



STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

RICK SNYDER
GOVERNOR

KIRK T. STEUDLE
DIRECTOR

February 6, 2014

Ms. Denise Donahue, Director
County Road Association of Michigan
P.O. Box 12067
Lansing, Michigan 48901-2067

Mr. Matt Bach, Director of Communications
Michigan Municipal League
320 N. Washington Square, Suite 100
Lansing, Michigan 48933-1288

Dear Ms. Donahue and Mr. Bach:

LOCAL BRIDGE PROGRAM
Deadline for Applications – MAY 1, 2014

The Michigan Department of Transportation (MDOT) is soliciting applications for candidate projects for the Local Bridge Program; selected projects will be funded during the 2017 fiscal year. Enclosed are the application requirements. Do not submit projects which cannot be committed to construction within the 2017 fiscal year. The applications can be submitted by the local agency owner or their consultant. The total number of applications from any one local agency is limited to five (5). Submitting more than five applications from one agency will be cause to reject all applications submitted.

To be eligible for bridge funds, the structure must meet the definition of a bridge, defined as a structure with a total clear span of more than 20 feet, measured along the centerline of the roadway over a stream, watercourse, or opening. For a span bridge, this means the clear opening span, measured face to face at the inside of the abutments, is greater than 20 feet. A multi-unit culvert is considered a bridge if the total length as measured along the centerline of the roadway is greater than 20 feet and the distance between the culvert units is less than half the diameter of the smallest unit. This description is referenced in item number 112 of the "Michigan Structure Inventory and Appraisal Coding Guide." There are many multi-unit culverts under local agency jurisdiction that qualify as bridges and; thus, are required to be on the structure inventory and regularly inspected. Please check multi-unit culverts in your area to see if they qualify under the definition of a "bridge."

An application must list the specific work being applied for in the preventative maintenance and/or rehabilitation categories.

Enclosed is the current scoping document, dated 1/21/2014, which indicates per unit cost estimates of various rehabilitation and preventive maintenance options. This information will be helpful in determining estimated construction costs for different types of repairs. All estimates for projects to be constructed in 2017 should incorporate an annual inflationary factor of three percent. If the structure is over a railroad, include the railroad's flagging and construction fees.

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Bridge Scoping

To assist in the bridge scoping and fix selection process, refer to MDOT's Scoping Manual located at http://www.michigan.gov/mdot/0,1607,7-151-9622_11044_11367-243045--,00.html; specifically, pages 30 through 48 of Chapter 5, *Signs of Pavement & Bridge Distress and Fix Selection Guidelines*.

Bridge Asset Management Plan

To assist with managing bridge inventory and developing an optimum bridge preservation strategy, a valuable resource is the Asset Management Guide for Local Agency Bridges in Michigan located at: http://www.michigan.gov/documents/mdot/Local_Bridge_Asset_ManagementGuide_and_Sample_Preservation_Plan_May_2011_353611_7.pdf?20140124101948.

All local agencies are encouraged to submit asset management plans for the applications being submitted. A summary of the local agency's bridge network asset management plan may also be submitted for review.

Replacement

Replacement projects involve replacing the entire substructure, superstructure, deck and necessary approach work. For replacement projects, the average cost per square foot (sft) of proposed deck area should be estimated, at a minimum, at \$200/sft for rural roadways and \$280/sft for urban roadways. If a multi-use path or sidewalk is planned but does not currently exist, the estimate needs to clearly indicate the costs of these items. If the project is selected for funding, a master plan showing the path or sidewalk must be provided in order for them to be considered participating within the Local Bridge Program.

The approach costs should be estimated using a minimum of \$25,000 per station, with a minimum approach cost of \$100,000. The estimate needs to account for public utilities such as water mains and sewers, which will need to be altered during construction. Also, if the structure is within a substandard horizontal or vertical alignment, the estimate must account for any possible increase in approach distance.

Replacement projects need to meet current American Association of State Highway and Transportation Officials (AASHTO) guidelines and the Load Factor Resistance Design criteria. The minimum overall estimated cost for a replacement project including approach work should be \$400,000.

Rehabilitation

Rehabilitation is defined as the major work required to restore the structural integrity of a bridge, as well as work necessary to correct major safety defects. These projects are required to meet the

AASHTO guidelines. If a rehabilitation project is over water, a scour analysis will be required during the design phase and the existing foundations will need to be shown to be stable under a scour event. A structure that is not found to be stable during a scour event may not be allowed to proceed to contract. If making the structure stable results in a change in scope, it may be necessary to re-apply during a future call for applications.

