The Drainage Design and Erosion Control Manual (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 August 2018 Errata Drainage Manual. Deleted text in the August 2018 Errata Drainage Manual is in green with a strike through (errata) and new/corrected text is in red (correct). The following chapters have already been addressed:

- Contents (updated in August 2018)
- List of Exhibits (updated in August 2018)
- Chapter Three: Stormwater Treatment (updated on April 20, 2018)
- 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
Chapter Two

2-1 Introductory Comments - “Designers should work closely in the early stages of design with the Roadside Stabilization Unit in Planning and Project Development to achieve erosion and sediment control objectives.”

2-1 Introductory Comments - “The Planning and Project Development Division requests this permit, (See the Roadway Design Manual, Chapter Thirteen: Planning and Project Development, Section 4, Reference 2.16, (web site)).”

2-2 Section 1: EROSION AND SEDIMENT CONTROL OBJECTIVES – “The Planning and Project Development Division will coordinate the permitting requirements (See the Roadway Design Manual, Chapter Thirteen: Planning and Project Development, Section 4, (Reference 2.16)).”

2-5 Section 3: GENERAL EROSION AND SEDIMENT CONTROL DESIGN CONSIDERATIONS – “The Erosion Control Plan-In-Hand Checklist, EXHIBIT E of the Design Process Outline, (Reference 2.17, web site), is available to the designer as a tool, used to determine additional items to examine on the Plan-in-Hand.”

“Designers should work closely in the early stages of design with the Roadside Development & Compliance Unit (RDC) in the Project Development Division to achieve erosion and sediment control objectives.”

“The Project Development Division requests this permit, (See the Roadway Design Manual, Chapter Thirteen: Planning and Project Development, Section 4, Reference 2.16, (web site)).”

“The Project Development Division will coordinate the permitting requirements (See the Roadway Design Manual, Chapter Thirteen: Planning and Project Development, Section 4, Reference 2.16).”

“The Erosion Control Plan-In-Hand Checklist, EXHIBIT F of the Design Process Outline, (Reference 2.17, web site), is available to the designer as a tool, used to determine additional items to examine on the Plan-in-Hand.”
Chapter Two

Section 3: GENERAL EROSION AND SEDIMENT CONTROL DESIGN CONSIDERATIONS – “It should then be sent to the Roadside Stabilization Unit in Planning and Project Development, along with the erosion and sediment control plans, for their review and comment prior to the final plan review, (See the Roadway Design Manual, Chapter Two: Roadway Design Process, Section 7, Reference 2.16).”

Section 4: EROSION AND SEDIMENT CONTROL PLANS – “Based on the complexity of the project, the Roadside Stabilization Unit, along with the roadway designer, will determine how to properly show the erosion and sediment control design on the plan.”

Section 5.B.1: Covercrop Seeding – “Consult the Roadside Stabilization Unit in Planning and Project Development for details.”

Section 5.B.4: Temporary Slope Protection – “The Temporary Slope Protection material may be anchored by whatever methods the contractor deems necessary, see Section 810.03 of the Supplemental Specifications to the Standard Specifications for Highway Construction, (Reference 2.10a).”

Section 4: EROSION AND SEDIMENT CONTROL PLANS – “Based on the complexity of the project, the Roadside Development & Compliance Unit, along with the roadway designer, will determine how to properly show the erosion and sediment control design on the plan.”

Section 5.B.1: Covercrop Seeding – “Consult the Roadside Development & Compliance Unit in the Project Development Division for details.”

