

CONCEPT DEFINITION REPORT (a working file of this template: [FDM 11-4 A1.1 File 1](#))

Date: _____ To: _____ From: Region _____

I. Design ID: _____ Related ID(s): _____

Highway No. or Local Road Name: _____

Title: _____

County: _____ Length: _____

Functional Class: _____ Current AADT: _____

LOCATION: _____

II. A. Roadway Conditions:

Pavement: Type: _____ Width: _____ Year: _____

IRI: _____ PDI: _____

Shoulder: Type: _____ Width: _____

From RP _____ to RP _____

Safety Site/s of Promise: _____

Safety Mitigations Included: _____

Alignment Features Outside of Design Criteria:

Horizontal: _____

Vertical: _____

B. Structure: Type: _____

Bridge Number: _____ Year Constructed: _____

Clear roadway width: _____ SR: _____ RS: _____

C. Railroad: _____ Existing Facility _____

JUSTIFICATION: _____

III. PROPOSED IMPROVEMENT: _____

Environmental documentation type: _____

Improvement Type: _____ PMSID: _____

Cost: _____ Program Year: _____ Program: _____

Local Participation: _____ Access Control: _____

Real Estate: _____ R/E Cost: _____

NATIONAL HIGHWAY SYSTEM: _____ EXEMPT: _____

Railroad Crossing/Structure: _____

Project Supervisor: _____ Recommend Acceptance: _____

Accepted By: _____ Date: _____

The following instructions are for use in completing the standardized Concept Definition Report (CDR) format. A CDR can be prepared by simply filling out the form shown (type or print please). The information requested is the minimum needed to show the "where", "why" and "what" aspects of the project as well as give some preliminary indications about critical issues such as local participation, environmental document type, access control, etc.

Top Portion:	Date: Date the CDR is completed or submitted.
	From: Region number.
Section I.	Design ID. 8 - digit FOS ID number. This will usually be completed by DOT if a consultant prepares the report.
	Related Design ID(s) - FOS ID's for associated design projects; that is, projects tied to this one for bidding purposes. This most commonly occurs with bridges.
	Highway No. or Local Road Name - Self-explanatory (e.g. USH 12)
	Title: Project limits or termini (i.e. CTH "X" - Sunset drive) or common name for the project (e.g. Crandon Overhead) when termini are not applicable.
	County - Self-explanatory.
	Length - In miles to nearest one hundredth for most highway projects and number of feet for bridges.
	Functional Class - Self-explanatory (e.g. Principal Arterial)
	Current ADT - Average daily traffic for most recent year counted. If counts were made at more than one location on the project, list the range of values.
	Location - General description of the area (e.g. north of the City of Whitewater in northwestern Walworth County). This is required only if the location is not readily discernible from the description under Title above.
Section II	Pavement Type - Indicate whether the existing pavement is concrete (PCC) or asphaltic (AC) or road mix.
	Pavement: Width - Total width of existing travel lanes in feet. Gutter widths should be included for urban roadways but indicate "F-F" after the dimension. Do not include shoulder paving.
	Pavement Year - Year the existing pavement was constructed.
	Pavement: IRI - Latest International Roughness Index. This is required for <u>rural STH projects only</u> but should be included for local projects also if the data is available.
	Pavement: PDI - Latest Pavement Distress Index rating. This is required for <u>STH projects only</u> but should be included for local projects also if the data is available.
	Shoulder Type - Surface type: turf, aggregate, asphalt paving (AC), or concrete paving (PCC).
	Shoulder Width - Total width. If paved also indicate the paved width.
	Alignment Features Outside of Design Criteria: Horizontal and Vertical - At a minimum provide a "yes" or "no" response. If information is available indicate the number of curves by speed rating (in 5 mph increments) which are outside of design criteria (below posted speed).
	Safety Sites of Promise: For Perpetuation and Rehabilitation projects, identify sites of promise as described in FDM 11-38-10 .

Section II - cont.	
	Structure Type - Existing bridge type as commonly described by bridge engineers (e.g. steel girder, slab span, haunched slab, concrete box culvert, etc.)
	Bridge Number - WisDOT assigned bridge number(s) (e.g. B-28-0064). If there are bridges within the project limits, complete this section whether or not they are proposed for improvement. List all bridges within the project.
	Bridge: Year Constructed - Year construction of the existing structure was completed.
	Clear Roadway Width - Distance between sidewalk curbs or parapet walls.
	SR - Latest Sufficiency Rating for the structure.
	RS - Latest Rate Score for the structure.
	Railroad - Name of railroad.
	Existing Facility - At grade crossing or grade separation. If crossing, specify current warning device (cross bucks only, flashing light signals, cantilevers, gates.)
	Justification - Brief statement describing problems with the existing facility. This is required only if data showing the deficiencies is not available or if the deficiencies are not readily apparent from the data given (e.g. PDI may be fairly low even though there is severe pavement rutting or faulting).
Section III	Proposed Improvement - Narrative recommendation; a description of the major elements of the proposed project (e.g. Perpetuation, Rehabilitation, Modernization, reconstruct, resurface and, widen shoulders to 6 feet, overlay bridge deck, etc.). The proposed improvement would logically address the deficiencies stated in "Justification."
	Environmental Document Type - Proposed environmental action type as defined in Facilities Development Manual and FDM 20-15-1 .
	Improvement Type - Program name for the type of improvement. These are identified in FDM 3-5-2 .
	PMSID - Program Management System ID number. This is a 10-digit program identifier assigned by the Region SPO Section. This is required for <u>STH project only</u> .
	Cost - Anticipated cost of construction, real estate, utilities, and railroads.
	Program Year - Fiscal year for which construction dollars are included in the applicable program.
	Program - Title of the applicable program (i.e. Interstate, HES, Local Bridge, etc.) or (some prefer to show Program Code, or both).
	Local Participation - Identify whether cost sharing is expected to apply or there will be substantial amounts of non-participating work (i.e. parking lanes). Indicate "yes" or "no". This is required for <u>STH projects only</u> .
	Access control - Identify whether or not access control will be acquired as part of the project. If it will, indicate whether the route is TIER I or TIER II. If it won't, write "N/A". If existing, write "Exist." This is required for <u>STH projects only</u> .
	Real Estate: Right of Way Acquisition. Anticipated "None", "Minor" or "Yes".
	National Highway System - Identify if the project is located on the NHS by entering "yes" or "no."
	Exempt - If the project is on the NHS and based on the estimated construction dollar value (including estimated right-of-way costs) and the improvement type, determine whether project development will be subject to FHWA oversight, or exempt, and identify by entering "Yes" (exempt) or "No" (oversight). See Facilities Development Manual FDM 5-5-15 .
	Railroad Crossing/Structure: Identify what work is proposed at each existing crossing on (or within 1000 feet of) the project or if new crossings are being proposed.

