF QUANTITIES AND REVISIONS**
SURVEY CONTROL COORDINATES

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**GRID COORDINATES ARE STORED UNDER FILE NAME s070416gi.ctl**

**GRID DISTANCE = GROUND DISTANCE X CAF.**

THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS. A PROJECT CAF OF 0.9999099885 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.

USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT

*Other markings indicated in the point description of the individual point.

**LEGEND**

- *Standard markings common to all caps*, or as indicated
- Other markings indicated in the point description of the individual point.

**USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT**

A PROJECT CAF OF 0.9999099885 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.

**GRID DISTANCE = GROUND DISTANCE X CAF.**

**GRID COORDINATES ARE STORED UNDER FILE NAME s070416gi.ctl**

**VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE**

**HORIZONTAL DATUM: NAD 83 (1997)**

**COORDINATES ARE STORED UNDER FILE NAME s070416gi.ctl**

**PROJECTED TO GROUND.**

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

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

**REFERENCES (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL AT A SPECIFIC POINT.**

**VERTICAL DATUM MAY REQUIRE POSITONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE.**

**REFERENCE POINTS ARE TO BE USED TO ESTABLISH CONTROL.**

**REFERENCES POINTS ARE TO BE USED FOR VERTICAL CONTROL.**

**BASES OF BEARING**

**ARKANSAS STATE PLANE GRID EASTINGS - 0300-SOUTH ZONE**

DETERMINED FROM GPS CONTROL POINTS BASED ON STATIC GPS PTS 1-6

**GRID EASTINGS - 0300-SOUTH ZONE**

DETERMINED FROM GPS CONTROL POINTS BASED ON STATIC GPS PTS 1-6

**GRID EASTINGS - 0300-SOUTH ZONE**

DETERMINED FROM GPS CONTROL POINTS BASED ON STATIC GPS PTS 1-6
BEGIN JOB 070416
LOG MILE 2.93
SURVEY CONTROL DETAILS

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<td>1793008.5079</td>
<td>1269779.2233</td>
<td>198.081</td>
<td>C TL</td>
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SURVEY BASELINE MARKS

- POINT 1: 1791409.7772, 1267199.3945, 185.230 (STANDARD ARDOT CAP STAMPED PN:1)
- POINT 2: 1791847.9279, 1267907.6463, 185.968 (STANDARD ARDOT CAP STAMPED PN:2)
- POINT 3: 1792624.9320, 1268724.5251, 188.721
- POINT 4: 1792624.9320, 1268724.5251, 188.721
- POINT 5: 1792206.0694, 1268724.5251, 187.013
- POINT 6: 1793008.5079, 1269779.2233, 198.081

Note:
- The survey baseline marks are intended for use within the project limits.
- The CAF used to compute points is 1.0 (use CAF = 1.0 for stakeout for this project).
- Reference points are not to be used for vertical control if the primary control points listed above have been destroyed.

Professional Engineer:

ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 10667
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.


ARKANSAS STATE PLANE BEARING S - 0302 - SOUTH ZONE

REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED AT A SPECIFIC POINT.

VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE

HORIZONTAL DATUM: NAD 83 (1997)

GRID COORDINATES ARE STORED UNDER FILE NAME s070416gictl

GRID DISTANCE = GROUND DISTANCE X CAF.

THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.

A PROJECT CAF OF 0.9999099885 HAS BEEN USED TO COMPUTE USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT (OTHER MARKINGS IN THE POINT DESCRIPTION OF THE INDIVIDUAL POINT).

* (STANDARD MARKINGS COMMON TO ALL CAPITALS), OR AS INDICATED

NOTE - REBAR AND CAP - STANDARD - 5/8" REBAR WITH 2" ALUMINUM CAP STAMPED.

<table>
<thead>
<tr>
<th>Point</th>
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<th>Easting</th>
<th>Description</th>
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<tbody>
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<td>TBM 8&quot; SPIKE IN 12&quot; PIN</td>
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EXISTING BRIDGE: Existing Bridge No. M3948 (Log MI. 3.13) is 25.0' wide (24.0' clear roadway) and 87.0' long and consists of a concrete deck on steel I-beam spans (3 spans total) supported by timber pile bents. Plans of Existing Bridge Structure (Site No. 1)".

For removal of salvage items from the site. The work shall be considered incidental to the item "Removal of Existing Bridge Structure No. M3948, including dumped riprap, in accordance with Section 205. Removal of dumped riprap will not be paid for directly but shall be considered subsidiary to the item "Removal of Existing Bridge Structure No. M3948, including dumped riprap, in accordance with Section 205." The Contractor shall notify the Department prior to removal to determine the specific pieces deemed salvageable. The Contractor shall provide temporary storage and on-site loading onto ARDOT equipment loaded onto ARDOT equipment and the remaining material from the existing bridge shall become the property of the Contractor.

FILL - LEAN CLAY (CL), with gravel, reddish-brown and gray

FILL - CLAYEY SAND (SC), with gravel, dark gray and reddish-brown

LEAN CLAY (CL), brown and gray, very soft to soft

LEAN CLAY (CL), brown and gray, very soft to stiff

LEAN CLAY (CL), brown and gray, very soft to stiff

FAT CLAY (CH), very stiff

FAT CLAY WITH SAND (CH), gray, very stiff

SANDY LEAN CLAY (CL), brown and gray, very soft to stiff

SILTY SAND (SM), gray, dense to very dense

CLAYEY SAND (SC), gray and brown, loose to medium dense

FAT CLAY (CH), gray, very soft to hard

FILL - LEAN CLAY (CL), with gravel, reddish-brown and gray

FAT CLAY WITH SAND (CH), gray, very soft to hard

GENRAL NOTES: CONTINUE

ELEVATION OF SOIL BORINGS

"N" VALUES

BORING LEGEND

"N" VALUES

BORING NO. 2 - To left of center line of construction

BORING NO. 3 - To left of center line of construction

Boring NO. B-5

Sta. 190+94 - 55' Left of Center Line of Construction

Boring NO. B-6

Sta. 191+96 - 23' Left of Center Line of Construction

 Beg in Bridge Sta. 190+73.00

 E le v . 18 7 .4 8

 End Bridge Sta. 192+33.00

 Proposed Grade

END BRIDGE

SCRE

DATE: 07/2019

DATE: 07/2019

STATE: ARKANSAS

FED. RD.: HIGHWAY 133 OVER BRANCH OF BIG CREEK

STATE: ARKANSAS

FED.AID PROJ.NO.: SFH 07476 - LAYOUT - 61453

DIST.NO.: 01/2020

SHEETS TOTAL

SCALE: 1" = 20'
See Intermediate Bent details on Dwg No. 61455 for additional details.

Shoulder
2-S801E
B406E sp. @ 1'-0" o.c. max.

See End Bent details on Dwg No. 61454 for additional details.

