

**American Railway Engineering and Maintenance of Way Association
Letter Ballot**

1. **Committee and Subcommittee:** Committee 30 – Subcommittee 4
2. **Letter Ballot Number:** 30-22-18
3. **Assignment:** To review and update every section of the manual.
4. **Ballot Item:** Set a recommendation that max stress on tendons do not exceed 80% of tendon capacity.
5. **Rationale:** Many specifications limit tension on the tendon to 75% of capacity when industry standard is for max of 80% of capacity to be used.

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4.4.2 DESIGN CONSIDERATIONS (~~2015~~2023)

- a. In addition to satisfying the criteria in [Article 4.4.1](#), prestressed concrete mono-block ties should also incorporate concrete industry standards found in ACI Code 318 and PCI MNL-120
- b. It is recommended that the maximum precompression after all losses at any point in the cross ties should not exceed 2,500 psi (17.2 MPa).
- c. Furthermore, there should be a minimum pre-compressive stress at any vertical cross section through the rail seat area of 500 psi (3.5 MPa) after all losses and without any applied load.
- d. It is recommended that the final force on the tendons not be more than 80% of specified capacity of the tendons after seating (per PCI MNL 116 article 5.3.13).

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