Bottom Portion	Project Supervisor - Provide the name of the Region supervisor who will be responsible for the project.
	Recommended for Acceptance - Provide the name of the Region SPO or PD Supervisor who is responsible for preparing the Concept Definition Report.
	Accepted By - Region Director, Manager, or Designee, Date.
	Other acknowledgements.

Final Scope Certification(For a working file of this template: [FDM 11-4 A3.1 File 1](#))

Date: Enter date.

Project I.D. (design/construction): Enter text.

Route: Enter text.

Title/Limits: Enter text.

Bridge # (if applicable): Enter text.

County: Enter text.

Improvement Concept Code: Enter text.

Improvement Strategy (select one):

☐ Perpetuation☐ Rehabilitation☐ Modernization

Having considered the criteria and documentation attached we concur and approve the Final Scope.

Concurrence:

Region Project Development Chief or delegate:	
Region Technical Services Chief or delegate:	
Region Operations Chief or delegate:	
Bureau of Project Development – Design Standards and Oversight Chief or delegate:	

Approval:

_____	_____
Region Programming/Planning Chief	Date

Final Scope Certification location (enter link): Enter text.

Project Information**Scope****Purpose and need:**

Enter text.

Summary of scope of work:

Enter text.

Schedule & Budget**Milestone Schedule** (*milestones* shown in FDM 3-1 Attachment 1.1)

<i>Project Initiation Complete (LC00)</i>	<i>Enter date.</i>
<i>Preliminary Scope Complete</i>	<i>Enter date.</i>
<i>Final Scope Certification (proposed LC11)</i>	<i>Enter date.</i>
<i>Final Resourcing/Start Final Design (LC12)</i>	<i>Enter date.</i>
<i>Design Study Report (LC15)</i>	<i>Enter date.</i>
Plat Complete/Real Estate Start	Enter date.
DT1078 Plan Submittal	Enter date.
Real Estate Complete/Utility Relocation Begin	Enter date.
Early PS&E	Enter date.
<i>PS&E</i>	<i>Enter date.</i>
<i>Project Let (Programmed)</i>	Enter date.
<i>Project Award (based on Programmed)</i>	Enter date.

Detail schedule (enter link):

Enter text.

Major Bid Item estimate (enter link):

Enter text.

Non-Let schedule and estimates:

RE	\$ Enter text.	Schedule date Enter date.
RR	\$ Enter text.	Schedule date Enter date.
UTL	\$ Enter text.	Schedule date Enter date.
MISC	\$ Enter text.	Schedule date Enter date.

Certifications**Safety and Operations Certification Document**

Safety and Operations Certification Document date: Enter date.

Hyperlink to location: Enter text.

Safety CertificationIs there a Safety Site of Promise (SSOP) within the project limits? ☐Yes ☐No

Regardless of SSOP, were any safety countermeasures analyzed and included in the project scope?

☐Yes ☐No

Brief summary of countermeasures analyzed: Enter text.

Operations Certification☐ Operations Certification Process was **not** completed

--OR--

☐ Operations Certification Process was completed for the following locations:

Enter text.

Brief summary of improvements analyzed: Enter text.

Bureau of Structure Certification Document

- ☐ No bridges or ancillary structures are located within project limits.
- ☐ There is no work needed on following bridges or ancillary structures within the project limits.
- ☐ Bridge or ancillary structures work is being done under a separate project at the following locations:
Enter text.

- ☐ Bureau of Structure Certification Document (BOSCD) was completed for the following locations:
Enter text.

BOSCD date: Enter date.

Hyperlink to location of BOSCD: Enter text.

Brief summary of treatment recommendations: Enter text.

Pavement Design

Pavement Design Report date: Enter date.

Hyperlink to location of Pavement Design Report: Enter text.

Brief summary of treatment recommendations: Enter text.

Environmental

Risk Based Environmental Scoping Template (RBEST) or draft environmental document date: Enter date.

Hyperlink to location of RBEST or draft environmental document: Enter text.