Estimated repair costs for bridge rehabilitation projects will vary by the type of work. Include publicly owned utility relocation costs. Examples of rehabilitation work eligible for funding under the program include:

- full deck replacement (with or without painting of steel beams)
- superstructure replacement
- structure widening
- removal of existing bridge without replacement

Preventive Maintenance

Preventative Maintenance applications can be a single bridge or multiple bridges submitted for similar preventive maintenance work into one application. This can include multiple agencies working together to submit one application. A multiple bridge application will count as one of the five applications any one agency is allowed to submit per year. The Region Bridge Councils will review a multiple structure application as one package and will not rate each structure independently. Preventive Maintenance activities are eligible under the Local Bridge Program.

When applying for a multiple bridge preventative maintenance project, submit each structure individually. For electronic submission, select “PM-Multiple Structure” as the type of work on each form. For paper submission, identify on the cover sheet that each bridge is part of a “PM-Multiple Structure” application. Examples of Preventive Maintenance include:

- painting only (full, zone, or spot painting)
- pin and hanger replacement
- slope paving repair
- joint replacement and repair
- drainage system repair (bridge deck drains and bridge approach downspouts)
- scour countermeasures
- concrete crack sealing
- concrete patching and repair
- approach pavement relief joint installation
- hot mix asphalt (HMA) overlay
- shallow deck overlay (removing and replacing concrete surface above the top mat of steel reinforcement)
- deep deck overlay (removing and replacing the concrete surface below the top mat of steel reinforcement)

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- temporary supports
- expansion or construction joint repair
- guard rail beam retrofit or installation
- substructure repairs

***NOTE:** If a bridge has a single load posting instead of the 3 truck posting, a Load Rating Summary sheet should be included in the application with an explanation as to why only a single load posting is shown.*

The data found on the Structure Inventory and Appraisal (SI&A) form is used in many of the formula rating point calculations and is one item looked at by your Region Bridge Council when considering discretionary rating points. It is very important that this data be current and correct before submitting the application; incorrect data may significantly affect the rating points. When completing an application, the data stated in the supporting documents must match the data found in the SI&A form. Conflicting information may be cause to reject an application.

MDOT bridge personnel will review submitted applications for completeness and determine the preliminary (computer generated) rating points. The Local Agency Program bridge staff will perform site visits, verify appropriate scopes of work, and create written site reports. The applications, preliminary rating points, and the site visit reports will then be forwarded to the respective Region Bridge Council for their review and the addition of the discretionary rating points.

The preventive maintenance, structure rehabilitation and replacement, and approach construction costs may be eligible for a maximum of 95 percent participation from federal and/or state funds. The right-of-way, design engineering, and construction engineering costs are not eligible for Local Bridge Program funds.

The Local Bridge Advisory Board has set a policy for projects coming in over application estimate. If, at the grade inspection stage, the project estimate exceeds the application estimate, the Region Bridge Council may review the project. The council can decide to accept the project at the increased estimate, cap the project at a percentage above the application estimate, or delay the project until the following year. Please take due diligence in getting the most reasonable application estimates.

All applications must include the requirements listed on the enclosed pages. All bridge applications submitted in previous years that have not been selected for funding have been discarded. Region Bridge Councils and the Local Bridge Advisory Board will only consider applications submitted during the current year's call. Incomplete applications will be rejected and will be returned to the local agency.

Applications can be submitted using the MDOT Website, at http://www.michigan.gov/mdot/0,4616,7-151-9625_25885_40558---,00.html. From this location you can access the electronic form to submit your application electronically. Please be sure your

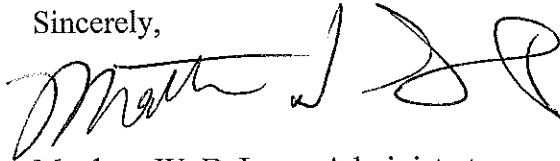
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Structure Number is correct and have your signed resolution, SI&A, Bridge Inspection Report, cost estimate, location and detour maps, project narrative, letters of support, and photos ready to include as attachments. If you are unable to submit your attachments electronically, please submit physical copies of your applications via mail or delivery service.

*Applications submitted via mail or delivery service **must be postmarked no later than May 1, 2014.** Applications postmarked or submitted on the MDOT Website after May 1, 2014, will be rejected and returned to the local agency. We encourage you to submit your applications early if they are complete.*

If you have any questions, or need further information, please contact Mr. Keith Cooper, Bridge Program Manager, at (517) 373-2346.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew W. DeLong". The signature is fluid and cursive, with a large, stylized initial "M" and "D".

