1. **ANCHOR BOLTS**: Anchor Bolt design is based on the standard Roadway Aluminum Light Pole configurations shown on Index 715-040 with top of pedestal 75 ft or less above ground or MNL.

2. **MATERIALS**: Anchor Bolts: ASTM F1554 Grade 55.
   - Nuts: ASTM A563 Grade A, Heavy-Hex.
   - Washers: ASTM F246 Type 1.
   - Anchor Plate: ASTM A325 (Grade 36) or ASTM A36.

3. The Contractor is responsible for ensuring the anchor bolt design is compatible with the light pole base plate. Modifications to the anchor bolt design shown must be signed and sealed by the Contractor's Specialty Engineer and submitted to the Engineer for approval prior to construction.

4. Install Anchor Bolts plumb.

5. For conduit, EJB and expansion/deflection fitting details, see Utility Conduit Detail Drawings.

6. The cost of anchor bolts, nuts, washers and anchor plates will be included in the Bid Price for Light Poles. Include the cost of all labor, concrete and reinforcing steel required for construction of the pedestals, and miscellaneous hardware required for the completion of the electrical system in the Bid Price for either the Concrete Barrier or Concrete Parapet that the pedestal is behind.

7. Field Cut Bars 4M2 as required to maintain clearance.

8. Slip Forming Method of construction requires the Engineer's approval within the limits shown.

9. Reinforcing shown for light pole pedestals is in addition to typical reinforcing for Junction Slabs and Raised Sidewalks.

10. Work this Index with the following as appropriate:
    - Index 521-512
    - Index 521-610
    - Index 521-620
    - Index 521-630

11. Pedestal may be precast in one section with Coping. Minimum Precast Coping section length is 10 ft or 12 ft for combination Precast Concrete Barrier and Coping section.

12. For Estimated Quantities, see Sheet 6.

13. Unless otherwise noted, Concrete Barrier (36" Single-Slope) is shown in all Views and Sections. The Pedestal details for other Concrete Barriers or pedestrian/bicycle railings are similar.

---

**TABLE 1 DESIGN LIMITATION FOR ANCHOR BOLTS (1" Dia.)**

<table>
<thead>
<tr>
<th>Wind Speed (MPH)</th>
<th>Arm Length (FT)</th>
<th>Base of Pole Height*</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td>40 ft</td>
<td>75</td>
</tr>
<tr>
<td>140</td>
<td>40 ft</td>
<td>75</td>
</tr>
<tr>
<td>160</td>
<td>8 &amp; 10 ft</td>
<td>75</td>
</tr>
<tr>
<td>160</td>
<td>12 &amp; 15 ft</td>
<td>75</td>
</tr>
</tbody>
</table>

* Above Natural Ground

**TABLE 1 DESIGN LIMITATION FOR ANCHOR BOLTS (1" Dia.)**

- 4'-6" Min. (EJB Side) (See Note 8)
- 5'-6" Min. (See Note 8)
- Bars 4G2 (pairs) @ 6" (tie to Alternate Bars 5A)
- Bars 4G1 (pairs) @ 6" (tie to Alternate Bars 5A)
- Bars 4G3 (pairs) (Typ.)
- Bars 4G4 (pairs) (Typ.)
- Bars 5B3 (Typ.)
- Bars 5J & 5M1 (Top & Bottom) @ 12" (tie to Alternate Bars 5A)
- Optional Construction Joint
- C-I-P Construction Joint
- Concrete Barrier or Concrete Parapet
- Gutter Line (shown) or Front Face of Concrete Parapet
- Concrete Barrier or Concrete Parapet
- EJB
- Conduction Joint
- Optional Construction Joint
- Expansion Joint in Junction Slab, Raised Sidewalk or Sidewalk
- Pedestal & Light Pole

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**LIGHT POLE PEDESTAL NOTES:**

- Varies (Transition to 1'-9" Thick Junction Slab)
- Varies (Transition to 1'-9" Thick Junction Slab)
- Plan View

