

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

	REQUISITION NUMBER	DUE DATE
MDOT PROJECT MANAGER	JOB NUMBER (JN)	CONTROL SECTION (CS)

DESCRIPTION

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 type="checkbox"/> TIER II (\$100,000-\$250,000)	<input type="checkbox"/> TIER III (>\$250,000)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Understanding of Service
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Innovations</i>
N/A	<input type="checkbox"/>	<input type="checkbox"/>	Organizational Chart
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Qualifications of Team
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 type="checkbox"/>	<input type="checkbox"/>	<b>Location:</b> The percentage of work performed in Michigan will be used for all selections unless the project is for on-site p=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) ( <b>No Resumes</b> )	7 pages (MDOT Forms not counted)	14 pages (MDOT forms not counted)	Total maximum pages for RFP <b>not including key personnel resumes.</b> Resumes limited to 2 pages per key staff personnel.

**PROPOSAL AND BID SHEET EMAIL ADDRESS** – [mdot-rfp-response@michigan.gov](mailto:mdot-rfp-response@michigan.gov)

### 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 five (5) 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

**5100J** – Consultant Data and Signature Sheet (Required only for firms not currently prequalified with MDOT)

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

**REQUEST FOR PROPOSAL**

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 Services Contracts" and "Guideline for Completing a Low Bid Sheet(S)\*, if a low bid is involved as part of the selection process. **Reference 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 \_\_\_\_ 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 is required with Proposal for firms not currently prequalified with MDOT**

**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 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.

**Qualification 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. The vendor that has met established qualification threshold and 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**

Bid Sheet(s) must be submitted in accordance with the "Guidelines for Completing a Low Bid Sheet(s)\* (available on MDOT's website). Bid Sheet(s) are located at the end of the Scope of Services. Submit bid sheet(s) separate from the proposal, to the email address: [mdot-rfp-response@michigan.gov](mailto:mdot-rfp-response@michigan.gov). Failure to comply with this procedure may result in your bid being rejected from consideration.

**NOTIFICATION  
MANDATORY ELECTRONIC SUBMITTAL**

**Proposals submitted for this project must be submitted electronically.**

**The following are changes to the Proposal Submittal Requirements:**

- Eliminated the Following Requirements:
  - Safety Program
  - Communication Plan
  - Past Performance as *a separate section*
  - Separate section for DBE Statement of goals. Include information in Qualification of Team section
  
- Implemented the Following Changes:
  - All proposals require an Organization Chart
  - Resumes must be a maximum of two pages
  - Only Key (lead) staff resumes may be submitted
  - Tier III proposal reduced from 19 to 14 pages
  - Forms 5100D, 5100I, and 5100G combined – 5100D
  - Forms 5100B and 5100H combined – 5100B
  - RFP's will be posted on a weekly basis -- on Mondays

**The following are Requirements for Electronic Submittals:**

- Proposals must be prepared using the most current guidelines
- The proposal must be bookmarked to clearly identify the proposal sections (See Below)
- For any section not required per the RFP, the bookmark must be edited to include “N/A” after the bookmark title.  
**Example:** Understanding of Service – N/A
- Proposals must be assembled and saved as a single PDF file
- PDF file must be 5 megabytes or smaller
- PDF file must be submitted via e-mail to [MDOT-RFP-Response@michigan.gov](mailto:MDOT-RFP-Response@michigan.gov)
- MDOT's requisition number and company name must be included in the subject line of the e-mail. The PDF shall be named using the following format:
  - Requisition#XXX\_Company Name.PDF
- MDOT will not accept multiple submittals
- Proposals must be *received* by MDOT on or before the due date and time specified in each RFP

**If the submittals do not comply with the requirements, they may be determined unresponsive.**

The Consultant's will receive an e-mail reply/notification from MDOT when the proposal is received. Please retain a copy of this e-mail as proof that the proposal was received on time. **Consultants are responsible for ensuring the MDOT receives the proposal on time.**

**Required Bookmarking Format:**

- I. Request for Proposal Cover Sheet Form 5100D
  - A. Consultant Data and Signature Sheet, Form 5100J (if applicable)
- II. Understanding of Service
  - A. Innovations
- III. Qualifications of Team
  - A. Structure of Project Team
    - 1. Role of Firms
    - 2. Role of Key Personnel
  - B. Organization Chart
  - C. Location
- IV. Quality Assurance / Quality Control Plan
- V. Resumes of Key Staff
- VI. Pricing Documents/Bid Sheet (if applicable)