TOLERANCE: Minus = "; Plus = "

Note: All bars designated with an "E" suffix are to be epoxy coated. Dimensions are out to out of bars.
**REINFORCING PLAN AND POURING SEQUENCE**

**Notes:**
- Pours with the same number may be placed simultaneously or separately. Hours should be placed before pour 20, 48 hours should be placed before the start of pour 2, and 12 hours should be placed between the end of a pour and the start of an adjacent pour. Hours should be placed between the beginning of the entire pour and the beginning of the next pour. Hours should be placed after the pour is completed. Hours should be placed in the time period of the entire pour.
- Time should be placed before the pour when the pour is adjacent to another pour. 72 hours shall elapse between the completion of the entire deck and the start of the next pour. 72 hours shall elapse between the end of a pour and the start of the next pour.

- Partial depth slab joint at this location. (Stop 4" above top of slab)
- Full depth slab joint at this location. (Stop 1'-2" above top of slab)
- Concrete diaphragms at Bents 2, 3 & 4 shall be poured monolithically with the deck. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence shown.
- Full depth Rail joint at this location. (Stop 4" above top of slab)
- Partial depth Rail joint at this location. (Stop 1'-2" above top of slab)

**ALTERNATE POURING SEQUENCE**

**Notes:**
- Entire slab can be placed at once as shown. 72 hours shall elapse after the completion of the entire pour and the pouring of the 40'-0" precast concrete portion of level 1. This is a matter of practicality with the limited radial pour time. The entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence shown.

**REINFORCING DETAIL**

**TRANSVERSE SLAB JOINT DETAIL**

**ALTERNATE POURING SEQUENCE**

**Notes:**
- Entire slab can be placed at once as shown. 72 hours shall elapse after the completion of the entire pour and the pouring of the 40'-0" precast concrete portion of level 1. This is a matter of practicality with the limited radial pour time. The entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence shown.
**GENERAL NOTES**

- Prestressing shall be by 0.6" diameter Low Relaxation strand with a minimum ultimate strength of 270 ksi and ultimate elongation of 0.70%.
- Prestressing strands and steel reinforcing bars in the beam shall be post-tensioned to the recommended stress levels. The beam manufacturer shall mark the strands and reinforcing bars with designated colors.
- All beams shall be grouted and cured in place with a minimum compressive strength of 6,000 psi after 28 days.
- Unreinforced bearing pads shall meet the requirements of Section 808 of the AASHTO Specifications.
- All prestressing strand shall be cut, straightened, and fly-sawed before fabrication.
- The Contractor shall submit alternate strand patterns with design calculations for review and approval by the engineer.
- The Contractor shall submit the method and sequence for releasing the strands to the Engineer for approval prior to casting of the beams.
- All work and materials shall be specified in accordance with Subsection 802.22 of the AASHTO Specifications.

**UNREINFORCED BEARING PAD DETAILS**

- Unreinforced bearing pads shall meet the requirements of Section 808 and the provisions of Section 802.22 of the AASHTO Specifications. The bearing pads shall be post-tensioned to the recommended stress levels and the initial tensile force applied to each strand shall be as specified. The Bearing Pad (TD EuroCode) shall be designed to transfer the tensioning load to the beam.

**REBAR PATTERN**

- Rebar shall be placed in accordance with the details shown. The rebar shall be protected against corrosion after cutting and bending by a coating of two layers of zinc-rich paint.
- Extreme care shall be exercised in handling and storing prestressed concrete beams, and rebar shall be stored in an upright position.
- The points of support and direction of reactions with respect to the members shall be indicated on the drawings.

**SECTION @ END SHOWING FORMED HOLES**

- The beam shall be rough floated at approximately the time of set to produce a roughened surface for bonding slabs. The top of the beam shall be rough floated of the approximate flow of wet mix concrete and then coated with a layer of zinc-rich paint to remove laitance and prepare the surface for bonding slabs.

**FRAMING PLAN**

- The points of support shall be approximately the same during transport and storage as when member is in its final position.
- The points of support must be picked up from points near the girder ends. Disregard allowances for grade and shortening, creep and shrinkage.

**STRAND PATTERN**

- Distances from the forms and spacing of strands shall conform to the requirements of Section 808.
- All prestressing strand shall be cut, straightened, and fly-sawed before fabrication.
- The Contractor shall supply alternate strand patterns with design calculations for review and approval by the engineer.

**BEARING PATTERN & END**

- All beams shall be post-tensioned to the recommended stress levels.
- All beams shall be grouted and cured in place with a minimum compressive strength of 6,000 psi after 28 days.
- Unreinforced bearing pads shall meet the requirements of Section 808.
- Concrete shall be cured for 28 days and shall have a minimum compressive strength of 6,000 psi.

**END OF SHEET**
REINFORCING PLAN FOR PRESTRESSED PRECAST BEAM

CAMBER & DEFLECTIONS (INCHES)

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SPECIAL CAMBER NOTES

The center and dead load deflection values shown on this plan are estimated based on the required minimum concrete strengths for the prestressed precast concrete beams. The contractor shall provide the Engineer with the following information:

1. Use of a 60-day concrete strength of prestressed concrete beams.
2. Estimated age of prestressed concrete beams at time of erection which shall not be less than 60 days from receipt.
3. Profile of each beam under its own weight.
4. Number of days since release of strands of each beam.
5. Profile of beam under dead load.

The camber and deflection values shown on the plans are estimated for the dimensions shown. 'W' & 'X' shall be measured along bottom of beams. 'W' is expected camber of beam at 90 days after release (Prestress + Dead Load of Beam). 'X' is Dead Load Deflection of Slab + Composite Dead Load.

PRECAST BEAM UNITS

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<td>As Shown</td>
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No.14501

SHEETS

TOTAL

FILED

REVISED

DATE

DIST. NO.

FILMED

DATE

STATE

FED. AID PROJ. NO.

DATE

SHEET

B070416X1_SX4.dgn

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARKANSAS

PRESTRESSED BEAM UNITS

BRANCH OF BIG CREEK

ROUTE

ENGINEER

ARKANSAS LICENSED ENGINEER

PRINTED BY:

DESIGNED BY:

CHECKED BY:

DRAWN BY:

H.S. Bridge Engineer

F.H. Bridge Engineer

ARKANSAS

Printed by the

Authority with the following information:

1. Use of a 60-day concrete strength of prestressed concrete beams.
2. Estimated age of prestressed concrete beams at time of erection which shall not be less than 60 days from receipt.
3. Profile of each beam under its own weight.
4. Number of days since release of strands of each beam.
5. Profile of beam under dead load.

Following receipt of the above data, the Engineer will provide an updated camber plan before strands are released.

