

PROGRAM APPLICATION FOR LOCAL AGENCY PROJECTS BRIDGE PROJECTS

Administered through MDOT Local Agency Programs (LAP)

This form must be completed, signed, sealed, and certified by a Licensed, Registered Professional Engineer, prior to scheduling the grade inspection meeting. Submit all pages of this form.

PROJECT LOCATION AND LIMITS: Attach a Map showing the Project Location:

| | |
|---------------------------|------|
| ELIGIBLE APPLICANT AGENCY | DATE |
|---------------------------|------|

ROUTE NAME

CROSSING

| | | |
|---------------------------|---|--|
| LENGTH OF PROJECT (Miles) | ZIP CODE OF MAJORITY OF PROJECT LOCATION* | |
|---------------------------|---|--|

Is the project within urban limits? Yes No Which urban area? _____

Is the project within City/Village limits? Yes No Which City/Village? _____

Are other jurisdictions involved? Yes No If yes, identify: _____

| | |
|---------------------------------|----------------------------|
| NAME OF MPO OR RURAL TASK FORCE | TIP ID / SUBPROJECT NUMBER |
|---------------------------------|----------------------------|

*This information is required by the State Administrative Board in order to approve the agreement and construction contract for this project.

ROUTE TYPE: From the Structure Inventory and Appraisal Coding form (1717A):

| | |
|--|---|
| URBAN <input type="checkbox"/> Principal Arterial, 11, on-system <input type="checkbox"/> Minor Arterial, 12 or 14, on-system <input type="checkbox"/> Urban Collector, 17, off-system <input type="checkbox"/> Local, 19, off-system | RURAL <input type="checkbox"/> Principal Arterial, 01 or 02, on-system <input type="checkbox"/> Minor Arterial, 06, on-system <input type="checkbox"/> Major Collector, 07, on-system <input type="checkbox"/> Minor Collector, 08, off-system <input type="checkbox"/> Local, 09, off system |
|--|---|

On the National Highway System (NHS): Yes No

EXISTING STRUCTURE:

Number of spans: _____ at _____ feet, for a total overall length of: _____ feet;

Posted load limit _____ tons; Operating rating _____ tons;

Clear roadway width _____ feet; Width of sidewalks: _____ feet;

RAILING TYPE

STRUCTURE TYPE

| | |
|------------------------|--|
| CONDITION OF STRUCTURE | IF CLOSED, WHEN YEAR MONTH |
|------------------------|--|

CAN THE EXISTING STRUCTURE BE REHABILITATED

Yes No, If No, explain: _____

EXISTING APPROACH AWAY FROM THE INFLUENCE OF THE BRIDGE:

Number of lanes: _____ at _____ feet each, total travel roadway width: _____ feet;

Type of pavement _____ Width of sidewalks: _____ feet;

Curb and Gutter One Side Both Sides None

Shoulders Type _____ Width _____ feet, each side

PROPOSED STRUCTURE:

Number of spans: _____ at _____ feet each, for a total overall length of _____ feet
Clear roadway width: _____ feet Width of sidewalks _____ feet
Railing type _____ Structure type: _____
The minimum clear roadway width by current AASHTO: _____ feet. From table: _____ on Page _____

REASON FOR USING OTHER THAN THE CURRENT AASHTO MINIMUM CLEAR ROADWAY WIDTH AS SHOWN ABOVE:

PROPOSED APPROACH AWAY FROM THE INFLUENCE OF THE BRIDGE:

Number of lanes: _____ at _____ feet each, total travel roadway width: _____ feet
Type of pavement _____ Width of sidewalks: _____ feet
Curb and Gutter One Side Both Sides None
Shoulders Type _____ Width _____ feet, each side

DESIGN GUIDELINES (Current "MDOT Local Agency Guidelines for Geometrics" applies):

- Section B – New Construction/Reconstruction (4R-AASHTO) Section D – Preventive Maintenance (PM)
- Section C – Resurfacing, Restoration and Rehabilitation (3R)

Note: For 3R projects, a crash analysis and a 3 year crash report must be attached

- Current AASHTO "Guide for the Development of Bicycle Facilities"
- Current AASHTO "Guidelines for Geometric Design of Very Low-Volume Local Roads," with the MDOT Engineering Operating Committee acceptance stipulations dated 3/25/04.

