

Chapter 10

Following Programming of the Job

Chapter 10: Following Programming of the Job

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Introduction

This chapter contains information on the steps taken after a project has been scoped. These steps are completed by MDOT staff, as consultants do not have access to the programs or tools needed to complete these tasks.

Project Selection



Region System Manager
TSC Managers

After the proposed projects have been scoped and the estimates have been reviewed (QC and QA), the final selection process occurs. The projects are analyzed according to the following: overall pavement condition strategies, budget constraints, corridor plans, template coordination and etc. This process is done by the Region System Manager in consultation with the TSC Managers and any required support staff.

Programming a Project (MPINS)



Projects are programmed for funding once they have been scoped and selected to be added to the five year program, as described above. For a project to be included and considered in the five year program, the project has to be identified with a specific project number (job number) and is programmed through the MAP Project Information System (MPINS). Development and design engineers become familiar with MPINS during the scoping and design process.

What is MPINS?



For users that require training in the use of MPINS, it is available several times a year or staff should discuss the need for the training with their supervisor. The MPINS User Guide is also available on *inside MDOT* at http://inside.michigan.gov/sites/mdot/groups-projects/mpins/Shared%20Documents/MPINS_UserGuide.pdf

Much of the information in the section of this manual was referenced from the MPINS User Guide. All MDOT employees have “Read” access to MPINS and all employees can submit Concept Statements. For additional access, a user must be granted access to the program. When a supervisor approves a staff member to have access to MPINS, the access for Trunkline Templates is granted through the Template System Manager.

Obtaining a Job Number

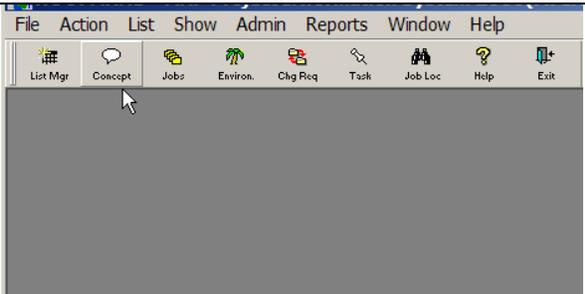
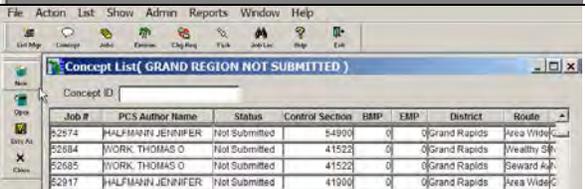
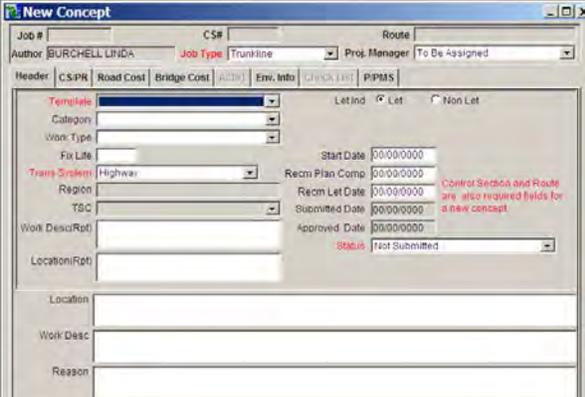
Creating a Job Number

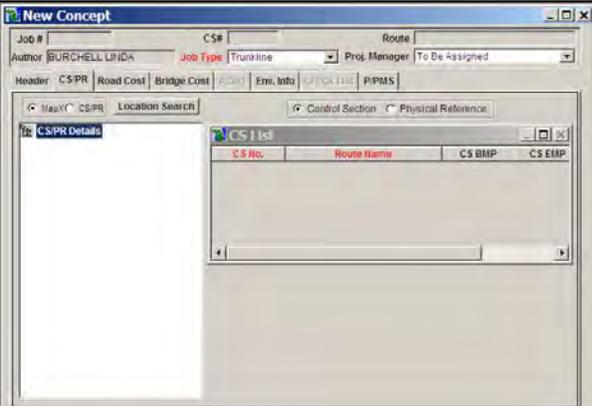
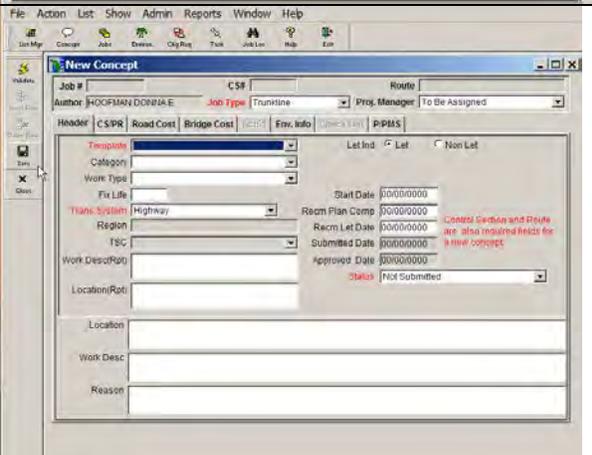
1. Obtain a Project Job Number
2. Create a Project Concept Statement
3. Program the project for funding

Authoring and submitting a new Concept Statement using MPINS begins with getting a job number assigned. It is important to write down the new job number as soon as it is assigned. This job number will be used to locate the Concept Statement and to complete any additional information prior to submission. The user can go to MPINS/Concept/New to create a job number. Another method of opening a new Concept Statement, for the purpose of getting a job number, is to begin by using the Job Locator button instead of the Concept module button. Time is saved using this method because the user isn't waiting for the current default concept list to find and filter all of the concepts before starting. This is done as a part of Step 9, in Chapter 9 of this manual, following the Project Prioritization Meeting.