**2/14/12**

# Michigan Department of Transportation

## SCOPE OF SERVICE FOR DESIGN SERVICES Revised to a Tier III as of 3.29.12

**CONTROL SECTION:** 54014

**JOB NUMBER:** 115159 D

**PROJECT LOCATION:** B01 & B02 of 54014, NB & SB US-131 over the Muskegon River, 5 miles South of Big Rapids

**PROJECT DESCRIPTION:**

The design services consist of the following: Review the MDOT's most current load rating analysis and bridge scoping report, research retrofit methods and provide recommendations to improve service level principal stress resistance at the piers, analyze the existing structures using refined methods to augment the load rating analysis as needed, prepare the design and plan package for the method chosen to retrofit the structures, prepare the design and plan package for scheduled preventive maintenance activities including, epoxy overlay, minor deck patching, joint replacements, deck drain extensions, epoxy injection of cracks in the superstructure, repair to post-tensioning anchors, minor superstructure and substructure repairs, electrical repairs (for lighting), placing riprap at B01 pier 2, replacing the approaches and maintaining traffic. Provide all design calculations and refined analysis that can be used to update the load rating for the structures after completion of the project.

**ANTICIPATED SERVICE START DATE:** May 1, 2012

**ANTICIPATED SERVICE COMPLETION DATE:** May 1, 2013

**PRIMARY PREQUALIFICATION CLASSIFICATION(S):**

Complex Bridges

**SECONDARY PREQUALIFICATION CLASSIFICATION(S):**

Roads & Streets

Maintaining Traffic Plans & Provisions

Pavement Markings

~~Safety Studies~~

Structure Surveys

Freeway Lighting

**DBE REQUIREMENT:** 5%

**MDOT PROJECT ENGINEER MANAGER:**

Phil Grotenhuis, Project Manager  
Design Division  
VanWagoner Building  
425 W Ottawa St.  
P.O. Box 30050  
Lansing, MI 48909  
Phone: 517-335-6778  
Fax Number: 517-335-2731  
Grotenhuisp@mi.gov

**CONSTRUCTION COST:**

A. The estimated cost of construction is:

1.	Mainline Pavement	\$
2.	Geometric Improvement	\$
3.	Environmental	\$
4.	Drainage	\$
5.	Safety	\$
6.	Non Motorized	\$
7.	Maintaining Traffic	\$1,500,000
8.	Miscellaneous Bridge Cost	\$6,500,000
9.	Detours and Maintaining Traffic	\$
10.	Permanent Pavement Markings/Signs/Signals	\$
11.	Miscellaneous	\$
	<b>CONSTRUCTION TOTAL</b>	<b>\$8,000,000</b>

B. The estimated cost of real estate is: \$

The above construction total is the amount of funding programmed for this project. The Consultant is expected to design the project within the programmed amount.

**If at any time the estimated cost of construction varies from the current programmed amount, then the Consultant will be required to submit a letter to the MDOT Project Manager justifying the changes in the construction cost estimate.**

**REQUIRED MDOT GUIDELINES AND STANDARDS:**

Work shall conform to current MDOT, FHWA, and AASHTO practices, guidelines, policies, and standards (i.e., Road Design Manual, Standard Plans, Drainage Manual, Roadside Design Guide, A Policy on Geometric Design of Highways and Streets, Michigan Manual of Uniform Traffic Control Devices, etc.).

NOTE: A process change mandated by federal audit of MDOT’s design process puts the Omissions and Errors Check Meeting after the Plan Completion. Please keep this in mind when preparing your schedule. See MDOT Road Design Manual, Chapter 14 – Procedures –

Section 14.54 for corroboration. See “For Your Information” contacts at the end of this document for more info or questions.

Consultant is required to use MDOT’s current version of Bentley MicroStation for CADD applications and Bentley GEOPAK for road design. Consultant shall comply with all MDOT CADD standards and file naming conventions.

**CONSULTANT RESPONSIBILITIES:**

Complete the design of this project including as spelled out in the project description.

The Consultant must adhere to all applicable OSHA and MIOSHA safety standards, including the appropriate traffic signs for the activities and conditions for this job and perform field operations in accordance with the Department’s Personal Protective Equipment (PPE) policy as stated in the MDOT Guidance Document #10118.

Meet with the MDOT Project Manager to review project, location of data sources and contact persons, and review relevant MDOT operations. The Consultant shall review and clarify project issues, data needs and availability, and the sequence of events and team meetings that are essential to complete the design by the project plan completion date. Attention shall be given to critical target dates that may require a large lead time, such as geotechnical requirements, ROW submittal dates, Railroad coordination requirements, utility conflict resolution, local agency meetings, etc.

- A. Perform pickup survey if needed.
- B. Analyze the existing structure using refined methods, taking into account all existing conditions impacting capacity.
- C. Recommend and design strengthening retrofit procedure, and evaluate constructability. Provide installation and stressing procedures.
- D. Verify location and condition of internal longitudinal post tensioning tendons in areas potentially impacted by the strengthening retrofit connection to the existing structure (i.e. proposed deviation diaphragm locations, end anchorages, etc.)
- E. Prepare required plans, typical cross-sections, details, and specifications required for design and construction.
- F. Compute and verify all plan quantities.
- G. Prepare staging plans and special provisions for maintaining traffic during construction. Prepare necessary documentation to adhere to

MDOT's Workzone Safety and Mobility Manual. This will include preparation of a mobility analysis and Transportation Management Plan (TMP). The TMP may include a Temporary Transportation Control Plan (TTCP), Transportation Operations Plan (TOP) and a Public Information Plan (PIP).

