

MnDOT CULTURAL RESOURCES UNIT (CRU)

PROJECT AND REPORT REQUIREMENTS

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INTRODUCTION

The Minnesota Department of Transportation's Cultural Resources Unit (MnDOT CRU) acts on behalf of the Federal Highway Administration (FHWA) in reviewing all projects that receive Federal-Aid Highway Program funding or that require FHWA approval (e.g., Interstate Access Requests) to ensure compliance with Section 106 of the National Historic Preservation Act of 1966, as amended. This includes both state and locally sponsored projects that use FHWA funds or require FHWA approval. The MnDOT CRU also acts on behalf of other federal agencies in Section 106 reviews, such as the Federal Transit Administration (FTA) or the Federal Railroad Administration (FRA), on a project-specific basis. The MnDOT CRU also reviews non-federally funded MnDOT projects for compliance with Minnesota statutes. In addition, MnDOT CRU reviews locally sponsored projects under state statutes when they use certain types of state bonds or will impact MnDOT right of way.

Section 106 review identifies and evaluates historical and archaeological resources within a proposed project's area of potential effects (APE) to determine if the undertaking will have an adverse effect on historic properties (i.e., properties listed on or eligible for the National Register of Historic Places), and seeks ways to avoid, minimize, or mitigate adverse effects to historic properties. Professional historical and archaeological consultants help our office in identification and evaluation efforts, in the assessment of effects and in carrying out mitigation measures.

The project and report requirements contained in this document are based on the [Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation](#) and should be followed on all archaeological and architectural/historical resources work conducted under contract with MnDOT, unless otherwise directed by the MnDOT CRU Project Manager. The requirements in this document should also be followed for work not contracted directly through MnDOT CRU, but where the MnDOT CRU is responsible for conducting a federal or state review. This ensures that the steps of the review process are carried out correctly and that documentation provides a sufficient basis for the MnDOT CRU finding, thus minimizing the risk that the review will be significantly delayed and the project schedule jeopardized.

GENERAL PROJECT ISSUES

- The FHWA has directed that **all** archaeological and architectural/historical resources work performed for any Federal-Aid Highway Program undertakings must be coordinated with the MnDOT CRU. This applies to any project receiving FHWA funding or approval, whether the archaeological and historical resources work is contracted through MnDOT or by the project sponsor. For MnDOT District projects, all archaeological and architectural/historical resources work must be contracted through the MnDOT CRU.
- The MnDOT CRU determines the APE for all FHWA-funded projects, although we may request that the consultant provide us with field observations to help us finalize the APE. MnDOT CRU staff will consult with the State Historic Preservation Office (SHPO)/Tribal Historic Preservation Office (THPO) regarding the APE. The MnDOT CRU will provide consultants with an explanation of how the APE was determined and that information is required in reports.

- The MnDOT CRU and/or FHWA staff will perform *all* project communication and consultation with the SHPO, THPOs, Office of the State Archaeologist (OSA), American Indian Tribes, and other involved agencies. MnDOT CRU staff will also perform all project communication with the FHWA regarding Section 106 issues. The consultant will not communicate directly with the SHPO/THPO, OSA, American Indian Tribes, FHWA, or other involved agencies about a project, unless authorized to do so by the MnDOT CRU Project Manager (the consultant may directly contact SHPO and OSA for site file searches, inventory number assignments, and licensing).
- On non-MnDOT sponsored FHWA-funded projects, the consultant *must* contact the MnDOT CRU prior to beginning any archaeological or architectural/historical work. MnDOT CRU staff can provide preliminary background information and will determine the appropriate level of effort, including whether a survey is warranted. The consultant should also consult with MnDOT CRU staff to determine the appropriate APE for surveys.
- Inclusion of a consultant on the Pre-Qualified list is based on the education and experience of individuals employed by the firm. If a firm employs an individual who meets the requirements for a Pre-Qualified Program work type and that person leaves the company, the firm will receive no contracts under the applicable work type until another staff member meeting the work type qualifications is hired and the MnDOT CRU approves that applicant. The term “consultant” in this document refers to the individual who is listed on the Pre-Qualified list, not the company for which they work.
- The individual meeting the Pre-Qualified Program’s work type qualifications must be the Principal Investigator on MnDOT-contracted projects. That individual will be required to conduct all or the majority of the fieldwork, and be the primary report author (at a minimum, they will need to write up the results and recommendations).
- The consultant is responsible for being familiar with the requirements outlined in this document, as well as the [Secretary of the Interior’s Standards and Guidelines for the Identification and Evaluation of Historic Properties](#) and the [SHPO Guidelines for History/Architecture Projects in Minnesota](#). [Requirements for GIS data submissions](#) are posted on the MnDOT CRU website. The MnDOT CRU reserves the right to update its requirements as needed. If the project and report requirements are updated, we will notify all Pre-Qualified Program consultants of the changes. Consultants are also responsible for compliance with the requirements of their OSA license, including adhering to the [SHPO Manual for Archaeological Projects in Minnesota](#) and the [State Archaeologist’s Manual for Archaeological Projects in Minnesota](#).

PRECONTACT ARCHAEOLOGY, HISTORICAL ARCHAEOLOGY, AND GEOMORPHOLOGY FIELDWORK REQUIREMENTS

The scope of work for these work types will vary to suit the APE and the types of resources anticipated. It will clearly reflect an understanding of the study goals and, when appropriate, past experience working with the same or related historical contexts and the anticipated site types. Prior to completing the scope of work and budget, the consultant will meet with the MnDOT CRU Project Manager to review the areas that need to be surveyed. Depending on the nature of the project, the scope of work may require intensive background research, standard archaeological field procedures (as outlined in the [SHPO Manual for Archaeological Projects in Minnesota](#) and the [State Archaeologist's Manual for Archaeological Projects in Minnesota](#)), the use of various testing techniques for deeply buried sites in alluvial or other environments, or a combination of methods. Specific areas to be surveyed will depend on a combination of factors including the location of known sites; the results of background research; the statewide archaeological predictive model (Mn/Model) for sites at or near the surface; the Landscape Suitability Models, where available, for deeply buried sites; and the direction of the MnDOT CRU Project Manager. If needed, geomorphology investigations will be conducted in conjunction with archaeological surveys. Some projects involving testing for, and all projects evaluating, deeply buried precontact and some historic-era sites may require the services of a qualified geomorphologist. MnDOT has developed the [Minnesota Deep Test Protocol Project](#) (Monaghan et al. 2006) to be followed in testing for deeply buried sites. All individuals on the Pre-Qualified list will be required to conform to the procedures set forth in the protocol.

The consultant is responsible for obtaining all necessary licenses and permits prior to conducting fieldwork. The MnDOT CRU Project Manager will determine the amount of work required of the consultant on a project-by-project basis. ***The Principal Investigator (the person who has been approved for the applicable Pre-Qualified Program work type) is expected to be in the field 80 to 100 percent of the time during the fieldwork phase.***

PHASE I IDENTIFICATION OF ARCHAEOLOGICAL RESOURCES

The background research for all archaeological projects will include inspection of state site files; previous archaeological work; topographic maps; soil atlases; aerial photographs; plat, Trygg or other historical maps or atlases indicating the potential presence of historical archaeological resources; and the use of Mn/Model. Any other relevant sources should be included in the pre-field background work. Unless subsequent fieldwork locates archaeological sites requiring detailed environmental or cultural context backgrounds, the pre-fieldwork investigation summaries will be limited to brief, basic descriptions in the report (***i.e., do not include a culture history and environmental setting discussion when no sites or no potentially eligible sites are found***).