Matthew W. DeLong, Administrator
Development Services Division

BOHD:DSD:KC:ks

Enclosure

cc: Keith Cooper
Larry Doyle

APPLICATION REQUIREMENTS (Standard and Emergency Applications)

1. Include the most recent Structure Inventory and Appraisal (SI&A) form and Bridge Inspection form (BIR). These forms must have been updated within the 24-month period, prior to May 1, 2014. The data found on the SI&A form is used in many of the formula rating point calculations and is one item looked at by your Region Bridge Council when considering discretionary rating points. It is very important that this data be current and correct before submitting the application; incorrect data may significantly affect the rating points. The SI&A and BIR forms must be updated electronically on MiBridge prior to the May 1, 2014, deadline. Do not send in any marked up forms as we can not update the data for you.
2. Submit a legible map (8 ½" X 11") showing:
 - a. Emergency facilities such as fire stations, hospitals or police stations.
 - b. Schools and other significant traffic generating facilities.
 - c. The alternate routes or detours which must be used as a result of load limits or closures.
 - d. Do not color code this map, it will be reproduced on a black and white scanner/copier.
3. For all applications, include a minimum of two photographs of the following:
 - a. One showing the structure's alignment.
 - b. One showing the structure's profile view.
 - c. If the bridge is posted, include one photograph of the bridge clearly showing the current posting sign. These photos need to be of good quality in order to reproduce copies on a black and white scanner/copier.
4. For **rehabilitation** and **preventive maintenance** applications, also include photographs of the following:
 - a. The deck showing the areas of delamination and patches.
 - b. The substructure units showing areas of delaminations/spalls.
 - c. The beams showing areas of cracks and delamination for concrete and local areas of corrosion and/or local failure for steel.
 - d. The photos need to be of good quality in order to reproduce copies on a black and white scanner/copier.
5. Submit a narrative which includes the following:
 - a. The responsible local agency contact person's name, title and telephone number.
 - b. **Clearly indicate whether the application is for rehabilitation, replacement, and preventive maintenance. For rehabilitation and preventive maintenance, clearly specify work requested for funding.**
 - c. A statement explaining the economic importance of the structure.
 - d. In a short paragraph, if there is currently a detour for the structure, explain "Existing detour currently affects"
 - e. In a short paragraph, if the structure is or would be closed, explain "If the structure is closed, the detour would affect...."
 - f. If the structure is closed, what year the structure was closed.
 - g. A statement of any maintenance done on the structure either past or present.
6. Submit a breakdown of the estimated replacement, rehabilitation, and preventive maintenance as follows:

A. Approach Construction		(A) \$	
B. Structure Construction		(B) \$	
Total (A & B)	Total	\$	

7. Submit a "**Priority List**" listing all the structures that you want rated. Any application not containing a total priority list of all applications will be considered incomplete, and will be rejected and returned to the owner.
8. **For each application**, submit a current resolution, signed and dated, from the governing board supporting the project. Resolutions from previous applications will not be accepted. Letters of local support are recommended but are not mandatory.
9. Do not staple the application together or put in a booklet or binder, as it needs to be reproduced on a black and white scanner/copier.
10. Any application that is not complete will be rejected and returned to the local agency. Common examples of incomplete applications are those that are missing updated SI&A forms, photos of postings, load ratings, missing resolutions, and priority lists. All completed applications must be postmarked by the May 1, 2014, deadline.
11. All local agencies are encouraged to submit asset management plans for the applications being submitted. A summary of the local agencies bridge network asset management plan may also be submitted for review. Refer to the Asset Management Guide for Local Agency Bridges in Michigan, located on MDOT's Local Agency Bridge Program's website.
12. Previous years' applications have been discarded. The Region Bridge Councils and the Local Bridge Advisory Board will only review applications submitted during the current call for applications. After the applications have been reviewed and projects have been selected for funding, all non-funded bridge applications will be discarded.
13. Clearly indicate whether the application is for rehabilitation, replacement, or preventive maintenance. For rehabilitation and preventive maintenance, clearly specify the work requested for funding.