To obtain an assigned JN the user should:

Note: This function can be performed by any MPINS user by opening a new concept, completing all required (red-labeled) fields and then saving.

Opening a New Concept		
Step	Action	Illustration
1	Click on the Concept toolbar button to open the Concept List window.	
2	Click on the New toolbar button (located to the left) to author a new concept.	
3	In the New Concept window (on the Header tab), the required fields are labeled in red: <ul style="list-style-type: none"> • Job Type • Template • Trans System • Status (Not Submitted). Do not submit unless directed by the supervisor	

<p>4</p> <p>Click on the CS/PR tab, the required data is again labeled in red:</p> <ul style="list-style-type: none"> Control Section Route <p>CS/PR data can be entered manually or by using the MapX or PR/CS List buttons.</p>	
<p>5</p> <p>Click on the Save toolbar button (located to the left). If all of the required data has been input, a JN will be assigned in the Job # field in the upper left corner of the input screen.</p>	



Caution: Once a job number has been assigned it can not be reused. Users should only initiate concepts for jobs that have been agreed upon at the Regionwide Prioritization Meeting (Step 8 of the CFP Scoping Process). Create a job number only when following Step 9 in Chapter 9 of this manual.

When to get a job number



Step 9, Chapter 9

Creating a Project Concept Statement

The purpose of a Project Concept Statement, also known as MPINS Concept Statement, is to document the justification for and to identify specifics about a proposed project. The majority of this information is determined, accumulated and calculated throughout the scoping process. The funding of a project is not approved until the MPINS Concept Statement is submitted and the guidelines are then followed for a recommended funding type. This is done through the zero Sequence Number of a Program Revision Request Form (form 2604). This step is done during Step 9 (as shown in Chapter 9 of this manual), prior to the March turn in. If this is not done as a part of the Call For Projects, the process is still the same.



Program Revision Request Form
(form 2604)

A MPINS Concept Statement separates information within the following tab pages.

The screenshot shows the 'New Concept' application window. The 'Header' tab is highlighted with a red box. The 'Header' tab contains the following fields: Job #, CS#, Route, Author (HOOFMAN DONNA E), Job Type (Trunkline), and Proj. Manager (To Be Assigned). Below the tabs are sections for Template, Category, Work Type, Fix Life, Trans System (Highway), Region, TSC, Work Desc(Rpt), Location(Rpt), Location, Work Desc, Reason, and various dates (Start Date, Recm Plan Comp, Recm Let Date, Submitted Date, Approved Date). A status dropdown is set to 'Not Submitted'. A red note on the right states: 'Control Section and Route are also required fields for a new concept.'

- Header
- CS/PR
- Road Cost
- Bridge Cost
- Act 51
- Environmental Information
- Check List
- P/PMS

Header Tab

Basic project information

This section or tab contains basic information about the project. It provides a summary of the funding template, work category, work type, location, Region, TSC, project schedule and letting status.

The screenshot shows the 'New Concept' application window. The 'Header' tab is selected and highlighted with a red box. The form contains the following fields and values:

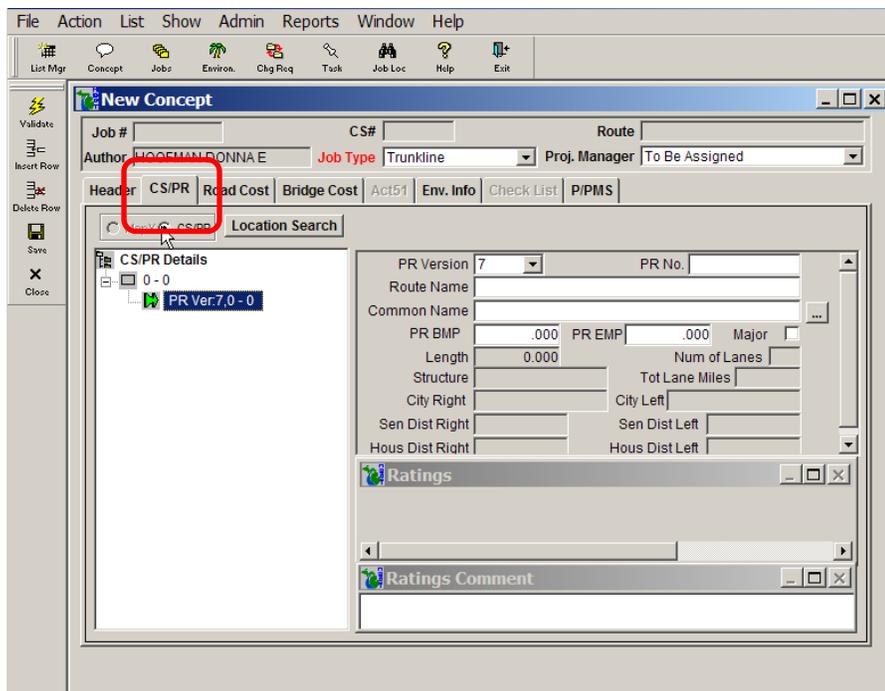
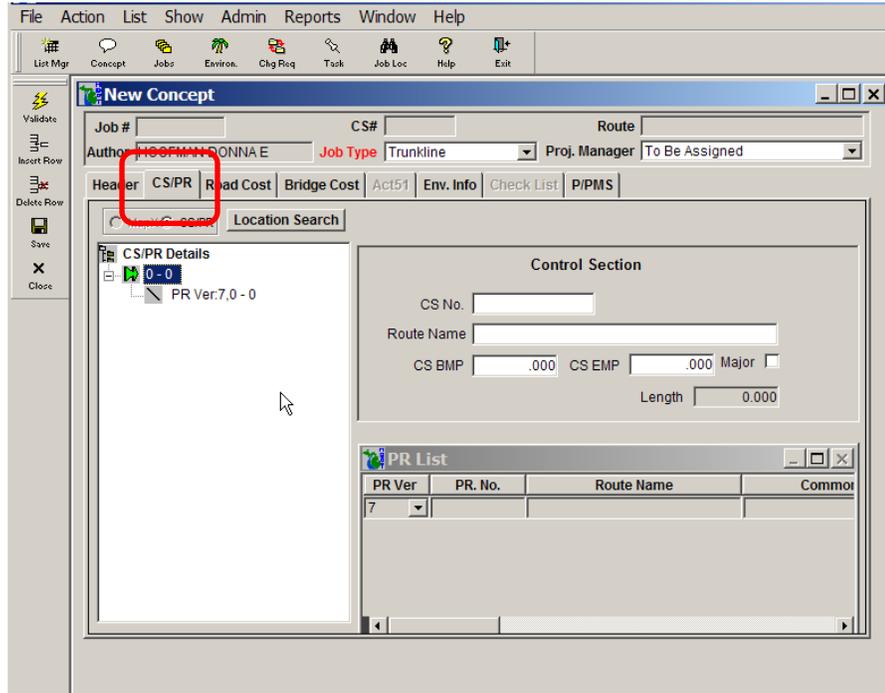
Field	Value
JOB #	
CS#	
Route	
Author	HODFMAN DONNA E
Job Type	Trunkline
Proj. Manager	To Be Assigned
Template	
Category	
Work Type	
Fix Life	
Trans System	Highway
Region	
TSC	
Work Desc(Rpt)	
Location(Rpt)	
Location	
Work Desc	
Reason	
Let Ind	Let
Start Date	00/00/0000
Recm Plan Comp	00/00/0000
Recm Let Date	00/00/0000
Submitted Date	00/00/0000
Approved Date	00/00/0000
Status	Not Submitted

A red note on the right side of the form states: "Control Section and Route are also required fields for a new concept."

Control Section/Physical Reference (CS/PR) Tab

Exact physical location that project will take place

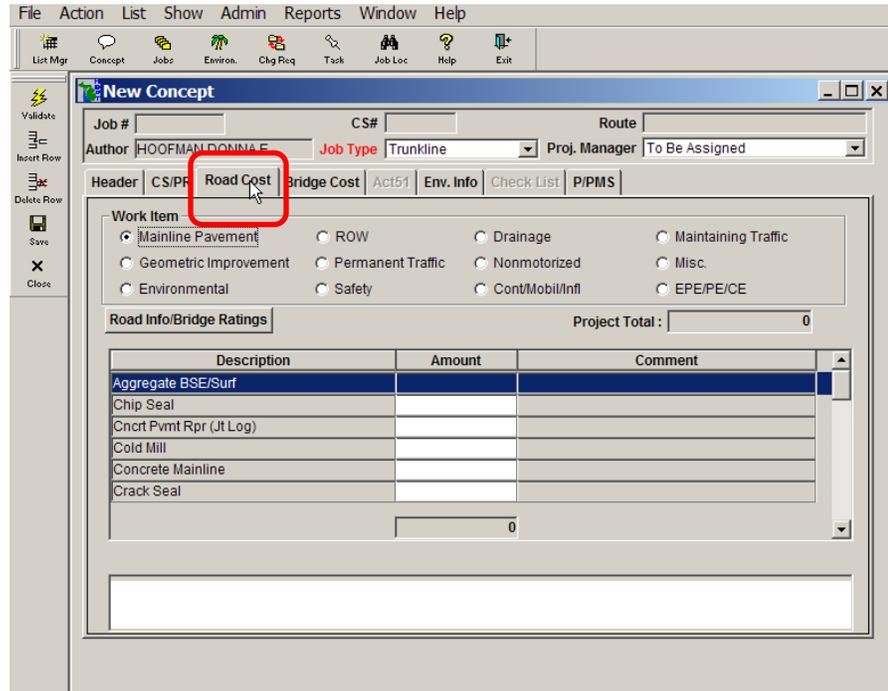
This section or tab identifies the exact location(s) of a project. This information is important to other databases used by the MDOT (for example RSL, RQFS and etc). Enter the project Control Section(s) (CS), the Control Section Mile Points (CS BMP & EMP), Physical Reference Number(s) (PR) and Physical Reference Number Mile Points (PR BMP & EMP). The CS is a polygon measurement and the PR is a linear measurement for the project length.