For projects involving historical archaeological resources, an intensive literature search (or Phase Ia survey) may be required prior to, or in lieu of, a Phase I field survey. An intensive literature search will identify areas where potentially significant historical archaeological resources are likely to survive intact within the project APE. The search will provide a detailed land use history of the APE in addition to a contextual background for any further analysis. The intensive literature search will include, but not necessarily be limited to: state site files; survey reports; local histories; atlases; plat, insurance and real estate maps; census documents; city or local directories; historic photographs; early aerial photographs; assessors' records; permitting records; and newspapers and oral accounts.

Consultants should refer to the context study [Minnesota Farms, 1820-1960](#) (Granger and Kelly 2005; Terrell 2006) when investigating early homestead and farm sites.

The goal of a Phase I survey is to: (1) produce a thorough inventory of archaeological resources within the APE¹ (both precontact and historical and including districts, landscapes, or other property types identified in the scope of work); (2) define the horizontal and vertical limits of a site within the APE; and (3) gather sufficient data to allow the consultant to recommend whether a site is potentially eligible or not eligible for the National Register. The identification of archaeological sites will begin with a background records and literature search to determine the presence of any known sites within the project APE. The APE will be determined by the MnDOT CRU, but is generally considered to be any ground that will be impacted by the project within construction limits, temporary or permanent easements, and staging/storage areas. An entire APE does not need to be tested if portions have been disturbed² or are low potential areas. The consultant must discuss what areas within the APE require testing and what testing methods will be used with the MnDOT CRU Project Manager during the development of the scope of work. For projects that have the potential for deep impacts, such as bridge replacements, the consultant will develop appropriate testing methods in consultation with the MnDOT CRU Project Manager and with reference to MnDOT's [Minnesota Deep Test Protocol Project](#) (Monaghan et al. 2006). In planning archaeological fieldwork, the consultant must be cognizant of MnDOT's requirements for GIS deliverables and be prepared to collect the necessary data in the field to complete those deliverables.

The results of the Phase I survey should be discussed with the MnDOT CRU Project Manager; if further work is required on any site, the contract will be amended or a new contract will be executed and the results of the Phase I and II will be presented in a combined report. Occasionally, work may be split between two or more contracts depending on the scope or schedule of the project. In these cases, the number of reports will be negotiated. We sometimes request that the consultant provide us with a letter report summarizing the Phase I survey one week before a meeting to discuss which sites will require further work. If the contract is through the local agency, consultants must coordinate with the MnDOT CRU Project Manager to define the APE and determine if additional work is needed. Do not go into a Phase II without consultation with the MnDOT CRU Project Manager.

Phase I surveys must conform to the [Secretary of the Interior's Standards for the Identification of Historic Properties](#).

PHASE II EVALUATION OF ARCHAEOLOGICAL RESOURCES

The National Register eligibility of an archaeological site is determined through test unit excavations. A work plan, including a project scope and budget, will be submitted to the MnDOT CRU Project Manager prior to commencement of this work, unless otherwise indicated by the Project Manager. This work will follow up on the Phase I identification by: (1) refining the horizontal and vertical limits of the site within the APE; (2) identifying the nature of the site including the density and diversity of artifacts, the presence and potential for cultural features, and any post-occupational

¹ For projects where the full scope of the undertaking has not been determined, but where some preliminary knowledge of archaeological resources within the area is required, the MnDOT CRU Project Manager may decide to have the consultant perform a reconnaissance study. The specific scope of reconnaissance studies will be determined on a project-by-project basis.

² Disturbed ground is any ground in which naturally occurring, post-glacial soils and sediments have been recently removed.

impacts to the site resulting from erosion or deposition; (3) placing all site components into their historic contexts, with a focus on sites in the same region, if possible; (4) providing any chronometric dating when appropriate materials are recovered (all radiocarbon dates must be averaged and calibrated using the latest version of the [CALIB program](#) with the probabilities option); and (5) providing a concise and logical argument for the inclusion or exclusion of each site to the National Register. When Woodland sites are encountered, they will be evaluated using the [Woodland Tradition in Minnesota](#) (Arzigian 2008) multiple property documentation (MPD). Other sites will be evaluated according to other MPDs as they are developed.

In addition to the general scope outlined above, Phase II evaluation of historical archaeological sites should include, but is not limited to, the examination of: primary documentary sources such as census data (agricultural, population, or industrial); family papers; personal diaries; wills; probate inventories; and tax records. As noted above in the guidelines for Phase I investigations, consultants should refer to [Minnesota Farms, 1820-1960](#) (Granger and Kelly 2005; Terrell 2006) when evaluating early homestead and farm sites.

Phase II evaluations must reflect the [Secretary of the Interior's Standards for the Evaluation of Historic Properties](#), and follow the guidance provided in the National Register Bulletin [Guidelines for Evaluating and Registering Archaeological Properties](#) (Little et al. 2000) when evaluating a site's significance and integrity. Evaluations should clearly state the National Register criterion or criteria and the historic context(s) used to assess a site's eligibility. In addition, the seven National Register aspects of integrity should be assessed in evaluating sites, whether they are recommended eligible or not eligible. If one or more of the aspects of integrity is not applicable to a particular site, state this clearly.

Most archaeological sites in Minnesota will be recommended National Register eligible under criterion D. If using this criterion, the eligibility statement must include a discussion of *specific, important* research questions that can be directly answered by data recovery. The Phase II excavations and analysis must be sufficient to be used in developing significant research questions and in demonstrating how these questions can be answered. The consultant will develop a detailed data recovery or mitigation plan in consultation with the MnDOT CRU Project Manager for each site recommended eligible for the National Register that cannot be avoided by revised construction plans. The data recovery plan will be prepared as a separate document from the final report.

PHASE III MITIGATION OF ARCHAEOLOGICAL RESOURCES

The mitigation of unavoidable adverse effects to archaeological resources eligible for or listed in the National Register will generally include data recovery investigation. All data recovery will be conducted in accordance with a plan approved by the MnDOT CRU Project Manager, and concurred with by the SHPO/THPO, and the OSA. MnDOT CRU will submit the draft plan to the other agencies for their review and comments. The data recovery plan will be developed as part of the Phase II work (see above). Data recovery investigation entails the systematic recovery and in-depth analyses of archaeological data through excavations and/or surface collection to provide important historical information. These projects often require the collaboration of a multi-disciplinary team, such as specialists in faunal and floral analysis, geoarchaeology, geomorphology, and lithic and ceramic analyses. Data recovery may also include review of related collections excavated by professional archaeologists or collected by amateurs; review of relevant published and unpublished studies; informant interviews; and the recording of oral traditions. Field and laboratory methods must be

consistent with the significant research questions presented in the approved data recovery plan. The goal of the data recovery investigation will be to recover and analyze important data within a research framework detailed in the data recovery plan. Documentation of the investigation must be performed in a format and condition that will enable future researchers to understand and use the data in meaningful analyses.

Phase III data recovery mitigation must reflect the [Secretary of the Interior's Standards for Archeological Documentation](#).