Brief summary of any significant issues and expected final environmental document type: Enter text.

Native American Lands of Interest (NALI) Scoping Determination date: Enter date.

Hyperlink to location of NALI Scoping Determination document: Enter text.

Brief summary of any significant issues noted in NALI and indicate if Native American Hiring Provision is required: Enter text.

Resiliency Scoping Certification (F4R) date: Enter date.

Hyperlink to location of Resiliency Scope Certification: Enter text.

Brief summary of F4R determination: Enter text.

Risk and Performance Management

Scope

Program Effectiveness Measure (PEM)

If not a 3R Allocated project, use the justification to identify what type of project this is and skip the other questions in this Program Effectiveness Measure section.

Theme recommended improvement (PEM): Choose an item.

Proposed improvement: Choose an item.

Is proposed improvement within one level on the Program Effectiveness scale? ☐Yes ☐No

If no, explain:

Enter text.

Other explanation:

Enter text.

Schedule

Delivery Risk

Months between LC11 and controlling (earliest) PSE: Enter text.

Does the milestone schedule allow for the project to reach LC11 and LC15 in accordance with

Delivery Risk Guidelines? ☐Yes ☐No

What schedule risks exist based on the agreed to project scope (environmental, real estate, utilities, railroad, etc.)? Include any mitigation strategies being proposed to address the identified schedule risks.

Enter text.

Budget

Delivery Budget

Delivery Budget Worksheet (Link): Enter text.

What delivery budget risks exist based on the agreed to project scope? Include any mitigation strategies being proposed to address the identified risks.

Enter text.

Project Budget (let and non-let)

What non-let budget (real estate, utilities, railroad, etc.) risks exist based on the agreed to project scope? Include any mitigation strategies being proposed to address the identified risks.

Enter text.

What construction budget (let) risks exist based on the agreed to project scope? Include any mitigation strategies being proposed to address the identified risks.

Enter text.

If this is funded by source other than 3R Allocated or Backbone, does the current project estimate match what the funding program approved?

☐Yes ☐No ☐N/A (funded by 3R or BB)

If yes, attached the project approval documentation or most recent change management approval document to verify estimate correlation.

If no, then STOP. This project cannot be move into FSC until estimate has been approved by approval authority for that funding source.

Supplemental Data

Scoping notes (enter link):

Enter text.

ICE (enter link):

Enter text.

Tech memos (enter links):

Enter text.

Preliminary drawings/preliminary plan (enter link):

Enter text.

SAMPLE TRANSMITTAL LETTER

(For a working file of this template: [FDM 11-4 A10.1 File 1](#))

CORRESPONDENCE/MEMORANDUM _____ **State of Wisconsin**

Date: _____, 20__

To: _____
Director, Bureau of Project Development
Attn: (Design Standards and Oversight Chief)

From: _____
_____ Region

Subject: PERPETUATION DESIGN STUDY REPORT
Project I.D. (design) _____
(CTH, Local (choose one)) _____
Bridge # (if applicable) _____
_____ County

Having considered the economic and social effects of this project, its impact on the environment, and its consistency with the goals of community planning, we request your approval of the attached design study report.

Region Project Development Chief

Date

Concur:

Bureau of Project Development,
Design Standards and Oversight Services Chief

Date

SAMPLE TITLE SHEET

PERPETUATION STUDY REPORT

Project I.D. (design) _____
(construction): _____
(STH, IH, USH, CTH, Local (choose one)) _____
Bridge # (if applicable) _____
_____ County

CONSULTANT'S SEAL

PERPETUATION DESIGN STUDY REPORT**1.0 Project Description and Need****1.2 Project Length and Termini**Project Length:

Termini/Limits:

--

1.3 Existing Roadway Information

Roadway	Functional Class (Principal or Minor Arterial, Collector or Local)	Surrounding Development Type? Rural, Urban or Transitional	Corridors 2030 or Backbone (No or State Which)	NHS Route (Yes or No)	Long Truck Route (No or State Federal or State)	Access Control Tier	On Ped. Trans. Plan (Yes or No)	On Bike Trans. Plan (Yes or No)

Comments:**1.4 Need for Project**

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1.5 Proposed/Selected Alternative (State the Improvement Type and add brief description).

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2.0 Existing Facility Information**2.1 Posted Speed**

Roadway or Roadway Segment	Posted Speed (MPH)	Advisory Speed (MPH)

Comments:**2.4 Cross Section(s) Information**

See attached Existing Typical Section(s)

3.0 Traffic Information**3.1 Traffic Volumes/Conditions**

Roadway or Roadway Segment	AADT (Year) (1)

(1) AADT = Average Annual Daily Traffic

3.2 Safety and Operations Analysis

Were any safety issues identified?

☐

Yes

☐

No

Were any operational issues identified?

☐

Yes

☐

No

Describe any existing safety issues that exist within the project limits and any other comments:

Describe any existing operational issues that exist within the project limits and any other comments:

4.3 Design Justifications (DJs)**4.3.1 Controlling Criteria Design Justifications (DJs)****4.3.2 Non-Controlling Criteria Design Justifications (DJs)****5.0 Proposed Design Improvements****5.1 Improvement Type:**

Has an Intersection Control Evaluation (ICE) evaluation been completed (Yes or No)? _____

5.5 Proposed Cross Section/Pavement Structure Information

See attached Proposed Typical Section(s)

5.8 Permanent Traffic Control Information

Will permanent signs be installed?