The camber and dead load deflection values shown on the plans are estimated based on the required minimum concrete strengths for the prestressed precast concrete beams. The contractor shall provide the Engineer with the following information:

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2. Estimated age of prestressed concrete beams at time of erection which shall not be less than 60 days from receipt.
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SPECIAL CAMBER NOTES

The camber and dead load deflection values shown on this plan are estimated based on the required minimum concrete strengths for the prestressed precast concrete beams. The contractor shall provide the Engineer with the following information:

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5. Profile of beam under dead load.
TYPICAL CLOSED PANEL RAIL

TYPICAL OPEN PANEL RAIL

ELEVATION - CONCRETE RAIL

TYPICAL FULL DEPTH JOINT

TYPICAL END PANEL

DETAILS OF OPTIONAL SLIPFORMING OF CONCRETE RAIL

THREE DIMENSIONAL VIEW OF RAIL & END BENT
**Concrete (cubic yds)**

- **Gutterline**: 3 sp.  @ 6'' in bottom
- **7")** Chamfer 1" min.  clr. typr.
- **G501 - 6 spa. @ 18''  Bottom
- **G601 - 19 sp. @ 6'' in top
- **G502 - Bottom**
- **G402 - 6 spa. @ 18''  Bottom
- **G403 - Top**

**General Notes**

- Concrete double cells 5400psi x 4000 psi.
- Reinforcing Steel shall conform to AASHTO M 401 or M 502. Type A with Welded Reinforcement.
- Approach Gutters shall be measured and paid for in accordance with Section 504 of the Standard Specifications.
- Subsection 501.02(h) (2).
- (Type 3 or 4) as per 1'' x ¥'' Poured Joint Sealer

**Reinforcing Steel** (lbs.)

- **R401 (Typ.)**
- **R402**
- **R403**
- **R404**
- **R405**
- **R406**
- **R407**
- **R408**
- **R409**

**DIA.**

- **Gutterline**
- **G401** 6 spa. @ 18''  Bottom
- **G601** - 19 sp. @ 6'' in top
- **G502** - Bottom
- **G402** - 6 spa. @ 18''  Bottom
- **G403** - Top

**Marking for Approach Gutters to match that used on the bridge deck.**

**Details of Type I Special Approach Gutters**

**Branch of Big Creek**

**Route Section**

**ARKANSAS STATE HIGHWAY COMMISSION**

**LITTLE ROCK, ARKANSAS**

**DATE: 04/30/2021**
EXISTING BRIDGE: Existing Bridge No. M3977 (Log MI. 3.31) is 25.4' wide (24.0' clear roadway) and 97.0' long and consists of an asphalt bridge with two lanes. The bridge is located over Big Creek Relief, Highway 133.

**Soil Boring Information**

- **Boring No. B-1**
  - Sta. 199+95.00: 9.0' CLAYEY SAND (SC), gray and brown, very loose
  - 5.5' ASPHALT CONCRETE - 3 inches, FILL - POORLY GRADED SAND WITH CLAY (SP-SC), trace asphalt, reddish-brown
  - 5.0' CLAYEY SAND (SC), gray and brown, medium dense

- **Boring No. B-2**
  - Sta. 200+35.00: 9.0' CLAYEY SAND (SC), gray and brown, very loose
  - 5.5' ASPHALT CONCRETE - 3 inches, FILL - POORLY GRADED SAND WITH CLAY (SP-SC), trace asphalt, reddish-brown
  - 5.0' CLAYEY SAND (SC), gray and brown, medium dense

**General Notes**

- The bridge is designed as a two-lane bridge with a bridge width of 25.4 feet. The bridge is located over Big Creek Relief, Highway 133.
- The bridge is designed to meet the needs of the surrounding area and to accommodate the traffic flow.
- The bridge is constructed to meet the requirements of the Highway 133 over Big Creek Relief roadway.
**GENERAL NOTES**

Concrete in the cap shall be C30 and shall have a minimum 28 day compressive strength of 3000 psi. All reinforcing steel shall be in the dry.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to ASTM A416, with mill test reports.

For additional information, see "LAYOUT OF BRIDGE".

All bars designated with an "E" suffix are to be epoxy coated.

For Concrete Filled Steel Shell Piles, see Std. Dwg. No. 55021.

For additional information, see "VIEW C-C" and "VIEW D-D" on Dwg. No. 61464 for additional details.

**BAR LIST - PER BENT**

<table>
<thead>
<tr>
<th>Br. No.</th>
<th>Dia.</th>
<th>Pin.</th>
<th>Length</th>
<th>MARK REQ'D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4602</td>
<td>5/8&quot;</td>
<td>1</td>
<td>1'-6&quot;</td>
<td></td>
</tr>
<tr>
<td>4603</td>
<td>3/8&quot;</td>
<td>1</td>
<td>1'-6&quot;</td>
<td></td>
</tr>
<tr>
<td>4604</td>
<td>1/2&quot;</td>
<td>1</td>
<td>1'-6&quot;</td>
<td></td>
</tr>
<tr>
<td>4605</td>
<td>5/8&quot;</td>
<td>1</td>
<td>1'-6&quot;</td>
<td></td>
</tr>
</tbody>
</table>

See "VIEW F-F" and "VIEW E-E" on Dwg. No. 61464 for additional details.

See "PLAN" and "ELEVATION" on Dwg. No. 61464 for plan layout, spacing and connection details.

Dowel bars B1001E shall be drilled and grouted into the cap with an approved non-shrink grout. Embedment shown is approximate. Actual embedment and hole size shall be in accordance with the manufacturer's recommendations.

For additional information, see "LAYOUT OF BRIDGE".

Dowel bars B1001E to project thru bearing pads 18" into preformed holes in prestressed beams. Preformed holes in prestressed beams to be filled with an approved non-shrink grout.

Concrete in the cap shall have a minimum 28 day compressive strength of 3000 psi. All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) with mill test reports.
The image contains a detailed drawing and text related to the construction of a bridge relief. The text provides instructions on the pouring sequence and the placement of joints and rails. Key points include:

- **Constr. Joint** and **Closed Rail** are marked at various locations.
- **Reinforcing Plan and Pouring Sequence** is noted with specific instructions on where and how to pour the concrete.
- **ALTERNATE POURING SEQUENCE** is also highlighted with notes on deviations from the standard sequence.
- Instructions on the installation of slabs and joints are provided, with emphasis on ensuring that the work is completed in a specified sequence to prevent issues.

The diagram includes various labeled sections such as "S504E," "S505E," and "S503E," indicating specific locations on the bridge. The text also mentions "Use Type 3 or 4 Joint Sealer," indicating the type of material to be used for certain joints.