ARCHITECTURE/HISTORY FIELDWORK REQUIREMENTS

The scope of work will vary to suit the APE and the types of resources anticipated. It will clearly reflect an understanding of the study goals and, when appropriate, past experience working with the same or related contexts, the type of resources anticipated, and familiarity with local research repositories. Prior to the commencement of fieldwork, the consultant will meet with the MnDOT CRU Project Manager to review the areas that need to be surveyed. The MnDOT CRU Project Manager will conduct all consultation with the SHPO/THPO. The amount of work required of the consultant will be determined on a project-by-project basis. The Principal Investigator (the person listed on the Pre-Qualified Program list) is expected to be in the field 80 to 100 percent of the time during the fieldwork phase.

PHASE I IDENTIFICATION OF ARCHITECTURE/HISTORY RESOURCES

All Phase I surveys must be preceded by a review of SHPO data files to locate previously identified properties in the area. Phase I surveys must begin with a definition of the APE by MnDOT's CRU. The APE of architecture/history studies must be broad enough to anticipate the physical, visual, audible, and atmospheric effects to individual properties or landscapes by the project. Although a general APE may be established prior to fieldwork, consultants can refine the APE in the field based on their professional experience. Refinement of the APE must be done in consultation with the MnDOT CRU Project Manager. A description of the APE and how it was determined must be included in the report of investigations.

A Phase I survey must integrate historic context and resource identification sufficiently to result in a regional and local characterization of properties. The purpose of context development at the Phase I level is to assist the surveyor in anticipating and understanding architecture/history resources as they are identified in the field. However, it is also understood that the field survey will inform the context. Context development must draw on existing context studies as well as other primary and secondary resources, including the SHPO data files (both inventory and property type files), the collections of the Minnesota Historical Society Library and Archives, the Midwest Architectural Archives, the University of Minnesota Library System, county courthouse records, local historical society collections, and local informants.

For intensive Phase I surveys, 100 percent of the buildings, structures, objects, sites (e.g., designed landscapes or cemeteries significant for historic association, trails, etc.), landscapes, districts, and other property types identified in the scope of work within the APE will be examined.² **All** properties 50 years or older³ will be recorded on Minnesota Architecture/History Inventory Forms and receive a SHPO inventory number, regardless of integrity. Also, properties that are less than 50 years in age but have exceptional historical significance will be recorded on the Minnesota Architecture/History Inventory Forms. Properties less than 50 years old that are not of exceptional significance do not need to be recorded, photographed, or mapped except as they are part of the APE boundaries. The APE boundaries and all surveyed properties must be recorded in the GIS deliverables for the project. The consultant should be cognizant of the required format and content

² For projects where the full scope of the undertaking has not been determined, but where some preliminary knowledge of architectural/historical resources within the area is desirable, the MnDOT CRU Project Manager may have the consultant perform a reconnaissance study. The specific scope of preliminary studies will be determined on a project-by-project basis.

³ In some cases, the 45-year mark or younger may be used as opposed to the 50-year mark.

of these deliverables and plan field work so that the required elements are collected and recorded in a format that facilitates their creation.

The Phase I survey must result in information sufficient to make decisions about which properties have National Register potential (and must be further evaluated in a Phase II study) and which properties are not eligible. The results of the Phase I will be discussed with the MnDOT CRU Project Manager and, if it is determined that Phase II properties exist, the results of the Phase I and II will be presented in a combined report. We usually request that the consultant provide us with the historic context and photographs of the properties from the Phase I survey one week before a meeting to discuss which properties will require further work. Phase I surveys must reflect the [Secretary of the Interior's Standards for the Identification of Historic Properties](#). Consultants should refer to [Minnesota Farms, 1820-1960](#) (Granger and Kelly 2005; Terrell 2006) when investigating early homestead and farm properties, and to [Railroads in Minnesota, 1862-1956](#) (Schmidt et al. 2007) when investigating railroad properties.

PHASE II EVALUATION OF ARCHITECTURE/HISTORY RESOURCES

A Phase II evaluation will include more in-depth, property-specific research, and will result in a recommendation for National Register eligibility. A scope of work will be developed for all Phase II work and submitted to MnDOT CRU for review. Information developed for Phase II properties must be sufficient to understand the significance of a property, including its area(s) and period(s) of significance, its defining historical characteristics, and its overall integrity. Phase II evaluations *must* apply each of the seven aspects of integrity (location, design, setting, materials, workmanship, feeling and association) in recommending a property eligible or not eligible for the National Register. If the property is of a general type, comparative information may be needed to understand the type and its relative frequency and integrity on the local landscape. This may require additional observation and limited documentation in areas outside the project APE to place the property in perspective.

Phase II surveys must reflect the [Secretary of the Interior's Standards for the Evaluation of Historic Properties](#). As noted above, consultants should refer to [Minnesota Farms, 1820-1960](#) (Granger and Kelly 2005; Terrell 2006) when evaluating early homestead and farm properties, and to [Railroads in Minnesota, 1862-1956](#) (Schmidt et al. 2007) when investigating railroad properties.

PHASE III MITIGATION OF ARCHITECTURE/HISTORY RESOURCES

Phase III mitigation projects will be conducted under the Secretary of the Interior's Standards for key personnel, research design, research, and report writing. Specific details for these types of projects will be developed on a project-specific basis.

Phase III property documentations must reflect the [Secretary of the Interior's Standards for Historical Documentation](#) or [Architectural and Engineering Documentation](#).

PROJECT DELIVERABLES (ALL WORK TYPES)

PROJECT SCOPE AND BUDGET

Specific deliverables, project time schedules, and budget (hours and cost listed by task and personnel) will be defined in each contract. The minimum requirements are outlined in this document. MnDOT may specify additional deliverables in the contract.

PROGRESS REPORTS AND INVOICES

Monthly progress reports and invoices will be submitted as directed in the terms of the contract. Procedures for submitting these documents are outlined on the document forms attached to contracts as an exhibit.

Informal reports of findings on certain work elements may be required and usually will be made by telephone or e-mail to the MnDOT CRU Project Manager. The results of such reports may be modifications in the scope, including termination of work, at the option of the MnDOT CRU Project Manager.

QUALITY ASSURANCE/QUALITY CONTROL PLAN

Some projects will require the submittal of a project-specific Quality Assurance/Quality Control Plan at project initiation. The plan should address specific steps that will be taken by the consultant to ensure that all work and reporting fully meet the Secretary of the Interior's Standards as well as the specific guidelines and standards specified by the MnDOT CRU. If required by the project, the MnDOT CRU Project Manager must approve the plan prior to the start of work.

REPORTS

Each project will result in a technical report of all investigations undertaken. Often this will be a combined report of the Phase I and II work. Reports will meet the requirements listed in these guidelines as well as the current professional standards and be suitable for publication. All reports will be submitted with a cover letter to the MnDOT CRU Project Manager. Reports will set out investigative research designs, along with methodologies utilized in data collection and analysis, and will present and justify all conclusions, recommendations, and interpretations in a scholarly and professional manner utilizing the style guidance in the October 1992 issue of American Antiquity (57:749-770). All projects will require draft and final technical reports of findings unless otherwise directed by the MnDOT CRU Project Manager. Occasionally, a letter report will be needed, prior to the draft report to expedite projects requiring SHPO review.

CONTENT AND FORMAT OF REPORTS

In addition to the elements required by the [Secretary of the Interior's Standards and Guidelines](#), reports for FHWA-funded projects will include all of the elements listed below as well as those in the MnDOT CRU Report Outline tables (Table 1 for archaeology report outline and Table 2 for architecture/history report outline).

