

Diary Number: _____

Inspector Name: _____

TRACS Number: _____

Date: _____

Division VI: Structures
Title: Post Tensioning

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| Structure Name |
| Structure Number |
| Sequence Number |
| Steel Rolls Open On |
| Date Structure Poured |
| Date Strands Started |

| Attribute Numbers | Compliance | Narratives | References |
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| 0. | | A pre-activity meeting has been held to discuss the pre-stressing or post tensioning activities. May be a part of another relayed pre-activity meeting. | Construction Manual 108.13 |
| 1. | | Shop drawings and calculations for pre-stressing or post tensioning are submitted per subsection 105.03. | Standard Specifications 602-3.01 (C) |
| 2. | | Shop drawings include: Details for jacking sequence; anchoring devices; blockout dimensions; and all other data pertaining to the post tensioning system or operation. | Standard Specifications 602-3.01 (A) |
| 3. | | Shop drawings include: Lay-out dimensions for locating the ducts along the tendon path (not exceed 15-foot intervals); Vent locations; and details of the vents shall be included on the drawings. | Standard Specifications 602-3.01 (C) Standard Specifications 602-3.07 |
| 4. | | All jacks and gauges were calibrated as a unit and shall be accompanied by a Certification for the system including a graph showing the gauge pressure in pounds per square inch & the force in thousands of pounds thru the entire range of tensioning. | Standard Specifications 602-3.01 (A) Standard Specifications 602-3.06 (A) |
| 5. | | Certification for jacking system shall not be more than 2 years between jack calibrations. | Standard Specifications 602-3.01 (A) |
| 6. | | Each lot of anchorage assemblies and bar couplers to be installed at the job site is tagged and numbered. | Standard Specifications 602-3.03 |

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| 7. | | Samples of each manufactures reels of strand or coils of wire, or bars have been submitted for testing along with the certificates of compliance. | Standard Specifications 602-3.03 |
| 8. | | Approved strength tests are received prior to installation. If not, lot number, duct(s) and date are documented: If rejected, ALL strands in those ducts are replaced. | Standard Specifications 602-3.03 |
| 9. | | A cutting torch was not used on pre stressing steel | Standard Specifications 602-3.06 (C) |
| 10. | | Bars of each size (each mill heat), wire from each coil, & all strands from each manufactured reel that is shipped to the job site has been assigned an individual lot number and tagged in a manner that each lot can be accurately identified at the job site. | Standard Specifications 602-3.03 |
| 11. | | All unidentified pre-stressing steel, anchorage assemblies or bar couplers at the job site shall be rejected. | Standard Specifications 602-3.03 |
| 12. | | The Anchorage assemblies are installed per the approved shop drawings. | Standard Specifications 602-3.03 |
| 13. | | Duct installations for pre-stressing steel are securely fastened to prevent movement or displacement during concreting activities. [Ducts are placed within \pm 1/4 inch] | Standard Specifications 602-3.05 |
| 14. | | Prior to closing the slabs of the box girder cells (Deck), aerostatic or hydrostatic tests have been conducted to check for leakage in the duct system to prevent the grout from getting into the box girder cells. | Standard Specifications 602-3.05 |
| 15. | | Duct enclosures for pre-stressing steel is mortar- tight and accurately placed at the locations shown on the project plans or approved by the Engineer. | Standard Specifications 602-3.05 |
| 16. | | When ducts are completely encased in concrete, a charging pressure of 40 lbs. per square inch for 5 minutes was retained; 20 psi after 5 minutes is acceptable. | Standard Specifications 602-3.05 |
| 17. | | For ducts not completely encased in concrete, exposed areas were sealed with epoxy compound. Then tested at 20 psi for 5 minutes, 10 psi after 5 minutes is acceptable. | Standard Specifications 602-3.05 |
| 18. | | All leaks are repaired and ducts retested prior to closing slab ducts are blown dry with oil free compressed air. | Standard Specifications 602-3.05 |
| 19. | | After installation in the forms, the ends of the ducts are covered as necessary to prevent the entry of water or debris into the ducts. | Standard Specifications 602-3.05 |
| 20. | | Duct enclosures for post tensioning are rigid, galvanized, ferrous metal. | Standard Specifications 602-2.02 |
| 21. | | High tensile seven wire strand conforms to the requirements of AASHTO M 203 for grade 270. | Standard Specifications 602-2.01 |
| 22. | | Pre-stressing steel for post-tensioning is installed in the ducts after completion of concrete curing; stressing and grouting are completed within 10 calendar days, rust formed during the 10 days will not be cause for rejection. | Standard Specifications 602-3.06 (C) |

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| 23. | | Steel is protected from damage by abrasion, rust or corrosion, and is free of dirt, rust, oil, grease or other deleterious substances when installed and when tensioned. | Standard Specifications 602-3.06 (A) |
| 24. | | The area several hundred feet behind the jack is kept clear of all personnel; if this is not practical, suitable barriers should be erected to protect adjacent work, passing vehicles and pedestrians. | OSHA 1926.701 |
| 25. | | Steel is tensioned with a hydraulic jack; each jack is equipped with a pressure gauge or load cell to determine the jacking force. | Standard Specifications 602-3.06 (A) |
| 26. | | All gauges shall have either a reading dial of at least six inches in diameter, or a digital display indicator. | Standard Specifications 602-3.06 (A) |
| 27. | | The digital display indicator shall be readable by normal vision at a distance of 10 feet. | Standard Specifications 602-3.06 (A) |
| 28. | | The tensioning process shall conduct so that the force being applied and the elongation of the steel may be measured at all times. (Not to exceed 78 percent of the minimum ultimate tensile strength of the pre-stressing steel). | Standard Specifications 602-3.06 (A) |
| 29. | | The actual elongation obtained and the theoretical calculated elongation will be compared, if they differ by more than 5% the entire operation will be carefully checked & the source of the error determined & corrected before proceeding with the tensioning. | Standard Specifications 602-3.06 (A) |
| 30. | | A record (document) of the pre-stressing force and elongations shall be kept at all times and submitted to the engineer for review and approval. | Standard Specifications 602-3.06 (A) |
| 31. | | Check certified calibration charts for hydraulic jacks and pressure gauges before and during jacking with ADOT load cells. If the jack is in error, the operation is immediately stopped until a new certified calibration is performed by the contractor. | Standard Specifications 602-3.06 (A) |
| 32. | | Quantlist Minimum Frequency is being followed, the first girder, plus once per anchorage to anchorage of structure. | Construction Bulletin 07-01 |