## URBAN SECTION

### Grade and Drain

<table>
<thead>
<tr>
<th>Zone</th>
<th>2 Lane New Construction</th>
<th>4 Lane New Construction</th>
<th>2 Lane New Construction</th>
<th>4 Lane New Construction</th>
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</thead>
<tbody>
<tr>
<td>I</td>
<td>803 1177 1648 2077 2420 2823 3275</td>
<td>1297</td>
<td>2731</td>
<td></td>
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<tr>
<td>II</td>
<td>720 983 1385 1690 1986 2280 2654</td>
<td>1352</td>
<td>2418</td>
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<tr>
<td>III</td>
<td>699 762 1177 1385 1598 1873 2257</td>
<td>1220</td>
<td>2130</td>
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<td>IV</td>
<td>681 1011 1454 1896 1975 2321</td>
<td>1412</td>
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<td>V</td>
<td>540 645 1274 969 1356 2037</td>
<td>1232</td>
<td>2286</td>
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<tr>
<td>VI</td>
<td>443 720 1094 785 1319 1837</td>
<td>1077</td>
<td>1684</td>
<td></td>
</tr>
</tbody>
</table>

### Base and Pave

- $96 YD^2$ for 4" Surface
- $90 YD^2$ for Gravel Overlay
- $8 YD^2$ for Base and Pave Ends

### 2 Lane New Construction

- $38 YD^2$
- $15 YD^2$

### 4 Lane New Construction

- $35 YD^2$
- $15 YD^2$

### 2 Lane New Construction

- $803 YD^2$
- $1500 YD^2$

### 4 Lane New Construction

- $1177 YD^2$
- $2731 YD^2$

### Zone Map Showing Separation of Bid Prices

### Signing

- INTERCHANGE (URBAN INTERSTATE): $80,000 EACH
- INTERCHANGE (RURAL INTERSTATE): $70,000 EACH
- INTERSECTION (4 LANE X 4 LANE): $40,000 EACH
- INTERSECTION (4 LANE X 2 LANE): $30,000 EACH
- INTERSECTION (2 LANE X 2 LANE): $20,000 EACH

### Traffic Handling

- 5 LANE (WIDEN TO ONE SIDE): $30,000 MI
- 5 LANE (WIDEN SYMMETRICAL): $60,000 MI
- 4 LANE (2 LANES EXISTING): $12,500 MI

### Utility Cost

- 2 LANE RURAL: $480,000 MILE
- 2 LANE URBAN: $1,700,000 MILE
- 4 LANE RURAL: $850,000 MILE
- 4 LANE URBAN: $3,125,000 MILE

### Right of Way

**Factors**

- $1.3$ for Engineering Controls
- $1.0$ for Mobilization

**Additional Overhead**

- $1.3$ for Engineering Controls
- $0.7$ for Mobilization

**Preliminary Engineering is 15% of Total Construction Cost**

**Breakdown for P.E.**

- 3% for Corridor Study
- 5% for Survey
- 5% for Grade and Drain Plans
- 2% for Base and Pave Plans

**Indirect Cost (Non-APD)**

- 13.63%

**Indirect Cost (APD)**

- 9.64%

### Railroad

- BASE & SURFACE (4" SURFACE): $96 YD^2
- GRADE AND DRAIN: $38 YD^2
- CURB AND GUTTER: $15 YD^2
- SIDEWALK: $35 YD^2
- STORM DRAIN: $60 L.F.
- BASE (ONLY): $15 YD^2
- INLETS: $3,750 EA
- SIGNALIZED INTERSECTION: $150,000 EA

## Other Costs

- Borrow (In-Place): $20 YD^3
- Signing:
  - SIGNALIZED INTERSECTION: $150,000 EA

- Interchange:
  - URBAN INTERSTATE: $60,000 EACH
  - RURAL INTERSTATE: $70,000 EACH

- BARRIER RAIL:
  - TEMPORARY BARRIER RAIL: $250 LF

- Intersections:
  - Signalized 4 Lane x 4 Lane: $40,000 EACH
  - Signalized 4 Lane x 2 Lane: $30,000 EACH

- Retaining Wall: $40 LF

- Traffic Handling:
  - 5 LANE (WIDEN TO ONE SIDE): $30,000 MI
  - 5 LANE (WIDEN SYMMETRICAL): $60,000 MI
  - 4 LANE (2 LANES EXISTING): $12,500 MI

- Utility Cost:
  - 2 LANE RURAL: $480,000 MILE
  - 2 LANE URBAN: $1,700,000 MILE
  - 4 LANE RURAL: $850,000 MILE
  - 4 LANE URBAN: $3,125,000 MILE

- Right of Way:
  - 2 LANE RURAL: $550,000 MILE
  - 2 LANE URBAN: $1,500,000 MILE
  - 4 LANE RURAL: $1,400,000 MILE
  - 4 LANE URBAN: $2,900,000 MILE

- Signals: $50,000 EA

- Rip-Rap: $30 YD^2

- Indirect Cost (APD)

- Indirect Cost (Non-APD)

- Progress Payment=
  - 30%
  - 40%
  - 40%

- mobilization

- 8.7% for Primary Construction

- 9% for Secondary Roads

- 15% for Permanent E & I

- 8% for Temporary E & I

- 1% for E & I for Survey

- 1% for Temporary E & I for Survey

- 1.3% for Engineering Controls

- 0.7% for Mobilization

- Additional Overhead (add to subtotal for total construction cost)