- H. Prepare a crash analysis and any necessary design exceptions.
- I. Provide solutions to any unique problems that may arise during the design of this project.
- J. The Consultant may be required to provide Design Services during the construction phase of this project. If Construction Assistance is required, then a separate authorization for those services will be issued.
- K. Maintain a Design Project Record which includes a history of significant events (changes, comments, etc.) which influenced the development of the plans, dates of submittals and receipt of information.
- L. If excavation is required, submit the excavation locations which may contain contamination. Project Manager then can proceed in requesting a Preliminary Project Assessment (PPA).
- M. The Consultant shall be required to prepare and submit a CPM network for the construction of this project.
- N. The Consultant representative shall record and submit type-written minutes for all project related meetings to the MDOT Project Manager within two weeks of the meeting. The Consultant shall also distribute the minutes to all meeting attendees. MDOT will provide and distribute official meeting minutes for the Plan Review Meeting.
- O. The Consultant will provide to MDOT at the scheduled submittal dates, electronic copies of the required specifications and plan set materials for distribution by MDOT for all reviews for this project.
- P. Prepare and submit electronically (native format and Adobe PDF) any information, calculations, hydraulic studies, or drawings required by MDOT for acquiring any permit (ie. NPDES, DEQ, etc), approvals (i.e. county drain commission) and related mitigation. MDOT will submit permit requests.
- Q. Attend any project-related meetings as directed by the MDOT Project Manager.
- R. Attend information meetings (i.e., public hearings, open houses, etc.) with the public and public officials to assist in responding to concerns

- S. The Consultant shall assist in the review of utility permit requests, incorporate the information in the design plans, and respond within 2 weeks from receipt of the permit.
- T. The MDOT Project Manager shall be the official MDOT contact person for the Consultant **and shall be made aware of all communications regarding this project**. The Consultant must either address or send a copy of all correspondence to the MDOT Project Manager. This includes all Subcontractor correspondence and verbal contact records.
- U. The Consultant shall contact the MDOT Project Manager whenever discoveries or design alternatives have the potential to require changes in the scope, limits, quantities, costs, or right-of-way of the project.

## **UTILITIES**

The Consultant shall be responsible for obtaining and showing on the plans the location and names of all existing utilities within the limits of the project. In the course of resolving utility conflicts, the Consultant shall make modifications to the plans or design details and provide assistance as directed by the MDOT Utility Permits Engineer and/or Project Manager. The Consultant shall attend any utility meetings called to ensure that the concerns are addressed on the plans involving utilities. The Consultant shall assist in the review of utility permit requests to ensure compatibility with the project. The Consultant will be responsible for miscellaneous staking of utilities.

## **TRAFFIC CONTROL**

The Consultant shall be responsible for all traffic control required to perform the tasks as outlined in this Scope of Design Services.

## **MDOT PERMITS**

The Consultant shall be responsible for obtaining up to date access permits and pertinent information for tasks in MDOT Right of Way (ROW). This information can be obtained through Joe Rios, Utilities/Permits Section, Real Estate Division at (517) 241-2103.

## **MONTHLY PROGRESS REPORT**

On the first of each month, the Consultant Project Manager shall submit a monthly project progress report to the Project Manager.

## **MDOT RESPONSIBILITIES:**

- A. Schedule and/or conduct the following:
  - 1. Project related meetings.
  - 2. The Plan Review
  - 3. Utility Meetings.
  - 4. Quantity summary sheets and final item cost estimates.
  - 5. Packaging of plans and proposal.
- B. Furnish Special Details and pertinent reference materials.
- C. Furnish prints of an example of a similar project and old plans of the area, if available. Furnish the E.A.
- D. Obtain all permits for the project as outlined in previous section.
- E. Coordinate any necessary utility relocation.
- F. Furnish FTP site for software download and instructions for the MDOT Stand Alone Proposal Estimator's Worksheet (SAPW).

## **DELIVERABLES:**

The Consultant shall deliver all computer files associated with the project in their native format (spreadsheets, CADD files, GEOPAK files, etc.) on DVD, CD or uploaded to ProjectWise, as directed by the MDOT Project Manager. All CADD/GEOPAK files shall be created and identified with standard MDOT file names as shown in Appendix A of the Road Design Manual. It is the Consultant's responsibility to obtain up to date MicroStation and GEOPAK seed/configuration files necessary to comply with MDOT's CADD standards which are posted to the bulletin board system. When the use of GEOPAK road design software is necessary to develop plans all pay items shall be placed into the CADD file using GEOPAK's Design and Computation Manager so that Quantity Manager can be used to transfer pay item information to SAPW/Trns\*port. Any CADD/GEOPAK files that do not conform to MDOT standards will be returned to the Consultant for correction at the Consultant's expense.