Overall, the document provides a detailed guide for the construction crew to follow when pouring concrete for the bridge relief, ensuring that all joints and rails are correctly placed to meet the structural requirements.
UNREINFORCED BEARING PAD DETAILS

Unreinforced bearing pads shall meet the requirements of Section 808 and the hardness shall be 70 durometer. Unreinforced bearing pads shall meet the requirements of Section 808 and shall be approximately the same during transport and storage as when member is in its final position. The Contractor may submit alternate strand patterns with design calculations for approval. The use of holes for lifting purposes will not be permitted. After detensioning, saw cut, grind, or bend up strands as designated by the Engineer. The Contractor shall submit the method and sequence for release of strands to the Engineer for approval prior to casting of the beams. Dimensions shown are to the center of strands. The Contractor may submit alternate strand patterns with design calculations for approval. The use of holes for lifting purposes will not be permitted. After detensioning, saw cut, grind, or bend up strands as designated by the Engineer. The Contractor shall submit the method and sequence for release of strands to the Engineer for approval prior to casting of the beams. Dimensions shown are to the center of strands.
TYPICAL OPEN PANEL RAIL

TYPICAL CLOSED PANEL RAIL

TYPICAL OPEN PANEL RAIL

FREQUENCY - CONCRETE RAIL

TYPICAL FULL DEPTH JOINT

TYPICAL END PANEL

Details of Optional Slipforming of Concrete Rail

Three dimensional view of Rail & End bent

Three Dimensional View of Rail & End Bent

Details of 40'-0" Prestressed Beam Units

Big Creek Relief

Route: Section

Arkansas State Highway Units

Little Rock, Arkansas
Concrete (cubic yds) 1'-3"

Str. 2

4'-0"

B070416X2_AG1.dgn

G602-G606

T

R403

Str.

REQ'D. 9'-8"

4"

Str.

#4 bars

E 1'-3"

F

DRAWING NO. G602-G606

2:2 0:14 P M

4'-0" Curb Transition

T

A O

Str.

10'-0" Rail

3"

Str.

8.28

10'-0" Rail

32x32

Leonard. Speed 4/30/2021

WORK SPACE:

Standard Specifications. Approach Gutters will be measured and paid for in accordance with Section 504 of the Standard Specifications. Concrete shall be Class S (AE) (f’c = 4,000 psi).

GENERAL NOTES

Length (ft.)

4'-9"

4'-9"

SECTION A-A

ONE END OF BRIDGE

PLAN

Quantities for Type 2 Special Approach Gutter

<table>
<thead>
<tr>
<th>Length  (ft)</th>
<th>Reinforcing Steel (lbs)</th>
<th>Concrete (cubic yds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot; to 3&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GENERAL NOTES

Concrete supplies SSP (PS) x 4,000 lbs.

Reinforcing Steel will conform to ANSI M 38 or M 320, Type 4 with full test reports. Gr. 60 f/y x 6500 lbs.

Approach Gutter will be measured and paid for in accordance with Section 504 of the Standard Specifications.

Surface finish for Approach Gutter to match that used on the bridge deck.

SECTION B-B

SECTION C-C

DETAILS OF TYPE 2 SPECIAL APPROACH GUTTERS

BIG CREEK RELIEF ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

BIG CREEK RELIEF ROUTE SECTION

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARKANSAS
EXISTING BRIDGE: Existing Bridge No. M3949 (Log MI. 3.45) is 25.1' wide (23.6' clear roadway) and 126.0' long and consists of a concrete deck on steel I-beam spans (4 spans total) supported by timber pile bents. Plans of the existing bridge are available upon request to the Construction Contract Procurement Section of the Program Management Division.

REMOVAL AND SALVAGE: After the new bridge is open to traffic, the Contractor shall remove existing Bridge No. M3949 in accordance with Section 205. The Nine beams in best condition (to be identified by the Contractor) shall become the property of the Contractor. The Contractor shall notify the Department prior to cutting the specific piers deemed necessary. The Contractor shall spring existing bridge scour protection and remove existing bridge railings.

BORING LEGEND
- **AR** - AARCO CONCRETE - 2 inches, red, sticky, very stiff
- **LS** - LEAN CONCRETE - 6 inches, red, sticky, very stiff
- **SM** - SANDY LEAN CLAY (CL) - trace gravel, brownish gray, medium stiff to very stiff
- **SC** - CLAYEY SAND WITH GRAVEL (SC) - fine grained, brown and gray, loose to medium dense
- **ST** - SANDY CLAY (CL) - brownish gray, stiff to very stiff
- **SH** - SILTY SAND (SM) - fine grained, brownish gray, medium dense
- **LF** - LEAN FILM - trace sand, brownish gray, very soft
- **FO** - FROZEN SOIL - traces of soil, very soft
- **CL** - CLAY - brownish gray, stiff to very stiff
- **OR** - ORGANIC SOIL - trace organic matter, very soft
- **CL** - CLAY - brownish gray, stiff to very stiff
- **SI** - Silt (SL) - trace sand, very soft

GENERAL NOTES - CONTINUED
- The existing bridge is open to traffic, the Contractor shall remove the existing bridge M3949 in accordance with Section 205. The bridge is in good condition to be identified by the Contractor. The Contractor shall remove the existing bridge railings.

ELEVATION OF SOIL BORINGS

<table>
<thead>
<tr>
<th>STA</th>
<th>N</th>
<th>Boring No.</th>
<th>Soil Description</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>207+68</td>
<td>23</td>
<td>B-3</td>
<td>FAT CLAY (CH), trace sand, gray, very stiff</td>
<td>22.0'</td>
</tr>
<tr>
<td>209+43</td>
<td>32</td>
<td>B-4</td>
<td>FAT CLAY (CH), trace sand, gray and brown, stiff to very stiff</td>
<td>16.0'</td>
</tr>
</tbody>
</table>

**BORING DATA**

- **Sta. 207+68** - 47' Right of Center Line of Construction
- **Sta. 209+43** - 46' Right of Center Line of Construction

**LAYOUT OF BRIDGE**

- Bridge No. 1: Sta. 207+55.00
- Bridge No. 2: Sta. 208+35.00
- Bridge No. 3: Sta. 208+75.00
- Bridge No. 4: Sta. 209+15.00
- Bridge No. 5: Sta. 209+20.00

**SOIL BORINGS**

- **N 1**
  - **Boring No. B-3**: Sta. 207+68 - 47' Right of Center Line of Construction
  - **N 2**
  - **Boring No. B-4**: Sta. 209+43 - 46' Right of Center Line of Construction
GENERAL NOTES
Concrete to be placed in the cap below Class 5 with a maximum 18 day compressive strength of 5,000 psi. All other concrete in the project is to be placed in the Class 5 concrete per the notes.

All reinforcing steel is to be Grade 60 per AASHTO M 322, Type A, with mill test reports. For additional information, see "LAYOUT OF BRIDGE".

Steel bars designated with an "E" suffix are to be epoxy coated. For concrete filled steel shell piles, see standard drawings.

For details, see Dwg. No. 61480.

† See "VIEW D-D" for additional details.
† See "PLAN" and "ELEVATION" on Dwg. No. 61475 for plan layout, spacing and other relevant information.
† Dowel bars B1001E to project through bearing pads 18" into preformed holes in the cap. The hole size shall be in accordance with the manufacturer's recommendations.
† Dowel bars B1001E shall be drilled and grouted into the cap with an approved epoxy. Dowel bars shown in coordination with all other elements and take place within the tolerance of the manufacturer's recommendations. Dowel bars B1001E to project through all bearing pads 18" into preformed holes in the cap. Dowel bars shown to be filled with an approved non-shrink grout.

