9600201 Post-Tensioning Components
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

D4

Comment: (11-9-12) D4 Const. has the following comment. If I understand, by this spec. change we are looking for a 3/8" passage to facilitate the use of the endoscope without having to drill at a later date. If this is the idea, I suggest you add text such that the alignent of the opening in the anchor cap and wedge plate will facilitate the use of the endoscope. This will insure you don't have the 3/8" openings in random locations.

Response:

Drew Micklus

Comment: (11-9-12) 960-2.1 (a) FDOT should not specify anchorage materials. This material, A536 is a ductile-as-cast iron commonly used for bearing plates/trumplates and sometimes for wedge blocks. We use A536 Gr 80-55-06 for larger anchorage trumplates and our 4F15, A48 Cl 35B for smaller trumplates, but for our anchor blocks (wedge blocks) we manufacture by machining from steel bar AISI C1045/C1050 with a min 90ksi tensile. We do not use cast materials for our wedge plates since we have a more compact strand pattern and flatter wedge angle which after extensive testing we do not have sufficient safety/quality control with cast parts. As far as I know all suppliers machine their wedges from alloy steel bar with specific heat treat processes. Cast material is not suitable for wedges. For some applications (thread bars for example) nuts are machined from hex bar stock, bearing plates fabricated from Gr 36, 42 or 50 steel plate, etc. The exact materials should be left to the supplier to specify for the proper performance of his system, shall be clearly shown on the drawings and verified thru testing and quality control in production. Also, if FDOT specifies the material and there should be a failure, you may be exposed to some shared liability.

960-2.1 (c) Add that the average bearing stress is applicable for plate anchorages. and that Special Anchorage Devices (aka multi-plane anchorages) shall be qualified as such by test (AASHTO)

960-2.1 (f): please revise: For 7-strand tendon sizes and larger, secondary passageways shall be provided to allow grout to flow into the grout cap. The minimum area of the secondary passages way shall be $0.098in^2$ and may be shall be provided by no more than two passageways. NOTE: No need to specify how the passage is provide since we may have to slot the bearing plate if we cannot find enough room in the wedge plate. The suggested 0.098 comes from the sum of two ¼" diameter holes. Comment: Is this issue of foaming grout observed when there is a sufficiently large outlet located very close to the anchorage? I can understand if the venting is done entirely through the wedges that the grout will be pushed thru at tremendous speed, but if there is a large diameter grout outlet at the anchorage I would not expect to see this high speed grout being force thru the wedges unless the large diameter outlet is closed (inadvertently?/blocked) or not provided at all. Would like to discuss this a little more with you before making this change

960-2.2.2.1 Revise to require 3/8" min diameter vent hole for 7-strand tendon sizes and larger… Smaller holes to sufficiently vent 4 strand tendon anchorage caps are acceptable.

960-2.4.3 We believe the correct bolt spec is **F**593, not **A**593

Response:

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