

CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR REQUESTS FOR PROPOSAL (RFP)

MDOT PROJECT MANAGER Janiene DeVinney	JOB NUMBER (JN) 108201	CONTROL SECTION (CS) 84916
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DESCRIPTION IF NO JN/CS

MDOT PROJECT MANAGER: Check all items to be included in RFP.

CONSULTANT: Provide only checked items below in proposal.

WHITE = REQUIRED
GRAY SHADING = OPTIONAL

Check the appropriate Tier in the box below

<input type="checkbox"/> TIER I (\$25,000-\$99,999)	<input checked="" type="checkbox"/> TIER II (\$100,000-\$250,000)	<input type="checkbox"/> TIER III (>\$250,000)	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Understanding of Service
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Innovations</i>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Safety Program</i>
N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Organization Chart
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Qualifications of Team
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Past Performance
Not required as part of official RFP	Not required as part of official RFP	<input type="checkbox"/>	Quality Assurance/Quality Control
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Location: The percentage of work performed in Michigan will be used for all selections unless the project is for on-site inspection or survey activities, then location should be scored using the distance from the consultant office to the on-site inspection or survey activity.
N/A	N/A	<input type="checkbox"/>	Presentation
N/A	N/A	<input type="checkbox"/>	Technical Proposal (if Presentation is required)
3 pages (MDOT forms not counted) (No Resumes)	7 pages (MDOT forms not counted)	19 pages (MDOT forms not counted)	Total maximum pages for RFP not including key personnel resumes

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be submitted in accordance with the latest "Consultant/Vendor Selection Guidelines for Service Contracts" and "Guideline for Completing a Low Bid Sheet(s)", if a low bid is involved as part of the selection process. **Referenced Guidelines are available on MDOT's website under Doing Business > Vendor/Consultant Services > Vendor/Consultant Selections.**

RFP SPECIFIC INFORMATION

BUREAU OF HIGHWAYS BUREAU OF TRANSPORTATION PLANNING ** OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS

NO YES DATED _____ THROUGH _____

Prequalified Services – See page 1 of the attached Scope of Services for required Prequalification Classifications.

Non-Prequalified Services - If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, if overhead is not audited, is on file with MDOT's Office of Commission Audits. This information must be on file for the prime vendor and all sub vendors so that the contract will not be delayed. **(Form 5100J Required with Proposal)**

Qualifications Based Selection – Use Consultant/Vendor Selection Guidelines

For all Qualifications Based Selections, the section team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected vendor will be contacted to confirm capacity. Upon confirmation, that firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

****For RFP's that originate in Bureau of Transportation Planning only**, a priced proposal must be submitted at the same time as, but separate from, the proposal. Submit directly to the Contract Administrator/Selection Specialist, Bureau of Transportation Planning (see address list, page 2). The priced proposal must be submitted in a sealed envelope, clearly marked "**PRICE PROPOSAL.**" The vendor's name and return address **MUST** be on the front of the envelope. The priced proposal will only be opened for the highest scoring proposal. Unopened priced proposals will be returned to the unselected vendor(s). Failure to comply with this procedure may result in your priced proposal being opened erroneously by the mail room.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

Qualifications Review / Low Bid - Use Consultant/Vendor Selection Guidelines. See Bid Sheet Instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted and post the date of the bid opening on the MDOT website. The notification will be posted at least two business days prior to the bid opening. Only bids from vendors that meet proposal requirements will be opened. The vendor with the lowest bid will be selected. The selected vendor may be contacted to confirm capacity.

Best Value - Use Consultant/Vendor Selection Guidelines. See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

Low Bid (no qualifications review required - no proposal required.) See Bid Sheet Instructions below for additional instructions.

BID SHEET INSTRUCTIONS

A bid sheet(s) must be submitted in accordance with the "Guideline for Completing a Low Bid Sheet(s)" (available on MDOT's website). The Bid Sheet(s) is located at the end of the Scope of Services. Submit bid sheet(s) separate from the proposal, to the address indicated below. The bid sheet(s) must be submitted in a sealed manila envelope, clearly marked "**SEALED BID.**" The vendor's name and return address **MUST** be on the front of the envelope. Failure to comply with this procedure may result in your bid being opened erroneously by the mail room and the bid being rejected from consideration.