General Report Information

- If a report includes both archaeology and architecture/history, and your firm completed the work for both disciplines, only one report should be prepared. If more than one firm is involved in the same project, the management section should reference the related report(s). Reports by a second firm may be included as a separate chapter in a single report

prepared by a lead firm (e.g. geomorphology in support of archaeology) but the report chapter must have the author identified. Be consistent in the order in which the disciplines are discussed (e.g., if the summary of results for archaeology is presented first in the Management Summary, then archaeology should be discussed first in all subsequent sections).

- An archaeological/historical resources report needs to function as an effective management document for a project. It should be concise, in logical order, and provide the reviewer with a complete picture of the historic properties within the APE. Present a summary of the results of the project in the Management Summary, the beginning of the Results section, and the Summary and Recommendations, clearly stating the number of identified properties within the APE and how many are eligible and/or recommended as eligible for, or are previously listed in the National Register. This count must include previously recorded properties, even if no additional documentation of that property was required for the project.
- Consultants need to examine the entire APE for *all* property types within the work type for which they are hired, including transportation corridors such as railroads (including abandoned ones), roadways, trails, etc.; possible districts; landscapes; traditional cultural properties (TCPs); etc. If there appears to be a district or landscape within a project APE that was not anticipated or budgeted for, contact the MnDOT CRU Project Manager to discuss the best approach for identifying and evaluating the district or landscape. Any Native American TCPs in the APE will require consultation with the tribes and MnDOT CRU will contact the related tribe(s). If one consultant is performing the archaeological survey work on a project and another is doing the architecture/history work, MnDOT will determine, prior to the start of the project, the property types each consultant is responsible for.
- Coordination between different consultants may be necessary to minimize duplication of effort (e.g., if the project architectural historian is conducting the background research on farmsteads in the APE, the project archaeologist may need to obtain the same background research information.)
- Both the cover and title pages of each report must bear a conspicuous inscription identifying MnDOT and FHWA as the authority and funding source for the work. The contract number will likewise appear on each report. All reports and correspondence will minimally list the MnDOT Contract Number, state project number(s) (S.P.), SHPO file number (if available), the report author(s) and firm name, and OSA archaeological license number (if applicable) at the top or front of all documents. The state project number(s) (S.P.) should be incorporated into the report title.
- The Principal Investigator (the individual on the Pre-Qualified List) will be the primary author of the report. In particular, that person is responsible for writing the evaluation and recommendations of eligibility for the surveyed properties or sites.

Introduction

- A concise description of the proposed construction project must be included in the *Introduction* section of the report (e.g., road widening, turn or bypass lanes resulting in additional construction outside of the existing right-of-way). The description will be detailed enough to give the reader a sense that the author fully understands the scope of the project, such as width of construction limits.
- A figure illustrating the project and the related APE must be included on a USGS 1:250,000, 1:100,000 or 1:24,000 scale topographic map for the report introduction. The map source may be digital (USGS DRGs). Additional maps may be used as appropriate. Maps from the

Minnesota Gazetteer are not acceptable. It is strongly recommended that consultants use GIS data to generate report maps to ensure accuracy and consistency.

Background Research

- It is necessary to conduct the background/archival research prior to the commencement of fieldwork. Supplemental research is often conducted after the field visit, and the results of the fieldwork should feed back into the context, but a sufficient level of research needs to be conducted prior to fieldwork in order to understand the properties that are encountered in the field within their appropriate historic context (i.e., prior to fieldwork you should have a list of expected property types and include them in your context discussion within the report).
- When presenting information on previously recorded properties within a specified distance of the APE, do not include a table of all properties if the list is long (as it often is in urban areas). Instead, present a textual summary of the findings.

Results - Archaeology

- The APE must be included on a report map that indicates surveyed and non-surveyed areas and the survey method(s) used. When archaeological sites are located, more detail must appear on project maps, sketch maps, and/or aerial photographs (e.g., positive shovel test locations or site boundaries/plotted artifacts on the surface). These areas must be tied into project roadway or trail centerline stationing, if such maps are available, and must be defined by UTM coordinates. When reporting UTM coordinates, use only the Minnesota State standard datum (NAD83). UTM coordinates for places in zones 14 and 16 must be reported in zone 15E coordinates (zone 15 extended to include zones 14 and 16 in Minnesota). Coordinates must be derived from GPS or GIS data projected to zone 15E, as are all Minnesota State data.
- Beginning and ending points of all surveyed places must have UTM coordinates and be tied into roadway centerline stationing (if applicable and available). The methods used in calculating UTM coordinates (e.g., GPS data collection, GIS software) should be explicitly stated in the report.
- Reasons for not surveying any areas within the APE must be discussed (e.g. withholding of landowner permission, low site potential, previous disturbance, steep slopes, etc.) as well as coded in the GIS data. Areas that remain to be surveyed or areas that still require assessment, but could not be investigated due to landowner denial, must also be discussed and re-assessed for site potential based on the results of survey within accessible areas of the APE. They must also appear on any appropriate report maps, which can be created from the GIS data.
- All survey information, including the APE, areas surveyed and areas not surveyed, method of archaeological survey, and the location of sites must be submitted separately in **GIS format**. Site boundaries must be provided when archaeological sites are located. GIS data must be provided as polygons in ArcGIS® shape file format. APEs, sites and survey locations must be in separate GIS layers. GIS data will be in UTM coordinates, zone 15E, NAD 83, GRS 80, with meters as horizontal units. Detailed instructions for meeting these GIS requirements are found at <http://www.dot.state.mn.us/culturalresources/gisreqs.html>. Any future updates to the requirements will be posted at this web address.
- Official state site numbers (not temporary field numbers) will be used in all draft and final reports and in the GIS data.

Results – Architecture/History

- When summarizing results, present them in terms of how many properties are within the APE and how many are eligible for or listed in the National Register. Include a table listing all Phase II properties and previously determined eligible and listed properties by SHPO inventory number, property name, address, recommendation/status for eligibility, and assessment of effects.
- Arrange the property discussions within the Results section by the state inventory site number.
- If a property within the APE has been previously listed on or determined eligible for the National Register, include a discussion of the property within the results text and include a photograph of the property. It is important that the report present a discussion of *all* properties within the APE so that the reviewer understands all of the properties that might be affected by the undertaking. If there have been changes to a property or it has been 10 years since it was last reported on an inventory form, complete an updated form (see *Forms* below for more information).
- Properties with a Considered Eligible Finding (CEF) are properties that the SHPO has looked at as part of a Section 106 review and they feel meet the criteria for eligibility. Often, a CEF designation is done without extensive background research or without specifically defining the criteria of significance, or the area(s) or period(s) of significance. Since an agency needs to apply the National Register criteria in determining the eligibility of a property, and since CEF properties have often not been formally evaluated, it is the consultant's responsibility to conduct additional research, if necessary, and to make a recommendation of eligibility using the Secretary's Standards.
- The MnDOT CRU has completed two statewide studies to provide contractors guidance in evaluating railroads and farmsteads. One is a Multiple Property Documentation (MPD) for *Railroads in Minnesota, 1862-1956* (Schmidt et al. 2007) and the other is *Minnesota Farms, 1820-1960* (Granger and Kelly 2005, Terrell 2006). These are available online at: <http://www.dot.state.mn.us/culturalresources/railroads.html> and <http://www.dot.state.mn.us/culturalresources/farmsteads.html> respectively.
- While MnDOT CRU sets the APE, we do rely on the consultant to refine the APE if necessary based on the nature of the project and their professional field observations. A farmstead may be dropped from an APE if, for example, it is set back quite a distance from the road, if changes to the existing roadway are modest and the farm buildings are blocked by extensive vegetation that won't be removed during the construction, if the road is only expanding slightly and will not significantly impact the amount of cultivatable land, if there will be no change in access to portions of the farm, etc. There may also be other situations in which a farmstead can be dropped from an APE. If, based on your field observations, you feel that a farmstead should be dropped from the APE, please contact the MnDOT CRU Project Manager immediately to confirm.
 - If either the farmhouse (the center of domestic activities) and/or the barn (the center of agricultural activities) have been demolished/replaced/altered to the point where the historic period is not apparent, then the farmstead cannot be eligible. However, individual buildings on the farmstead may be eligible under criterion C and still need to be addressed if they fall within the APE (see *Context Study for Minnesota Farmsteads* for further guidance).
 - The historical acreage is an important component of the farmstead, along with the buildings on the farm proper. Please examine historical plat maps to determine the

