

Bridge or Culvert Plan Supplementary Checklist

For Local Public Agency (LPA) Projects Let by the Iowa Department of Transportation (Iowa DOT)

Project No.: _____ Date: _____ LPA or Consulting Firm: _____

Name of Designer: _____ Phone No.: _____ e-mail: _____

Note: This checklist shall be used in *addition* to the Check and Final Plans Checklist, which is included in I.M. 3.505 as [Attachment B](#). These checklists are not intended to cover all of the details, notes and information that may be necessary for acceptable Check and Final bridge or culvert plans. However, these checklists address the items where most questions or problems generally arise. *These checklists are requested, but not required with the Check Plan submittal.* These checklists are not needed with the final plan submittal.

GENERAL

- Highway Bridge Program (HBP) Eligibility.** If the project involves HBP funding, the bridge shall be shown on the FHWA Qualifying Bridge List, or if not on the list, shall be reviewed and approved for HBP funding eligibility by FHWA. For more information, refer to [I.M. 2.020](#), Federal and State Bridge Programs.

TITLE SHEET

- Shop Drawings / False Work Drawings Note.** If the plans specify that shop drawings are required, this note shall state the name, mailing address, phone number, and fax number of the agency responsible for checking the fabricator's shop drawings and the contractor's false work drawings. The agency may be a consulting engineering firm, the LPA, or a combination of the two. Note: The Iowa DOT no longer provides this service for LPA projects. The Iowa DOT shall not be listed as the agency responsible for checking shop drawings or false work drawings.

QUANTITY AND ESTIMATE REFERENCE SHEET(S)

- Non-participating Quantities.** If there are non-participating items, such as work items beyond the limits of the HBP participation, these quantities shall be shown in a separate column labeled "Non-Participating" on the estimated quantities tabulation. Note: Work outside the limits of the HBP participation, or otherwise ineligible for HBP funds, may be eligible for other types Federal funding. If other Federal funds are used, the quantities associated with these funds shall be shown in a separate column and labeled as appropriate.
- Epoxy Coated Steel.** All Federal-aid bridge projects shall use epoxy coated reinforcing steel in the following locations: deck slab (top and bottom mats), concrete diaphragms adjacent to deck expansion joints, barrier rail, median barriers, integral abutments, or any other area where exposure to de-icing salt is likely. However, this requirement may be waived if either of the following conditions are met: a) the LPA can show that either the extra cost of epoxy coated steel is not cost effective in extending the service life of the structure; or b) the bridge is located on an unpaved road that will not be paved anytime in the foreseeable future. Any such waiver requests shall be submitted to the Iowa DOT Administering Office for review and approval.

SITUATION PLAN or PLAN AND PROFILE SHEET(S)

- Centerline Section.** The following information shall be shown:
1. Centerline stationing at piers and abutments.
 2. Elevations, including profile grade, bridge seat, bottom of footing or cap, bottom of backing plank, bottom of wing plank, bottom of deadman, and top of berm.
 3. Include "H" dimension of abutments if high abutments are used.
 4. Specify the type, size, and length of pile.
 5. Show channel excavation.
 6. Note the type of bearings and whether they are fixed or expansion.

- Sounding Data.** The sounding data or soil information shall be plotted or shown, including the depth of each layer and a description of the layer. Include the blow counts if they are available. If the soil borings use an elevation datum that is different than the plan elevation datum, the soil boring and plan elevations shall be related to one another by means of an elevation equation. If soils information is scanned and inserted on the plans, it shall be legible when printed on 11x17 size plan sheets.
- Guard Rail.** If guard rail is used, the layout and connections to the bridge shall be detailed. The appropriate Standard Road Plans [BA Series](#) should be referenced for more information.
- Plan View.** The following information shall be shown:
 1. Out-to-out of slab or paving notch.
 2. Length between centerline abutment bearings.
 3. Length of individual spans between centerline of supports.
 4. Skew angle of the bridge, if any.
 5. Width of the berm.
 6. Limits of Class 10 Channel Excavation.
 7. Soils test holes.
 8. Grid of bridge deck elevations
- HBP Participation Limits.** If the project limits extend beyond the limits of HBP funding participation, the participation limits shall be shown on the plan sheets, including beginning and ending stations. For guidance on determining HBP participation limits, refer to [I.M. 2.020](#), Federal and State Bridge Programs.
- HBP Participation in Deck Overlays.** If an HBP project involves a deck overlay, the plans shall indicate the specific areas of removal of deteriorated concrete. These removals shall be supported by chloride testing results, which shall be submitted to the Administering Office with the project plans. If chloride testing was not conducted, the plans shall require milling the entire deck down to the top mat of reinforcing steel to ensure that all chloride contaminated concrete is removed.

PLAN NOTES (can be on the situation plan, plan and profile, or general notes sheets)

- Existing Structure Notes.** The following shall be included in the notes:
 1. The dimensions of the structure.
 2. The type of superstructure, floor, and substructure.
 3. The location, including its centerline stationing.
 4. Specify the LPA, the bridge contractor, or other specifically identified party as responsible for removing the existing structure.
 5. If the structure will not become the property of the contractor, specify how the existing structure will be disposed of. If the structure or parts of the structure will be salvaged, the plans shall indicate what part of the removals, if any, the contractor will be responsible for. For more information, refer to the "Salvaged Materials" section of [Attachment A](#) to I.M. 3.505, Check and Final Plans.
 6. Note in the plans if any asbestos is found in the existing structure, per [I.M. 3.160](#), Asbestos Inspection, Removal, and Notification Requirements.
- Piling Information.** The following information shall be shown for the pilings:
 1. Driving instructions (if different than standard).
 2. Specify the bearing required for abutment piles.
 3. Specify the bearing required for pier piles.
 4. Note if oversize piles are required. If required, give the minimum diameter 3 feet from the butt end of the pile.
- Other Notes.** The following miscellaneous information shall be identified:
 1. If Class 24 Excavation is used, describe where it is to be obtained.
 2. Specify whether a monolithic or non-monolithic pier cap is to be used and if "cap steel" is required. See Standard Bridge Plan [P10L](#).
 3. If berms are required, specify who is to build them.
 4. State who is to build the approaches.

MODIFIED STANDARD PLANS OR SPECIAL DETAIL SHEETS

- Drawings.** Modifications to existing standards should provide sufficient detail and notes to clarify the changes made to the standard plan. Any special details should provide the contractor enough information to accurately bid and construct the detailed item. Modified standard plans or special detail sheets shall be included in the plans. If a standard plan is modified, references to the standard plan number and revision date shall be removed.

- Bar Lists.** A reinforcing bar list shall be provided for any special details or modified standard plans.

- Concrete Placement Quantities.** For each detailed item, the quantity of concrete placement required for that item shall be shown.