

Proposed Revision to SDM Article 6.3.1.2

NCDOT - PCI Joint Technical Committee – July 30, 2020 Meeting

Excerpt from current NCDOT SDM, Article 6.3.1.2, end of section **Draped Strands**:

To facilitate the tying of shear reinforcing steel in girders with draped strand patterns, ensure the draped strands at the end of the prestressed members are not detailed in the top 8" of the girder, and place the following note on all girder plans:

The Contractor has the option to provide, at no additional cost to the department, 2 additional strands at the top of the girder to facilitate tying of the reinforcing steel. These strands shall be pulled to a load of 4500 lbs. (20 kN).

Proposed revised text for Article 6.3.1.2: delete the above text and note. Text is moved to renamed section below.

Current NCDOT SDM, Article 6.3.1.2, section **Straight Strands (no debonding)**:

For girders with a straight strand pattern, detail at least one pair of strands between the neutral axis and 6 inches (150 mm) from the bottom of the girder to facilitate the tying of stirrups.

Proposed revision for Article 6.3.1.2, section **Straight Strands (no debonding)**:

Change title of section: **Required Strand Locations**:

To facilitate the tying of shear, confinement, and top flange reinforcing steel in girders, place strands in the following locations for all girders: 1) two (2) strands in the top flange of AASHTO girders and four (4) strands in the top flange of modified bulb-tee girders or other girder shapes with a wide top flange; 2) in the outermost strand locations on the bottom row; 3) for girders with a straight strand pattern, at least one pair of strands between the neutral axis and 6 inches (150 mm) from the bottom of the girder. Strands used for these purposes may be fully stressed; if not fully stressed, pull strands to a minimum load of 10,000 lbs (44.5 kN). Clearly indicate on contract documents the load to which top and mid-height strands are required to be pulled to satisfy design assumptions.

For girders with draped strand patterns, ensure the draped strands at the end of the prestressed members are not detailed in the top 8 inches of the girders.

[We recommend that a figure illustrating these requirements be provided]