Guide and / or I.M. Revision Notice



To: Cities, Counties, and Consultants Date: February 18, 2013

From: Office of Local Systems Revision Notice Number: 2013-01

The Federal-aid Project Development Guide (Guide) and / or Instructional Memorandums to Local Public Agencies (I.M.s) have been revised as indicated below. This revision notice identifies all new or revised documents and includes a summary of the significant changes. Where appropriate, it also references the existing Project Development Information Packet (Packet) or County Engineers I.M. documents that have been replaced or superseded.

The lowa DOT does not provide paper copies of the Guide or I.M.s. Since these documents are updated frequently, we recommend using the on-line version of the <u>Guide and I.M.s</u> for reference. However, if you prefer using paper copies, all new or revised documents have been included in this file for convenient printing. If you maintain a paper copy of these documents, please remove the old documents and replace them with the new documents. <u>Note</u>: This file is designed for double-sided printing; therefore, all documents with an odd number of pages will be followed by a blank page.

For more information and additional download options, refer to the <u>Guide and I.M.s</u> web page. If you have any questions concerning these revisions, please contact Donna Buchwald <u>Donna.Buchwald@dot.iowa.gov</u> or 515-239-1051.

*** PLEASE NOTIFY ALL AFFECTED PERSONNEL OF THIS CHANGE ***

Document Title	
or I.M Number	Summary of Significant Revision(s)
Federal-aid Project Development Guide February 18, 2013	 The Guide has been updated. Substantive changes from the previous version include the following: Added reference to the Transportation Alternative Program in various locations. This is a change for MAP-21. Revised Section 6.1, Right-of-Way, to indicate that when right-of-way costs will be paid for with non-Federal-aid, the acquisition process may begin prior to receiving FHWA Environmental Concurrence. This flexibility was recently added with the enactment of the Moving Ahead for Progress in the 21st Century (MAP-21).
I.M. Table of Contents February 18, 2013	The I.M. Table of Contents has been revised to reflect new or revised I.M.s, as indicated below.
I.M. 3.005 Project Development Submittal Dates and Information February 18, 2013	 This I.M. has been updated. Substantive changes from the previous version include the following: The table of submittal dates has been updated. Electronic submittals will be required. Most local agencies have already been making most of their submittals electronically. If your agency needs assistance, the lowa DOT will work with you to meet this requirement. A project will not be delayed if a local agency is having technical difficulties. The list of submittal items for the preliminary, check, and final plans will be moved to I.M.s 3.405 and 3.505, respectively.
I.M. 3.310 Federal-aid Participation in In- House Services February 18, 2013	 This I.M. has been updated. Substantive changes from the previous version include the following: Provided more specifics on the requirements for the scope of work that is being authorized. Provided more specifics on the procedures for changing the scope of work and budget. Provided more specifics on the procedures for requesting reimbursement of costs. Attachment A - NEW - was added for an example.

Document Title or I.M Number	Summary of Significant Revision(s)
I.M. 3.405 Preliminary Plans	This I.M. has been updated. Substantive changes from the previous version include the following:
February 18, 2013	The list of submittal items from I.M. 3.005 has been inserted and updated.
	 Electronic submittals will be required. Most local agencies have already been making most of their submittals electronically. If your agency needs assistance, the lowa DOT will work with you to meet this requirement. A project will not be delayed if a local agency is having technical difficulties.
	Attachment A had a typo corrected.
	Attachment B is now available in Word fillable format.
	Attachment B had items added to ensure consistency with the STIP.
	Attachment C deleted the option of not submitting electronic plans.
I.M. 3.505 Check and Final Plans	This I.M. has been updated. Substantive changes from the previous version include the following:
February 18, 2013	The list of submittal items from I.M. 3.005 has been inserted and updated.
	 Electronic submittals will be required. Most local agencies have already been making most of their submittals electronically. If your agency needs assistance, the lowa DOT will work with you to meet this requirement. A project will not be delayed if a local agency is having technical difficulties.
	Attachment A was revised to include additional guidance on the following:
	 Combined projects Plan divisions and multiple funding sources Alternate bidding (including special instructions on alternate pavement types) Added options bidding.
	Attachment B is now available in Word fillable format.
	Attachment B had numerous other changes made to the checklist items.
	Attachment C deleted the option of not submitting electronic plans.
I.M. 3.520 Electronic Bid Item	This I.M. has been updated. Substantive changes from the previous version include the following:
Information February 18, 2013	 Added clarification to address some commonly asked questions and recurring problems.
	 Noted the e-mail address used for a person's Enterprise A&A account must match the e-mail address used in the Transportation Program Management System (TPMS).
	 Clarified the timeframes for changes to and transfer of data between TPMS, the Bid Items Application, and the Iowa DOT Office of Contracts.



For Local Public Agencies

February 18, 2013

Iowa Department of Transportation

Office of Local Systems
800 Lincoln Way Ames, IA 50010
http://www.iowadot.gov/local_systems/publications/im/quide.pdf

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1 Introduction

1.1. About the Guide

1.1.1. What is the Guide for?

The Federal-aid Project Development Guide for Local Public Agencies (the Guide) exists to provide information and instructions to Local Public Agency (LPA) staff in order to help them successfully develop their Federal-aid transportation projects.

1.1.2. How should the Guide be used?

For LPAs that are unfamiliar with Federal-aid procedures, the Guide serves as an overview and introduction to the Federal-aid process. For those LPAs that frequently use <u>Federal-aid funds</u> for their transportation projects, the Guide also serves as a reference tool to quickly locate more detailed information on a specific topic.

The Guide is not intended to include all the details of the Federal-aid process. Instead, where appropriate, the Guide references other documents that provide additional detailed instructions concerning specific parts of the process. In other words, the Guide provides a central location from which all of the information relevant to development of LPA Federal-aid transportation projects may be located.

Most of the detailed information referenced by the Guide is contained in the Instructional Memorandums to Local Public Agencies (I.M.s). To view or print a referenced I.M, simply click on the hyperlink provided, shown with <u>blue</u>, <u>underlined text</u>. The lowa DOT does not provide printed copies of the I.M.s; however, all I.M.s are available on-line in Adobe Acrobat's Portable Document Format (PDF). For convenient printing, all of the I.M.s that are referenced by the Guide can be downloaded as a single PDF file. Refer to the <u>Guide and I.M.s web page</u> for additional download options.

Although the Guide is written using an informal style, in some places, it is necessary to use technical terms or phrases. When such terms or phrases are used, they are defined in Appendix B - Glossary of Terms. To jump to the glossary entry for a defined term or phrase, simply click on the green, dotted-underline text.

1.1.3. What does the Guide cover?

The focus of the Guide is project development. However, it also provides some guidance for a wider range of project activities – beginning immediately after funding approval and continuing up through construction and final reimbursement.

The Guide is applicable to any transportation project that is funded in whole or in part with Federal Highway Administration (FHWA) program funds that are passed through the Iowa Department of Transportation (Iowa DOT) to a local government or other government agency. Examples of such programs include traditional highway and bridge programs such as the Surface Transportation Program and Highway Bridge Program; and other transportation-related programs such as Transportation Enhancement, Federal Recreational Trails, Safe Routes to School, and National Scenic Byways programs. The Guide is also applicable to projects funded with Federal-aid earmark or demonstration funds that are subject to FHWA requirements, as specified in Title 23, United States Code and its associated regulations.

1.2. Working with the lowa DOT

1.2.1. Roles and Responsibilities

With respect to an LPA Federal-aid transportation project, the Iowa DOT serves as both an advisor and a monitor. With each role, the Iowa DOT has different responsibilities. As an advisor, the Iowa DOT is responsible for providing guidance and assistance to LPAs to help them successfully implement their Federal-aid transportation projects. As a monitor, the Iowa DOT is

responsible to the FHWA for administering and overseeing the various Federal-aid transportation programs that are available to LPAs.

1.2.2. Who do I Contact?

The administration and oversight of these Federal-aid programs is a combined effort of many different divisions and offices within the Iowa DOT. However, the LPA's primary point of contact with the Iowa DOT will be the <u>Administering Office</u>. Unless specified otherwise, all project submittals, correspondence, and questions should be directed to the Administering Office.

For projects funded by any or a combination of the Transportation Alternative Program (TAP), such as Transportation Enhancement, Federal Recreational Trails, Safe Routes to School, and National Scenic Byways programs, the Iowa DOT <u>Office of Systems Planning</u> is the Administering Office. The Office of Systems Planning is also the Administering Office for <u>earmark</u> projects involving activities that are eligible under one of the aforementioned programs, and certain projects funded by the Iowa Clean Air Attainment Program. For all other projects, the Administering Office is one of the 6 District Offices, depending on which <u>Iowa DOT District</u> the LPA is located in.

The Iowa DOT <u>Office of Local Systems</u> is responsible for providing written guidance, including the Guide, I.M.s, and other information, to both the Administering Office and LPAs. The Office of Local Systems also provides assistance with the interpretation and implementation of that guidance. When policy or procedure questions require the assistance of the FHWA, the Office of Local Systems serves as a liaison between the FHWA and the Administering Office or LPAs.

2 Federal-aid Basics

Before beginning any project activities for which Federal-aid reimbursement will be requested, read this section carefully! This section of the Guide explains several critical activities and their sequence in the Federal-aid process. To have a successful Federal-aid project, it is crucial that the LPA officials working on the project understand and comply with these basic requirements of the Federal-aid process.

2.1. Project Programming

All Federal-aid projects must be included, or "programmed," in the appropriate Regional Planning Affiliation (RPA) or Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP). All of the RPA and MPO TIPs are then combined, along with Iowa DOT Federal-aid projects, to form the Statewide Transportation Improvement Program (STIP).

As discussed in <u>Section 2.3</u> below, project activities for which Federal-aid reimbursement will be requested must receive <u>FHWA Authorization</u> before those activities begin. However, before any project activities can receive FHWA Authorization, the project must be included in the STIP. Therefore, project programming is a critical first step in the Federal-aid process.

The LPA is responsible for working with the applicable RPA or MPO to ensure that their project is included in the TIP / STIP and is programmed with an adequate amount of funds for the correct <u>Federal Fiscal Year (FFY)</u>. Funds should be programmed in the FFY(s) in which FHWA Authorization will need to occur; not on the basis of when actual expenditures will occur.

Project programming information for the TIPs is submitted, reviewed, and transmitted to the Iowa DOT for inclusion in the STIP using the <u>Transportation Project Management System</u> (TPMS). TPMS is web-based tool developed by the <u>Iowa County Engineers Association Service Bureau</u> (ICEASB) to assist local agencies with project programming and development tracking. While this tool was initially developed for the counties, it is also available for use by cities and consultants. For more information about TPMS or to request access to this system, call the ICEASB at 515-244-0779.

2.2. Funding Agreement

Another important initial step in the Federal-aid process is execution of a funding agreement between the lowa DOT and the LPA. As soon as funding has been approved, the LPA should submit a copy of the approved funding application, Concept Statement, or other documentation to the Administering Office as

soon as possible. Other documentation shall include, as a minimum, the name and title of the LPA's contact person, a project description that identifies the limits and basic character of the proposed work, and a current cost estimate. (Note: If the funding application was approved by the Administering Office, as may be the case with the Office of Systems Planning, additional documentation is usually not required.)

Upon receipt of this information, the Administering Office will prepare a funding agreement and send an unsigned copy to the LPA for signature. By signing the funding agreement, the LPA agrees to follow all of the applicable Federal and State laws, regulations and policies pertaining to the specific type(s) of Federal funds that are involved. Therefore, project development activities should not proceed until a funding agreement has been executed.

In general, the funding agreement spells out the responsibilities of both the LPA and the lowa DOT. The details of the funding agreement will vary, depending on the type of Federal funds that are involved. The LPA officials responsible for the project should thoroughly review the funding agreement prior to bringing it to the board of supervisors or city council for action. Any questions or concerns should be directed to the Administering Office.

2.3. FHWA Authorization

FHWA Authorization is the single most important aspect of the entire Federal-aid process. If not done correctly or in a timely manner, it can jeopardize Federal-aid reimbursement for part or all of a project.

2.3.1. When is FHWA Authorization Needed?

FHWA Authorization must be obtained before beginning any project activity for which Federal-aid reimbursement will be requested. If the LPA does not have written confirmation from the lowa DOT that FHWA Authorization has been secured for a specific project activity, work should not begin. The cost of work occurring prior to FHWA Authorization will not be reimbursed with Federal funds. If there is any doubt about whether FHWA Authorization has been obtained, contact the Administering Office for assistance.

Depending on the type of <u>Federal funds</u> and the provisions of the funding agreement, there are several different types of project activities that may be eligible for Federal-aid reimbursement. Some of these may include environmental studies, design, right-of-way acquisition, utility relocations, railroad work, construction, and construction inspection. Refer to the project funding agreement for the specific types of project activities that may be reimbursed with Federal funds.

2.3.2. How is FHWA Authorization Obtained?

The following is a summary of the <u>FHWA Authorization</u> process. This process has been generalized for the sake of clarity. The actual authorization process will vary depending on the specific type of project activity that is being authorized. Additional details are provided in the sections of the Guide and / or I.M.s that address each type of project activity.

- 1. The LPA sends a written request for FHWA Authorization to begin a specific type of project work to the <u>Administering Office</u>, including the appropriate documentation for the type of work being requested.
- 2. The Administering Office reviews the LPA's request and verifies the required clearances and reviews have been completed.
- 3. If acceptable, the Iowa DOT verifies the availability of <u>Federal funds</u> and prepares the electronic <u>Authorization/Agreement</u> or <u>Amendment/Modification</u> document, using the <u>Fiscal Management Information System</u> (FMIS).
- 4. The lowa DOT sends the electronic document to FHWA for review and approval.
- FHWA reviews the electronic document, and if acceptable, electronically signs the document.
 If the request is not acceptable, FHWA contacts the lowa DOT to resolve any questions or issues.
- 6. After FHWA has signed the electronic document, the Administering Office notifies the LPA that FHWA Authorization has been obtained and the requested work may begin.

2.4. Reimbursement

All of the Federal-aid transportation programs administered by the Iowa DOT operate on a reimbursement basis. That is, the LPA, after completing the necessary steps and receiving the appropriate approvals, pays project expenses up front. In turn, the LPA submits a request for reimbursement to the Iowa DOT. The request should be made using the form or format provided by the <u>Administering Office</u>. To ensure proper accounting of costs, reimbursement requests for costs incurred prior to June 30 shall be submitted to the Administering Office by August 1 if possible, but no later than August 15.

Requests for reimbursement shall be made on a periodic basis after costs have been incurred. To prevent the project obligation from becoming inactive as per 23 CFR 630.106(a)(5), reimbursement shall be requested at least annually but not more than bi-weekly. If the project becomes inactive, the lowa DOT will notify the LPA that the unexpended balance of Federal funds will be de-obligated if the LPA cannot provide documentation within 30 days to support the remaining balance. Such documentation shall include a revised cost estimate and a date by which a reimbursement request for the remaining Federal funds will be submitted. If a reimbursement request cannot be submitted within 30 days, written justification will be required for retaining the unexpended balance of Federal funds. The justification shall explain why the delay in requesting Federal-aid reimbursement is beyond the control of the LPA. Examples include delays resulting from environmental reviews or permits, right-of-way acquisition, utility relocations, unresolved litigation or contract claims, or compliance with other Federal-aid requirements. Failure to adequately plan for these requirements will not be considered adequate justification. If adequate justification is not provided, the unexpended balance of Federal funds will be de-obligated, and as a result, may no longer be available for reimbursement. For more information about the inactive obligation review requirements and process, refer to I.M. 2.080, Inactive Obligations.

After Iowa DOT review and approval, the LPA will be reimbursed by the Iowa DOT at the agreed upon Federal share for properly documented, eligible, and authorized project costs. Reimbursements to the LPA are typically made by issuing a State warrant. However, a slightly different process is used for county Federal-aid projects on the Farm-to-Market System. For those projects, payments are typically made by Iowa DOT from the county's Farm-to-Market account. After such payments have been made, the Iowa DOT will request Federal-aid reimbursement, and the Federal share of such costs will be credited to the county's Farm-to-Market account.

2.5. Match Requirements

2.5.1. General Match Requirements

Most Federal-aid transportation programs require some type of cost sharing or match to the <u>Federal funds</u>. In most cases, the match must come from non-Federal-aid sources. Usually, this match is provided in the form of cash; that is, eligible project costs that have been paid for by entities other than the Federal government. Sources of cash may include donations of funds made by a third party, special assessments made for the project, and other non-Federal-aid sources of funds. However, if the total cash received up-front for the project exceeds the required non-Federal share, the <u>Federal share</u> shall be reduced or the excess cash must be returned. In other words, an LPA may not make money on a Federal-aid project.

2.5.2. In-Kind Contributions

Under certain circumstances, certain non-cash contributions by a third party may be counted towards the required non-Federal-aid match. These non-cash contributions are referred to as an in-kind contribution. A third party is any entity other than the Federal government, the lowa DOT, or the LPA who is the recipient of the Federal funds. The type of in-kind contribution that may be counted toward the non-Federal-aid match varies, depending on the timing of the contribution and the type of Federal funds that are being matched. Projects funded by the Transportation Alternatives Program (TAP) as one or more of the Small Federal Programs (Transportation Enhancement, Federal Recreational Trails, and National Scenic Byways) may utilize right-of-way, services, materials, or equipment as an in-kind contribution. For all other Federal-aid projects, only right-of-way may be used as an in-kind contribution. For additional guidance, eligibility limitations, and instructions on how to obtain lowa DOT and FHWA approval of in-kind contributions, refer to I.M. 3.050, In-Kind Contributions.

3 Getting Started

3.1. Project Development Overview

The Federal-aid project development process is shown graphically in <u>Appendix A - Project Development Flowchart</u>. This flow chart includes references to some of the applicable I.M.s for additional details concerning specific parts of the development process. The remaining sections of the Guide provide a written overview of the project development process.

3.2. Concept Statement

Submittal of the Concept Statement for Local Public Agency Federal-aid Projects (<u>Form 517001</u>) is a critical first step that typically initiates the project development process. This form provides information about the proposed location and types of work, possible environmental impacts, and proposed design.

Since this information is used by the Iowa DOT to initiate a number of different project reviews and processes, this form should be submitted by the LPA as soon as possible. Otherwise, the required reviews and processes will be delayed, and this may delay the project as a whole.

For additional information and detailed instructions for completing this form, refer to <u>I.M. 3.105</u>, Concept Statement Instructions.

3.3. Project Schedule

The time required to develop a Federal-aid project from funding approval to project letting varies greatly, depending on a number of factors. Some of these factors include: whether or not right-of-way must be acquired, the type and magnitude of environmental or social impacts, and whether or not utility relocations or work on railroad property or facilities is required. Therefore, it is not possible to specify a project schedule that is applicable to all situations. Nevertheless, some typical project schedules are provided in I.M. 3.002, Federal-aid Project Scheduling. These schedules show the relationship between the typical project tasks and the time it usually takes to complete each one, based on certain assumptions.

3.4. Project Submittal Dates

<u>I.M. 3.005</u>, Project Development Submittal Dates and Information, provides specific dates for some of the key project submittals, based on a targeted lowa DOT letting date. It also provides a summary of what should be included in those submittals.

Please note that <u>I.M. 3.005</u> is only intended to show the minimum amount of time required for the lowa DOT to review the project submittals listed. Depending on the circumstances of each project, other submittals or activities may be the controlling factor in determining when a project may be let. These dates do not account for the review times of other Federal or State agencies that may or may not be necessary for a given project. In addition, the dates shown in <u>I.M. 3.005</u> assume that the project will complete the NEPA process as a Categorical Exclusion (CE); they are not applicable for projects that will require an Environmental Assessment (EA) or Environmental Impact Statement (EIS). For more information about the different levels of environmental classification, refer to <u>I.M. 3.112</u>, FHWA Environmental Concurrence Process.

3.5. Project Tracking

The Iowa DOT requires the LPA(or the consultant acting on its behalf) to use TPMS (as described in Section 2.1) to record and monitor the programming and development status of their projects that involve construction. Use of TPMS for non-construction projects is optional. Much of the information in TPMS is transferred electronically to the Iowa DOT for use in project programming, development, and letting. Therefore, it is important for LPAs to keep their project information current in TPMS.

3.6. Financial Plan

For major projects (those with an estimated cost of \$100 million or greater) the LPA will be required to prepare a financial plan. For purposes of this requirement, a "project" is defined by the limits used for the

environmental review process described in Section 4 below, unless specifically stated otherwise in the environmental document.

The LPA's project financial plan must be reviewed and approved by the Iowa DOT and FHWA. The estimated cost shall include all elements of work for all segments of the overall project. Elements of work refer to the different categories of work, such as engineering, right-of-way, construction, etc. Segments refer to the portions of the total project which can be defined by physical limits. For example, the design, right-of-way, and construction activities for several projects in the same highway corridor, even though they are separated for purposes of bidding and construction, may be considered one overall project.

If a project may fall into the major project category, the LPA should contact the lowa DOT <u>Administering</u> <u>Office</u> for assistance. Additional information is available on FHWA's <u>Innovative Program Delivery</u> web site.

4 Permits and Environmental Review

This section of the Guide gives a brief summary of the typical permits or environmental reviews that may be required by the applicable Federal or State laws and regulations.

4.1. The NEPA Process

The National Environmental Policy Act (NEPA) and its associated Federal regulations require that certain procedures be followed in developing a Federal-aid project. The purpose of these procedures is to provide consideration of a wide variety of social or environmental impacts that may result from the project.

