**PILE WT.**

- 0.355L
- 0.700L

**NO.**

- 0.207L

- 0.586L

- 13.95

- 5

**DATE:**

- 5/8/99

**CHECKED BY:**

- CPK

**DRAWN BY:**

- WJH

**ASSEMBLED BY:**

- STEEL WIRE SPIRAL

76mm CL. TO STRANDS

**TYPICAL SECTION**

**EQUAL SPA.**

**REV. 4/4/11**

**WMC/GM**

**REV. 5/1/06**

**TLA/GM**

**610mm PRESTRESSED CONCRETE PILE**

**STANDARD SPECIFICATIONS.**

**BUILD-UP CONCRETE STRENGTH:**

- $f'c = 51.7 \text{ MPa}$

**PRESTRESSED CONCRETE STRENGTH:**

- $f'c = 51.7 \text{ MPa}$

**NOTE:**

- All prestressing strands shall be T-1 titanium low-relaxation Grade 270 strands conforming to AASHTO M203. Strands may be used in the strand configuration shown in the typical section detailing of strand size is not allowed. The slip-form method of casting piles will not be permitted.

**UNIFORMITY:**

- Cast-in-place lifting devices are not used in the piles, points are to be indicated with a 50mm wide black mark. Drive piles using a method approved by the engineer, whereby the head of the pile is not damaged.

**DOWEL INSTALLATION FOR OPTIONAL BUILD-UP**

- Concrete shall be placed to a compressive strength of 27.6 MPa and until a period of seven days has elapsed since the casting of the build-up.

**NOTES:**

- The spiral reinforcing in the build-up and the prestressed concrete pile shall be secured to the longitudinal reinforcement to maintain pinches. The spiral reinforcing in all build-ups shall be made cold drawn wire which shall be secured to the longitudinal reinforcement to maintain pinches.

**QUANTITIES FOR ONE 610mm SQUARE PILE**

**LENGTH**

- 25 mm

**AREA**

- 25 mm

<table>
<thead>
<tr>
<th>LENGTH</th>
<th>CONCRETE</th>
<th>PILE WT.</th>
<th>1 POINT PICK-UP</th>
<th>2 POINT PICK-UP</th>
<th>3 POINT PICK-UP</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0</td>
<td>2.79</td>
<td>6.02</td>
<td>2.70</td>
<td>3.40</td>
<td>4.20</td>
</tr>
<tr>
<td>10.5</td>
<td>3.16</td>
<td>6.32</td>
<td>3.15</td>
<td>3.85</td>
<td>4.65</td>
</tr>
<tr>
<td>15.0</td>
<td>3.53</td>
<td>6.64</td>
<td>3.50</td>
<td>4.20</td>
<td>5.00</td>
</tr>
<tr>
<td>20.0</td>
<td>3.82</td>
<td>6.95</td>
<td>3.80</td>
<td>4.50</td>
<td>5.30</td>
</tr>
<tr>
<td>25.0</td>
<td>4.07</td>
<td>7.25</td>
<td>4.05</td>
<td>4.80</td>
<td>5.60</td>
</tr>
</tbody>
</table>

**TOTAL**

- 5.00

**NOTES:**

- The total length of concrete piles shall be 13.5mm.

**BUILD-UP CONCRETE PILE**

- Field drilled holes shall be clean and free of any obstructions before grouting of dowels. Cold draw steel shall be installed and grouted with an approved non-shrink cement.

**NOTE:**

- Before drilling field holes, remove the upper 76mm of concrete from the top of the pile without damage to the reinforcing steel. The removal plane shall be normal to the side of the pile.

- Doweled holes shall be positioned to maintain clean to all existing prestressing strands in the concrete pile.

**FIELD DRILLED HOLE WIDTH CLEAR TO ALL EXISTING PRESTRESSING STRANDS IN THE CONCRETE PILE.**

**NOTE:**

- The spiral reinforcing in all build-ups shall be made cold drawn wire which shall be secured to the longitudinal reinforcement to maintain pinches.