

Inspector Quantlist Report 20240122

Diary Number: \_\_\_\_\_ Inspector Name: \_\_\_\_\_

TRACS Number: \_\_\_\_\_ Date: \_\_\_\_\_

**Division IX: Incidentals**

**Title: Guardrail Transition to Concrete Barrier**

**Subtitle: Timber Post or Steel Post**

Plan Reference:
Route:
Station:
Offset from edge line:
Begin Station:
End Station:

Attribute Number	Yes No N/A	Narratives	References
0	Minor	All stakeholders participated in the pre-activity meeting.	Construction Bulletin 02-01
1	Critical	All permanent concrete barrier and guardrail components that are included on ADOT construction projects and are advertised after December 31, 2017 must be M.A.S.H. compliant. (Manual for Assessing Safety Hardware)	Roadway Engineering Design Memo Feb. 22, 2018
2	Minor	Certificate of Compliance or Certificate of Analysis conforming to the requirements of Subsection 106.05 shall be submitted.	Standard Specifications 2021 106.05 A & B Pg. 89-90 905-2 Pg. 1034, 1012-1 Pg. 1225
3	Minor	The Contractor furnished Certificates of Compliance conforming to the requirements of Subsection 106.05, which state that steel or iron products incorporated in the project meet the "Buy America" Act requirements certifying that all manufacturing processes producing a steel or iron product, including any application of a coating to iron or steel, occurred in the United States.	Standard Specification 2021 106.05 Pg. 89  Stored Specifications 106.15 23 CFR 635.410.

4	Critical	When guardrail is being constructed, or reconstructed under traffic, the contractor is to conduct its operations to constitute the least hazard to the public and construction personnel. The contractor has provided Traffic control in accordance with the requirements of Section 701.	Standard Specification 2021 905-3.01 Pg. 1036
5	Minor	For High Strength Anchor Bolts, Certificate of Compliance is required and three samples per lot, or 0.1% of lots in excess of 3000, for each bolt diameter, including nuts and washers. A Certificate of Compliance is required for non-High Strength bolts, nuts, and washers.	Materials Quality Assurance. Appendix C Table 8-1012
6	Major	At least two working days prior but no more than 15 working days prior to commencing excavation, the contractor has contacted ARIZONA 811 (locating utility, pipes, box culverts and sleeves).	Standard Specification 2021 107.15 Pg. 116
7	Critical	Post spacing is in accordance with Construction Standard Drawings C-10.30 & C-10.31	Construction Standard Drawings C-10.30 Construction Standard Drawings C-10.31
8	Critical	The space around and under the posts placed in manually or mechanically dug holes shall be backfilled with moist soils placed in compacted lifts as approved by the Engineer.	Standard Specifications 2021 905-3.02 pg. 1036
9	Critical	Wood blockouts are toe-nailed to the wood posts with one 16-penny galvanized nail on each side of the top of the blockout. Blockouts are set so that the top of the blockout is no more than 1/2 inch above or below the top of the post, unless otherwise shown on the project plans.	Standard Specifications 2021 905-3.02 pg. 1037
10	Critical	The first 9 timber posts in the direction of travel are measured and meet dimensions 6" x 8" x 72".  The dimensions of timber posts and blockouts do not vary more than $\pm \frac{1}{4}$ " from the nominal dimensions as hereinbefore specified.	Construction Standard Drawings C-10.30  Standard Specifications 2021 1012-3.02 pg. 1227
11	Critical	The timber posts #10 to #12 in the direction of travel are measured and meet dimensions 8" x 10" x 78".  The dimensions of timber posts and blockouts do not vary more than $\pm \frac{1}{4}$ " from the nominal dimensions as hereinbefore specified.	Construction Standard Drawings C-10.30  Standard Specifications 2021 1012-3.02 pg. 1227
12	Critical	The first 9 steel posts in the direction of travel are measured and meet dimensions W6x8.5x72".	Construction Standard Drawings C-10.31
13	Critical	The steel posts #10 to #12 in the direction of travel are measured and meet dimensions W6x15x84".	Construction Standard Drawings C-10.31

