NOTES:

1. S-Hook is matched to the strain pole design number (see table). S-Hook and turnbuckles are required only at one end of simple spans, all ends of composite spans. S-Hook shall be closed at pole end. If S-Hook begins to yield during installation, it shall be removed and replaced. The wire tension shall be adjusted to minimize movement of signal heads in high winds. Typical tension is 650 to 800 lbs.

2. Lock wire shall be stainless steel, 3/8" soft temper, used to prevent turning of the turnbuckle body. Finished span shall have at least 2' of space above the turnbuckle adjustment. Turnbuckle shall not be overtightened. Use 8" hand tools, maximum.

3. If signal orientation is not perpendicular to span and tether wire, then use an anchor extension. Clamp assembly must be attached to the flat side of the extender bar.

4. Install safety tie at each turnbuckle. This wire shall be 1 x 19, 3/8" stainless steel. Provide slack in the tie without contacting the pole. Use 3 clips per end at 3-1/2" spacing.

5. Tether wire shall be 7-strand ASTM A475 HS or EHS Grade 5/8". On all spans, install tether horizontally. Maximum clearance of 17" to 18" over roadway.

6. Span wire clamp assembly per Standard Construction Drawing TC-81. 11 required for tether wire attachment or approved equal rated at 950 lbs or higher. Alternate attachment method shall not be permitted.

7. Safety tie anchor height above tether is adjusted in the field before S-Hook is installed. Dimension X (Safety Tie Height) shall be adjusted so that the minimum vertical clearance of the sagging tether wire above the pavement without the S-Hook installed is at least 14'. Minimum distance between the safety tie clamp and tether clamp shall be 1.5' and contain enough slack for head to sway in high winds. Safety tie anchor may be any galvanized or stainless steel pole clamp assembly rated at 3650 pounds or higher.

8. On spans with bullrings, a tie shall be provided between messenger and tether bullrings. If a 14' clearance cannot be maintained after S-Hook is installed, Dimension X (Tie Height) shall be adjusted to provide sufficient clearance. Ties shall be 1 x 19, 3/8" stainless steel. Provide slack in the tie without contacting the pole. Use 3 clips per end at 3-1/2" spacing.

9. Strain pole clamp shall be closed at pole end. If S-Hook begins to yield during installation, it shall be removed and replaced. The wire tension shall be adjusted to minimize movement of signal heads in high winds. Typical tension is 650 to 800 lbs.

10. Do not tether signs on signal spans.

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### TABLE: STRAIN POLE BOLTED THRU HOLE

<table>
<thead>
<tr>
<th>DIAMETER (INCHES)</th>
<th>S-HOOK YIELD POINT (+10% / -20%) (POUNDS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8</td>
<td>2000</td>
</tr>
<tr>
<td>5/8</td>
<td>3500</td>
</tr>
</tbody>
</table>

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**NOTES:**

- Do not tether signs on signal spans.
- Install safety tie at each turnbuckle. This wire shall be 1 x 19, 3/8" stainless steel. Provide slack in the tie without contacting the pole. Use 3 clips per end at 3-1/2" spacing.
- Tether wire shall be 7-strand ASTM A475 HS or EHS Grade 5/8". On all spans, install tether horizontally. Maximum clearance of 17" to 18" over roadway.
- Span wire clamp assembly per Standard Construction Drawing TC-81. 11 required for tether wire attachment or approved equal rated at 950 lbs or higher. Alternate attachment method shall not be permitted.
- Safety tie anchor height above tether is adjusted in the field before S-Hook is installed. Dimension X (Safety Tie Height) shall be adjusted so that the minimum vertical clearance of the sagging tether wire above the pavement without the S-Hook installed is at least 14'. Minimum distance between the safety tie clamp and tether clamp shall be 1.5' and contain enough slack for head to sway in high winds. Safety tie anchor may be any galvanized or stainless steel pole clamp assembly rated at 3650 pounds or higher.