PROPOSAL SUBMITTAL INFORMATION

REQUIRED NUMBER OF COPIES FOR PROJECT MANAGER 3	PROPOSAL/BID DUE DATE 1/8/10	TIME DUE 4:00 PM
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PROPOSAL AND BID SHEET MAILING ADDRESSES

Mail the multiple proposal bundle to the MDOT Project Manager or Other indicated below.

- MDOT Project Manager MDOT Other

Janiene DeVinney
4701 W. Michigan Ave.
Jackson, MI 49201

Mail one additional stapled copy of the proposal to the Lansing Office indicated below.

Lansing Regular Mail

OR

Lansing Overnight Mail

- Secretary, Contract Services Div - B470
Michigan Department of Transportation
PO Box 30050
Lansing, MI 48909

Secretary, Contract Services Div - B470
Michigan Department of Transportation
425 W. Ottawa
Lansing, MI 48933

- Contract Administrator/Selection Specialist
Bureau of Transportation Planning B470
Michigan Department of Transportation
PO Box 30050
Lansing, MI 48909

Contract Administrator/Selection Specialist
Bureau of Transportation Planning B470
Michigan Department of Transportation
425 W. Ottawa
Lansing, MI 48933

GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least four (4) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal

MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

- 5100D** – Request for Proposal Cover Sheet
- 5100G** – Certification of Availability of Key Personnel
- 5100I** – Conflict of Interest Statement
- 5100J** - Consultant Data and Signature Sheet (Required only for Non-Prequalified Work)

(These forms are not included in the proposal maximum page count.)

Notification

ARRA MONTHLY EMPLOYMENT REPORTS

Note: This Notification is only applicable for those projects/contracts funded with ARRA funds. If you have questions, please contact MDOT Contract Services Division at (517) 335-0071.

The American Recovery and Reinvestment Act of 2009 (ARRA), requires states receiving stimulus funds for highway projects to provide monthly reports to the Federal Highway Administration (FHWA) regarding the number of employees of prime contractors, all-tier subcontractors and consultants on ARRA funded projects.

The cost for complying with this Notification must be borne by the prime contractor, and all-tiers of subcontractors and consultants, as part of their overhead and is deemed to be included in the payments made under this contract.

Within 10 days after the end of each month in which work is performed on this contract, all prime contractors, and all-tier subcontractors and consultants, must provide the Engineer a monthly report on form FHWA-1589 (<http://www.fhwa.dot.gov/economicrecovery/reportingforms.htm>) providing employment information on each ARRA project, which will include, for work performed in that preceding month:

- The total number of employees who performed work on this contract
- The total number of hours worked by employees who performed work on this contract
- The total wages of employees who performed work on this contract

In addition, the prime contractor must provide a total payment amount made to any subcontractor who is a certified DBE in that preceding month.

This Notification shall be included as a part of each subcontract executed by the prime contractor, and all-tiers of subcontractors and consultants.

If necessary to conform to guidance provided by FHWA concerning the ARRA reporting requirements, the prime contractor, and all-tiers of subcontractors and consultants will revise their reporting as directed by the Engineer.

Failure to comply with the reporting requirements under ARRA would jeopardize the Department's continued receipt of ARRA funding.

Accordingly, if a contractor or any-tier of subcontractor or consultant fails to comply with this Notification, the Department may withhold contract payments until compliance is achieved. If the Department is compelled to incur costs because of such a breach, the amount of those costs may be deducted from payments otherwise to be made under this contract. Additional sanctions may include reduction or elimination of prequalification ratings and removal of bidding privileges.

NOTIFICATION
REQUIRED CONTRACT PROVISIONS TO IMPLEMENT AMERICAN
RECOVERY AND REINVESTMENT ACT (ARRA) SECTIONS 902 AND 1515

Note: This Notification is only applicable for those projects/contracts funded with ARRA funds. If you have questions, please contact MDOT Contract Services Division at (517) 335-0071.