Posted Speed _____ mph, or Prima Facie Design Speed _____ mph

Note: With no posted speed limit, the prima facie speed limit applies

Present Average Daily Traffic: _____ with _____ % Commercial
Future Average Daily Traffic _____ with _____ % Commercial, Year _____

WORK ZONE SAFETY AND MOBILITY (WZS&M):

All local agency projects have been determined to be "Significant", according to the "Local Agency Policy for Work Zone Safety and Mobility" guidance.

The Local Agency has completed the appropriate actions and activities, has documented the completion of these tasks, and has completed the appropriate checklists included in the Policy Yes No

Copies of these completed checklists are included in the Local Agency's project file Yes No

UTILITY COORDINATION CERTIFICATION

All private and municipal utility relocations, if required, will either be relocated prior to contract award or have been identified in the bid proposal's Notice to Bidders – Utility Coordination. Yes No

PAVEMENT WARRANTIES:

This project will include a warranty for pavement related items, in accordance with the Local Agency Warranty Program approved by FHWA, MDOT, County Road Association of Michigan, and the Michigan Municipal League. Yes No

PARTICIPATING COST INFORMATION

| Approved Funding Source | From (S)TIP, Approved Amount | Capped? | Percentage |
|---|------------------------------|--|------------|
| Local Bridge Program | _____ | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ % |
| Federal STP – Type _____ | _____ | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ % |
| Economic Development, Category _____ | _____ | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ % |
| Other – Source _____ | _____ | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ % |
| Local Match _____ | _____ | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ % |
| Total Programmed (Participating) Funds _____ | | | _____ % |

CURRENT ENGINEER’S CONSTRUCTION COST ESTIMATE

ESTIMATED COST - ELIGIBLE, PARTICIPATING CONSTRUCTION CONTRACT WORK: _____

Force account work requires an approved justification and authorization from MDOT, **PRIOR TO BEGINNING ANY WORK.**

ESTIMATED COST - ELIGIBLE PARTICIPATING FORCE ACCOUNT WORK:

| TYPE OR ITEM(S) OF WORK | TO BE PERFORMED BY | ESTIMATED COST |
|--|--------------------|----------------|
| a) | | |
| b) | | |
| SUBTOTAL OF ELIGIBLE, PARTICIPATING FORCE ACCOUNT WORK: | | |

SUBTOTAL - ESTIMATED CONSTRUCTION COST OF ELIGIBLE, PARTICIPATING WORK: _____

ESTIMATED COST-NON PARTICIPATING CONSTRUCTION WORK: (DO NOT INCLUDE ENGINEERING FEES OR OTHER NON-CONSTRUCTION ITEMS):

| TYPE OR ITEM(S) OF WORK | ESTIMATED COST |
|--|----------------|
| a) | |
| b) | |
| SUBTOTAL - ESTIMATED COST - NON PARTICIPATING CONSTRUCTION WORK | |
| TOTAL ESTIMATED CONSTRUCTION COST: | |

| | | | |
|---|--------------------------------|---|------|
| PRELIMINARY ENGINEERING WILL BE PERFORMED BY: | NAME OF AGENCY or CONSULTANT | | |
| CONSTRUCTION ENGINEERING WILL BE PERFORMED BY: | NAME OF AGENCY or CONSULTANT | | |
| PREPARED BY: (Signature of Professional Engineer) | DATE | AFFIX LICENSED, REGISTERED PROFESSIONAL ENGINEER SEAL | |
| | | | |
| PREPARER’S TYPED NAME AND TITLE | PREPARER’S REGISTRATION NUMBER | EXPIRATION DATE | |
| PREPARER’S EMAIL ADDRESS | PREPARER’S PHONE NUMBER | | |
| ACCEPTED BY LOCAL AGENCY (Signature of Authorized Person Employed by the County, City or Village) | | | DATE |
| TYPED NAME AND TITLE | | | |

NATIONAL ENVIRONMENTAL PROTECTION ACT (NEPA) CERTIFICATION

For grade inspection (GI) submittals made on or after October 1, 2019, the local agency will make its NEPA certification using MDOT Form 5323, available at the MDOT Form Repository website at <https://mdotjboss.state.mi.us/webforms/Home.htm>

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

Is a NPDES notice of Coverage (NOC) form required? Yes No

If "Yes", Complete the NOC form, submit it to Michigan Department of Environmental, Great Lakes, and Energy (EGLE), and maintain a file copy.