Concrete in the cap shall be Class 5 with a minimum 28 day compressive strength of 3,500 psi. Concrete in the cap shall be used with a maximum one cubic yard per cubic yard of sand and sandstone, and shall be poured in the dry. All exposed corners to be chamfered " unless otherwise noted.

For additional information, see "LAYOUT OF BRIDGE".

Concrete in the cap shall be Class 5 with a minimum 28 day compressive strength of 3,500 psi. Concrete in the cap shall be used with a maximum one cubic yard per cubic yard of sand and sandstone, and shall be poured in the dry. All exposed corners to be chamfered " unless otherwise noted.

For additional information, see "LAYOUT OF BRIDGE".

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For additional information, see "LAYOUT OF BRIDGE".

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For additional information, see "LAYOUT OF BRIDGE".

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For additional information, see "LAYOUT OF BRIDGE".

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For additional information, see "LAYOUT OF BRIDGE".

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For additional information, see "LAYOUT OF BRIDGE".

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For additional information, see "LAYOUT OF BRIDGE".

Concrete in the cap shall be Class 5 with a minimum 28 day compressive strength of 3,500 psi. Concrete in the cap shall be used with a maximum one cubic yard per cubic yard of sand and sandstone, and shall be poured in the dry. All exposed corners to be chamfered " unless otherwise noted.

For additional information, see "LAYOUT OF BRIDGE".

Concrete in the cap shall be Class 5 with a minimum 28 day compressive strength of 3,500 psi. Concrete in the cap shall be used with a maximum one cubic yard per cubic yard of sand and sandstone, and shall be poured in the dry. All exposed corners to be chamfered " unless otherwise noted.

For additional information, see "LAYOUT OF BRIDGE".

Concrete in the cap shall be Class 5 with a minimum 28 day compressive strength of 3,500 psi. Concrete in the cap shall be used with a maximum one cubic yard per cubic yard of sand and sandstone, and shall be poured in the dry. All exposed corners to be chamfered " unless otherwise noted.

For additional information, see "LAYOUT OF BRIDGE".

Concrete in the cap shall be Class 5 with a minimum 28 day compressive strength of 3,500 psi. Concrete in the cap shall be used with a maximum one cubic yard per cubic yard of sand and sandstone, and shall be poured in the dry. All exposed corners to be chamfered " unless otherwise noted.

For additional information, see "LAYOUT OF BRIDGE".

Concrete in the cap shall be Class 5 with a minimum 28 day compressive strength of 3,500 psi. Concrete in the cap shall be used with a maximum one cubic yard per cubic yard of sand and sandstone, and shall be poured in the dry. All exposed corners to be chamfered " unless otherwise noted.

For additional information, see "LAYOUT OF BRIDGE".

Concrete in the cap shall be Class 5 with a minimum 28 day compressive strength of 3,500 psi. Concrete in the cap shall be used with a maximum one cubic yard per cubic yard of sand and sandstone, and shall be poured in the dry. All exposed corners to be chamfered " unless otherwise noted.

For additional information, see "LAYOUT OF BRIDGE".

Concrete in the cap shall be Class 5 with a minimum 28 day compressive strength of 3,500 psi. Concrete in the cap shall be used with a maximum one cubic yard per cubic yard of sand and sandstone, and shall be poured in the dry. All exposed corners to be chamfered " unless otherwise noted.

For additional information, see "LAYOUT OF BRIDGE".
REINFORCING PLAN AND POURING SEQUENCE

Notes:
1. Pours with the same number may be placed simultaneously or separately. All pours shall be poured monolithically.
2. Pouring of the rail joint shall be accomplished before the entire slab unit has been placed.
3. Concrete diaphragms at Bents 2, 3, & 4 shall be poured monolithically with the adjacent pour. 72 hours shall elapse between the completion of the entire deck and the pouring of the rail joint. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence plan.
4. 72 hours shall elapse between the end of a pour and the start of the next pour. 48 hours shall elapse before the end of a pour and the start of the next pour. 32 hours shall elapse between the completion of the entire deck and the start of the next pour. 15 Sp. @ 6" = 15'-0"
5. Pouring Sequence (Pour 1) 40'-0" (Span 1) 20'-0" (Pour 1) 20'-0" (Pour 2) 20'-0" (Pour 3) 20'-0" (Pour 4)
6. Pouring Sequence (Pour 2) 40'-0" (Span 2) 20'-0" (Pour 2) 20'-0" (Pour 3) 20'-0" (Pour 4)
7. Pouring Sequence (Pour 3) 40'-0" (Span 3) 20'-0" (Pour 1) 20'-0" (Pour 2) 20'-0" (Pour 3) 20'-0" (Pour 4)
8. Pouring Sequence (Pour 4) 40'-0" (Span 4) 20'-0" (Pour 1) 20'-0" (Pour 2) 20'-0" (Pour 3) 20'-0" (Pour 4)

REINFORCEMENT DETAIL

Note:
1. Full-depth rail joint at this location. (Stop 4" above top of slab)
2. Partial depth rail joint at this location. (Stop 1'-2" above top of slab)
3. Align with rail joint unless noted otherwise. See "TRANSVERSE SLAB JOINT DETAIL".

ALTERNATE POURING SEQUENCE

Notes:
1. Alternate pour can be placed once or twice. 72 hours shall elapse between the completion of the entire deck and the pouring of the rail joint. Concrete diaphragms at Bents 2, 3 & 4 shall be poured monolithically with the adjacent pour. 72 hours shall elapse between the completion of the entire deck and the pouring of the rail joint. Any railing pours made before the entire slab unit has been placed must obtain approval from the Engineer for any deviations from the pouring sequence plan.
2. 72 hours shall elapse between the end of a pour and the start of the next pour. 48 hours shall elapse before the end of a pour and the start of the next pour.
Exposed surfaces may be given a light brush finish or a Class 3, and shall present a smooth, uniform appearance and texture. Vertical lines shown on the plans or as directed by the Engineer shall be closed loop on top.

Bridge Slab

For location of full and partial depth rail joints, see Fig. No. 61479. Note:

Three-dimensional view of rail and end bent

Approach gutter

FIG. 61479

DETAIL Z

FOR LOCATION OF FULL AND PARTIAL DEPTH RAIL JOINTS

Note:

For location of full and partial depth rail joints, see Fig. No. 61479.
QUANTITIES FOR TYPE 3 SPECIAL APPROACH GUTTER

ONE END OF BRIDGE

<table>
<thead>
<tr>
<th>Section</th>
<th>Qty.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-A</td>
<td></td>
<td>Top (shown in JV)</td>
</tr>
<tr>
<td>B-B</td>
<td></td>
<td>Bottom (shown in JV)</td>
</tr>
<tr>
<td>C-C</td>
<td></td>
<td>Connector Plate - See Std. Dwgs. GR-10 For Bolt Spacing.</td>
</tr>
</tbody>
</table>

GENERAL NOTES
Concrete grade #300 2800 psi x 4000 psi.
Reinforcing Steel shall conform to AASHTO M 348, Type A with mill test reports.
Gravel fill = 42000 psi.
Approach gutters will be measured and paid for in accordance with Section 504 of the Standard Specifications.