Proposal documents shall be submitted in their native format with standard naming conventions as well as combined into one Adobe PDF file in the sequence specified by MDOT. To provide text search capabilities the combined proposal shall be created by converting native electronic files to PDF. Scanning to PDF is discouraged except in instances where it is necessary to capturing a legally signed document or a hard copy version of a document is all that exists.

Plan files shall be submitted in their native dgn format with standard naming conventions as well as plotted into a combined Adobe PDF file. Plan sheets shall be plotted to Adobe PDF with full text search and level on/off capabilities in (11" x 17") formats. A title sheet shall be

plotted stamped and signed then scanned for inclusion with the Adobe PDF set. The original title sheet will be sent to the MDOT Project Manager.

Stand Alone Proposal Estimator's Worksheet (SAPW) shall be used to generate the txt and csv files necessary for import into the Trns\*port bid letting software. The SAPW files shall be transmitted electronically by the method specified by the MDOT Project Manager.

The project construction, removal and profile sheets will require a ratio (scale) of **1:40 (English Units)**.

Other plan sheets that are required for this project shall be completed by the Consultant. These include, but are not limited to the following plan sheets:

- A. The title sheet. MDOT will provide a map of the area on a disk in our workstation format. If the map is not available, MDOT will provide a map that could be used. The Consultant shall be responsible for any revisions to the title sheet and the title sheet and map shall meet MDOT format and layout guidelines.
- B. Note Sheet.
- C. Typical Cross-Sections.
- D. Project specific Special Details.
- E. Construction staging and traffic control plans.
- F. Detail grade sheets for critical areas.
- G. Pavement marking plan(s).
- H. Witness and benchmark sheet(s).
- I. Structure plan(s).

All plans, special provisions, estimates, and other project related items shall meet all MDOT requirements and detailing practices (i.e., format, materials, symbols, patterns, and layout) or as otherwise directed by the Project Manager. All plans, specifications, and other project related items are subject to review and approval by MDOT.

## **PROJECT SCHEDULE:**

The Consultant shall use the following events to prepare the proposed implementation schedule as required in the Guidelines for the Preparation of Responses on Assigned Design Services Contracts. These dates shall be used in preparing the Consultant's Monthly Progress Reports.

# MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

Please indicate with a check in the box next to each task number whether you believe that task will require consultant involvement on the job. Milestones (a specific event at a point in time) are italicized and underlined. See the [P/PMS Task Manual](#) for more details. Scheduling assistance may be accomplished with estimated completion dates. While not part of P/PMS, an Authorization Milestone and Post-Design Tasks have been included for your reference.

## STUDY (EARLY PRELIMINARY ENGINEERING)

		P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (mm/dd/yyyy)	
		CONSULTANT CONTRACT AUTHORIZATION/EXECUTION	/	/
YES	NO			
<b><u>INFORMATION GATHERING/STUDIES</u></b>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1115 Traffic Data Collection	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1120 Prepare Traffic Analysis Report	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1125 Traffic Capacity Analysis	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1155 Request/Perform Safety Analysis	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1300 Traffic Impact Study	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1400 Feasibility Study	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1500 Corridor Study	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1600 Access Management Study Plan	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1700 Other Miscellaneous Studies	/	/
<b><u>EPE SCOPING ANALYSIS</u></b>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2100 Scope Verification and Initiation of EPE Activities	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i><u>210M Program &amp; Project Review Board Concurrence</u></i>	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2130 Prepare Project Purpose and Need	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i><u>213M Concurrence by Regulatory Agencies with the Purpose and Need</u></i>	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2140 Develop and Review Illustrative Alternatives	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2160 Prepare and Review EIS Scoping Document	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i><u>211M Public Information Meeting</u></i>	/	/
<b><u>EPE DRAFT ANALYSIS</u></b>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2310 Conduct Technical SEE Studies	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2311 Cultural Resources Survey	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2312 Recreational Survey – Section 4(f)/6(f)	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2313 Endangered Species Survey	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2314 Wetland Assessment	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2315 Wetland Mitigation	/	/

<input type="checkbox"/>	<input checked="" type="checkbox"/>	2316	Other Technical Reports	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2321	Prepare for Aerial Photography	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2322	Finish/Print Aerial Photography	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2330	Collect EPE Geotechnical Data	/	/

## MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

### STUDY (EARLY PRELIMINARY ENGINEERING) (cont'd)

		P/PMS TASK NUMBER AND DESCRIPTION	DATE TO BE COMPLETED BY (mm/dd/yyyy)
YES	NO		
<b><u>EPE DRAFT ANALYSIS (cont'd)</u></b>			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2340 Develop and Review Practical Alternatives	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>233M Aerial Photography Flight</u>	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2360 Prepare and Review EA	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>231M Approval of EA by FHWA</u>	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2370 Prepare and Review Draft EIS	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>237M Approval of Draft EIS by FHWA</u>	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2380 Distribute EA	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>232M Public Hearing for EA</u>	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2390 Distribute DEIS	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>239M Public Hearing for DEIS</u>	/ /
<b><u>EPE FINAL ANALYSIS</u></b>			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2510 Determine and Review Recommended Alternative	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>250M Concurrence by Regulatory Agencies with Recommended Alternatives</u>	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2525 Prepare and Review Engineering Report	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2530 Prepare and Review Request for FONSI	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>252M Approval of FONSI by FHWA</u>	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2540 Prepare and Review FEIS	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>254M Approval of FEIS by FHWA</u>	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2550 Obtain ROD	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>255M ROD Issued by FHWA</u>	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2570 ITS Concept of Operations	/ /
<b><u>CONTAMINATION INVESTIGATION</u></b>			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2810 Project Area Contamination Survey (PCS)	/ /
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2820 Preliminary Site Investigation (PSI) for Contamination	/ /

### PRELIMINARY ENGINEERING - DESIGN

<b><u>DESIGN SCOPE VERIFICATION AND BASE PLAN PREPARATION</u></b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3130 Verify Design Scope of Work and Cost	/ /

<input type="checkbox"/>	<input checked="" type="checkbox"/>	3310	Prepare Aerial Topographic Mapping	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3320	Conduct Photogrammetric Control Survey	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3321	Set Aerial Photo Targets	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3330	Conduct Design Survey	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3340	Conduct Structure Survey	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3350	Conduct Hydraulics Survey	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3360	Prepare Base Plans	/	/
<input type="checkbox"/>	<input type="checkbox"/>	<u>311M</u>	<u>Utility Notification</u>	/	/

## MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

### PRELIMINARY ENGINEERING - DESIGN (cont'd)

		P/PMS TASK NUMBER AND DESCRIPTION		DATE TO BE COMPLETED BY (mm/dd/yyyy)	
YES	NO				
<b><u>DESIGN SCOPE VERIFICATION AND BASE PLAN PREPARATION (cont'd)</u></b>					
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3361	Review and Submit Preliminary ROW Plans	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>331M</u>	<u>Preliminary ROW Plans Distributed</u>	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3365	Pre-Conceptual ITS Design and Meeting	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3370	Prepare Structure Study	6/15/2012	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3375	Conduct Value Engineering Study	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3380	Review Base Plans	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>332M</u>	<u>Base Plan Review (Pre-GI Inspection)</u>	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3390	Develop the Maintaining Traffic Concepts	/	/
<b><u>PRELIMINARY PLANS PREPARATION</u></b>					
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3510	Perform Roadway Geotechnical Investigation	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3520	Conduct Hydraulic/Hydrologic and Scour Analysis	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3522	Conduct Drainage Study, Storm Sewer Design, and use Structural Best Management Practices	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3530	Conduct Structure Foundation Investigation	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3535	Conduct Structure Review for Architectural and Aesthetic Improvements	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3540	Develop the Maintaining Traffic Plan	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3551	Prepare/Review Preliminary Traffic Signal Design Plan	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3552	Develop Preliminary Pavement Marking Plan	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3553	Develop Preliminary Non-Freeway Signing Plan	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3554	Develop Preliminary Freeway Signing Plan	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3555	Prepare/Review Preliminary Traffic Signal Operations	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3570	Prepare Preliminary Structure Plans	8/1/2012	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3580	Develop Preliminary Plans	8/1/2012	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3581	Review and Submit Final ROW Plans	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>351M</u>	<u>Final ROW Plans Distributed</u>	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3585	Final ITS Concept Design and Meeting	/	/

<input checked="" type="checkbox"/>	<input type="checkbox"/>	3590	Review Preliminary Plans (Hold Plan Review Meeting)	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>352M</u>	<u>THE Plan Review (Grade Inspection)</u>	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3595	Conduct ITS Structure Foundation Investigation	/	/

**UTILITIES**

<input type="checkbox"/>	<input checked="" type="checkbox"/>	3610	Compile Utility Information	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3615	Compile ITS Utility Information	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3650	Coordinate RR Involvement for Grade Separations	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3655	Coordinate RR Involvement for At-Grade Crossings	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3660	Resolve Utility Issues	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>360M</u>	<u>Utility Conflict Resolution Plan Distribution</u>	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>361M</u>	<u>Utility Meeting</u>	/	/

**MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST**

**PRELIMINARY ENGINEERING - DESIGN (cont'd)**

		<b>P/PMS TASK NUMBER AND DESCRIPTION</b>		<b>DATE TO BE COMPLETED BY</b> (mm/dd/yyyy)	
<b>YES</b>	<b>NO</b>				
<b><u>UTILITIES (cont'd)</u></b>					
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3670	Develop Municipal Utility Plans	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3672	Develop Special Drainage Structures Plans	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3675	Develop Electrical Plans	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3680	Preliminary ITS Communication Analysis	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3690	Power Design (Power Drop in Field)	/	/
<b><u>MITIGATION/PERMITS</u></b>					
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3710	Develop Required Mitigation	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3720	Assemble Environmental Permit Applications	/	/
<input type="checkbox"/>	<input type="checkbox"/>	3730	Obtain Environmental Permit	/	/
<b><u>FINAL PLAN PREPARATION</u></b>					
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3821	Prepare/Review Final Traffic Signal Design Plan	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3822	Complete Permanent Pavement Marking Plan	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3823	Complete Non-Freeway Signing Plan	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3824	Complete Freeway Signing Plan	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3825	Prepare/Review Final Traffic Signal Operations	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3830	Complete the Maintaining Traffic Plan	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3840	Develop Final Plans and Specifications	12/3/2012	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>380M</u>	<u>Plan Completion</u>	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3850	Develop Structure Final Plans and Specifications	12/3/2012	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3870	Hold Omissions/Errors Check (OEC) Meeting	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>387M</u>	<u>Omissions/Errors Checks Meeting</u>	1/3/2013	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>389M</u>	<u>Plan Turn-In</u>	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3880	CPM Quality Assurance Review	/	/

<input type="checkbox"/>	<input checked="" type="checkbox"/>	3890	Final ITS Communication Analysis	/	/
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**PRELIMINARY ENGINEERING – RIGHT OF WAY**

**EARLY RIGHT OF WAY WORK**

<input type="checkbox"/>	<input checked="" type="checkbox"/>	4120	Obtain Preliminary Title Commitments	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4130	Prepare Marked Final Right Of Way Plans	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>413M</i>	<i>Approved Marked Final ROW</i>	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4140	Prepare Property Legal Instruments	/	/

**ROW ACQUISITION**

<input type="checkbox"/>	<input checked="" type="checkbox"/>	4411	Preliminary Interviews	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>441M</i>	<i>Post-Decision Meeting</i>	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4412	Real Estate Services Assignment Proposal and Fee Estimate (Form 633s) for Appraisal Work Authorization	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4413	Appraisal Reports	/	/

**MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST**

**PRELIMINARY ENGINEERING – RIGHT OF WAY (cont'd)**

		<b>P/PMS TASK NUMBER AND DESCRIPTION</b>		<b>DATE TO BE COMPLETED BY</b> (mm/dd/yyyy)	
<b>YES</b>	<b>NO</b>				
		<b><u>ROW ACQUISITION (cont'd)</u></b>			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4420	Appraisal Review Reports	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4430	Acquire Right Of Way Parcels	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4510	Conduct Right Of Way Survey & Staking	/	/
		<b><u>ROW RELOCATION</u></b>			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4710	Relocation Assistance	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4720	Prepare Improvement Removal Plan	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>442M</i>	<i>ROW Certification</i>	/	/

**POST LETTING/AWARD TASKS (for reference only)**

		<b>P/PMS TASK NUMBER AND DESCRIPTION</b>		<b>DATE TO BE COMPLETED BY</b> (mm/dd/yyyy)	
<b>YES</b>	<b>NO</b>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4810	Complete Acquisition Process	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4820	Manage Excess Real Estate	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4830	Provide Post-Certification Relocation Assistance	/	/
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4910	Conduct ROW Monumentation	/	/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	5010	Construction Phase Engineering and Assistance	/	/



### **FOR YOUR INFORMATION**

For questions on specific tasks, refer to the P/PMS Task Manual located on the MDOT Bulletin Board System.

For assistance in accessing this manual, please contact one of following:

**Dennis Kelley: (517) 373-4614**

### **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.

## ATTACHMENT A

April 2011

### **SURVEY SCOPE OF WORK**

Survey Limits: As needed for Design, Right of Way, and Construction. A description of survey limits detailing length, width and cross roads must be included in the Survey Work Plan.

**NOTES:** The Selected Consultant shall discuss the scope of this survey with an MDOT Region Surveyor or an MDOT Lansing Design Surveyor before submitting a priced proposal.

The Selected Consultant surveyor must contact the Region or TSC Traffic and Safety Engineer for work restrictions in the project area prior to submitting a priced proposal.

A **detailed Survey Work Plan must** be included in the project proposal. A **spreadsheet estimate** of hours by specific survey task such as traversing, leveling, mapping, etc., **must** be included in the **priced proposal**.