FEDERAL AVIATION ADMINISTRATION (FAA)

The project is located within 20,000 feet of a public use airport, airfield, or Military airport. Yes No

If "Yes", See FAA website at oeaaa.faa.gov. Maintain all correspondence, including notification and permits, in the project file.

MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT)

Is construction proposed in any MDOT owned Right-of-Way? No Yes

Will traffic control devices such as temporary signs, barricades, lighted arrows, or message boards, be placed in any MDOT right-of-way during construction? No Yes

Are any electronic signs or control devices, such as traffic signals or pedestrian signals, either existing within the project limits or proposed to be constructed as part of this project? No Yes

If any answer above is yes, then contact the MDOT permit engineer and obtain a MDOT permit.

RAILROAD CROSSING CERTIFICATION:

Within project limits? Yes No

If yes, Diagnostic Study Team Review Meeting Scheduled? Yes No Completed? Yes No

All construction that impacts an at-grade railroad crossing or railroad-highway grade separation will be coordinated with the MDOT Office of Rail. This includes work within the project limits as well as on alternate routes and detour routes. All applicable notices to bidders, special provisions, and coordination clauses will be included in the final bid proposal document. All required agreements and all applicable railroads force account authorizations will be executed before federal construction funds are obligated. Yes No

ATTACHMENT A
Property Acquisition Information
Page 1 of 1

Submit a completed Attachment A to the MDOT LAP Staff Engineer as part of the Program Application. The LAP Staff Engineer will forward the completed Attachment A to the MDOT Real Estate Services section for review.

NOTE: Failure to comply with these regulations and requirements could jeopardize the Local Agency's federal funding for all phases of this project as well as for future projects.

| | |
|---------------------------|------|
| ELIGIBLE APPLICANT AGENCY | DATE |
| ROUTE NAME | |
| CROSSING | |

Project Information:

NOTE: Property Acquisition includes obtaining any property right, including but not limited to permanent fee, permanent easements, temporary consents to construct, and grading permits.

1. Is property acquisition required for this project?
 Yes No Possible, but not known at this time

2. Do you anticipate any relocation as part of this project?
 Yes No Possible, but not known at this time

3. Contact information for the person/company who will be acquiring the property.

| | |
|---------------|------------------|
| NAME | COMPANY |
| EMAIL ADDRESS | TELEPHONE NUMBER |

- STAFF CONSULTANT UNKNOWN

Project Compliance & Certification:

1. I agree to comply with all applicable State and Federal laws and regulations when acquiring property for this project, including the following:
 - Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended;
 - Provisions of 23 USC.23 CFR, and 49 CFR; and;
 - Provisions of P.A. 1980, No.87, as amended.

2. I understand that all property acquisition requires that fair market value be determined by appraisal, market study, or valuation analysis, and that the property owner must be offered fair market value.

3. I understand that staff qualified to comply with all applicable State and Federal laws and regulations must perform all property acquisition tasks.

| | |
|--|------------------|
| BY: (Signature of Authorized Person Employed by the Eligible Applicant Agency) | DATE |
| NAME/TITLE | |
| EMAIL ADDRESS | TELEPHONE NUMBER |

ATTACHMENT B
Property Acquisition Certification
Page 1 of 2

Do not submit Attachment B to Local Agency Programs until all the required property has been acquired. Submittal must be received by LAP before funds can be obligated, and at least four weeks before the expected advertisement date.

| | |
|---------------------------|------|
| ELIGIBLE APPLICANT AGENCY | DATE |
| ROUTE NAME | |
| CROSSING | |

Property Acquisition Certification:

The project **did not** require the acquisition of additional property including but not limited to permanent fee, permanent easements, temporary consents to construct, and grading permits. **If this item is checked, go to Project Certification Section on the following page.**

The project **did** require the acquisition of additional property including but not limited to permanent fee, permanent easements, temporary consents to construct, and grading permits. The requirements of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended; the provisions of 23 USC, 23 CFR, and 49 CFR; and the provisions of P.A. 1980, No. 87, as amended, have been met with respect to this project.