Section 5.B.4: Temporary Slope Protection – “The Temporary Slope Protection material may be anchored by whatever methods the contractor deems necessary.”
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<td><strong>Section 5.C.1: Temporary Erosion Checks</strong> – “Erosion Checks are listed on the Approved Products List and any item in this category may be used in a temporary application.”</td>
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<td><strong>Section 6.A.5: Erosion Control “Type_” Products</strong> – “The roadway designer should use special provisions to specify any brand name products recommended by the Roadside Stabilization Unit.”</td>
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<td><strong>Section 6.B.1: Erosion Checks</strong> – “The Roadside Stabilization Unit will review the final Erosion Check locations and intervals for each project.”</td>
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<td><strong>Section 6.B.1: Erosion Checks</strong> – “There are several types of Erosion Checks listed on the Approved Products List.”</td>
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<td><strong>Section 6.B.2: Silt Fence</strong> – “The Roadside Stabilization Unit will provide assistance for preliminary and final Silt Fence placement for specific situations and will aid in determining the appropriate Silt Fence type.”</td>
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<td>2-26</td>
<td><strong>Section 6.B.3: Slope Protection Netting</strong> – “Slope Protection Netting is typically installed in the sandhills on the east and south sides of high fills, see the Slope Protection Netting Special Plan in the Standard/Special Plans Book, (Reference 2.12), and Section 811 of the Standard Specifications for Highway Construction, (Reference 2.10).”</td>
<td>“Slope Protection Netting is typically installed in the sandhills on the east and south sides of high fills, see Standard Plan 5010 in the Standard/Special Plans Book, (Reference 2.12), and Section 811 of the Standard Specifications for Highway Construction, (Reference 2.10).”</td>
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<td><strong>Section 7.E.2: Concrete Flumes</strong> – “The above ground spillways (Drop Curb and Concrete Flume Types I and II) convey the water collected from the gutter down the top of the foreslope in a curbed concrete spillway, (Refer to the “Drop Curb for Drainage” Information Plan, “Concrete Flume Type I” Special Plan, and the “Concrete Flume Type II” Special Plan in the Standard Special Plans Book, Reference2.12).”</td>
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<td>2-41</td>
<td><strong>Section 7.E.2: Concrete Flumes</strong> – “The buried flume pipe structures (Concrete Flume Types IV through VIII) convey the water collected by a grate or area inlet down a 15 in. (375 mm) corrugated metal pipe buried in the foreslope embankment, (Refer to the Concrete Flume Types IV through VIII Special Plans in the Standard/Special Plans Manual, Reference 2.12, web site).”</td>
<td>“The buried flume pipe structures convey the water collected by a grate or area inlet down a 15 in. (375 mm) corrugated metal pipe buried in the foreslope embankment, (Refer to Standard Plans 5470 and 5480 in the Standard/Special Plans Manual, Reference 2.12, web site).”</td>
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Chapter Two

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Section 7.E.2: Concrete Flumes – “Prior to the plan-in-hand field inspection the designer will create a list of all roadway grades between 2% and 3½% and a list of all roadway grades greater than 3½% for a comparative analysis of erosion control techniques (i.e. curb and flume vs. other erosion control methods).” Note: this is existing guidance from the DPO

2-44

Section 7.F.2: Intercepting Ditch – “The Roadside Stabilization Unit in Planning and Project Development can be consulted and will provide recommendations on the location of intercepting ditches.”

“Cast-in-place concrete ditch lining details are provided in Standard Plan 4550 in the Standard/Special Plans Manual (Reference 2.12) and in Section 908 of the Standard Specifications for Highway Construction, (Reference 2.10).”

2-48

Section 7.H.2: Cast-In-Place Concrete Ditch Lining – “Cast-in-place concrete ditch lining details are provided in Section 908 of the Standard Specifications for Highway Construction, (Reference 2.10).”

2-52

Section 7.I.2: Sediment Basin – “The Roadside Stabilization Unit in Planning and Project Development recommends sediment basin locations. Sediment basins should be expected prior to clear running streams and where downstream land use is sensitive to sedimentation.”

“The Roadside Development & Compliance Unit in the Project Development Division recommends sediment basin locations. Sediment basins should be constructed prior to clear running streams and where downstream land use is sensitive to sedimentation.”

2-60

REFERENCES – “2.19 Nebraska Department of Transportation, Approved Products List, Current Edition, (web site)”