CLR PROJECT #04-17-DR-207
BRECKENRIDGE DRIVE
CULVERT REPLACEMENT
AT GRASSY FLAT CREEK

2019-2021
BOND PROGRAM

ČEŠČE POVRŠINE

811 Know what's below. Call before you dig.

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 WEST MARKHAM STREET
LITTLE ROCK, ARKANSAS 72201
### General Notes and Quantities

<table>
<thead>
<tr>
<th>ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.01</td>
<td>Site Preparation (soil modification)</td>
<td>LS</td>
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<tr>
<td>3.01</td>
<td>Underdrain Excavation</td>
<td>CY</td>
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<td>4.01</td>
<td>Aggregate Base Course (Class II)</td>
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<td>5.01</td>
<td>Asphalt Surface Course</td>
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<td>6.01</td>
<td>Pavement Binder Course</td>
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<tr>
<td>8.01</td>
<td>Concrete Curb and Gutter (Class 3)</td>
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<td>9.01</td>
<td>Backfill, 4&quot;</td>
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<td>10.01</td>
<td>Catch Basin, 4&quot; Box</td>
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<td>11.01</td>
<td>Curb and Gutters</td>
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<td>11.11</td>
<td>Reinforcement Concrete</td>
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<td>Building Block (Brick)</td>
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<td>Maintenance of Traffic</td>
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<td>16.01</td>
<td>Pavement</td>
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<tr>
<td>16.01</td>
<td>&quot;T&quot; Top Inlet</td>
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<td>16.01</td>
<td>&quot;T&quot; Top Manhole</td>
<td>LS</td>
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<tr>
<td>16.01</td>
<td>&quot;T&quot; Top Manhole</td>
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<td>21.01</td>
<td>Turnout / Exclusion Safety Systems</td>
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<td>40.01</td>
<td>x Bean Reinforced Concrete Brick</td>
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<td>49.01</td>
<td>x Reinforced Concrete Box Culvert - Triangular End Section</td>
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<td>60.01</td>
<td>Obstacle Patches (Type 1)</td>
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1. In areas to receive bituminous paving, concrete driveways, or curb and gutter, subgrade shall be compacted to a density not less than 95% of maximum density obtained at optimum moisture content. (AASHTO T-180)

2. For areas of subgrade preparation to receive concrete sidewalks, subgrade shall be compacted to a density not less than 90% of maximum density. (AASHTO T-180)

3. Crushed stone = density of compacted material in each course shall be compacted to a density not less than 100% of maximum density. (AASHTO T-181)

4. Box Culvert: 16" span x 4' rise at 18.75 degree skew H-20 loading from block industry or equivalent.
GENERAL NOTES:

1. AREA BETWEEN 1.5 INCH ASPHALT SURFACE COURSE AND TOP OF BOX SHALL BE FILLED WITH ASPHALT Binder Course (MAX 3" TOTAL THICKNESS). Curb and Sidewalk shall be concrete filled to TOP OF BOX, Sidewalk to Tie into Proposed Headwall.

2. BACKFILL TO BE COMPACTED TO A DENSITY NOT LESS THAN 95% MODIFIED PROCTOR DENSITY.

3. 9" CLASS 7 BASE COURSE BEDDING MATERIAL COMPACTED TO A DENSITY NOT LESS THAN 100% MODIFIED PROCTOR DENSITY. COMPACT TOP 8" OF SUBGRADE AND ALL FILL TO A DENSITY NOT LESS THAN 95% MODIFIED PROCTOR DENSITY.

4. TRENCHING DURING INSTALLATION MUST MEET OSHA REQUIREMENTS.

5. SEE SHEET CS FOR BOX CULVERT SECTION DETAILS.
GENERAL NOTES:

1. AREA BETWEEN 1.5 INCH ASPHALT SURFACE COURSE AND TOP OF BOX SHALL BE FILLED WITH ASPHALT BINDER COURSE (MIN 3" TOTAL THICKNESS). CURB AND SIDEWALK SHALL BE CONCRETE FILLED TO TOP OF BOX. SIDEWALK TO TIE INTO PROPOSED HEADWALL.

2. BACKFILL TO BE COMPACTED TO A DENSITY NOT LESS THAN 95% MODIFIED PROCTOR DENSITY.

3. 9" CLASS 7 BASE COURSE RUSHTING MATERIAL COMPACTED TO A DENSITY NOT LESS THAN 100% MODIFIED PROCTOR DENSITY. COMPACT TOP 8" OF SUBGRADE AND ALL FILL TO A DENSITY NOT LESS THAN 95% MODIFIED PROCTOR DENSITY.

4. TRENCHING DURING INSTALLATION MUST MEET OSHA REQUIREMENTS.
TYPICAL APRON CROSS SECTION

HEADWALL AND APRON NOTES:
1. REFER TO CUR DETAIL PW-54 FOR RETAINING WALL BAR SIZE AND SPACING. MATCH 4" RETAINING WALL BAR SIZE AND SPACING FOR HEADWALL, APRON, AND TEE REPAIR SCHEDULE.

BOX CULVERT WEST END (UPSTREAM)
Typical Apron Cross Section

Box Culvert East End (Downstream)

Contractor to coordinate bending out heads with prestressed concrete box culvert manufacturer (Culvert Industries of America). See C/D detail 54 and wash 4" wall rebar schedule.

Concrete headwall detail material See C/D detail 54.

Concrete apron detail 54. See C/D detail 54. Wall height 22".

Contractor to coordinate bending out heads with prestressed concrete box culvert manufacturer (Culvert Industries of America). See C/D detail 54.

Concrete apron detail 3. See C/D detail 54 and wash 4" wall rebar schedule.

Concrete Triangular Extension in Field

Contractor to coordinate bending out heads with prestressed concrete box culvert manufacturer (Culvert Industries of America). See C/D detail 54.

Concrete Triangular Extension in Field

17.52'

10.46'

6'

28.89'

34.59'

12" thick concrete apron, head and box culvert and 4" rebar walls as per C/D 54.

12" thick concrete apron, head and box culvert and 4" rebar walls as per C/D 54.

Proposed 5" concrete headwall as per C/D 54.

New 10' x 4' concrete box culvert.

New prestressed box culvert.

Headwall and Apron Notes:
1. Refer to C/D detail PW-54 for retaining wall bar size and spacing. Wash 4" retaining wall bar size and spacing for headwall, apron, and toe rebar schedule.
GENERAL NOTES:
1. REMOVAL OF EXISTING BOX, MEDIAN, ETC. SHALL BE REQUIRED AS PART OF PROPOSED CONSTRUCTION AND SHALL BE INCLUDED IN THE SITE PREPARATION FEE.
2. CONTRACTOR SHALL FIELD VERIFY INLET DURING AND BE RESPONSIBLE FOR CONNECTION AT EXISTING DRAINAGE.