The amount of time and effort required to comply with the NEPA process varies greatly, depending on the anticipated level of impacts. The effort required by an LPA may be as minimal as completing a few forms; or it may be as involved as preparing extensive environmental documentation and facilitating a significant amount of public involvement, which can be a very costly and time-consuming process.

The Iowa DOT is responsible to review the environmental impacts of all LPA Federal-aid transportation projects and assist the LPA in complying with the NEPA requirements. This review is coordinated and ultimately approved by the FHWA, based on the established policies and procedures.

There are several distinct parts of the NEPA process. Completion of the NEPA process is referred to in the Guide and I.M.s as FHWA Environmental Concurrence. For an overview of the NEPA process as a whole, refer to I.M. 3.112, FHWA Environmental Concurrence Process. For additional guidance concerning the different parts of the NEPA process, refer to the following I.M.s:

- <u>I.M. 3.105</u>, Concept Statement Instructions, provides detailed instructions for completing the Concept Statement for Local Public Agency Federal-aid Projects (<u>Form 517001</u>). This form is used to begin the FHWA Environmental Concurrence Process.
- <u>I.M. 3.110</u>, Environmental Data Sheet Instructions, provides detailed instructions for completing the Environmental Data Sheet (<u>Form 517006</u>). In some cases, more detailed information about potential environmental impacts will be required than what is provided on the Concept Statement. The Environmental Data Sheet provides some of this information.
- I.M. 3.114, Cultural Resource Regulations, provides guidance concerning the requirements and procedures for potential impacts to cultural resources, such as archeological sites and historic properties.

4.2. Section 404 Permits

Section 404 of the Clean Water Act and its associated Federal regulations place restrictions on the use of wetlands, streams, rivers, or other aquatic resources. If any project construction will occur in any of these areas, the LPA may be required to notify the U.S. Army Corps of Engineers and obtain the appropriate Section 404 permit. For more information, refer to I.M. 3.130, 404 Permit Process.

4.3. Iowa DNR Floodplain Development Permits

Projects that will involve construction in the flood plain of any river or stream in Iowa may require a Floodplain Development Permit from the Iowa Department of Natural Resources (Iowa DNR). The

threshold for when a permit is required depends on the location, type of construction, and drainage area of the river or stream. For more information, refer to <u>I.M. 3.410</u>, Preliminary Bridge or Culvert Plans.

4.4. Storm Water Permits

The Clean Water Act and its associated Federal and State regulations may also require a National Pollutant Discharge Elimination System (NPDES) permit. If project construction activities will disturb more than 1 acre of ground, the LPA is required to submit a notification and obtain an NPDES permit from the Iowa DNR. Ground is considered disturbed if the soil is exposed to erosive forces, such as wind or water, for any period of time. For more information, refer to I.M. 3.140, Storm Water Permits.

4.5. Farmland Protection Policy Act

The Farmland Protection Policy Act and its associated Federal regulations are designed to minimize the conversion of farmland to non-agricultural purposes by Federal-aid programs. If the project will require less than 5 acres of farmland per mile or per site, no action needs to be taken. However, if the anticipated impacts will exceed these thresholds, the LPA is required to complete a form and submit it to the Natural Resources Conservation Service. For more information, refer to I.M. 3.120, Farmland Protection Policy Act Guidelines.

4.6. Projects in the Vicinity of an Airport or Heliport

If project construction will take place in the vicinity of a public airport or heliport, the LPA may be required to provide notice to the Federal Aviation Administration (FAA) and local airport officials. For more information, refer to I.M. 3.150, Highway Improvements in the Vicinity of Airports or Heliports.

4.7. Hazardous Materials

In order to construct a transportation project, it is possible that hazardous materials may be encountered during the demolition or construction of buildings, bridges, or other structures. In those cases, certain Federal and State laws and regulations may govern how the demolition or construction may proceed.

The Clean Air Act and its associated Federal regulations require certain inspection, testing, notification, and removal procedures to be followed if the project involves removal of any structures or material that may contain asbestos. This includes buildings and bridges. For more information on the required procedures, refer to I.M. 3.160, Asbestos Inspection, Removal, and Notification Requirements.

If contaminated soil or other hazardous wastes are encountered during project construction or on property acquired for the project, the LPA may be responsible for removal or treatment of such materials. If hazardous wastes may be present, the LPA may contact the lowa DOT Office of Location and Environment, Regulated Materials Section, for assistance.

4.8. Work on Primary or Interstate Highways

If a locally sponsored project involves a Primary or Interstate highway, additional coordination and approvals by the Iowa DOT and / or FHWA are required, as described below.

4.8.1. Permits

If the project will require any work within or abutting the right-of-way of an Interstate or Primary Highway, the LPA must acquire the appropriate permit(s) from the Iowa DOT. Execution of the project funding agreement does not grant any of the Iowa DOT permits that may be required. The type of permits required depends on the type of work being done. For more information, contact the Engineering Operations Technician in the Iowa DOT <u>District Office</u> in which the project is located.

4.8.2. Interchange Justification Reports

If the project will involve studies, design, or construction associated with a new or revised interchange on an Interstate highway, an Interchange Justification Report (IJR) must be prepared. The purpose of an IJR is to evaluate the need and engineering feasibility of the proposed interchange. The IJR must be reviewed and approved by the Iowa DOT and the

FHWA. For more information, refer to the Iowa DOT's <u>User Guide – Process for New or Revised Interchange Access</u>.

5 Project Design

Unless specified otherwise in the project funding agreement, the LPA is responsible for all project design activities. The project design may be completed by the LPA's own staff, by a consultant, or if provided for by an intergovernmental agreement with another governmental agency, the staff or consultants hired by that agency. In any case, all plans and specifications must be prepared by a professional engineer or architect licensed to practice in the State of Iowa, unless specified otherwise in the project funding agreement.

5.1. Final Design and FHWA Environmental Concurrence

As discussed in <u>Section 4.1</u> above, the NEPA process requires that certain procedures be followed in the process of selecting the location of a Federal-aid project. The NEPA process also places limits on when certain project activities may begin. One of the activities limited by the NEPA process is final design. Until FHWA <u>Environmental Concurrence</u> has been obtained, final design activities may not begin.

Environmental and related engineering studies, agency coordination, public involvement activities, and preparation of Preliminary Plans are not considered final design. Therefore, these activities may proceed prior to completing the NEPA process. However, work directly associated with preparation, review, or submittal of Check Plans or Final Plans is considered final design.

5.2. Federal-aid Participation in Design Activities

For most Federal-aid projects, project design activities may be eligible for Federal-aid reimbursement. For purposes of FHWA Authorization, these costs are categorized as one of the following:

- Preliminary Engineering (PE) includes work that is part of the development of the plans, specifications, and estimate (PS&E) for a construction project. This includes environmental studies and documents, preliminary design, and final design up through and including the preparation of bidding documents. PE does not include planning or other activities that are not intended to lead to a construction project. Examples include planning, conceptual, or feasibility studies.
- Construction Engineering (CE) includes materials testing, construction inspection, and other work
 directly related to the administration of the construction contract (e.g., processing contractor
 payment requests, or preparing change orders, a final punch list, or project close-out paperwork).

5.2.1. Consultant Services

If the LPA desires Federal-aid reimbursement for the costs of consultant services, certain procedures must be followed in acquiring, preparing, reviewing, approving, and administering the consultant contract. For more information, refer to L.M. 3.305, Federal-aid Participation in Consultant Costs.

5.2.2. In-House Services

If the LPA chooses to perform PE, CE, right-of-way acquisition, or other work directly related to the development of the project with its own staff, these costs may also be reimbursed with <u>Federal funds</u>, if the appropriate procedures are followed. To be approved, the LPA must be able to segregate and provide an accounting of the cost of its in-house services. For more information, refer to <u>I.M. 3.310</u>, Federal-aid Participation In-House Services.

5.3. Design Guidelines

Federal-aid projects should be designed to meet the guidelines provided by the Iowa DOT. Generally speaking, these guidelines correspond to nationally recognized design guidelines, such as those published by the American Association of State Highway Transportation Officials (AASHTO).

5.3.1. Roadways and Bridges

There are several I.M.s that provide design guidelines for LPA Federal-aid road or bridge projects. These are listed and briefly described below:

- For projects involving new construction or complete reconstruction, refer to either <u>I.M. 3.205</u>, Urban Design Guidelines, or <u>I.M. 3.210</u>, Rural Design Guidelines.
- For rehabilitation, restoration, or resurfacing (3R) projects, refer to I.M. 3.214, 3R Guidelines.
- For guidance concerning the use and placement of guard rails and bridge rails, refer to <u>I.M.</u>
 3.213, Traffic Barriers (Guardrail and Bridge Rail).
- For guidance in providing a safe recovery area, refer to I.M. 3.215, Clear Zone Guidelines.

5.3.2. Bicycle and Pedestrian Facilities

For bicycle facility projects, designs should meet or exceed the minimum recommended values provided in Chapter 12A and 12B of the <u>lowa DOT Design Manual</u>.

New construction or alterations to pedestrian facilities shall be designed to meet the requirements of the Americans with Disabilities Act (ADA). Refer to <u>I.M. 1.080</u>, ADA Requirements for the applicable design guidelines.

5.4. Design Exceptions

Designs that do not meet the guidelines specified by the applicable I.M.s or documents referenced in Section 5.3 will require a written design exception. The LPA must prepare and submit the design exception and its accompanying documentation to the <u>Administering Office</u> for review and approval. Design exceptions should be submitted with the Concept Statement submittal, or as soon as it becomes apparent that an exception will be necessary, but in no case later than the Check Plan Submittal.

For more information on the design exception process for road or bridge projects, refer to L.M. 3.216, Design Exception Process. For design exceptions related to bridge width, refer also to L.M. 3.220, Design Exception Information for Bridges Narrower than Approach Pavement.

Design exceptions for bicycle facilities do not require a benefit-cost analysis. However, justification for using a design value less than the minimum recommended should be provided to the Administering Office. This justification should be based on sound engineering judgment, describe the proposed mitigation measures, and include any other supporting documentation that is appropriate.

5.5. Plans and Specifications

There are several points during project development at which plans must be submitted to the lowa DOT. These submittals are a key part of the project review and provide much of the information required by the lowa DOT. Each submittal shall be accompanied by a transmittal letter / e-mail and other documents as required. The content of each submittal is summarized in L.M. 3.005, Project Development Submittal Dates and Information.

5.5.1. Preliminary Plans

The Preliminary Plans are used by the Iowa DOT to evaluate the proposed project design, right-of-way needs, and possible environmental impacts. For more information, refer to <u>I.M. 3.405</u>, Preliminary Plans. If the project involves a bridge or culvert, refer also to <u>I.M. 3.410</u>, Preliminary Bridge or Culvert Plans.

5.5.2. Check and Final Plans

Most Federal-aid transportation projects must be let by the Iowa DOT. To be successfully let by the Iowa DOT, the plans and specifications must conform to the Iowa DOT letting process. For example, the Iowa DOT <u>Standard Specifications</u> and the accompanying list of <u>standard bid items</u> shall be used when appropriate. In addition, use of Iowa DOT <u>Standard Road Plans</u> and <u>Road Design Details</u> (includes standard tabulations, notes, details, and typical sections) are also

strongly encouraged. Use of these standards promotes consistency and uniformity among all projects let by the lowa DOT. In turn, plan consistency helps reduce the project cost, because bidder uncertainties associated with different specifications or plan formats are reduced.

The Check Plan submittal serves as a precursor to the Final Plans. Even so, Check Plans should be 100% complete. This allows the <u>Administering Office</u> to review all the required elements of the plans and provide enough time to make any changes that may be needed. If the Check Plans are not complete, the project letting may be delayed.

For detailed information about the plan requirements for letting at the Iowa DOT, refer to <u>I.M.</u> <u>3.505</u>, Check and Final Plans, and <u>I.M.</u> <u>3.520</u>, Electronic Bid Item Information. If the project involves a bridge or culvert, refer also to <u>I.M.</u> <u>3.510</u>, Check and Final Bridge or Culvert Plans.

6 Right-of-Way, Utilities, and Railroads

6.1. Right-of-Way

For some transportation projects, it is necessary to acquire some type of property rights in order to construct the project. As used in the Guide and the I.M.s, the term, "right-of-way" includes the acquisition of any type of property rights. These property rights may be temporary, such as a temporary construction easement; or they may be permanent, such as a drainage easement or title to a property.

Regardless of what type of property rights are acquired, there are a number of Federal and State laws and regulations that govern how and when this may be accomplished on a Federal-aid project. These laws and regulations are lengthy and complex, and in many cases, will require the use of specially trained staff or consultants to ensure they are followed properly. Nevertheless, there are a few points that everyone should understand:

- The Federal and State right-of-way laws and regulations always apply, even if right-of-way costs will not be reimbursed with Federal funds.
- If Federal-aid is used in the cost of acquiring right-of-way, the acquisition may not begin until after FHWA Environmental Concurrence has been obtained. One exception to this requirement is when property is acquired because of a hardship on the property owner, or when purchase is necessary to protect a corridor for future transportation use. However, individual parcels to be acquired under the hardship or protective buying provisions still must have prior approval by the lowa DOT and the FHWA.
- If Federal-aid is not used in the cost of acquiring right-of-way, the acquisition may begin before FHWA Environmental Concurrence has been obtained.

For more information about right-of-way acquisition resources, procedures, and requesting <u>FHWA</u> Authorization of right-of-way costs, refer to I.M. 3.605, Right-of-Way Acquisition.

6.2. Utilities

6.2.1. Accommodation and Coordination

Early coordination with utilities that may be impacted by a transportation project is critical. Even though, in many cases, the utility company is obligated to move its facilities if required by a transportation project, failure to communicate by either the LPA or the utility can cause project delays and added expense.

All utility relocations required by a Federal-aid project shall comply with the applicable utility accommodation policy. For projects located on non-primary, Federal-aid highways, refer to the Policy for Accommodating Utilities on the County and City Non-Primary Federal-aid Road System. For projects located on primary highways, refer to 761 lowa Administrative Code, Chapter 115 Utility Accommodation. For more information, refer to I.M. 3.640, Utility Accommodation and Coordination.

6.2.2. Federal-aid Participation in Utility Relocations

<u>Federal funds</u> may or may not participate in the costs, depending on their location, ownership, and which entities have either the obligation or authority to pay for the costs of relocating the utilities. In most cases, utilities located in the public right-of-way must move at their own expense and are not eligible for Federal-aid reimbursement. Utility relocation costs include the costs to relocate utilities that must be moved in order to construct the project. Besides construction, these costs may also include design, and in some cases, the acquisition of a replacement easement.

For more information, refer to I.M. 3.650, Federal-aid Participation in Utility Relocations.

6.3. Railroads

6.3.1. Coordination

When a transportation project requires the use of railroad property, even for minor maintenance-type work of limited duration, advance notification and approval by the railroad will be required. Projects that require access to the railroad right-of-way or modifications to railroad facilities will require an agreement with the railroad.

Therefore, as is the case with utilities, early coordination with the affected railroad(s) is critical. The LPA should contact all railroad companies that have tracks inside or adjacent to the project work area to determine what type of approvals or agreements will be required. The lowa DOT has developed a process for coordinating with railroads, including specific procedures and specifications that shall be used for all projects let by the lowa DOT. For more information, refer to I.M. 3.670, Work on Railroad Right-of-Way.

6.3.2. Federal-aid Projects Involving Railroads

All Federal-aid projects that will require access to the railroad right-of-way or modifications to railroad facilities must comply with a number of other specific requirements, including project design, notifications and / or agreements, insurance, and provisions for railroad flaggers.

If required by the transportation project, the costs of work performed by a railroad or the railroad's contractor may be eligible for Federal-aid reimbursement. In other cases, if the proposed improvements have a benefit to the railroad, the railroad may also be required by the Federal regulations to share in the cost of the work. However, the cost of improvements that are for the sole benefit of the railroad are not eligible for Federal-aid participation.

For purposes of <u>FHWA Authorization</u>, railroad work includes the costs of modifications to railroad facilities that are required in order to construct the project. This may include construction, flaggers, right-of-way, and engineering costs. These costs shall be identified as part of the agreement between the LPA and the railroad, and the agreement must be reviewed and approved by the lowa DOT prior to being executed by the LPA and the railroad. For more information, refer to I.M. 3.680, Federal-aid Projects Involving Railroads.

7 Letting and Contract Award

7.1. Iowa DOT Letting Procedures

Competitive bidding has been a long-standing requirement for the Federal-aid transportation programs, with a few exceptions. As a result, there are many Federal laws and regulations that pertain to the construction contracting process. Because of the complexity of these requirements, the lowa DOT requires that most Federal-aid projects be let at the lowa DOT. This enables the lowa DOT to better ensure compliance with these laws and regulations by conducting and directly monitoring the letting process. The lowa DOT letting process is described in detail by L.M. 3.730, lowa DOT Letting Process. However, some important aspects of this process are highlighted in the subsections below:

7.1.1. FHWA Authorization of Construction Costs

As part of the letting process, the Iowa DOT obtains <u>FHWA Authorization</u> for the costs of the proposed construction contract. FHWA Authorization will be requested based on the plans,

specifications, and estimate (PS&E) submitted by the LPA. If the bids come in significantly higher or lower than the estimate, the FHWA Authorization may be adjusted accordingly, provided that sufficient Federal funds are available for the project. The lowa DOT requires that the LPA budget sufficient funds and be prepared to award a contract for bids that are up to 110% of the LPA's estimate.

7.1.2. Project Clearances

Before letting may proceed, the project should have all of the necessary clearances. These clearances are documented by the LPA and reviewed by the Iowa DOT using the Project Development Certification (Form 730002). This form should be submitted with the Final Plans. For more information, refer to I.M. 3.750, Project Development Certification Instructions.

Without the required clearances, projects are normally not allowed to enter the Iowa DOT letting process. However, under special circumstances, a project may begin the letting process without all of the necessary clearances provided the LPA requests and the <u>Administering Office</u> approves a Public Interest Finding.

The LPA's request must document the reasons why it is in the public's best interest to deviate from the standard procedures. For additional guidance on this process, as well as other conditions that require a Public Interest Finding, refer to I.M. 3.760, Public Interest Findings.

7.1.3. Iowa DOT Concurrence in Award

After bids are opened, the Iowa DOT determines the lowest responsive and responsible bidder and provides the LPA with tabulation of bids received and the unexecuted contract documents. Within 30 days of the letting, the LPA must either accept the low bid or reject all bidders. If the low bid is accepted, the LPA forwards the contract documents to the contractor for signature. After executing the contract, the LPA forwards the executed contract documents to the lowa DOT Office of Contracts for review and concurrence in the award. If acceptable, the lowa DOT indicates its concurrence on the contract documents and returns the contract documents to the LPA and the contractor. Work shall not begin and the preconstruction meeting shall not be held prior to lowa DOT concurrence in the award. If the LPA elects to reject all bids, it shall notify the lowa DOT Office of Contracts of its decision.

7.2. Local Letting Procedures

While most Federal-aid projects must be let at the Iowa DOT, there are a few non-highway transportation programs for which lettings may be held locally. These include the Transportation Enhancement, Federal Recreational Trails, National Scenic Byways, and Safe Routes to School programs funded under the Transportation Alternatives Program (TAP).

Even though projects funded by these programs may be let locally, the applicable Federal and State competitive bidding requirements must still be satisfied, as well as several other Federal-aid requirements. To assist in meeting these requirements, the lowa DOT has developed procedures and standardized bidding documents for use with locally let Federal-aid projects. Before advertising for bids, the LPA must submit the proposed bidding documents for review and approval by the lowa DOT.

For more information on the types of Federal-aid programs and projects that may be let locally, and the required procedures for conducting a local letting, refer I.M. 3.720, Local Letting Process – Federal-aid.

7.3. Participation by Disadvantaged Business Enterprises

The requirements of the Disadvantaged Business Enterprise (DBE) program apply to all contracts awarded under all of the Federal-aid transportation programs, regardless of how the contract is acquired. These requirements apply to construction contracts let locally or by the Iowa DOT. They also apply to consultant contracts which will be reimbursed with <u>Federal funds</u>.

In summary, a DBE goal is not always required, but DBE firms must always be given consideration for participation in Federal-aid funded contracts. For specific guidance on applying the DBE requirements to construction contracts or consultant contracts, refer to I.M. 3.710, DBE Guidelines.

8 Construction

8.1. Contract Administration and Inspection

Unless specified otherwise in the funding agreement, the LPA will be responsible for all aspects of administration and inspection of the construction contract. This includes providing daily, on-site inspection of the contractor's work activities and processing all of the paper work associated with the construction contract, including any change orders. All change orders shall have approval of the appropriate governing authority, such as the city council or county board of supervisors. Change Orders must also have lowa DOT concurrence.

If the LPA does not have adequate staff to perform this work, it may hire a consultant or enter into an agreement with another governmental agency to provide these services. If the LPA elects to hire a consultant, the consultant staff shall be competent in construction inspection and perform this work under the direct supervision of a registered professional engineer or architect licensed in the State of Iowa.

However, use of a consultant does not relieve the LPA of ultimate responsibility for the proper administration and inspection of the construction contract. If a consultant is used to provide the inspection services, an LPA employee shall oversee the consultant's work.

For additional information about the construction inspection procedures, including the required forms and paper work, refer to I.M. 3.805, Construction Inspection.

