## ERRATA Nebraska Department of Transportation Drainage Design and Erosion Control Manual

## Chapter One: Drainage

<sup>(2)</sup> August 2018

July 2017 ① April 2018

The <u>Drainage Design and Erosion Control Manual</u> (*Drainage Manual*) was issued in August 2006 with Chapter Three and Appendices L through R being issued in September 2013. In the intervening years some design guidance has become obsolete, new/updated guidance has become available, offices of responsibility have changed, design procedures have been streamlined, etc. The NDOT is in the process of updating the *Drainage Manual* but, in the interim, the obsolete/incorrect guidance is being addressed through this document and a re-issued *Drainage Manual*. Page numbers cited in this document are referenced to the <u>August 2018 Errata Drainage Manual</u>. Deleted text in the <u>August 2018 Errata Drainage Manual</u> is in green with a strike through (errata) and new/corrected text will is in red (correct). The following chapters have already been addressed:

- ② Contents (updated in August 2018)
- ② List of Exhibits (updated in August 2018)
- ① Chapter Three: <u>Stormwater Treatment</u> (updated on April 20, 2018)
- 2 Index (updated in August 2018)

The following items pertain to the entire manual:

- July 2017 and all subsequent changes Chapter and **EXHIBIT** citations have been updated to the latest edition of the *Drainage Manual*
- All references to the **Nebraska Department of Roads** (**NDOR**) have been changed to the **Nebraska Department of Transportation** (**NDOT**)
- Slope designation has been changed from horizontal to vertical (3:1) to vertical to horizontal (1:3)
- All references to Treatment Best Management Practices (BMPs) are now Stormwater Treatment Facilities (STFs)
- Links to web sites have been updated as required

Page	Existing Text	Corrected Text
Chapter One		
1-6	Section 5.C: <u>Floodplain Information</u> - "If the project is in a FEMA regulated floodplain, certification must be obtained and sent to the Environmental Unit in Planning and Project Development."	"If the project is in a <b>FEMA</b> regulated floodplain, certification must be obtained and sent to the <b>Environmental Unit</b> in the <b>Project Development</b> <b>Division</b> ."
1-6	<b>Section 5.C:</b> <u>Floodplain Information</u> - "The Nebraska Administrative Code Title 258, Chapter 1, (Reference 1.16), (web site), provides rules and regulations related to construction in floodplains."	"The Nebraska Administrative Code Title 455, Chapter 1, (Reference 1.16), (web site), provides rules and regulations related to construction in floodplains."
1-35		<b>Section 8.A.2: 3R Projects</b> – "For additional information, see the <u>Roadway Design Manual</u> , Chapter Seventeen: <u>Resurfacing, Restoration and Rehabilitation (3R) Projects</u> , (Reference 1.24)."
1-38		Section 8.C: <u>Culvert Type, Material and</u> <u>Location</u> – "Corrugated metal pipe will not be permitted in the southeast counties of Gage, Nemaha, Richardson, Pawnee, Johnson, Otoe or any other locations that are designated by the <b>Materials and Research Division</b> (M&R) as unsuitable for corrugated metal pipe." Note: this is existing guidance from the Pipe Policy.
1-43	<b>Exhibit 1.26: Condition B</b> – Maximum Allowable Headwater shown at the top of outside edge at the shoulder point.	Maximum Allowable Headwater shown one foot below the top of outside edge at the shoulder point.

Page	Existing Text	Corrected Text
Chapter One		
1-52	<b>Section 8.L.1: Broken-Back Culverts</b> – "BCAP has been placed on the Hydraulic Engineering Software Reference List at: (web site), and is available for free download at: (web site)."	"BCAP is available for free download at: (web site)."
1-56	Section 8.O: <u>Multiple-Use Culverts</u> – "Bicycle/pedestrian underpass design shall be coordinated with the Bicycle/Pedestrian Coordinator in Planning and Project Development. For additional information, see the <u>Roadway Design Manual</u> , Chapter Ten: <u>Miscellaneous Design Issues</u> , Section 10, (Reference 1.24)."	"Bicycle/pedestrian underpass design shall be coordinated with the <b>Bicycle/Pedestrian</b> <b>Coordinator</b> in the <b>Project Development</b> <b>Division</b> . For additional information, see the <u>Roadway Design Manual</u> , Chapter Sixteen: <u>Pedestrian and Bicycle Facilities</u> , Section 5, (Reference 1.24)."
© 1-57		Section 8.Q: <u>Structural Requirements</u> – added new next to last) sentence "Control joints will be used in concrete box culverts with fills over 10 feet when settlement is anticipated (See Reference 1.8, Standard Plan 404)."
© 1-58		<ul> <li>Section 8.R: <u>Culvert Excavation Measurement</u> – added new seventh bullet</li> <li>"When an existing bridge structure is replaced with a concrete box culvert, earthwork will be a shared responsibility of the culvert contractor and the grading contractor. See the <u>Roadway</u> <u>Design Manual</u> (Ref. 1.24), Chapter Seven: <u>Earthwork</u>, Section 3.A for the demarcation between the culvert and the grading contractor's responsibilities."</li> </ul>

Existing Text	Corrected Text
Section 11: SANITARY SEWERS – "All sanitary sewer design and construction will require review and approval from the Nebraska Department of Environmental Quality (See <u>Recommended Standards for Wastewater</u> <u>Facilities</u> , Reference 1.18, web site)."	"All sanitary sewer design and construction will require review and approval from the <b>Nebraska</b> <b>Department of Environmental Quality</b> (See <u>Rules and Regulations for the Design, Operation</u> <u>and Maintenance of Wastewater Works</u> , Reference 1.18, web site)."
<b>REFERENCES</b> – "1.18 <u>Recommended</u> <u>Standards for Wastewater Facilities, Policies for</u> <u>the Design, review and Approval of Plans and</u> <u>Specifications for Wastewater Collection and</u> <u>Treatment Facilities, 1997 Edition, A Report of</u> the Wastewater Committee of the Great Lakes – Upper Mississippi River Board of State Public Health and Environmental Manager. (web site)"	"1.18 State of Nebraska Administrative Code Title 123 – Rules and Regulations for the Design, Operation and Maintenance of Wastewater Works, Chapter 5 – Design Standards. (web site)"
	Section 11: SANITARY SEWERS – "All sanitary sewer design and construction will require review and approval from the Nebraska Department of Environmental Quality (See <u>Recommended Standards for Wastewater</u> Facilities, Reference 1.18, web site)." REFERENCES – "1.18 <u>Recommended</u> <u>Standards for Wastewater Facilities, Policies for</u> the Design, review and Approval of Plans and <u>Specifications for Wastewater Collection and</u> <u>Treatment Facilities</u> , 1997 Edition, A Report of the Wastewater Committee of the Great Lakes – Upper Mississippi River Board of State Public Health and Environmental Manager. (web site)"