

Local Bridge Replacement Program

Standard Bridge Tool Parameters

Overview

- The Standard Bridge Design Tool will allow for more efficient designs for single span slab bridges, primarily on local roadways in stream crossing locations.
- The Standard Bridge Design Tool determines slab thickness based on a minimum of $1.0(S+10)/30$ in conjunction with deflection checks, satisfying all AASHTO and WisDOT Bridge Manual requirements.
- The parameters listed below are the options that are available via the tool for utilization based on the preliminary type/size/location design that is completed by the designer.

Superstructure

- Span length
 - Centerline-to-centerline bearing lengths from 24'-0" to 48'-0" in 4-ft increments (7 options)
- Skew Angle
 - 0° to 20° skews in 5° increments both left-hand forward and right-hand forward (9 options)
- Roadway Clear Width
 - 24'-0" to 30'-0" clear width from toe of parapet to toe of parapet (or face of railing to face of railing) in 2' increments (4 options)
- Railing Types
 - Type M or 42" single slope parapets (2 options), Type NY4 future option
- Paving Notch
 - Tool allows for use of notch or no notch depending on roadway approach slab type (2 options)

Substructure

- Abutment Type
 - Standard A5 abutments with 45° wings (1 option)
- Abutment Height
 - Height from 5'-0" minimum up to a maximum of 8'-0" for the shortest dimension of the abutment body in 1' increments (4 options)
 - There will be future options for a 9'-0" minimum abutment height, as well as another option with a 10'-0" maximum option where the 10' is located at the maximum height (crown or edge for superelevation)
- Piling Type
 - HP 10x42, 10.75"x0.219 CIP, or 10.75"x0.25 CIP piling (3 options)