☐

Yes

☐

No

5.9 Safety and Operations**Safety Countermeasures/Enhancements**

Describe any safety improvements being made to address existing crash issues. Include any other enhancements that are being made that will improve safety.

Operational Improvements

Describe features expected to improve operations on the facility. Include information from the Operations Certification Summary, if one was completed for the project.

5.11 Utilities

Is Project Trans 220 Utility Project (Yes or No)? _____

Describe any special design features to accommodate utilities:

Major Utility Agreements:

Comments:

5.13 Financing and Scheduling Information

Construction I.D.	Cost Estimate	Type of Funding			Proposed Timeframe for Construction	Ties to Other Work or Projects	Alternative Contracting (Yes or No)
		% Fed.	% State	% Local			

Does Project Require a State/Municipal Agreement?

☐

Yes

☐

No

5.14 Unique Project Features

5.14.1 Does Project Require any Hazardous Material Remediation?

☐

Yes

☐

No

Comments:

5.14.2 Does Project contain any Environmental Commitments?

☐

Yes

☐

No

Comments:

6.0 Synopsis

Reports, Documents and Coordination	Completion/ Approval Dates (xx/xx/xxxx)	Status of Coordination or Other Information as Needed
Concept Definition Report (CDR)		
Safety (and Operations) Certification Document		
Bureau of Structure Certification Document (BOSCD) (if needed)		
Signed Pavement Design Report (PDR)		
Public Involvement Plan (PIP)		
Structure Survey Report (SSR) (if needed)		
Public Information Meeting(s) (PIM(s))		
Signed State Municipal Agreement(s) (SMA(s)) (if needed)		
Native American Lands of Interest (NALI) Scoping Determination		
Final Scope Certification Document Approval (FSC)		
SHPO Coordination Acceptance (Section 106, etc.) (SHPO)		
DNR Coordination Acceptance (401 Cert., etc.) (DNR)		
Preliminary Plan Review Complete (PPRC)		
Preliminary Structure Plan Review Complete (PSPRC) (if needed)		
Signed Environmental Document (ED) (Type: ?)		
DNR approved materials handling plan for Hazardous Materials to be remediated during construction		
Bridge asbestos inspection report for bridge work that will require an asbestos notification to WDNR or WDHS		
Interstate Access Justification Report (IAJR)		
Transportation Management Plan (TMP(s)) (Type: ?)		
Freight/OSOW Accommodations Coordination (FOAC)		
Roadside Hazard Analysis Sheet (RHA) (if needed)		
Drainage Design Report (DDR) (if needed)		
Status of Statutory Actions (if needed)		

Comments:**7.0 Attachments**

- Project Location/Overview Map
- Existing Typical Cross Section(s)/ Finished/Proposed Typical Cross Section(s)
- Safety (and Operations) Certification Document

- Preliminary Plan Sheet(s)
- Environmental Commitments Basic Sheet (if applicable) (include coordination letters)
- DNR approved materials handling plan and special provisions (if needed)
- Roadside Hazard Analysis Sheet
- **Technical Infeasibility Form**
- Non-Compliant Roadside design

60% TMP (Transportation Management Plan)

SAMPLE TITLE SHEET

MODERNIZATION AND REHABILITATION DESIGN STUDY REPORT

Project I.D. (design) _____
(STH, IH, USH, CTH, Local (choose one)) _____
Bridge # (if applicable) _____
_____ County

CONSULTANT'S SEAL

MODERNIZATION AND REHABILITATION DESIGN STUDY REPORT**1.0 Project Description and Need****1.1 Federal Oversight Project (Yes or No):****1.2 Project Length and Termini**Project Length:

Termini/Limits:

1.3 Existing Roadway Information

Roadway	Functional Class (Principal or Minor Arterial, Collector or Local)	Surrounding Development Type? Rural, Urban or Transitional	Corridors 2030 or Backbone (No or State Which)	NHS Route (Yes or No)	Long Truck Route (No or State Federal or State)	Access Control Tier	On Ped. Trans. Plan (Yes or No)	On Bike Trans. Plan (Yes or No)

Comments:**1.4 Need for Project****1.5 Proposed/Selected Alternative (State the Improvement Type and add brief description).****2.0 Existing Facility Information****2.1 Posted Speed**

Roadway or Roadway Segment	Posted Speed	Advisory Speed

2.2 Segments Information/Geometrics (S-2 Location only)**2.2.1 Horizontal Alignment Features Outside Design Criteria Not Documented in SOCD/FSC (S-2 Location only)**

Horizontal Feature* (Curve, P.I. Deflection, etc.)	Location (Stationing)	Size* (Radius, P.I. Deflection, etc.)	Super-Elevation* (S.E.)	Speed Rating

* Controlling Criteria for Design Speed \geq 50 mph.

Comments:

2.2.2 Vertical Alignment Features/SSD* Outside Design Criteria Not Documented in SOCD/FSC (S-2 Location only)

Vertical Feature (Curve, Vertical Grade Deflection, etc.)	Location (Stationing)	Sag or Crest	% Grades*	K Value/ Grade Deflection	Speed Rating	SSD** Met *(Yes or No) Length	DSD Met (Yes or No) Length

* Controlling Criteria for Design Speed \geq 50 mph, **SSD = Stopping Sight Distance.