historical acreage associated with the farmstead, and assess whether the historical acreage retains integrity.

- If a farmstead requires evaluation, a variety of sources should be utilized, when possible. These sources include, but are not limited to, tax assessor records, deeds, agricultural census records (only 1870, 1880, and 1890 records are available), the 1917-1918 crop census data gathered by the Public Safety Commission (on file at MHS), aerial views, oral interviews, family records, etc.
- Properties less than 50 years in age and not of exceptional significance do not need to be documented (through photos, maps, field notes, etc.).

Results: Evaluation of Properties and Recommendations of Eligibility (Archaeology and Architecture/History)

- **All properties** (archaeological and architectural/historical) should be evaluated according to NPS Bulletin 15 [How to Apply the National Register Criteria for Evaluation](#). For archaeological sites, follow the NPS's [Guidelines for Evaluating and Registering Archeological Properties](#). Each property should be evaluated in the following manner: categorize the property (building, structure, object, site, district); determine which historic context(s) the property represents; apply the National Register criteria in order to determine whether the property is significant within the context (including the area[s] and period[s] of significance and the significant historic characteristics [i.e., character-defining features] that the property must retain in order to convey its historical association); determine if the property represents a type typically excluded from the National Register and if so, determine if it meets any of the National Register criteria considerations; and finally determine whether the property retains integrity so as to convey its historic significance. Discuss each aspect of integrity individually – do not just state that a property does or does not have integrity. Present an evaluation for each aspect of integrity (location, setting, design, material, workmanship, feeling and association).
- For each property discussion in the Results section, information needs to be presented in the following order: description (including discussion of alterations or damage), property history, significance, assessment of integrity, and recommendation.
- When presenting recommendations on eligibility, specify the related historic context, the applicable National Register criteria (including any criteria considerations), the preliminary or recommended area(s) and period(s) of significance, the preliminary or recommended primary historical characteristics that must retain sufficient integrity to convey the property's significance, and the preliminary or recommended boundaries (and justification of the boundaries) for the property.⁴
- Statements on significance need to specifically address *why* a property is significant. It is typically not enough to simply say that it represents a certain property type or has research potential. Many properties represent a certain context or a certain property type, but this does not mean that they are significant on a National Register level within that context. Also, avoid saying that a property is the last, or one of the last of its kind, and is therefore eligible. Being the last of a kind does not automatically equate with National Register-level significance. When making a recommendation of eligibility, imagine completing a National Register nomination form for the property or, for archaeological sites, developing specific, *answerable* research questions.

⁴ Tentative for properties recommended as potentially eligible, and recommended for properties recommended eligible.

- When recommending that a property is not significant, discuss by criterion (i.e., research does not indicate that the property is associated with events that have made a significant contribution to the board patterns of our history; is not associated with persons significant in our past, etc.). Avoid recommending a property as not significant without providing an explanation as to why and what information substantiates your findings (e.g., based on oral histories, based on the fact that it is a ubiquitous property type and there are better known examples, etc).
- When making recommendations regarding eligibility (either eligible or not eligible), do not make general statements such as “the property lacks historic integrity because it has been altered” or “the site is largely undisturbed.” Give specific details in discussing all aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. If a quality of integrity is not applicable to a particular property, make a clear statement to this effect.

General Figure Information

- All properties (noted with SHPO inventory number or state site number) should be presented together on one map in the Results chapter (using either a USGS topo map or an aerial photograph as background), or several maps if covering a large area (i.e., don’t split up the figures to show not eligible resources on one and eligible resources on another). Distinguish the eligible properties through a symbol so that a reviewer can easily look at a map and see the location of eligible properties.
- When creating maps for reports, avoid using color-only maps. Instead, use black-and-white or color with various shading or hatching, so that the map information can be interpreted on a black-and-white photocopy.
- Map figures in reports should cite the base map source (e.g., USGS 7.5-minute St. Paul West, Minn., quadrangle).
- Digital images are acceptable for recording most properties. Please check with the MnDOT CRU Project Manager for each project to see if other types of photography are necessary.

Public Summary of Archaeological or Architectural/Historical Resources Work

- Depending on the type of project, the MnDOT CRU Project Manager may decide that a brief, non-technical summary of the investigation results and their significance to regional history/prehistory will be required when the final report is submitted. This summary will be oriented toward the non-professional public. The purpose of this summary is to inform the interested public of the types of activities and research conducted using public funds. The non-technical summary will give a synopsis of the project and will be of a style and length adaptable to a newspaper article or short informational bulletin. Photographs and/or drawings of significant aspects of the investigation will be included.

MnDOT CRU Report Outline

- The following tables provide a report outline that incorporates the SHPO guidelines (Anfinson 2001; State Historic Preservation Office 1993), and includes specific information required for all MnDOT projects. These lists are meant to provide an easy-to-use reminder of the more detailed discussion presented in this document.

Table 1. MnDOT CRU Archaeology Report Requirements

Cover – see the example report cover following Table 2
<input type="checkbox"/> No images on title page. The title should include the S.P. number.
<input type="checkbox"/> The S.P. number, the OSA license number, the MnDOT Contract Number, and the SHPO review number, if available, must appear as indicated on the sample title page.
Management Summary - Should not exceed one page in length and must include the following items
<input type="checkbox"/> Concise project description
<input type="checkbox"/> Level of work (Phase I, Phase II, etc.)
<input type="checkbox"/> Name of Principal Investigator and survey dates
<input type="checkbox"/> Location (legal description)
<input type="checkbox"/> SHPO region and sub-region
<input type="checkbox"/> The acreage of the APE
<input type="checkbox"/> Brief description of methods (i.e., pedestrian, shovel testing, excavation units, deep testing, etc.) and use of special analytical techniques
<input type="checkbox"/> Concise description of the results (number and types of sites, number of eligible sites)
<input type="checkbox"/> Site eligibility recommendations and, for eligible sites, a concise statement of why each site is eligible
Table of Contents, List of Figures, and List of Tables
Introduction
<input type="checkbox"/> Summary of why project is being conducted
<input type="checkbox"/> Detailed description of construction project undertaking (what existing conditions are and what proposed conditions will be)
<input type="checkbox"/> Brief description of the APE – reference APE discussion in Methods Section
<input type="checkbox"/> Inclusion of a project location map (on a 7.5’ USGS topographic map background showing APE) within the report body and a state map showing the location of the project within the state. This can be an inset to the project location map, or it can be separate.
<input type="checkbox"/> Legal location and UTM coordinates of the APE
Methods/Research Design
<input type="checkbox"/> Objectives and Methods
<input type="checkbox"/> Research questions that are important and answerable (for Phase III)
<input type="checkbox"/> Discussion of methods that are appropriate to answer the research questions (for Phase III)
<input type="checkbox"/> Field and laboratory methods, including description and rationale for the APE
Literature Search
<input type="checkbox"/> List of examined sources, institutions visited, or individuals consulted and the date of visit
<input type="checkbox"/> SHPO archaeological region and sub-region where project is located
<input type="checkbox"/> List of recorded sites and previous archaeological work in the project vicinity
<input type="checkbox"/> If no sites or no eligible precontact sites are within the APE, do not include an environmental and culture history of the project area
<input type="checkbox"/> If eligible precontact sites are present, or if the project is a mitigation project, provide an area-specific culture history (not a generic statewide culture history) (put context in a separate