It is the responsibility of the Professional Surveyor to safeguard all corners of the

United States Public Land Survey System, published Geodetic Control and any other Property Controlling corners that may be in danger of being destroyed by the proposed construction project.

### **GENERAL REQUIREMENTS:**

1. Surveys must comply with **all Michigan law** relative to land surveying.
2. Surveys must be done under the **direct supervision** of a Professional Surveyor licensed to practice in the State of Michigan, according to Public Act 299 of 1980.
3. Work in any of the following categories of survey: Road Design, Structure, Hydraulic, Right-of-Way, Photogrammetric Ground Control, and/or Geodetic Control must be completed by a survey firm which is pre-qualified by MDOT for that category.
4. Surveys must meet all requirements of the Michigan Department of Transportation (MDOT) Design Surveys *Standards of Practice* dated March 2009. Please contact the MDOT Design Survey office to clarify any specific questions regarding these standards.
5. Consultants must obtain all necessary permits required to perform this survey on any public and/or private property, including an up-to-date permit from the MDOT Utilities Coordination and Permits Section.
6. Prior to performing the survey, the Consultant must contact all landowners upon whose lands they will enter. The contact may be personal, phone or letter, but must be documented. This notice must include the reasons for the survey on private land, the approximate time the survey is to take place, the extent of the survey including potential brush cutting (which must be minimized), and an MDOT contact person (the MDOT Project Manager or designate).
7. The Consultant must contact any and all Railroads prior to commencing field survey on railroad property. The cost for any permit, flaggers and/or training that is required by the Railroad will be considered as a direct cost, but only if included in the Consultant's priced proposal.
8. The Consultant must adhere to all applicable OSHA and MIOSHA safety standards, including the appropriate traffic signs for the activities and conditions for this job.
9. Consultants are responsible for a comprehensive and conscientious research of all records, including MDOT records, essential for the completion of this project.
10. Measurements, stationing, recorded data, and computations must be in **International Feet**, unless specified otherwise by the MDOT Project Manager.
11. Coordinate values shall be based upon the Michigan State Plane coordinate system



At the completion of this survey for this project, legible copies of all field survey notes, all electronic data, and all research records obtained for this project will be considered the property of MDOT and **must be sent to** the MDOT, Design Division, Supervising Land Surveyor, P.O. Box 30050, Lansing, MI 48909. Please use MDOT's Form 222(5/01) entitled "SURVEY NOTES: RECEIPT AND TRANSMITTAL" for all transmittals. A copy of this transmittal form must also be sent to the MDOT Project Manager for Design.

**Acceptance of this survey by the MDOT Supervising Land Surveyor and/or the MDOT Project Manager does not relieve the Consultant of any liability for the content of the survey.**

## **WORK RESTRICTIONS**

The Selected Consultant, and the Selected Consultant only, is advised to discuss Traffic Control scenarios with the MDOT Traffic and Safety Engineer at the closest MDOT TSC prior to submitting a priced proposal.

No work shall be performed or lane closures allowed during the Memorial Day, July 4<sup>th</sup>, or Labor Day holiday periods, as defined by the MDOT Project Manager or representative specifically designated by the Project Manager (the Traffic & Safety Engineer at the MDOT TSC).

Work on weekends, if approved, shall be as directed by the MDOT Project Manager or Designate.

The Consultant must call the MDOT Region or TSC Traffic and Safety Engineer before beginning work to inform him or her of surveying activity in the area. The MDOT Region or TSC must be notified at least two weeks prior to lane closures so advance notice can be posted on the Web site.

Traffic shall be maintained by the Consultant throughout the project in accordance with Sections 812, 922, 103.05 and 103.06 of the *Standard Specifications for Construction*, 2003 edition, [www.mdot.state.mi.us/specbook/](http://www.mdot.state.mi.us/specbook/), and Supplemental Specification 03SS001(2) Errata to the 2003 Standard Specifications and all other supplemental specifications currently in effect against the Standard Specifications for Construction. All traffic control devices shall conform to the current edition, as revised, of the *Michigan Manual of Uniform Traffic Control Devices* (MMUTCD). All warning signs for maintenance of traffic used on this project shall be fabricated with prismatic retro-reflective sheeting, and shall be set up five feet above ground.

The Consultant shall use MDOT standard "maintaining traffic" typicals for any and all closures.

Typical MDOT traffic control diagrams are available on line at [www.mdot.state.mi.us/tands/plans.cfm](http://www.mdot.state.mi.us/tands/plans.cfm)

## **COORDINATION WITH OTHER CONTRACTS IN THE VICINITY**

The Consultant shall coordinate operations with contractors performing work on other projects within or adjacent to the Construction Influence Area (CIA).

