

ERRATA

Nebraska Department of Transportation

Roadway Design Manual

Chapter Thirteen: Planning and Project Development

June 2016

① February 2017

② July/August 2017

③ February 2018

④ June 2018

⑤ August 2018

⑥ December 2018

The last update to the Roadway Design Manual (RDM) was in 2006. 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 *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 December 2018 Errata RDM. Deleted text in the December 2018 Errata RDM is in green with a strike through (**errata**) and new/corrected text is in red (**correct**). The following chapters have already been addressed:

- ⑥ Contents (updated in December 2018)
- ⑥ List of Exhibits (updated in December 2018)
- Chapter Three: Roadway Alignment (updated on June 17, 2011)
- Chapter Four: Intersections, Driveways and Channelization (updated on April 19, 2012)
- Chapter Six: The Typical Roadway Cross-Section (updated on February 18, 2016)
- ⑤ Chapter Seven: Earthwork (updated on August 2, 2018)
- Chapter Eight: Surfacing (updated on December 15, 2015)
- ⑥ Chapter Nine: Guardrail and Roadside Barriers (updated on December 13, 2018)
- ① Chapter Eleven: Highway Plans Assembly (updated on February 21, 2017)
- ② Chapter Twelve: Cost Estimating & Funding (updated on August 16, 2017)
- ① Chapter Fourteen: Traffic (updated on October 19, 2016)
- ③ Chapter Fifteen: Right-of-Way (updated on February 26, 2018)
- Chapter Sixteen: Pedestrian and Bicycle Facilities (added on February 8, 2016)
- Chapter Seventeen: Resurfacing, Restoration and Rehabilitation (3R) Projects (added on March 26, 2014)
- ⑥ Index (updated in December 2018)

The following items pertain to the entire manual:

- June 2016 and all subsequent changes – Chapter and EXHIBIT citations have been updated to the latest edition of the *RDM*
- ② July 2017 - All references to the **Nebraska Department of Roads (NDOR)** have been changed to the **Nebraska Department of Transportation (NDOT)**
- ⑥ December 2018 – Plan Sheet numbering updated (See Chapter Eleven, EXHIBIT 11.1)

Chapter Thirteen

① 13-1

Section 1: INTRODUCTION AND GENERAL CONSIDERATIONS - “The **Materials and Research Division**, the **Planning and Project Development Division** and the **Project Scheduling and Program Management Section** are responsible for the planning and project development processes and for liaison with other agencies and organizations that are involved in a project.”

“The **Materials and Research Division**, the **Intermodal Planning Division**, the **Project Development Division (PDD)** and the **Project Scheduling Section** of the **Program Management Division** are responsible for the planning and project development processes and for liaison with other agencies and organizations that are involved in a project.”

① 13-1

Section 2: PLANNING AND SCHEDULING –

- “The **Project Scheduling and Program Management Section** plans and programs highway improvements and then manages the **Project Scheduling System (PSS)**, which programs, schedules and monitors projects through preconstruction stages.
- The **Project Scheduling and Program Management Section** develops One Year Programs and Five Year and Beyond Programs.”

- “The **Project Scheduling Section** of the **Program Management Division** plans and programs highway improvements and then manages Clarity, which programs, schedules and monitors projects through preconstruction stages.
- The **Project Scheduling Section** of the **Program Management Division** develops One Year Programs and Five Year and Beyond Programs.”

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13-2 **Section 2: PLANNING AND SCHEDULING –**
 “The Needs Study Segment Evaluation (See Chapter One: Design Standards, Section 3.A) is an annual review of the condition of the existing roadways throughout the state conducted by the **Materials and Research Division Classification, Needs, and Pavement Management Unit**. The results of the review are summarized in the State Highway Plan and Highway Need Report and the State Highway Inventory and Priorities Report. Transportation plans, traffic forecast maps, functional classification maps, priority commercial maps, etc. are products of the planning process.

Remove this text.

③ 13-2 **Section 3.A: Engineering Review** – “Once a project has been initiated with a “Highway Improvement Programming Request”, DR Form 73, but before it has been approved, the scope of the project and the initial cost estimate (Status 10) are determined (See Chapter Twelve: Cost Estimating & Funding, Section 2).”

“Once a project has been initiated with a “Highway Improvement Programming Request”, DR Form 73, but before it has been approved, the scope of the project and the initial cost estimate (Status 05) are determined (See Chapter Twelve: Cost Estimating & Funding, Section 3.B).”

① 13-2 **Section 3.A: Engineering Review** – “After the DR-73 has been approved, the **Planning and Project Development Division Location Studies Section** conducts an engineering review.”