chapter, if appropriate)
<input type="checkbox"/> Include a historic context and discussion of expected property types if it is a Phase I for historical archaeology; or a site-specific context if it is a Phase II or III for historical archaeology (put context in a separate chapter or in the <i>Results</i> section, if appropriate)
Results
<input type="checkbox"/> Key project personnel and dates of fieldwork
<input type="checkbox"/> Field conditions
<input type="checkbox"/> Describe areas surveyed, why they were surveyed, and justification for the methods and techniques used
<input type="checkbox"/> Include Results figures within the report body. If there will be a lot of Results figures, discuss with the MnDOT CRU Project Manager if the figures should be included in an appendix.
<input type="checkbox"/> Discuss the sites located and the materials observed/collected.
<input type="checkbox"/> Refer to sites by their OSA-issued state site numbers, not by temporary field numbers/designations or site names. If a site does have a name, include it in parenthesis after the site number.
Summary and Recommendations
<input type="checkbox"/> Concisely summarize the undertaking
<input type="checkbox"/> Concisely summarize the results, focusing on the number of sites found and the number that are eligible
<input type="checkbox"/> Provide a recommendation of whether the site is potentially eligible (Phase I) or eligible (Phase II). Must provide a justification as to why a site is eligible and specifically what important information the site can provide.
<input type="checkbox"/> For each site that is recommended as eligible, provide a preliminary data recovery plan
References Cited/Bibliography
<input type="checkbox"/> Must follow the <i>American Antiquity</i> (57:749-770, October 1992) style guide
Appendices – the following items need to be included in an appendix:
<input type="checkbox"/> A copy of the OSA license or other required licenses/permits
<input type="checkbox"/> Artifact catalogs, when applicable
<input type="checkbox"/> Results of special dating reports (e.g., radiocarbon reporting sheets), when applicable
<i>In general, the following items should NOT BE INCLUDED in reports</i>
<input type="checkbox"/> Site forms. Site forms should be submitted as PDF files with the final report. The title for each file should be the state site number. The consultant is responsible for submitting final site form data to OSA. The document title should be the site number so that it can be linked to the GIS data.
<input type="checkbox"/> Shovel test forms (information on depth of artifacts and provenience should be included in the artifact table)
<input type="checkbox"/> Project correspondence (discuss with CRU Project Manager if you feel it is necessary to include correspondence)

Table 2. MnDOT CRU Architecture/History Report Requirements

Cover – see the example report cover following this table
<input type="checkbox"/> No images on title page. The report title should include the S.P. number.
<input type="checkbox"/> The S.P. number, the MnDOT Contract Number must appear as indicated on the sample title page, and the SHPO review number, if available
Management Summary - Should not exceed one page in length and must include the following items
<input type="checkbox"/> Concise project description
<input type="checkbox"/> Level of work (Phase I, Phase II, etc.)
<input type="checkbox"/> Name of Principal Investigator and survey dates
<input type="checkbox"/> Location (legal description)
<input type="checkbox"/> Concise project description
<input type="checkbox"/> Brief description of the APE
<input type="checkbox"/> Concise description of the results (number of properties, and number of eligible or recommended eligible properties)
<input type="checkbox"/> Eligibility recommendations, and, for eligible properties, a concise statement on why each property is eligible
Table of Contents, List of Figures, and List of Tables
Introduction
<input type="checkbox"/> Summary of why project is being conducted
<input type="checkbox"/> Detailed description of construction project undertaking (what existing conditions are and what proposed conditions will be)
<input type="checkbox"/> Brief description of the APE – reference APE discussion in Methods Section
<input type="checkbox"/> Inclusion of a project location map (on a 7.5’ USGS topographic map background showing APE) within the report body (i.e., not in report appendix)
<input type="checkbox"/> Legal location and UTM coordinates of the APE
Methods/Research Design
<input type="checkbox"/> Objectives and Methods
<input type="checkbox"/> Field methods, including description and rationale for the APE
Literature Search
<input type="checkbox"/> List of examined sources, institutions visited, or individuals consulted, and the date of visit
<input type="checkbox"/> List of previously recorded properties within the APE and information on previously completed evaluations of eligibility, and previous architecture/history work in the project vicinity. Discussion of previously recorded properties within the project vicinity to help identify expected property types.
<input type="checkbox"/> A written historical context for the project area, including a list of expected property types associated with each context (if there is a long historic context section, it can be presented in a separate chapter).
Results
<input type="checkbox"/> Key project personnel and dates of fieldwork

- Summarize the number of properties within the APE and note the number that are listed, previously determined eligible, or recommended as eligible.
- Present a discussion on each property over 50 years in age or less than 50 years in age but of exceptional significance. Information to be included for each property in the following order: description (including alterations), history, significance (including areas and periods of significance), integrity (only if recommended potential eligible or eligible), and recommendation. Within the text for each property, include enough photographs to sufficiently illustrate the property. Do not include pictures in an appendix.
- Include result map within the report body. If there will be numerous maps, discuss with the MnDOT CRU Project Manager whether figures should be included in an appendix.

Summary and Recommendations

- Concisely summarize the undertaking
- Concisely summarize the results, including the number of properties within the APE and the number that are eligible. Include a table of all Phase II properties and previously determined eligible or listed properties in the APE by SHPO inventory number, property name, address, and recommendation/status for eligibility
- Provide a recommendation of eligibility. Must provide a justification as to why a property is eligible, what criteria are applicable, and the area(s) and period(s) of significance
- If part of the scope of work, include discussion on adverse effects assessment

References Cited/Bibliography

- Must follow the American Antiquity (57:749-770, October 1992) style guide

In general, the following items should NOT BE INCLUDED in reports

- Architecture/History Forms. Submit one hard copy example of a form with the draft report. Submit one set of unbound, original forms and a PDF file of each form along with the final report. Our office will forward these forms to the SHPO for inclusion in their files.
- Project Correspondence (discuss with CRU Project Manager if you feel it is necessary to include correspondence)
- Resumes or vita

EXAMPLE REPORT COVER

**PHASE I ARCHITECTURE/HISTORY INVESTIGATION AND PHASE I ARCHAEOLOGICAL INVESTIGATION FOR
THE PROPOSED TRUNK HIGHWAY 14 REALIGNMENT (S.P. XXXX-XX)
NICOLLET COUNTY, MINNESOTA**

**MnDOT Contract No. XXXXX
OSA License No. XX-XXX (if applicable)
Other permit/license number (if applicable)
SHPO Number (if available)**

**Authorized and Sponsored by:
Minnesota Department of Transportation
and the Federal Highway Administration**

**Prepared by:
Name, Principal Investigator
Company Name
Company Address
Company report number (if applicable)**

Date (month and year)

DRAFT REPORT

Within 60 days following the completion of the fieldwork, unless otherwise stated in the contract, the consultant will submit one copy of a draft report to the MnDOT CRU Project Manager. The CRU Project Manager will specify the report submittal guidelines (electronic or hard copy; electronic copies will be in Word so changes can be tracked). In the case when a Phase I contract is amended to include Phase II evaluations, the CRU Project Manager may direct that the historic context and photographs from the Phase I survey be submitted within 60 days.

