

County: _____ Design No.: _____ By: _____ Date: _____
Project Location: _____ Consultant: _____

1. GENERAL

1.1 Title Block

- ___ "Design For (xx Skew) (RA)(LA)"
- ___ Structure Type and Size and Beam Type (Ex.: "304'-0 x 40'-0 Prestressed Pretentioned Concrete Beam Bridge")
- ___ For bridges with multi-project staging, the structure width listed should be the width of the current stage plus all previously completed stages. (Ex.: if stage 1 construction is 20 ft. and stage 2 construction is 30 ft., the first project title block should show 20 ft. and the second project title block should show 50 ft.) Show text: Stage 1, Stage 2 as-needed
- ___ Span Description (Ex "101'-0 End Spans", "102'-0 Center Span")
- ___ Station of bridge at center of bridge (offset needed for duals)
- ___ Current TSL Date (Ex.: "December 2010")
- ___ County
- ___ "Iowa Department of Transportation - Highway Division"
- ___ "Design Sht. No. x of x", "File No.", "Design No."
- ___ Situation Plan

1.2 Location

- ___ Location: Road over road/stream
- ___ Federal Railroad Administration Identification No. (FRA) and Iowa crossing number
- ___ Township/Range (Ex.: "R-2W", "T-87N")
- ___ Section (Ex.: "36")
- ___ Latitude/Longitude at station of bridge at center of bridge (Ex. : "12.345678/-12.345678")
- ___ County
- ___ Bridge Maintenance Number

1.3 Traffic Estimate

- ___ Traffic data shown

1.4 Vertical Profile Data

- ___ Vertical curve data

1.5 Horizontal Profile Data

- ___ Horizontal curve data

1.6 Vertical Clearance Table

- ___ Include station/offsets/elevation (mainline/sideroad), deck thickness, haunch, beam depth, vertical clearance. Submit data if on super elevation

1.7 Utilities List Block

- ___ Utilities - add legend table and label each for all utilities shown on plan sheet

1.8 Recoverable Berm Location Table

- ___ Recoverable berm location table - show if necessary

1.9 Berm Slope Location Table

- ___ Berm slope location table

1.10 Hydrology & Hydraulic Data

- ___ Hydraulic data table – see data cell for appropriate application

1.11 Berm Slope Armoring

- ___ Provide typical section showing embedded vs. non-embedded and table showing quantities for revetment, erosion stone, engineering fabric and class 10 excavation. Show and lable 'grading surface'

1.12 Ground Control Grading

- ___ Provide coordinates if applicable

1.13 Signature Block

- ___ Consultant PE signature for Hydrology & Hydraulics – bridge over water/new RCB (does not include extensions)

1.14 Staging

- ___ Staging sequence details if required

1.15 Railroad Bridges

- ___ For all RR bridges, show macadam stone protection
- ___ Minimum horizontal clearance dimension to pier
- ___ Crashwall for RR overpass (provide if center track to face column is less than 50')
- ___ Remember special 3'-8 rail for UP/BNSF RR bridges
- ___ UP/BNSF RR bridge, assume 10:1 transition for barrier rail, as taller rail is required
- ___ UP/BNSF RR bridges, do not add fence on bridge barrier rail unless required by UP/BNSF RR
- ___ For UP/BNSF RR include bridge standard sheet 1067
- ___ Railroad bridges - show fence if required
- ___ Railroad bridges - add note stating fence type (curved - sidewalk/trail or straight – shoulder only)

1.16 Notes (as-needed)

- ___ "Non-Standard Abutment Wing Wall"
- ___ "Standard Bridge (Index No.)"
- ___ "TL - # Bridge Railing Proposed" (use for all bridges)
- ___ "2-Span Grading Shown" (see EW 203/204 - 5' offset)

- ___ "Top of bridge deck at centerline roadway is 'x' above (or below) the profile grade to account for deck cross slope and parabolic crown"
- ___ "Top of bridge deck crown 'X' below profile grade"
- ___ "Pier Type – (Frame, T, Pile Bent, Diaphragm, etc)" Note if designed for collision force [BDM 6.6.2.6]
- ___ "Beam Type – (BTB, etc.) (AASHTO A, B, etc.) (WPG – include depth)
- ___ "Provide vent hole in beam"
- ___ "Class (B, E, etc) revetment stone is (embedded or non-embedded)". [BDM C3.2.7.3.3]
- ___ "Note to Final Design: As this project requires a sovereign lands permit, bid item reference notes shall restrict broken concrete as a substitute for revetment." [BDM 3.2.7.5]

1.17 Bridge Cross Section

- ___ Show bridge cross section – fully dimension, show lanes/shoulders/cross slopes/beams etc. (consultants only)

1.18 Miscellaneous

- ___ North arrow
- ___ Scale bar
- ___ Benchmark description
- ___ Border: "County", "Project No.", Sht. No. x of x"
- ___ Use current Micro Station CADD level/color schemes as shown on IADOT's web site.

2. PLAN VIEW

- ___ 'Face to Face of Paving Notches' dimension shown
- ___ Proposed span lengths and total bridge length (centerline to centerline pier/abutment)
- ___ Proposed stations along centerline approach roadway at piers/abutments
- ___ Roadway designation(s)
- ___ Typical Approach Roadway Section - dimension lane/shoulder widths and show cross slopes
- ___ Berm slope armoring - Label type (revetment vs erosion stone) and show offset limits from centerline approach roadway [BDM 3.2.7.3.5]
- ___ POT stationing of mainline roadway construction centerline and side-road intersection
- ___ Skew angle – show actual in plan view and design skew in Title Block to nearest degree
- ___ Minimum vertical clearance location
- ___ Minimum horizontal clearance dimension to pier
- ___ Label guardrail – "Guardrail"
- ___ Arrows for direction of traffic

- ___ Dimension variable width bridges at abutments
- ___ Bridge abutment wing wall dimension shown if non-standard length used
- ___ Structures with no side piers – dimension offset
- ___ Ground elevations preferred for bridges, label contours if used
- ___ Existing utilities, fence-lines, tiles (label fiber optic, gas line, etc.)
- ___ Existing structures (bridge, culverts), label - include description and design number
- ___ Proposed culverts near bridge – label type/size/location info
- ___ Dimension sideroad lane and shoulder widths
- ___ Proposed roadway embankment shaping
- ___ Proposed berm and channel shaping
- ___ Label all centerlines and profile grade lines
- ___ Label stationing on at least two "tic" marks in the plan view
- ___ Future work – label bike trail, ramps, etc (by others)
- ___ Stream name and direction of flow
- ___ Check text/dimensioning legible and not placed on top of other details

3. LONGITUDINAL SECTION

- ___ Bottom of footing elevation
- ___ Slope protection: label type, thickness
- ___ Existing ground line and proposed grade line shown/labeled
- ___ Existing structure – substructure, piling (from as-built plans)
- ___ Berm slope labeled (2.5:1 max, Normal)
- ___ Vertical clearance – actual location and dimension
- ___ Top of berm elevation at abutments
- ___ Stream bed elevation
- ___ Q 'Design' water surface elevation without backwater
- ___ Scour elevation – 'Design' scour elevations
- ___ Abutment/pier deck elevations along the centerline of approach roadway