ERRATA
Nebraska Department of Transportation
Roadway Design Manual

Chapter Three: Roadway Alignment

① January 2023

The last update to the Roadway Design Manual (*RDM*) was in May 2022. In the intervening time 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 continually in the process of updating the *RDM* but, in the interim, the obsolete/incorrect guidance is being addressed through this document and a re-issued *RDM*. Page numbers cited in this document are referenced to the January 2023 Errata RDM. Deleted text in the Errata RDM (http://dot.nebraska.gov/business-center/design-consultant/rd-manuals/) is in green with a strike through (~~errata~~) and new/corrected text is in red (correct). Additions to previously added text is in blue (added).

THE FOLLOWING ITEMS PERTAIN TO THE ENTIRE MANUAL:

January 2023 and all subsequent changes – Sections and EXHIBITS have been re-numbered as required by the errata. Chapter and EXHIBIT citations, Clarity task numbers, references, and internet links are updated to the latest edition of the *RDM* as are the Contents, List of Exhibits, and the Index

① January 2023

- Design Process Outline (*DPO*) task order/ terminology updated to the July 2022 edition.
- The **Location Studies Section** in the **Planning and Project Development Division** (**PDD**) is now the **Project Scoping Section**
- The **PDD Environmental Documents Unit** (**EDU**) is now the **Environmental Project Management Unit** (**EPMU**)
- The **PDD Noise and Air Section** is now **Noise, Air & Hazmat** in the **PDD Roadside Development and Compliance Unit** (**RDC**)
- The **PDD RDC Manager** is now the **RDC Supervisor**
- The **PDD Highway Environmental Biologist** is now the **404/ Wetlands Biologist** of the **Technical Resources Unit** (**TRU**) in **PDD**

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① 3-2

New **Section 2.A: Maximum Allowable Deflection on a Horizontal Alignment Without a Curve**

As a general guide, any change in direction of the horizontal alignment with a deflection angle ≥ 0°30′ on high-speed roadways (≥ 50 mph) or ≥ 1° on low-speed (≤ 45 mph) and urban roadways will require a horizontal curve. Section 3.3.13, "General Controls for Horizontal Alignment", in Chapter 3 of the *Green Book* (Ref. 3.1) contains the following guidance:

- For small deflection angles, curves should be sufficiently long to avoid the appearance of a kink. Curves should be at least 500 feet long for a central angle of 5°, and the minimum length should be increased 100 feet for each 1° decrease in the central angle. The minimum length for horizontal curves on main highways, ($L_{c\ min}$) should be 15 times the design speed expressed in mph (V), or $L_{c\ min}$ = 15V. On high-speed controlled access facilities that use flat curvature for aesthetic reasons, the desirable minimum length for curves ($L_{c\ des}$) should be double the minimum length described above, or $L_{c\ des}$ = 30V.

For 3R projects, an improvement to the horizontal alignment may be considered if there is a relevant crash history. See Chapter Seventeen: Resurfacing, Restoration and Rehabilitation (3R) Projects, Section 3.B, of this manual for additional information.

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① 3-2	Renumbered **Section 2.B: Horizontal Curvature,** Third & fourth sentences – As a general guide, any change in direction with a deflection angle of 1° or greater will require a horizontal curve. For small deflection angles, curves should be long enough to avoid the appearance of kinks. See Section 3.3.13, "General Controls for Horizontal Alignment", in Chapter 3 of the Green Book (Ref. 3.1) for additional information.	Remove these sentences, superseded by new Section 2.A.
① 3-23	EXHIBIT 3.7**: Standards for Climbing Lanes,** Column 3 – "Minimum", Row 2 – "Shoulder Width" - Other: 4 feet paved plus 2 feet turf. (4)	Other: 4 feet paved plus a 2 feet turf transition. (4)
① 3-26	**Section 3.B.2: Design**, Fifth paragraph – The use of K values below the minimum values given in EXHIBITS 3.9 & 3.14 for a New and Reconstructed project will require **Roadway Design Engineer** approval, a design exception from the **FHWA** for projects on the NHS, and/ or a relaxation of the *MDS* (Ref. 3.2) (See Chapter One: Roadway Design Standards, Section 10.C, of this manual)	The use of K values below the stopping sight values given in EXHIBITS 3.9 & 3.14 for a New and Reconstructed project will require **Roadway Design Engineer** approval, a design exception from the **FHWA** for projects on the NHS, and/ or a relaxation of the *MDS* (Ref. 3.2) (See Chapter One: Roadway Design Standards, Section 10.C, of this manual)
① 3-26	**Section 3.B.2: Design**, Seventh paragraph, first sentence – Special attention to pavement drainage must be exercised where a K value in excess of 143 is used, a minimum roadway cross-slope of 1.5% should be maintained.	Special attention to pavement drainage must be exercised where a K value in excess of 167 is used, a minimum roadway cross-slope of 1.5% should be maintained.

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① 3-26	**Section 3.B.2: Design**, Seventh paragraph, second sentence – See Section 3.2.2, “Stopping Sight Distance”, in Chapter 3 of the *Green Book* (Ref. 3.1) for additional information.	Moved this sentence to the end of the first paragraph – better fit.
① 3-40	**Section 5.A: <u>Horizontal Alignment</u>,** Second bullet point – • Radius of curvature – to the nearest foot	• Radius of curvature – to the nearest 0.01 foot