In accordance with requirements under section 902 of the American Recovery and Reinvestment Act of 2009 (ARRA), the following language is made a part of this contract and is to be made a part of all tier subcontracts or consultant contracts:

The U.S. Comptroller General and his representatives have the authority:

- (1) to examine any records of the contractor or any of its subcontractors, or any State or local agency administering such contract, that directly pertain to, and involve transactions relating to, the contract or subcontract; and
- (2) to interview any officer or employee of the contractor or any of its subcontractors, or of any State or local government agency administering the contract, regarding such transactions.

The Comptroller General and his representatives have the authority and rights provided under Section 902 of the ARRA with respect to this contract. As provided in section 902, nothing in section 902 shall be interpreted to limit or restrict in any way any existing authority of the Comptroller General.

In accordance with the requirements of section 1515(a) of the ARRA any representatives of the Inspector General have the authority:

- (1) to examine any records of the contractor or grantee, any of its subcontractors or subgrantees, or any State or local agency administering such contract, that pertain to, and involve transactions relating to the contract, subcontract, grant, or subgrant; and
- (2) to interview any officer or employee of the contractor, grantee, subgrantee or agency regarding such transactions.

Nothing set forth in section 1515 of the ARRA shall be interpreted to limit or restrict in any way any existing authority of an inspector general.

MICHIGAN DEPARTMENT OF TRANSPORTATION

**SCOPE OF SERVICE
FOR
AS NEEDED CONSTRUCTION SERVICES
IN-DEPTH BRIDGE INSPECTION**

CONTROL SECTION(S): 84916

JOB NUMBER(S): 108201A

PROJECT LOCATION(S):

Throughout the University Region (Clinton, Eaton, Hillsdale, Ingham, Jackson, Lenawee, Livingston, Monroe, Shiawassee and Washtenaw Counties).

DESCRIPTION OF WORK:

Section 3 of the Bridge Inspection Reference Manual (BIRM) defines an “In-Depth” inspection as a close-up inspection of one or more members above or below the water level to identify any deficiencies not readily detectable using routine inspection procedures. The work defined in this scope is limited to performing an in-depth inspection of various bridge elements and preparing a report that details the inspection findings.

Full-time service will not be required at all times. This RFP is for “as-needed” engineering services, based on the intermittent needs of the department. MDOT staff will submit requests to the consultant’s point of contact. Every attempt will be made to submit requests at least one week prior to the need for personnel; however, it is expected that requests will be responded to within 48 hours.

Up to three consultants will be chosen for this “as-needed” service. The number of projects assigned to each consultant will be determined by future workload.

ANTICIPATED SERVICE START DATE: March 8, 2010

ANTICIPATED SERVICE COMPLETION DATE: March 4, 2011

DBE REQUIREMENT: 0%

PRIMARY PREQUALIFICATION CLASSIFICATION:

Bridge Safety Inspection

SECONDARY PREQUALIFICATION CLASSIFICATION:

Bridge Project Scoping

MDOT PROJECT MANAGER

Any questions regarding this Scope of Service may be directed to the MDOT Project Manager.

Janiene DeVinney
4701 W Michigan Ave
Jackson, MI 49201
Fax: (517) 750-4397
Phone: (517) 719-5924

GENERAL INFORMATION

The Department's prequalification is not a guarantee or warranty of the Subcontracted Consultant's ability to perform or complete the work. The Primary Consultant remains fully responsible to the Department for completion of the work according to the contract as if no portion of it had been subcontracted.

All Subcontract Consultant communications with the Department shall be through the Primary Consultant to the MDOT Project Manager. This requirement may be waived if a written communication plan is approved by the MDOT Project Manager.

The Department may direct the immediate removal of any Subcontracted Consultant working in violation of this subsection. Any costs or damages incurred are assumed by the Primary Consultant by acceptance of the contract. It is further understood that the Primary Consultant's responsibilities in the performance of the contract, in case of an approved subcontract, are the same as if the Primary Consultant had conducted the work with their own organization.

The Bridge Management Section of the University Region, Michigan Department of Transportation (MDOT) is seeking a proposal from a "Pre-Qualified" Consulting Engineering Firm (Consultant) to perform in-depth inspections of bridge structures on state trunkline roads in accordance with the most recent version of the National Highway Institute Bridge Inspection Reference Manual.

DURATION & SCHEDULE

A. Work Plan & Schedule

The consultant must review the Scope of Service to develop a Work Plan that details the process of inspecting the specific elements for a typical bridge. The Work Plan will be submitted as part of the Priced Proposal. Changes to the Work Plan will be submitted to MDOT's Project Manager for approval.