8.2. Iowa DOT and FHWA Reviews

The Iowa DOT and / or the FHWA may also conduct a field review of selected LPA projects during construction. Selected projects will be reviewed by <u>Administering Office</u>, <u>Office of Local Systems</u>, or FHWA staff. If selected, the LPA may be notified when the field review will be conducted, or the review may be conducted unannounced. The purpose of the field review is to spot check the LPA's construction inspection documentation and provide assistance to the LPA if any deficiencies are identified.

8.3. Federal-aid Participation in Construction by LPA Forces

In some cases, construction of part or all of a Federal-aid project may be accomplished by LPA forces. Under very limited circumstances, the costs of such work may be eligible for Federal-aid participation. Federal-aid participation in such work requires prior approval by the Iowa DOT, as outlined in I.M. 3.760, Public Interest Findings. The Public Interest Finding must be based on both the cost effectiveness of such work and on special circumstances that are unlikely to be repeated. For more information on how to request FHWA Authorization for work done by LPA forces, refer to I.M. 3.810, Federal-aid Construction by Local Agency Forces.

Regardless of whether Federal-aid participation is requested for this work, it must also comply with State bidding laws that limit the amount of work that can be performed by LPA forces. In general, work associated with construction, reconstruction, or improvements must be obtained either by bids or competitive quotes if the estimated cost of such work exceeds the thresholds specified by the Code of lowa. These thresholds are summarized on the Office of Local Systems web page titled, Bid Thresholds for lowa Cities and Counties.

9 Project Close-out and Audits

9.1. Completion of the Construction Contract

The LPA is responsible for ensuring that all project construction has been completed and providing all of the necessary paperwork as required by the construction contract. This involves conducting a pre-audit of all contract items and associated paperwork. Not more than 30 days after the field work is complete, the LPA's project engineer (or designated representative) shall notify the <u>Administering Office</u> the project is ready for a field inspection. The notification shall include a completed Pre-Audit Checklist and associated documentation. The Administering Office staff will conduct a field inspection to verify completion of the work. When both the LPA and the Administering Office accept the field work as complete, the LPA's project engineer shall certify that the project was constructed in accordance with the plans and specifications and request a final audit of the construction contract.

9.2. Final Audits

After receipt of the request for a final audit, the <u>Administering Office</u> may elect to conduct a final audit of the construction contract documentation. This will include a review of the final pay quantities for the construction contract, including material certifications, test results, and other documentation. If Federal-aid participation was requested for the costs of a consultant contract, work by LPA forces, utility relocations, or railroad work, a final audit or review of these costs may also be conducted.

If the final audits or reviews find that the LPA has been over-reimbursed, the LPA shall reimburse the lowa DOT for the amount identified by the final audit or review. In turn, the lowa DOT will credit these funds to the FHWA. Otherwise, the lowa DOT will make the final reimbursement to the LPA, taking into account any adjustments required by the final audit or review.

9.3. Closing the Project and Records Retention

After the final reimbursement to the LPA has been processed, the lowa DOT will prepare a final Amendment/Modification to the FHWA authorization for the project in FMIS, including the final total costs and final amount of Federal-aid reimbursement. After FHWA has approved this request, a copy of this document will be distributed to various lowa DOT offices, the LPA, and the appropriate RPA or MPO.

The LPA shall maintain all project records for a period of 3 years after FHWA approval of the final Amendment / Modification document. Afterwards, the LPA may discard its project files if desired.

For more detailed information concerning the entire project close-out process, refer to <u>I.M. 3.910</u>, Final Review, Audit, and Close-out Procedures for Federal-aid Projects, and <u>I.M. 3.930</u>, Interest Payment Procedures.

10 Other Federal-aid Requirements

This section of the Guide addresses those Federal-aid requirements that do not correspond to a particular part of the project development process but are nonetheless very important considerations for any LPA using Federal funds.

10.1. Nondiscrimination

10.1.1. Title VI

Title VI of the Civil Rights Act of 1964 (Title VI) is a foundational piece of legislation that forms the basis for a wide array of other laws and regulations that prohibit discrimination on the basis of race, color, national origin, disability, gender, and age. Title VI has a very broad application. It prohibits discrimination in all programs or activities of any LPA that is a recipient of any Federal-aid financial assistance; even those programs or activities that do not directly benefit from such assistance. For additional guidance, refer to I.M. 1.070, Title VI and Nondiscrimination Requirements.

10.1.2. Americans with Disabilities Act

The Americans with Disabilities Act of 1990 (ADA) is another piece of legislation aimed at prohibiting discrimination. Title II of the ADA applies to State and local governments, and its requirements affect the design, construction, and maintenance of all transportation projects, regardless of the funding sources.

The ADA requires that all new construction, reconstruction, and alterations to existing pedestrian facilities be made accessible to persons with disabilities. In addition, for those existing facilities that are not accessible, a transition plan must be prepared and implemented to bring those facilities into compliance.

For more information on ADA requirements related to transportation projects and facilities, refer to <u>I.M. 1.080</u>, ADA Requirements.

10.2. Single Audit Requirements

LPAs that expend more than \$500,000 in Federal funds of any kind during a Federal Fiscal Year (FFY) are required to prepare and file a Single Audit Report in accordance with the requirements of the Office of Management and Budget (OMB) Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations. If the LPA's Single Audit Report contains findings that relate to Federal funds passed through the lowa DOT, the lowa DOT will investigate those findings and issue a management decision regarding the LPA's response to those findings, as stated in the Single Audit Report. The lowa DOT's management decision may require additional documentation or changes to the LPA's procedures to prevent similar future audit findings.

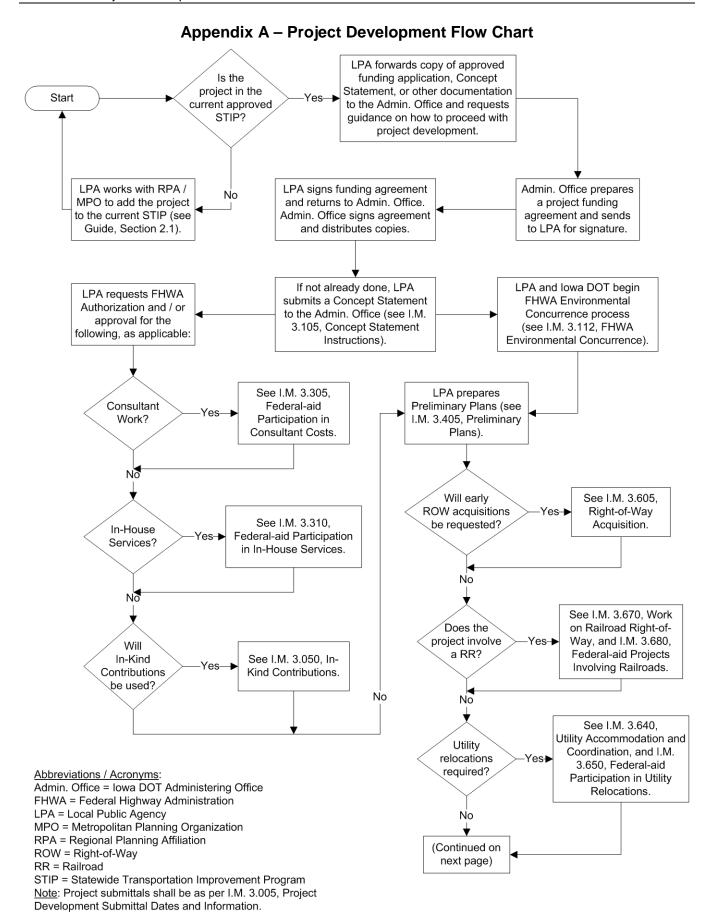
10.3. Bridges

10.3.1. Bridge Inspections

As a condition of receiving any <u>Federal funds</u>, LPAs with highway bridges under their jurisdiction must comply with the National Bridge Inspection Standards (NBIS). The NBIS requires regular inspections, bridge ratings, posting where appropriate, and qualified personnel to perform and supervise inspections. For more information, refer to I.M. 2.120, Bridge Inspections.

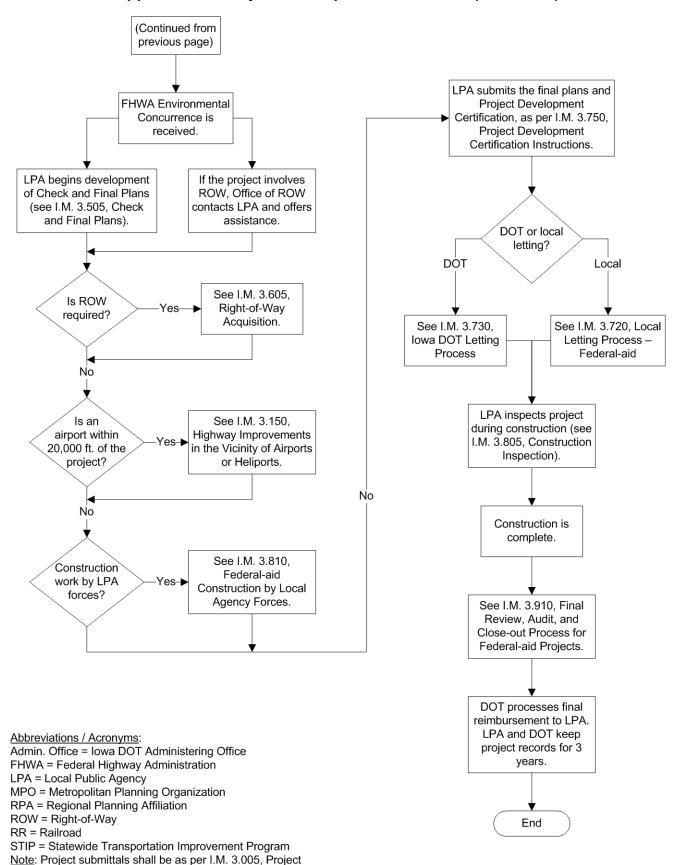
10.3.2. Bridge Funding Programs

The Highway Bridge Program (HBP) provides Federal-aid funding for replacement or rehabilitation of highway bridges that meet the eligibility criteria, such as structural condition, roadway and bridge geometrics, and traffic volumes. HBP funds may also be used for bridge inspections. The HBP funds available for the State of Iowa are divided between the Iowa DOT, cities, and counties on a formula basis. Each county receives an annual allocation of funds which may be used on any eligible bridge, subject to certain restrictions. Cities compete for HBP funding based on a priority point system. In addition to the HBP funds, there is a small amount of State funds available annually for city and county bridges under the City and County Bridge Construction funds, respectively. For complete information regarding the bridge programs for both cities and counties, refer to I.M. 2.020, Federal and State Bridge Programs.



Development Submittal Dates and Information.

Appendix A – Project Development Flow Chart (continued)



Appendix B – Glossary of Terms

Below is an alphabetical listing of terms and phrases used in the Guide. Following each term or phrase is a brief definition.

Administering Office: For projects funded by any or a combination of the Transportation Alternatives Program (TAP), such as Transportation Enhancement, Federal Recreational Trails, Safe Routes to School, National Scenic Byways, and certain Iowa Clean Air Attainment Program projects, and certain <u>earmark</u> projects, the <u>Office of Systems Planning</u> is the Administering Office. For all other projects, the Administering Office is one of the 6 District Offices, depending on which <u>Iowa DOT District</u> the LPA is located in.

Authorization/Agreement: A document that the Iowa DOT and FHWA electronically sign in <u>FMIS</u> that obligates <u>Federal funds</u> for the project. This document also establishes the <u>Effective Authorization Date</u>.

Amendment/Modification: A document that amends a previously executed Authorization/Agreement or a prior Amendment/Modification. In instances when a Federal-aid funded project needs to be amended for any reason (cost overrun, additional phase of work, supplemental agreement, etc.), an Amendment/Modification is signed by the lowa DOT and FHWA to electronically approve the modification. This process is also completed through FMIS.

Earmark or demonstration funds: Federal-aid funding that is directed to specific projects in legislation enacted by the United States Congress. Earmark funding may be included either in a multi-year transportation bill such as the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), or as part of an annual appropriations bill. Even though these projects receive their funding in a different way, earmark projects must still follow the same project development procedures as all other Federal-aid projects.

Effective Authorization Date: This is the date after which work that is to be reimbursed with <u>Federal funds</u> may begin. Any costs <u>incurred</u> prior to this date are not eligible for Federal-aid reimbursement. This date is shown on the <u>Authorization/Agreement</u> and <u>Amendment/Modification</u> documents.

Federal-aid highways: All roads except those with a <u>Federal Functional Classification</u> of Rural Minor Collector or Local.

Federal Fiscal Year (FFY): Begins on October 1 and ends September 30 of each calendar year. For example, October 1, 2008 is the beginning of the Federal Fiscal Year 2009.

Federal funds: Federal funds reflect the amount of Federal funding available for a project. The total amount of Federal funds received is subject to either the Federal-aid limit shown in the Statewide Transportation Improvement Program (STIP) or the limit established by the project funding agreement.

Federal share: The percentage of eligible and authorized project costs paid by the Federal government. With a few exceptions, the Federal government does not pay for the entire cost of the project. In most cases, <u>Federal funds</u> must be matched with funds from non-Federal-aid sources. For most FHWA transportation programs, the Federal share of project costs is 80%. Refer to the funding agreement for the applicable pro-rata Federal share and matching requirements of the specific type of <u>Federal funds</u> involved.

FHWA Authorization: The action taken by FHWA when signing the <u>Authorization/Agreement</u> document or the <u>Amendment/Modification</u> document in <u>FMIS</u>. Except in the case of Advance Construction, this action results in an <u>obligation</u> of <u>Federal funds</u> at the specified <u>Federal share</u> for the specific type of project costs identified on the Authorization/Agreement or Amendment/Modification.

FHWA Environmental Concurrence: This milestone in project development is marked by different events for different types of projects, depending on the anticipated level of environmental impacts. The event that marks the completion of the NEPA process depends on the type of NEPA document that is required for the project:

- For projects that are classified as a Categorical Exclusion (CE), the NEPA process is complete as of the
 effective date of FHWA Environmental Concurrence. This date is specified in the written notice the LPA
 will receive from the lowa DOT Office of Location and Environment.
- For projects that require an Environmental Assessment (EA) or Environmental Impact Statement (EIS)
 document, the NEPA process is considered complete as of the date that the FHWA signs the Finding of
 No Significant Impact (FONSI) or Record of Decision (ROD) document, respectively.

Appendix B – Glossary of Terms (continued)

For more information about the different types of environmental documentation, refer to <u>I.M. 3.112</u>, FHWA Environmental Concurrence Process.

Fiscal Management Information System (FMIS): FMIS is the FHWA's electronic financial tracking system for Federal-aid transportation projects. Iowa DOT personnel use this system to request <u>FHWA Authorization</u> or obtain project information and funding reports.

Incurred Costs: Costs are considered to be incurred when the work associated with those costs begins. Example: Costs have been incurred once a consultant, whose services are to be reimbursed with <u>Federal funds</u>, begins work, even if the LPA has not received a bill or made any payments to the consultant.

Obligation: An obligation is a commitment – the Federal government's promise to pay the <u>Federal share</u> of a project's eligible cost. This commitment occurs when the project is authorized by FHWA and the <u>Authorization/Agreement</u> or the <u>Amendment/Modification</u> is executed through <u>FMIS</u>. Obligation is a key step in financing. Obligated funds are considered "used," or set aside for that particular project, even before any cash is transferred.

Instructional Memorandums to Local Public Agencies Table of Contents



Some I.M.s are written either to counties or cities; others are written to both counties and cities. The intended audience is indicated in the "To:" field of the I.M. as well as the Table of Contents below. Many of the I.M.s are referenced by the Federal-aid Project Development Guide (Guide). These I.M.s are marked with an asterisk (*). For more information about the relationship between the Guide and I.M.s, refer to the Guide and I.M.s web page.

Note: The I.M.s are currently in the process of being transitioned into a new format and numbering system. New or updated I.M.s will use the new format. Existing I.M.s will remain in the old format until they are revised or updated. Some of the I.M.s are not yet complete, as shown in light grey text. Some incomplete I.M.s will be based on an existing Project Development Information Packet document, some will be based on an existing County Engineers I.M. that will be renumbered, and some will include entirely new content. Where applicable, a reference and link to the existing Packet document or County Engineers I.M. is provided.

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February 16, 2007

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<u>3.750</u> *	Project Development Certification Instructions	December 3, 2007	Both
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	Attachment B – Final Review and Audit Process Flowchart – Highway or Bridge Construction	December 3, 2007	Both
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INSTRUCTIONAL MEMORANDUMS

To Local Public Agencies



To:	Counties and Cities	Date: February 18, 2013
From:	Office of Local Systems	I.M. No. 3.005
Subject:	Project Development Submittal Dates and Information	

Contents: This Instructional Memorandum (I.M.) lists the submittal dates for some of the major milestone events for development for Local Public Agency (LPA) projects that will be let by the Iowa Department of Transportation (Iowa DOT). It also summarizes the information that should be included with each submittal.

Submittal Dates for Local Public Agency Projects Let by the Iowa DOT

Following are submittal dates for the May 21, 2013, through September 15, 2015, Iowa DOT lettings. All submittals should be *received* by the Iowa DOT Administering Office on the dates shown below. However, early submittals are always encouraged.

Concept Statement		Prelimina	ary Plans	Check	Plans	Final Plans			→ ॻ
Major (42 weeks)	Minor (16 weeks)	Major (16 weeks)	Minor (11 weeks)	Major (6 weeks)	Minor (5 weeks)	and PDC (2 weeks)	Contracts Turn-in	Letting Date	Fiscal Year
05/15/12	11/13/12	11/13/12	12/18/12	01/22/13	01/29/13	02/19/13	03/05/13	05/21/13	
06/12/12	12/11/12	12/11/12	01/15/13	02/19/13	02/26/13	03/19/13	04/02/13	06/18/13	
07/17/12	01/15/13	01/15/13	02/19/13	03/26/13	04/02/13	04/23/13	05/07/13	07/16/13	2013
08/14/12	02/12/13	02/12/13	03/19/13	04/23/13	04/30/13	05/21/13	06/04/13	08/20/13	13
09/11/12	03/12/13	03/12/13	04/16/13	05/21/13	05/28/13	06/18/13	07/02/13	09/17/13	
10/16/12	04/16/13	04/16/13	05/21/13	06/25/13	07/02/13	07/23/13	08/06/13	10/15/13	
11/13/12	05/14/13	05/14/13	06/18/13	07/23/13	07/30/13	08/20/13	09/03/13	11/19/13	
12/11/12	06/11/13	06/11/13	07/16/13	08/20/13	08/27/13	09/17/13	10/01/13	12/17/13	
01/15/13	07/16/13	07/16/13	08/20/13	09/24/13	10/01/13	10/22/13	11/05/13	01/22/14	
02/12/13	08/13/13	08/13/13	09/17/13	10/22/13	10/29/13	11/19/13	12/03/13	02/18/14	
03/19/13	09/17/13	09/17/13	10/22/13	11/26/13	12/03/13	12/24/13	01/07/14	03/18/14	
04/16/13	10/15/13	10/15/13	11/19/13	12/24/13	12/31/13	01/21/14	02/04/14	04/15/14	2014
05/14/13	11/12/13	11/12/13	12/17/13	01/21/14	01/28/14	02/18/14	03/04/14	05/20/14	14
06/11/13	12/10/13	12/10/13	01/14/14	02/18/14	02/25/14	03/18/14	04/01/14	06/17/14	
07/16/13	01/14/14	01/14/14	02/18/14	03/25/14	04/01/14	04/22/14	05/06/14	07/15/14	
08/13/13	02/11/14	02/11/14	03/18/14	04/22/14	04/29/14	05/20/14	06/03/14	08/19/14	
09/10/13	03/11/14	03/11/14	04/15/14	05/20/14	05/27/14	06/17/14	07/01/14	09/16/14	
10/15/13	04/15/14	04/15/14	05/20/14	06/24/14	07/01/14	07/22/14	08/05/14	10/21/14	
11/12/13	05/13/14	05/13/14	06/17/14	07/22/14	07/29/14	08/19/14	09/02/14	11/18/14	
12/17/13	06/17/14	06/17/14	07/22/14	08/26/14	09/02/14	09/23/14	10/07/14	12/16/14	
01/14/14	07/15/14	07/15/14	08/19/14	09/23/14	09/30/14	10/21/14	11/04/14	01/21/15	
02/11/14	08/12/14	08/12/14	09/16/14	10/21/14	10/28/14	11/18/14	12/02/14	02/17/15	
03/18/14	09/16/14	09/16/14	10/21/14	11/25/14	12/02/14	12/23/14	01/06/15	03/17/15	
04/15/14	10/14/14	10/14/14	11/18/14	12/23/14	12/30/14	01/20/15	02/03/15	04/21/15	2015
05/13/14	11/11/14	11/11/14	12/16/14	01/20/15	01/27/15	02/17/15	03/03/15	05/19/15	01
06/17/14	12/16/14	12/16/14	01/20/15	02/24/15	03/03/15	03/24/15	04/07/15	06/16/15	
07/15/14	01/13/15	01/13/15	02/17/15	03/24/15	03/31/15	04/21/15	05/05/15	07/21/15	
08/12/14	02/10/15	02/10/15	03/17/15	04/21/15	04/28/15	05/19/15	06/02/15	08/18/15	
09/16/14	03/17/15	03/17/15	04/21/15	05/26/15	06/02/15	06/23/15	07/07/15	09/15/15	

Important notes regarding submittal dates:

- 1) Projects using the "Major" submittal dates typically involve any of the following: wetlands, recreational areas, or wildlife refuges; railroad crossings; historical structures or historical districts; right-of-way or easement acquisitions; or Federal-aid for consultant work. Examples include relocating a road on new alignment, major reconstruction, a major bridge, or a historical structure. Note: All projects requiring a hydraulic or structural review should follow the schedule for "Major" type projects.
- Projects using the "Minor" submittal dates typically do not involve any of the items listed above for the "Major" type projects. Examples include an asphalt resurfacing project or a bike trail surfacing project on an existing railroad bed.
- 3) Neither the Major nor the Minor project submittal dates are applicable to Federal-aid projects that require an Environmental Assessment (EA) or Environmental Impact Statement (EIS) document. The submittal dates shown above reflect the *minimum* amount of time required by the *lowa DOT* to review the submittal. These dates do not reflect the time that may be required by other agencies for the appropriate reviews and approvals. The project schedule should be based on the specific circumstances of the project. Federal-aid projects that have significant impacts to environmental or historical resources, require large amounts of right-of-way, or involve adjustments to railroad or utility facilities, will likely require additional time to develop for letting. Therefore, in such cases, it will probably be necessary to submit the Concept Statement and Preliminary Plans earlier than the dates shown. For additional guidance and information, refer to I.M. 3.002, Federal-aid Project Scheduling.
- 4) The "Final Plans and PDC" date is when the LPA shall submit final plans and the Project Development Certification (PDC) to the Administering Office.
- 5) The "Letting Date" is the third Tuesday of every month, except January, which is the Wednesday after the third Tuesday of the month.
- 6) The "Contracts Turn-in" date is the first Tuesday, 2 months prior to letting. This date is when the Administering Office will deliver final plans to the Iowa DOT Office of Contracts.
- 7) All other submittal dates are calculated from the "Contracts Turn-in" date by subtracting the number of weeks shown, except when such dates conflict with a State holiday. Dates adjusted for a holiday are shown in **bold**.
- 8) The "Fiscal Year" is the Federal fiscal year in which a project should be programmed in the Statewide Transportation Improvement Program (STIP) for the letting dates shown. Even though October 1 is the beginning of the Federal fiscal year, projects targeting an October letting should be programmed in the previous fiscal year. This is because projects in the October letting are authorized for letting in September.

