SITUATION AND LAYOUT CHECKLIST FOR HIGHWAY / WATERWAY CROSSINGS

PROJECT NAME: _____
PROJECT KEY NUMBER: _____
BRIDGE DRAWING NUMBER: _____ **CHECKED BY:** _____

Use pencil to mark items. Use an X or ✓ to indicate completion. Use "INC" to indicate items which are incomplete and "N/A" to indicate items which do not apply. For additional information on the design requirements refer to Chapter 17 of the "LRFD" Manual.

BORDER

- [ ] Designed and Detailed Names
- [ ] Design Checked and DWG Checked Names (required when work has been checked)
- [ ] Corrections Name (need only be completed when corrections have been made)
- [ ] Engineers Stamp
- [ ] Project Number
- [ ] Sheet Title
- [ ] Project Description (Length, Type of Support, Crossing, Station)
- [ ] Bridge Key Number
- [ ] Bridge Drawing Number (required but may not be available during preliminary design)
- [ ] County and Project Key Number
- [ ] Sheet Numbering (required for final design and PS&E submittals)

SHEET 1

PLAN VIEW

- [ ] View Title with scale factor
- [ ] Length of Structure (out to out) along survey line
- [ ] Station and Finished Grade Elevation at the Beginning and End of structure along Centerline.

Abutment / Pier number, Station, and Finished Grade Elevation shown at the Intersection of the Abutment / Pier Centerline and Survey line at the following locations:

- [ ] Centerline of bearing of Abutments
- [ ] Center of Piers / Bents

Span lengths along survey line shown as follows:

- [ ] Single Spans or End Spans: abutment centerline bearing - centerline pier/bent
- [ ] Interior Spans: centerline pier/bent - centerline pier/bent
- [ ] Bridge Width shown (out - out). Width should include the parapet, curb and sidewalk as applicable.
- [ ] Curb-to-Curb Width shown
- [ ] Roadway Lane and Shoulder Widths shown
- [ ] Lane Direction and Name of Closest Town/Geographical Feature in that Direction indicated
- [ ] North arrow shown
- [ ] Intersection Angle shown if not a 90º crossing

horizontal and vertical clearances shown as follows:

- [ ] Highway Crossings: Show the point of minimum vert. and horiz. clearance for the highway
- [ ] Stream Crossings: Show the point of minimum clearance above Q50 high water elevation
- [ ] Identification of Survey and Profile lines
- [ ] Existing Bridge Details shown (as needed)
- [ ] Existing Bridge Drawing Number given (Needed only if existing bridge is to be removed)
- [ ] Plan View Oriented so Elevation View can be placed below Plan View
- [ ] Bridge Stationing at Centerline of Structure shown and runs Left to Right of sheet
- [ ] Culvert Stationing at Centerline of Roadway shown and runs Bottom to Top of sheet
- [ ] Rip Rap Limits shown with pay note (as applicable)
- [ ] Contour lines shown and gray shaded
- [ ] Utilities Crossing the structure shown (as applicable)

- [ ] Deck drains shown (as applicable)
- [ ] Survey Cap shown with installation note

ELEVATION VIEW

- [ ] View Title with scale factor
- [ ] Total length between abutment centerlines along survey line shown

Abutment/Pier Number and Station shown at the following locations:

- [ ] Centerline Bearing of Abutments
- [ ] Centerline of Piers/Bents
- [ ] Span Length Shown
- [ ] Span Number Shown (Multi-Span Structures only)
- [ ] Fixity Shown ("E" Expansion, "P" Pinned, or "F" Fixed) (not required on culverts)

Minimum Vertical Clearances shown as follows:

- [ ] Highway Crossing: Minimum Clearance from roadway
- [ ] Stream Crossing: Minimum Clearance form Q_{50} High Water Elevation
- [ ] Ground Line along the Centerline of Structure Shown
- [ ] Abutment Slopes shown and annotated
- [ ] Abutment / Pier Projection lines shown (Do not show where projection lines may be confusing)
- [ ] Roadway approach Guardrails shown with associated note

PROFILE DATA

- [ ] View Title with scale factor
- [ ] Profile Grade Across Structure Shown (denote top of concrete or top of overlay)
- [ ] Structure Location Shown on Profile
- [ ] Station and Elevation for the Beginning and End of Structure Shown
- [ ] Profile Grades for all Highways involved in Crossing Shown

The following Vertical Curve Data Shown:

- [ ] Stations and Elevations at Point of Curvature, Point of Intersection, and Point of Tangency
- [ ] Length of Vertical Curve
- [ ] Incoming and Outgoing Grades as a percent

HORIZONTAL ALIGNMENT DATA

* Horizontal Alignment Data should be included in the Plan view if possible.

- [ ] View Title
- [ ] Stations at Point of Curvature, Point of Intersection, and Point of Tangency Shown
- [ ] Horizontal Curve data Shown (Δ, T, L, R, S, RL, and Z)
- [ ] Horizontal Curve described in Degree of Curve
- [ ] Super Elevation Transition Data Shown (If applicable)
- [ ] Alignment Bearing (Should be shown in Plan View if possible)

HYDRAULIC DATA

- [ ] View Title

Hydraulic Data for Streams and Rivers shown for the following conditions:

- [ ] Design (Flood, discharge, H.W. Elev., and Velocity)
- [ ] Base (Flood, discharge, H.W. Elev., and Velocity)
- [ ] Scour (Flood, discharge, H.W. Elev., and Velocity)
- [ ] Hydraulic Data for Canals Shown (Canal Flow, H.W. Elev., Velocity, and Flow Controller)

SHEET 2

INDEX OF SHEETS

- [ ] View Title
- [ ] Sheet number and Sheet Title Shown for all Sheets

QUANTITIES

- [ ] View Title
- [ ] Bid Item Number, Description, and Unit Shown for all applicable items
- [ ] Bid Item Quantity Shown (Not Required until Final Design)
- [ ] Bid Item Plan Quantity items denoted

TRAFFIC DATA

- [ ] View Title: One Directional Data
- [ ] Construction Year AADT & CAADT
- [ ] Future Year AADT & CAADT

VICINITY MAP

- [ ] Map of the State of Idaho showing location of the project
- [ ] Vicinity map showing the location of the bridge site

Revisions:

March 2011	Revised Checklist to agree with 17.2 Changed location of stationing for culverts from “centerline of structure” to “centerline of roadway”. Added traffic data to sheet 2 to provide one directional data required for load rating.
May 2014	Revised notations for ADT & ADTT to AADT & CAADT.
Sept 2021	Deleted reference for engineers stamp on full & half size drawings. Deleted reference to bridge inspection number on first sheet only. Revised “project county and key number” to “county and Project key number” Added “denote top of concrete or top of overlay” to Profile Data. Added “denote plan quantity items” to Quantities.