Following is a schedule of target dates for this project:

- | | |
|--------------------------------|---------|
| 1. Priced Proposal Submission: | 3/5/10 |
| 2. Anticipated NTP: | 3/12/10 |
| 3. Project Initiation Meeting: | 3/15/10 |
| 4. Project Closeout Meeting | 3/1/11 |

The consultant must be prepared to begin the field inspection work within one week after receiving Notice to Proceed (NTP).

Coordination of lane closures and traffic control will be with the MDOT Project Manager, and the Local MDOT TSC. Lane closures will not be permitted during special local events/holidays without prior approval.

B. Meeting Dates

The consultant is required to attend a Project Initiation Meeting and Progress Meetings, which will be held at the MDOT University Region Office, or at a location that is mutually agreed to. The expected period for these meetings are shown below, however, these may be adjusted by MDOT.

Project Initiation Meeting: One week after NTP (before beginning any field work.)

Progress Meetings: Biweekly during the Field Inspection Phase

The Project Initiation Meeting is intended to exchange information regarding the general procedures for communication, review the schedule, discuss emergency procedures and communication, and discuss any open questions that remain. Additional MDOT region and statewide staff may attend the meeting.

The consultant will keep notes of these meetings and provide minutes to the MDOT PM within one week after the meeting.

PREFERRED REQUIREMENTS:

These in-depth inspections will require an experienced team of structural engineers. The consultant must provide personnel with qualifications that meet or exceed the requirements stated below. The consultant must staff the project with the number of personnel necessary to complete the project in the allotted time.

Changes made to the Project Manager/Team Leader that occurs after the authorization must be submitted in writing for MDOT’s project manager’s approval. Failure to comply with this requirement may result in termination of the contract.

The Project Manager/ Team Leader will be responsible for writing the Inspection Report and will be the primary contact with MDOT’s project manager.

The following qualifications are the minimum necessary for the required personnel and this must be documented with resumes and submitted with the Proposal.

A. Project Manager and Inspection Team Leaders

1. Professional registration as an engineer, licensed to practice in the State of Michigan.
2. Five years of documented experience in the in-service safety inspections of bridges.
3. Completed the NHI two week class “Safety Inspection of In-Service Bridges,” within the last five years. If the team leader(s) has attended this class more than five years ago, he/she must have taken the refresher course within the preceding five years.

Only one manager level position will be allowed and paid for on this project.

B. Field Staff assisting the Inspection Team Leaders

1. A technical staff person with three years experience in inspection, design, or construction of bridges.

or:

2. Recent graduate engineer working at the Staff Engineer or entry level position.

The above listed classes for the Inspection Team Leader(s) are encouraged but not required for the Field Staff.

GENERAL DESCRIPTION OF THE WORK

The work for each bridge will be authorized under two main components: A) Site Inspection B) Report Preparation including supporting documents.

The consultant will provide a thorough structural inspection for each bridge element as required. The report phase will identify current conditions of the bridge elements, the significance of the findings, and make repair recommendations.

The following provisions are the minimum for this RFP. The consultant may elect to suggest activities that will improve the inspection or save costs:

A. SITE INSPECTION

Each bridge must be visited by the consultant PM and / or Inspection Team Leader. The purpose of this visit is to locate all areas of element deterioration, determine feasible repair recommendations, review anticipated traffic control measures, and to ascertain quantities. Where necessary, ladders, high-reach equipment, under bridge crane must be used to get close enough to adequately inspect and evaluate the structural element. (See Sections EQUIPMENT and SAFETY below).

The information collected in the field must be sufficient to determine quantities to document deterioration and locations of repairs and improvements. This information must be detailed in the field notes, forms, sketches, and photographs as appropriate, and are to be included in the report.

During the site inspection, the consultant shall immediately notify the MDOT PM of any structural condition that may cause the bridge to be load restricted (such as holes in beams), or which may require other immediate action (such as deck soffit scaling, lane closures, emergency repairs, temporary supports, etc.). The consultant will provide documentation of the condition (beam measurements, pictures taken, etc.) to MDOT as quickly as possible. A list of contacts will be provided at the Project Initiation Meeting.