MDOT maintenance crews and/or Contract Maintenance Agencies may perform maintenance work within or adjacent to the CIA. The Maintenance Division of MDOT and/or Contract Maintenance Agency will coordinate their operations with the MDOT Project Manager or Designate to minimize the interference to the Consultant.

The Consultant must contact the Development Engineer at the nearest MDOT TSC for information regarding project coordination.

The Consultant's attention is called to the requirements of cooperation with others as covered in Article 104.07 of the 2003 Standard Specifications for Construction. Other contracts or maintenance operations may occur during the life of the project.

No claim for extra compensation or adjustment in contract unit prices will be allowed on account of delay or failure of others to complete work unit scheduled.

#### POST SURVEY CLEAN-UP

Once the survey is complete, all stakes must be removed from the MDOT median and ROW to aid the maintenance crews and adjacent property owners. All benchmarks and control points and their witnesses must remain in place.

#### **FINAL REPORT: DELIVERABLES**

The final report for this project shall include:

1. In the first pocket of the portfolio, and first directory on the CD, labeled **ADMINISTRATIVE**, the following will appear:
  - a. MDOT's Form 222(5/01) entitled "SURVEY NOTES: RECEIPT AND TRANSMITTAL"
  - b. The project's Professional Surveyor's Report on company letterhead consisting of:
    - i) A comprehensive synopsis of the work performed on this project, signed **and sealed** by the project's Professional Surveyor.
    - ii) The source and methods used to establish the project horizontal and vertical control and alignment(s) for this project.
    - iii) A detailed explanation of anything discovered during the survey of this project that may create a problem for the designer or another surveyor.
  - c. CD or DVD with all documents scanned or converted into PDF files. Each page must be inserted in a master PDF file and bookmarked for easy retrieval. An example can be provided upon request.
  - d. MDOT QA/QC Portfolio Checklist (revised March 2009).

2. In the second pocket of the portfolio, and second directory on the CD, labeled **ALIGNMENT**, the following will appear:
  - a. An annotated MicroStation drawing of the alignment(s), showing:
    - i) A statement defining the alignment(s) as **survey, as constructed, and/or legal**
    - ii) Stationing, source of stationing, and station equation to existing stationing
    - iii) Horizontal coordinates of P.I.'s, at a minimum
    - iv) Curve data
    - v) Alignment points found or set
    - vi) Control points
    - vii) Reference lines and angles of crossing (if appropriate)
    - viii) Government corners and ties to government lines
  - b. Witness list for the alignment points found or set, which shows coordinates, stationing and four witnesses for each alignment point. Witness lists must use only uppercase letters.
  - c. LCRC's for legal alignment points found or set.
  
3. In the third pocket of the portfolio, and third directory on the CD, labeled **CONTROL**, the following will appear:
  - a. Documentation of horizontal and vertical datum sources.
  - b. OPUS documentation, long version..
  - c. Least squares adjustments for the horizontal and vertical control.
  - d. It is not necessary to submit electronic raw survey data in hardcopy form, or in the .PDF file.
  - e. Text files which contain the witness lists for the horizontal alignment ties, horizontal control points, benchmarks and government corners. All witness lists must note the datum(s), a combined scale factor for state plane grid-to-ground conversion, and an example thereof. Witness lists must use only uppercase letters.
  - f. An MDOT-formatted Microsoft Word file, SurveyInfoSheet.doc, showing the data in e. above, using only upper case letters.
  
4. In the fourth pocket of the portfolio, and fourth directory on the CD, labeled **PROPERTY**, the following will appear:
  - a. Tax maps and descriptions with owner names, addresses and phone numbers, if Right of Way is to be acquired, or if riparian ownerships are required.
  - b. Maps, plats, and recorded surveys.
  - c. Documents such as plats, Act 132 Certificates and/or tax maps marked with point numbers as property ties, if Right of Way is to be acquired.
  - d. Legible **recorded** copies of all Land Corner Recordation Certificates (LCRC) filed for the government corners (PLSS corners and Property Controlling Corners) used for computations and/or in danger of obliteration by impending construction.
  
5. In the fifth pocket of the portfolio, and fifth directory on the CD, labeled **MAPPING**, the following will appear:
  - a. Mapping file in MDOT MicroStation V8 format, and also converted to .PDF format. All point and line descriptions must use only upper case letters.
  - b. An archived CAiCE software file.

- c. Geopak files produced from CAiCE.
  - d. All field survey notes and electronic mapping data used for the project. It is not necessary to submit electronic raw survey data in hardcopy form, or in the .PDF file.
  - e. All supporting and supplemental information or data, such as drainage and utilities, electronically only if possible.
6. In the sixth pocket of the portfolio, and sixth directory on the CD, labeled **MISCELLANEOUS**, the following will appear:
- a. Any photographs taken for clarity of an area
  - b. Any newspaper clippings related to the project
  - c. Any information not covered in this scope that will be of benefit to the designer or another surveyor