- **Number of parcels of additional property acquired for this project, by type:**

Permanent Fee (Total Take): _____

Permanent Fee (Partial Take): _____

Easement (Permanent): _____

Temporary consents to construct, or grading permits: _____

- **The Local Agency must keep the following acquisition documents in each of its separate parcel files:**

Title evidence (i.e., title commitment, tax search documentation)

Appraisal, market study, and/or valuation analysis

Valuation statement and other such documentation showing fair market value offer (just compensation) was made to the property owners

Executed and recorded DEEDS and EASEMENTS, or executed temporary consents to construct and grading permits.

Memos of negotiation (buyer's communication log)

- **The Local Agency must keep the following relocation documentation in each of its separate parcel files, as applicable:**

Relocation eligibility notice

Replacement housing determination or replacement rental determination

Relocation claims and payment documentation

**ATTACHMENT B
Property Acquisition Certification
Page 2 of 2**

Project Certification

Certification is required regardless of whether the project required property acquisition, including but not limited to permanent takes, permanent easements, temporary consents to construct, and grading permits.

The _____ has legal and physical possession of **all** the property
(Eligible Applicant Agency)
 necessary for the construction, operation, and maintenance of this project.

| | | | |
|--|------|---------------|----------|
| BY: (Signature of Authorized Person Employed by the Eligible Applicant Agency) | | | DATE |
| NAME AND TITLE | | | |
| ADDRESS | CITY | STATE | ZIP CODE |
| TELEPHONE NUMBER | | EMAIL ADDRESS | |

NOTE: Failure to obtain and provide adequate documentation of legal possession of all property required for construction of the project including but not limited to permanent fee, permanent easements, temporary consents to construct, and grading permits, will jeopardize obligation of state and federal funds, and advertisement and letting of the project.

Adequate documentation includes but is not limited to copies of executed and recorded deeds or easements, completed and signed permits and forms, and court-ordered possession agreements for condemned parcels.

**PROJECT ENGINEER AND PROFESSIONAL REGISTRATIONS
AND CERTIFICATIONS
Page 1 of 2**

This form must be completed, signed, sealed, and certified by the Project Engineer prior to the grade inspection meeting.

The County, City, or Village is required to immediately notify the MDOT TSC, in writing, of all changes in staff listed below, during the project. Failure to provide accurate documentation and/or failure to maintain the required information may cause construction to immediately stop, and may result in the withdrawal of federal and/or state funding, and may jeopardize future federal and/or state funding.

PROJECT LOCATION

There will be _____ (number) Licensed, Registered Professional Engineers, licensed in Michigan, assigned to this project (minimum required is 1). The Professional Engineers are:

The lead Professional Engineers or are also assigned to _____ other projects that will be under construction during the same time period as this project.

Number of federal aid projects that the Professional Engineers have been assigned the lead role for construction engineering:

_____ current working on

_____ past 5 years not including current projects

The Certified Computerized Office Technician assigned to the project is: _____

List all AASHTO accredited laboratories that will be used to conduct all required testing.

List the Michigan Licensed Land Surveyor (person and company) that will be utilized for all project work that requires a licensed land surveyor.

A total of _____ (number) of Certified Construction Technicians are assigned to this project. The Technicians assigned have obtained the following certifications (please check all that apply):

- Michigan Concrete Field Testing – Level 1 (MCA or MCPA)
- MDOT Density Technology Certification
- MDOT Bituminous Paving or Bituminous Paving Operations
- Michigan Certified Aggregate Technician
- Michigan Certified Bituminous Laboratory Technician (Level 1)
- Michigan Bit QC/QA Technician (Level 2)
- SESC (Soil Erosion and Sedimentation Control)
- Storm Water Operator (SWO) requirement for NPDES National Pollutant Discharge Elimination System

NOTE: A copy of the NRC Nuclear Density Gauge License shall be placed in the project file for all nuclear density gauge used on the project.