The consultant must render a professional judgment as to the need for structural analysis of the given structure and recommend any temporary load restrictions and /or changes to the inspection frequency. The exception to this is when a crack occurs in an area that requires additional traffic control to test for the crack. In this case, the consultant must notify the MDOT PM with a “Request for Action” (RFA) form documenting the location of the crack and indicating how quickly the examination must take place.

All efforts shall be made by the consultant to perform a complete in-depth inspection while on site.

1. Steel Beam End Inspection

For the structures requiring Steel Beam End Inspection, below are the minimum items to be completed.

- a. All dirt, debris, and rust scale must be removed from the ends of each of the steel beams under all joints at piers and abutments. The steel shall then be inspected for section loss. Areas where section measurements are to be taken shall be cleaned by means of hand tools to a SSPC SP3 degree of cleanliness. Thickness readings on the web and the bottom flange are to be taken at the thinnest locations within 5 feet of the end of the beam.

These thickness readings will be compared with the original thickness and the percentages of section loss will be calculated (MDOT will supply the consultant with existing plans, if available). This data will be tabulated in a specific format (as shown in Attachment No. 1, Detailed Beam Survey Report). If beam end repairs are necessary, then a plan of the super-structure must be made showing the location of the beam ends needing repair. This information can be shown on sketches showing size, shape, dimensions, and edge distances for each element with loss of section and shall be presented in the Appendix of the report.

- b. On structures with pin and hanger assemblies, the beam end shall be cleaned as described in section (a). Thickness readings on the web and the bottom flange are to be measured at the thinnest locations within 5 feet of the end of the beam. Thickness readings must also be measured at the pin plates. If these are areas of heavy flaking rust, the consultant will clean as necessary to measure for any section loss. Structures with riveted pin plates shall be inspected and measured for section loss. If this is not feasible with an ultrasonic thickness gage due to material build up or bulging between the plates, the consultant shall notify the MDOT PM, and note it in the report. Check pin and hanger assemblies for proper operation. The consultant shall note whether the pin and hanger assembly meets current standards. Note the condition of the pin plates, and if the beam ends are in contact due to pin and hanger closure.
- c. The consultant shall note the condition of all other steel superstructure elements including but not limited to stiffeners, intermediate diaphragms, end diaphragms, pier diaphragms, cross frames, other lateral bracing and bearings including sole plates and masonry plates. These elements shall be thoroughly inspected, and cleaning may be required.
- d. The consultant shall visually check for fatigue cracking on fatigue prone details such as welded cover plates, diaphragm connections, or any welding in tension zones that are transverse to the plane of stress. Dye penetrant use is required if there is a crack or suspected crack. This must be clearly documented on paper with narrative and photographs. The consultant must inform the MDOT PM prior to the testing so that arrangement may be made to witness the process.
- e. All surfaces where paint has been removed to bare steel shall be coated with primer prior to leaving the site.

2. Concrete Deck (Surface/Underside)

For the structures requiring Concrete Deck (Surface/Underside) inspection, below are the minimum items to be completed.

- a. The concrete deck surface/underside will be inspected for wet areas, spalling, map cracking, delamination, rust along beam edges or any other evidence of deterioration.
- b. The concrete deck surface/underside will be sounded with a hammer or chain drag, and delaminated, spalled, and cracked areas will be marked with paint to be visible in photographs. Photos of the area must be taken and a written description of the deterioration must be documented for inclusion into the report.
- c. The percentage of each type of deck surface and soffit deficiencies will be noted in the report.

- d. If possible, note as to whether the deck has previously been overlaid and if so, when and what type of material.

3. Substructure / Railing

- a. Sound all substructure and railing concrete elements (pier columns, caps, abutments, backwalls, etc.) for delamination and unsound areas. All delaminated areas are to be marked with paint that will be evident in the photographs. Sketches for each substructure and railing element mapping the areas of distress (cracks, delamination, spalls, etc.) are to be included in the appendix of the report. The percent of the total surface area distressed shall be calculated and shown on each sketch.
- b. Visually inspect all substructure and railing units for signs of settlement, lateral movement, cracking, spalling, exposed reinforcement and material defects. Visually examine fractured concrete to determine if it contains slag aggregate. Note the condition of the backwalls, and check the bridge seat for undermining at bearing locations. For pier caps, check for flexural cracks and shear cracks. Note areas of previous repairs. Pictures of the substructure and railing elements must be taken and a written description of the deterioration and location must be documented for inclusion into the report.

