

Proposed Process Revision to Ensure Compliance with Federal Funding of Approach Work Completed in Conjunction with Local Bridge Replacement or Rehabilitation Projects

Background: FHWA limits bridge approach costs to only those approach costs that are necessary to render the bridge serviceable (to reach the attainable touch down points using current standards). The reason for this eligibility restriction is that bridge funds are meant for bridge work only. If bridge funds are used for extended approaches or other non-bridge work then there are fewer bridges that can be replaced or rehabilitated. For projects on the Federal-aid system (functionally classified above a minor collector), then FHWA does allow for other eligible funding (such as STP funds) for extended bridge approaches. However, with a lot of local bridges, the roadway is not on the Federal-aid system and there are no Federal funds available for bridge approach work that is beyond that which is described above.

On a program level, FHWA has determined that bridge approach costs should amount to no more than 10% of the cost for constructing the bridge. It is recognized that there will be some bridges with higher approach costs and some with lower, so this is a target average. As such, FHWA will generally ask for a justification for the approach costs for any bridge project where the approach costs exceed 15%. Sometimes there are very legitimate reasons for the higher approach costs, particularly if there is a bridge replacement that involves increased structure elevation and/or elimination of substandard geometrics associated with the structure. However, often times the approach costs are due to a decision to include logical and reasonable approach roadway work up to a nearby intersection or other practical ending point. While it may make sense to end the approach roadway work at such a location, it doesn't mean that it is eligible for Federal funding.

All acknowledge that this can be confusing and that the locals want to end their approach work where it makes the most sense. However, FHWA has to enforce the eligibility restrictions of the funds, and the intent of bridge funds is to replace and rehabilitate structures, so the eligibility is limited to that purpose.

Process for determining bridge approach length eligible for Federal Funding:

Currently bridge approach length justification is being discussed at PS&E time. This issue must be addressed earlier in the process to keep from expending design funds on ineligible construction concepts. As discussed in 23 Code of Federal Regulations (CFR) § 650.405(c).

“...the costs of long approach fills, causeways, connecting roadways, interchanges, ramps, and other extensive earth structure, when constructed beyond the attainable touchdown point, are not eligible under the bridge program.”

If long approaches are anticipated this must be identified at concept definition and scoping and prior to the State Municipal Agreement (SMA). We must ensure the use of good design practice to determine the appropriate attainable touchdown point. Long approaches to correct major safety deficient geometrics must be reviewed and approved by FHWA in order to determine Federal eligibility.

A new process is proposed to obtain approval; this will separate bridge projects into three categories, short, medium and long approaches. This process uses total approach length. Total approach length is equal to the sum of approach lengths on either side of the bridge.

Bridge replacement-Short Approaches - total approach lengths are 300 feet or less

If at project scoping approach lengths of 300 feet or less are expected the following will apply:

- It shall be noted in the SMA that only a nominal amount of approach work in accordance with good design practice is eligible.
- It shall also be noted in the SMA that the sum of the approach lengths must be 300 feet or less or the SMA will be modified ¹.
- Bridge replacement-short approaches (≤ 300 ft) are considered to meet the touchdown to touchdown requirement and separate approach length justification is not required. Documentation is included in the Design Study Report (DSR).

Bridge replacement-Medium Approaches- total approach lengths are between 300 and 600 feet

If at project scoping approach lengths between 300 and 600 feet are expected the following will apply:

- It shall be noted in the SMA that only a nominal amount of approach work in accordance with good design practice is eligible.
- It shall also be noted in the SMA that the sum of the approach lengths must be less than 600 feet or the SMA will be modified ¹.
- Bridge replacement-medium approaches (< 600 ft) shall prepare an approach cost justification. The approach cost justification shall be submitted to the Management Consultant (MC). If the justification shows that the approach costs are less than 15% of the total project cost the management Consultant recommends approval, the Local Program Project Manager (LPPM) approves. If the approach cost is more than 15%, the justification must be recommended by the MC and LPPM then transmitted to FHWA to support authorization of the project.
- This shall be documented in the DSR noting who approved and supported.