Administering Office: When it occurs in this document, and elsewhere throughout the I.M.s, the term, "Administering Office," shall refer to the Iowa DOT Office of Systems Planning for projects funded by the Transportation Alternatives Program (TAP), Transportation Enhancement, Federal Recreational Trails, Scenic Byways, Safe Routes to School, or Revitalize Iowa's Sound Economy (RISE) programs; unless such projects are already being administered by one of the Iowa DOT District Offices. For all other projects, the term, "Administering Office," shall refer to the appropriate Iowa DOT District Office.

Electronic Submittals: Plans shall be submitted electronically and conform to the requirements of the File Specifications for Electronic Plan Submittals to the Iowa DOT. All other submittals listed below shall also be submitted in electronic format, provided the means of transmission and file format is acceptable to the Administering Office. Due to e-mail file size limitations, the Iowa DOT recommends that electronic plans and all other electronic submittals be transmitted using the submittal tools provided in the Transportation Program Management System (TPMS). To obtain access to TPMS, contact the Iowa County Engineer's Service Bureau at 515-244-0779. If sent by e-mail, contact the Administering Office for the appropriate e-mail address. The preferred file format for other electronic documents is Adobe Acrobat's Portable Document Format (PDF). Other acceptable file formats include: Microsoft Word (*.doc), Joint Photographs Expert Group (*.jpg), Graphic Interchange Format (*.gif), and Tag Image File Format (*.tif).

Concept Statement: Include the following items in a Federal-aid project "Concept Statement for Local Systems Federal-aid Projects" (Form 517001) submittal (non-Federal-aid projects do not require a Concept Statement):
 A transmittal letter, memo, or e-mail. Include a description of any unique aspects of the project or other information that cannot be adequately explained on the Concept Statement form.

□ A completed Concept Statement. Include a location map and any applicable environmental documents. For more information, refer to I.M. 3.105, Concept Statement Instructions.

Design exception documentation, if required as per <u>I.M. 3.205</u>, Urban Design Guidelines, or <u>I.M. 3.210</u>, Rural Design Guidelines. If the need for a design exception cannot be determined when the Concept Statement is submitted, submit the design exception request as soon as possible, but no later than the Check Plan submittal date.

☐ If required by the Concept Statement, include the Environmental Data Sheet (Form 517006). If the information required by this form is not known at the time of the Concept Statement submittal, submit the Environmental Data Sheet as soon as possible, but no later than the Preliminary Plan submittal date. For more information, refer to I.M. 3.110, Environmental Data Sheet Instructions.

Incomplete Concept Statement submittals will delay project reviews. All submittals shall include the Iowa DOT project number. Users of the <u>TPMS</u> may request project numbers using this system; otherwise, contact the Administering Office to obtain a project number.

Preliminary Plans: Submit in accordance with <u>I.M. 3.405</u>, Preliminary Plans and <u>I.M. 3.410</u>, Preliminary Bridge and Culvert Plans.

<u>Please note</u>: Design activities for Federal-aid projects may not progress past the preliminary plan stage until after FHWA Environmental Concurrence has been received.

Check and Final Plans: Submit in accordance with <u>I.M. 3.505</u>, Check and Final Plans and <u>I.M. 3.510</u>, Check and Final Bridge or Culvert Plans.

INSTRUCTIONAL MEMORANDUMS

To Local Public Agencies



To:	Counties and Cities	Date: February 18, 2013
From:	Office of Local Systems	I.M. No. 3.310
Subject:	Federal-aid Participation in In-House Services	

Contents: This Instructional Memorandum (I.M.) includes guidelines and procedures to receive Federal-aid reimbursement for the costs of in-house services. In-house services include non-construction, project-related services performed by Local Public Agency (LPA) staff. For purposes of this I.M., LPA staff also includes employees of co-sponsoring organizations, such as non-profit organizations and other governmental agencies. Topics addressed include eligible costs and activities, submittal requirements, authorization, approval, reimbursement, and record keeping associated with in-house services. This I.M. includes the following attachments:

Attachment A – Sample Scope of Work and Budget (Excel Spreadsheet)

Eligible Costs

Direct Costs

Federal-aid may participate in the direct costs of salaries, wages, and related payroll expenses of LPA employees, but only for those costs incurred when the LPA's employees are directly engaged in eligible activities. Related payroll costs include travel, transportation, leave, holidays, social security, retirement, and other payroll benefits.

Other direct costs include equipment and supplies necessary to perform the in-house services. Examples include copying, printing, rental fees for facilities or equipment, and travel costs.

Indirect Costs

Federal-aid may also participate in indirect costs provided such costs have been allocated to the Federal-aid project in accordance with an approved indirect cost proposal (Indirect Cost Allocation Plan (ICAP) or Indirect Cost Rate) that meets the requirements of 2 CFR 225 (Cost principles for state, local and Indian tribal governments, previously OMB Circular A-87) and 2 CFR 230 (Cost principles for non-profit organizations, previously OMB Circular A-122). The indirect cost proposal must be reviewed and approved on an annual basis by the lowa DOT unless approved by a Federally cognizant agency. The FHWA may also elect to review the LPA's indirect cost proposal.

All project costs for which reimbursement will be requested must have FHWA authorization and Iowa DOT written approval prior to being incurred.

Eligible Activities

Only project-related activities that directly contribute to the planning, design, development, or implementation of the project are eligible for Federal participation. These include the following:

- Preliminary Engineering (PE) This includes work that is part of the development of the plans, specifications, and estimate (PS&E) for a construction project. This includes environmental studies and documents, preliminary design, and final design up through and including the preparation of bidding documents. PE does not include planning or other activities that are not intended to lead to a construction project. Examples of work not considered PE include planning, conceptual, feasibility studies, and Interchange Justification Reports. Note: Final design activities may not begin until after receipt of FHWA Environmental Concurrence.
- Construction Engineering (CE) This includes supervision and inspection of construction activities, additional staking functions considered necessary for effective control of the construction operations, testing materials incorporated into construction, checking shop drawings, and measurements needed for the preparation of pay estimates.

- 3. Right-of-Way Acquisition Services This includes all work associated with acquisition of property interests needed for the project. Examples include preparation of right-of-way plats, appraisals for parcel acquisitions, review of appraisals, preparation for and trial of condemnation cases, and furnishing of relocation advisory assistance. Note: Acquisition of property rights may not begin until after receipt of FHWA Environmental Concurrence.
- 4. Other Services For projects that do not result in physical construction which includes activities that are necessary for the development or implementation of the project. Examples include developing or conducting programs, feasibility studies, conceptual studies, or planning documents.

Submittal Requirements

Scope of Work and Budget

The LPA shall submit a Scope of Work and Budget for the requested in-house services to the Administering Office using the provided <u>Excel spreadsheet</u>. This includes both a completed form and the accompanying budget detail. For a Sample Scope of Work and Budget, refer to <u>Attachment A</u>.

The scope of work shall include a detailed list of tasks to be performed by the LPA staff, the deliverables associated with each task, and a listing of fringe benefits provided to employees.

The budget shall include, but may not be limited to, the following information:

- 1. Staff time (hours) for each task. Staff time should be estimated separately for individual employees or classifications of employees.
- 2. Wage rates (salaries) for each employee or classification of employee. Include an explanation that shows how the wage rates were calculated.
- 3. Fringe benefits, including any payroll expenses such as IPERS, FICA, employee benefits, or other related direct payroll expenses.
- 4. Other direct costs. Include an explanation to show how the estimated costs or cost rates were determined. Examples include: equipment or printing costs that are charged directly to the project, mileage, outside printing costs, etc.
- 5. Indirect costs. If these are requested for reimbursement, the indirect costs shall be broken out separately.

Authorization and Approval Procedures

The necessary procedures to request, review, and approve in-house services costs are summarized below:

- 1. The LPA submits a request for Federal-aid participation in in-house services to the Administering Office. The request shall include a Scope of Work and Budget. If indirect costs are requested, the LPA shall submit documentation showing approval of its indirect cost proposal by either the Iowa DOT or by the LPA's Federal cognizant agency. If the LPA's indirect cost proposal has not already been approved, the Administering Office will refer the LPA to the Iowa DOT Office of Finance, External Audits, which will provide the LPA with additional instructions and sample documents for requesting approval of indirect costs.
- 2. The Administering Office reviews for the completeness of the submittal. If the submittal is incomplete, the Administering Office works with the LPA to address any concerns.
- 3. The Administering Office requests a pre-audit from the Office of Finance, External Audits.
- 4. The Office of Finance, External Audits, reviews the pre-audit request and either performs a pre-audit or notifies the Administering Office that the pre-audit has been waived. If a pre-audit is conducted, the

Office of Finance, External Audits, sends an electronic copy of the pre-audit report to the Administering Office and the Office of Finance, Project Accounting and Payables.

- 5. The Administering Office sends an electronic copy of the pre-audit report (if completed) to the LPA. If the pre-audit report requires modifications of the LPA's submittal, the LPA must respond to the findings of the pre-audit report. The Administering Office will work with the LPA and the Office of Finance, External Audits, until the LPA's request is acceptable.
- 6. Once the LPA's request is acceptable, the Administering Office requests FHWA authorization based on the approved Scope of Work and Budget.
- 7. After FHWA Authorization is received, the Administering Office notifies the LPA its request has been approved and provides the effective date of FHWA authorization. The Administering Office sends an electronic copy of this notice to the Office of Finance, External Audits; Office of Finance, Project Accounting and Payables; and the appropriate Metropolitan Planning Organization (MPO) or Regional Planning Affiliation (RPA).

Changes to the Approved Scope of Work and Budget

Once a Scope of Work Budget has been approved by the Administering Office, none of the following revisions shall be made without the approvals shown.

Revision Type	Approval
Changes in Federal-aid amount.	Iowa DOT with
	FHWA Authorization
Transfer of funds between project categories, tasks, or activities	Iowa DOT
exceeding 10 percent of the total approved budget when the Federal	
share of the total budget exceeds \$100,000.	
Revision of the project scope or objectives regardless of whether there is	Iowa DOT with
an associated budget revision requiring prior approval.	FHWA Authorization
Extending the period of availability of funds.	Iowa DOT
Changes in key persons in cases where specified in an application or a	Iowa DOT
grant award (i.e., change in lead consultant or uniquely qualified staff).	
The addition or removal of services of a third party to perform project	Iowa DOT (with
activities (i.e., consultant or in-kind services).	FHWA Authorization
	for in-kind)

If the need arises to make any of the above revisions to the Scope of Work and Budget, the LPA shall submit a request to the Administering Office. Each request should consist of a detailed narrative description of each change requested and should be accompanied by the existing and proposed project budget. The request will be reviewed by the Administering Office and notice of approval or denial of the request will be made in writing. Iowa DOT approval and/or FHWA Authorization must be acquired prior to incurring any costs associated with the proposed revision.

Reimbursement Procedures

After the requested in-house services have been authorized by FHWA and the LPA has received written notification from the Administering Office, the LPA may proceed to perform the in-house services. After costs have been incurred, the LPA shall submit periodic requests, no more than monthly but not less than annually, for reimbursement to the Administering Office. In general, reimbursement requests shall include the same information as the approved Scope of Work and Budget. Reimbursement requests shall include the following information:

- 1. A signed reimbursement claim form.
 - Use either the Claim for Reimbursement of Federal Grant Program Project Costs (<u>Form 240007</u>) or Claim for Reimbursement of Safe Routes to School Project Costs (Form 240009), as applicable.
- 2. Supporting documentation, including:
 - A statement of work completed during the billing period. This shall be identified by the tasks and / or deliverables as shown on the approved Scope of Work and Budget. Include details on the specific

activities completed. For example, for a public meeting task item, include the meeting date and location.

- For direct costs, a copy of invoices or other documentation showing what was purchased and how much was paid.
- For direct costs, proof of payment such as copies of cancelled checks or check registers.
- For indirect costs, include the approved indirect cost rate used to calculate the indirect costs.
- For payroll costs, include documentation that shows the actual wages and fringe benefits.
- Timesheets for each employee charging direct hours to the project. This should be in a format that shows how their time on a daily basis was charged to all projects during the billing period.

Project Close-out Procedures

- Upon completion of the in-house services, the LPA notifies the Administering Office and requests final reimbursement for such costs. This request shall include a statement that all project tasks and deliverables have been completed and include copies of all project deliverables, such as final reports, manuals, brochures, etc.
- 2. The Administering Office requests a final audit from the Office of Finance, External Audits.
- 3. The Office of Finance, External Audits, reviews the final audit request and either performs a final audit or notifies the Administering Office that the final audit has been waived. If a final audit was conducted, the Office of Finance, External Audits, sends 2 copies of the final audit report to the Administering Office and 1 copy to the Office of Finance, Project Accounting and Payables.
- 4. The Administering Office provides a copy of the final audit report to the LPA. If additional reimbursement is due, the Administering Office processes the final reimbursement. If the final audit finds the LPA has been over-reimbursed, the Administering Office will request the Office of Finance, Financial Management and Reporting, to invoice the LPA for the appropriate Federal-aid share or deduct this amount from the balance of Federal-aid reimbursement that is due to the LPA for other project costs.
- 5. If the project includes construction or consultant costs, refer to <u>I.M. 3.910</u>, Final Review, Audit, and Close-out Procedures for Federal-aid Projects, for additional instructions.

Record Retention

The LPA shall maintain records of supporting documentation for all in-house services costs for at least 3 years after the record retention date provided by the Administering Office. The FHWA and the lowa DOT may review the records any time prior to this date. If such a review finds costs reimbursed cannot be documented, some or all of the Federal reimbursement will need to be returned. Documentation may be maintained electronically, provided the electronic record keeping system can produce the required documentation upon request.

SCOPE OF WORK AND BUDGET Non-Construction Projects

Project Nu	umber: SRTS-000S(501)8U-00	Date Submitted: 1/15/2013
Project Sp	oonsor: SRTS Organization	Est. Start Date: 10/1/2013
Contact P	erson: Mary Doe	Phone Number: 515-555-5555
Title:	Coordinator	Fax Number: 515-555-5555
Address:	123 Main Street, Happy City, Iowa	Email: mary.doe@happycity.org

ESTIMATED PROJECT BUDGET:

The project budget should be prepared using the most current information available to give an accurate accounting of the estimated project costs on this date. The costs provided at this time will not necessarily be identical to the budget provided at the time of application as this should be a more refined estimate that may include more detail than the planning level estimate provided with the application. Actual reimbursements will be based on documented costs up to the amount reflected in the project agreement. The project tasks should be clearly defined, easily understood, and correspond to the deliverables listed further below. An approved Indirect Cost Proposal is required for any indirect costs included in the project budget. Please attach a project budget similar to the example below that adheres to the principles below. The Budget Template has been provided in a separate tab within this Excel file for your use.

- 1. The overall project budget is broken down into reasonable project tasks and includes separate columns for estimated staff hours, estimated hourly salary, estimated fringe, other direct costs, other indirect costs, and line item totals.
- 2. Each employee billing direct salary expenses is identified by classification and estimated hours per work task.
- 3. Staff hourly rates are broken down into component costs of direct salary, direct fringe, and indirect costs.
- 4. All other direct costs are identified and assumptions (Example: 200 miles @ \$0.55/mile) used to come up with the estimate are included.

Example Project Budget

TASK, CLASSIFICATION OF EMPLOYEE, OR DIRECT COST	Estimated Hours	Estimated Hourly Rate, Salary	Estimated Fringe, Direct	Other Direct Cost Estimate	Indirect Cost Estimate (Applied: 25%)	Total Estimated Budget
Task 1: Data & Inventory		-				
SRTS Coordinator	150.00	\$24.13	\$8.45	\$0.00	\$6.03	\$5,791.20
Planner	100.00	\$22.17	\$7.76	\$0.00	\$5.54	\$3,547.20
Task 1 Subtotal:					-	\$9,338.40
Task 2: Mapping Activities						
SRTS Coordinator	75.00	\$24.13	\$8.45	\$0.00	\$6.03	\$2,895.60
Planner	125.00	\$22.17	\$7.76	\$0.00	\$5.54	\$4,434.00
Mileage (200 @ \$0.55/mile)			M	\$110.00		\$110.00
Oversize copies (25 @ \$1.50)				\$37.50	_	\$37.50
Task 2 Subtotal:			U			\$7,477.10
Task 3: Public Participation Activities		11/00				
SRTS Coordinator	50.00	\$24.13	\$8.45	\$0.00	\$6.03	\$1,930.40
Mileage (100 @ \$0.55/mile)				\$55.00	_	\$55.00
Task 3 Subtotal:	2					\$1,985.40
Task 4: Development of Plan						
SRTS Coordinator	300.00	\$24.13	\$8.45	\$0.00	\$6.03	\$11,582.40
Bound copies (15 @ \$5.50/each)				\$82.50	_	\$82.50
Task 4 Subtotal:						\$11,664.90
Task 5: Plan Implementation						
SRTS Coordinator	50.00	\$24.13	\$8.45	\$0.00	\$6.03_	\$1,930.40
Task 5 Subtotal:						\$1,930.40
TOTAL BUDGET						\$32,396.20

DELIVERABLES BY TASK:

Each project task should provide clearly defined deliverables (or objectives) that will act as benchmarks in the completion of the project. The status of each project task will be requested with each claim for reimbursement. Progress made toward the completion of the deliverables listed below will provide a clear understanding of how the project is proceeding.

Task Deliverables

Task		Deliverables
Task 1:	Data and Inventory	Conduct SRTS surveys along with spring and fall tally sheets
		2. Conduct traffic studies
		3. Conduct before/after school assessments
		4.
		5.
Task 2:	Mapping Activities	Develop sidewalk assessment maps
	317 3	Develop primary route maps
		Develop sign assessment maps
		4.
		5.
Task 3:	Public Participation Activities	Conduct SRTS Committee meetings (20)
r don or		2. Conduct visioning sessions (10)
		Post information and meetings on school and community websites
		4.
		5.
Task 4:	Development of SRTS Plan	Prepare plan documents for each school district/community
1 a5k 4.	Development of SICTS Flam	
		2. Print plan
		3. Distribute plan
		4.
	Dian Irania mantatian	5.
Task 5:	Plan Implementation	1. Plan approval process
		2. Program review
		Ordinance review, revisions and additions
		4.
		5.
Task 6:		1.
		2.
		3.
		4.
		5.
Task 7:		1.
		2.
		3.
		4.
		5.
Task 8:		1.
		2.
		3.
		4.
		5.
Task 9:		1.
r don or		2.
		3.
		4.
		5.
Task 10.		1.
iask IU.		
		2.
		3.
		4.
		5.

FRINGE BENEFITS:

The reimbursement of any fringe benefits requires concurrence by the lowa DOT that such fringe benefits are reasonable. Please provide below an itemized list of all fringe benefits provided to employees for your organization. A partial list has been provided. Please place an X to the left of each applicable fringe benefit for your agency and/or add other fringe benefits to the list. State whether each benefit is provided according to state or federal requirements or whether the benefit is available to all employees at a rate listed in an employee handbook or similar document.