Comments:

2.2.3 Grades* and Vertical Clearances* Outside Design Criteria Not Documented in SOCD/FSC (S-2 Location only)

Location (Stationing, Overpass Structures, etc.)	% Grade*	Vertical Clearance*

*Controlling Criteria for Design Speed \geq 50 mph

Comments:

2.3 Side-Roads/ Intersections/ Interchanges Information/Geometrics (S-2 Location only)

2.3.1 Side-Roads Design Information (S-2 Location only)

Roadway	Functional Class	Posted Speed (MPH)	Existing Traffic*** (AADT)	Approach Grades	Pedestrian Facilities (Yes or No)	Bicycle Facilities (Yes or No)

*** If Existing Traffic volumes are not available, then state at a minimum whether AADT is assumed to be <100 or >100.

Comments:

2.3.2 Intersections Geometrics Outside Design Criteria Not Documented in SOCD/FSC (S-2 Location only)

Intersecting Roadway	Intersect. Type	Intersect. Angle	Traffic Control	SSD** Met* (Y/N)/ Length	ISD** Met (Y/N)/ Length	DSD** Met (Y/N)/ Length	Vision Triangle (Y/N)	Corner Clearance to Driveways Present (Y/N)

* Controlling Criteria for Design Speed \geq 50 mph

** SSD=Stopping Sight Distance, ISD=Intersection Sight Distance, and DSD=Decision Sight Distance (See FDM 11-25-1).

Comments:

2.3.3 Locations Interchanges Geometrics Outside of Design Criteria Not Documented in SOCD/FSC (S-2 Location only)

Intersecting Roadways	Interchange Type	Ramp Types	Ramp Design Speed	Horizontal Curve on Ramp	Vertical Curve on Ramp	Ramp Grades	SSD** Met* (Y/N) Length	DSD** Met (Y/N) Length

* Controlling Criteria for Design Speed \geq 50 mph

**SSD = Stopping Sight Distance, DSD = Decision Sight Distance (See FDM 11-25-1).

Comments:

2.4 Cross Section(s) Information (S-2 Segments Cross Section Geometrics Outside of Design Criteria Not Documented in SOCD/FSC)

- Number of roadways
- Number of lanes
- Median width
- Lane width*
- Shoulder width* (Total and Paved or Curb and Gutter)
- Bicycle facility type
- Sidewalk and curb ramps
- Cross slope*
- Super-elevation*
- Horizontal clearance
- Clear zone
- Vertical clearance*
- Side-slopes/Ditch sections

* Controlling Criteria for Design Speed \geq 50 mph

2.5 Pavement Structure/Condition

Roadway	Pavement Types and Thicknesses	Physical Description

Comments:

2.6 Right-of-Way**2.6.1 Encroachments – Attach Encroachment Report****2.6.2 Unique Right-of-Way Issues**

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2.7 Structures

Existing Structure I.D. #	Feature Crossed	Structure Type	Sufficiency Rating	Clear Roadway Width*	Railing Type

* Controlling Criteria for Design Speed \geq 50 mph.

Comments:

2.8 Utilities

Utility Name	Type of Utility	General Location	Underground/ Overhead/Both

Comments:

2.9 Railroad Crossings

Location (Sta.)	Railroad Name	No. of Tracks	Function	Crossing Type

Comments:

2.10 Special Soils Conditions

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2.11 Unique Project Features

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3.0 Traffic Information**3.1 Traffic Volumes/Conditions****3.1.1 Traffic Forecast Report - Attachment****3.1.2 Highway Capacity Analysis**

Location (Roadway Segment or Intersection)	Existing Level of Service	Design Year Level of Service Under Existing Roadway	Design Year Level of Service Under Proposed Roadway

Comments:

3.2 Safety and Operations Analysis

Were any safety issues identified?

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

Were any operational issues identified?

Describe any existing safety issues that exist within the project limits and any other comments:

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Describe any existing operational issues that exist within the project limits and any other comments:

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4.0 Proposed Design Criteria (S-2/S-3 Locations only)**4.1 Design Class (S-2/S-3 Locations only)**

Roadway or Roadway Segment	Design Class

4.2 Design Speed(s)* (S-2/S-3 Locations only)

Roadway or Roadway Segment	Design Speed*	Posted Speed

* Controlling Criteria for all Design Speeds

4.3 Design Justifications (DJs) (S-2/S-3 Locations only)

4.3.1 Controlling Criteria Design Justifications (DJs)

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4.3.2 Non-Controlling Criteria Design Justifications (DJs)

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4.4 Typical Cross Section(s) Alternative Features Considered (S-2/S-3 Locations only)

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5.0 Proposed Design Improvements

5.1 Improvement Type(s)

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5.2 Proposed Geometrics Information (S-2/S-3 Locations only)

5.2.1 Horizontal Alignment* Information (S-2/S-3 Locations only)

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5.2.2 Vertical Alignment/Stopping Sight Distance* Information (S-2/S-3 Locations only)

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5.2.3 Grades* and Vertical Clearances* Information (S-2/S-3 Locations only)

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*Controlling Criteria for Design Speed \geq 50 mph

5.3 Sideroads/Intersections/Interchanges Information (S-2/S-3 Locations only)**5.3.1 Side-Roads Information (S-2/S-3 Locations only)**

Roadway Name	Functional Class	Design Speed (MPH)	Design Year Traffic (AADT)	Design Class	Approach Grades	Ped. Facilities (Y/N)	Bike Facilities (Y/N)

