

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION



BUREAU OF BRIDGE DESIGN



BDM CHAPTER 11 - REVISION HISTORY

Date of Revision	Action	Location of Change	Revision Description	Background
11/21/2023	Revisions to Sections	See highlighted chapter	Changes made to chapter are shown with highlights on this pdf .	Changes made to update chapter
7/17/2020	Section 11.4, 11.8, Appendix 11.5-A4 Replace all pages.	Section 11.4.1, page 11.4-1 Section 11.8.1, page 11.8-3 Appendix 11.5-A4	<p>Section 11.4.1: Added asterick and note.</p> <p>Revised #27: From: Concrete Barrier To: Permanent Concrete Barrier</p> <p>Section 11.8.1: Deleted bullet: "For deck patching, curb/coping, and expansion joint rehabilitation, all new reinforcing shall be epoxy coated bars and can tie to black bars, unless directed otherwise by the Design Chief." Added: Section 11.8.2, 11.8.3, and 11.8.4</p> <p>Appendix 11.5-A4: Added Items: 403.11043, 403.12023, 403.16, 403.21053, 403.26, 403.29, 520.02012, 520.02013, 540.511, 540.512 Revised Item: 520.0201</p>	<p>Clarifying sheet sequence and type of reinforcing to use on bridge rehabilitation projects. The portable concrete barrier sheets are no longer included in the contract plans. They are available online for the Contractors.</p> <p>Added guidance of when to use concrete items, epoxy coating reinforcing, and guidance on glavanic anodes.</p>
6/4/2020	Section 11.8 Replace all pages. Appendix 11.5-A4 Replace all pages.	Section 11.8.1, page 11.8-2,3 Appendix 11.5-A4	<p>Revised 9th bullet: From: Item 520.0201, Concrete Class AA, Above Footings shall be used for the backwall, concrete curbs and full depth deck repairs for a bridge rehabilitation project. This item is being used for the following reasons:</p> <ul style="list-style-type: none"> o Item 520.0201 was created as a non final pay item after Item 520.02, Concrete Class AA, Above Footings was made into a final pay item. o The quantity of full depth repairs is an estimate and a non final pay item is required. Also, the concrete for the deck and backwall are from the same mix. o The new concrete for patched areas does not need to meet the QC/QA requirements since the existing deck concrete does not meet the requirements. o The "Above Footings" concrete items are items that require forming such as full depth repairs, curbs, and backwall work. The Concrete Class AA items that don't have "Above Footings" in the description do not require forming of the concrete, such as partial depth deck repair, and will therefore utilize Item 520.01, Concrete Class AA. 	Contractors requested additional concrete item numbers for bridge rehabilitation projects to help in estimating costs.

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			Added bullets #10 to #12.	
2/8/2016	Section 11.1 Replaces all pages.	Section 11.1 page 11.1-1	Updated link to NHDOT CAD/D website	
2/8/2016	Section 11.2 Replace all pages.	Section 11.2.7 page 11.2-3	Added bullet: • Show dead load camber, and dead load and live load deflections to the nearest 1/16-in. (2-mm).	
		Section 11.2.10 page 11.2-4	Added bullet: • Verify legibility when the drawings are reproduced to an 11x17-in. (279x432-mm) print.	
2/8/2016	Section 11.6 Replace all pages.	Section 11.6.1, page 11.6-2	<p>Added bullet:</p> <ul style="list-style-type: none"> • <i>Rebar Schedule: Dimension partial lengths of reinforcing steel to the nearest 1/4-in. (5-mm); dimension overall lengths to the nearest 1-in. (25-mm).</i> <p>Added bullet:</p> <ul style="list-style-type: none"> • <i>In order to achieve standard stock lengths, reinforcing steel mechanical connectors should be dimensioned on the reinforcing schedule with the following splice lengths (where practical): Item 544.11, Reinforcing Steel, Mechanical Connector Item 544.21, Reinforcing Steel, Epoxy Coated, Mechanical Connector</i> 	<p>Projects should have consistent dimensioning.</p> <p>Included a chart that notes the standard splice length for mechanical connectors. Contractors have asked we establish standard splice lengths for mechanical connectors. Currently, the suppliers do not stock them because each project has different splice lengths noted on the plans even if they are the same bar size. This creates a long lead time to order the special reinforcing bars.</p>
2/8/2016	Section 11.8 Replace all pages.	Section 11.8.1, page 11.8-3	<p>Revised 2nd to last bullet to:</p> <ul style="list-style-type: none"> • <i>For deck patching, curb, and expansion joint rehabilitation projects, all new reinforcing shall be epoxy coated bars unless directed otherwise by the Design Chief.</i> <p>From:</p> <ul style="list-style-type: none"> • <i>For deck patching, curb, and expansion joint rehabilitation projects, all new reinforcing shall be epoxy coated bars. All existing black reinforcing steel shall be coated with anti-corrosion coating as noted in the supplemental specification amendment to Section 511. All costs shall be subsidiary to Item 511.0X, Preparation for Partial/Full Depth Concrete Bridge Deck Repairs.</i> 	<p>The existing black bars will no longer be painted with an anti-corrosion coating. It was found to be very difficult for the Contractor to make sure all areas of the exposed bar was coated, especially underneath the bar and where it was sitting on another bar. If there was any area not covered with the coating then the corrosion process would still occur, thus making the coating ineffective.</p>
2/8/2016	References Replaces all pages.	Page 11.R-1	Updated link to NHDOT CAD/D website	

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2/8/2016	Appendix 11.5-A4 Replace all pages.	page 11.5-A4-1,3	<p>Added Item 403.61, Pavement Joint Adhesive (Bridge Base)</p> <p>Revised Item 511.0X, Preparation for Concrete Bridge Deck Repairs</p> <p>Revised Item 534.3, Water Repellent (Silane-Siloxane): Removed: Need to indicate the total square footage on the plans. Place the sf total next to the item description on the Summary of Quantities Table.</p> <p>Revised Item 583.X, Riprap, Class X</p> <p>Revised Item 585.X, Stone Fill, Class X</p> <p>Removed Item 587, Keyed Stone Fill</p>	<p>The sf of water repellent is no longer needed since the sf can be determined by multiplying the total gallons by 150 sf/gal.</p> <p>Item 583.x, Riprap, Class x – Revised specification. Riprap is required for erosion protection of bridge structures in waterways, for active waterway channel slopes and bottoms, and for intermittent waterway channels where the Engineer determines riprap protection is required to resist expected high water flow velocities or volumes. The designer shall specify a median stone diameter for the rock to correspond with the standard classes noted in the specification. (This is the only item that will be used for bridge channel protection.)</p> <p>Item 585.x, Stone Fill, Class x – This item will be used for highway work such as roadway slope protection and at drainage outlets.</p> <p>Item 587, Keyed Stone Fill – removed. (Parts of this specification were combined with Item 583.x to create one new channel protection specification.)</p>
2/8/2016	Appendix 11.9-A1 Replace all pages.	page 11.9-A2, 3	<p>Added List of Bridge Details:</p> <ul style="list-style-type: none"> • <i>Substructure</i> <p>Added to List of Sample Plans:</p> <ul style="list-style-type: none"> • <i>Sample Project Notes</i> 	Added details.