Surface finish for Approach Gutters to match that used on the bridge deck.

ARKANSAS STATE HIGHWAY COMMISSION
ROUTE 8144 - APPROACH GUTTER - 6043

DESIGNED BY:
CHECKED BY:
DRAWN BY:

PRINT DATE:
DATE: 4/20/2015
FILE NAME: G602-G606
Concrete (cubic yds) 12/2019
3'-7"
Str.
DRAWING NO.
1'-8"
35
STA 191+00 TO STA 192+33

BRIDGE TOE OF SLOPE STA 192+18.17

ELEV. = 180.00
ELEV. = 176.19
ELEV. = 176.16
ELEV. = 176.12

STG. 2 AREA CUT = 186 SQ. FT.
STG. 2 VOLUME CUT = 106 CU. YD.

STG. 2 AREA CUT = 287 SQ. FT.
STG. 2 VOLUME CUT = 197 CU. YD.

STG. 2 AREA CUT = 298 SQ. FT.
STG. 2 VOLUME CUT = 896 CU. YD.

STG. 2 AREA CUT = 228 SQ. FT.
STG. 2 VOLUME CUT = 141 CU. YD.
STA 201+15 TO STA 204+00
ELEV. = 178.60
BEGIN SP. DITCH LT. -0.17%
STA 204+00.00
ELEV. = 180.13
END SP. DITCH LT. 0.18%
STA 204+00.00

STG. 1 AREA CUT = 293 SQ. FT.
STG. 1 AREA FILL = 689 SQ. FT.
STG. 1 VOLUME CUT = 823 CU. YD.
STG. 1 VOLUME FILL = 1985 CU. YD.

STG. 2 AREA CUT = 0 SQ. FT.
STG. 2 VOLUME FILL = 0 CU. YD.
STG. 2 VOLUME CUT = 361 CU. YD.

STG. 2 AREA CUT = 54 SQ. FT.
STG. 2 AREA FILL = 0 SQ. FT.
STG. 2 VOLUME CUT = 361 CU. YD.

STG. 2 AREA CUT = 141 SQ. FT.
STG. 2 VOLUME FILL = 0 CU. YD.
STG. 2 VOLUME CUT = 800 CU. YD.
STA. 209+15.00
ELEV. = 176.00
END SP. DITCH LT. 0.33%
STA. 211+40.00
ELEV. = 180.00
BEGIN SP. DITCH RT. 0.45%
STA. 211+20.00
ELEV. = 180.92
END SP. DITCH RT. 0.45%
STA. 212+00.00
ELEV. = 181.36

STG. 2 AREA CUT = 198 SQ. FT.
STG. 2 AREA FILL = 0 SQ. FT.
STG. 2 VOLUME FILL = 0 CU. YD.

STG. 2 AREA CUT = 159 SQ. FT.
STG. 2 AREA FILL = 0 SQ. FT.
STG. 2 VOLUME FILL = 0 CU. YD.

STG. 2 AREA CUT = 120 SQ. FT.
STG. 2 AREA FILL = 0 SQ. FT.
STG. 2 VOLUME FILL = 0 CU. YD.

STG. 2 AREA CUT = 103 SQ. FT.
STG. 2 AREA FILL = 0 SQ. FT.
STG. 2 VOLUME FILL = 0 CU. YD.

STA. 209+6 TO STA. 22+00

END BRIDGE STA. 209+15.00

X:
PROJECTS\ARDOT_166693_070416_Big Creek Reliefs\Design\Civil\Drawings\070416_21_CX_001.dgn

WORKSPACE:
LANDON MILLER

ARDOT

1:36:21 PM
8/3/2021

$ REV DATE$

REVISED DATE:
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

GENERAL NOTES:
The bridge end pavement shall be defined in a section of embankment, not less than 20 feet long adjacent to the bridge end, together with the side slopes and slabs under the bridge including the end of the asphaltic concrete layer. A 3-inch horizontal layer shall be made and compacted by the use of mechanical equipment to the satisfaction of the Engineer, prior to Subsections 27-60A and 27-61B for construction requirements.

STANDARD DETAILS FOR EMBANKMENT CONSTRUCTION AND BACKFILL AT BRIDGE ENDS

ARKANSAS STATE HIGHWAY COMMISSION

DRAWN BY: L.G. REED
CHECKED BY: J.M. CURTIS
FILED BY: J.M. CURTIS
SIGNED BY: J.M. CURTIS
SHEET: 55000

ORDERING NO. 55000
The name of the bridge as shown on the plans shall be placed on Line 1-3 using 1/8" raised letters and numerals 1/2" high.  Examples:  HS20

Company Name

Place the name of the company awarded the construction contract here using 8" raised letters and numerals 8" high.  Example:  ABCD CONSTRUCTION, INC.

Place the name of the company awarded the construction contract here using 8" raised letters and numerals 8" high.  Example:  AICO CONSTRUCTION, INC.

Place the Bridge number here using 1/8" raised letters and numerals 1/8" high.  Example:  01234

Place the Year in which Contract was awarded here using 8" raised numerals 8" high.  Example:  2001

GENERAL NOTES

Alternate attachments shall be in kind and dimension with those shown in Section 803, except as otherwise noted.  Name plates shall be cast bronze and shall meet the material requirements as specified in Section 802.

BODY OF PLATE

Each plate shall be 1/2" thick and shall include four tapering cone lugs 1/2" to 1 1/2" long.  The border and all lettering shall be raised 1/8" above the face of plate and shall be polished.  All lettering shall be in gatsby, square cut and not tapered.  The number of plates required and the location and type of the plate for each bridge shall be as designated on the plans.

TYPICAL BRIDGE NAME PLATE
CULVERT (REFER TO DETAIL)

3'-1/2" SPACING BOLTED TO POSTS WITH BASE PLATES @ A
BY THE ENGINEER.

USING METHODS AND MATERIALS APPROVED
SHALL BE INSTALLED BY DRILLING AND EPOXING
INTERIOR OR EXTERIOR WALL, ANCHOR BOLTS
AND POST(S) MUST BE INSTALLED OVER AN
OF CULVERT. WHEN THIS IS NOT POSSIBLE
TO AVOID INTERIOR AND EXTERIOR WALLS
NOTE: WHEN POSSIBLE, POSTS SHALL BE SPACED

PLAN LAYOUT OF TYPE A GUARDRAIL AT LOW-FILL CULVERTS
PERMIT FULL EMBEDMENT OF GUARDRAIL POSTS AS SHOWN ON STD. DWG. GR-6.

