

BDDM Update Summary October 2006 KFD

Updates for Foundation and Geotechnical sections – revised wording to include LRFD terminology: the term “capacity” is generally replaced with “resistance”, “ultimate” with “nominal”, “allowable with “factored”, “factor of safety” with “resistance factor”, etc. ASD and LFD formulas are replaced with LRFD formulas where applicable. The following sections have been revised accordingly, with other revisions noted:

1.1.2.2 Bridge Length, (3) Scour Evaluation

1.1.2.7 Bridge End Panels and Supports – added conditions for end panel deletion.

1.1.2.11 TS&L Narrative (continued)

1.1.3.1 Foundations and Hydraulics, General

1.1.4 Foundation Modeling (Foundation Springs)

1.1.4.1 General Modeling Techniques

1.1.4.2 General Procedures and Typical Values

1.1.4.2(1) Abutments and Wingwalls – Revised abutment seismic stiffness values

1.1.4.2(2) Spread Footings (continued)

1.1.4.2(3) Pile Supported Footings

1.1.4.2(4) Load-Deflection Curves, Stiffness Iteration Analysis and Capacity Checks

1.1.5 Foundation Design Process

1.1.5.1(1) TS&L Foundation Design Memo

1.1.5.1(2) Foundation Report

1.1.5.3 Spread Footing Foundation Design (2), (3), (4)

1.1.5.4 Pile Foundations, Steel and Timber Piling, Precast Prestressed Piling, Piling Considerations, (1) – (6), (8), (9) a) & b).

1.1.5.5 Drilled Shafts, Drilled Shaft Considerations (1) – (6), (8) first 3 bulleted items, (9). New items (10) through (18) added.

1.1.6.1 Underwater Foundation Design Considerations, 7th bulleted item

1.1.10.1 Seismic Design, General, New Bridges – Updated USGS link

1.1.10.5 Footing/Pile Cap Design, (1) Piling

Glossary, Nominal Pile Resistance – definition added.

2.7.5 Footing Plan – “For spread footings...” paragraph revised.

A2.7.3 Plan and Elevation, General Notes – piling General Notes revised and added.

H-pile note, steel grade revised from 36 to 50.

Remaining BDDM Section 1 Revisions:

- 1.1.1 Standard Specifications and Standard Drawing Manuals – designate which AASHTO LRFD edition and interim revisions to use. << Added 10/25/06
- 1.1.2.4 Structure Types and Economics – add requirements for use of salvaged materials
- 1.1.2.7 Bridge End Panels and Supports – add decision and detailing criteria
- 1.1.2.9 Other Things To Keep In Mind – added discussion on aesthetics
- 1.1.5.4 Piling Considerations – Correct pipe pile steel grade on Figures 1.1.5.4A and 1.1.5.4C from A572 to A252. << Added 10/25/06
- 1.1.8.4 End Bents, Integral Abutments – guidelines revised and added.
- 1.1.8.6 Pile Cap Abutment Details, Fig. 1.1.8.6A deleted
- 1.1.10.1 ODOT Seismic Retrofit Guidelines – add to BDDM
- 1.1.11.2 Information for Restrainer Design (continued), (7) Concrete Inserts – change to generic description, revise chart values, add LRFD references.
- 1.1.12.2 Concrete Finish – add concrete coloring requirements. << Added 11/02/06
- ~~1.1.15.11 Stay-in-Place Forms for Deck – Allowable conditions added and revised.~~
- 1.1.19.1 Elastomeric Bearings – Use Method “A” << Added 10/18/06
- 1.1.20.2 Deck Expansion Joint Seals, (1) General Information – add limitations for Asphaltic Plug Joints.
- 1.1.20.5(12) Deck Overlays – revise temporary barrier anchorage. << Added 10/16/06
- 1.1.21.4 Temporary Barriers – add anchor bolt text from April 2006. << Added 10/16/06
- 1.2 Steel Bridges:
 - Figure 1.2.1.3B – add stiffeners to sealant note
 - Figure 1.2.1.3C – add stiffeners to sealant note
 - Figure 1.2.1.3D – add stiffeners to sealant note
 - Figure 1.2.1.4A – add sealant note
- 1.4.4 Safety and Accessibility Requirements:
 - 1.4.4.1 Uniform Accessibility Standards – add requirements for fall protection at top of wingwalls and MSE slopes, etc.
 - 1.4.4.2 Inspection and Maintenance Accessibility – add safety provisions for inspection of bearings and shear lugs
 - 1.4.4.4 Standard Access and Ventilation in Concrete Box Girders – no access holes over railroad tracks
 - 1.4.4.5 Protective Screening – revised guidelines and warrants << Added 10/27/06
- Bridge Temporary Works items have been consolidated from other sections into 1.4.9 :
 - 1.4.9 Bridge Temporary Works
 - 1.4.9.1 Introduction
 - 1.4.9.2 Temporary Detour Bridges
 - 1.4.9.3 Agency Provided Temporary Detour Bridges
 - 1.4.9.4 Falsework
 - 1.4.9.5 Shoring
 - 1.4.9.6 Cofferdams and Seals (from 1.1.6.3)
 - ~~1.4.9.7 Formwork – new section, add Figure 1.4.9.7A for deck forms on steel girders~~
 - 1.4.10 Now Placing Buildings Under O.D.O.T. Bridges. Temporary Detour Bridges moved to 1.4.9.2. << Added 11/07/06
 - 1.4.11 deleted, text moved to 1.4.10. << Added 11/07/06

Section 2 Revisions

- 2.1.3.1 Modified Drawings start to finish to match Technical Bulletin sent out on April 12, 2006. Also added Bridge Mylar flow chart.
- 2.1.3.2 Added What Bridge Headquarters Needs At Completion Of Project.
- 2.1.3.3 Change title from Example Drawings to Shared Details. Moved Example drawings to 2.1.3.2.1 Example Drawings. Added 2.1.3.2.2 Standard Details.

- 2.3 Changed figure to reflect that Bridge has one title block for all bridge related drawings.

- 2.4.2 Change title from Title sheet to Title Block. There is only one Bridge title block. No more title sheet or detail sheet.
- 2.4.3 Removed Detail sheet information, only one title block.

- 2.4 Change Figure 2.4.2B to reflect one title block.
- 2.4 Add Figure 2.4.2C Example of Region or Consultant Logo Information box.

- A2.1.4 Changed "D_T_BarrierConn1" cell to reflect current design information.

- A2.2.2 Figure A2.2.2B, change Guard Rail and Existing Bridge illustrations. <Added 10/16/06

- A2.4 Changed Figure 2.4.2A to reflect one title block. Added example of filling out title block when designer is registered and when not registered.