“After the DR-73 has been approved, the **PDD Location Studies Section** conducts an engineering review.”

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③ 13-2	<p>Section 3.A: <u>Engineering Review</u> – “Engineering review is a process performed very early in the development of a project to establish the concept of work to be performed and the initial itemized cost estimate for the project (Status 20) (See Chapter Twelve: <u>Cost Estimating & Funding</u>, Section 2).”</p>	<p>“Engineering review is a process performed very early in the development of a project to establish the concept of work to be performed and the initial itemized cost estimate for the project (Status 10) (See Chapter Twelve: <u>Cost Estimating & Funding</u>, Section 4).”</p>
① 13-2	<p>Section 3.A: <u>Engineering Review</u> – “The Planning and Project Development Division then reviews the existing conditions, confers with the District Engineer and other engineers, review the photolog or visits the site, if necessary, and decides upon a recommendation for the type of project to be undertaken.”</p>	<p>“PDD then reviews the existing conditions, confers with the District Engineer and other engineers, review the photolog or visits the site, if necessary, and decides upon a recommendation for the type of project to be undertaken.</p>
① 13-2	<p>Section 3.A: <u>Engineering Review</u> – “From the engineering review, the Project Scheduling and Program Management Section prepares a DR Form 333, “Initial Project Data”, containing project data, a brief description of the proposed work and a recommendation as to the environmental classification of the proposed project, (See Section 4).”</p>	<p>“From the engineering review, the Scoping Section of PDD prepares a Scoping Document, containing project data, a brief description of the proposed work and a recommendation as to the environmental classification of the proposed project, (See Section 4).”</p>
13-3	<p>Section 3.B: <u>Location Studies</u> – “Public information meetings and a location public hearing are usually part of the study (See Chapter Two: <u>Roadway Design Process</u>, Section 12).”</p>	<p>“Public information meetings and a location public hearing are usually part of the study.”</p>

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① 13-3	<p>Section 4.A: <u>Environmental Classification and Documentation</u> – “The Planning and Project Development Division is responsible for the required research, documentation and applications for approvals and permits.”</p>	<p>“PDD is responsible for the required research, documentation and applications for approvals and permits.”</p>
① 13-3	<p>Section 4.A: <u>Environmental Classification and Documentation</u> – “If the designer encounters potential problems during design, e.g., learns of the possible presence of an endangered species, underground fuel tank, electrical substation, wetland, channel relocation, etc., he/she should contact the Environmental Section Manager of the Planning and Project Development Division.”</p>	<p>Section 4.A: <u>Environmental Classification and Documentation</u> – “If the designer encounters potential problems during design, e.g., learns of the possible presence of an endangered species, underground fuel tank, electrical substation, wetland, channel relocation, etc., he/she should contact the Environmental Section Manager of PDD.”</p>
① 13-3	<p>Section 4.A.1: <u>Environmental Classification</u> – “When FHWA concurs that a project is a Class I project, the Planning and Project Development Division conducts a social, economic and environmental review (SEE).”</p>	<p>“When FHWA concurs that a project is a Class I project, PDD conducts a social, economic and environmental review (SEE).”</p>
13-4	<p>Section 4.A.1: <u>Environmental Classification</u> – The paragraph beginning “Design provides functional design plans ...”</p>	<p>Remove this text and <u>EXHIBIT 13.1</u>. This information is void. Refer to EXHIBIT C of the <u>Design Process Outline</u>.</p>

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① 13-5	Section 4.A.3: 6(f) Lands – “In addition to 4(f) documentation, the Planning and Project Development Division must also determine if any improvements to the public park lands were funded with monies from Section 6(f) of the <u>Land Water Conservation Fund Act</u> (Reference 13.4), (web site), administered by the National Park Service. ”	“In addition to 4(f) documentation, PDD must also determine if any improvements to the public park lands were funded with monies from Section 6(f) of the <u>Land Water Conservation Fund Act</u> (Reference 13.4), (web site), administered by the National Park Service. ”
⑥ 13-6	Section 4.B.1: Wetlands Definitions – <ul style="list-style-type: none"> • “Area is designated on a National Wetlands Inventory Map as being a wetland” 	<ul style="list-style-type: none"> • “Area is designated on a National Wetlands Inventory Map as being a wetland (add web site)”
① 13-6	Section 4.B.2: Wetlands Procedures – “If any work is planned in or near a river, stream, pond or wetland, contact the Environmental Permits Unit in the Planning and Project Development Division as early as possible during project planning.”	“If any work is planned in or near a river, stream, pond or wetland, contact the Environmental Permits Unit in PDD as early as possible during project planning.”
④ 13-6	Section 4.B.2: Wetlands Procedures – “1. During engineering review, the Wetlands Biologists will inspect the project site and delineate the wetlands on air photos (2-W sheets).”	“1. During engineering review, the Wetlands Biologists will inspect the project site and delineate the wetlands on Aerial Sheets (See Chapter Eleven: <u>Highway Plans Assembly</u> , Section 4.E).”.

