RESET

BRIDGE ASSESSMENT WORKSHEET

State Form 55233 (R / 02-25)

Indiana Department of Natural Resources
Division of Water
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DNR
Indiana Department of Natural Resources

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Application	

An assessment using the Bridge Assessment Worksheet is appropriate to use for a bridge replacement-in-kind, bridge widening, pier wrap, or scour repair project for roadway, railroad, pedestrian, golf cart, or private access structures.

This approach may be applicable to assess a bridge replacement project where the flow regime is not changing for:

- a bridge or culvert structure that is being replaced with a bridge structure, or
- a culvert structure that is being replaced with a culvert structure if:
  ~ the length of the proposed culvert is essentially the same as the existing culvert (Note: Minimal additional length may be considered. Please identify in the justification box below), AND
  ~ the proposed culvert has a roughness coefficient equal to or smaller than that of the existing culvert.

If multiple design options are being considered for any of the above replacement-in-kind proposals, the proposed design with the smallest waterway opening value should be used in completing the worksheet(s).

This approach cannot be used for any one of the following bridge projects:

- the flow regime of the existing structure is changing from energy flow to pressure flow on the proposed structure,
- the waterway opening beneath the replacement structure is smaller than the waterway opening beneath the existing structure,
- a new stream crossing structure is proposed and the existing structure is to remain in its current location,
- a bridge structure is being replaced with a culvert structure,
- the location of the replacement structure is more than 500' from the location of the existing bridge structure.
- Any portion of the existing road profile that experiences over-topping is raised.

If any one of the above six scenarios exist for the proposed project, computer modeling in accordance with the General Guidelines for the Hydrologic-Hydraulic Assessment of Floodplains in Indiana will be required to be submitted to assess the change to the cross selectional flow area.

To determine if a project will qualify for this assessment approach, a Companion Worksheet is required to be completed and submitted with the permit application. We recommend that you first complete the companion worksheet: Bridge Assessment Worksheet, Companion Worksheet B (State Form 55234) to determine if the project can be assessed by this approach.

Unless the instructions direct you otherwise, all plan details, questions, and computations in the worksheets must be addressed to adequately evaluate a project under this assessment approach.

The minimum documentation specified on the next page must be submitted with your application.

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1) PLAN DETAILS AND SUPPORTING DOCUMENTATION

For each of the minimum plan details described in the following chart, complete Column 1 and Column 2. The required plan view items can be combined into one or more plan drawings as long as the information is clearly defined.

Column 1 *Check if item is included.*	**Column 2** *Indicate page or sheet number for each required item.*	**Column 3** *Minimum plans required.*
☐		A map that clearly identifies the location of the proposed project site in relationship to the waterway and surrounding roadways.
☐		An aerial plan view that illustrates disturbed area of the project site.
☐		A plan view that illustrates the proposed project's construction components. Indicate permanent and temporary components throughout the project site.
☐		A plan view of the floodway throughout the project limits
☐		A cross section view(s) showing an overlay comparison of the preconstruction and post-construction conditions of the effective cross sectional flow area that includes: 1) dimensions and calculated area of the waterway opening 2) the elevation of the top of road profile extended to an elevation (beyond the floodway limits) and exceeds the base flood elevation based on the same vertical datum 3) elevation of the low structure (low chord) of the bridge Cross sections should be stationed left to right, looking downstream, full valley, and oriented perpendicular to flow.
☐		Describe the methodology used to compute the waterway opening, e.g. identify the software or show computations.
☐		A plan view that clearly marks the location(s) and labels of the cross section(s).
☐		Photos that illustrate the natural and man-made surroundings, e.g.: 1) from the bridge deck, a downstream view of the channel 2) from the bridge deck, an upstream view of the channel 3) from a downstream streambank, a view of the downstream bridge deck and waterway opening 4) from an upstream streambank, a view of the upstream bridge deck and waterway opening *Label orientation of each photo.
☐		Plans require horizontal and vertical scale, vertical datum, north arrow, labels, stations, and date.
☐		A completed Bridge Assessment Worksheet, Companion Worksheet B (State Form 55234).
☐		A completed Fish, Wildlife, and Botanical Resources Impact Assessment Worksheet (State Form 57132).

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2) ADDITIONAL JUSTIFICATION/COMMENTS

SIGNATURE

Be aware that after reviewing the submitted plans and computations in the worksheet, the IDNR staff may request additional documentation if sufficient evidence has not been provided that clearly demonstrates the effect that the project may have on the base flood elevation or impacts to fish, wildlife, and botanical resources in the floodway.

Printed Name of Preparer	Date Signed *(mm/dd/yyyy)*
Signature of Preparer	