	Fringe Benefit	Benefit provided: State/Federal Requirement or Available to all Employees
Х	Social Security Liability	Federal requirement
X	Medicare Liability	Federal requirement
x	_Worker's Compensation	Federal/State requirement
X	State Unemployment Insurance	State requirement
	_IPERS	State requirement
X	_Health Insurance	Available to all employees
X	_Long Term Disability	Available to all employees
X	Other Flex Dollars	Available to all employees
	Other	
Propose City of M	d communities and schools include:	fully convey the project scope, budget or deliverables. Happy City; Happy City Community School District; Glad City; Glad City Community School District ict; Cities of Most, Always and Sometimes; MAS Community School District; City of Sweet; Sweet
Propose City of M	d communities and schools include: lerry; Merry Community School Distr	Happy City; Happy City Community School District; Glad City; Glad City Community School District

INSTRUCTIONAL MEMORANDUMS

To Local Public Agencies



To:	Counties and Cities	Date: February 18, 2013
From:	Office of Local Systems	I.M. No. 3.405
Subject:	Preliminary Plans	

Contents: This Instructional Memorandum (I.M.) includes guidelines and procedures for preparation, submittal, and review of preliminary plans for Local Public Agency (LPA) Federal-aid projects and certain State-aid projects that will be let by the Iowa Department of Transportation (Iowa DOT). This I.M. also includes the following attachments:

Attachment A – Preliminary Plan Guidelines

Attachment B – Preliminary Plan Checklist (Microsoft Word)

Attachment C – Preliminary Plan Process Flowchart

Note:

- If the project involves a bridge or culvert, refer also to I.M. 3.410, Preliminary Bridge or Culvert Plans.
- Preliminary plan reviews are required for State-aid projects that include improvements that will be maintained by the Iowa DOT.
- Preliminary plan reviews are not required for the following:
 - State-aid projects that do not include improvements that will be maintained by the lowa DOT, unless otherwise specified in the project agreement.
 - Projects funded with only Farm-to-Market or local funds.

However, if requested by the LPA, preliminary plans for such projects will be reviewed in accordance with the guidelines set forth in this I.M.

Preparation

Content and Format

Preliminary plans shall be prepared in accordance with <u>Attachment A</u> – Preliminary Plan Guidelines and <u>Attachment B</u> – Preliminary Plan Checklist. <u>Attachment A</u> provides general guidelines and instructions applicable for all types of projects. <u>Attachment B</u> provides a checklist of specific items that will be reviewed by the Iowa DOT Administering Office. The Iowa DOT strongly recommends that the LPA or its consultant use both these attachments to perform an internal plan review prior to submitting the project plans to the Iowa DOT.

Design Guidelines

For new or complete reconstruction projects, refer to either <u>I.M. 3.205</u>, Urban Design Guidelines, or <u>I.M. 3.210</u>, Rural Design Guidelines. For Resurfacing, Restoration, or Rehabilitation (3R) projects, refer to <u>I.M. 3.214</u>, 3R Guidelines.

Federal-aid projects that do not meet these guidelines will require a design exception. If the need for a design exception has been identified at the preliminary plan stage, the design exception request and supporting documentation should be submitted with the preliminary plans. For more information, refer to L.M. 3.218, Design Exception Process.

Even though the lowa DOT does not review design criteria for projects funded with only Farm-to-Market or local funds, the lowa DOT strongly recommends that LPAs properly document any design features that do not meet the current applicable AASHTO design guidelines.

Submittals

Timely submission of preliminary plans is important. Electronic submittals are required. All submittals shall be made to the Administering Office in accordance with <u>I.M. 3.005</u>, Project Development Submittal Dates and

I.M. 3.405 February 18, 2013

Information. LPAs are strongly encouraged to use the Transportation Program Management System (TPMS), Development module, for all project submittals and correspondence. Submittals shall include the following items, as applicable:

- ☐ A transmittal letter, memo, or e-mail, including the following information:*
 - The project number, location, and proposed letting date.
 - Identification of all changes from the previously approved project Concept Statement, if any.
 - Whether or not a hydraulic review is being requested, as per <u>I.M. 3.410</u>, Preliminary Bridge and Culvert Plans.
 - Whether or not the project may involve work within the right-of-way of an Interstate or Primary highway.
 - Whether or not the project may require acquisition of property rights.
 - * If the TPMS Development submittal tool is used, information that is already available in TPMS Development does not need to be repeated in the transmittal e-mail.
- Preliminary Plans.
- A completed Preliminary Plan Checklist, as per <u>Attachment B</u> (use of the checklist is encouraged, but not required).
- Design exception documentation, if required as per <u>I.M. 3.205</u>, Urban Design Guidelines or <u>I.M. 3.210</u>, Rural Design Guidelines.
- ☐ A completed Environmental Data Sheet (<u>Form 517006</u>), if required and it was not previously submitted with the Concept Statement as per I.M. 3.110, Environmental Data Sheet Instructions.

Utility Coordination

In addition to submitting preliminary plans to the Iowa DOT, preliminary plans should also be submitted to all utilities within the project limits or corridor. For more information, refer to <u>I.M. 3.640</u>, Utility Accommodation and Coordination.

Review

Plans submitted in conformance with this I.M. should be returned by the Administering Office in a timely manner with relatively few comments. If the plans do not conform to these guidelines, the review process will require more time and effort by the LPA and the lowa DOT, which could delay the project letting.

The process for submittal, distribution, and review of project plans is illustrated in Attachment C – Preliminary Plan Process Flowchart. As the flowchart shows, if the project involves bridge or culvert that requires a hydraulic review, or requires work on an Interstate or Primary highway, the plans will need additional reviews by other lowa DOT offices. Because these reviews may require additional time, early submittal of such plans is strongly encouraged.

After the Administering Office has provided comments to the LPA, a field review may be conducted, if requested by either party. Any additional comments from the Administering Office shall be sent in writing to the LPA after the review, and the LPA shall provide a written response to those comments. The LPA may provide a separate response or include the response as part of the Check Plan submittal.

<u>Note</u>: Federal-aid projects may not proceed to final design or acquire right-of-way with Federal funds until after FHWA Environmental Concurrence has been received. For more information, refer to Sections 4.1, 5.1, and 6.1 of the Federal-aid Project Development Guide.

Preliminary Plan Guidelines

For Local Public Agency (LPA) Projects Let by the Iowa Department of Transportation (Iowa DOT)

Plan Format

Use of the Iowa DOT plan format is strongly recommended; however, except where noted otherwise, use of the Iowa DOT standard plans and details is not required for LPA projects. Use of the Iowa DOT format promotes uniformity and consistency of project plans, which results in Iower bid prices because most contractors that bid on projects let by the Iowa DOT are familiar with the Iowa DOT format. It also reduces the amount of effort, and consequently, the cost required to create a set of plans suitable for letting by the Iowa DOT.

Iowa DOT Standard Plans

The lowa DOT strongly encourages use of its standard plans. When used, standard plans should not be included in the plan set, but instead shall be incorporated by reference.

All of the standard plans listed below may be used on any city or county project. These standard plans are available on-line in either MicroStation format or Adobe Acrobat's Portable Document Format (PDF). Where specific design problems require special solutions, the standard plans may be modified and included in the plans as a detail or detail sheet; however, the standard plan number and revision date shall be removed. Each type of standard plan is further described below.

The <u>Standard Road Plans</u> have been developed by the lowa DOT Office of Design to show standardized design features, construction methods, and approved materials to be used in highway construction in the State of Iowa.

The <u>Standard Culvert Plans</u> have been developed by the Iowa DOT Office of Bridges and Structures. These standard plans include complete details for a variety sizes and configurations of Reinforced Concrete Box (RCB) culverts.

The <u>Standard Bridge Plans</u> are also provided by the Iowa DOT Office of Bridges and Structures. The Standard Bridge Plans most applicable to local agency projects have been grouped together on the <u>County Bridge Standards</u> web page. These standard plans include complete details for continuous concrete slab bridges and pretensioned prestressed concrete beam bridges, in a variety of widths, lengths, and spans.

Iowa DOT Road Design Details

The <u>Road Design Details</u> are available on-line in either MicroStation or PDF format. The Road Design Details contain standard design and tabulation forms, notations, details, and detail sheets. Similar to the standard plans described above, if a Road Design Detail is modified, the number and revision date shall be removed. The types of details included in the Road Design Details are further described below:

Standard Tabulations (100 series) include various tabulations for design data, bid items, and supplementary information. If used, these tabulations and forms shall be inserted on the plan sheets.

Standard Notations (200 series) are standardized notes that may be inserted on the plans as part of the General Notes. Using the Standard Notations saves time in writing the General Notes and promotes uniformity. The General Notes should contain general project information only. Information specific to bid items should be shown in the Estimate Reference Information.

Design Detail Sheets (500 series) are complete plan sheets. They provide details for common roadway items such as drainage appurtenances, fencing, certain pavement or shoulder construction details, traffic barriers and associated appurtenances, and more. If a Design Detail Sheet is used, it shall be included as a separate sheet in the plan set. It shall not be incorporated by reference.

Typical Details (1000 to 9000 series) are individual details. They include details for typical sections, curbs, shoulders, medians, etc. If a Typical Detail is used, it shall be placed on a plan sheet. It shall not be incorporated by reference.

Preliminary Plan Checklist
For Local Public Agency (LPA) Projects Let by the Iowa Department of Transportation (Iowa DOT)

Project No.:		Date:	LPA or Consulting Firm:		
Name of Designer:		Phone No.:	e-mail:		
accepta		checklist addresse	otes and information that may be necessary for es the items where most questions or problems ith the preliminary plan submittal.		
GENER	RAL				
	scope and type of work shown in the Projects (Form 517001). Any significant project limits, potential environmenta	e approved Concept cant changes to the al impacts, type of	ovements, and project limits are consistent with the of Statement for Local Systems Federal-aid e project concept (e.g., proposed design elements, work, etc.) shall be explained in the cover letter er to I.M. 3.105, Concept Statement Instructions.		
	statement, Environmental Assessme	ent, or Environmen	roved environmental document (e.g., Section 4(f) tal Impact Statement) specifies that certain be avoided, the plans shall be consistent with		
	Format. Plans shall conform to the	Specifications for I	Electronic Plan Submittals to the Iowa DOT.		
	can be printed accurately, the borde	r widths (i.e., clear nimum dimensions	for 11"x17" printing. To ensure that the entire plan space between the edge of paper and printing on top and bottom = 1/4 in.; left and right = 5/8 in. Il be legible if printed.		
	Preliminary Bridge or Culvert Plar provided in I.M. 3.410, Preliminary B		ert plans shall also conform to the guidelines ans.		
	Program (STIP), as shown in the Tramatches the description shown on the project work must be within the limits	ansportation Progra ne plans and the de s of STIP description otherwise, addition	on in the Statewide Transportation Improvement am Management System (TPMS) Programming, escription shown in TPMS Development. All on and the limits used for environmental review (as all programming changes or environmental review as soon as possible.		
	shown in the current STIP is not less based on the current cost estimate. programmed in the STIP by more the required to complete a STIP amendr	s than 30% of the earth of the estimated Fean 30%, the project ment or revision mand the specific circ	dge projects, verify the amount of Federal-aid estimated Federal share of eligible project costs, ederal share exceeds the amount of Federal-aid et will not be submitted for letting. The time ay vary from a few days to more than a month, cumstances. If a STIP revision or amendment may ering Office as soon as possible.		
TITLE	TITLE SHEET				
	Preliminary Plans Stamp. Prelimin "Preliminary Plans" on, near, or acro		s should be identified by including the words certification block.		
	should be shown in large font near the "Farm-to-Market System" for a project on a local route. For city project on a local route.	he center or upper ct on a Farm-to-Ma jects, use "Urban F	ation shall be shown. The Systems Classification middle part of the sheet. For county projects, use arket route or "Secondary Road System" for a Road System." For projects located on the or the jurisdiction of the lead governmental		

_	911 street names, as shown on the <u>lowa DOT city and county maps</u> , is recommended. The location map should be located near the left or bottom left part of the sheet. The location map should also include a scale (or be noted as "Not to Scale") and identify the project limits including the beginning and ending stations. If project divisions are used, their limits shall also be indicated, either on the location map or in a plan note.
	Designer's Certification Block. The plans shall include a certification block and seal that complies with the appropriate sections or chapters of the Code of Iowa and the Iowa Administrative Code (IAC). The designer's certification block should be shown near the bottom right part of the sheet. The certification block shall not be signed or sealed for the preliminary plan submittal.
	LPA's Signature Block. The plans may include a signature block that includes the title of the appropriate LPA official(s) with a space for each official(s) signature and date. If included, the LPA's signature block should be shown near the bottom right part of the sheet. The signature block shall not be signed for the preliminary plan submittal.
	Index of Sheets. An index listing all sheets included in the plans shall be shown. The index of sheets should be shown near the right or upper right part of the sheet. Sheets should generally be listed in the following order: title sheet, typical sections, standard details, estimated quantities tabulation, estimate reference information, supplemental tabulations, plan and profile sheets, other detail sheets, and cross sections. Use of the Iowa DOT sheet numbering system as shown in the Iowa DOT Road Design Manual, <u>Section 1F-1</u> , is recommended. If used, it shall be used consistently.
	Sheet Total. The total number of sheets included in the plan set should be shown in the upper right corner.
	Project Number. The lowa DOT project number shall be shown in at least one place on all plan sheets. Recommended placements for the title sheet and all other sheets include the middle left margin and the bottom right margin. For the title sheet, the project number should also be shown near the upper right corner or in the center (above or below the project title).
	 Note: Usually, only one project number should be shown on the plans. However, if the plans will include more than one project, additional project numbers should be shown, along with a description of the limits of each project. In such cases, a separate entry in the TPMS and a separate electronic bid item file will be required for each project. If a single project spans more than one jurisdiction (e.g., across county or city boundaries), the project number used should correspond to jurisdiction in which the project stationing begins (i.e., the westerly or southerly end of the project). If unsure about which project number or how many project numbers to use, contact the Administering Office for assistance.
	LPA Name and Project Location. The name of the city or county shall be shown in at least one location on all plan sheets. Recommended placement is on the bottom left margin. On the title sheet, the name of the city or county and a brief description of the project location shall also be shown, preferably in the center part of the sheet. The description shall include the route or street name, plus the beginning and ending points of the project. Beginning and ending points shall be identified by a cross street, feature crossed, corporation limits, or some other feature that can be located on a map. If multiple routes or streets are included in the project, list each separately. For a Federal-aid project, the description on the plans shall be consistent with description for the project in the <u>STIP</u> and in <u>TPMS</u> Development.
	Letting Date. A space or a box for the project letting date shall be shown, preferably on upper left margin of sheet. If the letting date is known, the appropriate date may be shown in the box or space provided.
	FHWA Structure Number. If the project involves a bridge, the FHWA structure number shall be shown, preferably on or near the location map that shows the location of the bridge. Bridges are defined as any structure with a clear opening greater than 20 feet, as measured along the centerline of the roadway.

TYPICAL SECTION SHEETS

	Dimensions and Slopes . Proposed cross section elements shall be detailed with adequate horizontal and vertical dimensions. Pavement slopes, cut slopes, and fill slopes shall also be specified.
	Materials Specified. The type and thickness of surface, base and subbase materials for pavements, shoulders, sidewalks, or trails shall be shown.
	Number of Typical Sections. Separate typical sections for each significantly different type of cross section found on the project shall be shown. Use separate typical sections to show differences in the number of lanes, pavement types, pavement thicknesses, curb and gutter, sidewalk, or recreational trails.
	Station Ranges. If more than one typical section is used, the applicable stationing ranges shall be labeled for each. If the project contains more than one plan division, the applicable division(s) for each typical section should be noted.
	Existing Features. For projects that involve widening, milling, resurfacing, or other modifications to the existing pavement and / or shoulder; the type, thickness, and width of existing pavement and / or shoulder structure should be shown on the typical cross section.
PLAN A	AND/OR PROFILE SHEETS
	Existing Features. The plans should show the location of existing topographical features (e.g., existing pavement, structures, buildings, etc.).
	North Arrow. A North arrow shall be shown on all plan sheets.
	Scale. All plan and profile sheets shall show a horizontal scale. Profile sheets shall also show a vertical scale.
	Proposed Right-of-Way (ROW). If the project involves ROW acquisitions, permanent easements, or temporary easements, the proposed right-of-way lines, easement lines, property lines, parcel numbers, and property owners shall be shown. For projects involving several ROW acquisitions or easements, use of separate ROW sheets is recommended.
	Existing ROW. Existing ROW lines shall be shown.
	Profiles. The vertical profile data shall be shown, including the percent grade, vertical curve length, K factor, stopping sight distance (SSD), and design speed. The point of vertical curvature (P.V.C.), point of vertical tangency (P.V.T.), and point of vertical intersection (P.V.I.) stations and elevations shall be labeled.
	Benchmarks . List the type, location, and elevation of each benchmark. This information may be listed on a separate sheet if necessary.
	Alignments. The horizontal curve data shall be shown, including the point of intersection (P.I.) station, curve length, radius or degree of curvature, tangent length, and delta angle. The point of curvature (P.C.) and point of tangency (P.T.) stations should also be shown.
	Utilities . All known utility facilities within or immediately adjacent to the project limits shall be shown, including the approximate location of such facilities and the name of the utility company. For more information, refer to <u>I.M. 3.640</u> , Utility Accommodation and Coordination.
	Railroad (RR) Crossings. All RR crossings within or immediately adjacent to the project limits shall be shown, including the RR property lines and the name of the RR company. This information shall be included anytime the Contractor will be required to gain access or perform work on the RR right-of-way or within 25 feet of the centerline of the outermost RR track, even if the RR facilities are not directly impacted by the project. For more information, refer to I.M. 3.670, Work on Railroad Right-of-Way.

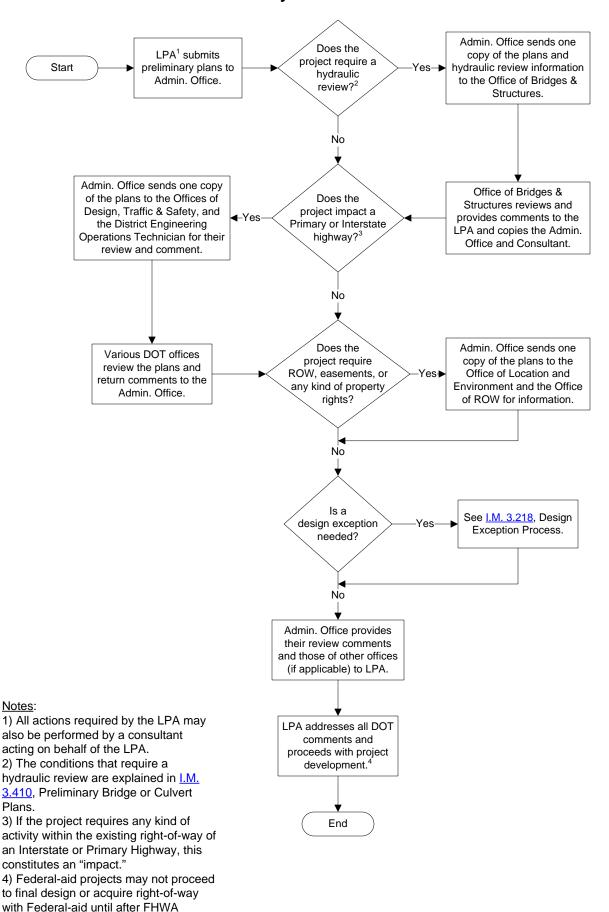
□ Scale. Drawings shall be of sufficient scale to show the necessary details. A 1"=20' scale is recommended. □ Pavement Markings Details. Pavement markings including lane lines, stop bars, crosswalks, symbols, and legends should be shown. □ Signal Details. Signal pole, signal head, mast arm, and detector loops locations should be shown. □ Roadway Details. Edges of pavement, curbs, sidewalks, and pedestrian curb ramps should be shown. ACCESSIBILITY If the roadway, sidewalks, or shared use paths are being altered by the project, the Americans with Disabilities

Curb Ramps. Include compliant curb ramps where required. If ramps already exist but are not fully compliant (e.g., they do not include detectable warnings), those ramps shall either be replaced or retrofitted to meet current ADA requirements.

Act (ADA) applies. The following items shall be included on the plans in accordance with the Design Manual,

Chapter 12, and <u>I.M. 1.080</u>, ADA Requirements:

Preliminary Plan Process Flowchart



Environmental Concurrence has been

received.

INSTRUCTIONAL MEMORANDUMS

To Local Public Agencies



To:	Counties and Cities	Date: February 18, 2013
From:	Office of Local Systems	I.M. No. 3.505
Subject:	Check and Final Plans	

Contents: This Instructional Memorandum (I.M.) includes guidelines and procedures for preparation, submittal, and review of Local Public Agency (LPA) check and final plans for letting by the Iowa Department of Transportation (Iowa DOT). This I.M. also includes the following attachments:

Attachment A – Check and Final Plan Guidelines

Attachment B – Check and Final Plan Checklist (Microsoft Word)

Attachment C – Check and Final Plan Process Flowchart

Note: If the project involves a bridge or culvert, refer also to I.M. 3.510, Check and Final Bridge or Culvert Plans.

Preparation

Content and Format

Check and final plans should be 100% complete and shall address all comments from the Preliminary Plan review. Plans shall be prepared in accordance with Attachment A. Attachment A provides general guidelines and instructions applicable for all types of projects. Check and final plans shall also be prepared in accordance with Attachment B. Attachment B provides a checklist of specific items that will be reviewed by the lowa DOT Administering Office. The lowa DOT strongly recommends that the LPA or its consultant use both these attachments to perform an internal plan review prior to submitting the project plans to the lowa DOT.

Design Guidelines

For new or complete reconstruction projects, refer to either <u>I.M. 3.205</u>, Urban Design Guidelines, or <u>I.M. 3.210</u>, Rural Design Guidelines. For Resurfacing, Restoration, or Rehabilitation (3R) projects, refer to <u>I.M. 3.214</u>, 3R Guidelines.

