

Inspector Quantlist Report 20190806

Diary Number: _____ Inspector Name: _____

TRACS Number: _____ Date: _____

Division IX: Incidentals

Title: W-Beam Guardrail MASH

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

Attribute Numbers	Weight	Attributes	Reference
0	Minor	All stakeholders have participated in the pre-activity meeting (can be combined with other pre-activity).	Construction Bulletin 02-01
1	Minor	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 Specification 905-2 Standard Specification 1012-1 Standard Specification 106.05 A & B Special Provisions 106.05 A & B
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.	Special Provisions 106.15 Standard Specification 106.05 23 CFR Part 635
4	Critical	When guardrail is being constructed, or reconstructed under traffic, the contractor shall conduct its operations so as to constitute the least hazard to the public and construction personnel. Traffic control shall be provided in accordance with the requirements of Section 701.	Standard Specification 905-3.01 Special Provisions 905-3.01
5	Minor	For other than High Strength Anchor Bolts, Certificate of Compliance required and three samples per lot, or 0.1% of lots in excess of 3000, for each bolt diameter, including nuts and washers.	Construction and Materials, Materials Quality Assurance. Appendix C Table 8-1012
6	Critical	AZ811 or Blue stake is done before placement of the post (locating utility, pipes, box culverts and sleeves).	Standard Specification 107.15 Special Provisions 107.15
7	Major	Driving of posts shall be accomplished in a manner which will prevent battering, burring, separation of the galvanizing from the steel or distortion of the post. Any post which is bent or otherwise damaged to	Standard Specification 905-3.02 Special Provisions 905-

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		the extent it is unfit for use in the unfinished work, as determined by the Engineer, shall be removed and replaced at no additional cost to the Department.	3.02
8	Major	New post holes, and existing post holes to be reused shall contain well compacted material under the post, and shall be backfilled with moist soils placed in compacted lifts as approved by the Engineer.	Standard Specification 905-3.02 Special Provisions 905-3.02
9	Major	Guardrail posts shall be set to the line, grade, and spacing shown on the plans. Earthwork placement, grading, compacting, and bituminous surfacing shall be completed prior to installation of the guardrail posts.	Standard Specification 905-3.02
10	Major	Where field cutting or boring of wood posts and blockouts is permitted, the affected areas shall be treated in accordance with the American Wood Preservers Association Standard M4.	Standard Specification 905-3.01
11	Major	Where curb, gutter, sidewalk, buried items, shoulders, or pavement are disturbed in the construction of guardrail, the damage shall be repaired as approved by the Engineer.	Standard Specification 905-3.02
12	Major	All metalwork shall be fabricated in the shop. No punching, drilling, cutting or welding shall be done in the field, except as provided for under Subsections 905 3.04, 905 3.05, and 905-3.06.	Standard Specification 905-3.01 Special Provisions 905-3.01
13	Minor	All metal cut in the field shall be cleaned and painted with two coats of zinc paint, in accordance with Section 1002.	Standard Specification 905-3.01
14	Major	The nominal dimensions of wood posts are 6" x 8" x 72" tolerances is in accordance with the current Policy and Procedure Directive for timber posts and blocks. (+/- 1/2" in width and +/- 1/8" in length.)	Policy and Procedure Directive Number 9 (5)
15	Major	The nominal dimensions of wood block outs are 12"D x 6"W x 14 1/4"L tolerances is in accordance with the current Policy and Procedure Directive for timber posts and blocks.(+/- 1/2" in width and +/- 1/8" in length.)	Policy and Procedure Directive Number 9 (5)
16	Major	Rail elements shall be spliced at 25 foot intervals or less, and Rail elements shall be spliced halfway between adjacent posts unless otherwise shown on the project plans.	Standard Specification 905-3.02 Special Provisions 905-3.02
17	Major	Guardrail elements are spliced by lapping in the direction of traffic in the nearest adjacent lane.	Standard Specification 905-3.01
18	Major	Unless otherwise specified, all surfaces of guardrail elements which are exposed to traffic shall present a uniform, pleasing appearance and shall be free of scars, stains or corrosion.	Standard Specification 1012-2
19	Critical	Maintain a distance of 59" between W-Beam face and rigid objects for Blocked-Out Timber Post.	Construction Standard Drawings C-10.03
20	Critical	Maintain a distance of 50" between W-Beam face and rigid objects for Blocked-Out Steel Post.	Construction Standard Drawings C-10.04
21	Critical	Rail height of guardrail, transitions, terminals, long span, box culvert posts, and end anchors shall be within ±1 inch of the control height shown on project plans. (MGS W-beam Guardrail height is 31")	Standard Specification 905-3.01 Special Provisions 905-3.01
22	Major	Flexible guardrail markers shall be either L-shaped, U-shaped (for steel I-beam posts), or T shaped delineators, or flexible vertical delineators. Flexible L-shaped, U-shaped, and T shaped delineators shall be installed on the top of the posts, and shall be placed as close as possible to the roadway edge of the post with the retroreflective surface facing oncoming traffic of the nearest traveled lane.	Standard Specification 905-3.11(A)
23	Minor	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.(+/- 1" tolerance)	Standard Specification 905-3.11(A)

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24	Minor	Side mount flexible vertical delineators shall be secured to the post with Two 1/8" x 2" galvanized lag screws and flat washers.	Standard Specification 905-3.11(A) Special Provisions 905-3.11(A)
25	Minor	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.	Standard Specification 905-3.11(A)
26	Minor	Side mounted delineation shall be secured to metal posts by drilling two holes through the post and attaching with two galvanized 1/8-inch diameter by 3/4-inch long bolts, flat washers, and lock nuts. Self-tapping 1/8" screws may be used as permitted by the Engineer.	Standard Specification 905-3.11(A) Special Provisions 905-3.11(A)
27	Major	Flexible guardrail markers shall be installed at every sixth post. On radial sections of guardrail, the flexible guardrail markers shall be placed at every other post.	Standard Specification 905-3.11(B)
28	Major	The color of the reflective portion of the barrier markers conform to the color of the adjacent edge line.	Standard Specification 905-3.11(A)
29	Minor	Method of Measurement: Guardrail, of the type shown on the project plans, will be measured by the linear foot along the face of the rail element from center to center of splices.	Standard Specification 905-4 Special Provisions 905-4
30	Minor	Basis of Payment: The accepted quantities of guardrail, measured as provided above, will be paid for at the contract unit price per linear foot for the types of guardrail installation designated in the bidding schedule, complete in place, including all guardrail delineation, excavation, backfill and disposal of surplus material.	Standard Specification 905-5
31	Minor	The minimum reflective area for L-shaped and T-shaped markers, attached to the top of wooden posts, and U-shaped markers, attached to the top of steel I-beam posts, shall be ten square inches.	Standard Specification 905-2 Special Provisions 905-2
32	Minor	The reflectorized surface for flexible vertical guardrail markers attached to the approach side of posts shall be three inches wide by five inches long.	Standard Specification 905-2
33	Minor	Quantlist Minimum Frequency is being followed, One per installation.	Construction Bulletin 07-01