

ERRATA
Nebraska Department of Transportation
Roadway Design Manual

Chapter Four: Intersections, Driveways and Channelization

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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**

② October 2023

- **Intelligent Transportation Systems (ITS)** transferred from the **Operations Division to Roadway Design** and combined with the **Lighting Unit (02-27-2023)**
- “Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (with 2013 Supplement)” replaced by “Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way” (August 2023)

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Chapter Four

② ERRATA OCTOBER 2023

② 4-5	Section 1.A.3: Roundabouts	New fifth bullet point on page – <ul style="list-style-type: none"> • Pavement Joints: Roundabout transverse and longitudinal joint widths will not exceed 14 feet
② 4-6 Thru 4-13		Added Section 1.A.4: Reduced Conflict Intersections and EXHIBIT 4.3 (Typical Reduced Conflict Intersections) , EXHIBIT 4.4 (Intersection Sight Distances for a RCI) , EXHIBIT 4.5 (RCI Example Island Details) , and EXHIBIT 4.6 (RCI Example Loon Details)
② 4-19	Section 1.C.2: Intersection Sight Distance , Second paragraph – The location of each intersection should be reviewed to identify sight restrictions. Intersections on New and Reconstructed projects should be designed for intersection sight distance for left-turns from a major roadway based on a passenger car (Case F from Section 9.5.3, “Intersection Control” in Chapter 9 of the <i>Green Book</i> , Ref. 4.1); Assistant Design Engineer (ADE) approval is required if this condition cannot be met. For additional information see <u>So You Want Access to the Highway</u> (Ref. 4.17) (web site).	The location of each intersection should be reviewed to identify sight restrictions. Intersections on New and Reconstructed projects should be designed for intersection sight distance for left-turns from a minor roadway based on a passenger car (Section 9.5.3.2.1, “Case B1 – Left-Turn from the Minor Roadway” in Chapter 9 of the <i>Green Book</i> , Ref. 4.1); Assistant Design Engineer (ADE) approval is required if this condition cannot be met. For additional information see <u>So You Want Access to the Highway</u> (Ref. 4.17) (web site).

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② 4-25

Section 1.C.6: Intersection Radius, Third paragraph –
 The minimum allowable distance between the edge of the full depth pavement and the outside edge of the tires of the turning design vehicle is two feet, the desirable distance is three feet.

The minimum allowable distance between the edge of the full depth pavement and the outside edge of the tires of the turning design vehicle is two feet inside the edge of the full depth pavement, the desirable distance is three feet.

② 4-31

Section 1.D.1: Turn Lane Length, Fourth paragraph, second & third sentences –
 A minimum length of 50 feet (storage space for two passenger cars) should be provided for speeds < 40 mph. A minimum 100 ft. of storage should be provided for high-speed and rural roadways.

A minimum length of 50 feet (storage space for two passenger cars) should be provided on urban and suburban streets with speeds ≤ 35 mph. A minimum 100 ft. of storage should be provided for high-speed urban and suburban streets (≥ 40 mph) and on rural roadways.

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② 4-32

Section 1.D.3: Offset Right-Turn Lanes,

Second paragraph –

1. The median island on the minor road should be 10 feet from the edge of the through lane (face of curb to the edge of the traveled way), regardless of shoulder width.
2. Assume that the driver's eye is 21 feet from the edge of the nearest through lane.
 - a. Per Section 9.5.3 of the Green Book (Ref. 4.1), the 7.5 second t(g) is for the driver's eye at 14.5 feet from the edge of the nearest through lane.
 - b. Add 0.27 sec to t(g) to adjust for the additional 6.5 feet of travel.
3. Design the Intersection Sight Distance (ISD) for five mph over the posted or anticipated speed limit.
4. Design the intersection sight line to the left for the vehicle crossing the nearest lane, including four-lane roadways. On four-lane roadways double check that a vehicle in the near lane at the required ISD does not block a vehicle in the second lane over (far lane) at the required ISD.
 - a. The near lane ISD = $1.47 \times V \text{ mph} \times 7.77 \text{ sec}$.
 - b. Far lane ISD = $1.47 \times V \text{ mph} \times 8.27 \text{ sec}$.

1. The median island on the minor road should be 10 feet from the edge of the through lane (face of curb to the edge of the traveled way), regardless of shoulder width and should extend down the side road beyond the turn lane.
2. Assume that the driver's eye is 20 feet from the edge of the nearest through lane.
3. Design the Intersection Sight Distance (ISD) for five mph over the posted or anticipated speed limit.
4. Design the intersection sight line to the left for the minor roadway design vehicle crossing the nearest lane, including four-lane roadways. On four-lane roadways double check that a vehicle in the near lane at the required ISD does not block a vehicle in the second lane over (far lane) at the required ISD.

② 4-33

EXHIBIT 4.16

Added Intersection Sight Distance tables

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② 4-48 and 4-49	<u>EXHIBITS 4.25 & 4.26</u>	Identified the 100 ft. Min. dimension as Storage Length
② 4-53	<p>Section 5.B.4.a: Type A Median Breaks –</p> <p>2. A storage length provided by Traffic Engineering. The minimum storage length will be 50 feet providing storage for two cars at 25 feet per car for speeds < 40 mph or 100 feet for high-speed and rural roadways. See the <i>Green Book</i> (Ref. 4.1), Tables 9-21 and 9-22 for additional information.</p>	<p>2. A storage length provided by Traffic Engineering. The minimum storage length will be 50 feet (providing storage for two passenger cars at 25 feet per car) for urban and suburban streets with speeds ≤ 35 mph or 100 feet for high-speed urban and suburban streets (≥ 40 mph) and on rural roadways. See the <i>Green Book</i> (Ref. 4.1), Tables 9-21 and 9-22 for additional information.</p>
② 4-54	<p>Section 5.B.4.b: Type B Median Breaks –</p> <p>2. A storage length. The minimum storage length will be 50 feet providing storage for two cars at 25 feet per car for speeds < 40 mph or 100 feet for high-speed and rural roadways. See the <i>Green Book</i> (Ref. 4.1), Tables 9-21 and 9-22 for additional information.</p>	<p>2. A storage length. The minimum storage length will be 50 feet (providing storage for two passenger cars at 25 feet per car) for urban and suburban streets with speeds ≤ 35 mph or 100 feet for high-speed urban and suburban streets (≥ 40 mph) and on rural roadways. See the <i>Green Book</i> (Ref. 4.1), Tables 9-21 and 9-22 for additional information.</p>
② 4-55 – 4-59, 4-61, 4-62, 4-66, and 4-67	<p><u>EXHIBITS 4.29 – 4.33, 4-35, 4-36, 4-40 & 4-41</u> –</p> <p>③ The minimum storage length should be 50 ft. (providing storage for 2 cars at 25 ft./car) for speeds < 40 mph or 100 ft. for high-speed and rural roadways. See Reference 4.1, Tables 9-21 and 9-22 for more information.</p>	<p>③ The minimum storage length should be 50 ft. (providing storage for 2 cars at 25 ft./car) for urban and suburban streets with speeds ≤ 35 mph, or 100 ft. for high-speed urban and suburban streets (≥ 40 mph) and on rural roadways. See Reference 4.1, Tables 9-21 and 9-22 for more information.</p>