If a hard copy is requested, draft reports may be photocopied and unbound; however, all photographs, graphics, and text must be clear and legible. The text will be single-spaced with all pages of the text numbered. Margins will be at least one inch on the top, bottom, and sides, unless standard forms are used that have lesser or greater margins. No text smaller than 10-point font size may be used, except for information contained in tables where no smaller than 8-point font size may be used. The draft report will be formatted for an 8½-x-11-inch page size, except that foldout tables or figures may be on 11-x-17-inch page size.

Draft report figures and tables will appear in the same size, format, and general location as in the final report. It is preferable that the figures and tables will be integrated in the text. If you have a project in which you feel it is necessary to place figures and tables in an appendix, please contact the MnDOT CRU Project Manager for approval. A copy of the daily journal, field notes, and laboratory notes may also be submitted to the MnDOT CRU Project Manager with the draft report, if requested. No draft report will be approved without the official state site numbers being used therein.

Draft reports will be finished products that adequately represent the content and format of the final report. Draft versions of photographs, maps, and drawings will not be substantially different in quality from those prepared for the final report. In some cases, when deadlines dictate, draft reports may be treated as final reports. The consultant will be notified of this so that the draft report contains all the information (including final graphics) needed for submittal to the SHPO and other agencies. MnDOT anticipates a 30-day review period for draft reports; however, this anticipated period is only provided for general scheduling, and MnDOT reserves the right to any extension of the review period as may be necessary to obtain and compile responses from internal or outside reviewers.

GIS SUBMITTAL

A MnDOT scope of work will specify that the APE, all areas surveyed and areas not surveyed, and the location of properties be submitted to MnDOT in GIS format. Deliverables in GIS format are required to populate the statewide archaeological and architectural/historical resources databases being created by MnDOT for OSA and SHPO. Locations mapped in GIS will be more accurate than those derived from UTM's read from USGS 7.5-minute quadrangles. Accurate maps of surveyed areas will prevent redundant surveys in the future, allowing us to use limited resources to survey places that have not yet been examined. More accurate locations of archaeological sites and surveys will also help improve the accuracy of Mn/Model, our tool for identifying site potential and determining which areas will require surveys.

GIS data will be submitted to the MnDOT Project Manager along with the draft report. The GIS standards can be found at <http://www.dot.state.mn.us/culturalresources/gisreqs.html>. If these guidelines are not followed in detail, MnDOT will not be able to incorporate the consultant's data into the statewide master databases. In such cases, the data will be returned to the consultant for rework. The GIS deliverables may be submitted via e-mail to the CRU Project Manager or via the CRU FTP site (<ftp://ftp2.dot.state.mn.us/pub/incoming/Environmental/CulturalResources>).

If you have technical questions about the required GIS submittals, please contact:

Michael Bergervoet
Minnesota Department of Transportation
395 John Ireland Blvd., MS 620
St. Paul, MN 55155
Phone: 651/366- 3616
E-mail: michael.bergervoet@state.mn.us

DRAFT REPORT SUBMITTAL (INCLUDING FTP SITE)

The consultant will submit one electronic file of the draft report and GIS deliverables (unless otherwise arranged with the CRU Project Manager). If applicable, one sample archaeological site and/or architecture/history form will be submitted along with the draft report. The draft report, GIS deliverables, and sample forms may be submitted via e-mail to the CRU Project Manager or via the CRU FTP site (<ftp://ftp2.dot.state.mn.us/pub/incoming/Environmental/CulturalResources>). To submit via the FTP site: (1) create a folder on your local computer for the submittals and name the folder with the project's SP number (e.g. SP 3505-23); (2) place all deliverables inside this folder, and copy the folder to the FTP site; and (3) notify the CRU Project Manager, by e-mail, that the deliverables are available on the FTP site.

DRAFT REPORT REJECTION

Upon the rejection of any draft report, the consultant will prepare and submit a corrected draft report (electronic version, except as otherwise arranged with the CRU Project Manager). Preparation of corrected draft reports will be at no additional expense to MnDOT. The corrected draft will address the comments provided by the MnDOT CRU Project Manager.

Likewise, any formatting or content errors in the GIS deliverables will be reported to the consultant, who will be expected to provide corrected data at no additional expense to MnDOT.

FINAL REPORT

Within 30 days of receipt of comments and/or acceptance of the draft report from the MnDOT CRU Project Manager (unless otherwise stated in the scope of work), the consultant will furnish a final report to the MnDOT CRU Project Manager incorporating the draft report comments received. The consultant will submit one (1) unbound hard copy original, one (1) electronic file in Microsoft WORD or a compatible format, and one (1) electronic file in Adobe Acrobat (.PDF). The number of hard copies will vary by project, but will generally be no more than ten (10) copies. Reports will conform to the [Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation](#) and other guidelines, standards, and procedures cited in this document. The report will contain pertinent maps and photographs and will acknowledge any and all agencies funding the study.

At the time the final report is submitted, the consultant may also be asked to transmit an appropriate selection of photographs and their negatives (or digital images) of views of the field operations, of any significant findings in situ, and of significant artifacts recovered to the MnDOT CRU Project Manager. All digital photos submitted to MnDOT should be in *.jpg, *.gif, *.tif, or *.bmp file format.

Final reports will be single-spaced, with all pages of the text numbered, and printed on both sides. Margins will be at least one inch on the top, bottom, and sides, unless standard forms are used that have lesser or

greater margins. No text smaller than 10-point font size may be used, except for information contained in tables where no smaller than 8-point font size may be used. All photographs, graphics, and text must be clear and legible. The entire report will be suitable for photocopying and will be on 8½-x-11-inch paper, except that foldout tables or figures may be on 11-x-17-inch paper. The final report will not include copies of archaeological or architecture/history forms, either within the main text or in appendices. One unbound set of these forms will be submitted along with the final report (see below).