4. Non Destructive Testing

The consultant may determine that other non-destructive testing beyond what is mentioned in the Scope of Service is needed to make a better judgment. However, such testing (ultrasonic, magnetic particle testing, acoustic emission, etc.) must be approved by MDOT's Project Manager. If the project manager approves the test, the consultant must submit a testing proposal. The testing proposal will show what tests are to be performed, what specific information is to be gained from testing, and how the information is to be used. Proposals submitted with insufficient information will be denied.

5. Scour

Stream and river bed scour has to be evaluated periodically to ensure that the foundation for the bridge has adequate support. The consultant will perform a scour check around all structural elements that are located in water up to six feet deep utilizing hands and probes. Substructure elements that are in water over six feet will be inspected by a diver under a separate contract.

Information on stream scour must be included in the report and, if there is any loss of bearing or undermining of a footing, this must be reported to the MDOT PM using a "Request For Action" (RFA) form. If the loss of bearing is sufficient to cause concern for the structural element to support the bridge, the consultant will notify the MDOT PM on an emergency basis.

B. REPORT

The deliverables for this scope of work will be the reports, photographs, printed worksheets, sketches, and notes. The reports must include descriptions and observations of the inspection procedures and conditions found during inspection.

Two (2) draft copies of each report will be provided to the MDOT Project Manager. One of these will be marked up by MDOT with comments and returned to the consultant for review. A progress meeting will be held with the MDOT representatives and the consultant to review and discuss comments. The consultant will then incorporate revisions into the final reports. MDOT reserves the right to request additional drafts for review if, in the opinion of MDOT's Project Manager, the changes required are extensive. The contract will be unsatisfactory if the consultant fails to make changes to the reports as required by MDOT's Project Manager.

The consultant will submit two (2) 3-ring bound copies of the final report for each bridge. The final report will also contain one Compact Disk (CD) with electronic copies of the final report and photographs.

1. Photographs

All photos will be in digital format. A photo log of the bridge and the surrounding areas must be included in the report. All pictures must be printed on 8 1/2" x 11" media with a maximum of two photos per sheet and labeled with a description.

2. Recommendations

Based on the findings of each structure, submit repair recommendations within the reports. The repair recommendations shall include, but not be limited to, the location and the type of repair warranted, the applicable quantities, and the level of urgency of the repair.

EQUIPMENT

The consultant will be responsible for obtaining and operating the high reach equipment for inspection under the bridge. However, MDOT will provide an under bridge inspection crane for the consultant's use in certain situations, for example, high river and railroad crossings.

Contact the MDOT PM a minimum of 14 days in advance for scheduling use of the equipment. The consultant must provide the following equipment as suitable for the inspection of the bridge. The cost of the use of this equipment during the inspection is considered included in the Not to Exceed price.

1. Bucket Truck

The consultant will use a hydraulic manlift to gain access to the underside of bridges that are not over water. The unit must be capable of quickly positioning the inspector to any location on the underside of the bridge for inspection or to prepare

the area for inspection or NDT. Ladders will only be allowed for infrequent use where they will be faster than the manlift.

The consultant will be responsible for insuring the vehicle is safe for operation and is operated in a safe manner utilizing all required safety equipment.

2. Boat

The consultant is required to have a small boat with a motor available for inspecting those bridges which are over water and are too deep to wade. This is typically a small aluminum or inflatable Zodiac style of boat with a small motor.

The consultant will be responsible for operation in a safe manner utilizing all required safety equipment.

3. Computer

The consultant is required to have a laptop computer for field use and it must have Microsoft Excel and Word XP (2002 format) and Adobe Acrobat to use the electronic forms provided by MDOT.

4. NDT

The inspection process does not require a lot of testing but sounding concrete for delaminations, checking for suspected cracks in steel, and measuring for section loss in areas of heavy corrosion is required.