Federal-aid projects that do not meet these guidelines will require a design exception. The project design criteria should have already been reviewed and approved by the Administering Office. However, if the need for a design exception has arisen after the preliminary plans were submitted for review, a design exception request shall be submitted with the check plans. For more information, refer to L.M. 3.218, Design Exception Process.

Even though the lowa DOT does not review design criteria for projects funded with only Farm-to-Market or local funds, the lowa DOT strongly recommends that LPAs properly document any design features that do not meet the current applicable AASHTO design guidelines.

Submittals

The timely submission of check and final plans often becomes a critical point in the project development process. All submittals shall be made to the Administering Office in accordance with I.M. 3.005, Project Development Submittal Dates and Information. LPAs are strongly encouraged to use the Transportation Program Management System (TPMS), Development module, for all project submittals and correspondence. Submittals shall include the following items, as applicable:

Check Plans

- ☐ A transmittal letter, memo, or e-mail, including the following information:*
 - The project number, location, and proposed letting date.
 - Specific contract requirements, if requested (e.g., start date, number of working days, combined projects, etc.), including the reasons for the request.

- The specific funding sources that will be used to pay for the project. If the project includes plan divisions, identify the funds to be used for each division. If more than one type of fund will be used for a division, specify the order in which the funding sources should be used. For more information, refer to plan division guidance included in Attachment A.
- Identification of any changes in the physical limits or impacts of the project from the previously approved Concept Statement, if any. This includes changes to the project termini, depth of ground disturbance, and additional impacts to adjacent properties that were not reflected in the approved Concept Statement. Note: The LPA is responsible to communicate these changes to the Office of Location and Environment so that the pending or previously granted FHWA Environmental Concurrence can be re-evaluated.
- Indication if a structural review is required or requested, as per <u>I.M. 3.510</u>, Check and Final Bridge or Culvert Plans.
- If a project will be combined with another project(s) into one contract for letting, specify the other project(s).
- If a bridge, culvert, or grading project does not require a U.S. Army Corps of Engineers 404 permit, a statement that explains why the permit is not required.
- If a bridge, culvert, or grading project does not require an Iowa Department of Natural Resources Floodplain Construction permit, a statement that explains why the permit is not required.
- If the project does not disturb 1 or more acres of land, a statement that the National Pollutant Discharge Elimination System (NPDES) permits is not required.
- If a Federal-aid bridge or culvert project will not use epoxy-coated reinforcing steel, a waiver request as per I.M. 3.510, <u>Attachment A</u>, Bridge or Culvert Plan Supplementary Checklist, is required.
- If the project includes alternate bids for pavement types, include a copy of the life cycle cost analysis. For more information, refer to alternate bids guidance included in Attachment A.
- If the project will use any Developmental Specifications (DS) or Supplemental Specifications (SS), identify the specifications by number and title.
- If the DS for Added Options Bidding will be used, specify the contract award limit to be used.
- If the <u>DS for Best Value Alternative (A-D) Bidding</u> will be used, specify the alternative differential (D) to be used.
- * If the TPMS Development submittal tool is used, information that is already available in TPMS Development does not need to be repeated in the transmittal e-mail.

A complete set of Check Plans. These should be 100% complete and incorporate all preliminary plan review comments provided by the Administering Office and any other offices that were involved in the preliminary plan review.
A completed Check and Final Plan Checklist, as per Attachment B (encouraged, but not required).
Special Provisions, if applicable.
Structural calculations, if the project involves a bridge or culvert that requires a structural review as per L.M. 3.510 , Check and Final Bridge or Culvert Plans.
Design exception documentation, if a design exception is required but has not been previously requested.

Final Plans

☐ A transmittal letter, memo, or e-mail, including the following information:

☐ A Public Interest Finding request, if required as per I.M. 3.760, Public Interest Findings.

- The project number, location, and proposed letting date.
- Identification of any changes to the project submittal, other than those requested by the Check Plan review, that have been made to the plans since the Check Plan submittal. Please be specific. It is especially important to note any plan changes that affect bid items or the estimate reference information. Providing a separate set of plans that show all changes with highlighter or mark-up is

recommended.

Application, as per to I.M. 3.520, Electronic Bid Item Information.
A complete set of Final Plans. These should incorporate all Check Plan comments made by the Administering Office and any other offices involved in the Check Plan review.
A detailed project cost estimate.
Revised Special Provisions, if applicable.
A completed Project Development Certification (PDC) (<u>Form 730002</u>). For more information, refer to <u>I.M 3.750</u> , Project Development Certification Instructions.
A copy of the executed railroad agreement, if work will occur on railroad right-of-way or within 25 feet of the centerline of the outermost railroad track. For more information, refer to <u>I.M. 3.670</u> , Work on Railroad Right-of-Way.
A copy of the 404 permit, if required.
A copy of the National Pollutant Discharge Elimination System (NPDES) Individual Permit, if required. Note: If the project is permitted under General Permit No. 2, a copy of the permit is not required. For more information, refer to <u>I.M. 3.140</u> , Storm Water Permits.
A Public Interest Finding request, if required as per <u>I.M. 3.760</u> , Public Interest Findings.

Confirmation that the project bid item information has been entered in the on-line Bid Items

Electronic Submittals

Electronic submittals are required. For more information, refer to <u>I.M. 3.005</u>, Project Development Submittal Dates and Information.

Utility Coordination

In addition to submitting final plans to the Iowa DOT, final plans should also be submitted to all utilities within the project limits or corridor. For more information, refer to I.M. 3.640, Utility Accommodation and Coordination.

Review

Plans submitted in conformance with this I.M. should be returned by the Administering Office in a timely manner with relatively few comments. If the plans do not conform to these guidelines, the review process will require more time and effort by the LPA and the Iowa DOT, which could delay the project letting.

The process for submittal, distribution, and review of project plans is illustrated in <u>Attachment C</u>. As the flowchart shows, if the project involves bridge or culvert that requires a structural review, or the project requires work on an Interstate or Primary highway, the plans will need additional reviews by other Iowa DOT offices. Because these reviews may require additional time, early submittal of such plans is strongly encouraged.

Check and Final Plan Guidelines

For Local Public Agency (LPA) Projects Let by the Iowa Department of Transportation (Iowa DOT)

Plan Format

Use of the Iowa DOT plan format is strongly recommended; however, except where noted otherwise, use of the Iowa DOT <u>Standard Road Plans</u> and <u>Road Design Details</u> is not required for LPA projects. Use of the Iowa DOT format promotes uniformity and consistency of project plans. This results in Iower bid prices because most contractors that bid on projects let by the Iowa DOT are familiar with the Iowa DOT format. It also reduces the amount of effort, and consequently, the cost required to create a set of plans suitable for letting by the Iowa DOT.

Iowa DOT Standard Plans

The lowa DOT strongly encourages use of its <u>Standard Road Plans</u>. When used, Standard Road Plans should not be included in the plan set, but instead shall be incorporated by reference.

All of the Standard Road Plans listed below may be used on any city or county project. These Standard Road Plans are available on-line in either MicroStation format or Adobe Acrobat's Portable Document Format (PDF). Where specific design problems require special solutions, the Standard Road Plans may be modified and included in the plans as a detail or detail sheet; however, the Standard Road Plans number and revision date shall be removed. Each type of Standard Road Plan is further described below.

The <u>Standard Road Plans</u> have been developed by the Iowa DOT Office of Design to show standardized design features, construction methods, and approved materials to be used in highway construction in the State of Iowa.

The <u>Standard Culvert Plans</u> have been developed by the Iowa DOT Office of Bridge and Structures. These Standard Culvert Plans include complete details for a variety sizes and configurations of Reinforced Concrete Box (RCB) culverts.

The <u>Standard Bridge Plans</u> are also provided by the Iowa DOT Office of Bridges and Structures. The Standard Bridge Plans most applicable to local agency projects have been grouped together on the <u>County Bridge</u> <u>Standards Plans</u> web page. These Standard Bridge Plans include complete details for continuous concrete slab bridges and pretensioned prestressed concrete beam bridges, in a variety of widths, lengths, and spans.

Iowa DOT Road Design Details

The <u>Road Design Details</u> are available on-line in either MicroStation or PDF format. The Road Design Details contain standard design and tabulation forms, notations, details, and detail sheets. Similar to the <u>Standard Road Plans</u> described above, if a Road Design Detail is modified, the number and revision date shall be removed. The types of details included in the Road Design Details are further described below:

Standard Tabulations (100 series) include various tabulations for design data, bid items, and supplementary information. If used, these tabulations and forms shall be inserted on the plan sheets.

Standard Notations (200 series) are standardized notes that may be inserted on the plans as part of the General Notes. Using the Standard Notations saves time in writing the General Notes and promotes uniformity. The General Notes should contain general project information only. Information specific to bid items should be shown in the Estimate Reference Information.

Design Detail Sheets (500 series) are complete plan sheets. They provide details for common roadway items such as drainage appurtenances, fencing, certain pavement or shoulder construction details, traffic barriers and associated appurtenances, and more. If a Design Detail Sheet is used, it shall be included as a separate sheet in the plan set. It shall not be incorporated by reference.

Typical Details (<u>1000 to 9000 series</u>) are individual details. They include details for typical sections, curbs, shoulders, medians, etc. If a Typical Detail is used, it shall be placed on a plan sheet. It shall not be incorporated by reference.

Iowa DOT Specifications

All projects let at the Iowa DOT that involve highway related construction work shall utilize the current edition of the Iowa DOT Standard Specifications for Highway and Bridge Construction (Standard Specifications), including the most recent General Supplemental Specifications (GS) and any applicable Supplemental Specifications (SS), Developmental Specifications (DS), and Special Provisions (SP). The designer should become thoroughly familiar with these specifications.

For projects that do not involve highway related construction work (such as historical building restorations), alternative technical specifications may be included as an SP. However, in all cases, Division 11 of the Standard Specifications shall be used for projects let by the lowa DOT.

Standard Specifications

The Standard Specifications are published periodically in book form. Plan notes that delete or modify parts of the Standard Specifications are strongly discouraged. If special conditions require this, written justification must be provided when the plans are submitted.

General Supplemental Specifications (GS)

The GS are revisions to the Standard Specifications that have not yet been incorporated into the printed book. The GS are published in hard copy twice each year, effective with the April and October lettings. However, the current GS are merged with the on-line Standard Specifications, which are provided as part of the Electronic Reference Library (ERL). The GS current at the time of project letting will always apply to the project, just as the Standard Specifications will.

Supplemental Specifications (SS)

Some SS are for particular bid items not contained in the Standard Specifications or GS, or for bid items which modify those contained in the Standard Specifications or GS. When an LPA project uses a bid item that requires an SS, the lowa DOT will automatically apply that SS to the bid proposal. Other SS are not related to a specific bid item, but instead specify an alternate construction or testing procedure. Such SS shall be identified by the designer when the plans are submitted for review.

Like the GS, the SS are included as part of the <u>ERL</u>. New SS that have become available since the ERL was last published are also available on the Specification Section's <u>Newly Published Documents</u> web page.

Developmental Specifications (DS)

DS must be applied by the designer to a specific project by reference on the plans. However, after initial approval by the Iowa DOT, they can be re-used for multiple projects without being reviewed and approved each time. The Iowa DOT has developed many DS in response to commonly occurring SP and other special situations. If a DS is used on a LPA project, it shall be identified by the designer when plans are submitted for review.

The currently available DS are listed on the Specification Section's <u>Developmental Specifications</u> web page. Some DS have been developed for specific situations or experimental projects; and therefore may not be appropriate for use on any LPA project. These DS have a person identified as a "Controller," as listed on the DS web page. Before using any DS that has a Controller, contact the Administering Office for assistance. DS without a Controller are designed for general use and may be applied to any LPA project.

Special Provisions (SP)

SP are for bid items or areas of work that are not adequately addressed by the Standard Specifications, SS, DS, or on the project plans. SP are project-specific. They may be re-used on other projects, but a new SP number must be assigned each time. If required, the LPA's designer is responsible for preparing the necessary SP in the proper format. Each SP applicable to an LPA project must be included with the check plans submittal and reviewed and approved for use by the Administering Office. For guidance concerning the

format and content of an SP, refer to the <u>Requirements for Preparing and Submitting Special Provisions for</u> State and Local Projects, published by the Iowa DOT Specifications Section.

SUDAS Specifications

The Statewide Urban Design and Specifications (SUDAS) may not be incorporated into the contract documents by reference, either in whole or in part. However, several sections of the SUDAS Specifications have been incorporated into the Iowa DOT Standard Specifications. Some other SUDAS Specification sections are available as a DS. SUDAS Specifications not included in the Iowa DOT Standard Specifications or a DS may be incorporated into an SP, however, the designer should carefully review and revise the cross-references as necessary to ensure compatibility with the Iowa DOT Standard Specifications.

Proprietary Products

Specifications using patented or proprietary (i.e., brand name) products or processes are strongly discouraged, either on the project plans or as part of an SP. Generic, end-result specifications are preferred. However, if a proprietary specification must be used, at least 3 acceptable products must also be listed, along with the phrase, "or approved equal." If only one proprietary product is allowed, a Public Interest Finding must be submitted to and approved by the Administering Office. For more information, refer to I.M. 3.760, Public Interest Findings.

Salvaged Materials

Section 1104 of the Standard Specifications states that all items or materials to be removed by the contractor shall become the possession of the contractor, unless stated otherwise in the contract documents. In some cases, Local Public Agency (LPA) may wish to retain possession of certain items or materials by directing the contractor to transport and stockpile those items or materials to a specified location. If items or materials will be salvaged, credit to the project is not required. However, in order to comply with Federal requirements, neither Federal nor State funds may participate in the cost of transporting and stockpiling salvaged materials. Therefore, for any item or material that will be salvaged by the contractor, 2 bid items shall be used:

- 1. A standard bid item shall be used for the cost of removal, demolition, or milling of material, as appropriate, that is necessary to construct the project. If no standard bid item exists, a non-standard bid item may be used. Federal, State, Farm-to-Market (FM), or local funds may be used to pay for the costs associated with this item.
- 2. A lump sum bid item 2555-0000010, Deliver and Stockpile Salvaged Materials, shall be used for the cost of transporting and stockpiling the items or materials. Neither Federal nor State funds may participate in the cost of this bid item. However, local or FM funds may participate. An LPA may also elect to transport and stockpile the salvaged materials with its own forces. If so, use of this bid item is not required, but the contract documents must specify how and where the LPA's forces will pick up the salvaged materials.

In addition to the 2 bid items described above, in all cases the plans shall include a tabulation of the items or materials to be salvaged including a description, quantity, and delivery location. The plans shall also specify the manner in which the materials must be stockpiled.

Provisions in the contract documents that permit optional salvage of certain items for use by the Contracting Authority are not allowed. Since some items may have some value, optional salvage provisions would make it difficult or impossible to accurately bid the project.

Special Procedures for HMA Millings:

If the contract documents for a project involving Recycled Asphalt Pavement (RAP) require the contractor to deliver and stockpile less than 5,000 tons of excess HMA millings for the LPA's use, the LPA should use the DS for "Contractor Stockpiled Shoulder Material". This DS allows the contractor the option of substituting Class A shoulder stone for the excess HMA millings. This better accounts for the value of the RAP material and should result in better bids. If this DS is used, the "Contractor Stockpiled Shoulder Material" bid item shall be used instead of the "Deliver and Stockpile Salvaged Materials" bid item. Likewise, the "Contractor

Stockpiled Shoulder Material" bid item may not have Federal-aid or State-aid, but may have local or FM funding participation.

If the DS for "Contractor Stockpiled Shoulder Material" is not used on a project that requires the contractor to salvage less than 5,000 tons of excess HMA millings, the "Deliver and Stockpile Salvaged Materials" bid item shall be used to pay for the cost of transporting and stockpiling the excess HMA millings from the project site or plant site to the LPA's stockpile. In this case, this bid item shall not have Federal-aid or State-aid, but may have local or FM participation. If the LPA will transport and stockpile the excess HMA millings with its own forces, use of the "Deliver and Stockpile Salvaged Materials" bid item is not required.

Federal-aid or State-aid projects shall not require salvage of more than 5,000 tons of excess HMA millings because this quantity of material may have a significant value and therefore could result in lower bid prices if the contractor were allowed to keep the excess material. Projects paid for with only local or FM funds may require some or all of the HMA millings to be delivered and stockpiled for use by the LPA.

Combined (Tied) Projects

When combining non-Federal-aid projects with Federal-aid projects into one contract, in certain situations the National Environmental Policy Act (NEPA) requirements will also apply to the non-Federal-aid projects. The general principle that governs the application of NEPA can be stated as follows: NEPA does not apply to a non-Federal-aid project that is combined with a Federal-aid project, if all the following conditions are met:

- 1. The projects have independent utility. This means that each project can be constructed and serve its intended purpose, even if the other project is not built. For example, a grading project and a paving project for the same physical limits do not have independent utility, because the grading project itself doesn't result in a useable transportation facility. As another example, a bridge deck overlay and an adjacent roadway overlay would have independent utility, because it is possible to construct one without the other and each would result in a useable transportation facility.
- 2. The funding and payments for each project can be segregated and tracked separately. This condition is not directly related to NEPA, but since one project has Federal participation and the other doesn't, this is required to ensure that Federal-aid is not used to reimburse ineligible project costs.
- 3. The non-Federal-aid project was not "de-federalized" simply to avoid NEPA requirements. This means that if the LPA begins developing a Federal-aid project and then run into environmental issues that will require more work than anticipated, the LPA cannot simply remove the Federal-aid or divide the Federal-aid project into separate Federal-aid and non-Federal-aid projects. The potential environmental impacts of a project may be considered before deciding which type of funds to use, but once the Federal-aid project development process begins, the LPA must comply with the NEPA requirements.

If the combined projects do not meet the criteria outlined above, for purposes of NEPA, they will be viewed as one project, and therefore the NEPA process and associated requirements would apply to all the combined projects. Please note this guidance pertains only to the applicability of NEPA. The criteria outlined above has no effect on other Federal requirements, some of which always apply to the whole contract, including any non-Federal-aid projects included in the contract. Examples include Davis-Bacon wage rates and Buy America provisions.

If an LPA has project-specific questions, or if are unsure whether their project meets these criteria, please contact the appropriate Iowa DOT Administering Office. The Administering Office will consultant with the Iowa DOT Office of Location and Environment as needed to determine whether NEPA will apply to non-Federal-aid projects combined with Federal-aid projects.

Plan Divisions

Plan divisions are required when there is a need to separate certain parts of the work from other parts of the work for a single project. Following are examples of common situations where plans divisions should be used:

All the work shown on the plans cannot be paid for with the same funding sources. For example, items
with Federal-aid must be in a separate plan division from non-Federal-aid items. Another example is
when the project involves multiple types of funds (not counting the local match) and one type of funds
may be used only for certain items and not for others.

- The work crosses a jurisdictional boundary and there is a need to identify the proportion of project costs that will be paid by the respective LPAs. For example, a county project may begin in a rural area and continue into a city. In this instance, plan divisions would be necessary to track and identify the final project costs so the county can bill the city for its share of the project costs.
- The LPA desires to separate the costs based on the general type of work, such as structures and pavement. Use of plans divisions in this instance is optional.

There may be other situations where the use of plan divisions is appropriate. Contact the Administering Office for assistance if needed.

If plan divisions are used, they should comply with the following guidelines:

- 1. Use the fewest number of divisions as possible.
- 2. The bid items and quantities in each plan division shall be shown in a corresponding bid item category in the electronic bid item information (see the "Bid Items" section below for more information).
- 3. The Estimated Project Quantities tabulation shall have a separate column for each division, labeled with a division number (e.g., "Division 1," "Division 2," etc.). For each division, include quantities for all bid items that apply to that division. Show the sum of all bid item quantities for all divisions in the "Total" column of the Estimated Project Quantities tabulation.
- 4. Provide a description for each division on the quantities sheet. This description should identify the purpose of the division. For example, divisions may be used to separate Federal-aid items from non-Federal-aid items. They may also be used to separate items paid for by separate LPAs, or one funding source from another. Funding sources should be identified by the type of funds (e.g., STP) instead of a project number.

<u>Note</u>: Different project numbers should only be assigned to plan divisions if those plan divisions represent separate projects that are combined on one set of plans. In such cases, a separate entry in the Transportation Program Management System (TPMS) and a separate electronic bid item submittal will be required for each project.

If the bid items in a single plan division will be paid for with more than one type of funds (not counting the local match), specify the type and order in which those funding sources should be used in the cover letter or e-mail that accompanies the plan submittal.

Use the following guidelines for establishing funding priorities within a division:

- 1. Use Federal-aid first.
- 2. If more than one type of Federal-aid will be used, use the one with the highest reimbursement percentage first. For example, if a project has an earmark at 100% and STP funds at 80%, use the earmark first, then the STP funds.
- 3. Use State-aid second.
- 4. If more than one type of State-aid will be used, use the one with the highest reimbursement percentage first.
- 5. When matching Federal-aid, use State-aid first, then local funds.
- 6. State-aid may match Federal-aid and vice-versa.
- 7. When all other funding sources have reached their limit, use local funds.

These guidelines are designed to maximize the use of Federal-aid and minimize the use of local funds. However, there may be situations where it is appropriate to deviate from these guidelines. Contact the Administering Office for assistance if needed.

Bid Items

Use Iowa DOT standard bid items as listed in the Bid Items Application referenced by <u>I.M. 3.520</u>, Electronic Bid Item Information. Each bid item listed in the Estimated Project Quantities tabulation must have a valid bid item code, description, units, and estimated quantity.

