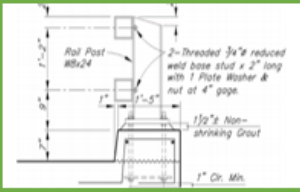
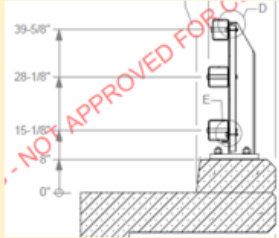

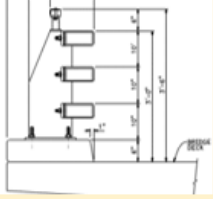


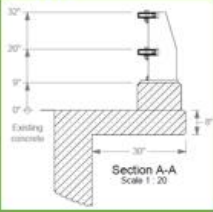


NCHRP Report 350 Rail System Type	MASH Test Level			
	TL-2	TL-3	TL-4	TL-5
Metal Beam-and-Post on Curb	TL-2 TL-3 TL-4			TL-5
Metal Beam-and-Post on Parapet*	TL-2	TL-3 TL-4		TL-5

## NCHRP 20-07 Global Equivalency - Concrete parapet height greater than or equal to 24 inches

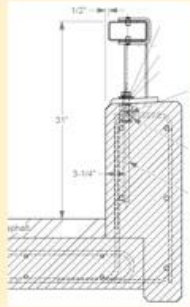
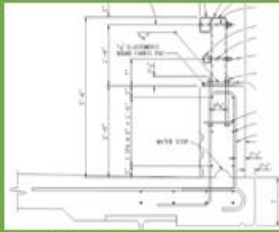



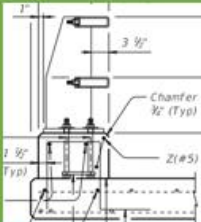
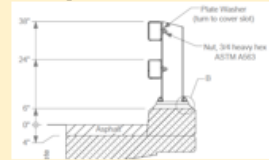
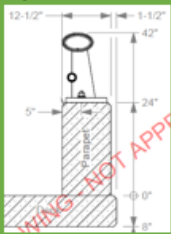
		Test Level			
		TL-2	TL-3	TL-4 <sup>A)</sup>	TL-5 <sup>B)</sup>
Traffic Only w/ Curb	<p><b>32.5" Alaska Multi State Rail</b> Eg. Analysis: 3-10, 3-11 Doc.: NCHRP 20-07, Task 335</p>  <p>Similar Less Critical Rails: Two-Tube Bridge Rail (Federal Loads) 2-Tube Curb Mount Rail (OR) PA Type 10M Bridge Barrier (PA) Type 10M (CO) Doc.: NCHRP 20-07, Task 335</p>			<p><b>MassDOT S3-MTL4 Curb-Mounted</b> Planned Full Suite tests</p> 	
	<p><b>36" TxDOT TIP (Picket Rail)</b> Full Suite Full-scale tests: 3-10, 3-11 Doc.: FHWA/TX-12/13-1002-12-2</p> 			<p><b>36" California ST-75 Bridge Rail</b> Planned Full Suite tests (by 2019) Design completed by Caltrans</p> 	
	<p><b>33" TxDOT TIF</b> Full-scale test: 3-11 Doc.: 408013-1</p> 				
	<p><b>36" TxDOT T131RC</b> 3-11 (Full-scale test) 3-10 (Eg. analysis) Doc.: FHWA/TX-12/13-1002-12-1</p> 				
	<p><b>32" TxDOT T1W</b> Full Suite Full-scale tests: 3-10, 3-11 Report Pending</p> 				

### MASH Compliant Systems or under MASH Evaluation: Concrete & Metal Traffic Only w/Curb

DARK GREEN: Documentation complete. The Documentation is NCHRP Report 20-07, Task 395 or report from an accredited crash test facility.

LIGHT GREEN: TTI feels the system is MASH compliant. The documentation would be a professional opinion (not yet completed).

LIGHT YELLOW: Systems are planned for full-scale crash testing.

		Test Level			
		TL-2	TL-3	TL-4 <sup>A)</sup>	TL-5 <sup>B)</sup>
Traffic Only w/ Parapet			<b>32" Glenwood Canyon</b> Planned Full matrix testing 	<b>42" Aesthetic Parapet Tube B-25-J (Michigan)</b> Eng. analysis: 4-10, 4-11, 4-12 Doc.: NCHRP 20-07, Task 395 	<b>50" PennDOT PA Rail</b> Full Suite Full-scale tests: 5-10, 5-11, 5-12 
				<b>Similar Less Critical Rail:</b> <b>S-352 Galvanized Steel Tubing Concrete Combination Rail (VT)</b> Doc.: NCHRP 20-07, Task 395 <b>39" Lake Pontchartrain Causeway Single Rail</b> Full Suite Full-scale tests: 4-10, 4-11, 4-12 	
				<b>46" Lake Pontchartrain Causeway Dual Rail</b> Full Suite Full-scale tests: 4-10, 4-11, 4-12 	
		<b>32" TxDOT T1W</b> Full-scale tests: 3-11, 3-10 Report Pending 			
			<b>38" Redesign of Alaska Multi-State (2-Tube)</b> Planned testing full matrix 		
			<b>42" TxDOT T402</b> Full Suite Full-scale tests: 4-10, 4-11, 4-12 Doc.: Report Pending 		

MASH Compliant Systems or under MASH Evaluation: Concrete & Metal Traffic Only w/ Parapet