Comments:**5.3.2 Intersections Information/Proposed Geometrics (S-2/S-3 Locations only)**

Intersecting Roadway Names	Intersect. Type	Intersect. Angle	Traffic Control	SSD** Met* (Y/N)/ Length	ISD** Met (Y/N)/ Length	DSD** Met (Y/N)/ Length	Vision Triangles Proposed (Y/N)	Corner Clearance to Driveways Met (Y/N)

* Controlling Criteria for Design Speed ≥ 50 mph

** SSD = Stopping Sight Distance, ISD = Intersection Sight Distance, DSD = Decision Sight Distance (See FDM 11-25-1).

Comments:

Has an Intersection Control Evaluation (ICE) been completed (Yes or No)? _____

5.3.3 Interchanges Information/Proposed Geometrics (S-2/S-3 Locations only)

Name of Intersecting Roadways	Interchange Type	Ramp Type	Ramp Design Speed	Ramp Grades	SSD** Met* (Y/N)/ Length	DSD** Met (Y/N)/ Length	Vision Triangle (Yes or No)

*Controlling Criteria for Design Speed ≥ 50 mph

**SSD = Stopping Sight Distance, DSD = Decision Sight Distance (See FDM 11-25-1).

Comments:

5.4 Roundabout(s) Information**5.5 Segments Proposed Cross Section/Pavement Structure Information (S-2/S-3 Locations only)**

- Number of roadways
- Number of lanes
- Median width/type
- Lane width*/type (Driving, Parking, Bike Lane, etc.)
- Shoulder width* (Total & Paved or Curb and Gutter)
- Bike facilities proposed
- Pedestrian facilities/sidewalk proposed
- Cross slope*
- Super-elevation*
- Horizontal clearance
- Vertical clearance*
- Pavement structure
- Clear zone
- Side-slope/Ditch sections

*Controlling Criteria for Design Speed \geq 50 mph

5.6 Street Lighting Improvements

Location	Type	Break-away Requirements

5.7 Structure Improvements Information**5.7.1 Bridge Structures**

Structure I.D. #	Location	Structure Type	Length	Clear Width	No. of Spans	Vertical Clearance*	Horizontal Clearance
	Proposed Improvement:						
	Proposed Improvement:						
	Proposed Improvement:						

* Controlling Criteria for Design Speed \geq 50 mph

Comments:

5.7.2 Box Culverts and Multiple Pipe Structures

Structure I.D. #	Location	Type	Length	No. Pipes
	Proposed Improvement:			
	Proposed Improvement:			

Comments:**5.7.3 Retaining Walls and Noise Barrier Structures**

Structure I.D. #	Location	Type	Length	Height
	Proposed Improvement:			
	Proposed Improvement:			

Comments:**5.7.4 Sign Bridge Structures**

Structure I.D. #	Location	Type	Length	Clear Roadway Width	Vertical Clearance*	Horizontal Clearance	Clear Zone Under
	Proposed Improvement:						
	Proposed Improvement:						

* Controlling Criteria for Design Speed \geq 50 mph.Comments:**5.7.5 Tunnel Structures**

Structure I.D. #	Location	Type (Veh., Ped., Bicycle, etc.)	Length	Lighting Type	Vertical Clearance*	Horizontal Clearance
	Safety Features			Coordination with Local Emergency Responders		
	Proposed Improvement:					
	Safety Features			Coordination with Local Emergency Responders		
	Proposed Improvement:					

* Controlling Criteria for Design Speed \geq 50 mphComments:

5.7.6 Touchdown Points on Local Bridge Program Projects

--

5.8 Permanent Traffic Control

Will permanent signs be installed (Yes or No)? _____

Are non-standard sign layout details needed (Yes or No)? _____

Comments:**5.9 Safety and Operations****Safety Countermeasures/Enhancements**

Describe any safety improvements being made to address existing crash issues. Include any other enhancements that are being made that will improve safety.

--

Operational Improvements

Describe features expected to improve operations on the facility. Include information from the Operations Certification Summary, if one was completed for the project.

--

5.9 Real Estate**5.9.1 Real Estate Acquisition**

Plat I.D.:

Relocations		Land (Acres)	Permanent Easements	Temporary Easements	Construction Permits
Type	Number				

Comments:**5.9.2 Encroachments and Access Control, if applicable** (Attach Encroachment Report and describe Access Control)

--

5.11 Utilities

Is Project Trans 220 Utility Project (Yes or No)? _____

Describe any special design features to accommodate utilities:

--

Major Utility Agreements:

--

Comments:

5.12 Railroads

Describe improvements to Railroad Facilities:

--

Railroad Agreements:

--

Comments:**5.13 Financing and Scheduling**

Construction I.D.	Cost Estimate	Type of Funding			Proposed Timeframe for Construction	Ties to Other Work or Projects	Alternative Contracting (Yes or No)
		% Fed.	% State	% Local			

Describe Alternative Contracting:

--

Non-participating Work:

--

Deferred Construction Work (Preventative Maintenance projects):