I, _____ do certify that we own and are trained, or
(Authorized Person Employed by the Eligible Applicant Agency)

have hired _____
who is trained, to use the following (check all that apply)

- Field Manager and necessary computer equipment
- All necessary equipment to perform density inspection and testing as required in Divisions 2 & 3 of the 2012 MDOT Standard Specifications for Construction, all applicable Frequently Used Special Provision (FUSP's), and MDOT Materials Quality Assurance Procedures Manual;

**PROJECT ENGINEER PROFESSIONAL REGISTRATIONS AND
CERTIFICATIONS**
2 of 2

- All necessary equipment to perform aggregate inspection and testing as required by the MDOT 2012 Standard Specifications for Construction, all applicable FUSP's, and the MDOT Materials Quality Assurance Procedures Manual;
- All necessary equipment to perform hot mix asphalt testing as required by the MDOT 2012 Standard Specifications for Construction, all applicable FUSP's for hot mix asphalt, Hot Mix Asphalt QC/QA Procedures Manual of Field Testing, and Materials Quality Assurance Procedures Manual; and/or
- All necessary equipment to perform Portland Cement Concrete inspection and testing as required by the MDOT 2012 Standard Specifications for Construction, all applicable FUSP's, and MDOT Materials Quality Assurance Procedures Manual.

A total of _____(number) personnel are assigned to this project who are knowledgeable in the use of these items(check all that apply)

- MDOT Standard Specifications for Construction
- MDOT Construction Manual
- MDOT HMA Production Manual
- Applicable Michigan Test Methods
- MDOT Road and Bridge Standard Plans
- Density Control Handbook
- Procedures for Aggregate Inspection
- MDOT Materials Quality Assurance Procedures Manual
- MDOT Hot Mix Asphalt QC/QA Procedures Manual

Based on the information included on these two pages, this local agency is adequately staffed and suitably equipped to complete the construction engineering requirements for this project.

| | | | | |
|--|-----------------|---|-------|----------|
| SIGNATURE (Authorized person employed by the Local Agency) | | DATE | | |
| SIGNATURE (Project Engineer, P.E.) | | DATE | | |
| PROJECT ENGINEER 'S TYPED NAME AND TITLE | | AFFIX LICENSED PROFESSIONAL ENGINEER'S SEAL | | |
| PROJECT ENGINEER'S REGISTRATION NO. | EXPIRATION DATE | | | |
| PROJECT ENGINEER'S FIRM NAME, IF APPLICABLE | | | | |
| PROJECT ENGINEER'S ADDRESS | | CITY | STATE | ZIP CODE |
| PROJECT ENGINEER'S PHONE NUMBER | | PROJECT ENGINEER'S EMAIL ADDRESS | | |

- **Complete either this statement, or**
- **The Project Engineer Statement and the Project Supervisor Statement, and submit to Local Agency Programs PRIOR to the grade inspection.**

The _____ has designated _____
(Eligible Applicant Agency) (Name of Project Engineer)

as the Publicly Employed Project Engineer for the following project:

ROUTE NAME _____

CROSSING _____

| | |
|--|------|
| AUTHORIZED SIGNATURE (Authorized Person Employed by the Eligible Applicant Agency) | DATE |
|--|------|

TYPED NAME AND TITLE _____

I, _____, as the Publicly Employed Project Engineer, shall be the sole representative responsible for the project. This responsibility shall not be delegated to anyone else.

Michigan Department of Transportation personnel will, in all cases, deal directly with me, the Publicly Employed Project Engineer, during the construction phase of the project.

The Publicly Employed Project Engineer shall (at a minimum):

- 1) Be considered in responsible charge of the project;
- 2) Prepare and maintain the project record files
- 3) Sign all construction documents;
- 4) Attend the grade inspection meeting and the pre-construction meeting
- 5) Be available for meetings with the Michigan Department of Transportation, the local agency, the certified inspectors, and/or the contractor;
- 6) Assure that the plans, specifications and proposal are followed and approve all changes or modifications to the plans, specifications or proposal;
- 7) Assure that the construction inspectors are currently certified, as required;
- 8) Be a Licensed Professional Engineer in the State of Michigan; and
- 9) Be in attendance at the final project review meeting.