Road Cost Tab

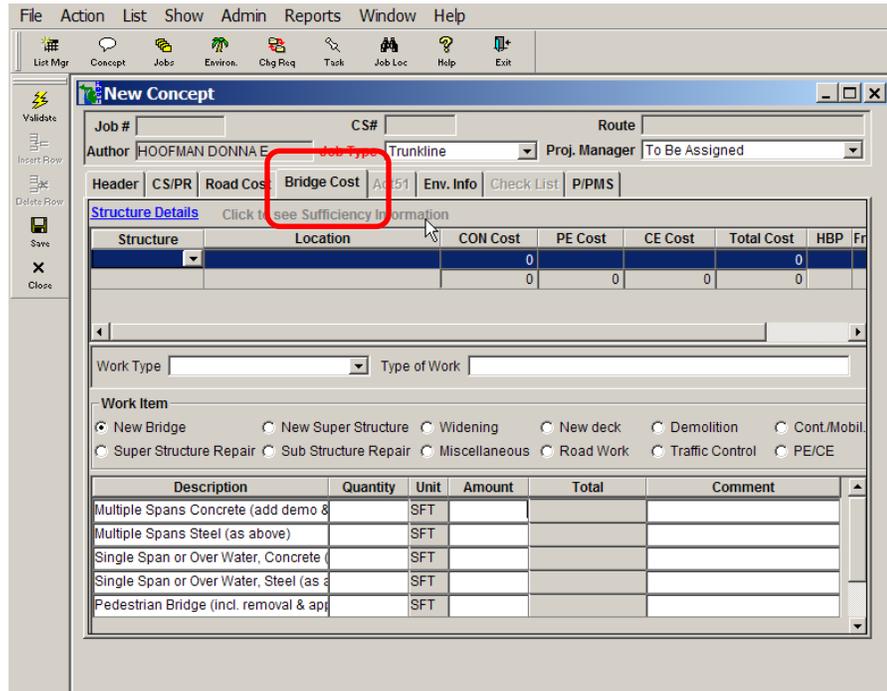
This section or tab identifies the funding of a road project and should match the scoping estimate for the road. See Chapter 8 for an example of the Scoping Project Concept Estimate Report. The Cost Summary Tool will be used for independent calculations of Project Support Costs which are then input back into Trns- port for a total project cost.



Bridge Cost Tab


Chapter 8
Scoping Project Concept
Estimate Report

This section or tab identifies the funding of a bridge project and should match the scoping estimate for the bridge. See Chapter 8 for an example of the Scoping Project Concept Estimate Report. The Cost Summary Tool will be used for independent calculations of Project Support Costs which are then input back into the Transport for a total project cost.



The screenshot shows the 'New Concept' software interface. The 'Bridge Cost' tab is highlighted with a red box. The interface includes a menu bar (File, Action, List, Show, Admin, Reports, Window, Help) and a toolbar with icons for List Mgr, Concept, Jobs, Environ., Chg Req, Task, Job Loc, Help, and Exit. The main workspace contains a 'New Concept' window with the following fields: Job #, CS#, Route, Author (HOOFMAN DONNA E), Job Type (Trunkline), and Proj. Manager (To Be Assigned). Below these fields are tabs for Header, CS/PR, Road Cost, Bridge Cost (highlighted), Act 51, Env. Info, Check List, and P/PMS. The 'Structure Details' section includes a table with columns: Structure, Location, CON Cost, PE Cost, CE Cost, Total Cost, HBP, and Fr. Below this is a 'Work Type' dropdown and 'Type of Work' field. The 'Work Item' section has radio buttons for: New Bridge, New Super Structure, Widening, New deck, Demolition, Cont./Mobil., Super Structure Repair, Sub Structure Repair, Miscellaneous, Road Work, Traffic Control, and PE/CE. At the bottom is a table with columns: Description, Quantity, Unit, Amount, Total, and Comment.

Act 51 Tab

Documentation of local contributions to funding

This section or tab is a new addition to the MPINS program and is currently under development. The Act 51 tab page allows you to add or identify local contributions to the funding calculations for the job.

The Act 51 participation is an important component of programming a project. Act 51 Public Acts of 1951, as amended (1982), provides that cities having a population of 25,000 or more will participate with the Department in the cost of opening, widening and improving, including construction and reconstruction, of State trunkline highways within said cities.