Standard bid items shall be used unless: 1) an item is not covered by the Standard Specifications (including the applicable GS, SS or DS), or 2) the LPA can justify that a non-standard item is necessary (i.e. to maintain system compatibility).

Non-standard items will have item code of 2599-9999XXX, where XXX is a number that is determined by the units used for that item. See the Bid Item Description Book for the appropriate 2599 item numbers to use for a variety of possible bid item units. The description for all 2599 items is entered by the designer. More than one 2599 item (even with the same units) may be listed on the plans, as long as the description for each 2599 item number is unique.

<u>Note:</u> Because 2599 items are not covered by the Standard Specifications, the designer must provide the necessary details and / or specifications to describe the materials and work covered by this item. In addition, the designer must supply the method of measurement and basis of payment information for all 2599 items. This information may be provided either on the project plans or in a SP, depending on the amount of information required. Refer to the <u>Requirements for Preparing and Submitting Special Provisions for State and Local Projects</u> for more information.

Incidental Items

Keep incidental materials and work items to a minimum. Use of bid items for all measurable work and materials is recommended. As a general rule, if there is an item in the <u>Bid Item Description Book</u> that is applicable to any item of work shown on the plans, this bid item should be used. If an item of work is incidental, the bid item to which it is made incidental shall be identified. In addition, the nature of the incidental work shall be adequately described, including estimated quantities. Enough information shall be provided to allow the bidder to make a reasonable estimate of the cost of any work designated as incidental.

Method of Measurement and Basis of Payment

All bid items must have both method of measurement and basis of payment information specified. For items that use a Special Provision, this information should be shown in the Special Provision. For items that do not use a Special Provision, and the method of measurement and basis of payment information is not addressed by the Standard Specifications, GS, SS, or DS, this information should be shown in the estimate reference note on the plans.

For each bid item listed in the <u>Bid Item Description Book</u>, a code is listed under the MEAS/PAY column. This code directs the bidder to the appropriate location for the method of measurement and basis of payment information. If the code in the MEAS/PAY column is "PLAN, STD6, SP or SP2," the designer must supply the method of measurement and basis of payment information, either on the plans or in a Special Provision. See the instructions in the front of the Bid Item Description Book for more information.

If unfamiliar with writing method of measurement and basis of payment specification language, the designer should refer to the Standard Specifications for examples.

Estimate Reference Information

Estimate Reference Information should be clear, concise, and used to explain anything special about the item. The Estimate Reference Information should direct the bidder to the location of any additional information about that particular bid item in the plans, such as a plan sheet, detail, or tabulation.

Do NOT make reference to the applicable section of the Standard Specifications or restate what is contained in them. Generally, the first 4 digits of a standard item code directs the bidder to the appropriate section in the Standard Specifications. Citing Standard Specification sections or restating what is contained in them is not necessary and only increases the potential for conflicts within the contract documents. In addition, do not make reference to applicable SS, DS, or SP. Instead these shall be identified by the designer when the plans are turned in for review.

Use of the phrase, "As directed by the Engineer" should be avoided, both in the SP, Estimate Reference Information, and elsewhere on the plans. "As directed by the Engineer" shall not be used when the Engineer's direction may result in additional costs to the contractor. Any work to be bid by a contractor should be adequately described in the contract documents. Use of this phrase makes it difficult, if not impossible, for the contractor to prepare an accurate bid. This adds risk to the contractor and may increase the project cost unnecessarily.

Alternate Bids

In some cases, alternate bidding may be an appropriate method to promote competition and thereby reduce project costs. There are two acceptable methods for alternate bidding:

1. <u>Standard</u>. Using this method, which is also sometimes referred to "head-to-head". Using this method, the alternatives are included in separate sections on the plans and proposal. The alternatives are compared with each other, and a contract is awarded to the bidder with the lowest overall bid. No adjustment factors are used.

Note: This method is not acceptable for alternate pavement types (see below for more information).

2. <u>Best Value</u>. This method expands the number of options a bidder can bid and allows the contracting authority to receive the best value based on individual alternatives selected by each bidder. Under this method, the contracting authority pre-determines the additional amount it is willing to pay for the best value alternative over the base alternative and this differential (D) is identified on the bid proposal. Refer to the DS for Best Value Alternative (A-D) Bidding for more information.

Plan Requirements for Alternate Bids

When alternate bids are used, the plans and proposal must include sections to separate the bid items appropriately. There are two acceptable methods for accomplishing this:

- 1. <u>Base bid + alternatives</u>. Using this method, the base (or non-alternate) bid items are placed in the first section. The base bid includes work that is common to all the alternatives. The work unique to each alternative is placed in a separate section, one for each alternative. All bidders must submit a bid for the base bid items, but may bid only one of the alternatives.
- 2. <u>Alternatives only</u>. Using this method, there is no common set of bid items. All the items necessary for a complete bid are included in a separate section, one for each alternative. Bidders may bid only one of the alternatives.

Alternate Bids for Pavement Types

While not encouraged by the Iowa DOT, alternative bids for pavement types (such as HMA vs. PCC) may be used if all the following conditions are met:

- The LPA's engineering and economic analysis does not indicate a clear choice between the
 pavement designs. In other words, the designs are essentially equivalent. Essentially equivalent
 means the designs provide a similar level of service over the same performance period and have
 similar life-cycle costs.
- The pavement costs will likely have a significant impact on the low bid. Alternative bids for pavement types are not appropriate for contracts in which the paving costs are expected to be relatively minor in comparison to the other items of work.
- 3. The pavement alternates will be bid using the DS for <u>Best Value Alternative (A-D) Bidding</u>, where (D) is the difference between the Net Present Value of the two alternatives, as calculated by the contracting authority. This is also referred to as a bid adjustment factor.

If alternate pavement type bidding is requested, the LPA's design engineer shall prepare and submit a life cycle cost analysis (LCCA) for the alternate pavement designs to the lowa DOT Administering Office. The LCCA shall demonstrate the designs are essentially equivalent and comply with guidelines provided in the

Federal Highway Administration's (FHWA) <u>Technical Advisory T 5040.39</u>, Use of Alternate Bidding for Pavement Type Selection. The LCCA shall show how the bid adjustment factor was calculated.

For Federal-aid projects, the LPA's LCCA shall be reviewed and approved by the FHWA before the project is turned in to the Office of Contracts for letting. In order to allow enough time for FHWA's review, the LCCA should be submitted with the Check Plans if possible, but no later than 3 weeks prior to the Contracts Turn-in date, as per I.M. 3.005, Project Development Submittal Dates and Information.

For non-Federal-aid projects, FHWA review and approval is not required, but the LCCA should still comply with FHWA's Technical Advisory in order to ensure the contract is awarded to the design with the lowest estimated life-cycle cost. The lowa DOT will only verify that the LCCA has been performed.

Note: Because of the data required and complexity of analysis involved, LPAs should carefully evaluate the expected benefits against the additional costs required to prepare an LCCA that meets FHWA's guidelines. Also, after bids are opened, the Iowa DOT will provide copies of the LCCA to bidders or other interested parties upon request. LPAs should also be aware that it is difficult to prepare an LCCA that is satisfactory to the competing paving industries, so they should be fully prepared to defend a decision to award which is based on their LCCA.

Added Options Bidding

This method allows the Contracting Authority to obtain the most work, or the best options, for the funds available for the project. Using this method, a contract is awarded to the bidder who bids the most options but stays under the contract award limit, which is identified on the bid proposal.

When this method is used, plans and proposal shall have a separate section for the base bid items and the items for each of the added options. Each added option is an incremental improvement over the base and previous options, if applicable. The price bid for each option will be added in the order shown on the plans and proposal. Therefore, the most important option should be included first, and the least important option is included last.

Refer to the DS for Added Options Bidding for more details on this bidding method.

Check and Final Plan Checklist

For Local Public Agency (LPA) Projects Let by the Iowa Department of Transportation (Iowa DOT)

Project No.:		Date:	LPA or	Consulting Firm:	
Name o	of Designer:	Phone No.:		e-mail:	
accepta general	his checklist is not intended to cover able check and final plans. However, ly arise. <i>This checklist is requested,</i> with the final plan submittal.	this checklist addre	sses the	items where most questi	ons or problems
GENEF	RAL				
	Project Concept. The proposed descope and type of work shown in the Projects (Form 517001) and the approncept (e.g., proposed design elenetc.) shall be explained in the cover 3.105, Concept Statement Instruction	e approved Concep proved Preliminary F nents, project limits, letter that accompa	Stateme Plans. Ar potentia	ent for Local Systems Fed ny significant changes to t I environmental impacts, t	deral-aid the project type of work,
	Environmental Document Require statement, Environmental Assessme conditions shall be met, or certain set these requirements.	ent, or Environment	al Impact	Statement) specifies tha	t certain
	Format. Plans shall conform to the	Specifications for E	lectronic	Plan Submittals to the lo	wa DOT.
	Dimensions and Legibility. Plans all of the plan can be printed accura and printing on the plan) shall meet right = 5/8 in. All lettering and detail	tely, the border wid the following minim	hs (i.e., d um dime	clear space between the ensions: top and bottom =	edge of paper 1/4 in.; left and
	Check and Final Bridge or Culver provided in I.M. 3.510, Check and F				the guidelines
	STIP Description. Verify the project Program (STIP), as shown in the Transaches the description shown on the project work must be within the limit shown on the Concept Statement); will be required. If so, contact the A	ansportation Progra he plans and the de s of STIP descriptio otherwise, additiona	m Manag scription n and the I progran	gement System (TPMS) F shown in TPMS Develop e limits used for environm nming changes or enviror	Programming, ment. All ental review (as
	Federal Funds Programmed. For shown in the current STIP is not less based on the current cost estimate. programmed in the STIP by more the required to complete a STIP amend depending on the planning agency as be required, contact the planning agency as the statement of the stat	s than 30% of the e If the estimated Fe In 30%, the project In a street the street of the street It is a street of the street of the street It is a street of the street o	stimated deral sha will not by y vary fro umstance	Federal share of eligible pare exceeds the amount of the submitted for letting. To ma few days to more the ses. If a STIP revision or a	project costs, If Federal-aid The time an a month,
TITLE	SHEET				
	Check Plans Stamp. Check Plans on, near, or across the designer's ce		identifie	d by including the words '	'Check Plans"
	System Classification. The roadw should be shown in large font near t "Farm-to-Market System" for a project on a local route. For city pro-	the center or upper lect on a Farm-to-Ma	middle parket route	art of the sheet. For coun e or "Secondary Road Sys	ty projects, use stem" for a

agency.
Location Map. A location map with a north arrow and major street names shall be shown. Use of the 911 street names, as shown on the <u>lowa DOT city and county maps</u> , is recommended. The location map should be located near the left or bottom left part of the sheet. The location map should also include a scale (or be noted as "Not to Scale") and identify the project limits including the beginning and ending stations. If project divisions are used, their limits shall also be indicated, either on the location map or in a plan note.
Signatures. Check Plans should not be signed. If desired, Final Plans may be signed by the design engineer and / or LPA officials. The lowa DOT does not require signatures by either on the final letting plans. However, this does not relieve the engineer of record of the responsibility of maintaining a record set of plans in accordance with the Code of lowa and the lowa Administrative Code (IAC). Neither does this relieve the LPA officials of the responsibility to approve the plans and specifications by resolution of the council or board of supervisors. If signatures are desired on the Final Plans, they may be applied in a variety of ways, including: • Printing a hard copy of the plan sheet, signing by hand, and scanning the plan sheet in PDF file
format; or
 Placing a scanned image of a hand written signature into the drawing file before creating the PDF file of the plan sheet; or
 Placing text or an image in the signature area using one of Adobe Acrobat's electronic signature features; or
 Any other means that produces a visual indication that the plans have been signed.
Designer's Certification Block. The plans shall include a certification block and seal that complies with the appropriate sections or chapters of the Code of Iowa and the Iowa Administrative Code (IAC). The designer's certification block should be shown near the bottom right part of the sheet.
LPA's Signature Block. The plans may include a signature block that includes the title of the appropriate LPA official(s) with a space for each official(s) signature and date. If included, the LPA's signature block should be shown near the bottom right part of the sheet.
Index of Sheets. An index listing all sheets included in the plans shall be shown. The index of sheets should be shown near the right or upper right part of the sheet. Sheets should generally be listed in the following order: title sheet, typical sections, standard details, estimated quantities tabulation, estimate reference information, supplemental tabulations, plan and profile sheets, other detail sheets, and cross sections. Use of the Iowa DOT sheet numbering system as shown in the Iowa DOT Road Design Manual, <u>Section 1F-1</u> , is recommended. If used, it shall be used consistently.
Sheet Total. The total number of sheets included in the plan set should be shown in the upper right corner.
Availability of Cross Sections. If cross-sections will be included, they shall be submitted with the plans. Cross-sections will be available only through the Office of Contracts. They shall <u>not</u> be supplied directly to bidders by the LPA.
Project Number. The lowa DOT project number shall be shown in at least one place on all plan sheets. Recommended placements for the title sheet and all other sheets include the middle left margin and the bottom right margin. For the title sheet, the project number should also be shown near the upper right corner or in the center (above or below the project title).
Note: Usually, only one project number should be shown on the plans. However, if the plans will include

corporation line, use the system classification that is under the jurisdiction of the lead governmental

- Usually, only one project number should be shown on the plans. However, if the plans will include
 more than one project, additional project numbers should be shown, along with a description and
 limits of each project. In such cases, a separate entry in the <u>TPMS</u> and a separate electronic bid item
 file will be required for each project.
- If a single project spans more than one jurisdiction (e.g., across county or city boundaries), the project number used should correspond to jurisdiction in which the project stationing begins (i.e., the westerly or southerly end of the project).

 If unsure about which project number or how many project numbers to use, contact the Administering Office for assistance.
LPA Name and Project Location. The name of the city or county shall be shown in at least one location on all plan sheets. Recommended placement is on the bottom left margin. On the title sheet, the name of the city or county and a brief description of the project location shall also be shown, preferably in the center part of the sheet. The description shall include the route or street name, plus the beginning and ending points of the project. Beginning and ending points shall be identified by a cross street, feature crossed, corporation limits, or some other feature that can be located on a map. If multiple routes or streets are included in the project, list each separately. For a Federal-aid project, the description on the plans shall be consistent with description for the project in the STIP and in TPMS Development.
Work Type Description. A <u>standard work type description</u> shall be shown, preferably in the center part of the sheet. Use the work type description that best represents the largest portion of the estimated contract cost. More than one work type description may be used, but for advertising purposes, only one work type (that which represents the largest portion of the estimated contract cost) will be used.
Mileage Summary Tabulation. For roadway or trail projects, a mileage summary tabulation that includes the total project mileage shall be shown. This tabulation should be shown near the center or bottom center part of the sheet. The tabulation shall also include the beginning and ending stations of the project and any plan divisions (if used). Any station equations or exceptions present on the project shall also be identified in the tabulation.
Standard Plans Note. A note shall be included that specifies the location of all of the applicable Standard Road Plans , Standard Bridge Plans , or Standard Culvert Plans .
Letting Date. A space or a box for the project letting date shall be shown, preferably on upper left margin of sheet. If the letting date is known, the appropriate date may be shown in the box or space provided.
U.S. Army Corps of Engineers 404 Permit. If a permit is needed, include Standard Note <u>281-1</u> near the left or upper left part of the sheet. Complete the first blank with one of the following, as appropriate: "Nationwide Permit XX", where XX is the Nationwide Permit Number (14, 33, etc.); "Regional Permit 7", or "Individual Permit". Complete the second blank with the Corps' project-specific permit number, as shown in the subject line of the Corps' permit approval letter. The project-specific number may be omitted for projects that can proceed under a Corps Nationwide Permit without notification to the Corps, because no such number is assigned.
 If a bridge, culvert, or grading project does not require this permit, this shall be noted in the cover letter with the check plans. General 404 permit requirements are included in <u>Article 1105.14</u> of the Iowa DOT Standard Specifications for Highway and Bridge Construction (Standard Specifications). However, if the Corps added any special conditions to their approval of the permit, these shall be indicated on the plans. If the approved 404 Permit application indicated a temporary stream access will be allowed, Standard Road Plan <u>RL-16</u> shall be used. If the approved 404 Permit application indicated that temporary stream access will not be allowed, include Standard Note <u>282-1</u> to note this condition. For more information, refer to <u>I.M. 3.130</u>, 404 Permit Process. An electronic copy of the 404 permit shall be supplied to the Administering Office with either the Check or Final Plans submittal.
lowa DNR Floodplain Construction Permit. If a permit is needed, the following note shall be included: "This project is covered by Iowa DNR Floodplain Construction Permit No. (insert Iowa DNR permit number)." This note should be shown on the left or upper left part of the sheet. If a bridge, culvert, or grading project does not require this permit, this shall be noted in the cover letter with the check plans. Refer to I.M. 3.410, Preliminary Bridge or Culver Plans, for more information.
Iowa DNR Storm Water Permit. If the project disturbs one acre or more of land, include Standard Note 281-2. This note should be shown near the left or upper left part of the sheet. If an individual permit is

required, the individual permit number shall be used instead of the general permit number. Any area

shall be responsible for obtaining the appropriate National Pollutant Discharge Elimination System (NPDES) permit. The contract documents shall not shift this responsibility to the contractor. For more information, refer to I.M. 3.140, Storm Water Permits. Standard Specification Note. The following standard note shall be included near the center of the sheet: "Refer to the Proposal Form for list of applicable specifications." **FHWA Structure Number.** If the project involves a bridge, the FHWA structure number shall be shown. preferably on or near the location map that shows the location of the bridge. Bridges are defined as any structure with a clear opening greater than 20 feet, as measured along the centerline of the roadway. Utility Contacts. If any utility facilities are within or immediately adjacent to the proposed limits of construction, utility contact information (company name and a contact person's name, address, and phone number) shall be shown for each utility company. The Iowa One-Call symbol and phone number should also be displayed. These should be shown near the bottom center part of the sheet. Automatic Traffic Recorders. If automatic traffic recorders are present within the project limits, Standard Note 262-4 shall be included. See the Iowa DOT's Automatic Traffic Recorder web page to locate existing traffic recorders. TYPICAL SECTION SHEETS **Dimensions and Slopes**. Proposed cross section elements shall be detailed with adequate horizontal and vertical dimensions. Pavement slopes, cut slopes, and fill slopes shall also be specified. \Box Materials Specified. The type and thickness of surface, base and subbase materials for pavements, shoulders, sidewalks, or trails shall be shown. Materials should be identified using the appropriate bid item description for that material. Number of Typical Sections. Separate typical sections for each significantly different type of cross section found on the project shall be shown. Use separate typical sections to show differences in the number of lanes, pavement types, pavement thicknesses, curb and gutter, sidewalk, or recreational trails. Station Ranges. If more than one typical section is used, the applicable stationing ranges shall be labeled for each. If the project contains more than one plan division, the applicable division(s) for each typical section should be noted. Existing Features. For projects that involve widening, milling, resurfacing, or other modifications to the existing pavement and / or shoulder; the type, thickness, and width of existing pavement and / or shoulder structure should be shown on the typical cross section. QUANTITY, ESTIMATE REFERENCE, GENERAL NOTE, AND TABULATION SHEETS Estimated Project Quantities Tabulation. All plans shall include an Estimated Project Quantities tabulation. Use of the Standard Tabulations (100 Series) is recommended. If a non-standard tabulation is used instead, it shall include, as a minimum, the lowa DOT bid item code, item description, unit, and total bid item quantity. If plan divisions are used, the Estimated Project Quantities tabulation shall also indicate the bid items or quantities of items that apply to each division. A label or description of each division shall also be included. For additional information, refer to I.M. 3.505, Attachment A, Check and Final Plan Guidelines, Plan Divisions section. Tabulation of Standard Plans. Tabulations shall be included that list all of the applicable Standard Road Plans, Standard Bridge Plans, or Standard Culvert Plans, including revision dates which are current for the targeted letting. For each standard plan listed, all of the standard plans referenced by that standard plan shall also be listed. Note: Bidders should not be referred to the Office of Bridges and Structures or the Office of Local

where soil is exposed to erosive forces, such as wind or water, shall be considered disturbed. The LPA

available in electronic format at the links provided above.