If this project will alter a roadway in any way, this Program Application, the plans, specifications, estimate and proposal must be prepared by, signed, sealed, and certified by a Licensed, Registered Professional Engineer (P.E.)

| | |
|--|------|
| SIGNATURE (Publicly Employed Project Engineer) | DATE |
|--|------|

| | | | | |
|---|-----------------|---|-------|----------|
| PUBLICLY EMPLOYED ENGINEER'S TYPED NAME AND TITLE | | AFFIX LICENSED PROFESSIONAL ENGINEER'S SEAL | | |
| PUBLICLY EMPLOYED ENGINEER'S REGISTRATION NO. | EXPIRATION DATE | | | |
| PUBLICLY EMPLOYED ENGINEER'S FIRM NAME, IF APPLICABLE | | | | |
| | | | | |
| PUBLICLY EMPLOYED ENGINEER'S ADDRESS | | CITY | STATE | ZIP CODE |
| PUBLICLY EMPLOYED ENGINEER'S PHONE NUMBER | | PUBLICLY EMPLOYED ENGINEER'S EMAIL ADDRESS | | |

- **Complete either this statement and the Project Supervisor Statement or**
- **Publicly Employed Project Engineer Statement, and submit to Local Agency Programs PRIOR to the grade inspection**

The _____ has designated _____
(Eligible Applicant Agency) (Name of Project Engineer)

as the Project Engineer for the following project:

ROUTE NAME

CROSSING

AUTHORIZED SIGNATURE (Authorized Person Employed by the Eligible Applicant Agency)

DATE

TYPED NAME AND TITLE

I, _____, as the Project Engineer, shall be the sole representative responsible for the project. This responsibility shall not be delegated to anyone else.

Michigan Department of Transportation personnel will, in all cases, deal directly with me, the Project Engineer, during the construction phase of the project.

In this regard I, as the Project Engineer, shall (at a minimum):

- 1) Be considered in responsible charge of the project;
- 2) Prepare and maintain the project record files
- 3) Sign all construction documents;
- 4) Attend the grade inspection meeting and the pre-construction meeting;
- 5) Be available for meetings with the Michigan Department of Transportation, the local agency, the certified inspectors, and/or the contractor;
- 6) Assure that the plans, specifications and proposal are followed and approve all changes or modifications to the plans, specifications, or proposal;
- 7) Assure that the construction inspectors are currently certified, as required;
- 8) Be a Licensed Professional Engineer in the State of Michigan; and
- 9) Be in attendance at the final project review meeting.

If this project will alter a roadway in any way, this Program Application, the plans, specifications, estimate and proposal must be prepared by, signed, sealed and certified by a Licensed Registered Professional Engineer (P.E.).

SIGNATURE (Project Engineer, P.E.)

DATE

PROJECT ENGINEER'S TYPED NAME AND TITLE

AFFIX LICENSED PROFESSIONAL ENGINEER'S SEAL

PROJECT ENGINEER'S REGISTRATION NO.

EXPIRATION DATE

PROJECT ENGINEER'S FIRM NAME, IF APPLICABLE

PROJECT ENGINEER'S ADDRESS

CITY

STATE

ZIP CODE

PROJECT ENGINEER'S PHONE NUMBER

PROJECT ENGINEER'S EMAIL ADDRESS

- **Complete either this statement and the Project Engineer Statement, or**
- **The Publicly Employed Project Engineer Statement, and submit to Local Agency Program PRIOR to the grade inspection.**

The _____ has designated _____
 (Eligible Applicant Agency) (Name of Project Supervisor)

as the Project Supervisor for the following project:

ROUTE NAME

CROSSING

| | |
|--|------|
| AUTHORIZED SIGNATURE (Authorized Person Employed by the Eligible Applicant Agency) | DATE |
|--|------|

TYPED NAME AND TITLE

In this regard, the Project Supervisor, shall (at a minimum):

- 1) Be a full time employee of the local agency;
- 2) Approve for funding all construction documents prepared and signed by the Project Engineer;
- 3) Attend the grade inspection meeting and the pre-construction meeting;
- 4) Be available for meetings with the Michigan Department of Transportation and/or the Project Engineer,
- 5) Be in attendance at the final project review.
- 6) Assure that the project record files are maintained;

| | |
|--------------------------------|------|
| SIGNATURE (Project supervisor) | DATE |
|--------------------------------|------|