Section 14.41.03
MDOT Road Design Manual
Act 51 Participation URL

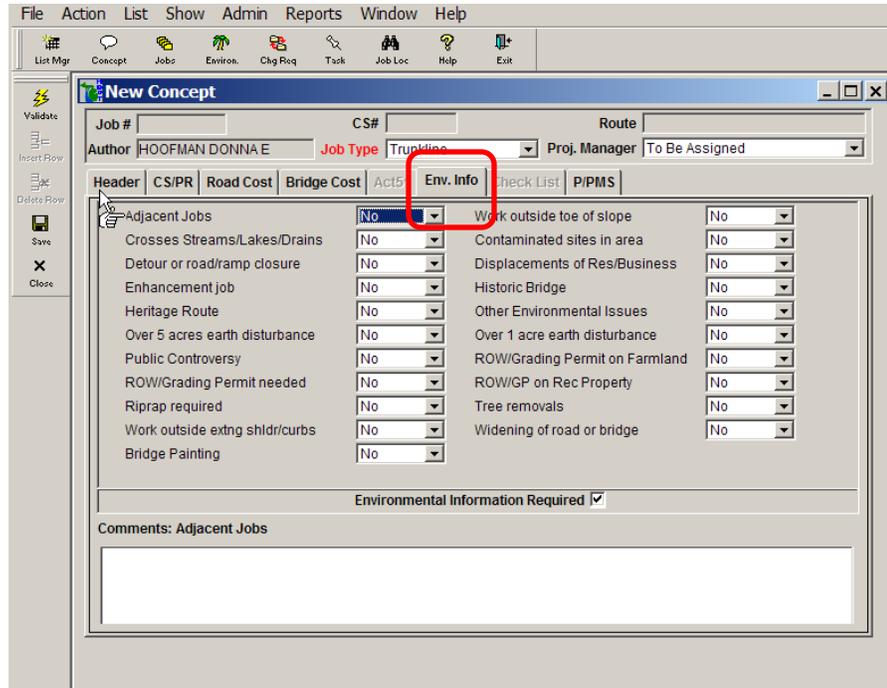
Cities required to participate, based on the 2000 census are listed in Section 14.41.03 of the MDOT Road Design Manual. Specific items of work are considered participating and non-participating under Act 51 and are listed in the Reference document Act 51 Participation on: http://www.michigan.gov/mdot/0,1607,7-151-9625_21540_36037---,00.html

Environmental concerns



Environmental Information Tab

This section or tab provides a location to note the existence, or possible existence of any environmental concerns along with related comments. This information should be readily available from the project scoping package, as shown on the last page of the Scoping Report & Details Worksheet.



Chapter 10: Following Programming of the Job

Check List Tab

The Check List tab is currently inactive.

P/PMS Tab

Helps generate a structured schedule for work steps

The information in this tab is used by the Program/Project Management System (P/PMS) to generate an initial project management scheduling network for the job. The project management network is created for the development process which includes a wide variety of work steps beginning with the early study for Improve/Expand projects, and after the "Call for Projects" for Preserve Projects, ending with the construction contract award.



MDOT P/PMS Task Manual

MDOT has recognized that the development process is very complex and that managing the process can best be accomplished by using a structured scheduling and reporting system. A scheduling and reporting system makes use of standard tasks which can be linked together to form a network. The MDOT P/PMS Task Manual documents the standard P/PMS network and provides descriptions for tasks included in the network.

The screenshot shows the 'New Concept' software interface. The 'P/PMS' tab is highlighted with a red box. The interface includes a menu bar (File, Action, List, Show, Admin, Reports, Window, Help) and a toolbar with icons for List Mgr, Concept, Jobs, Environ., Chg Req, Task, Job Loc, Help, and Exit. The main window displays the 'New Concept' form with the following fields and tabs:

- Job #, CS#, Route
- Author: HOOFMAN DONNA E, Job Type: Trunkline, Proj. Manager: To Be Assigned
- Header tabs: CS/PR, Road Cost, Bridge Cost, Act51, Env. Info, Checklist, P/PMS (highlighted)
- Characteristics - Section I:
 - Const.Length: 0.000, Traffic ADT, Start Date: 00/00/0000
 - # Of Structures: Small, Medium, Large, Other
 - Road, Environ Type, Dev Class
- Characteristics - Section II:
 - Wet Lands Involvement, Local Variance Req., FHWA Involvement, Local Agreement Req., Constructed Under Traffic, Coastal Zone Involvement, Subgr Wk/WkOut Exst Shldrs, Airport Involvement, EPE Corridor mapping, Electrical Involvement, Permanent Signing, Value Engineering
 - Stream Crossing/Flood Plains, Navigable Waterways Impacted, Railroad Companies Impacted, Municipal Utilities Impacted, Signal Locations Impacted, Noise Walls Impacted, Railroad Over/Under Highways, Private Utilities Impacted, ROW Parcels, Relocation Units, Grading Permits, Type of Topographic Survey