NOTE: THIS DETAIL IS TO BE USED ONLY WHEN THE COVER OVER THE CULVERT DOES NOT

S H O U L D E R  E D G E
1'-6" MIN.
2'-0" MIN.
P A V 'T /S O I L  L I N E
TOP SLAB OF R.C. BOX CULVERT
TO T O P  O F  W I N G  W A L L

1" DIA. HOLES (TYP.)
12"
3"
1/4"
5 "
8 "
7"
1"
1/4"
5 "
8 "
11/4"
11/4"
8 "
7"
2"
1/4"
5 "
8 "
11/4"
11/4"
8 "
7"
2"

SHOP WELD

BASE PLATE
WASHER PLATE

W6x9
OR
W6x8.5

IN SOLID ROCK (W-BEAM)
DETAIL OF POST PLACEMENT

BASE PLATE
M270 (GR. 36) STEEL
3"x8 1/2"x12" AASHTO

WASHER PLATE
M270 (GR. 36) STEEL
3"x8 1/2"x1 1/2" AASHTO

Notes: For overlying soil depths (A) ranging from 0 to 18", the depth of required drilling (B) is equal to either 12" or
44" minus the depth of soil whichever is less.

Zone A & B:
Backfill according to Section 617.03(a).
Zone B:
Backfill in 6" lifts with material meeting the requirements of Section 802.02(c) Alternate
Backfill according to Section 617.03(a).

Case 1
Case 2

SOIL
SOIL
SOLID ROCK

IN SOLID ROCK (W-BEAM)
DETAIL OF POST PLACEMENT

BASE PLATE
M270 (GR. 36) STEEL
3"x8 1/2"x12" AASHTO

WASHER PLATE
M270 (GR. 36) STEEL
3"x8 1/2"x1 1/2" AASHTO

Notes: For overlying soil depths (A) ranging from 18" to 44", the depth of required drilling (B) is equal to either 12" or
44" minus the depth of soil whichever is less.

Zone A:
44" minus the depth of soil whichever is less.

Zone B:
Drilling (B) is equal to 24".

Notes: For overlying soil depths (A) ranging from 0 to 18", the depth of required drilling (B) is equal to either 12" or
44" minus the depth of soil whichever is less.

Zone A & B:
Backfill according to Section 617.03(a).
Zone B:
Backfill in 6" lifts with material meeting the requirements of Section 802.02(c) Alternate
Backfill according to Section 617.03(a).

50 MPH OR LESS
FOR DESIGN SPEEDS OF
55 MPH OR MORE
FOR DESIGN SPEEDS OF
50 MPH OR LESS
FOR DESIGN SPEEDS OF
55 MPH OR MORE

BEHIND CURB (W-BEAM)

DETAIL OF GUARDRAIL PLACEMENT
BEHIND CURB (W-BEAM)

FOR DESIGN SPEEDS OF 55 MPH OR MORE
PLACE GUARDRAIL POSTS AGAINST BACK OF CURB.

FOR DESIGN SPEEDS OF 50 MPH OR LESS
ALSO PLACE GUARDRAIL WITH FACE OF CURB.

DETAIL OF GUARDRAIL PLACEMENT
BEHIND CURB (W-BEAM)

FOR DESIGN SPEEDS OF 55 MPH OR MORE
PLACE GUARDRAIL POSTS AGAINST BACK OF CURB.

FOR DESIGN SPEEDS OF 50 MPH OR LESS
ALSO PLACE GUARDRAIL WITH FACE OF CURB.

DETAIL OF GUARDRAIL PLACEMENT
BEHIND CURB (W-BEAM)

FOR DESIGN SPEEDS OF 55 MPH OR MORE
PLACE GUARDRAIL POSTS AGAINST BACK OF CURB.

FOR DESIGN SPEEDS OF 50 MPH OR LESS
ALSO PLACE GUARDRAIL WITH FACE OF CURB.

DETAIL OF GUARDRAIL PLACEMENT
BEHIND CURB (W-BEAM)

FOR DESIGN SPEEDS OF 55 MPH OR MORE
PLACE GUARDRAIL POSTS AGAINST BACK OF CURB.

FOR DESIGN SPEEDS OF 50 MPH OR LESS
ALSO PLACE GUARDRAIL WITH FACE OF CURB.

DET. OF GUARDRAIL PLACE. BEHIND CURB
DET. OF STEEL LINE POST CONN. & ADDED
CONNECTION TO R.C. BOX CULV'T., DELETED
BLOCKOUT, ADDED DET. OF GUARDRAIL
CHANGED STEEL SPACER BLOCK TO WOOD
METHODS OF INSTALLATION OF GUARDRAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARDRAIL TERMINAL (TYPE 2)

METHOD OF INSTALLATION OF GUARDRAIL AT FULL SHOULDER WIDTH BRIDGES USING GUARDRAIL TERMINAL (TYPE 2)

METHOD OF INSTALLATION OF GUARDRAIL USING GUARDRAIL TERMINAL (TYPE 1)
(FULL SHOULDER WIDTH OR LESS BRIDGES)

LEGEND

- TIMBER BEAM GUARDRAIL TERMINAL
- GUARDRAIL TERMINAL (TYPE 2)

ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

STANDARD DRAWING OR-8
NORMAL ROADWAY WIDTH
WIDTH OF SURFACING
SECTION ON CURVE
SECTION ON TANGENT

PREVIOUS PAGE
NORMAL ROADWAY WIDTH
WIDTH OF SURFACING
SECTION ON CURVE
SECTION ON TANGENT

NOTE: NORMAL SECTION TO EACH SIDE TO SUPPORT GUARDRAIL.

SECTION A-A
DETAILS OF WIDENING FOR GUARDRAIL

SECTION B-B
DETAILS SHOWING POSITION OF GUARDRAIL ON HIGHWAY

GUARDRAIL DETAIL
STANDARD DRAWING GR-9

ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

SHOULDER PIER PROTECTION
MEDIAN PIER PROTECTION

METHOD OF INSTALLATION OF GUARDRAIL AT FIXED OBSTACLE
THREE BEAM RAIL WITH STEEL TUBING BLOCKOUT AND STEEL POST
POSTS 1-7

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

GENERAL NOTES:
1.Posts shall be set perpendicular to the roadway profile and
vertically in cross section.
2. Wood posts & wood blocks shall be either No. 1 Structural or
better w/ 10 f. No. 1 or 1400 f. Southern Pine.
THREE BEAM GUARDRAIL CONNECTION AT BRIDGE ENDS

General Notes:
The three beam guardrail for bridge is made of steel and the various sections shall be made up of regular and shall be tested and finished shall be type A.
The post shall be connected at one end to the guardrail and shall be type B.
The thru bolts shall be sufficient to resist through the full thickness of the guardrail and shall be placed in the proper position to resist the guardrail from being carried forward.
Refer to Schedule for post details.

Ref. 20000, 010200, 010210, 010230, 020200, 020210, 020250, 020260 for guardrail details.
CONCRETE PAVEMENT

BROKEN LINE STRIPING

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 STOP LINE DETAILS

NOTES:
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISIONS 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 PLANS.