PROJECT SUPERVISOR'S TYPED NAME AND TITLE

| | | | |
|------------------------------|------|-------|----------|
| PROJECT SUPERVISOR'S ADDRESS | CITY | STATE | ZIP CODE |
|------------------------------|------|-------|----------|

| | |
|-----------------------------------|------------------------------------|
| PROJECT SUPERVISOR'S PHONE NUMBER | PROJECT SUPERVISOR'S EMAIL ADDRESS |
|-----------------------------------|------------------------------------|

ROUTE NAME _____

CROSSING _____

A Scour Analysis **MUST** be completed and submitted to Local Agency Programs for all complete bridge replacement, deck replacement, and/or superstructure replacement projects over watercourses, regardless of the funding for the project, before the project funds can be obligated.

Was a scour analysis done for this project? Yes No

If the structure does not cross a watercourse, skip sections II, III, IV, V, and VI. Contact MDEQ to determine if a permit is required for superstructure or deck replacement projects over waterways.

II. SUMMARY OF HYDRAULICS:

SUMMARY OF HYDRAULIC ANALYSIS

| Flood Data | Existing | | | Proposed | | | |
|------------|-----------------|--|--------------------------------------|---|--------------------------------------|---------------------------------------|---|
| | Discharge (cfs) | Water Surface Elev. At Upstream Face of Structure (ft) | Velocity in Downstream Channel (fps) | Water Surface Elev. At Upstream Face of Structure (ft.) | Velocity in Downstream Channel (fps) | Waterway Area at Downstream Face (sf) | Change in Water Surface Elevation Upstream of Proposed Structure (ft) |
| 50-Year | | | | | | | |
| 100-Year | | | | | | | |

MAXIMUM BRIDGE AREA BELOW LOW CHORD IS _____ SQUARE FEET

The drainage area contributory to this crossing is _____ square miles.

The water surface and/or energy grade elevations shown on the above hydraulic table are to be used for comparison purposes only and are not to be used for establishing a regulatory floodplain. The elevations may be used provided they are verified with the Land and Water Management Division, MDEQ.

III. EXISTING STRUCTURE:

A. Existing Structure

- 1) Is this a complete bridge replacement project Yes No
- 2) Is this a deck replacement project Yes No
- 3) Is this a superstructure replacement project? Yes No
Describe the proposed work _____

- 4) Is this a Preventive Maintenance Project? Yes No
If yes, skip sections IV, V and VI

B. Existing Structure Hydraulics:

- 1) Have flooding problems been reported or identified at the project site? Yes No
If yes, explain the problems. _____

- 2) Is Q overtopping less than Q100? Yes No
If no, go to IV, if yes, continue.

Overtopping is by: (check one)

- flow over roadway
- flow over watershed divide
- relief structure, explain: _____
- other, explain: _____

IV. DESIGN CONSTRAINTS FOR THE PROPOSED STRUCTURE:

A. NFIP Requirements, contact MDNR for information:

- 1) Is the project in an NFIP flood plain? Yes No
If No, go to IVB.
- 2) Has a Flood Insurance Study been conducted? Yes No
If yes, describe the source of the study.

- 3) Has a regulatory floodway been designated? Yes No
- 4) What is the allowable rise in the 100-year water surface elevation in accordance with NFIP regulations? Explain:

B. Environmental and Grade Requirements for the Proposed Structure:

- 1) Is the proposed structure length the minimum length necessary to avoid encroachment on the natural stream channel? Yes No
If no, explain why not.

- 2) Is the proposed embankment height and/or minimum structure length designed due to geometric considerations, such as the vertical alignment required for sight distance based on the design speed? Yes No
Either way, explain what the proposed structure length is based on.

- 3) Based on past experience, are there ice flow, drift, and/or scour related problems expected at this site? Yes No
If yes, explain how this was taken into consideration in the design of the structure.

C. Describe any other considerations regarding design constraints:

V. FLOODING INFORMATION FOR THE PROPOSED STRUCTURE:

- A. Potential traffic delay:
- 1) Is Q overtopping less than Q100? Yes No
If No, go to (B), If Yes, continue.
 - 2) Is this a sole emergency service and/or evacuation route? Yes No
Either way, explain

- 3) Detour length, during overtopping, for general traffic: _____ miles.
Attach a map or sketch to this program application showing this detour.
- 4) Length of the emergency detour route: _____ miles.
Attach a map or sketch to this program application and explain:

- 5) Are potential traffic delay costs and/or traffic risks, due to overtopping, significant? Yes No
Either way, explain why or why not .