--

5.14 Unique or Non-Standard Features**5.14.1 Hazardous Materials**

--

5.14.2 Environmental Commitments

--

5.14.3 Community Sensitive Design/Public Involvement

--

5.14.4 Value Engineering

--

6.0 Synopsis

Reports, Documents and Coordination	Completion/ Approval Dates (xx/xx/xxxx)	Status of Coordination or Other Information as Needed
Concept Definition Report (CDR)		
Safety (and Operations) Certification Document		
Bureau of Structure Certification Document (BOSCD) (if needed)		
Risk Assessment (RA) (if needed)		
Signed Pavement Design Report (PDR)		
Public Involvement Plan (PIP)		
Structure Survey Report (SSR) (if needed)		
Public Information Meeting(s) (PIM(s))		
Signed State Municipal Agreement(s) (SMA(s)) (if needed)		
Native American Lands of Interest (NALI) Scoping Determination		
Final Scope Certification (FSC)		
SHPO Coordination Acceptance (Section 106, etc.) (SHPO)		
DNR Coordination Acceptance (401 Cert., etc.) (DNR)		
Preliminary Plan Review Complete (PPRC)		
Preliminary Structure Plan Review Complete (PSPRC) (if needed)		
DNR Approved Materials Handling plan for hazardous materials to be remediated during construction (if needed)		
Bridge asbestos inspection report for bridge work that will require an asbestos notification to WDNR or WDHS (if needed)		
Signed Environmental Document (ED) (Type: ?)		
Interstate Access Justification Report (IAJR)		
Transportation Management Plan (TMP(s)) (Type: ?)		
Freight/OSOW Accommodations Coordination (FOAC)		
Roadside Hazard Analysis Sheet (RHA) (if needed)		
Drainage Design Report (DDR) (if needed)		
Status of Statutory Actions (if needed)		

Comments:**7.0 Attachments**

- Project Location/Overview Map
- As-built Plan Sheet(s) (for Rehabilitation S-2 segments only)
- Existing Typical Cross Section(s)/ Finished/Proposed Typical Cross Section(s)
- Encroachment Report (If applicable) (see [FDM 12-1-20](#))
- Safety (and Operations) Certification Document
- Traffic Forecast Report
- Preliminary Plan Sheet(s)
- Critical Design Parameters Chart for Each roundabout proposed (if applicable)
- Environmental Commitments Basic Sheet (if applicable) (include coordination letters)
- DNR approved materials handling plan and special provisions (if needed)

- Roadside Hazard Analysis Form Template
- **Technical Infeasibility Form**
- Non-Compliant Roadside design

Attachment 10.3

Page 1

Federal Highway Administration
Chief of Design Services Section

Date

(For a working file of this template: [FDM 11-4 A10.4 File 1](#))

CORRESPONDENCE/MEMORANDUM_____ **State of Wisconsin**

Date: _____, 20__

To: (Name)
WisDOT DTSD XX Region, Local Program Project Manager

From: (Name)
_____ - Local Public Agency

Subject: DESIGN STUDY REPORT
Project I.D. (design) _____
(CTH, Local (choose one)) _____,
Bridge # (if applicable)
_____ County

Having considered the economic and social effects of this project, its impact on the environment, and its consistency with the goals of community planning, we request your approval of the attached design study report.

Name
Local Public Agency

Date

Concur:

Name, PE
WisDOT DTSD XX Region, Local Program Project Manager

Date

(For a working file of this template: [FDM 11-4 A10.5 File 1](#))**CORRESPONDENCE/MEMORANDUM** _____ **State of Wisconsin**

Date: _____, 20xx
To: (Name) _____ WisDOT DTSD XX
Region, Local Program Project Manager

From: (Name) _____
_____ - Local Public Agency

Subject: DESIGN STUDY REPORT ON NATIONAL HIGHWAY SYSTEM
Project I.D. (design) _____
(CTH, Local (choose one)) _____,
Bridge # (if applicable)
_____ County

Having considered the economic and social effects of this project, its impact on the environment, and its consistency with the goals of community planning, we recommend your concurrence of the attached design study report.

Recommended:

_____	_____
Name	Date
Local Public Agency	

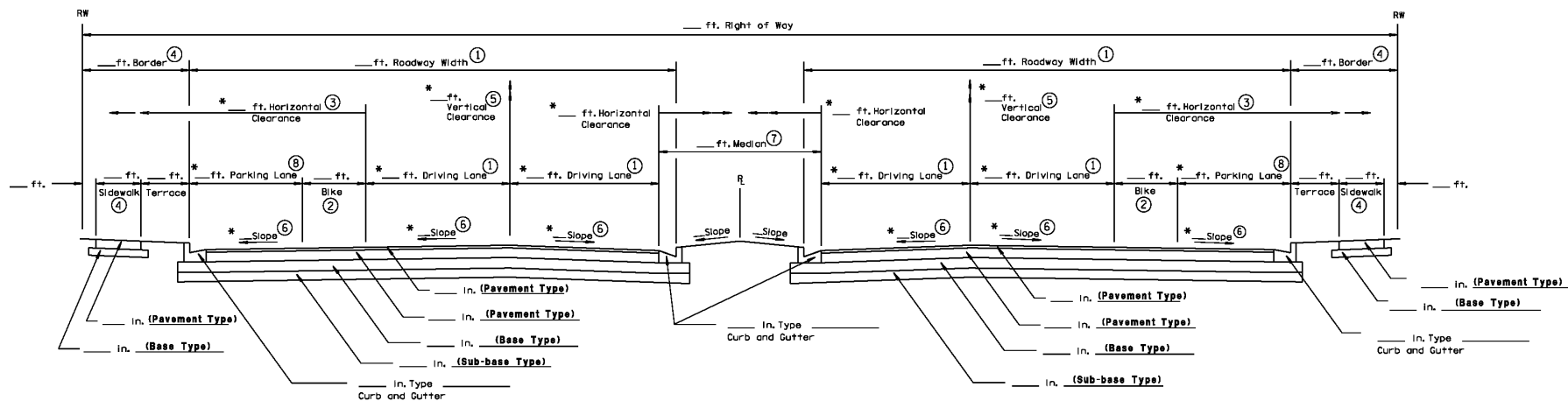
Are there any Design Justifications included in this DSR? Yes ☐ No ☐