INVENTORY AND SITE FORMS

- Full Minnesota Architecture/History Inventory Forms are to be completed for the following types of properties. Each such property will receive a SHPO inventory number.
 - All architecture/history properties over 50 years⁵ of age, regardless of significance or integrity.
 - All architecture/history properties less than 50 years of age of exceptional significance (criterion consideration G).
- If an architecture/history inventory form has been recently completed (within the past 10 years) on a property within the project APE and the consultant has verified there is no change in the property’s integrity, it is not necessary to complete a new form (however, the property still needs to be discussed within the Results section of the report). If the previously completed form is older than 10 years or if the integrity of the property has changed, a new form must be completed.
- The consultant will complete state archaeological site forms for all sites discovered or revisited during the course of work. The consultant will submit these forms to the OSA to obtain official state site numbers. Official state site numbers (not temporary field numbers) will be used in all draft and final reports.
- **Do not** include copies of the archaeological site forms or architecture/history forms within the body of a report or within a report appendix.
- One sample archaeological site and/or architecture/history form will be submitted along with the draft report.
- One set of original, unbound architecture/history inventory forms along with an electronic copy of each form in Adobe Acrobat (.PDF) format will be submitted to the MnDOT CRU with the final report. Our office will submit architecture/history forms to the SHPO for inclusion in their files.
- An electronic file (.PDF) of each archaeological site form will be submitted with the final report. Each digital site file shall be named by the official site or inventory number (e.g. 21BE0123.pdf).
- Only typed--not handwritten—architecture/history or site forms will be acceptable.

CONFIRMATION OF CURATION

When projects involve the recovery of artifacts, written documentation confirming that curation requirements have been met must be submitted to the MnDOT CRU Project Manager before final payment will be approved. Curation of project material should meet the standards outlined in 36 CFR 79. A copy of the curation receipt must be submitted to the MnDOT CRU Project Manager prior to final payment.

Table 3. Summary of Consultant Deliverables

DELIVERABLE	DUE DATE	NUMBER OF COPIES	DELIVER TO:
Draft Technical Report	Within 60 days of end of fieldwork (negotiable)	1 electronic copy in WORD format (negotiable)	MnDOT CRU Project Manager

⁵ In some cases, the consultant may be directed to review all properties over 45 years in age in order to create a buffer if a project’s construction is delayed.

Final Technical Report	Within 30 days of draft comments/acceptance	1 unbound hard copy 1 electronic copy in WORD format 1 electronic copy in PDF format Number of bound hard copies negotiable	MnDOT CRU Project Manager
GIS	With Draft Report	1	MnDOT CRU Project Manager
Architecture/History Property Inventory Forms	(A) With draft report (B) With final report	(A) 1 completed form in WORD format (B) 1 completed unbound hard copy set and 1 completed set in PDF format	MnDOT CRU Project Manager
Archaeological Site Forms	(A) With draft report (B) With final report	(A) 1 completed form in Word format (B) PDF file of each completed form; each file should be named with the site number	MnDOT CRU Project Manager
Invoices and Progress Reports	Monthly per terms of contract	Monthly per terms of contract	As directed in contract

MNDOT RESPONSIBILITIES

After authorizing the start of the work, MnDOT will furnish any project-related data or material in MnDOT's possession that may be of use to the consultant in the accomplishment of the work. Data to be provided by MnDOT will be specified in the individual contract. All data furnished to the consultant by MnDOT will remain the property of MnDOT and will be returned to MnDOT when requested.

CONSULTANT RESPONSIBILITIES

MATERIALS, LABOR, AND PERSONNEL

The consultant will furnish all material, equipment, supplies, labor, transportation, and services required to accomplish the work described herein. The consultant will be responsible for all work performed and will be the point of contact with the MnDOT CRU Project Manager, the MnDOT Office of Consultant Services Agreement Administrator, and/or the MnDOT District Project Manager. All work and services will meet at least the standards set forth in this document and will be performed in accordance with the laws, rules, regulations, and guidelines cited herein.

INCORRECT DATA

The consultant will make an analysis of all data and information furnished by MnDOT. If any data or information are found to be incorrect or incomplete by the consultant, s/he will bring this to the attention of

MnDOT before s/he proceeds further with the part of the project affected. MnDOT will investigate the matter, and if it finds that reported errors or omissions exist, it will promptly determine a method for furnishing corrected data or information. Delay in furnished data will not be considered justification for an adjustment in compensation.

ARCHAEOLOGICAL LICENSE

Most archaeological work performed for MnDOT will require a license from the OSA. It usually takes one to two weeks to obtain a license. The consultant is responsible for forwarding reports to the OSA and for complying with other licensing requirements.

RELEASE OF MATERIALS

Neither the consultant nor his/her representatives will release any sketch, photograph, map, report, or other material of any nature prepared under this contract without specific written approval of MnDOT, prior to the time the MnDOT CRU Project Manager has filed the report with the Minnesota Legislative Reference Library. This does not apply to materials that must be submitted to the OSA or other state or federal agencies to meet licensing/permitting requirements.

JOURNAL

In addition to other documentation such as field and laboratory notes, the Principal Investigator, Field Director, Field Supervisor, or Survey Director will maintain a detailed daily journal of all project activities. This journal will be open to inspection by the MnDOT CRU Project Manager at any time during the work period.

FIELD NOTES

All field notes, site forms, journals, or other products produced under this contract in the form of print, type, photocopy, facsimile, or any other form or reproduction and/or handwriting will be legible and of sufficient detail and clarity so as to be of use to future researchers and so as to reproduce fully and without loss of information by standard black-and-white photocopying processes. Margins will be one inch or greater on the top, bottom, and sides unless standard forms are used which have lesser margins.

SPECIAL STUDIES

The consultant will perform or provide for special studies generally involving aspects of geomorphology, soils, faunal and/or botanical site remains, radiocarbon and/or other dating methods, and other studies, as required by individual projects.

LANDOWNER PERMISSION

The consultant will likely be wholly or partially responsible for securing landowner permission to conduct their work. MnDOT District or county highway departments can usually assist in this effort, but the consultant will bear the main responsibility. The consultant will act through the MnDOT CRU Project Manager to coordinate access to private properties with the MnDOT District or local contact. The consultant will study and adhere to the terms and conditions of the permission to enter.

CURATION OF MATERIALS AND DATA

The consultant is responsible for the curation of all artifacts, materials, and associated written and photographic documentation as specified in 36 CFR 79. The consultant will provide for organization, cataloging, and compilation of all project materials, photographs, documents, and objects, and provide for their permanent curation at the Minnesota Historical Society or other curating institution approved by the MnDOT CRU Project Manager and the OSA. If materials are to be curated at the Minnesota Historical Society, the estimated costs of curation should be included in the contract budget.

Any samples must be processed and reported according to standard methods (e.g. grain size, radiocarbon). Accessioning of artifacts must either be done soon after fieldwork is completed or on a regular basis for larger projects.

CORRESPONDENCE

Any and all correspondence, invoices, or communication must have the MnDOT contract number and State Project Number (S.P.), as well as the SHPO reference number and the OSA license number clearly designated.

PROJECT SCHEDULE

The consultant will complete work assignments in accordance with the project schedule set forth in each contract. The MnDOT CRU Project Manager will have the authority to update and adjust all project schedules as determined necessary. The consultant will notify the MnDOT CRU Project Manager of anticipated dates of fieldwork prior to beginning work.

PROGRESS REPORTS AND INVOICES

Invoices and monthly progress reports will be submitted as directed in the terms of the contract. Procedures for submitting these documents are outlined on the document forms attached to contracts as an exhibit.

Informal reports of findings on certain work elements may be required and usually will be made by telephone or e-mail to the MnDOT CRU Project Manager. The results of such reports may be modifications in the scope, including termination of work, at the option of the MnDOT CRU Project Manager.

COMMUNICATION

It is essential that the consultant remain in close contact with the MnDOT CRU Project Manager during fieldwork and report preparation.