30" STOP LINE

Continuous White

2' Offset Line

Continuous Yellow

2" Offset Line

Continuous Yellow

1' Offset Line

Continuous Yellow

Edge of Pavement

PAVEMENT EDGE LINE MARKING

DETAIL OF STANDARD RAISED PAVEMENT MARKERS

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1
NOTES FOR PIPE UNDERDRAINS

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE 1. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS." IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

2. 4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS ShOWN HEREON. LATERALS WILL BE MEASURED AND PAID FOR AT 4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

3. EXISTING 4" PIPE UNDERDRAINS MAY BE CONNECTED TO PROPOSED DROP INLETS OR EXTENDED WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS." UNDERDRAIN OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR AT 4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE III 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 PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS." EXISTING UNDERDRAIN OUTLET PROTECTORS SHALL BE REMOVED AND DISPOSED OF AT SAGS AND AT 250' INTERVALS ON GRADES.

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 FOR REMOVAL OF EXISTING UNDERDRAINS SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS. EXISTING UNDERDRAIN OUTLET PROTECTORS SHALL BE REMOVED UNDER THE FLOW REMOVAL AND DISPOSAL OF EXISTING OUTLET PROTECTORS.

7. AT LOCATIONS WHERE A SINGLE LATERAL IS USED THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: 1. INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING PU-1 AND GROUT THE UNUSED HOLE OR 2. INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE.

8. THE WIDTH OF THE TRENCH AT THE TOP. GRANULAR MATERIAL SHALL BE WRAPPED ALL AROUND & LAPPED AT TOP.

9. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND GRAVEL. LAP FABRIC 12" OR O.D. PIPE +8".

10. NOTE: Drainage functions specified on the plans. The underdrain cover shall be thoroughly compacted earth and shall be subsidiary to pipe underdrain. Drainage functions shall be measured with geotextile fabric, f fabic 12" or on the width of the trench at the top.
**GENERAL NOTES**

2. SuperElevation Values shown on the Cross Sections are values to permit simpler calculations.

**ABBREVIATIONS**

- NC - Normal Crown
- RC - Reverse Crown, SuperElevation at Normal Crown Slope
- L - Distance from Beginning of SuperElevation Transition to Any Point (ft.)
- d - Width of Pavement
- Ls - Length of SuperElevation Transition (ft.)
- C - Normal Crown (ft.)

**ADDED FORMULA**

**ISSUED**

534-1-9-87

**DATE**

**DATE FILMED**

ARKANSAS STATE HIGHWAY COMMISSION

**REVISION**

**SUPERELEVATION TABLE FOR TWO-WAY TRAFFIC**

<table>
<thead>
<tr>
<th>Degree</th>
<th>25 MPH</th>
<th>30 MPH</th>
<th>35 MPH</th>
<th>40 MPH</th>
<th>45 MPH</th>
<th>50 MPH</th>
<th>55 MPH</th>
<th>60 MPH</th>
<th>65 MPH</th>
<th>70 MPH</th>
<th>75 MPH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1° 0' 25'</td>
<td>NC</td>
<td>NC</td>
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<td>NC</td>
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<td>2° 30' 15'</td>
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<td>32° 15' 10'</td>
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</table>

**SUPERELEVATION FORMULA**

\[
\text{SuperElevation} = \frac{L_{de}}{L_{s}}
\]

**NOTES**

1. On pavement with two-way traffic, the SuperElevation shall be revolved on the Inside pavement edge unless otherwise noted on the plans.

2. Lengths for L may be rounded in multiples of 25 ft. or 50 ft. as follows:

- 3 Lane Undivided - +20%
- 4 Lane Undivided - +50%
- 5 Lane Undivided - +80%
- 6 Lane Undivided - +100%

3. Rates of SuperElevation shall be computed on straight line method using applicable Ls.

4. Maximum SuperElevation outside pavement or subgrade edge.

5. Maximum SuperElevation inside pavement or subgrade edge.

6. Control Point (PC), OR (PT).

7. SuperElevation for two-way traffic.

8. Tables and method of SuperElevation.

9. Standard Method when SuperElevation revolves around inner subgrade point or inner pavement edge.

10. Standard Method when SuperElevation revolves around center line.

REVISED SIGN DESIGNATIONS

REVISED NOTE 1, ADDED NOTE 9

REVISED DETAIL OF RAISED PAVEMENT MARKERS

REVISION 2

6-8-95

ADDED (ADAD)

ROAD WORK

FILMED

DIRECTED BY THE ENGINEER.

MARKERS (TYPE II) 40'

INSTALL RAISED PAVEMENT

2.

FOR DIRECTING DETOUR TRAFFIC.

THE DETOUR MODIFIED AS NEEDED FOR THE DURATION OF ROADWAY.

WITH HARD SURFACED PLACED 8 CHEVRONS WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY

MPH

XX

OR

(D)

M4-8

W 1-3

1000 FT

500'

CLOSED WORK

MPH

XX

ROAD

500'

ROAD

500'

ROAD

ROAD

W 20-1

R11-3A

1500 FT

MILES

CLOSED ROAD

LOCAL TRAFFIC ONLY

CLOSED ROAD

NOTES AHEAD

3.

4.

APPROACHING TRAFFIC.

CHANNELIZING DEVICES ARE TO BE EXTENDED STATION, A SINGLE FLAGGER MAY BE USED.

NOTES

SEE GENERAL NOTES

KEEP WORK AREA

HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.

W3-5

ROAD

500'

ROAD

500'

ROAD

ROAD

W 20-1

R11-3A

1500 FT

MILES

CLOSED ROAD

LOCAL TRAFFIC ONLY

CLOSED ROAD

NOTES AHEAD
When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with a Manual For Assessing Safety Hardware (MASH) approved Crash Cushion. Payment for Crash Cushions shall be made under the item of 'Temporary Impact Attenuation Barrier.'
CLEARING AND GRUBBING

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

EXCAVATION

EXISTING GROUND
INTERCEPTOR OR DIVERSION DITCH
EXISTING GROUND
NOTE: NUMBER OF PHASES WILL VARY, TIMES SHOWN FOR ILLUSTRATION
GENERAL NOTE
PHASE 1 EXCAVATION
PHASE 2 EXCAVATION
FINAL PHASE EXCAVATION

EXISTING GROUND

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.

EMBANKMENT

EXISTING GROUND
INTERCEPTOR OR DIVERSION DITCH
EXISTING GROUND
NOTE: NUMBER OF PHASES WILL VARY, TIMES SHOWN FOR ILLUSTRATION
GENERAL NOTE
PHASE 1 EMBANKMENT
PHASE 2 EMBANKMENT
FINAL PHASE EMBANKMENT
SIDE DITCH
STABILIZE AS REQUIRED
VARIOUS EROSION CONTROL DEVICES

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.
3. Place phase 2 embankment with permanent or temporary seeding.
4. Place final phase of embankment.

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

EQUIPMENT

Arkansas State Highway Commission
Temporary Erosion Control Devices

Arkansas State Highway Commission
Temporary Erosion Control Devices
Standard Drawing TEC-3