Approved:

_____	_____
Name, PE	Date
WisDOT DTSD XX Region, Local Program Project Manager	

Concur:

_____	_____
Name, PE	Date
WisDOT DTSD BPD, Design Standards and Oversight Chief	



(EXISTING OR PROPOSED) URBAN CROSS SECTION FOR (ROADWAY NAME)

Sta. _____ to Sta. _____

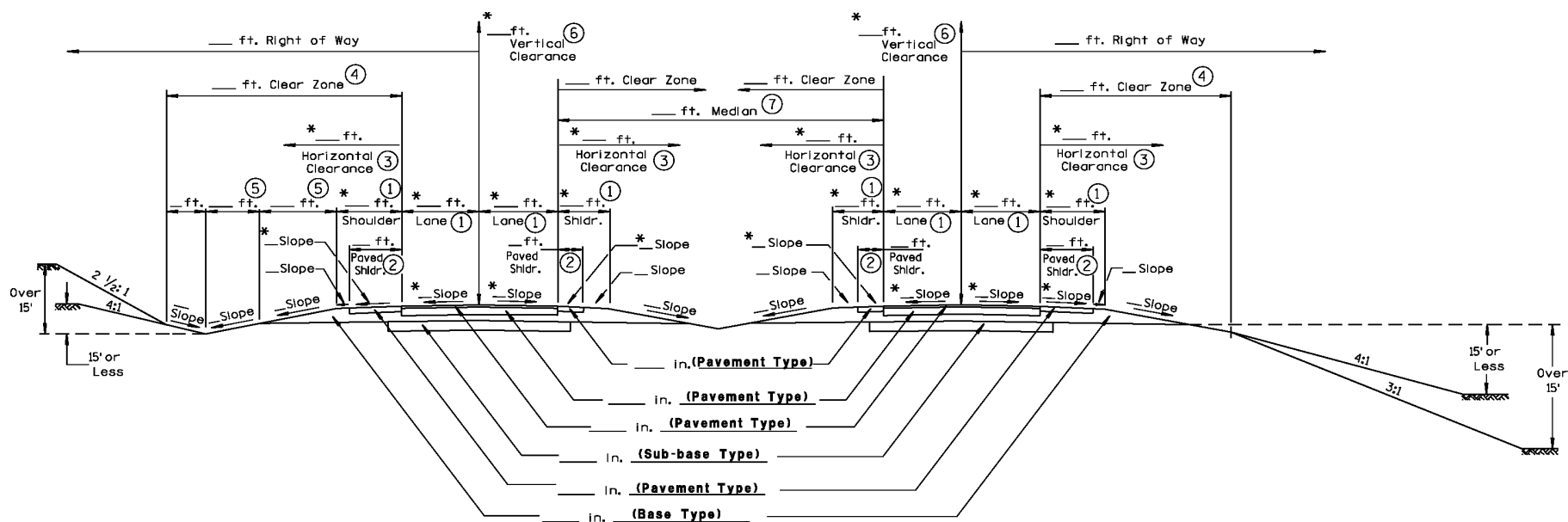
Improvement Type: _____

Design Class 4

* CONTROLLING CRITERIA

- ① SEE FDM 11-20 ATTACHMENT 1.1.
- ② SEE FDM 11-46-15.
- ③ SEE FDM 11-20 TABLE 1.5.
- ④ SEE FDM 11-46-05.
- ⑤ SEE FDM 11-35 ATTACHMENTS 1.8 AND 1.9.
- ⑥ SEE FDM 11-20 TABLE 1.1.
- ⑦ SEE FDM 11-25-1 AND FDM 11-45-2.
- ⑧ SEE FDM 11-20 TABLE 1.4.

4-LANE URBAN DESIGN CLASS 4 WITH PARKING



(EXISTING OR PROPOSED) CROSS SECTION FOR (ROADWAY NAME)

Sta. _____ to Sta. _____

Improvement Type: _____

Design Class: A3

* CONTROLLING CRITERIA

** 6 AND 8 LANE SIMILAR

- ① SEE FDM 11-15 ATTACHMENTS 1.1 TO 1.4 AND 1.16 TO 1.18 AND FDM 11-40-2.
- ② SEE FDM 11-15 ATTACHMENT 1.5 AND FDM 11-40 TABLE 2.1.
- ③ SEE FDM 11-15 TABLE 1.1.
- ④ SEE FDM 11-15 ATTACHMENT 1.9.
- ⑤ SEE FDM 11-15 ATTACHMENT 1.7.
- ⑥ SEE FDM 11-35 ATTACHMENTS 1.8 AND 1.9.
- ⑦ SEE FDM 11-15-1, MEDIAN SECTION AND FDM 11-45-1 MEDIAN BARRIER SECTION.

4-LANE RURAL CROSS SECTION**

DESIGN CLASS A3