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| <p>© 13-6</p> | <p>Section 4.B.2: Wetlands Procedures –
 “2. The Environmental Permits Unit drafts the wetland delineation on CADD and sends the CADD file and <u>Waterway Permit Data Sheet</u> to the roadway designer (<u>EXHIBIT 13.2</u>). This permit data sheet covers waterway permit information, historic bridges and other environmental issues.”</p> | <p>“2. The EPU drafts the wetland delineation on CAD and sends the CAD file and <u>Waterway Permit Data Sheet</u> (Form DR-290) to the roadway designer. This permit data sheet covers waterway permit information, historic bridges and other environmental issues.”</p> |
| <p>© 13-6</p> | <p>Section 4.B.2: Wetlands Procedures –
 “3. The designer will use the 2-W sheets and his/her cross-sections to calculate the areas in acres of impacted wetland for each type of wetland as delineated on the 2-W sheets (See DR-Form 290, <u>EXHIBIT 13.2</u>).”</p> | <p>“3. The designer will use the Aerial Sheets and his/her cross-sections to calculate the areas in acres of impacted wetland for each type of wetland as delineated on the Aerial Sheets (See Form Form-290).”</p> |
| <p>© 13-6</p> | <p>Section 4.B.2: Wetlands Procedures –
 “5. After the plan-in-hand changes, if any, have been incorporated into the project the designer completes the <u>Waterway Permit Data Sheet</u> using the limits of construction. The completed 2-W sheets, with the limits of construction, and <u>Waterway Permit Data Sheet</u> will be returned to the Environmental Permits Unit for preparation of the waterway permit applications.”</p> | <p>“5. After the plan-in-hand changes, if any, have been incorporated into the project the designer completes the <u>Waterway Permit Data Sheet</u> (Form DR-290) using the limits of construction. The completed Aerial Sheets, with the limits of construction, and <u>Waterway Permit Data Sheet</u> (Form DR-290) will be returned to the EPU for preparation of the waterway permit applications.”</p> |

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⑥ 13-7	<p>Section 4.B.2: Wetlands Procedures – “11. The Environmental Permits Unit then develops and sends to the designer an environmental summary sheet (EXHIBIT 13.3) that includes threatened and endangered species, specification, special provisions, condition, copies of the applicable permits and instructions on additional plans needed and aerials to be included in the final plans. The Environmental Permits Unit will also send this package to other concerned parties.”</p>	<p>“11. EPU then develops and sends to the designer an environmental summary sheet (EXHIBIT 13.1) that includes threatened and endangered species, specification, special provisions, condition, copies of the applicable permits and instructions on additional plans needed and aerials to be included in the final plans. EPU will also send this package to other concerned parties.”</p>
⑥ 13-8 thru 13-11	Exhibit 13.2 Waterway Permit Data Sheet	Remove this Exhibit, use Form DR-290
⑥ 13-2 and 13-13	Exhibit 13.3 Sample Environmental Summary Sheet	Exhibit 13.1 Sample Environmental Summary Sheet
① 13-16	<p>Section 4.B.4: Section 404 Permits – “Erosion control is a condition of the Section 404 permit, (See Chapter Two: Erosion and Sediment Control of the Drainage Design and Erosion Control Manual, Reference 13.6).”</p>	<p>“Erosion control is a condition of the Section 404 permit, (See Chapter Two: Erosion and Sediment Control of the Drainage Design and Erosion Control Manual, Reference 13.6) (Add link).”</p>
① 13-16	<p>Section 4.B.4: Section 404 Permits – “The Planning and Project Development Division will identify any location where roadway runoff or other non-point source pollution may adversely impact sensitive water resources such as water supply reservoirs, ground water recharge areas, high quality streams and threatened and endangered aquatic species.”</p>	<p>“PDD will identify any location where roadway runoff or other non-point source pollution may adversely impact sensitive water resources such as water supply reservoirs, ground water recharge areas, high quality streams and threatened and endangered aquatic species.”</p>