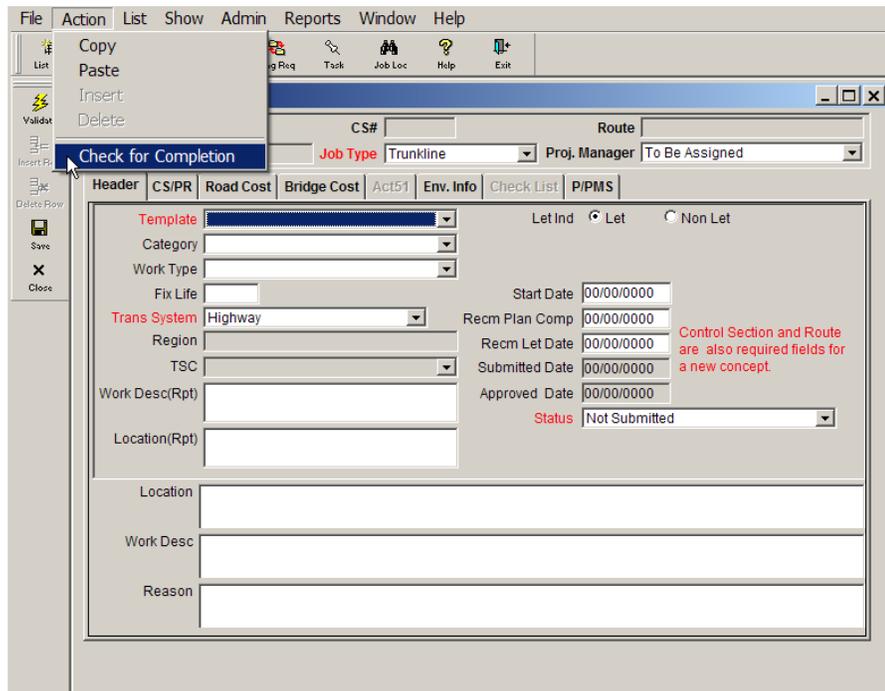
Concept Statement Submission

Review

Completion check Once all of the required information, as well as all additional information, has been entered into the Concept Statement and reviewed, it is ready to be checked for completion. MPINS is programmed with a Check for Completion function that helps ensure that all information has been entered.

- Perform a visual check of the Concept Statement
- Click the Action menu and select Check for Completion

If there are errors in the Concept Statement, MPINS will display a list of problem areas.



Submit



Step 14, Chapter 9

You may now submit the Concept Statement, at which time it becomes ready to be programmed. The Template System Manager is responsible for the programming. Once the job number is programmed, the project has been allocated funding. This function is done during Step 14 (as defined in Chapter 9 of this manual) prior to the March turn in.

The screenshot shows a software application window titled "Concept [38564]". The window has a menu bar with "File", "Action", "List", "Show", "Admin", "Reports", "Window", and "Help". Below the menu bar is a toolbar with icons for "List Mgr", "Concept", "Jobs", "Environ.", "Chg Req", "Task", "Job Loc", "Help", and "Exit". The main area of the window is divided into several sections. At the top, there are fields for "Job #", "CS#", "Route", "Author", "Job Type", and "Proj. Manager". Below this is a "Header" section with tabs for "CS/PR", "Road Cost", "Bridge Cost", "Act51", "Env. Info", "Check List", and "P/PMS". The "CS/PR" tab is active, showing a "Template" dropdown menu, "Let Ind" radio buttons (Let, Non Let), "Category", "Work Type", "Fix Life", "Trans System", "Region", "TSC", "Work Desc(Rpt)", "Location(Rpt)", "Location", "Work Desc", and "Reason". On the right side of the "CS/PR" tab, there are fields for "Bid Status", "Work Auth Id", "Start Date", "Recm Plan Comp", "Recm Let Date", "Submitted Date", and "Approved Date". A "Status" dropdown menu is open, showing "Submitted" as the current status and a list of options: "Not Submitted" and "Submitted". The "Submitted" option is highlighted with a blue background and a mouse cursor is pointing at it. A red rectangle is drawn around the "Submitted" option in the dropdown menu.

ProjectWise

Where to keep scoping documentation



Once the JN is created for the candidate project, contact your TSC/Region ProjectWise (PW) administrator and request the creation of the job number folder. All scoping documentation will be stored in the appropriate folders in the 0 (Zero) Early Preliminary Engineering (EPE)/Project Scoping Document Package folder, located under the Templates/New Early Preliminary Engineering Template folder for each TSC and Region Job Number.

Details of ProjectWise folders can be found later in this chapter.



ProjectWise

Creating a ProjectWise Link

The Scoping Package includes the reference of As-Builts and Old Plans. You will need to create a ProjectWise link to the applicable plans for the project.

An easy way to create ProjectWise Links



Instead of copying As-Built files into a new project folder, users will create a word document that contains links to existing As-Built and/or Old Plans. This saves in duplication of files, server space and back up. Follow these steps necessary to create the document linking the As-Builts and/or Old Plans.

- Create a new Word document
- In ProjectWise, search for the As-Builts/Old Plans that apply to the project and highlight the associated folder name
- In the top part of ProjectWise is a window that shows the link