Systems to obtain hard copies of the Standard Bridge Plans or Standard Culvert Plans. These are

Supplementary Tabulations. Supplementary tabulations should also be used to provide additional information or a breakdown of bid item quantities. When possible, include a total quantity for each bid item shown in a supplemental tabulation. The bid item quantity listed in a supplemental tabulation should match the total bid item quantity as listed in the estimated quantities tabulation. If the bid item quantity contains additional quantities that are not shown in the supplemental tabulation, note these additional quantities in the Estimate Reference Information. Use of the Standard Tabulations (100 Series), is recommended. If included, the most current version shall be used. For additional information, refer to I.M. 3.505, Attachment A, Check and Final Plan Guidelines, Iowa DOT Road Design Details section.
Bid Item Codes, Description, and Units. The bid item codes, descriptions, and units listed on the plans shall match the current list of standard bid items, as shown in the Bid Items Application referenced by <u>I.M.</u> 3.520, Electronic Bid Item Information. Only valid bid items shall be used. For additional guidance, refer to I.M. 3.505, <u>Attachment A</u> , Check and Final Plan Guidelines, Bid Items section.
Method of Measurement and Basis of Payment. Check the MEAS/PAY code given for each item in the Bid Items Application. If this code indicates that the method of measurement and basis of payment information must be supplied by the designer, it shall be included in the plans (preferably in the Estimate Reference Information) or the applicable Special Provision. For additional guidance, refer to I.M. 3.505, https://doi.org/10.1001/journal.org/ (Plan Guidelines, Method of Measurement and Basis of Payment section.
Estimate Reference Information . Estimate Reference Information shall be provided. Estimate Reference Information should explain what is included in a bid item and where additional information about that item can be found in the plans. For additional guidance, refer to I.M. 3.505, Attachment A , Check and Final Plan Guidelines, Estimate Reference Information section.
Non-Participating Items or Quantities. If any bid items or quantities are excluded from participation by one or more of the project funding sources, those bid items or quantities shall be separated by means of plan divisions. Some bid items or quantities may be non-participating based on the Federal or State eligibility rules or regulations for a particular funding program. For example, some utility relocations are not eligible for Federal-aid, as described in I.M. 3.650, Federal-aid Participation in Utility Relocations. For additional guidance, refer to I.M. 3.505, Attachment A, Check and Final Plan Guidelines, Plan Divisions section. If uncertain about whether any bid items or quantities should be designated as non-participating, contact the Administering Office for assistance.
Salvaged Items. If the contractor is required to deliver and stockpile any salvaged items that will become the property of the Contracting Authority, bid item 2555-0000010, Deliver and Stockpile Salvaged Materials, shall be used. This bid item shall be placed in a non-participating plan division in the plans and in the Bid Items Application. If the Contracting Authority will deliver and stockpile the salvaged materials with its own forces, this bid item shall not be used. For more information, refer to I.M. 3.505, <a 2108"="" article="" href="https://example.com/Attachment-nc-nc-nc-nc-nc-nc-nc-nc-nc-nc-nc-nc-nc-</td></tr><tr><td>Earthwork Quantities. A breakdown of earthwork quantities should be shown in a separate tabulation or in the Estimate Reference Information. Quantities should be shown for cut, fill, the assumed shrinkage percentage, and any waste or borrow requirements.</td></tr><tr><td>Notes: 1. Topsoil shall not be included in the pay quantity for the various excavation bid items. Topsoil is a separate pay item, and must be included if NPDES General Permit No. 2 is required on this project. 2. Overhaul should be paid for if it is in excess of the free-haul limits specified by the contract documents. If the plans do not specify a free-haul distance, the free-haul distance will be 1000 feet, as per Article 2108 .04.E of the Standard Specifications.
Roadway Pipe Culverts. If roadway pipe culverts are part of the project work, the bid item, 2402-2720100, Excavation, Class 20, For Roadway Pipe Culvert, shall be included as per the <u>Standard Road Plans</u> .
Earth Shoulders / Fill. If the work involves construction of earth shoulders or earth shoulder fill above the subgrade elevation adjacent to a paved surface or curb and gutter, one of the following bid items shall be included: if the volume of earth shoulder is included in the Class 10 Excavation quantity, bid item 2123-7450020, Shoulder Finishing, Earth, shall be used; if the volume of earth shoulder is not included in

the Class 10 Excavation quantity, then bid item 2123-7450000, Shoulder Construction, Earth, shall be used. Each side of a trail or roadway is measured separately.
Lump Sum Item Split. For each lump sum item on a project with more than one plan division, a decimal fraction quantity shall be included for each plan division, if the lump sum item applies to that division. For each lump sum item, the sum of the quantities shown for all the applicable plan divisions shall equal 1.0.
Guardrail Items. If the construction includes guardrail, all of the bid items as listed on the applicable <u>BA</u> series of Standard Road Plans shall be included. The applicable Standard Tabulations in the <u>108 series</u> shall be used.
Trail Paving. Portland Cement Concrete (PCC) or Hot Mix Asphalt (HMA) bicycle or pedestrian trails shall be paid for with the bid items specified by Section 2511 of the Standard Specifications. HMA Commercial Mix is also acceptable for trails (see item below).
HMA Commercial Mix for Trail Paving. If bid item 2303-0000100, Hot Mix Asphalt Mixture, Commercial Mix, is used for trail paving, the following note shall be included in the Estimate Reference Information, unless an alternative specification has been approved: "All work shall be completed in accordance with lowa DOT Standard Specifications, except that Article 2303.02 Materials, shall not apply. The Contractor shall furnish and place a commercial asphalt mix with a three-eighths (3/8) maximum aggregate size and a minimum asphalt content of 6.25 %. Class II compaction shall be required. Payment for asphalt cement shall not be made separately but shall be included in the unit price bid for this item."
Bridge Approach Paving. If bridge approach paving is included in the work, all of the bid items as listed on the applicable RK series of Standard Road Plans shall be included. Standard Tabulation <u>112-6</u> shall be used.
Bridge Removals. If the project involves removal of a bridge, bid item 2401-6745625, Removal of Existing Bridge, shall be used. Use of this bid item for bridge removals is required to automatically generate the "Notification of Demolition" form that the Office of Contracts will send to the Contractor. This form is required to comply with the State and Federal asbestos regulations. For more information, refer to I.M. 3.160, Asbestos Inspection, Removal, and Notification Requirements.
Construction Survey. Bid item 2526-8285000, Construction Survey, shall be included if the Contractor is providing the construction survey for the project.
Flaggers. Bid item 2528-8445113, Flaggers, shall be included if reference is made to roadway flaggers in a Standard Road Plan, or if flaggers are called for by the traffic control details or notes. The bid quantity for Flaggers shall be designated as "Per Proposal" on the plans. If desired, the designer may estimate a quantity for purposes of preparing the engineer's estimate. However, the Office of Contracts will determine the actual bid quantity based on the number of working days assigned for the project and insert this number on the proposal.
Safety Closures. Bid item 2518-6910000, Safety Closure, shall be included if road closures or hazard closures are shown on a referenced Standard Road Plan or traffic control detail, or if they are required by a plan note. Use of Standard Tabulation 108-13A for Safety Closures is recommended.
Pavement Smoothness. If the Pavement Smoothness, <u>Section 2316</u> of the Standard Specification, is desired for HMA or PCC paving, this shall be indicated in the Estimate Reference Information for the appropriate paving bid items. If called for, this specification shall be added in its entirety. Parts of the specification shall not be written out.
Certified Plant Inspection. If the Certified Plant Inspection, <u>Section 2521</u> of the Standard Specifications, is desired for a specific bid item (e.g., HMA or PCC paving, structural concrete, or flowable mortar), this shall be indicated in the Estimate Reference Information of the bid item(s) for which Certified Plant Inspection will apply. If Certified Plant Inspection is called for, it may be appropriate to also include bid item 2520-3350010, Field Laboratory.
Subdrains. If a drainable base is used, a subdrain system should be included. If subdrains are used, all the associated bid items shall be included, as indicated on the appropriate Standard Road Plan.

	the project, the type and thickness of the existing pavement shall be shown on the plans. This information may be shown in the tabulations for the removal or patching items, in the Estimate Reference Information, or in separate tabulation for existing pavement (use of Standard Tabulation 102-5 is recommended).
	Mobilization . Bid item 2533-4980005, Mobilization, shall be included for all contracts, except maintenance aggregate, materials only, granular surfacing, or other minor contracts.
	Traffic Control . Bid item 2528-8445110, Traffic Control, shall be included, unless the plans indicate the LPA will provide and maintain all the necessary traffic control devices. If the LPA does provide the traffic control devices, the plans shall specify where they will be provided to the Contractor.
	Clearing and Grubbing. When large areas densely covered by trees and other vegetation must be cleared, bid item 2101-0850001, Clearing and Grubbing, measured by the acre, should be used. If this acre bid item is used, the plans should specifically indicate the extent of the area to be cleared and grubbed. When the area to be cleared is not densely covered by trees or other vegetation, bid item 2101-0850002, Clearing and Grubbing, measured by the unit, shall be used. In either case, the Estimate Reference Information for these items should include a reference to plan sheet or tabulation where the quantities are shown.
	Scrape Test Note. If the project involves either removal or painting of an existing painted steel bridge or railing, the following note shall be included: "Scrape samples of this bridge were taken to get an indication of the existence of and level of total chromium and total lead. The analysis of total chromium in the sample wasppm. The analysis of total lead in the sample wasppm. The analysis shows the existence of these two toxic constituents. The levels indicated by these tests could create conditions above regulatory limits for health safety requirements. No other substances were analyzed. The bidder should not rely on the LPA's testing and analysis for any purpose other than an indication of the existence of these two constituents."
	Pollution Prevention Plan (PPP). If a National Pollutant Discharge Elimination System (NPDES) permit is required for the project, the PPP and the appropriate erosion control bid items associated with the PPP shall be included, as listed in <u>Section 2602</u> of the Standard Specifications, unless the LPA will be providing and maintaining all of the erosion control measures. If the LPA will provide these, this shall be clearly stated on the plans. For more information on the NPDES permit procedures, refer to <u>I.M. 3.140</u> , Storm Water Permits.
	Erosion Control Mobilizations. Bid item 2602-0010010, Mobilizations, Erosion Control, shall be included in projects that are not stand-alone erosion control or landscaping projects, if one or more of the following bid item quantities is shown on the plans: 2601-2642100, Stabilizing Crop - Seeding and Fertilizing (1 acre or greater); 2601-2642120, Stabilizing Crop - Seeding and Fertilizing (Urban) (1 acre or greater); 2602-0000020, Silt Fence (250 feet or greater); or 2602-0000030, Silt Fence for Ditch Checks (250 feet or greater). Stand-along erosion control or landscaping projects do not require this item since the mobilization work is covered by the regular mobilization bid item.
	Incentive / Disincentive Items. If the LPA would like to include an estimated cost for incentives or disincentives in the bid price, include incentive / disincentive bid items as appropriate. For more information, refer to Local Systems Mailing letter on Use of Incentive / Disincentive Bid Items, dated February 7, 2012.
PLAN	AND/OR PROFILE SHEETS
	Existing Features. The plans should show the location of existing topographical features (e.g., existing pavement, structures, buildings, etc.).
	North Arrow. A North arrow shall be shown on all plan sheets.
	Scale. All plan and profile sheets shall show a horizontal scale. Profile sheets shall also show a vertical scale.

Ш	temporary easements, the proposed right-of-way lines, easement lines, property lines, parcel numbers, and property owners shall be shown. For projects involving several ROW acquisitions or easements, use of separate ROW sheets is recommended.
	Existing ROW. Existing ROW lines shall be shown.
	Storm Sewers. The station and offset information for all new intakes and utility accesses shall be shown on the plan sheets or in a tabulation. If needed, storm sewer profiles should be shown on separate sheets.
	Culverts. The station, skew, length, and flow line elevations of all roadway and entrance culverts shall be identified, either on the plan and profile sheets or in a separate tabulation.
	Profiles. The vertical profile data shall be shown, including the percent grade, vertical curve length, K factor, stopping sight distance (SSD), and design speed. The point of vertical curvature (P.V.C.), point of vertical tangency (P.V.T.), and point of vertical intersection (P.V.I.) stations and elevations shall be labeled.
	Alignments. The horizontal curve data shall be shown, including the point of intersection (P.I.) station, curve length, radius or degree of curvature, tangent length, and delta angle. The point of curvature (P.C.) and point of tangency (P.T.) stations should also be shown.
	Construction Survey Information. If the Contractor will be responsible for the construction staking, the following information shall be shown:
	 Benchmarks. List the type, location, and elevation of each benchmark. This information may be listed on a separate sheet if necessary. Reference Point Information. List the type, station, offset, and coordinates of each reference point (sometimes called control points). Reference points should also be tied to other existing fixed objects if they are likely to be disturbed by construction activities. Reference tie information should be included by using either a sketch showing the distances to the tie points, or a verbal description of the same. At least 3 reference ties should be given for each reference point. This information may be listed on a separate sheet if necessary. Horizontal Alignment Information. List the horizontal coordinates of all P.I.s. The bearing of all tangent lines should also be shown.
	Utilities . All known utility facilities within or immediately adjacent to the project limits shall be shown, including the approximate location of such facilities and the name of the utility company. For more information, refer to I.M. 3.640, Utility Accommodation and Coordination.
	Railroad (RR) Crossings . All RR crossings within or immediately adjacent to the project limits shall be shown, including the RR property lines and the name of the RR company. This information shall be included anytime the Contractor will be required to gain access or perform work on the RR right-of-way or within 25 feet of the centerline of the outermost RR track, even if the RR facilities are not directly impacted by the project. For more information, refer to I.M. 3.670, Work on Railroad Right-of-Way.
	Intersection Details. For new construction or reconstruction projects, intersection detail drawings shall be included. Dimensions of channelization islands, curve radii, taper ratios, and taper lengths shall be shown. Intersection details shall be at a scale sufficient to show the necessary geometric details. A 1"=20' scale is recommended.
	Jointing Details. For PCC paving projects, the spacing and type of joints shall be shown. Use of the Standard Road Plans PV-101 and / or special jointing details is recommended. Joint types shall be specified using the standard types shown on the Standard Road Plans.
	Non-Participation Limits. If any portion of the contract work is outside the approved or eligible project limits for one or more of the project's funding sources, the limits of the participating work shall be indicated on the plan sheets, including the beginning and ending stations.

TRAFFIC CONTROL

	construction. This may be accomplished via special traffic control notes, details, Standard Traffic Control Plans, or some combination thereof. If part or all of the traffic control devices will be provided, installed, and/or maintained by the LPA, this shall also be stated.
	Status of Pedestrian Traffic. The plans shall indicate how pedestrian traffic will be addressed during construction. Pedestrian paths may be maintained, closed, or detoured during construction. This may be accomplished via special traffic control notes, details, or some combination thereof. In all cases, pedestrian paths and / or detours shall comply with ADA and MUTCD requirements. For more information, refer to Section 2528 of the Standard Specifications and the Section 9A-5 of the lowa DOT Design Manual.
	Standard Traffic Control Plans. Use of applicable Standard Road Plans, <u>TC Series</u> , is strongly recommended. If used, the traffic control notes should explain under what conditions or which locations each Standard Road plan applies.
	Phased Traffic Control. If the project involves phased construction, project-specific traffic control plans or details shall be included, unless the Standard Road Plans can adequately describe the necessary traffic control for each phase. The traffic control plans or details shall show the appropriate traffic control devices for each phase. Staging notes shall also be included that describe which items of work must be completed as part of each phase.
	Detour Routes. If a detour will be required, the detour route and the appropriate temporary traffic control devices shall be specified, unless all of the traffic control devices will be provided, installed, and maintained by the LPA. Use of a schematic or "to-scale" detour plan sheet is recommended.
	Note: If the detour route and / or signing involves a Primary Highway in any way, contact the appropriate Lowa DOT District Office to obtain approval of the proposed detour route and / or signs.
	References to the MUTCD. It is not necessary to reference the MUTCD with respect to temporary or permanent traffic control devices shown on the plans. The Standard Specifications require that all traffic control devices comply with the MUTCD, as adopted by the lowa DOT. If reference is made to the MUTCD on the plans, it shall be referred to as the "Manual on Uniform Traffic Control Devices for Streets and Highways, as adopted by the Department per 761 of the Iowa Administrative Code (IAC), Chapter 130."
TRAFF	IC SIGNAL SHEETS
	Scale. Drawings shall be of sufficient scale to show the necessary details. A 1"=20' scale is recommended.
	Pavement Markings Details. Pavement markings including lane lines, stop bars, crosswalks, symbols, and legends should be shown.
	Signal Details. Signal pole, signal head, mast arm, and detector loops locations should be shown.
	Roadway Details. Edges of pavement, curbs, sidewalks, and pedestrian curb ramps should be shown.
	Tabulations. Tabulation(s) shall be provided that list all of the items and quantities that are included in the lump sum Traffic Signalization bid item.

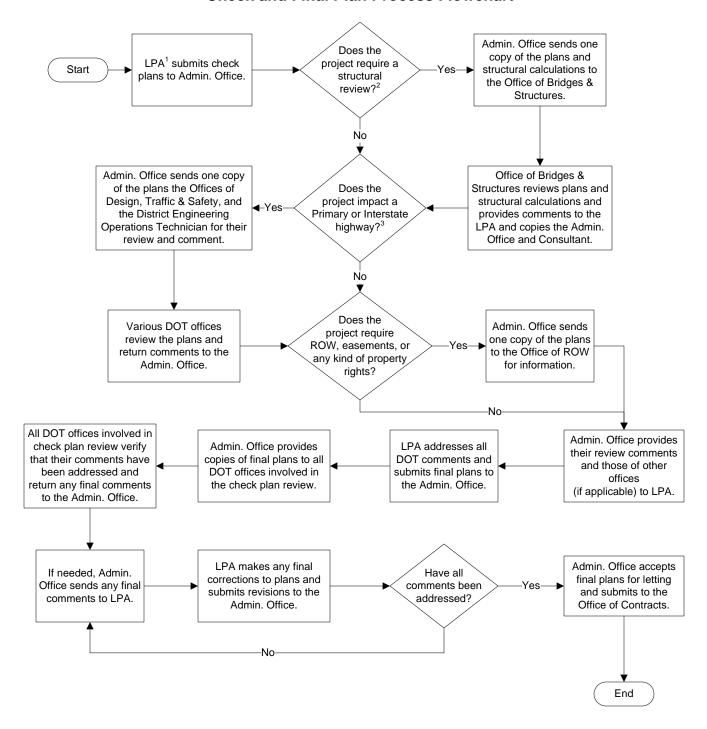
ACCESSIBILITY

If the roadway, sidewalks, or shared use paths are being altered by the project, the Americans with Disabilities Act (ADA) applies. The following items shall be included on the plans in accordance with the Design Manual, Chapter 12, and L.M. 1.080, ADA Requirements:

Attachment B to I.M. 3.505 February 18, 2013

Curb Ramps. Include compliant curb ramps where required. If ramps already exist but are not fully compliant (e.g., they do not include detectable warnings), those ramps shall either be replaced or retrofitted to meet current ADA requirements.				
Tabulations. Standard Tabulation <u>113-10</u> , Sidewalk Compliance, shall be included. Other tabulations in the 113 series should be included as appropriate.				
Sidewalk Details. Sheets that detail the curb ramp designs shall be provided according to the Design Manual, <u>Section 1F-18</u> .				

Check and Final Plan Process Flowchart



Notes:

- 1) All actions required by the LPA may also be performed by a consultant acting on behalf of the LPA.
- 2) The conditions that require a structural review are explained in <u>I.M.</u> 3.510, Check and Final Bridge or Culvert Plans.
- 3) If the project requires any kind of activity within the existing right-of-way of an Interstate or Primary Highway, this constitutes an "impact."

INSTRUCTIONAL MEMORANDUMS

To Local Public Agencies



To:	Counties and Cities	Date: February 18, 2013
From:	Office of Local Systems	I.M. No. 3.520
Subject:	Electronic Bid Item Information	

Contents: This Instructional Memorandum (I.M.) includes guidelines and procedures for a Local Public Agency (LPA) or their consultant to submit electronic bid item information to the Iowa Department of Transportation (Iowa DOT).

For all LPA projects let through the Iowa DOT, the LPA's designer shall enter the bid item information using the Iowa DOT's web-based Bid Items Application.

Accessing the Bid Items Application

For a person to access and use the Bid Items Application or a given LPA project, three things are required:

 The person must be identified as one of the project contacts for the Sponsor, Design Engineer, or the Secondary Design Engineer in the Development module of <u>Transportation Program Management System</u> (TPMS). TPMS provides this information to the Iowa DOT Bid Item Application so the appropriate person can enter and submit bid item information for the LPA's project. For assistance in accessing or updating the project information in TPMS, contact the <u>Iowa County Engineers Service Bureau</u>.

Note: Contact information changes made in TPMS are not transferred to the Iowa DOT until the following day, so designers added to TPMS will not have same day access to their projects in the Bid Items Application.

- 2. The person must have an Enterprise A&A account. If the person already has such an account, it is not necessary to create a new one. See the web site below for sign-up instructions.
- 3. The e-mail address used to sign-up for the person's Enterprise A&A account must match the e-mail address used for the person in TPMS. This e-mail is **not** the Enterprise A&A account ID "firstname.lastname@iowaid" that is used for public users.

Using the Bid Items Application

The Iowa DOT recommends designers enter the bid item information at the Check Plan stage since bid item data can be exported from the Bid Items Application and used to prepare the quantity tabulation and engineers estimate. However, bid item information must be entered by at least the Final Plan submittal to the Administering Office in order to allow an opportunity for review with the Final Plans.

If additional bid item changes are required between the Final Plan submittal to the Administering Office and the Office of Contracts turn-in date, the designer shall coordinate with the Administering Office to ensure all changes are made in the Bid Items Application <u>before</u> the final plans are turned in to the Office of Contracts. Final plans are due in the Office of Contracts at 7:00 a.m. on the Contracts turn-in date. Refer to <u>I.M. 3.005</u>, Project Submittal Dates and Information to determine the Check Plan, Final Plan, and Contracts Turn-in dates.

If corrections are required after final plans are turned in to the Office of Contracts, the Office of Contracts will make the necessary changes to the bid item information and request plan changes from the designer as appropriate. The designer should <u>not</u> make the corresponding changes in the Bid Item Application because this information is only loaded once into the Office of Contracts letting software. Afterward, any changes made in the Bid Item Application will have no effect. If the designer identifies bid item changes after the turn-in day, the designer shall follow the procedures outlined in I.M. 3.730, lowa DOT Letting Process.

For additional information and instructions, refer to the Iowa DOT Bid Items Application web site.