Submit all applications to:

Rita Levine, P.E.
Local Agency Programs-Development Services Division, MDOT
425 West Ottawa Street
P.O. Box 30050
Lansing, Michigan 48909
Phone: (517) 373-0041

LAP - BRIDGE COST ESTIMATE WORKSHEET
- CPM, REHAB, REPLACE -

REGION: _____ FISCAL YEAR: _____ STRUCTURE ID: _____ (3-5 digits)
 ENGINEER: _____ DATE: _____
 LOCATION: _____ DECK AREA: _____ SFT BRIDGE ID: XXX-XXXXX
 PRIMARY WORK ACTIVITY: _____ DECK DIM: _____ STR. TYPE: _____

WORK ACTIVITY	QUANTITY	UNIT	UNIT COST	TOTAL
NEW BRIDGE				
Multiple Spans, Concrete (add demo & road approach & traffic control)		SFT	\$190.00 /SFT	
Multiple Spans, Steel (as above)		SFT	\$210.00 /SFT	
Over Water or Single Span (add to replacement cost)		SFT	\$45.00 /SFT	
Other				
NEW SUPERSTRUCTURE				
Concrete (includes remove exist super, new railing; add t.c. & approach)		SFT	\$120.00 /SFT	
Steel (as above)		SFT	\$150.00 /SFT	
Over Water (add to new superstructure cost)		SFT	\$30.00 /SFT	
Raise Superstructure (includes substructure work)		SFT	\$110.00 /SFT	
Other				
WIDENING				
Added portion only, _____ ft of width (add road approach transition)		SFT	\$210.00 /SFT	
Other				
NEW DECK				
Includes remove exist deck & new railing (add t.c. & approach)		SFT	\$66.00 /SFT	
Other				
DEMOLITION				
Entire bridge, grade separation		SFT	\$28.00 /SFT	
Entire bridge, over water		SFT	\$38.00 /SFT	
Other				
SUPERSTRUCTURE REPAIR				
Concrete Deck Patch (includes hand chipping)		SFT	\$33.00 /SFT	
Full Depth Patch		SFT	\$70.00 /SFT	
HMA Cap (no membrane, add bridge rail if req'd)		SFT	\$1.25 /SFT	
HMA Overlay with WP membrane (add bridge rail if req'd)		SFT	\$4.50 /SFT	
Removal of Concrete Wearing Course (latex) or HMA Overlay		SFT	\$1.00 /SFT	
Epoxy Overlay		SYD	\$34.00 /SYD	
Shallow Overlay (includes joint repl & hydro; add bridge rail if req'd)		SFT	\$23.00 /SFT	
Deep Overlay (includes joint repl & hydro; add bridge rail if req'd)		SFT	\$24.00 /SFT	
PCI Beam End Repair (\$2000-\$4000 per beam end)		EA	\$3,000.00 EA	
High Load Hit Repair (PCI Beam)		SFT	\$180.00 /SFT	
Repair Structural Steel (\$2000 bolted, \$6000 welded)		EA	\$5,000.00 EA	
Paint Structural Steel (includes clean & coat)		SFT	\$9.00 /SFT	
Partial Painting (includes clean & coat)		SFT	\$18.00 /SFT	
Pin & Hanger replacement (includes temporary supports)		EA	\$6,200.00 EA	
Other				
SUBSTRUCTURE REPAIR				
Pier repair (measured x 2) Replace unit if spalled area > 30%		CFT	\$200.00 /CFT	
Pier repair over water (measured x 2)		CFT	\$225.00 /CFT	
Pier replacement		CFT	\$75.00 /CFT	
Abutment repair (measured x 2)		CFT	\$200.00 /CFT	
Temporary Supports for Substructure Repair		EA	\$1,500.00 EA	
Slope Protection repairs		SYD	\$82.00 /SYD	
Other				
MISCELLANEOUS				
Expansion or Construction Joints (includes removal)		FT	\$480.00 /FT	
Bridge Railing, remove and replace (\$205 Type 4, \$270 Aesthetic Parapet)		FT	\$235.00 /FT	
Thrie Beam Railing retrofit		FT	\$30.00 /FT	
Deck Drain Extensions		EA	\$400.00 EA	
Scour Countermeasures		LSUM		LSUM
Other				
ROAD WORK				
Approach Pavement, 12" RC (add C & G, GR, Slope, Shldr.) 40' ea. end		SFT	\$14.00 /SFT	
Approach Curb & Gutter (18' ea. quad.)		FT	\$42.00 /FT	
Guardrail Anchorage to Bridge (<40')		quads	\$1,500.00 /quad	
Guardrail, Type B or T (beyond GR anchorage to bridge, <200')		FT	\$20.00 /FT	
Guardrail Ending (end section)		EA	\$1,750.00 /EA	
Roadway Approach work (beyond approach pavement)		LSUM		LSUM
Utilities		LSUM		LSUM
Other				
TRAFFIC CONTROL <i>Unit Cost to be determined by Region or TSC T&S</i>				
Part Width Construction		LSUM		LSUM
Crossovers		EA	\$250,000.00 EA	
Temporary Traffic Signals		set	\$20,000.00 /set	
RR Flagging		LSUM		LSUM
Detour		LSUM		LSUM
Other				
CONTINGENCY (10% - 15%) (use higher contingency for small projects)				
MOBILIZATION (estimate at 5% but put "10% max" in pay item description)	5	%	\$0.00	\$0
INFLATION (assume 3% per year, beginning in 2015)		%	\$0.00	\$0