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① 13-16	Section 4.B.4: Section 404 Permits – “The Planning and Project Development Division submits the necessary applications for Section 404 permits.”	“ PDD submits the necessary applications for Section 404 permits.”
① 13-17	Section 4.B.6: Channel Changes – “The Environmental Permits Unit of the Planning and Project Development Division should be notified of the proposed channel change as soon as possible in order to determine mitigation, special conditions, and to get the necessary outside agencies involved at the beginning of the project.”	“The EPU should be notified of the proposed channel change as soon as possible in order to determine mitigation, special conditions, and to get the necessary outside agencies involved at the beginning of the project.”
⑥ 13-17	Section 4.B.6: Channel Changes – “1. A 30 ft. minimum width buffer strip of native vegetation on each side of the channel, starting at the top of the bank and measuring outward.”	“1. A 50 ft. minimum width buffer strip of native vegetation on each side of the channel, starting at the top of the bank and measuring outward.”
① 13-17	Section 4.B.6: Channel Changes – “The following example statement has been accepted by Planning and Project Development and by the Army Corps of Engineers as fulfilling this requirement.”	“The following example statement has been accepted by PDD and by the Army Corps of Engineers as fulfilling this requirement.”
⑥ 13-19	Section 4.B.7: Floodplains – “If an area is mapped FEMA zone A or a flood fringe area on a Flood Insurance Rate Map (IR) and there is a local (Town, City or County) designated regulating authority, NDOT must obtain a Floodplain/Floodway permit if construction activities occur in the mapped area.”	“If an area is mapped FEMA zone A or a flood fringe area on a Flood Insurance Rate Map (IR) and there is a local (Town, City or County) designated regulating authority, NDOT must obtain a Floodplain/Floodway permit if construction activities occur in the mapped area. Flood Insurance Rate Maps may be found at (web-site).”

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Section 4.B.8: Water Quality – “The **Planning and Project Development Division** will also research impacts of the project on any areas designed as principal or sole-source aquifers under Section 1424(e) of the Land Water Conservation Fund Act, (Reference 13.4). If a rest area with a point source discharge is proposed as part of the project, the **Planning and Project Development Division** will also obtain a Section 402 permit (Procedures for Coordinating Highway Encroachments on Floodplains with Federal Emergency Management Agency, Reference 13.8), (web site).”

“**PDD** will also research impacts of the project on any areas designed as principal or sole-source aquifers under Section 1424(e) of the Land Water Conservation Fund Act, (Reference 13.4). If a rest area with a point source discharge is proposed as part of the project, **PDD** will also obtain a Section 402 permit (Procedures for Coordinating Highway Encroachments on Floodplains with Federal Emergency Management Agency, Reference 13.8), (web site).”

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Section 4.B.8: Water Quality

New third paragraph – “By federal law, **NDOT** is responsible for the quality of water exiting state right-of-way. **NDOT** is also responsible for maintaining the Best Management Practice (BMP) installations on Interstate and freeway projects (see Chapter Three: Stormwater Treatment of the *Drainage Manual*, Ref. 13.6). By statute, cities with a population over 10,000 are responsible for maintaining BMPs placed on roadway projects other than Interstate and freeway. A statement highlighting this responsibility will be placed in the project agreement with the **City**. The **Development & Compliance Unit Manager** in **PDD** will tell the roadway designer which BMPs are required on a project.”

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① 13-19	Section 4.C: <u>Air Quality</u> – “The Noise and Air Section of the Planning and Project Development Division will make all necessary air quality evaluations.”	“The Noise and Air Section of the PDD will make all necessary air quality evaluations.”
① 13-20	Section 4.D: <u>Noise</u> – “The designer should work with the Noise and Air Section of the Planning and Project Development Division if noise levels are expected to be a problem.”	“The designer should work with the Noise and Air Section of the PDD if noise levels are expected to be a problem.”
① 13-20	Section 4.E: <u>Wildlife Issues</u> – “The Planning and Project Development Division coordinates wildlife and habitat studies and will notify the Roadway Design Division of project-related concerns.”	“The PDD coordinates wildlife and habitat studies and will notify the Roadway Design Division of project-related concerns.”
⑥ 13-20	Section 4.E: <u>Wildlife Issues</u> – “The Planning and Project Development Division provides early project coordination with the Nebraska Game and Parks Commission to identify endangered species concerns for use in design, copies of the determination will be provided to the designer.”	“ PDD provides early project coordination with the Nebraska Game and Parks Commission to identify endangered and/ or threatened species concerns for use in design, copies of the determination will be provided to the designer.”
① 13-20	Section 4.E: <u>Wildlife Issues</u> – “If, at a public meeting/hearing or during other design activities, concerns are raised regarding the presence of endangered species, contact the Environmental Permits Unit of the Planning and Project Development Division .”	“If, at a public meeting/hearing or during other design activities, concerns are raised regarding the presence of endangered species, contact the Environmental Permits Unit of PDD .”