The following equipment is necessary to perform these tests:

- Calipers and thickness gauges
- Dye penetrant test kit
- Chain drag or sounding rod or hammer

5. Cell Phone

While in the field, the Team Leader must have a cellular telephone. These numbers must be provided to the MDOT PM at the Project Initiation Meeting.

6. GPS

The consultant must have a handheld Global Positioning Satellite (GPS) locator to determine or verify the latitude and longitude of the bridge.

7. Camera

The consultant must have a digital camera that can clearly record the images necessary to convey the condition of the bridge.

8. Hand Tools

The consultant must provide the hand tools necessary to complete the inspection. Some of these are ladder, waders, hammers, lighting, marking paint, measuring tapes, etc.

TRAFFIC CONTROL

A. Traffic Control & Permits

The traffic control during the site review will be the responsibility of the consultant. Permits for the traffic control and for working in the MDOT Right of Way must be obtained from the Region prior to the start of work. Traffic control will follow standard MDOT Maintenance Work Zone Traffic Control Guidelines. The consultant will be responsible for obtaining all permits and notifying the MDOT PM of the time and location of the work. Nighttime lane closures for deck inspection may be allowed, at the discretion of the MDOT Region Traffic and Safety Engineer. Approval for nighttime work must be obtained prior to the start of work.

B. Railroad Flagging & Permits

If it is necessary to work over an active railroad during the site review phase, the consultant will be responsible for obtaining the necessary permits and flagmen. Costs for this will be considered an expense and must be detailed on the consultant invoice.

SAFETY

MDOT requires safe working operations. The consultant shall perform field operations in accordance with MIOSHA regulations and accepted safety practices.

The consultant must provide all of the necessary personal safety equipment (hard hat, reflective vest, steel toed shoes, eye protection, etc.) for each employee at the work site. All equipment must be in sound working order, meeting applicable inspections for safe operation.

It is not the responsibility of MDOT to verify the consultant's safety practices. However, the MDOT PM has the authority to have any individual who is found working unsafely removed from MDOT right of way. If the consultant is found to be working unsafely, the MDOT PM can stop all operations and terminate the contract.

EXISTING RECORDS AND DATA

MDOT will furnish the consultant access to any available pertinent information related to the structure(s) being inspected.

Information furnished to the consultant is not be released or distributed to any outside agency without written permission from MDOT's Project Manager.

CONSULTANT PAYMENT – Actual Cost Plus Fixed Fee:

Compensation for this project shall be on an **actual cost plus fixed fee** basis. This basis of payment typically includes an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, subconsultant costs, and applied fixed fee.

All billings for services must be directed to the Department and follow the current guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's website. This document contains instructions and forms that must be followed and used for billing. Payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 60 days after the completion of services for the current billing. The final billing must be received within 60 days of the completion of services. Refer to your contract for your specific contract terms.

Direct expenses, if applicable, will not be paid in excess of that allowed by the Department for its own employees in accordance with the State of Michigan's Standardized Travel Regulations. Supporting documentation must be submitted with the billing for all eligible expenses on the project in accordance with the Reimbursement Guidelines. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the activities of this project.

The use of overtime hours is not acceptable unless prior written approval is granted by the MDOT Region Engineer/Bureau Director and the MDOT Project Manager. Reimbursement for overtime hours that are allowed will be limited to time spent on this project in excess of forty hours per person per week. Any variations to this rule should be included in the priced proposal submitted by the Consultant and must have prior written approval by the MDOT Region Engineer/Bureau Director and the MDOT Project Manager.

The fixed fee for profit allowed for this project is 11.0% of the cost of direct labor and overhead.

GENERAL

Release of information: The consultant may not release any information about the bridge or the inspection to anyone outside of MDOT. The consultant is not allowed to make copies of the information in the bridge files unless given written approval from the MDOT Project Manager.

References and Guidelines: The consultant is expected to be familiar with the following reference material:

- AASHTO Publications:
 - Manual for Condition Evaluation of Bridges
 - AASHTO Manual for Maintenance Inspection of Bridges

- Federal Highway Administration (FHWA) Publications:
 - Inspection of Fracture Critical Bridge Members
- Manual on Uniform Traffic Control Devices for Streets and Highways
- National Bridge Inspection Standards (NBIS)
- Bridge Inspectors Reference Manual (BIRM)
- Underwater Inspection of Bridges