

# Bridge Cost Estimates

## Planning Estimates

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### Timeline

Estimates are done prior to Scoping Estimate > 5 years prior to anticipated letting date or when entering the CHIP.

### Estimating Techniques

- Conceptual Parametric Estimates (\$'s/SF of anticipated deck area).
- Based on very little scope/project definition.
- Most estimates are triggered by bridge condition as identified in BRIM.
- Some are driven by unforeseen regional development or political action or corridor projects.
- Estimates should be presented as a range of costs because of limited project definition.
- Estimates should include significant contingencies to cover known risks and unknown risks.
- Estimates should be rounded to nearest 10,000.00.
- Planning estimates **are not** to be used for development of STIP project budget.
- Estimates may be provided by the Bridge Estimating Unit, Bridge Scoping Engineer, District Bridge Engineers, or from planning tools such as BRIM.

## Scoping Estimates

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### Timeline

Estimates done approximately 4-5 years prior to the anticipated letting date (at time the project is being entered into the STIP) and may be updated as project scope or risk factors change.

### Estimating Techniques - General

- Estimates are based on the appropriate level of scoping and project definition. To improve accuracy, information such as proposed deck cross-section, bridge surveys, ability to raise the profile grade, etc. should be provided.
- Estimates should evaluate staging and site restrictions to determine if temporary works are needed to build the bridge (i.e. sheet piling, rebar couplers, etc.) and properly cost this work.
- Estimates should include contingencies to cover known risks and unknown risk.

## Estimating Techniques – New Bridges

- Estimates are conceptual bid-based estimates based on anticipated pay items and calculated quantities after developing a conceptual sketch from district provided information from Request for Bridge Scoping and Cost Estimating Assessment ([Form A](#)), unit prices representative of the size and location of the bridge.
- Costs are sometimes determined based on parametric estimating (\$'s/SF) for basic rural bridges where other comparable and recent bridges are available and time is limited.
- Estimates for new bridges are provided by the Bridge Office Preliminary Plans or Estimating Units and are documented in Bridge Scoping and Cost Estimating Assessment (example [Form B](#)).

## Estimating Techniques – Bridge Repairs

- Estimates are developed by the Bridge Scoping Engineer and are documented in the Bridge Repair Scoping Report ([example](#)).
- Estimates are based on historical unit prices applied to quantities of anticipated work activities developed from the Bridge Repair Scoping Report.

## Preliminary Estimates

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### Timeline

Estimates done approximately 1-2 years prior to the anticipated letting date (once preliminary bridge plan is signed or bridge repair recommendations are signed).

### Estimating Techniques

- Estimates are usually bid-based estimates based on anticipated pay items and calculated quantities developed from the preliminary bridge plan or bridge repair recommendations, and unit prices representative of the size and location of the bridge.
- Costs are sometimes determined based on parametric estimating (\$'s/SF) for basic rural bridges where other comparable and recent bridges are available and time is limited.
- Regardless of which of the two estimate techniques used, special attention is paid to evaluating staging and site restrictions to determine if temporary works are needed to build the bridge (i.e. sheet piling, rebar couplers, etc.) and properly cost this work.
- Estimates are provided by the Bridge Office Estimating Unit

## Engineer's Estimates (EE)

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### Timeline

Estimates done approximately 8-12 weeks prior to the letting date (once final bridge plans are signed) and are kept confidential until the project is awarded.

### Estimating Techniques

- Estimates are usually bid-based estimates based on actual pay items and quantities from the final bridge plan and recent historical unit prices representative adjusted for location, quantity and project specific parameters.
- When time and staffing allow, major cost items, items with no comparable history, or of unique type or means and methods will be cost-based (i.e. based on labor, materials and equipment).
- Regardless of estimate technique, special attention is paid to evaluating staging and site restrictions to determine if temporary works are needed to build the bridge (i.e. sheet piling, rebar couplers, etc.) and properly cost this work.
- Estimates are provided by the Bridge Office Estimating Unit

### For More Information

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Visit: [mndot.gov](http://mndot.gov)

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