B. Proposed Floodplain Impacts:

- 1) Describe any/all proposed work in the floodplain, such as abutment or pier removal or placement, road widening, or realignment. Include the approximate quantity of excavation and fill, etc. Attach a sketch to this program application showing the floodplain area and the proposed work and explain:

- 2) Describe all measure to minimize the harm, such as sedimentation control, erosion control, slope establishment, etc. **(These must be shown on the project plans)**

- 3) Will the project's encroachment on the floodplain change the potential for open land damage, as compared to the existing structure? Yes No
If yes, what type of land (residential, farmland, open areas, commercial. etc.) How much and where?

C. Potential Impacts to Property and Life:
 Will the project's encroachment on the floodplain and resultant flooding characteristics change the potential for property losses and/or hazard to life as compared to the existing structure?
 Either way, explain why or why not. Yes No

D. Potential Embankment Damage:
 Will the proposed project change the potential for roadway or embankment damage due to overtopping, as compared to the existing structure?
 If yes, explain Yes No

E. Additional Factors
 List any additional factors that should be considered in the assessment process.

VI. EVALUATION OF THE PROPOSED STRUCTURE:

A. Proposed Structure

Is the vertical or horizontal alignment being revised? Yes No

IF YES, DESCRIBE THE PROPOSED CHANGES. INCLUDE THE ENTIRE PROJECT PARTICIPATING AND NON-PARTICIPATING AND ATTACH A SKETCH, INCLUDING THE CURVE DATA

B. Alternative Structures
 Consider alternatives by weighing the proposed structure hydraulics against the design constraints (Section IV) and risks (Section V) identified for the site.

1) Should a longer structure be considered for this crossing? Yes No
 If no, explain why not .

If yes, explain why and provide information on the other structure lengths that were considered.

2) Should a shorter structure be considered for this crossing?
If no, explain why not

Yes

No

If yes, explain why and provide information on other structure lengths that were considered.

**BRIDGE PROJECT QUALITY CONTROL (QC) AND
QUALITY ASSURANCE (QA) CERTIFICATION**

PROJECTS HAVING GRADE INSPECTIONS AFTER JUNE 1, 2016 WILL REQUIRE QC/QA CERTIFICATION

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This form must be completed, signed, sealed, and certified by both the Project (Design) Engineer for Quality Control (QC) and the Quality Assurance (QA) Engineer. Upon completion, the local agency forwards the original document, including seals and signatures, to MDOT LAP before construction funds can be obligated.

| | |
|---------------------------|------|
| ELIGIBLE APPLICANT AGENCY | DATE |
| ROUTE NAME | |
| CROSSING | |

Refer to Federal Highway Administration (FHWA), Guidance on Quality Control and Quality Assurance (QC/QA) In Bridge Design (H-08-17) located at: <http://www.fhwa.dot.gov/bridge/h0817.pdf>

Quality Control (QC) shall include at a minimum:

- A supervisor or team leader responsible for determining the technical knowledge and experience of the designer/checker for a specific design.
- A documented program with detailed procedures, standards, and policies for oversight of the bridge design.
- Design calculations, checked calculations, review comments, and other pertinent documents.
- Bridge plan sheets shall include the names or initials of the designer and checker and the most current revision date. Names of the drafter and reviewer should also be added to the plans. Bridge design plans shall be signed and sealed by a Licensed Professional Engineer in the State of Michigan.
- Unique special provisions shall include the author's and reviewer's initials and date authored and checked.

Quality Assurance (QA) shall include at a minimum:

- Independent check of design calculations, unique special provisions by a qualified person or consultant other than the designer.
- Participation in field engineering reviews during design.

Based on the information included on this page, the designer/design consultant has adequately completed Quality Control and Quality Assurance for this project.

Signature (Project Design Engineer - QC) Seal

Typed name and date: _____

Signature (Engineer - QA) Seal

Typed name and date: _____