¹ Good design practice must dictate the length of the bridge and roadway approaches; however as noted on the previous page, eligibility will be limited to only those approach costs that are necessary to render the bridge serviceable. Length of bridge and roadway approaches should not be determined based on what is eligible for Federal funding.

Bridge replacement-Long Approaches- total approach lengths are 600 feet or greater

Bridge replacement-long approaches shall be identified at concept definition; the following process is used to obtain project approval:

- Concurrence from FHWA is necessary prior to commitment of funding and execution of an SMA. The LPPM must consult with the FHWA representative to discuss the project concept and obtain concurrence in writing or e-mail prior to proceeding. It is important to obtain concurrence so not to expend Federal design funds on work that is ineligible for Federal funding.
- Once the project has concurrence, then the SMA can be approved. An approach cost justification must be created, recommended for approval by the MC and LPPA then approved by FHWA.
- The justification shall be documented in the DSR.

Calculation and Documentation of Approach Costs: When the total approach length is 300 feet or greater the Design Consultant must determine the approach cost percentage. This shall be done as part of the development of the DSR. Current WisDOT practice is to develop an estimate with a separate category for true structural costs (limited to costs directly attributable to the rehabilitation or replacement of the structure proper). Most other costs are placed in a roadway items category. FHWA defines structure and approach costs differently. Some items that WisDOT includes in its roadway items category are necessary for the bridge construction. For example mobilization, traffic control, and field office.

The design consultant may consider 25% of the mobilization, traffic control and field office as approach costs and 75% as bridge costs. If the total roadway category items less 75% of these three items; mobilization, traffic control and field office are more than 15% of the total project costs (without delivery) then approval is needed. A written justification of the approach work must also be developed and submitted with the calculations. The justification must clearly explain why the increased approach lengths and costs are necessary. This justification is generally an explanation of the need for extended approaches due to major safety geometric improvements related to the structure or extended approaches due to the need to raise the elevation of the structure. Keep in mind that extended approach work is still limited to those approach costs that are necessary to render the bridge serviceable (to reach the attainable touch down points using current standards).

Justifications should be submitted to MC and LPPM then forwarded to FHWA for approval, if required. (Note: Once there is an established process in place, and the process is working as intended, with a knowledgeable WisDOT employee approving all justifications, we can eliminate the need for FHWA approval and FHWA will just review periodically). Justifications should be prepared and submitted prior to DSR, yet at a point where detailed information is available.

Approach Information Shown in FIIPS / FMIS: Bridge costs in FMIS should be coded to show the first two classifications of project costs (pure structural replacement / rehabilitation costs and other associated structural replacement / rehabilitation costs) as having an improvement code of 11 or 14 (bridge replacement or bridge rehabilitation). Approach work, as defined above, should be coded as 03, 04 or 07. (For more guidance and additional information concerning Bridge/ Approach work set-up in FIIPS please review FIIPS Program Management Manual (PMM) section 5-5-5, PMM Section 5-10-5 for FIIPS project description; and see Facilities Development Manual (FDM) 3-5-2 for Federal Improvement Concept.)

A note that provides the actual approach cost, approach percentage, and justification approval date/approver name (if applicable) should be included in FIIPS. Ideally this information should be transferred into the “State Remarks” field in FMIS, but as a minimum this information should be accessible should it need to be reviewed as part of FHWA’s quarterly authorization review process.

Contract Change Orders / Project Modifications: If there are changes to the project during construction, those changes must be appropriately assigned to the applicable code. Approach costs should be verified to be within the 15% or other approved limit when there are contract modifications.

For Projects with Separate LFA Work for Approaches:

There should only be one Federal-aid project in FMIS. 100% approach roadway project is not eligible for HBP funding. It must be included in a project with an eligible bridge and then be only necessary work to reach the obtainable touch down points using current standards.

All work (both the structural work and the approach work), even if one will be 100% locally funded, must be covered under one environmental document.

Neither phase of work (LFA approach work or let bridge work) can be started prior to completion of the environmental document and project authorization.