(DOES NOT INCLUDE PE & CE)

CONSTRUCTION TOTAL \$0

REGION: _____ FISCAL YEAR: _____ STRUCTURE NUMBER: _____ (3-5 digit)
 ENGINEER: _____ DATE: _____
 LOCATION: _____ DECK AREA: _____ SFT BRIDGE ID: **XXX-XXXXX**
 PRIMARY WORK ACTIVITY: _____ DECK DIM: _____ STR. TYPE: _____

DECK	<u>WORK ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>TOTAL</u>
	Patching Concrete, C-L (deck or barrier rail patching)		CYD	\$700.00 /CYD	
	Penetrating Healer/Sealer, Bridge Deck		SYD	\$16.00 /SYD	
	Crack Sealer		FT	\$8.00 /FT	
	Water Repellant Treatment, Penetrating (deck surface)		SYD	\$16.00 /SYD	
	Concrete Surface Coating (concrete barrier rail, deck slab fascia)		*SYD	\$12.00 /SYD	
	Resealing Bridge Construction Joints (hot poured rubber)		FT	\$12.00 /FT	
	End Header Replacement		FT	\$80.00 /FT	
	Concrete, Grade D		CYD	\$800.00 /CYD	
	Reinforcement, Steel, Epoxy Coated		LBS	\$1.30 /LB	
	Adhesive Anchoring of Horiz. Bars ___ "		EA	\$25.00 /EA	
	Drain Casting, Type 1		EA	\$400.00 /EA	
	Drain Casting, Type 2		EA	\$400.00 /EA	
	Drain Casting Assembly		EA	\$950.00 /EA	
	Deck Drain , Extension		EA	\$400.00 /EA	
	Downspout Replacement		EA	\$400.00 /EA	
	Embedded Galvanic Anode		EA	\$15.00 /EA	
	Other				
SUPERSTRUCTURE					
	Spot Painting (80% clean, 20% coat)		*SFT	\$20.00 /SFT	
	Patching Concrete, C-L (concrete beam patching)		CYD	\$700.00 /CYD	
	Water Repellent Treatment, Penetrating (concrete fascia beams)		SYD	\$16.00 /SYD	
	Concrete Surface Coating (concrete fascia beams)		*SYD	\$12.00 /SYD	
	Other				
SUBSTRUCTURE					
	Patching Concrete, C-L (substructure patching)		CYD	\$700.00 /CYD	
	Patch Forming (vertical & overhead surfaces)		SFT	\$32.00 /SFT	
	Concrete Surface Coating (vertical surfaces)		*SYD	\$12.00 /SYD	
	Substructure Horizontal Surface Sealer (horizontal surfaces)		*SYD	\$20.00 /SYD	
	Water Repellent Treatment, Penetrating		SYD	\$16.00 /SYD	
	Other				
DEMOLITION					
	Hand Chipping, Shallow (~3" deep)		SYD	\$110.00 /SYD	
	Hand Chipping, Deep (~6" deep min)		SYD	\$140.00 /SYD	
	Hand Chipping, Other Than Deck (vertical & overhead surfaces)		CFT	\$60.00 /CFT	
	Structures, Rehabilitation, Rem Portions (slope protection removal)		*CYD	\$225.00 /CYD	
	Structures, Rehabilitation, Rem Portions (drain casting removal)		*EA	\$500.00 /EA	
	False Decking		SFT	\$1.00 /SFT	
	Other				
MISCELLANEOUS					
	Joint, Expansion, Erg (pavement joint)		FT	\$14.00 /FT	
	Joint, Pressure Relief, 4 inch		FT	\$75.00 /FT	
	Embankment, Structure, CIP		CYD	\$16.00 /CYD	
	Backfill, Structure, CIP		CYD	\$20.00 /CYD	
	Slope Paving, Header		FT	\$70.00 /FT	
	Slope Paving, Concrete		SYD	\$60.00 /SYD	
	Slope Paving, Precast Concrete		SYD	\$60.00 /SYD	
	Other				
TRAFFIC CONTROL					
	Maintaining Traffic (from TSC or Region T&S)		LS		LS
	Other				

MOBILIZATION	10 %	\$0	\$0
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(DOES NOT INCLUDE PE & CE)

* Estimated as unit shown, Paid for as LUMP SUM

CONSTRUCTION TOTAL \$0