

capacity.

Strand pattern details showing strand layouts, number and spacing of strands, concrete cover and edge clearances, and layout of all mild reinforcing steel shall be shown in contract plans. The girder spacing shall not exceed 12.0 feet center-to-center.

The haunch thickness at girder bearing centerline shall be minimum 2 inches for spans less than 90 feet, 3 inches for spans from 90 to 120 feet, and 4 inches for spans greater than 120 feet. Haunch thickness shall be included in weight calculation, but shall be omitted in the calculation of composite section properties used in determining live load effect.

The haunch thickness along the girder due to camber at time of erection and non-composite dead load shall not be less than zero (the top flange of the girders shall not intrude into the deck). Reinforcement shall be provided in haunches exceeding 4 inches in thickness. Girder haunch shall not exceed 6 inches at any location.

PPC girders shall not be used in a curved bridge where the offset between an arc and its chord exceeds 1 foot. Refer to *PCI Bridge Design Manual* for additional design considerations for skewed and curved bridges.

The notes below shall be included in PPC girder detail sheets or general notes sheets for all projects.

“The contractor is responsible for stability of precast prestressed concrete girders during fabrication, storage transportation, erection, and deck placement. Supporting analysis and calculations stamped, signed, and dated by a Louisiana licensed professional engineer and shop drawings showing the method of lifting the girder, lifting locations and details, support (dunnage) locations for storage and transportation details, and erection bracing details shall be submitted to the EOR for review.

Any inherent stability provided by cast-in-place diaphragms shall not be considered by the contractor in designing the required construction bracing. The diaphragms are provided to restrain lateral movement of girders when the bridge is in-service and are not intended or allowed for use as construction stability bracing.”

During the design process, the EOR shall ensure that all girders, while within the allowable stress

Designers shall pay special attention to the haunch thickness of prestressed girders when they are used in conjunction with a high degree of vertical and horizontal curvature which could present challenges to meeting haunch dimension requirements.

Girder stability during each phase of construction is dependent on the type of lifting equipment and pick up methods and therefore, is the responsibility of the contractor.

For extremely long girders (typically > 160 feet), the contractor may consider using lifting brackets instead of using lifting loops; so that the girder would be lifted from below its center of gravity. The brackets may eliminate the chance of an "off center" lifting which may occur when using lifting loop on the top flange.