(Junction Slab reinforcing not shown for clarity)

(Junction Slab Shown, Raised Sidewalk or Sidewalk Similar)
TYPICAL SECTION AT LIGHT POLE PEDESTAL

(Junction Slab Shown, Raised Sidewalk or Sidewalk Similar) (36° Single-Slope Concrete Barrier shown, other railings similar)

NOTES:
1. Provide Concrete Class to match adjacent coping.
2. For junction slabs, increase the 1'-0" depth dimension to 1'-9".
3. For Parapet with sidewalk see Index 521-630, but increase 6" sidewalk depth to 1'-6".
4. The minimum length of the Junction Slabs, raised sidewalks and sidewalks is 30'-0", measured along the Gutter Line.
5. Bars 4J are only required when pedestals are behind a Concrete Barrier or Concrete Barrier/Noise Wall.
6. Top of junction slab may be thickened to match finished grade of concrete pavement or shoulder, or top of sidewalk or raised sidewalk (See Notes 3 & 4).
7. Actual width varies depending on type of retaining wall used.
8. See Index 521-610 for Bars 4V1, 5V1 and 5B, or Index 521-512 for Bars 5V and 5B1.
9. Work with Index 521-610 (Concrete Barrier/Noise Wall), Index 521-610 (Single-Slope), Index 521-620 (Vertical Shape), and Index 521-630 (Concrete Parapet).
**REINFORCING STEEL BENDING DIAGRAMS - LIGHT POLE PEDESTAL**

**BILL OF REINFORCING STEEL**

<table>
<thead>
<tr>
<th>MARK</th>
<th>SIZE</th>
<th>NO. REQD.</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1</td>
<td>4</td>
<td>16</td>
<td>5'-8&quot;</td>
</tr>
<tr>
<td>G2</td>
<td>4</td>
<td>4</td>
<td>4'-8&quot;</td>
</tr>
<tr>
<td>G3</td>
<td>4</td>
<td>4</td>
<td>4'-2&quot;</td>
</tr>
<tr>
<td>G4</td>
<td>4</td>
<td>6</td>
<td>8'-10&quot;</td>
</tr>
<tr>
<td>G5</td>
<td>4</td>
<td>4</td>
<td>7'-0&quot;</td>
</tr>
<tr>
<td>H1</td>
<td>4</td>
<td>3</td>
<td>9'-8&quot;</td>
</tr>
<tr>
<td>M2</td>
<td>4</td>
<td>2</td>
<td>13'-8&quot;</td>
</tr>
<tr>
<td>M1</td>
<td>5</td>
<td>8</td>
<td>6'-0&quot;</td>
</tr>
<tr>
<td>M2</td>
<td>5</td>
<td>8</td>
<td>3'-10&quot;</td>
</tr>
</tbody>
</table>

Note: All bar dimensions in the bending diagrams are out to out. Lap splices for Bars 4G1, 4G2, 4G3, 4G4 & 4G5 will be a minimum of 1'-4". The Contractor may use Welded Wire Reinforcement (WWR) when approved by the Engineer. WWR must consist of deformed wire meeting the requirements of Specification Section 931.

**ESTIMATED QUANTITIES**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>UNIT</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete (Pedestal)</td>
<td>CY</td>
<td>0.926</td>
</tr>
<tr>
<td>Concrete (Thickened Junction Slab)</td>
<td>CY</td>
<td>1.222</td>
</tr>
<tr>
<td>Reinforcing Steel</td>
<td>LB</td>
<td>334.09</td>
</tr>
</tbody>
</table>

(The quantities above are for one C-I-P Light Pole Pedestal. The concrete quantity for the thickened junction slab is based on a 5'-0" length, 9" increase in thickness and a 5' wide retaining wall panel. Adjust thickened concrete quantity as required.)

Notes:
1. Field Cut Bars 4M2 as required to maintain minimum cover.
2. Maximum clearance between leveling nut and top of pedestal will not exceed anchor bolt diameter.