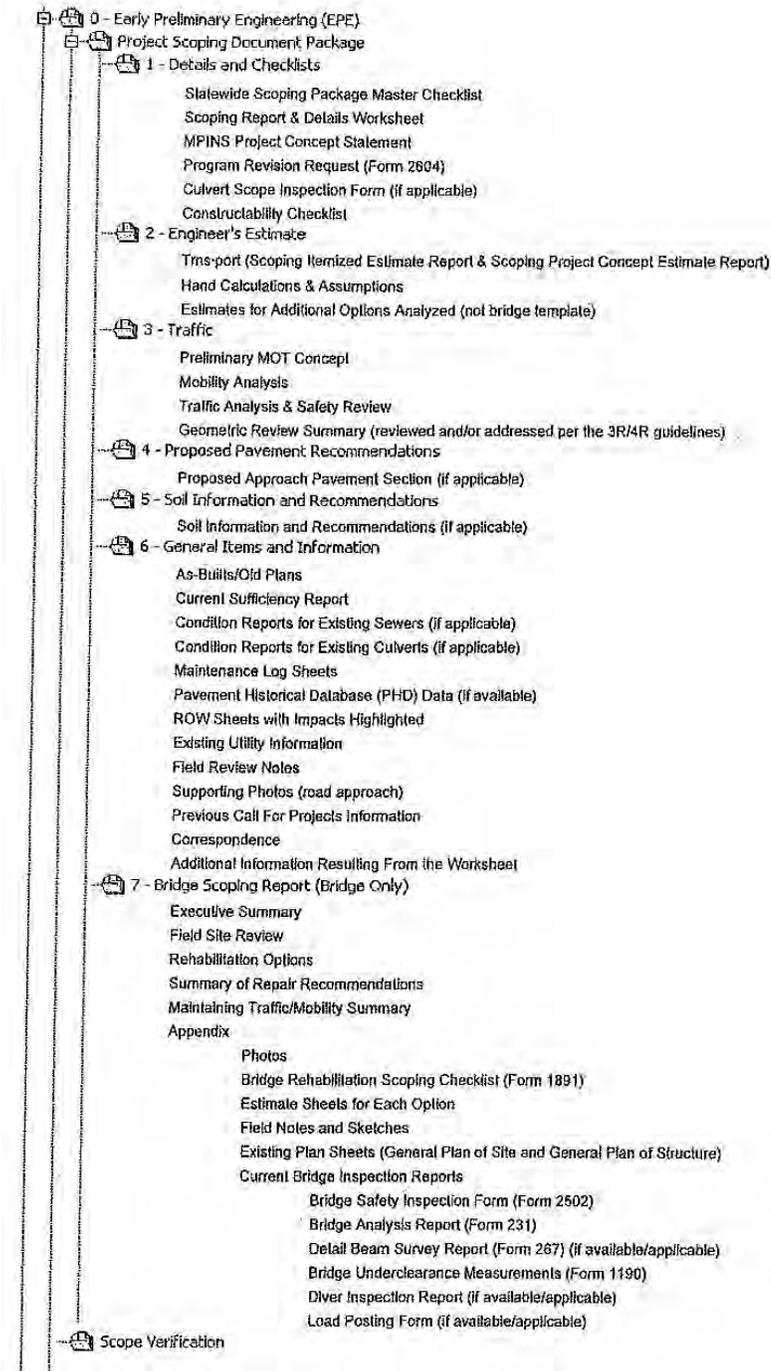
Example:



- Right click on the link and select copy
- In the open Word document, right click and select paste
- Save the Word document (use As-Built or Old Plans in the file name and the job number of the As-Builts or the Old Plans, do not save the actual plan file as the new job number)

ProjectWise Setup for Scoping Packages

The Following is the Project Scoping Document Package folder outline for ProjectWise. A PDF of this outline is attached to each new project scoping package setup under the Project Scoping Document Package folder in ProjectWise. This will help you placing documents in the correct folder locations.



ProjectWise Folders

The outline above shows the folders within ProjectWise and the documents needed to be stored within each folder. This outline is also reflected on the Statewide Scoping Package Master Checklist. As much as practical the documents stored should be PDF files. Refer to Chapters 6, 7 and 8 of this manual for more information on the contents of the folders.



Statewide Scoping Package Master Checklist



Chapters 6, 7, and 8

Trns•port



Once the Job Number (JN) is created for the candidate project, you can put the scoping estimate in Trns•port. Refer to Chapter 8 for additional information on how Trns•port helps develop the scoping estimate. The Breakdown ID numbers in Trns•port provide the appropriate output in the Scoping Project Concept Estimate Report to transfer to the MPINS Concept Statement discussed earlier in this chapter.

Program / Project Management System (P/PMS) Networks

What is P/PMS?



The Program/Project Management System (P/PMS) is an automated planning and scheduling tool, tailored to the MDOT development process. It is designed to allow Department personnel to be productive and effective in managing the planning, design and right of way activities of the Department's highway program from both short and long-term perspectives.



The P/PMS application is a customized software solution for scheduling, reporting progress and tracking the status of jobs.

The P/PMS User Manual is available on the *inside MDOT* website. The P/PMS Task Manual, which describes each of the standardized tasks which may be applicable in the project development process, is available on the web at

http://www.michigan.gov/mdot/0,1607,7-151-9625_21540_36037_54503---,00.html#

Also see text above in the Creating a Project Concept – P/PMS section.

Refining a P/PMS Network

Refining the work flow plan

When a Concept Statement has been approved by the MPINS user, an un-refined P/PMS network is generated. This network is a work flow plan consisting of all tasks and events that must be completed or accomplished to reach program objectives, showing their planned sequence of accomplishments and logical relationships.



Step 14, Chapter 9



*Region or TSC Cost & Scheduling Engineer
Project Manager (PM)*

As part of the Call For Projects scoping process, a project's P/PMS network must be refined and submitted. This is done after step 14 (as defined in Chapter 9 of this manual), and will be done prior to the May submittal (if done with the Call For Projects process). Typically, as stated in the P/PMS User Manual, this is the responsibility of the Region or TSC Cost & Scheduling Engineer or the Project Manager (PM).

Time Frames to Hire a Design Consultant

Obtaining a Consultant

How consultants are chosen

When obtaining a design consultant, one of the most important things to keep in mind is the time frame required to obtain an authorized contract. If, during the scoping process, it is determined the project will most likely be a consultant design, then the P/PMS network that is created during the Call For Projects process should incorporate the appropriate time frames and tasks.

