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**ASCE** AMERICAN SOCIETY  
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## 2025 CLARIFICATIONS Updated 11/1/2024

**Q8.1** Do specialty bolts and nuts that can be purchased fit the definition of "commercially available"? *Justice Gorsline, Missouri University of Science and Technology*

**A.** A bolt or nut that can be purchased off the shelf or ordered online from a company's typical inventory is considered "commercially available". If the bolt or nut needs to be designed and manufactured specifically for use in the steel bridge competition, then it is not considered "commercially available". Any bolt or nut must also meet the additional requirements for loose bolts (Sub-Section 8.2.3) and loose nuts (Sub-Section 8.2.4) and may not be mechanically modified in any way from the way that it is received, except it may be painted. [8.2, 8.2.3.1, 8.2.3.2, 8.2.4.1, 8.2.4.2]

**Q9.1** At what angle does a bend in a plate involved in a connection require the surfaces on either side of the bend to be treated as separate faying surfaces? *Chris Teeter, Milwaukee School of Engineering*

**A.** An intentional bend of any angle that is placed in a plate used in a connection requires the portions of the plate on either side of the bend to be treated as a separate faying surface. Note that a bolt penetrating the bend would not penetrate either of the faying surfaces since the hole for the bolt would not be completely within either of the faying surfaces. Examples of connections involving bent plates can be found in the 'Connection Safety Examples' document on the Team Resources page of the [SSBC website](#). [9.5.2.1, 9.5.2.2]

**Q9.2** Does the north side stringer extend past the east footing on the north side such that it has the same length as the south side stringer (i.e. is the north side stringer cantilevered)? *Jakob Ramos, The College of New Jersey*

**A.** No. All stringers terminate in their respective footings. The north side stringer has a minimum length of 15'-6" and a maximum length of 16'-6" while the south side stringer has a minimum length of 19'-0" and a maximum length of 20'-0". The plan view of the bridge envelope is shown in DWG 2. [9.3.5, 9.3.6]

**Q9.3** Does the restriction on cam locks, dovetails, tube-in-tube/sleeved and other mechanical/interlocking connections apply to temporary connections created during timed construction? *Antonio Juarez Rivera, Universidad Panamericana*

**A.** The Connection Safety requirements specified in Sub-Section 9.5 are checked by the judges after the termination of timed construction. There is no restriction on how connections are made during timed construction if they are accomplished in a safe manner and do not require the occurrence of an accident. [9.4, 9.4.1, 9.5, 10.1, 10.3, 10.4]

**Q9.4** Does a simple double shear connection between two members violate the requirement that each connection contain at least one and at most two faying surfaces associated with each member being connected? *T.J. Boylan, Florida Institute of Technology*

**A.** No. A simple double shear connection between two members creates two faying surfaces associated with each of the members being connected. Further examples of legal and illegal connections with multiple faying surfaces can be found in the 'Connection Safety Examples' document on the Team Resources page of the [SSBC website](#). [9.5.1, 9.5.2]

**Q9.5** If a contact surface between members transitions from a gradual curve without an inflection point to a flat region, is this considered a single faying surface? *Joel Harkness, Liberty University*

**A.** Yes. A gradual curve without an inflection point that transitions to a flat region is considered a single faying surface. However, if the gradual curve without an inflection point transitions to a flat region on both sides of the curve, then it will be considered a corner and both flat regions will be considered separate faying surfaces. [9.5.1, 9.5.2, 9.5.2.2]

**Q9.6** What is the allowable distance between the top of the stringers and the outside vertical boundary of the bridge envelope shown in the Section Drawings of the Bridge Elevation Drawing? *Nicco Tebbano, Rensselaer Polytechnics Institute*

**A.** No specific dimensional requirement is called out for the distance between the top of the stringers and the outside vertical boundary of the bridge envelope in the Section Drawings of the Bridge Evaluation Drawing because the passageway that is defined by the stringer template and the tops of the stringers is not required to be centered within the bridge envelope. The requirements are that the bridge be no wider than 5'-0" at any location along the span and that the bridge provide a straight, clear decking support location conforming to the stringer template. [9.2.1, 9.3, 9.3.3, 9.3.8, 9.3.8.1, 9.3.8.2]

**Q10.1** Must tools that are assembled during timed construction be disassembled before timed construction is completed? *Noah Sternick, Lafayette College*

**A.** No. Tools only need to be on the ground in the staging yard or in a builder's possession at the end of timed construction. [10.2.3, 10.2.4, 10.9.1]

**Q10.2** During construction may builders assemble individual pieces into larger assemblies in the staging yard? *Kimberly Molina, University of Texas at Arlington*

**A.** No. Although members may touch within the staging yard without penalty, they are not allowed to touch once they leave the staging yard unless they are in contact with a constructed portion. [10.1.7, 10.3.7, 10.3.10, 10.3.11, 10.4.4]

**Q10.3** During construction, may connections allow a part of the constructed portion of the bridge to pivot or rotate relative to another part of the constructed portion of the bridge in order to move the bridge part into final position prior to tightening of nuts and bolts? *Nicco Tebbano, Rensselaer Polytechnics Institute*

**A.** Yes. There are no restrictions placed on connections or relative movement of pieces making up the constructed portion of the bridge during construction provided that safe construction practices are maintained. Usability requirements and connection requirements specified in Sub-Sections 9.3 and 9.5 of the SSBC Rules, respectively, will only be checked upon completion of construction. [9.4, 9.5, 10.1, 10.3]

**Q10.4** Is there a maximum height that the bridge can reach during timed construction? *Nicco Tebbano, Rensselaer Polytechnics Institute*

**A.** The maximum height that the bridge can reach during timed construction is dictated by the venue where the competition will take place and whether the height of the bridge is causing safety concerns in the opinion of the judges. Safe construction practices need to continually be maintained. [10.1, 10.3, 10.3.1, 10.3.14]