14	Critical	<p>The first 3 timber blockouts in the direction of travel are measured and meet dimensions 6" x 12" x 14 1/4".</p> <p>The dimensions of timber posts and blockouts do not vary more than <math>\pm 1/4</math>" from the nominal dimensions as hereinbefore specified.</p>	<p>Construction Standard Drawings C-10.30</p> <p>Standard Specifications 2021 1012-3.02 pg.1227</p>
15	Critical	<p>The timber blockouts #4thru #9 in the direction of travel are measured and meet dimensions 6" x 12" x 19".</p> <p>The dimensions of timber posts and blockouts do not vary more than <math>\pm 1/4</math>" from the nominal dimensions as hereinbefore specified.</p>	<p>Construction Standard Drawings C-10.30</p> <p>Standard Specifications 2021 1012-3.02 pg. 1227</p>
16	Critical	<p>The timber blockouts #10 to #12 in the direction of travel are measured and meet dimensions 6" x 8" x 19".</p> <p>The dimensions of timber posts and blockouts do not vary more than <math>\pm 1/4</math>" from the nominal dimensions as hereinbefore specified.</p>	<p>Construction Standard Drawings C-10.30</p> <p>Standard Specifications 2021 1012-3.02 pg. 1227</p>
17	Critical	<p>Thrie-beam rail elements, when spliced, are lapped in the direction of traffic of the nearest adjacent lane.</p>	<p>Standard Specifications 2021 905-3.01pg. 1036</p>
18	Critical	<p>All bolts are tightened and extend beyond the nuts a minimum of two threads, except that all bolts on posts adjacent to pedestrian traffic shall be cut off 1/4 inch from the nut.</p>	<p>Standard Specifications 2021 905-3.01. pg. 1036</p>
19	Critical	<p>The top of the guardrail is 31" to the top of the finished roadway, measured at the face of the rail.</p>	<p>Construction Standard Drawings C-10.30</p> <p>Construction Standard Drawings C-10.31</p>
20	Critical	<p>There are two nested locations within the system. At the beginning, there are two 12' 6" sections of W-Beam Guardrail. And at the end of the system, there are two 12' 6" sections of Thrie-Beam Guardrail.</p>	<p>Construction Standard Drawings C-10.30</p> <p>Construction Standard Drawings C-10.31</p>
21	Critical	<p>Thrie-beam terminal connector plate dimensions comply with current Construction Standard Drawing.</p>	<p>Construction Standard Drawings C-10.30, Detail A</p> <p>Construction Standard Drawings C-10.31, Detail A</p>
22	Critical	<p>Flexible vertical delineators shall be installed on the side of the post facing oncoming traffic, level and true, with the retroreflective sheeting 38 inches above the roadway surface.</p>	<p>Standard Specifications 2021 905-3.11 (A), pg. 1040</p>
23	Critical	<p>The color of the reflective portion of the barrier markers conform to the color of the adjacent edge line.</p>	<p>Standard Specifications 2021 905-3.11(A), pg. 1040</p>
24	Major	<p>When nails are used to secure delineation to the top of wood posts, a minimum of two nails shall be driven at an angle to prevent the post from splitting.</p>	<p>Standard Specifications 2021 905-3.11 (A) pg. 1046</p>
25	Major	<p>Flexible vertical delineators shall be secured with two galvanized lag screws (1/8 dia. x 2 inches long) and flat washers.</p>	<p>Standard Specifications 2021 905-3.11 (A) pg. 1040</p>

26	Major	Side mounted delineators shall be secured to metal posts with two 1/8 dia. x 3/4 inch long bolts, flat washers, and lock nuts. (Self-tapping 1/8-inch screws may be used as permitted by the Engineer.)	Standard Specifications 2021 905-3.11 (A) pg. 1040
27	Major	The Contractor shall remove and replace damaged delineation at no additional cost to the Department.	Standard Specifications 2021 905-3.11 (A) pg. 1040
28	Minor	Quantlist Minimum Frequency is being followed, One per installation.	Construction Bulletin 07-01