Because MDOT follows a Quality Based Selection for the design phase of projects (vs. the Low Bid Selection that is used for the phase construction) the time required to authorize a consultant usually takes several months. This is due, in part, to the fact that the consultant must first submit a proposal (with no costs) outlining their understanding of the project and the consultant team that is being proposed to do the work. Then, once the consultant is selected, MDOT requests a price proposal which outlines the hours, direct costs, the staff hourly rates of the team, subcontractors and etc. that are being proposed to work on the project.



*Central Selections
Review Team (CSRT)*

*State Administrative Board
(Ad Board)*

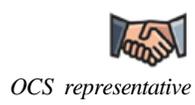
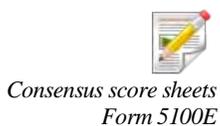
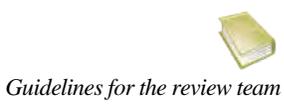
This process requires two steps (except Tier 1) of formal authorization from MDOT. The consultant that is selected must be approved by the Central Selections Review Team (CSRT) and the final price proposal of the selected consultant must be approved by the State Administrative Board (Ad Board). Below is a brief summary of the tasks and time frames associated with securing a design contract.

Step 1 – Prepare the Scope of Services (~ 2 to 4 weeks)

This step involves detailing all of the design work that the consultant shall perform, in a single document that will be posted to the internet for interested consultants to submit proposals. The time frames for this can vary greatly depending on the size of the job and the extent of the internal review the scope will receive prior to posting. For this example, one month will be used.



Tier 1, 2, and 3 monetary levels



Step 2 – Advertise the Scope (~ 6 weeks)

Once the scope has been finalized, it should be emailed to MDOT-CSD-Selections@michigan.gov, along with Forms 5100B and 5100H. These combined documents formulate a Request for Proposal (RFP), which provide the consultants information on which proposal Tier the RFP is, where to submit the proposal and what to include in the document. Scopes will fall into one of three Tiers based on the programmed Preliminary Engineering (PE) cost for the consultant to perform the design tasks. The Tiers help the consultant determine the size and package requirement of the design. The RFP is posted online at: http://www.michigan.gov/mdot/0,1607,7-151-9625_32842---,00.html.

Tier 1 is for contracts between \$25,000 and \$99,999. Tier 1 does not require Ad Board approval. Tier 2 is for contracts between \$100,000 and \$250,000, and Tier 3 is for contracts greater than \$250,000. For more information on the Tiers and the requirements see the MDOT Consultant-Vendor Selection Guidelines located on the Office of Contracting Services (OCS) website at: http://www.michigan.gov/documents/MDOT_Consultant-Vendor_Selection_Guidelines-0106_145222_7.pdf.

Six weeks is used as a general time frame because it may take up to one week for the scope to be posted once it is emailed and scopes are typically posted for 4 weeks.

Step 3 – Review the Proposals (~ 2 weeks)

Once the proposals are received, they are distributed to a selection team for review. A meeting is held to discuss the proposals and determine the consensus scoring of each proposal. Guidelines for the creation of the selection team can be found on the OCS website in the Vendor-Consultant Selections area under Guidelines.

Step 4 – Obtain CSRT Approval (~ 2 weeks)

Once the consensus score sheets have been finalized and signed by the review team, they are sent along with Form 5100E to the designated selections specialist in Lansing to get on the agenda for the next CSRT meeting. CSRT typically meets on a Friday every two weeks.

For the OCS representative for your area see the Contract and Administration Support List in the contact area of the OCS website: http://www.michigan.gov/mdot/0,4616,7-151-9625_21539---,00.html



*Project Manager
Approved consultant*

Step 5 – Request & Negotiate Price Proposal (~ 5 weeks)

Following approval of the selected consultant by CSRT, the Project Manager will request a price proposal from the approved consultant. The time required for the consultant to compile a price proposal can vary greatly depending on the size and complexity of the scope of design services. For smaller projects 1-2 weeks may be enough, but for larger projects it may take as long as 2-3 weeks.

In addition to the consultant’s time to prepare the price proposal, time should be allotted for negotiations and revisions. For this example a total of 5 weeks will be used.

Consultant meeting



Best Practice – It is often beneficial to meet with the consultant following the selection but before the preparation of the price proposal, to verify the scope of work the consultant will be performing. This extra step will ensure MDOT and the consultant are consistent with proposed work that is to be performed.



*Project Manager
Contracting Administrator
Ad Board*

Step 6 – Obtain Ad Board Approval (5 weeks)

When all of the negotiations have been completed and the price proposal has been finalized, the Project Manager will send the price proposal along with the PM Contract Request Form (form 5105) to the Contracting Administrator for their area (see contact list on OCS website or link above in Step 4). Ad board typically meets twice a month. Items must be sent to get on the agenda about 5 weeks in advance.



*PM Contract
Request Form
(form 5105)*

For the example laid out above, the total time required to obtain a consultant is up to 6 months from the start of the scope writing process. Obviously, the process can go somewhat faster depending on when some of the milestones are completed, with respect to their approval process agenda deadlines. Also, smaller contracts could be obtained more quickly, particularly if Ad Board approval is not required. A general estimate from posting to authorization is 4 to 5 months.

Typical total time needed



*More information about
the approval process*

For more information on the process go to the OCS website at: http://www.michigan.gov/mdot/0,4616,7-151-9625_21539---,00.html

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