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① 13-21	<p>Section 4.F: <u>Social, Economic, and Environmental Impacts</u> – “The Planning and Project Development Division will notify the Roadway Design Division when Environmental Justice issues must be addressed.”</p>	<p>“PDD will notify the Roadway Design Division when Environmental Justice issues must be addressed.”</p>
① 13-22	<p>Section 4.H.1: Materials Prohibited or Restricted as Fill Materials – “The Location Studies Unit of the Planning and Project Development Division will obtain proper authorization from the U.S. Army Corps of Engineers for any discharge of dredged or fill material into a water of the United States.”</p>	<p>“The Location Studies Unit of PDD will obtain proper authorization from the U.S. Army Corps of Engineers for any discharge of dredged or fill material into a water of the United States.”</p>
① 13-23	<p>Section 4.H.2: Guidelines for Handling Petroleum Tanks/Leaks on Construction Projects – “Once preliminary design is begun and the design is roughed out, the designer can request that the Location Studies Unit of the Planning and Project Development Division make a paper review of any fuel tank locations.”</p>	<p>“Once preliminary design is begun and the design is roughed out, the designer can request that the Location Studies Unit of PDD make a paper review of any fuel tank locations.”</p>

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① 13-23	<p>Section 4.H.2: Guidelines for Handling Petroleum Tanks/Leaks on Construction Projects – “In those cases, the Location Studies Unit of the Planning and Project Development Division will request that the Materials and Research Division arrange testing. The Materials and Research Division will send a report to the Planning and Project Development Division which is then forwarded to the Roadway Design Division and, if necessary, to the FHWA.”</p>	<p>“In those cases, the Location Studies Unit of PDD will request that the Materials and Research Division arrange testing. The Materials and Research Division will send a report to PDD which is then forwarded to the Roadway Design Division and, if necessary, to the FHWA.”</p>
① 13-24	<p>Section 5.A: <u>Agreements</u> – “The Agreements Unit in the Planning and Project Development Division prepares all agreements, except relinquishment agreements. Prior to the public hearing, covenant relinquishment agreements are prepared by the Materials and Research Division (See Chapter Two: <u>Roadway Design Process</u>, Section 10).”</p>	<p>“The Agreements Unit in PDD prepares all agreements, except relinquishment agreements. Prior to the public hearing, covenant relinquishment agreements are prepared by the Materials and Research Division (See the <i>DPO</i> (Ref. 13.2), Activity 5400, Clarity Task Code 5434).”</p>
① 13-24	<p>Section 5.B: <u>Federal Agencies</u> – “The Planning and Project Development Division serves as liaison with these agencies.”</p>	<p>“PDD serves as liaison with these agencies.”</p>
① 13-24	<p>Section 5.D: <u>Local and Regional Agencies</u> – “The Planning and Project Development Division coordinates with MPOs (Metropolitan Planning Organizations) in metropolitan areas, and the Government Affairs Division coordinates with city and county governments, natural resource districts, etal.”</p>	<p>“PDD coordinates with MPOs (Metropolitan Planning Organizations) in metropolitan areas, and the Government Affairs Division coordinates with city and county governments, natural resource districts, etal.”</p>

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13-25	Section 5.E: <u>Public Participation and Input</u> – “(See Chapter Two: <u>Roadway Design Process</u> , Section 12, and the <u>Design Process Outline</u> , Reference 13.2, EXHIBIT ‘C’).”	“(See the <u>Design Process Outline</u> , Reference 13.2, EXHIBIT ‘C’).”
① 13-25	Section 5.F: <u>Consultants</u> – “The Agreements and Consultant Services Section of the Planning and Project Development Division provides liaison with consultants, including.”	“The Agreements and Consultant Services Section of PDD provides liaison with consultants, including.”
⑤ 13-26	Section 5.G: <u>Railroads</u>	This is now Section 1 of Chapter Ten: <u>Miscellaneous Design Issues</u>
⑤ 13-27 to 13-32	Section 6: UTILITIES	This is now Section 11 of Chapter Ten: <u>Miscellaneous Design Issues</u>
⑤ 13-33	Section 7: REFERENCES	Section 6: REFERENCES
① 13-33 & 13-34	Previous Section 7: REFERENCES	Added link to Reference 13.6. Updated Reference 13.15 from 2001 to 2011.
⑤ 13-34	Previous Section 7: REFERENCES	Removed References 13.21 through 13.26