# PRELIMINARY DESIGN CHECKLIST – TEMPORARY BRIDGE

**County:**_____ **Design No.:**_____ **Check By:**_____ **Date:**_____

**Project Location:**_____ **Consultant:**_____

## GENERAL

___ In addition to the items in this checklist, the Preliminary Design – Bridge checklist items shall also be reviewed for applicability.

___ An asset ID number is not required for temporary structures.

## PLAN View

___ Dimension the minimum allowable bridge roadway width

___ Dimension the minimum allowable overall bridge clear span length

## LONGITUDINAL SECTION

___ Label the minimum allowable low beam elevation

___ Dimension the maximum allowable superstructure depth (based on the roadway profile)

___ If applicable, show the maximum allowable number of piers.

### Hydraulic Data Block

__ See cell labeled Hydraulic Data – Temporary Bridge for required information.

### Design Notes

Design Notes shown on the TS&L are intended to inform the final bridge designer of design decisions and other requirements. The final designer shall delete these notes from the final TS&L. Example notes:

___ The final designer shall coordinate with road design regarding the bridge approach pavement details and shall incorporate approach pavement support requirements into the Special Provisions.

___ Special Provisions to include:

Revetment Requirements

The flow area through the bridge below elevation "xx" shall be no less than "xxxx" sf. This minimum flow area is based on (clear span, "xx" slope for spill through abutment). The adequacy of the provided flow area shall be verified by field measurement and approved by the engineer before the temporary bridge is open to traffic.

Vertical abutments may provide an increase in flow area verses spillthrough abutments, but must provide adequate toe protection (revetment).

The contractor's revetment design shall be submitted to the Engineer for review in advance of installation, in accordance with Standard Specification 1105.03.

Work associated with furnishing and placing revetment for the temporary bridge shall be considered incidental to the temporary bridge substructure pay item.

Temporary revetment shall be removed and the channel restored. Reuse of temporary revetment for the permanent design is allowed.

### Plan Notes

Plan Notes should remain on the final temporary bridgeTS&L. Example notes:

___ (This note is to be placed in the upper left corner of the first sheet) The temporary bridge is scour critical. When the temporary bridge is installed, the contractor shall notify the DOT Preliminary Design Unit at 515-233-7949, so a flood management plan can be developed in advance of the temporary bridge being placed into service. Upon notification, the DOT will add this site to the Bridge Watch Management Plan for monitoring.

___ The ends of the temporary bridge shall be protected. The protection system shall be of the contractor's choosing and design. Refer to the Special Provisions for temporary bridge protection requirements.

___ Substructure elements are shown for illustration only. The substructure type and design shall be of the contractor's choosing and design. See the Special Provisions for temporary bridge.

___ Bridge Out-to-Out may vary depending on the vendor design.

___ The low superstructure elevation shall be set at or above elevation "XXXX.XX".

___ A "XX" inch maximum superstructure depth was assumed to determine the low superstructure elevation. If the contractor chooses a bridge system with a deeper superstructure, the contractor will need to field adjust the roadway upward to keep the low beam at or above the specified elevation.

___ The temporary bridge will be limited to legal loads.

___ Vertical (sheet pile) or spill through abutments may be considered by the contractor. For this reason the revetment protection shall be of the contractor's choosing and design.

___ Reinforced PCC bridge approach pavement is required for the temporary bridge. Refer to the Road Sheets for the approach pavement details.

___ The approach pavement shall be supported at the temporary bridge abutments. Refer to the Special Provisions for Temporary Bridge to review the substructure requirements.